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**CBRNE**

*Dedicated to Global  
First Responders*

**DIARY**

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**WAR STOP ВОЙНА**



**PART A**

**An International CBRNE Institute publication**

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# EDITOR'S CORNER





### Editorial

Brig Gen (ret.) Ioannis Galatas, MD, MSc, MC (Army)

Editor-in-Chief  
ICI C<sup>2</sup>BRNE Diary



*“No one is so senseless as to choose of his own will war rather than peace since in peace the sons bury their fathers, but in war, the fathers bury their sons.”*

Herodotus<sup>1</sup>

Dear Colleagues,

Pandemic: Year 3

War: Month 2

Hope level: Close to Zero!

Pharmaceuticals, WHO, and national health authorities worldwide push for a third booster dose and soon the second booster jab will be obligatory. A vaccine is a biological preparation that provides active acquired immunity to a particular infectious disease. A vaccine typically contains an agent that resembles a disease-causing microorganism and is often made from weakened or killed forms of the microbe, its toxins, or one of its surface proteins. In that respect, perhaps it is time to stop speaking about “vaccination” and use the term “viral decelerator” that is more accurate. The war in Ukraine made all of us almost forget the ongoing pandemic as if it was a bad flu – but the enemy is still out there and continues to kill people.

Status as of April 24, 2022

Although it is too early to draw conclusions and lessons learned from the war in Ukraine certain issues are very obvious. First of all, in difficult times each country is alone. There are no such things as friends or allies. All those that supported for years the Ukrainian rhetoric against Russia decided not to be actively involved in the war but instead, to provide plenty of money and weapons (donate or sell) to ease their guilt – although this might be an unknown word.

The war was a great opportunity to intimidate neighboring nations leading them to spend more money to buy weapons – guess from whom! Germany led the way and this is very dangerous, especially if one bears in mind that – at a time when thousands of Germans were symbolically protesting at the Brandenburg Gate against the Russian invasion of Ukraine – German Chancellor Olaf Scholz

#	Country, Other	Total Cases	Total Deaths	Serious, Critical	Population
	World	509,241,080	6,242,262	42,632	
1	<a href="#">USA</a>	82,649,779	1,018,316	1,465	334,506,463
2	<a href="#">India</a>	43,057,545	522,193	698	1,404,495,187
3	<a href="#">Brazil</a>	30,345,654	662,663	8,318	215,286,941
4	<a href="#">France</a>	28,244,977	145,020	1,677	65,534,239
5	<a href="#">Germany</a>	24,109,433	134,624	1,980	84,267,549
6	<a href="#">UK</a>	21,933,206	173,352	339	68,529,747
7	<a href="#">Russia</a>	18,128,691	374,734	2,300	146,047,418
8	<a href="#">S. Korea</a>	16,895,194	22,133	726	51,348,832
9	<a href="#">Italy</a>	16,079,209	162,609	409	60,301,346
10	<a href="#">Turkey</a>	15,016,270	98,676	975	85,977,208

<sup>1</sup> Herodotus was an ancient Greek author of the first great narrative history produced in the ancient world, the *History* of the Greco-Persian Wars.





grandson of SS Obersturmführer Fritz Scholz that served in the Dachau concentration camp (in a speech to the German Parliament), forgetting The 1945 Capitulation Decision, which forced Germany not to military equip itself, pledged a defense budget of 100 billion euros (over 2% of its GDP) because it was responding to a constant request from NATO. Just keep in mind who was responsible for two World Wars! In addition, Sweden and Finland expressed interest to join NATO but Russia has clearly voiced opposition to any potential enlargement of the western military alliance – looks like throwing oil in the fire!

Greece decided to play chess with grandmasters envying the timeless successful Turkish diplomacy – and lost!. It was one of the first countries to send Russian-made weapons (portable rocket launchers, ammunition, and Kalashnikov rifles) along with humanitarian help. There is a lot of pressure for sending the even more valuable S-300 long-range surface-to-air missile systems and similar short-range TOR-M1 and OSA-AK along with MANPADS FIM-92 Stinger that are valuable for the air defense of Greek islands facing Turkey – just to satisfy the US. Greece developed hostile rhetoric against Russia, recently deported Russian diplomats and on top of everything the Greek PM invited the President of Ukraine to speak in the Greek Parliament – he did that along with two members of the Neo-Nazi Azof Battalion – the only Parliament allowed this, ever! One day the war will be over and Russia will have to re-draw the map of “friends” and “enemies”. The traditional Greek-Russian relationship is broken for good and might never be restored – just for a meaningless “we belong to the West!” In contrast, the “isolated” global Eastern bully, restored relations with the US (DoD favors selling 40 F-16 Vipers and 80 modernization kits for existing warplanes); Canada (cancels permits for high-tech arms exports to Turkey); UK (provide a Rolls-Royce engine for the new Turkish MMU/TF-X warplane); Serbia (buy Bayraktar UAVs) – not to mention the 60 million USD Ukrainians spend to buy armed Bayraktar TB2 drones.

The war in Ukraine has led to an unprecedented number of individuals traveling to the country in support of the Ukrainian government. Many Ukrainian citizens and dual nationals are returning to their homeland, and several thousand non-Ukrainian volunteers responded to the Ukrainian government’s call for support and registered with Ukrainian embassies around the globe. Among these volunteers are also several violence-oriented extremists, from both the extreme right and extreme left. These individuals present a latent security risk to their home countries. Their participation in the conflict will significantly increase their potential for violence upon their return. Therefore, if possible, their departure should be disrupted. This is particularly relevant for violence-oriented right-wing extremists to prevent the misuse of their presence in Ukraine in disinformation campaigns. Furthermore, movements of Russian right-wing extremists fighting on Russia’s side should be closely monitored, as some of these groups have provided support for attacks in Europe in the past. If the departure of violence-oriented extremists cannot be prevented, their travel movements and their activities in the conflict zone should be documented and a system for returnee management should be established.

Last but not least, we all read about the possibility of a CWA war and the alleged use of biological weapons cultivated in Ukrainian biological laboratories in the payload of the US MoD. Disinformation and fake news along with real documents caused global confusion about these issues and nobody knows the truth or the intentions of both sides and sponsors. Just keep in mind that there is no smoke without fire!

What else this month? I could write about the Russia-China alliance or the lurking issue with Taiwan with a Chinese invasion (?) in the horizon; the provision of Russian gas to Europe; the financial sanctions that will cause many Titanics, especially in weak economies but these issues are beyond my knowledge and expertise. I will only write about my “brilliant” 😊 idea to change the name of the magazine to “C<sup>2</sup>BRNE Diary” due to early recognition of the importance of cyberwar either alone or in combination with CBRN agents. The world wide web is both a blessing and a weapon that is the epitome of asymmetry! Keep the word “*cyberpandemic*” in mind...

Dear colleagues, the threat is real and those supporting the opinion of “exotic” threats proved to be simply fooled. In that respect, increase your readiness, revise your response plans and intensify your training! The snake in the hole is very close to the exit!



*The Editor-in-Chief*



## Europe After the Ukraine War

Source: <https://www.homelandsecuritynewswire.com/dr20220323-europe-after-the-ukraine-war>

*Yes Master!*

Mar 23 – Bombs still falling on Kyiv and other cities, and Russia is expanding its control over the south. The outcome of the war in Ukraine is anything but certain. And yet, Raphael S. Cohen writes in [Lawfare](#), one thing is clear: “The war in Ukraine will be a watershed historical event.”

He highlights four macro-level trends which are upending the strategic balance in Europe. Russia will likely emerge weaker but, perhaps, no less dangerous, but Europe will likely become stronger militarily, less energy dependent, and more unified against Russia.

The four macro-level trends Cohen identifies:

### 1. Russia Will Likely Emerge Weaker but, Perhaps, No Less Dangerous

Even if Russia ekes out some sort of operational win in Ukraine, in the sense of capturing territory or coercing concessions, its victory will almost certainly be a pyrrhic one. But an enfeebled Russia may not equate to a less dangerous one.

Assuming the Putin regime remains in place—not necessarily a given—a cornered, isolated and aggrieved Russia actually may be more likely to lash out violently than a content one.

Russia has bounced back from costly conflicts before—be it after the Russo-Japanese War, the Second World War or the Soviet war in Afghanistan. Nonetheless, compared to prior to the conflict, Russia will likely have an even weaker hand to play.

### 2. Europe Likely Will Become Militarily Stronger

Despite multiple U.S. leaders [cajoling](#) and [threatening](#) European states to spend more on defense, European hard power had been on the wane for decades following the end of the Cold War.

Russia’s seizure of Crimea in 2014 prompted Europe to rearm. The intensity and brutality of the current Ukraine conflict will likely further [shock](#) Europe to invest more.

### 3. Europe May Become Less Energy Dependent on Russia

Europe’s reliance on Russian energy—Russia’s other major source of leverage—may be in some ways more difficult and take longer to solve than the military imbalance. Shifting economies away from this dependency will likely be neither cheap nor quick, but Europe has moved in this direction.

Interestingly, the push to move away from Russian energy comes with a pull across Europe toward green energy. Europe’s realization that its dependence on Russian energy poses a vulnerability arguably to both national security and human security concerns could potentially build a more durable political coalition to take the hard and expensive measures necessary for Europe to wean itself from Russian gas.

### 4. Europe Likely Will Be More Unified—At Least When It Comes to Russia

Before Russia invaded Ukraine, NATO was in the midst of an identity crisis. Russian aggression in Ukraine, however, has laid bare Russia’s continuing threat to the eastern flank of Europe, while demonstrating the importance of continued U.S. involvement in European security. While there are limits to European unity, there is at least a universal consensus that Russia should not be allowed to invade other sovereign states.

Cohen concludes:

#### A Strategic Advantage for the West?

Collectively, the United States may find itself in a better strategic position than it did at the outset of the conflict, with a more muscular, more unified, more energy-independent Europe that is better able to defend itself against a comparatively weaker Russia. If so, the shift would have global implications. With [five named adversaries](#) spread around the world, the U.S. military [struggles](#) with a simultaneity problem: how to tackle multiple threats, with a limited budget, all at once. If the Ukraine crisis leaves Europe better able to defend itself from further Russian revanchism, then the United States may have greater flexibility to tackle other challenges elsewhere—most notably in the Indo-Pacific.

Of course, the Ukraine conflict is still in the relatively nascent stages. A lot can change. The counter-Russia alliance could fracture, especially as the war drags on. Europe could still renege on its promises to invest more in defense as other priorities crowd out national security. Europe could decide that it is simply too expensive and inflicts too much of an





economic burden to shift away from Russian energy, like it [has](#) in the past. And even if this strategic picture is true in the long run, this doesn't do anything to roll back the Russian invasion or alleviate the ongoing suffering of the Ukrainian people.

Still, if these trends hold, the invasion of Ukraine would have continental and global implications. Ukrainian President Volodymyr Zelensky often casts the conflict as a "[war against Europe](#)" and a war "[for all the world](#)." In more than one sense, he may be right.

**EDITOR'S COMMENT:** If Europe needed a war to become stronger, energy independent, and more unified, then Europe had and will continue to have a problem. The funny thing is that not a single political brain ever proposed to have Russia join the European Union! Oh! I forgot that we need US permission to draw our future ...

## French fries!



## 'Let he who tied the bell on the tiger take it off' — phrase of the week

By Andrew Methven

Source: <https://supchina.com/2022/03/11/let-he-who-tied-the-bell-on-the-tiger-take-it-off-phrase-of-the-week/>

*China has maintained a neutral stance on the Ukraine crisis. But a phrase from a Song Dynasty Buddhist teaching makes its position on where the blame lies very clear.*

Mar 11 – Our phrase of the week is: *Let he who tied the bell on the tiger take it off* (解铃还须系铃人 jiě líng hái xū xì líng rén).





Illustration for SupChina by Derek Zheng

### Context

China's Foreign Ministry is in an [awkward position](#) in balancing its response to the Ukraine crisis. It's largely following Russia's talking points on the cause of the problem, laying the blame on the West and the eastern expansion of NATO.

Last week, China's MFA spokesperson, Wāng Wénbīn 汪文斌, [said](#):

Those who created the problem should be the ones to undo it. We hope the culprits of the crisis can reflect upon their roles in the Ukraine crisis.

解铃还须系铃人。希望危机的始作俑者好好反思一下他们在乌克兰危机当中所扮演的角色。

### Translation

*Those who created the problem should be the ones to undo it*, or more accurately, *Let he who tied the bell on the tiger take it off*, is a Chinese proverb (谚语 yànyǔ), which can be traced back to a Song dynasty poet, Huì Hóng 惠洪, who wrote a collection of Buddhist tales and teachings.

In one story, a master poses a question to his students: "Who should retrieve the golden bell from the neck of the tiger?" Eventually, one student says: "The person who tied it there in the first place."

*Let he who tied the bell on the tiger take it off* describes a person (or a company or even a country) who has created a difficult problem but is seen as not taking responsibility to resolve it.

It's a common phrase. In July last year, China's tech companies were criticized in this way for how "996 culture" had led to six-day work weeks and burnout of employees. They were not doing enough to address the problems that they had caused. In 2014, Xi Jinping 习近平 used the same phrase in a press conference to [brush aside](#) questions about the difficulty foreign journalists were having with visas.

**Andrew Methven** is the author of the [Slow Chinese 每周漫闻 newsletter](#), a resource to help learners of Chinese maintain and improve their language skills, and keep on top of the latest language trends in China.





# 1989-2017

**10 wars**

**6,000,000 killed**

Iraq



Afghanistan



Libya



Panama



Somalia



Sudan



Syria



Gulf



Yugoslavia



Yemen



US War Record

**What they got...**

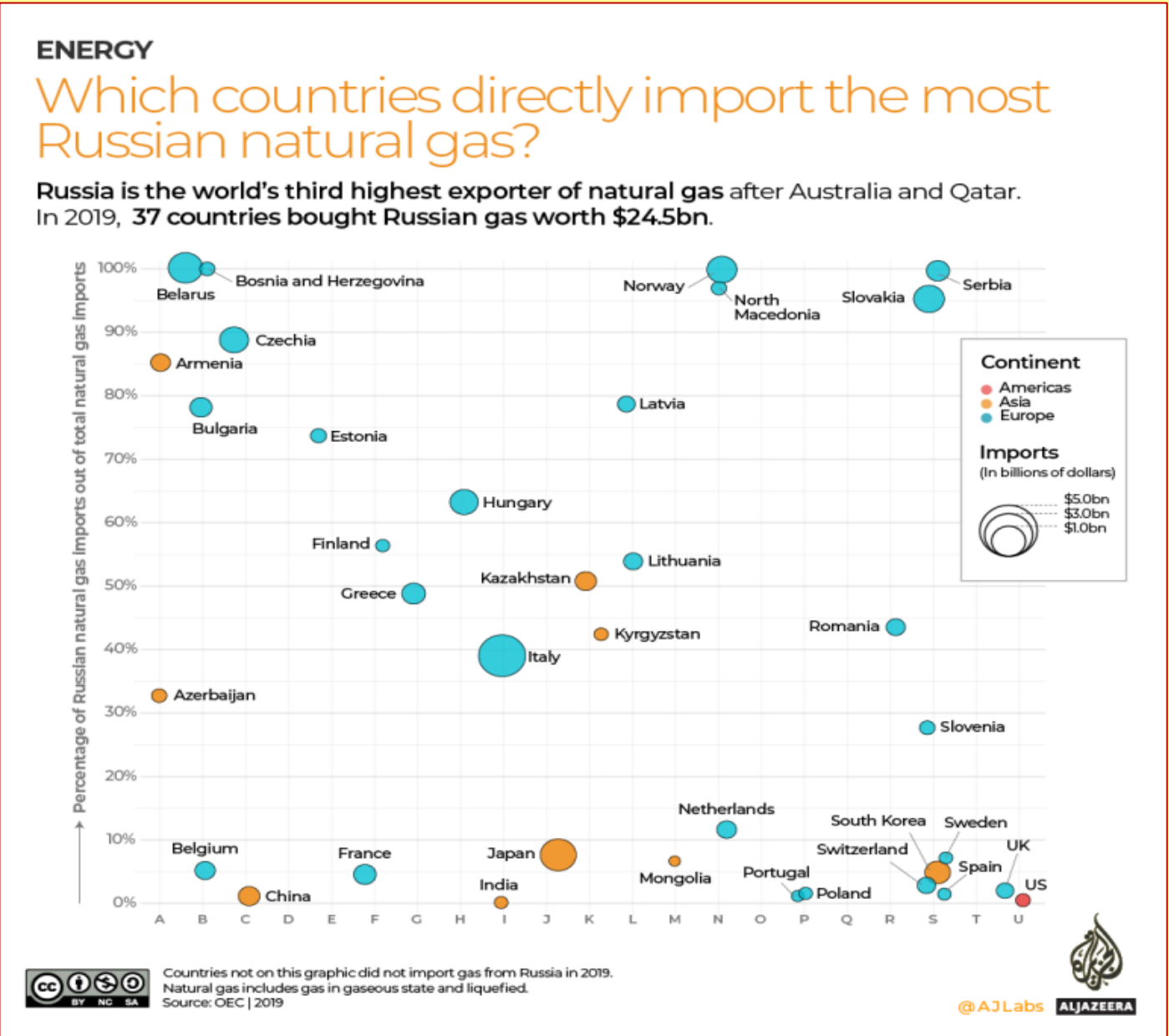
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# EU's Imports of U.S. LNG Five Times Higher Than Russian Supply

By Charles Kennedy

Source: <https://oilprice.com/Latest-Energy-News/World-News/EUs-Imports-Of-US-LNG-Five-Times-Higher-Than-Russian-Supply.html>

Jan 14 – So far this month, the European Union has received U.S. natural gas volumes five times higher than Russia's pipeline deliveries, according to Polish outlet [rp.pl](https://rp.pl), the first time in history in which American LNG has surpassed Russian gas deliveries.



Last month, at least 30 tankers with liquefied natural gas from the United States [were headed to Europe](#), where the gas and energy crisis pushed regional LNG prices way above the Asian LNG benchmark and 14 times higher than the U.S. Henry Hub price. At the same time, Russian gas deliveries have been lower than usual in recent weeks. Low Russian supply and cold weather have been the two main drivers of [rising gas prices in Europe](#) in recent weeks when Russia's deliveries via Poland and Ukraine have been lower than historical norms.





Low natural gas deliveries [from Russia](#) appear to have artificially tightened the European gas market, the International Energy Agency's Executive Director Fatih Birol [said](#) on Thursday, adding that energy systems "face significant risks" by relying too much on one supplier for a key energy source.



"We see strong elements of 'artificial tightness' in European gas markets, which appears to be due to the behaviour of Russia's state-controlled gas supplier," Birol wrote in a LinkedIn post.

Even with normal winter weather conditions, Europe faces storage inventories dropping to a record low of below 15 billion cubic meters (bcm) by the end of March, Wood Mackenzie [said](#) on Thursday.

"Without additional Russian imports, the ability to refill depleted storage and to avoid a repeat of last year's crisis will be limited. But Gazprom has so far been reluctant to make more gas available on the existing routes. And the start-up of Nord Stream 2 remains the big unknown as Gazprom navigates regulatory approvals. Political relations remain fragile as Russian troops amass along the Ukrainian border," said Kateryna Filippenko, principal analyst, European gas research, at WoodMac.

**EDITOR'S COMMENT:** Is this what the war is about? Europe will buy 6 (or more) times more expensive gas – guess from whom? And as Sherlock Holmes quoted "*to find who committed the crime you must find out who will be benefitted from the crime*".

## The Orwellian Attacks on Critics of NATO Policy Must Stop

By Branko Marcetic

Source: <https://www.jacobinmag.com/2022/03/russia-ukraine-war-invasion-nato-expansion-criticism>



Mar 07 – Rampant militarism in the wake of 9/11 did not tolerate dissent. A similar jingoistic fervor today insists that criticism of Western foreign policy and calls for diplomacy are tantamount to treason.

Whenever war or geopolitical tensions spark jingoistic fervor, there are always efforts by certain factions to try to stamp out dissent, flatten nuance and historical context into a simple black-and-white narrative, and use the moment to settle scores and advance their careers.

The last time we in the West lived through this was a little over twenty years ago, when outrage over the September 11 atrocity quickly led to a militaristic climate in which only the most [extreme and reckless](#) military responses were given a platform. The luckiest of those who objected, or who counseled calm, caution, and peaceful solutions, were [mocked](#) and ignored. The less lucky were [called](#) traitors and terrorist sympathizers, even [terrorists themselves](#), and accused of disloyalty and hurting the country, as the president [warned](#) that you were either "with us, or you are with the terrorists."

Those who deviated in any way from the approved line — including any who inquired into the motives of the terrorists and their supporters — were [accused](#) of "rationalizing support for these hate-filled fanatics," of spreading their propaganda, of [being](#) one of the ["appeasers,"](#) and they were attacked, [censored](#), even [fired](#). Right-wing columnists cheered that "the portions of the left that oppose [military action] will go the way of the America Firsters during the last war."

The [result](#) was a rash of disasters and foolish policy choices that all sensible people came to regret. Overseas, [\\$8 trillion](#) worth of US wealth was poured into a "war on terror" that destroyed two countries, one of which had no connection to the attack whatsoever, and killed nearly a million people worldwide (including more than seven times as many Americans as died on September 11), while displacing 38 million other people. The US government set up



a worldwide system of torture dungeons, whose inmates included innocent people it had mistakenly kidnapped, and traumatized entire societies with killer drones and covert death squads that wiped out whole families and villages at a stroke, with no warning. After decades, all of this came to be almost universally viewed as a terrible, shameful mistake.

Twenty years later, we're now witnessing a very similar sequence of events playing out, with potentially even more horrifying consequences.

### A War on Dissent

Throughout the crisis over Ukraine — when Moscow first began amassing troops at its border, then launched a war — politicians in the United States and the UK have used the world's outrage at Russian president Vladimir Putin's actions to go after their critics and political rivals on the Left. In the UK, Labour leader Keir Starmer, whose underwhelming tenure has been most preoccupied with a [factional war](#) on his party's Left, first [accused](#) the Stop the War Coalition (whose deputy president, incidentally, is the [predecessor](#) Starmer [purged](#) from the party) of “actively giv[ing] succor to authoritarian leaders who directly threaten democracies” and “showing solidarity with the aggressor.”

Since then, Starmer has [threatened](#) the eleven Labour MPs who signed the group's open letter with suspension if they failed to remove their names, and [declared](#) that “there will be no place in this party for false equivalence between the actions of Russia and the actions of NATO.” One unnamed Labour figure called them “a mouthpiece for the Kremlin.” When the party's youth wing [criticized Starmer](#) for “stoking up tension, macho posturing & trying to ‘outdo’ the Tories on hawkish foreign policy,” Starmer [cancelled](#) their annual conference, restricted access to their Twitter account, and slashed its funding.

A similar campaign seems to be building in the United States. After the Democratic Socialists of America (DSA) put out a [statement](#) on Putin's invasion, ending it with a critique of NATO and Western imperialism, a collection of corporate-funded Democrats with [long-standing animus](#) toward the US left [rushed](#) to make a [national story](#) out of it. At the same time, White House rapid response director Mike Gwin denounced an earlier statement as “shameful.” In the *New York Post's* telling, socialists had chosen to “blame US imperialism for Russian invasion of Ukraine,” while a separate op-ed [characterized](#) them as “making excuses for Putin.”

This follows weeks of inflammatory rhetoric among the Democratic-aligned sectors of US media [denouncing right-wing figures](#) like Tucker Carlson and Josh Hawley (but also former Democratic representative Tulsi Gabbard) for disloyally repeating Kremlin propaganda, siding with the enemy, and so on. Now, Gabbard herself is a war-on-terror [hawk](#) (whom I've [criticized](#) numerous times), and Hawley and [Carlson](#) are both reactionary demagogues, the latter a particularly noxious voice in US discourse. So there should be no need to point out the fact that Carlson has said many foolish things about the issue, such as when he [characterized](#) Russia's initial incursion into Ukraine a mere “border dispute.”

But it's significant that many of these McCarthy-era style accusations referred not to this but to Carlson's sensible position on what Washington should do over Ukraine; i.e., not go to war over it. And it's much the same for everyone else attacked here. Gabbard's offending statements were that sanctions against Russia would backfire on US consumers and potentially lead to military escalation, and that the better course would have been to “take NATO off the table for Ukraine” and prevent the war.

The DSA statement that aroused such ire in Washington wasn't without its flaws. But it clearly condemned Putin's invasion, and its fundamental point — demanding no further escalation, the acceptance of refugees, and a diplomatic solution — was eminently reasonable, something that was clearly part of the outrage. “I'm positive that your words mean nothing to [Ukrainians], but anti-tank missiles and bullets do,” Pennsylvania senator Conor Lamb said in response.

Gwin, the White House official, meanwhile, seemed to believe what was “shameful” about the organization's earlier statement was calling the 2014 Euromaidan revolution a “coup” — a contentious label for sure, but not an unreasonable description of [what happened](#), especially given the widespread use of that word to describe the very similar events of January 6.

The same goes for the [Stop the War Coalition statement](#), which Starmer attacked as “showing solidarity” with Putin, showing a “kneejerk reflex” that any adversary of the West was in the right, and providing a “smokescreen” for Moscow's repression.

What justified such inflammatory allegations? Only an immediate statement of opposition to Putin's war coupled with criticism of the British government's dismissal of a diplomatic solution, its escalatory actions, and a call to halt NATO's eastward expansion to address Russian security concerns while returning to the Minsk accords and devising a new, mutually agreeable security arrangement for Europe.

This kind of thing is everywhere, particularly on social media, where attempts to outline the full context of how we got here or to explain to Western audiences how their governments' policy choices since the end of the Cold War contributed to this are met with accusations of justifying Putin's illegal war or parroting Kremlin propaganda.

But it goes well beyond social media. Witness these [letters to the editor](#) (Headline: “If you think NATO is the real threat, you're falling for Russian propaganda”) denouncing the idea



NATO is related to the current tensions or involved in inflaming these tensions as a “preposterous Russian lie” and the “Russian view of NATO.” A leading expert on propaganda [tells us](#) the Kremlin is “pushing the idea that this is all NATO’s fault, that it’s the fault of the West,” and that “a lot of people in Russia bought into that.”

### The Establishment Origins of the NATO Expansion Critique

The history of Western tensions with Russia over Ukraine is long and complicated, with many overlapping and competing analyses. Reasonable people can disagree over solutions like those put forward by groups like Stop the War.

But to simply dismiss them as the lies and propaganda of Western traitors, Putin apologists, and dangerous fringe figures secretly in league with the Kremlin is false to the point of being Orwellian. These are mainstream arguments that have been made for years by current and former US diplomats and foreign-policy thinkers across the political spectrum, along with figures from the ranks of the Western establishment.

There’s Jack Matlock, who served as US ambassador to the Soviet Union under Ronald Reagan and George H. W. Bush after a decades-long career as one of the top Soviet experts in the US Foreign Service. He [wrote](#) in the lead-up to this war that “there would have been no basis for the present crisis if there had been no expansion of the alliance following the end of the Cold War,” and that “the policies pursued by Presidents George W. Bush, Barack Obama, Donald Trump, and Joe Biden have all contributed to bringing us to this point.” Matlock had called for a diplomatic solution to prevent war, principally around Moscow’s negotiation demands to draw a hard line on NATO’s expansion, saying that “what Putin is demanding is eminently reasonable.”

Stephen Walt, Harvard professor of international relations and columnist for *Foreign Policy*, made a [similar argument](#), puzzling over the fact that while Western countries ruled out fighting on Ukraine’s behalf, “the US negotiating position (and thus NATO’s position as a whole) hasn’t budged at all on the central issue dividing the two sides” — meaning, Ukraine’s status in NATO. He lamented the “black-and-white view of the situation in Ukraine” that holds that “Russia’s stated grievances have no legitimate basis whatsoever; and the only conceivable Western response is to refuse to make any concessions.”

Walt’s fellow “realist” thinker John Mearsheimer has been [making](#) this case [for years](#), chiding Western officials for continually trying to bring Ukraine into their orbit, leading Russia to take drastic, illegal steps to counteract it. He recently [told](#) the *New Yorker* he believed “all the trouble in this case really started in April 2008,” when Bush made his infamous announcement on Ukraine and Georgia, despite Moscow [making it clear](#) “they viewed this as an existential threat, and they drew a line in the sand.” Mearsheimer dismissed the idea Putin is bent on conquering a broader swath of Europe to restore the Russian Empire or Soviet Union as an argument “invented” by “the foreign-policy establishment in the United States, and in the West more generally,” and believes Kiev can come to some kind of “modus vivendi” with Moscow.

Samuel Charap, a Ukraine expert at the RAND Corporation (a Pentagon-aligned think tank originally started by the air force), [argued](#) that what had been in early February just the Ukraine “crisis” was “a symptom of [Washington’s] runaway success” after the Cold War. He charged that “Russia is destined to clash again with the United States and its allies over the status of these former Soviet republics unless all parties can agree on a mutually acceptable arrangement for the regional order.”

Or see international relations professor Rajan Menon and former George W. Bush national security staffer Thomas Graham, who [urged](#) US officials in *Politico* back in January to stave off war by “accommodating some of Russia’s principal security concerns,” and formalizing “a declared moratorium on the accession of Ukraine, or any other former Soviet state” into NATO for as long as twenty-five years.

See the recent comments by the critical Russian sociologist Greg Yudin, who was recently [arrested and brutalized](#) at an antiwar protest in Moscow, and who [warned](#) just a day before the invasion began that “NATO is certainly a potential military adversary of Russia,” that it “is not a peaceful and innocent alliance,” and that its expansion is “an unfriendly action towards Russia” that “any responsible Russian government should seek to prevent.”

The Ukrainian sociologist Volodymyr Ishchenko has [warned](#) that it was becoming “increasingly clear that a Putin successor, however progressive or democratic they may be, would still see Ukraine’s NATO membership as a threat,” and that among the solutions to the then building crisis was, among other things, “restoring Ukraine’s non-alignment status” and reversing the 2019 amendment that enshrined the goal of “Euro-Atlantic integration” into the country’s constitution.

You could go on and on: Katrina vanden Heuvel [writing](#) that “NATO now largely exists to manage the risks created by its existence” in the *Washington Post*; Jeffrey Sachs [urging](#) Washington to “compromise on NATO to save Ukraine” in the *Financial Times*; or Kings College Ukraine expert Anatol Lieven, who has [stressed](#) that same history and repeatedly called for solutions like a [neutral Ukraine](#) and a moratorium on its entry into the alliance, first to [stave off this war](#) and now to [end it](#).





In fact, when Lieven [convened](#) a collection of former US and British ambassadors and experts in January this year, their consensus was that “the Russian government has not yet decided on war,” and that Washington would “have to go much further” than its initial responses to Moscow’s first negotiation bid.

That’s not even getting into the many, many US establishment figures who warned throughout the decades that NATO expansion would eventually provoke the very thing it was meant to be guarding against.

First among them is George Kennan, widely regarded as the father of the Cold War containment policy, who presciently [warned](#) in 1997 that expanding NATO eastward would “inflame the nationalistic, anti-Western and militaristic tendencies in Russian opinion,” “have an adverse effect on the development of Russian democracy,” and “impel Russian foreign policy in directions decidedly not to our liking.”

Or the [eighteen former diplomats](#) who warned the policy risked “significantly exacerbating the instability that now exists in the zone that lies between Germany and Russia, and convincing most Russians that the United States and the West are attempting to isolate, encircle, and subordinate them.”

Or the [fifty prominent](#) foreign-policy experts, including retired military officers, diplomats, and former senators, who signed on to a letter calling NATO expansion “a policy error of historic proportions” that was “opposed across the entire political spectrum,” and would “strengthen the nondemocratic opposition, undercut those who favor reform and cooperation with the West, [and] bring the Russians to question the entire post-Cold War settlement.”

Or Biden’s current CIA director, William Burns, who [wrote](#) from Moscow in 1995 that “hostility to early NATO expansion is almost universally felt across the domestic political spectrum here,” and that the move was “premature at best, and needlessly provocative at worst.” Thirteen years later, Burns would inform the Bush administration that “Ukrainian entry into NATO is the brightest of all redlines for the Russian elite (not just Putin),” and that “in more than two and a half years of conversations with key Russian players,” he had “yet to find anyone who views Ukraine in NATO as anything other than a direct challenge to Russian interests.” Just two years ago, Burns wrote of how “Russians stewed in their grievance and sense of disadvantage” and how “a gathering storm of ‘stab in the back’ theories slowly swirled.”

Or the US intelligence agencies, which, according to former intelligence analyst [Fiona Hill](#) (now a Russia expert at the Brookings Institution), all opposed the idea of offering membership to Ukraine and Georgia in 2008, only for Bush to override them — now viewed by most foreign policy experts as a key turning point in US-Russian relations after the Cold War and Putin’s own relationship with Washington.

Or the numerous [other establishment voices](#), from Tom Friedman and Henry Kissinger to Zbigniew Brzezinski and Daniel Patrick Moynihan, who all made similar criticisms of the policy at the time.

In the fervor of war, we are suddenly being told to believe all of these are merely the foolish and traitorous apologetics of Putin sycophants and fringe extremists, invented just now to vindicate Moscow’s invasion and even strengthen Russia. The speed with which these ideas have, in the West, gone from conventional mainstream opinion to treasonous lies and propaganda has been shocking to witness.

### Explaining War Is Not Justifying It

Why is all this important? We have to know how we got to this point, what policy choices we in the West had control over contributed to it, and what we could have done differently. By doing so, we can not only avoid repeating the same mistakes and watching a terrible history replay again and again, but find some political, nonmilitary way out of what’s happening now, and secure a lasting stability for Ukraine and Europe, if not long-term peace.

The idea now widely advanced that Putin is an Adolph Hitler–like madman bent on world domination, and that Western policy over the past decades played no meaningful role in the choice he made to launch this atrocious and illegal invasion, is a very convenient one. It’s a convenient one for those Western officials who played leading roles in that policy, including the sitting US president, who [led](#) the very first effort to expand NATO. It’s convenient for arms manufacturers and every other corporate leech feeding off endless global conflict. It’s convenient for the war hawks who would cynically use this war to justify [breathtakingly dangerous ideas](#) like turning Ukraine into an Afghanistan-like permanent warzone. And, of course, it rules out any diplomatic settlement to end this terrible crime, because a madman who wants to take over the world cannot be negotiated with.

Just as important, if we don’t understand how Western policy helped lead to this conflict and we don’t work to veer away from similar mistakes in the future, conflict and war is forever inevitable. As the figures listed above pointed out, opposition in Russia to NATO’s expansion goes well beyond the single figure of Putin. If and when he eventually leaves power, and Western policymakers continue to plow ahead with the policy — having been persuaded by the political and media figures now assuring us that NATO has nothing to do with what’s going on and all this is merely the



product of one man's megalomania — we will likely find that the leadership that replaces him is no less opposed, creating the conditions for a permanent state of conflict.

Maybe you disagree with this analysis, or the possible solutions to end this war. You have every right to do so. But to delegitimize them with smears and character assassinations, even cast them as borderline criminal, is outrageous and shocking behavior that risks repeating some of the most shameful episodes of history, such as the disastrous post-9/11 war frenzy, the McCarthyite witch hunts of the 1950s, and the repression and abuses of the 1920s Red Scare and World War I.

Trying to explain the role of Western foreign policy in stoking jihadist terrorism doesn't justify or excuse the atrocity committed on September 11. Understanding how the Treaty of Versailles helped lead to World War II doesn't justify or excuse Hitler's invasions that triggered that war. Two weeks ago, these were things that went without saying. Now they're apparently treasonous.

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## Another Front: The War On Truth

Source: <https://i-hls.com/archives/113822>

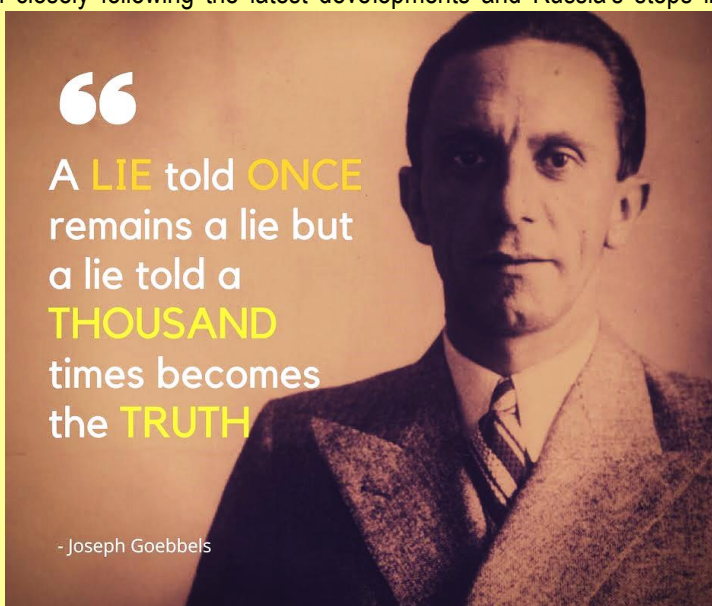
Mar 23 – What is the front line of war in the 21st century? As we observe the Russia-Ukraine war, we may gain an insight into a rather different, but no less significant, battle – that of finding the truth, producing information, and disseminating it. Digital Forensic Research Lab researchers at the Atlantic Council have been closely following the latest developments and Russia's steps in cyberspace and in the information sphere for the past five years.

As new technologies are being used to control the narrative, Deep-Fake videos are being made that use artificial intelligence, allowing the falsification of both visual and audio content. Hackers disrupted a Ukrainian state news broadcast last week with a Deep-Fake video featuring Ukrainian president Zelensky calling the Ukrainian people to surrender. A short while later, Ukraine announced it was a fake.

Additionally, the researchers mentioned social media, which by definition allows for fast and distributed information transfer. In response to the Russian invasion of Ukraine in late February 2022, many western social media companies have either decided not to collaborate with Russia or have been prohibited from doing so by the Russian Federation.

According to atlanticcouncil.org, this week Russia labelled Meta an "extremist organization" as a result of a process that began in March 2022 when Russia claimed that Meta enables Ukrainians to advertise violence against Russian forces in the wake of the war.

While it is too soon to draw conclusions from the war, it is now evident that the internet has become a tier in this war, and the battle for narrative is no less fierce than the front.



## Inside the transfer of foreign military equipment to Ukrainian soldiers

Source: <https://www.washingtonpost.com/world/2022/03/18/ukraine-military-aid-shipments/>

Mar 18 — There were no passport officers on the dirt road, no customs lane, no signs marking this isolated patch of farmland for what it has become: a clandestine gateway for military supplies entering Ukraine.

"No pictures, no pictures," shouted a Polish border guard as a convoy of 17 trucks hissed to a halt on a biting morning this week.

Not far from here was a Ukrainian military base where at least 35 people had been killed a few days earlier by a Russian missile barrage, and no one wanted to call attention to this ad hoc border crossing. Washington Post journalists were given permission to observe the delivery on the condition that they turn off the geolocation function on their cameras.



The convoy was carrying 45 vehicles — retrofitted Jeeps, ambulances, an armored bank truck and an army field kitchen — as well as 24 tons of diesel. It had traveled overnight from Lithuania as part of a swelling supply network racing to catch up with the return of war to Europe. More than a dozen volunteer drivers, including one whose relief work was normally limited to helping motorists stranded on the highway, had driven hood-to-tailight almost around-the-clock to rendezvous with Ukrainian fighters.

While governments negotiate over [fighter jets and high-end weapon systems](#), soldiers on the ground are struggling to fill more basic needs. With Ukraine's own factories shut down by shelling, its forces rely increasingly on volunteer, pop-up supply chains like this one for vital gear, including body armor, medical supplies and the pickup trucks and SUVs they covet as fighting vehicles.

A second convoy was scheduled to arrive later in the day, packed with generators, radios, surveillance drones, night-vision gear and, most coveted of all, almost 7,000 bulletproof vests and helmets. For the soldiers, they are a lifeline.

"That is what we need the most," said Lt. Andrey Bystriyk, one of the many Ukrainian fighters who had traveled across his war-ravaged country to meet the convoys. His blue eyes teared up when he talked about the aid pouring in from neighboring countries.

"From the army, we get the gun and the ammunition and the uniform," he said. "But under the uniform, what we eat, what keeps us safe, how we move around and fight — that comes from the people, our people and foreign people."

### Boots, tourniquets and satellite phones

The journey began hundreds of miles to the north in a warehouse in Lithuania, a country not usually thought of as a military supply hub.

But the tiny Baltic nation has seen a huge outpouring of support for Ukraine as citizens imagine what Russian President Vladimir Putin might have in store for them should he prevail in his current invasion. [Vilnius, Lithuania's small medieval-era capital](#), is filled with blue-and-yellow Ukrainian flags.

Receiving much of the donated money and supplies is Blue and Yellow, a nonprofit founded in 2014 to supply Ukrainians fighting the takeover of eastern parts of their country by Russian-backed separatists. Now the group is the focal point of Lithuania's yearning to help.

"It has just exploded," said Jonas Ohman, a Swedish-born filmmaker who started the group.

For years, Ohman said, he took no salary and had no paid staff as he fulfilled direct requests from front-line units on an annual budget of less than \$200,000. Since the invasion last month, more than \$20 million has poured in from within Lithuania, a country of 2.8 million residents. He is dispatching a convoy to the border every four or five days.

With a cellphone held against a days-old beard, Ohman orders military gear by the ton from across Europe, China, Israel. He argues with customs officials in a half-dozen countries to get the shipments delivered, railing against functionaries who block his way and officers who are slaves to regulation.

"I tell them all the time: 10,000 euros can be more deadly than a million if you know how to spend it," he growled between phone calls.

Ohman has filled one donated warehouse on the outskirts of Poland's capital, Warsaw. Another in Vilnius, provided by a Lithuanian transport company, has become a drop-off site for locals wanting to give.

"These will work," one volunteer declared on a recent afternoon when a truck arrived at the Vilnius warehouse with 800 pairs of new steel-toed boots and 1,000 fleece jackets still in the wrapper, all donated by a hunting goods retailer.

A forklift unloaded the cases, depositing them next to 14 pallets of IV saline solution and boxes filled with 13,000 trauma tourniquets and 200 satellite phones.

A local marketing company has launched a fundraising campaign for the nonprofit. And [a group of Rotary Club volunteers](#) makes calls to military suppliers in surrounding countries.

"Everything in Europe is selling out," said Zemyna Blumenzonaite, a Blue and Yellow staffer. "But we are getting more requests than ever."

She held out her phone to show some of the texts she gets from soldiers in Ukraine. One named "Kruk" asked for 1,000 tourniquets and 40 individual first-aid kits. She tells him they will be in the next convoy.

"You are our Guardian Angel," he writes back.

### Donated and armor-plated

"I heard they needed bigger vehicles and four-wheel drives," said Dainius Navikas, 43, a Vilnius management consultant who immediately thought of his black 2015 Grand Cherokee.

"I had no choice. The Ukrainians are fighting for us."





## ICI C<sup>2</sup>BRNE DIARY – April 2022

Navikas and his wife drove the Jeep — along with an extra set of winter tires — to a designated garage on the outskirts of the Lithuanian capital. They found a lot packed with dozens of vehicles ready to be processed and shipped to Ukraine.

Some had been signed over by their owners. Others had been bought by Blue and Yellow.

“When they hear we are buying for Ukraine, a lot of them drop the price immediately,” said Lukas Pacevicius, the owner of the garage, who has largely suspended his regular business activities.

Working overnights and weekends, mechanics check the engines; they send the vehicles to transmission or brake shops if needed. Armor plating is welded to some of the pickups, following specifications provided by the soldiers.



At a warehouse in Vilnius, a volunteer tints the windows of a car to be given to Ukrainian soldiers (left). Volunteers spray-paint a car for the soldiers. (right) (Arturas Morozovas for The Washington Post)

On a recent day, dozens of volunteers were scrambling around the vehicles, covering their windows and headlights with paper and masking tape ahead of repainting the bodies. Workers dodged the vehicles as they were shuttled from one part of the line to another. Two men wearing hazmat suits and respirators, well-practiced in painting and not too fastidious, transformed Navikas’s glossy black Grand Cherokee into a dull green patrol vehicle in under 20 minutes. And then a Mercedes Sprinter, and then a Nissan Pathfinder. An olive mist hung over the entire workshop.

“We want to cover every reflective surface, even the bumpers and wheels,” said Rolandas Jundo, the owner of a sign company who was applying window tinting to a Land Rover that still reeked of paint.

### Driving into the Polish dawn

Three days later, gassed up with donated fuel, most of the vehicles were driven onto car carriers. Two local tow trucks hitched up four more vehicles. Four men wrangled a military mobile kitchen into a panel truck.

With the sun still high, the convoy pulled out, flanked by a pair of Lithuanian police cars. Just outside Vilnius, a group of people on a pedestrian bridge shouted and pumped their fists when the odd parade rolled under.

“It feels very important,” said one of the drivers, who like several volunteers spoke on the condition of anonymity out of a combination of modesty and security concerns. “We still have a lot of crazy fifth-column types around,” said another driver, referring to Russian sympathizers.

The convoy moved as fast as its slowest truck, about 50 mph on average. At a gas station just before the Polish border, Lithuanian police handed off to their Polish counterparts. Sometime after 2 a.m., everyone pulled into a rest area north of Warsaw for two hours of sleep.

By dawn, forests had given way to rolling fields. The police escort kept its lights flashing and sounded its sirens as the trucks rumbled through red lights. Surprised locals stared from village sidewalks.

Nineteen hours and many cans of Red Bull later, the convoy pulled up at the unmarked entrance to Ukraine.



### 'Our firepower, our mobility'

Lt. Bystriyk, with the Zaporizhzhia Territorial Defense Brigade, had just endured his own all-night drive to reach the rendezvous. His was one of about 20 Ukrainian units, both regular military and volunteer militia, that had dispatched representatives to meet the convoy. Bystriyk had driven about 11 hours from [the area around the besieged city of Dnipro](#) in eastern Ukraine in hopes of getting vehicles and an upgrade on the body armor that most of his men now wear: homemade vests cobbled together by local residents with steel and canvas. "They try to bend it like a body shape, but it doesn't work," he said.

It would take about 3,000 sets of body armor to fully outfit his men, Bystriyk said. He had been told he might get as many as 400 when the second convoy arrived. In the meantime, he eagerly eyed the vehicles that were carried by the first one.

"Stingers and Javelins are critical, of course," he said of the anti-aircraft and anti-tank missiles. "But for us, these vehicles are essential. They are our firepower, our mobility." Ukrainian soldiers drove them to a spot where border officials would fill out paperwork and then the vehicles would be distributed. One soldier made a beeline for a brand-new CForce quad ATV — to be used in cavalry-like raids by Ukrainian special forces — and rode off with a grin.



The convoy with military supplies moves on a Polish highway toward the border with Ukraine. (Arturas Morozovas for The Washington Post)

Bystriyk looked for a truck that his men could mount with a rocket launcher or machine gun, creating one of the "specials" common among fighters in Libya, Syria and other recent hot spots. There weren't as many pickups as in a delivery a week earlier, but he was glad to see Pathfinders, Freelanders, Pajeros. Videos posted by Ukrainian fighters on social media show teams in SUVs like these outmaneuvering Russian armored vehicles, popping out from forests or side streets to hit them with rocket-propelled grenades and dashing away. "Every day the Russians try to enter Zaporizhzhia and every day we have stopped them," Bystriyk said. "We need these cars. And we are thankful the Lithuanians are bringing them." In the end, Bystriyk was satisfied with a beefy Nissan Patrol to drive back to the war. But he learned that the convoy with the vests and helmets would be delayed because of a customs hang-up. He would be back at this unlikely supply site, he knew. Probably many times. "We need a lot," he said. "And the need is still growing."

## The Rotary Club Is Violating Its Principles by Procuring Military Equipment for Kiev

Source: <https://oneworld.press/?module=articles&action=view&id=2616>

Mar 20 – The Washington Post (WaPo) published a very detailed piece on Friday titled "[Inside the transfer of foreign military equipment to Ukrainian soldiers](#)", which contains some startling information that should concern everyone that reads it. Casually mentioned in the text is a single sentence proving that the Rotary Club -- the famous humanitarian NGO whose website states that its [mission](#) is to "provide





service to others, promote integrity, and advance world understanding, goodwill, and peace through our fellowship of business, professional, and community leaders” – is actively coordinating with a Swedish-Lithuanian “NGO” that’s sending military equipment to Kiev, including that which is being repurposed for lethal ends in order to kill Russians.

An example of this includes the SUVs that WaPo writes “could (be) mount[ed] with a rocket launcher or machine gun, creating one of the ‘specials’ common among fighters in Libya, Syria and other recent hot spots.” The Baltic “NGO” behind all of this is “[Blue and Yellow](#)”, whose website misleadingly says that “We provide non-lethal means to Ukrainian soldiers and volunteers”. It should also be mentioned that the word “volunteers” is typically employed as a euphemism nowadays for Neo-Nazi battalions and [foreign mercenaries](#). WaPo revealed that “a group of Rotary Club volunteers makes calls to military suppliers in surrounding countries” on behalf of this group despite that organization’s own website [claiming](#) that their network only “provide[s] food, water, medical equipment, and shelter for refugees.”

That’s obviously not the case as WaPo’s latest report proves since Rotary Club members are actively coordinating with “Blue and Yellow” to procure military equipment for Kiev and its “volunteers” that’s being repurposed for lethal ends to kill Russians. This makes the organization a direct party to the conflict and therefore means that it’s lying when it claims on its website that it only provides humanitarian relief for refugees. That’s not true since the Rotary Club is actually nowadays a [Hybrid War](#) weapon in the hands of “Blue and Yellow”, the latter of which cannot accurately be described as an “NGO” like it claims since the group actually operates as a NATO proxy. This is proven by the fact that WaPo also revealed that its “convoys” are escorted by Lithuanian and Polish police en route to Ukraine. Upon reaching that war-torn country, they’re then met by “both regular military and volunteer militia” (the latter of which it should be remembered typically refers to Neo-Nazi battalions and foreign mercenaries nowadays), one of whom told WaPo that “these vehicles are essential. They are our firepower, our mobility.” “Blue and Yellow” isn’t oblivious to this either as proven by WaPo quoting its founder Jonas Ohman, who said that “I tell [customs officials in a half dozen countries and functionaries] all the time: 10,000 euros can be more deadly than a million if you know how to spend it.” He’s therefore very well aware that his falsely self-described “NGO” is providing military equipment that’s being repurposed for lethal ends, doing so like WaPo revealed in full coordination with the Rotary Club.

Every organization has the right to have their own stance towards Russia’s [ongoing special military operation](#) in Ukraine and this of course also includes the Rotary Club, but it’s immoral to lie on its website that it’s only providing humanitarian relief for refugees. Furthermore, this volunteer organization should be forthcoming about its members’ active coordination with the falsely described “Blue and Yellow” “NGO” in procuring military equipment for Kiev that’s openly being repurposed for lethal ends to kill Russians, including through the creation of so-called “specials” akin to those employed by terrorists in West Asia and North Africa. The Rotary Club’s literal arming of “volunteers” that in all likelihood include Neo-Nazis and foreign mercenaries should also be acknowledged on its website. The fact that none of this has happened suggests that the Rotary Club is very self-conscious about how its supporters would react to knowing that they’re donating to and volunteering with a quasi-military organization that’s become an active participant in the Ukrainian Conflict. Their leaders would obviously prefer to hide this from the world but it was just inadvertently exposed by WaPo late last week. Far from being a humanitarian NGO, the Rotary Club has since transformed into a Hybrid War weapon being wielded by a de facto NATO proxy against Russia in Ukraine. Furthermore, its military support for Neo-Nazis there means that it’s violating its self-proclaimed “diversity, equity, and inclusion” values that it brags about on its website since those fighters are likely also using this equipment to oppress minorities.

The ball’s now in the Rotary Club’s court over how to respond to this indisputable scandal. It can either remain silent and continue procuring military equipment for Kiev and its “volunteers”, including that which is being repurposed for lethal ends along the lines of the model pioneered by West Asian and North African terrorist groups like the universally banned ISIS, or it can publicly condemn those of its members who’ve made themselves direct participants in the Ukrainian Conflict through their close coordination with NATO’s “Blue and Yellow” Swedish-Lithuanian proxy. Additionally, the Russian authorities should consider urgently launching an investigation into the group’s activities [inside the country](#) to ensure that they’re not endangering national security by participating in this military plot.

## The next refugee crisis that could dwarf Ukraine

By Michael Rubin

Source: <https://www.aei.org/op-eds/the-next-refugee-crisis-that-could-dwarf-ukraine/>

Mar 26 – Ukrainian refugees continue to flee from Russia’s onslaught, but as in Syria, the flows are not random. Russian President Vladimir Putin, like his Syrian counterpart Bashar al-Assad, has deliberately targeted civilians to encourage a flight that he can use to pressure





Europe for concessions. According to the United Nations, the Ukraine war has already created [more than three million refugees](#), and that data seems not to include those who have fled eastward into Armenia and Central Asia where costs-of-living are considerably cheaper. That has catapulted Ukraine, in a matter of weeks, to one of the world's [top refugee-generating countries](#), after Syria and Venezuela.

Ukraine might not hold that distinction for long. Syria has a population of 17.5 million; Venezuela's is 28.4 million; Ukraine's is 44.1 million. Iran's population, however, is nearly double Ukraine's, and instability is on the horizon.

Regime [change is coming](#) to Iran, not because of the outside world but simply because Supreme Leader Ali Khamenei is old and mortal. While speculation is rife that Khamenei stage-managed Ebrahim Raisi's rise to the presidency in order to ease the way to his succession, a smooth transfer of power is far from certain. Khamenei neither has the religious credentials nor charisma that his predecessor, Ayatollah Ruhollah Khomeini, had; his word will no longer be meaningful after his death.

Complicating succession further is just how lucrative the position has become. Khamenei is corrupt. During his thirty-three-year tenure, Khamenei [accumulated](#) billions of dollars through the [business interests](#) he controls. To rise to Iran's leadership is not only to wield vast power unencumbered by the constraints of [democracy](#) (the supreme leader stands above and apart from all elected positions in Iran) but also vast wealth. Given how seldom transitions occur—Khamenei's passing will mark the second transition in more than forty-three years—there is no incentive to wait patiently. Rather, any figure with ambition will make his move and join the destabilizing scrum.

The Islamic Revolutionary Guard Corps (IRGC) will also join the melee. In 1989, various Iranian power centers compromised on Khamenei precisely because he was weak. Khamenei compensated for the lack of political base by establishing a symbiotic relationship with the IRGC: He would resist any meaningful constraints on its power, and it would support him as he consolidated control over political rivals. The IRGC, which has also enriched itself to the tune of hundreds of billions of dollars over Khamenei's rule, will not be willing to return to the barracks, nor will it risk a political fight with a new supreme leader; rather, the IRGC will try to prevent anyone whom it does not dominate from reaching the leadership.

The fight might be brutal. Whenever there has been a leadership vacuum in Iran, military forces have concentrated in the capital allowing [restive tribes and political groups](#) along the country's periphery to fill the vacuum. Neighboring countries seldom resist involving themselves in the melee. This was the context of the 1946 Azerbaijan Crisis, the first real crisis of the Cold War, as the Soviet Union sought advantage from Iran's weakness in the years after both the country's occupation and the shah's 1941 ouster. When Khamenei dies, it is reasonable to expect that not only Russia, but also Iraqi Kurds, Turks, Saudis, Israelis, and Pakistanis will all support proxy groups along Iran's periphery if not in Tehran.

Any civil war will devastate civilians, but as the Revolutionary Guards or other hardline factions seek to consolidate control, they might choose to target civilians. Consider Iraq in the immediate aftermath of the U.S. invasion: The militias surrounding Shiite firebrand [Muqtada al-Sadr](#) actively targeted the educated and middle classes across the sectarian spectrum for the simple reason that such people would never support Sadr. Western diplomats lament a brain drain but, for certain political constituencies unwilling to compete on a political and intellectual level, such a flight is a positive development. Iran's growing protest movement suggests many Iranians if not most hope for an end to the Islamic Republic. It will be in the interests of diehard proponents of Khomeini's failed experiment to drive these Iranians from the country as they are no longer able to convince them that the Islamic Republic is anything more than a cynical dictatorship in clerical garb.

Iran's looming economic troubles may also contribute to a perfect storm. Neither sanctions nor Covid-19 fully explain Iran's economic woes. According to the Central Bank of Iran, [net capital stock](#), the best [measures](#) of an economy's trajectory—[fell into negative territory](#) even before President Donald Trump [withdrew](#) from the Joint Comprehensive Plan of Action and Secretary of State Mike Pompeo implemented a "[Maximum Pressure](#)" campaign against the Islamic Republic's economy. This points to a fundamental weakness in the economy that the infusion of several billion dollars was unable to reverse. Quite simply, Khamenei's stewardship of the Iranian economy has run it into the ground. Iran faces economic collapse.

Upheaval inside Iran could generate more than ten million refugees. Few would choose to go east to Afghanistan and, as with Syrian refugees, the Arab world will be unwilling to take them. This means a large refugee flow northward into the Caucasus and then west through Turkey toward Europe. European leaders may believe they have reached capacity after successive waves of Syrian and now Ukrainian refugees, but a far greater wave may loom on the horizon.

**Michael Rubin** is a senior fellow at the American Enterprise Institute, where he specializes in Iran, Turkey, and the broader Middle East. A former Pentagon official, Dr. Rubin has lived in post-revolution Iran, Yemen, and both pre- and postwar Iraq. He also spent time with the Taliban before 9/11. For more than a decade, he taught classes at sea about the Horn of Africa and Middle East conflicts, culture, and terrorism, to deployed US Navy and Marine



units. Dr. Rubin is the author, co-author, and co-editor of several books exploring diplomacy, Iranian history, Arab culture, Kurdish studies, and Shi'ite politics, including "[Seven Pillars: What Really Causes Instability in the Middle East?](#)" (AEI Press, 2019); "[Kurdistan Rising](#)" (AEI Press, 2016); "[Dancing with the Devil: The Perils of Engaging Rogue Regimes](#)" (Encounter Books, 2014); and "[Eternal Iran: Continuity and Chaos](#)" (Palgrave, 2005). Dr. Rubin has a Ph.D. and an MA in history from Yale University, where he also obtained a BS in biology.

## Before Havana Syndrome, There Was Moscow Signal

By James Schumaker

Source: <https://afsa.org/havana-syndrome-there-was-moscow-signal>



In 1960, U.S. Representative to the United Nations Henry Cabot Lodge Jr. points to the spot on the U.S. Great Seal (a 1945 gift from the Soviets that hung in Spaso House for decades) where it had been bugged, providing proof of Soviet espionage to the U.N. Security Council. The **Theremin device** inside was activated by external electromagnetic signals, making it difficult to detect. Bettmann / Getty

In December 2016, just as the Obama administration was leaving office, strange reports began coming from our embassy in Havana, Cuba. People were exhibiting peculiar symptoms, including migraines, dizziness, memory loss, brain fog and an inability to perform normal functions at work. Often, the initial onset of symptoms was accompanied by clicking sounds.

At first, when the symptoms were confined to a few Americans and Canadians serving in Havana, these reports were treated with skepticism. While the State Department drew down its staff at Embassy Havana, and some officials hinted darkly that we were under some sort of foreign attack, others were much more sanguine. Armchair psychiatrists and "experts" who had never met the victims or diagnosed their illness in a professional setting leaned to the theory that it was all a "psychogenic illness"—in other words, people had symptoms, but the stresses and strains of work were the cause, and they were imagining themselves into sickness. There were even theories that a certain type of Cuban cricket was triggering this "mass hysteria" with its peculiarly loud call.



These theories all came a cropper, however, when reports of what soon came to be called “Havana syndrome” gradually spread to other embassies around the world, always seeming to affect embassy officials and their families away from work, in public places, or in apartments and hotel rooms. By 2021, more than 200 persons had been affected.



#### Theremin device

The victims of what the U.S. government is now calling “anomalous health incidents,” particularly those who were State Department employees, began to feel that their complaints were not being taken seriously, and that they were being met with indifference and even disbelief. Some had trouble getting medical treatment. Other agencies, such as the CIA, approached the problem more seriously, but generally the U.S. government’s approach was disunited. Eventually Congress got involved, notably Senators Susan

Collins (R-Maine) and Jeanne Shaheen (D-N.H.) and Congressman Adam Schiff (D-Calif.), passing the HAVANA Act (Helping American Victims Afflicted by Neurological Attacks), which mandated that persons who suffer from Havana syndrome should be treated as if they were wounded veterans, which in fact they are.

In December 2020 the National Academies of Sciences, Engineering, and Medicine published an analysis of Havana syndrome, “[An Assessment of Illness in U.S. Government Employees and Their Families at Overseas Embassies](#),” concluding that the most likely cause was microwaves. The symptoms fit, as did the reports of the victims. But this conclusion could not be reached with certainty due to a lack of physical evidence. Moreover, there was a more basic question that needed to be asked: If microwaves were, indeed, the cause of Havana syndrome, someone had to be beaming them at our people. If that was true, who was doing it and why? Those questions remain unanswered to this day.

#### Echoes of Moscow Signal

As I followed the Havana syndrome story, it increasingly occurred to me that I had seen something like this before. The mention of the word “microwaves,” in particular, triggered a flood of memories, as did the stories of initial skepticism by the State Department and other agencies over the concerns of potential victims. It was Moscow Signal all over again.

The first use of microwaves to activate a bugging device in Spaso House, the ambassador’s residence, was discovered in 1951. During the Cold War, the Soviets beamed microwaves at our embassy in Moscow for decades. It is uncertain exactly when it started, although the first use of microwaves to activate a bugging device in Spaso House, the ambassador’s residence, was discovered in 1951. There were other reports that the Soviets were beaming microwaves at Spaso House during Vice President Richard Nixon’s visit to Moscow in 1959. As for the embassy, once again, reports in the unclassified realm are spotty. It is known for sure that the Soviets were bombarding the upper floors of the central wing of the chancery in the 1960s, but it is equally possible that microwaves were used against the embassy much earlier than that (we moved into the chancery on Garden Ring Road in 1953).

One thing is certain: For years, our diplomats serving in Moscow were kept in the dark. This did not apply to the interagency community, however, which formed several groups to study the phenomenon and, apparently, to study our diplomats without their knowledge. Scientists at Johns Hopkins University’s Applied Physics Laboratory were assigned to oversee research into the phenomenon. Meanwhile, blood studies were reportedly done on Embassy Moscow personnel, who were not told about the microwaves, but given the cover story that “viral studies” were being conducted.

While the prevailing conclusion of all the studies was that microwaves were not harmful, a few scientists strongly objected—including Dr. Allan Frey (discoverer of the “Frey Effect,” which, among other things, noted that microwaves could cause people in the beam’s path to hear clicking sounds) and Dr. Robert Becker, who resigned his position because he believed the U.S. research program to be immoral. According to researcher Annie Jacobsen, in her book *Phenomena* (2017): “Becker’s government work convinced him that a microwave signal such as the Moscow Signal ‘could affect the central nervous system, put people to sleep, interfere with decision-making capacity and induce chronic stress.’ He believed that the Soviets had been ‘using embassy employees as test subjects for low-level EMR [electromagnetic radiation] experiments.’”

#### Why Keep It a Secret?

Good question, especially for those who were targeted. The biggest reason, most likely, was because the interagency community generally believed that microwaves were not harmful. And, of course, the longer secrecy was maintained, the more difficult it was to break. In





## ICI C<sup>2</sup>BRNE DIARY – April 2022

addition, however, there were apparently diplomatic reasons for keeping the whole issue quiet. With the advent of détente in the early 1970s, no one was looking for an obstacle to diplomatic progress with the Soviets, which was accelerating under the Nixon administration.

Eventually, however, two factors required a reevaluation of this policy. First, the intensity of Moscow Signal began to increase, and a second source was detected, also aimed at the upper floors of the embassy. In January 1976 the Gerald Ford administration decided that Ambassador Walter Stoessel, then our chief of mission in Moscow, had to be briefed. For those who knew him, one can only imagine what was going through his mind when he received the news. Stoessel was a diplomat's diplomat, liked and admired by all, if viewed as perhaps "too nice" by some of his ambassadorial colleagues. But even being too nice apparently had its limits. Ambassador Stoessel reportedly threatened to resign if his staff were not also briefed. He filed a formal protest with the Soviets and briefed his staff in short order. Stoessel departed post that September, to be replaced by Ambassador Malcolm Toon in January 1977.

U.S. Embassy Moscow (the old chancery) in 2008. NVO / Wikimedia



### What Was the Purpose of Moscow Signal?

One theory was that the microwaves were being used by the Soviets to activate the numerous listening devices they had emplaced in the building prior to American occupancy. This theory was described in detail by Eric Haseltine in *The Spy in Moscow Station* (2019), which recounted the efforts of National Security Administration Officer Charles Gandy to get to the bottom of the microwave issue in the late 1970s. His conclusions, which are still highly controversial and were based on a technical survey done at Embassy Moscow in 1978, were that the Soviets were using microwaves (Moscow Unidentified Technical Signals, or MUTS) to activate passive bugs in the walls of the embassy that were much more advanced than the "Thing" (the Theremin device) that had been found in Spaso House.

In addition, Gandy believed that MUTS were being used to read voices off windows by "RF imposition" and could be used to intercept electronic signals and voices reflected off electronic devices in unprotected areas by a technique known as RF flooding. Gandy also pioneered efforts to uncover the bugged IBM Selectric typewriters in Moscow and Leningrad (Project GUNMAN).

There was another leading theory, as well. Many believed that the microwaves were a jamming signal designed to foil our own electronic devices. However, as the Soviets themselves provided this explanation, it was naturally suspect; and the true answer to this question remains in the classified realm.

### Embassy Reaction

The worst fear of embassy staffers was that the microwaves, whatever their purpose, might have some as-yet-unknown health effects. This seemed to be borne out over the years by the finding, in the early 1970s, that an unusual number of people were departing post with elevated white blood cell counts. It also came out that, anecdotally at least, there seemed to be a larger number of cancer cases, and especially leukemia, among former embassy staff than would appear to be normal. Also, in the months following Ambassador Stoessel's briefing, a State Department doctor reported that several members of the embassy staff displayed symptoms that were nonspecific but had been reported frequently in patients chronically exposed to nonionizing radiation. Symptoms included severe headaches, inability to concentrate and fatigue.

In the wake of the revelations about Moscow Signal, many U.S. embassy employees filed lawsuits against the U.S. government. All in all, many people in Moscow were agitated and offended by what appeared to be efforts to sweep the whole controversy under the rug. Moscow staffers tended to be a little overwrought in any case, due to the unique pressures of work and life in Moscow, and the efforts of the State Department to assuage their concerns were viewed with extreme suspicion. The clincher for many of them was the unusual incidence of illness on the part of American ambassadors stationed in Moscow. In an article in *The New Yorker* on Dec. 20, 1976 ("[A Reporter at Large, Microwaves-II](#)"), Paul Brodeur reported that not only had two recent American ambassadors to Moscow died of cancer (Llewellyn "Tommy" Thompson and Charles "Chip" Bohlen), but then-Ambassador Walter Stoessel was suffering from a severe blood disorder (Ambassador Stoessel eventually died of leukemia in 1986). To most Moscow staffers, it just seemed like too much of a coincidence.



In the wake of the revelations about Moscow Signal, many U.S. embassy employees filed lawsuits against the U.S. government. In response, the State Department funded a study by the Johns Hopkins University School of Hygiene and Public Health, part of the group that had been secretly studying Moscow Signal all along and had already concluded that microwaves were not harmful. [The study](#), released in November 1978, found no convincing evidence that any employees had suffered “adverse health effects as of the time of this analysis.” According to State Department medical consultant Dr. Herbert Pollack, who advocated on behalf of U.S. embassy employees in a Senate subcommittee investigation, every suit was eventually withdrawn, “[without a penny being paid](#).” This was not the end of the controversy, however, for while the report purportedly “proved” that embassy personnel were not significantly affected by the microwave bombardment, it was also acknowledged that the study was incomplete. In particular, since cancers and other health effects from microwaves often took many years to manifest, follow-up studies and checkups of affected personnel every two to three years were recommended. As far as I have been able to determine, no systematic follow-up was ever done. The State Department had its report, washed its hands of the matter, and moved on. This was despite the fact that the microwaving of the embassy reportedly continued at least until 1988, and most likely well beyond that date. Over the years, thousands of Americans were exposed.

A subsequent reevaluation of the Johns Hopkins study—[“The ‘Moscow Signal’ Epidemiological Study, 40 Years On”](#) in the January 2019 edition of *Reviews on Environmental Health*—has called into question its methodology and conclusions, and some of the criticisms are devastating. In my view, they discredit the study and point to the need for a complete and more comprehensive re-evaluation.

Built in 1913, Spaso House is the residence of the U.S. ambassador to Moscow. [U.S. Embassy Moscow](#)



### My Personal Experience

This is where I come in. I had worked for Ambassador Malcolm Toon in Belgrade and had apparently not disgraced myself, so he recruited me to come out as his staff aide in Moscow shortly after he arrived in 1977. It was my first tour of duty there.

For the most part, I was unconcerned about the microwave controversy. The issue had faded a bit into the background before I arrived, and I was much more concerned about the immediate task of learning my job as ambassador’s aide, which was quite a bit more complicated than the tasks I had mastered in Belgrade. At the time, it seemed to me that the microwave issue was taken more seriously by embassy spouses, who were afraid for their children, than by the embassy leadership, who were, in fact, the ones in the crosshairs of whatever the microwaves might be doing. Screens were put up on the chancery windows, which were said to diminish the microwave emanations getting into the embassy; but for me, it was just another part of life in Moscow. Microwaves continued to be beamed at the embassy throughout my tour, but like most people who arrived in Moscow later on, I was either largely unaware of the controversy or put it out of my mind. Shortly after my tour was over, I found out that my cavalier attitude toward the microwave issue was not at all justified. State’s Office of Medical Services (MED) informed me in late 1979 that my own white cell count was much higher than normal, and advised me to continue to be tested. In 1985 my white cell count got high enough for MED to recommend that I see a hematologist, so I went to a local doctor in San Clemente, Dr. Tsang P. Fong. He did a bone marrow test (the one where they hammer a spike into the pelvic bone, very uncomfortable). The test confirmed that I had chronic lymphocytic leukemia (CLL) stage zero, but that chemotherapy was not advisable since I had no symptoms, and the cure would be worse than the disease.

As the reality of my illness began to set in, I started studying up on the issue. My research on CLL was not encouraging. Most patients progressed slowly to stage four and survived on average only a few years. I determined to fight the disease as best I could by adopting a healthy lifestyle—it’s really all I could do. State MED knew about the CLL diagnosis and downgraded me to a “Class 2” medical clearance, but didn’t stop me from going overseas, mainly because the jobs I was volunteering for often had no takers. I have often wondered how many others have faced similar unexpected medical issues over the past few decades.

My white cell count stayed stable through the 1980s, although I did notice that there were periods where I would look especially pale or have slightly swollen glands. My visits to Dr. Fong convinced me, however, that I was doing much better than expected. Most other



patients I saw were very sick indeed, a pitiable lot. In the 1990s, for reasons no one can really explain, my white cell count began to normalize. By 1999 my CLL was in remission. At my last State Department physical in 2001, my “Class 1” clearance was restored. In more recent times, my CLL has appeared again, but still at a level that does not require chemotherapy.

To this day, I don’t know exactly how I got CLL. In the back of my mind, however, I have always considered Moscow microwaves to be a prime suspect. I had arrived in Moscow in 1977 in perfect health, and I left in 1979 with a high white cell count and was diagnosed six years later with CLL. This came as a shock, as I have no family history of leukemia. It is a puzzle to which there is still no answer.

### Concluding Thoughts

I have often wondered how many others have faced similar unexpected medical issues over the past few decades, and whether Moscow Signal was to blame. Many Moscow veterans from the 1960s through the 1980s are already gone, but a substantial number remain. Like the current victims of Havana syndrome, Moscow Signal veterans also deserve definitive answers to the questions that were raised in their time but subsequently ignored.

One thing does give me more general cause for hope: The attitude of the interagency community toward “anomalous health incidents,” whether in the present day or in the deep past, appears to be changing for the better. The community has at last mobilized to help Havana syndrome victims. I also hope that there will be steady progress toward answers to the current questions about the condition’s causes.

Finally, there is one specific question I would like answered: Is there a link between Moscow Signal and Havana syndrome? We may never know for sure. Speaking personally, it would certainly be a lot more positive for the U.S.-Russian relationship if microwaves turned out not to be the cause of Havana syndrome. But either way, we must find the answers to all outstanding questions, past and present, and let the chips fall where they may. Otherwise, we may risk a third generation of victims.

**James Schumaker** is a retired Foreign Service officer. During his career (1974-2008), he served four times in Moscow, twice in Kyiv and once each in Belgrade, Leningrad, Soviet-occupied Kabul, Minsk, Vladivostok and Yekaterinburg.

## Regarding Moscow Signal

By John LeChevet

[Jim Schumaker’s article](#) concerning Havana syndrome and a possible linkage to the Moscow microwaves of the Cold War period in the January-February edition of the *Journal* is a tantalizing piece. Its thrust is to link the two phenomena and to infer that microwaves have caused medically significant damage to embassy personnel.

I was directly involved with the Moscow microwaves during my career with State and subsequent tours with agencies in the intelligence community (IC) and have a much different perspective. My training and passion concern science and reason, not politics, so I have a different analysis than Jim does. I base my conclusions on facts and evidence, not speculation or uncorroborated reporting.

The Department of State investigated and documented the Moscow Unidentified Technical Signals (MUTS) from 1973 until the signal disappeared (by 1992). I was personally responsible for this mission from 1977 to 1980 and can state with certainty that the intensity of the impinging signals was kept at or below a level of 10 microwatts per square centimeter during this time. This level was agreed to by the Soviets because it was their maximum exposure level for incidental, non-ionizing radiation, and deliberately exposing embassy personnel to levels above their own safe level was not in their best interest.

Whenever we detected a level above this trigger point (it did happen, but only by a factor of two or three, at most, and for short periods), the Soviets were informed of our displeasure and the possible negative impact of keeping a higher-than-agreed-to level. In all cases, the level promptly fell.

The level in the working spaces of the embassy was further reduced by a factor of 10 to 100 as a consequence of the shielding effect of the building itself. The level fell further in 1976 with the addition of copper screening over the windows, resulting in only about 1 percent of the impinging radiation reaching the office areas. People working on the higher floors of the embassy were exposed to a level of about 0.1 microwatts per square centimeter, and there was a much lower level of exposure in the residential sections of the building and the lower floors.





### Put in Perspective

To put this in perspective, a person standing three feet from a Wi-Fi router could be exposed to a radiation level of 0.9 microwatts per square centimeter. A person using a cell phone could have the central portion of the brain exposed to a level of over 1,000 microwatts per square centimeter. Each of these is well in excess of the levels experienced by a person working in the secure section of Embassy Moscow, but we seem to accept this exposure with little, if any, fear. Today, a person walking around lower Manhattan would be exposed to a higher radiation level from cell phone towers, microcells, communication links and other radiators than the people who worked in Embassy Moscow.

Further, there is overwhelming evidence that the purpose of the MUTS was to disrupt potential interception of sensitive microwave communications by covert signal intelligence operations that the Soviets surmised were operating within the embassy. This was the conclusion of the IC and was supported by all members save one agency.

This particular agency had a vested interest in portraying the MUTS as some form of spy beam, antipersonnel assault or mind control experiment to put pressure on State to force the Soviets to shut down the MUTS operation. Whenever the opportunity arose, this agency campaigned to portray State as an agency that was not serious about security. The infighting, lack of information sharing and backstabbing concerning the microwaves and security of the Moscow embassy that went on within our government during this period was intense, and prevented a unified and effective response to the real technical espionage being conducted by the Soviets.

### Serious Investigation Warranted

The evidence for Havana syndrome is sufficient to warrant serious scientific investigation even though there has never been any evidence of a directed energy attack despite five years of searching by State, the IC and others. The closest evidence is a secondhand report that an untrained person using an unreliable and inappropriate detector may have found high levels of microwaves at one of the residences overseas.

The National Academy of Sciences, given its limited and managed access to information, rightfully concluded that microwaves were the most likely explanation for the phenomenon, but not that microwaves were the cause of the medical problems. There may be a national security reason for attributing the medical problems to a directed energy attack by Russia, China, Cuba or whatever nation has made our current enemies list, but this should not be at the expense of those who may be suffering from a real medical problem. The Moscow microwave affair was grossly mishandled by State, and we seem to be blundering down the same path with Havana syndrome. If there is a valid cause(s) for the syndrome, it is not a foregone conclusion that it is microwaves or a directed energy attack. State should fully disclose whatever information it has to a respected scientific investigation that has free rein to investigate any and all possible causes. What is done with the results of the investigation is another matter.

**Jon LeChevet** retired as a Senior Foreign Service officer in 2005 after a 21-year career. His overseas tours were in Moscow (with Jim Schumaker) and Nairobi, and he held several senior management positions within the Diplomatic Security Service. He has a Ph.D. in physics.

## Iran's Long Arm in Turkey, Turkey's Fake "Peace"

By Burak Bekdil

Source: <https://www.meforum.org/63114/irans-long-arm-in-turkey>

Mar 20 - Yair Geller, 75, an Israeli businessman who owns an advanced technologies and engineering company in Turkey, CNC İleri Teknoloji, did not know that his residence in Istanbul was long under surveillance by a cell of assassins operated by the Iranian regime. The assassins did not know that they were long under surveillance by MIT, Turkey's national intelligence agency.

A Turkish media graphic shows Israeli businessman Yair Geller and the nine-member cell of would-be assassins arrested last month

This double cat-and-mouse game went on until the assassins decided that the time was ripe to act and murder Geller. Turkish intelligence, however, [decided](#) that the time was ripe to share this



information with Israel's Mossad intelligence agency. At a meeting in Ankara, MIT and Mossad concluded that the [planned assassination](#) of Geller was supposed to be Iran's retaliation for the November 2020 [killing](#), allegedly by Israel, of Mohsen Fakhrizadeh, Iran's leading nuclear scientist. Before they could act, nine suspects were detained.

According to Israel's Channel 12 News, the Mossad has helped to foil 12 [plots](#) to carry out terror attacks on Israelis in Turkey over the past two years.

Iran's covert operations on Turkish soil are not just sorties of the present. Even before the Geller case, the mullahs in Tehran were hunting down Iranians in Turkey who opposed the mullahs' regime in Tehran [see appendix below].

Iran has been continuously accused of supporting radical Islamist organizations and terrorist groups to destabilize and weaken Turkey's then-secular regime. Turkey's official establishment has often accused Iran of trying to "export its theocratic regime to Turkey." Ironically, the Iranians did not need to worry too much about Islamizing Turkey. The Turks could do it themselves.

In 2002, Turks, by popular vote, brought to power Recep Tayyip Erdoğan, an avowed Islamist, and Iranian subversive activity in Turkey gradually faded away, Erdoğan has since proven invincible at the ballot box, and has successfully implemented a stealth plan to advance political Islam in the only Muslim member of NATO.

Turkey's Islamist rulers quietly supported Iranian expansionism for several years based on dictum of "the enemy (Iran) of my enemy (Israel) is my friend."

What, then, revived Iran's covert operations in Turkey? For Iran, the "good Turkey" was the one in constant bickering with the West and Israel. The "bad" one is the one now claiming to seek reconciliation with Israel, the Gulf states and Egypt. The "bad Turkey" is even proposing to buy Israeli natural gas for its own consumption and transport it to Europe.

It was not a coincidence that Turkey had to order gas-fuelled power plants this year to slash gas use by 40% after Iran [cut](#) gas exports flows to Turkey for 10 days due to a "technical failure" in the middle of an exceptionally cold January.

Since then, Iran's Islamic Revolutionary Guard Corps (IRGC) has taken responsibility for this month's ballistic missile attacks on Iraq's Kurdish regional capital of Erbil. Iran said on March 13 that it was targeting an Israeli "strategic center" in Iraq. "Any repetition of attacks by Israel will be met with a harsh, decisive and destructive response," an IRGC statement [said](#), referring to the alleged recent killing of two of its members in Syria.

Iran's mullahs are notoriously good at poisoning peace and stability, at home and in their own neighborhood as well as in distant lands, such as [Cuba](#) and [Venezuela](#). After a short pause, the long arm of the mullahs is back in Turkey. Twelve (foiled) plots in such a short time is a "message." Iran is trying to sabotage the Abraham Accords and their positive transformations in the region by means of subversion in Turkey against Israeli nationals. The Iranians are also vehemently trying to discourage Turkey from reconciling with the Gulf states, Egypt and Israel; they have used even their natural gas card by cutting flows to Turkey.

Turkey in recent years has been in a cold war with the Gulf states, except for Qatar. When the UAE moved to normalize relations with Israel, Turkey threatened to downgrade diplomatic ties with Abu Dhabi, and Turkey has been at odds with Egypt since 2013. These frictions have placed Turkey on the side of Hamas and the Muslim Brotherhood, while on the other side are the Gulf states, Israel and Egypt.

Totally isolated and facing a punishing economic crisis, Erdoğan apparently decided to look as if he were changing course and reconcile with Israel and the Gulf states. The effort shows that Erdoğan was on the wrong course to begin with: He apparently thought Turkey's enemies were Israel and Sunni Arabs while now he should see that the real enemy is Shia Islam, in the form of Iran's theocracy.

Erdoğan, despite all his fake peace efforts, is now lost and alone, even among his Sunni (Arab) and Shia (Iranian) fellow Muslims. He thought the Iranians, just because they are Muslim, were his friends. He was wrong. Those "friends" targeted Turkey 12 times in two years and cut the gas supply in the middle of winter.

Fortunately, all the other state actors know very well that Erdoğan cannot be trusted. They can see that he feels squeezed and is faking peace. This view is not about changing him or his intentions. It is about telling him that hostilities in the Mediterranean region are too big for him to bite; that he should stay chained to his fake peace and not create new frictions; that there is a stick hanging over his head; that even his "Muslim friends" hate him, and that he is the *bête noire* in the neighborhood.

Finally, there is a lesson to Westerners who seem blind to Turkey and Iran. These rogue states are *still* plotting acts of terror on NATO soil. What more do they have to do for the international community to hold them to account?

The lesson for governments is: Ignore Erdoğan's threats. Do not keep overestimating him or Turkey's clout. Keep isolating him to keep him from doing further harm. Isolate him to soften his rigidity on refusing the EastMed pipeline. In other words, if you want to avoid more Turkish damage in the neighborhood, do *more* to isolate Turkey than you have done in the past decade. And one more thing: The Mediterranean alliance should remain monolithic and, above all, ignore Erdoğan's threats.



Burak Bekdil is an Ankara-based political analyst and a fellow at the Middle East Forum.

### Appendix

In the 1990s, after a series of assassinations against well-known secular Turkish intellectuals, including Bahriye Üçok, Çetin Emeç, Turan Dursun and Uğur Mumcu, the Turkish security elite hinted at Iranian involvement in these attacks. Confessions of the perpetrators of some terror attacks arguably revealed political and logistical [connections](#) between Iran and the militants.

Recently, the Iranians sent Ali Ghahramanihajtabad to hunt down opponents of Iran's regime who resided in Turkey. The Ghahramanihajtabad cell successfully kidnapped an Iranian national in western Anatolia and delivered him to Iranian agents, who took promptly carted back to Iran.

A second target was Shahnam Golshani, an Iranian opponent of Iran's regime who lived in Zonguldak, a port on the Black Sea. The kidnapping had been tasked to a team of Turkish police and non-commissioned military officers.

During the drive there, the Iranian agent was tipped off by an unknown caller; a last-minute abort order failed, and Turkish security forces [detained](#) 11 people including the Turkish prosecutor.

In addition, on September 24, 2021, Turkish intelligence and security forces also [detained](#) two Iranian agents and their six Turkish operators while the team was about to kidnap a former Iranian military officer, referred to as M.A.

## People Are Experimenting With 'Digital Drugs' Delivered Via Sound... And It's Weird

Source: <https://www.sciencealert.com/some-people-are-mixing-their-psychedelics-with-digital-drugs-and-it-s-all-a-bit-weird>



Mar 30 – Humans have an uncanny knack for finding interesting new ways to get off their faces. This usually involves sniffing, snorting, licking, chewing, or even injecting various substances.

In a new study, researchers examined a relatively new way to alter minds, which makes use of digital sounds to feed conflicting frequencies into each ear. By tuning in to these ['binaural beats'](#), some people report they can drop out, reduce pain, enhance memory, and ease anxiety and [depression](#).

To determine what kind of crossover might exist between the use of more traditional psychoactive substances and experimentation with binaural beats, a team of researchers from Australia and the UK dug into the [2021 Global Drug Survey](#), a survey of more than 30,000 individuals from 22 countries.

They found around 5 percent of those surveyed had dabbled with the use of binaural beats sometime in the last year. Of those, just over one in ten were doing it purely for recreational purposes.

Most users were in their late teens to early 20s, had used prohibited substances such as [MDMA](#) or cannabis, and were from the US, Mexico, UK, Brazil, and Poland.

Beyond seeking a high, their reasons for experimenting with binaural beats were as varied as they were.

"It's very new, we just don't know much about the use of binaural beats as digital drugs,"

[says](#) lead author Monica Barratt, a social scientist from RMIT University in Australia.

"This survey shows this is going on in multiple countries. We had anecdotal information, but this was the first time we formally asked people how, why, and when they're using them."





The phenomenon of binaural beats itself isn't new, first appearing in the literature as far back as the mid-19th century. But thanks to the ease with which people can now spin a trippy tempo made of conflicting frequencies and share them online, binaural beats are becoming an increasingly popular art form. [Theoretically](#), binaural beats are thought to induce changes in the brain, thanks to the way our sensory system interprets different low-end frequencies when they are fed separately into each ear. Listen to a 400 hertz tone in one ear, for example, and a 440 hertz tone in the other, and your brain will interpret it as a single, droning buzz of 40 hertz located somewhere inside your skull. This interpretation requires more than just our peripheral auditory machinery – it makes use of a [complex of brainstem hardware](#) buried deep inside our heads, prompting neurons far and wide to synchronize into wave patterns associated with relaxation. That's the theory. While there are [some studies](#) that encourage further investigation of binaural beats as a means of easing acute anxiety, [others argue](#) the benefits of binaural beat therapy – at least when it comes to altering moods and mind – remain to be seen. Scientific skepticism aside, there's no shortage of experimenters willing to give binaural beats a go. Which for 12 percent of those who reported listening to them recently, includes attempting to replicate a psychedelic experience. "Much like ingestible substances, some binaural beats users were chasing a high," [says](#) Barratt. Any potential concerns that listening to mind-altering music might be a stepping stone for substance abuse later weren't supported by the study. If anything, most of those hoping for a change of [consciousness](#) were already using other illicit drugs. What's more, there were plenty of other reasons people were exploring a binaural soundscape, according to Barratt. "Many people saw them as a source of help, such as for sleep therapy or pain relief," [she says](#). Whether so-called 'digital drugs' generate more hype than highs is a job for future researchers to work out. For now, the statistics give us a good starting point for keeping track of the behaviors of those self-medicating – or seeking pleasure – through alternative means.

●► This research was published in [Drug and Alcohol Review](#).

## Dubai's Dh13m supercar ambulance enters Guinness book of records

Source: <https://www.thenationalnews.com/uae/2022/03/22/dubais-dh13m-supercar-ambulance-enters-guinness-book-of-records/>



One of only seven Lykan HyperSport cars in the world, the HyperSport Responder can accelerate from zero to 100 kilometres an hour in 2.8 seconds and reach a top speed of 400kph, powered by its twin-turbocharged 780-horsepower Porsche engine.



## ICI C<sup>2</sup>BRNE DIARY – April 2022

Mar 22 – The world’s fastest ambulance has set a Guinness world record.

Owned by Dubai Ambulance Corporation, [the Lykan HyperSport](#) is manufactured in the UAE by W Motors and was unveiled at [Expo 2020 Dubai](#) in January.

One of only seven Lykan HyperSport cars in the world, the Dh13million HyperSport Responder has been named the fastest first responder ambulance vehicle in service. It can accelerate from zero to 100 kilometres an hour in 2.8 seconds and reach a top speed of 400 kph, powered by its twin-turbocharged 780-horsepower Porsche engine.

Its LED headlights are studded with 440 diamonds. The car also comes with a gold-plated interior roof and the interior is upholstered in gold-stitched leather.

The vehicle has a carbon-fibre body and is equipped with a 3D holographic mid-air display.

“Dubai Ambulance will continue developing services and launching initiatives, in order to ensure safety of the community, and to meet aspirations of the government in achieving leading global positions in all fields, and making Dubai the best city to live in the world,” said Khalifa bin Darrai, chief executive of the Dubai Corporation for Ambulance Services.

Mr Khalifa said the achievement will raise the bar for international competition in emergency medicine services.

A 4x4 ambulance, also part of DCAS fleet of 331 vehicles that was launched during Arab Health 2022, was added to Guinness World Records on Monday.

The largest desert rescue ambulance in service, it is designed to gain access to deserts and mountains where normal ambulances encounter difficulty during emergencies.

The Guinness World Records committee awarded the certificates on Monday at the headquarters of Dubai Ambulance.

## Infodemic for animals



Left: “Bad” Russian sheepdog “killing” a sheep; Right: A working sheepdog doing his job – helping a sheep escape the river.





## Historical amnesia ...



## 'Take that EU' – netizens mock EU's countermeasures for sanctions against Russian energy

Source: <https://www.globaltimes.cn/page/202204/1257482.shtml>

Apr 03 – Some measures and suggestions brought forward by European politicians to deal with the [energy shortage situation](#) due to the Western countries' sanctions against Russia might have gone too far, which has, instead of helping solve problems, led to online mockery from around the world. **"Control your own and your teenager's showers. And when you turn off that water, you say: 'Take that, Putin!'"** This was the suggestion given by Margrethe Vestager, the EU Commissioner for Competition and Executive Vice-President of the European Commission last Wednesday while she was at a Politico Live event. Vestager may have been attempting comedy, but Twitter users, including many European netizens, did not think so. After a video clip of the show was posted on Twitter over the weekend, it sparked ridicule from many netizens. "Just a powerful, well-paid EU bureaucrat thinking people are more idiotic than she is," said Luigi Colline, an Italian Twitter user. He was replied to by Mauro Catellani, who remarked. "Today I took the longest hot shower of my life singing 'Take that EU!'" Another Twitter user Alessandro Gardini suggested, "If only we could turn bureaucrats' stupidity into energy, Europe would be self-sufficient."

Some netizens checked if it is still April Fool. Chinese netizens were also entertained by Vestager's speech. "That's right, back to medieval times! No shower is the good old tradition of Europe," said one. "Why don't you suggest people avoid eating, to save food?" mocked another. As the conflict between Russia and Ukraine continues, the US and its Western allies





have escalated sanctions against Russia which have spread to many fields, leading to rising gasoline, energy, and food prices in the US and Europe. Russia accounts for over 40 percent of Europe's total natural gas supply and 50 percent of the coal supply used in Europe.

The European natural gas price reportedly jumped 34 percent after ruble payment requirements for gas took effect on Friday. To get rid of energy dependence on Russia, some European politicians have opened their creative minds to "claim a war against Putin." Russia Today reported that Germany's Baden-Württemberg Minister of Agriculture and Consumer Protection Peter Hauk suggested people wear sweaters to deal with cold weather. "No one will die from 15 degrees in an apartment," he stated.

Moreover, worrying that the natural gas supply will be cut off, some people in Germany are rushing to buy and stock up on firewood. Timber traders said that due to limited supply, it is currently difficult to meet public demand, CCTV reported on Sunday. "Well, they would live like cavemen. Next, they will start to drill wood to make fire," a Chinese netizen commented.

**EDITOR'S COMMENT:** I was always wondering if EU high-rank officials pass through an interview and assessment before being hired. Perhaps a proposal from the Ganga River might help – at least in places where a river is passing through.



POLITICS

# California introduces new bill that would allow mothers to kill their babies up to 7 days after birth



Published 2 weeks ago on March 24, 2022  
By Miami Standard News Staff



**EDITOR'S COMMENT:**

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## And the Stupidity 2022 Prize goes to ...



## Time to change ...

**NEWS**

**Biden says trans people 'made in image of God,' parents must 'affirm' identity**

By Steven Nelson

March 31, 2022 | 1:15pm | Updated

EDITOR'S COMMENT: Time to change (President)!

## Russia's 'revenge list' shows 43 nations facing retaliation for Ukraine support

Source: <https://metro.co.uk/2022/03/07/russia-publishes-list-of-unfriendly-countries-who-face-new-sanctions-16229895/>

Mar 03 – Vladimir Putin's regime has published a list of 43 'unfriendly countries' who face economic restrictions in retaliation for [imposing sanctions](#) on [Russia](#).

The list includes all [EU](#) and [Nato members](#) as well as a host of financial powerhouses such as Japan, Singapore, Australia and Switzerland.







Real estate purchases, financial trades and deals involving loans in roubles will now require 'special authorisation' from [the Kremlin](#) if they involve companies from countries on the list, spelling chaos for business flowing in and out of Russia.

Russian state media portrayed the move as a tough reaction to the international flurry of sanctions prompted by its invasion of [Ukraine](#), which have cut off many Russians from international payment systems and nearly halved the value of its currency.

## Afghanistan: Taliban outlaw opium poppy cultivation, drug trade

Source: <https://www.dw.com/en/afghanistan-taliban-outlaw-opium-popy-cultivation-drug-trade/a-61348766>

Apr 04 – The Taliban said Sunday that they are banning the cultivation of [opium poppy](#), which is used as a raw material to produce illicit drugs like heroin.

The ban comes during opium harvesting season in southern Afghanistan, and a Taliban spokesman said that farmers could be jailed and their crops burned if they harvested poppy.

The order also outlaws the trade of heroin, hashish and alcohol.



### Afghanistan's booming opium economy

Opium poppy is an [important source of employment and income](#) in Afghanistan, with millions of farmers relying on harvesting opium to survive.

Since the Taliban took over Afghanistan in August 2021, the country's [economy collapsed](#) after international donors pulled funding. Without international support, [many jobs in the public and private sectors dried up](#).

### Afghan economy continues to depend heavily on opium trade

Humanitarian organizations warn that Afghanistan could face a [hunger crisis](#), as people do not have enough money to buy food.





In light of the opium ban, Deputy Prime Minister Abdul Salam Hanafi has asked international donors for their cooperation to help find alternative businesses for farmers, Afghan media outlet TOLO news reported.



→ The US spent more than \$8 billion in a bid to halt opium poppy production during its years in Afghanistan

Afghanistan is the world's top source of opium, accounting for more than 80% of the world's supply of opium products, according to the United Nations Office of Drugs and Crime. Afghanistan generates annual revenue of at least \$1.8 billion (€1.6 billion) from producing opium products, according to UN data. The Taliban had imposed a similar ban on the trade of opium in late 1994 and early 1995. But the ban was rescinded after the Taliban was removed from power in 2001.

**EDITOR'S COMMENT:** I would never imagine that I would applause for a Taliban action! If it is true and honest! I was wondering about the comment under the picture of the article (above) – what exactly the 8 billion USD were spent for?

## Europe's Suicide on the Altar of War: Increased Military Spending and Rising Energy Prices

By Manlio Dinucci

Source: <https://www.globalresearch.ca/europes-suicide-altar-war-increased-military-spending-rising-energy-prices/5776286>



Apr 03 – Prime Minister Draghi pulls straight on increasing military spending, with the full support of the President of the Republic. For Italy, this means going from the current 26 billion euros a year to at least 38 billion a year, or from 70 to over 100 million euros a day spent on public money.

The decision was actually taken not in Rome but Brussels, at the NATO Summit of Heads of State and Government. The increase in NATO military expenditure is driven by the United States: the Pentagon budget is increased by 10% to 773 billion dollars, to which other military expenditures are added, bringing the total to over 1.000 billion dollars annually. NATO under US command is intensifying its military escalation in Europe, following the same strategy that provoked the Russian response with the military operation in Ukraine. To the four battlegroups already deployed in Poland and the three Baltic republics, NATO is adding



four more in Bulgaria, Hungary, Romania and Slovakia. Their function is not only against Russia, however.

In Bulgaria, the defense minister, deemed untrustworthy, was deposed by NATO order and replaced by Bulgaria's ambassador to NATO. In Hungary, where general elections are held on April 3rd, Prime Minister Orbán opposes the country's involvement in the escalation of the war against Russia, refusing to supply arms to Ukraine, and declares that Hungary wants to increase imports of Russian gas. Conversely, the left declares that, if it goes to government, it will adopt sanctions on Russian gas supplies and send arms to Ukraine.

Meanwhile, the U.S. and the European Union have formed a joint task force to reduce Russian gas supplies to Europe and replace it with U.S.-supplied liquefied natural gas. However, this is much more expensive than Russian gas and has very volatile prices. Hence the colossal increase in energy expenditure in Italy and Europe prepares for a disastrous economic crisis.

**Manlio Dinucci**, award-winning author, geopolitical analyst, and geographer, Pisa, Italy. He is a Research Associate of the Centre for Research on Globalization (CRG).

**EDITOR'S COMMENT:** Some call it "Putin's trap"! Others think that this was war all about – buying weapons and gas! Time and history will show who was right or wrong.

## How to talk to your kids about the war in Ukraine

By Susan D'Agostino

Source: <https://thebulletin.org/2022/03/how-to-talk-to-your-kids-about-the-war-in-ukraine/>

Mar 31 – Your children know about the war in Ukraine. And they've perceived the gravity of the word "nuclear" from other kids and adults in their lives. When they enter the grocery store, the words "war in Ukraine" greet them in larger-than-normal fonts on print newspaper headlines. While scrolling on Instagram and TikTok, they've seen bombed-out buildings and bloodied bodies. They have heard President Vladimir Putin remind the world that Russia is "one of the world's nuclear powers" and warn of catastrophic consequences "never seen in your entire history."

"Unless your children live under rocks, they know about the war in Ukraine," Robin Gurwitch, a senior advisor to the terrorism and disaster program of the Duke-UCLA National Center for Child Traumatic Stress, said.

But many children may not have their facts straight about the war or nuclear threats. And even if they do, those facts may leave them feeling anxious, worried, or confused. Parents and caregivers may want to shield children from this global trauma, but science says

that children experience better mental health outcomes when their parents and caregivers talk with them. "There's a danger in denying the authenticity of children's fear in the service of seeming to console," Robert Jay Lifton, a psychiatrist at Columbia University, said. Here's a round-up of advice for parents, who may be experiencing their own war-induced distress, as they seek to help children navigate unsettling times.



### Start a conversation

You might begin by asking your child what they have heard about the war. If your child responds, "I'm fine," Gurwitch suggests following up with a question about what their friends are saying. Your child may be more at ease answering a question about their friends—and that view may provide a window into your child's thoughts.

Starting a conversation "requires what parenting always requires and what parents always do imperfectly," Lifton said. "That is, be sensitive to what your child feels and respond with warmth and reassurance, without negating their feelings."

If you and your child watch a distressing news item on the war, you could share that the story upset you and ask how it made them feel. Gurwitch acknowledges that the how-did-that-make-you-feel question may sound trite, but it offers an on-ramp to conversation.

Parents who signal that they are available to talk about difficult topics like war send a message that they are available to talk about difficult topics in general, according to





Gurwitch. That may pay dividends over time when your child encounters other challenges, such as academic difficulties, online bullying, or peer pressure around recreational drug use or sex.

That said, conversations about this war should not be “one and done,” according to Gurwitch. “Keep checking in because this war may go on for a while.”

### Listen, validate, and respond with honesty

“When children talk about war, they’re really checking in on whether they’re safe,” Gurwitch said. Your child may be worried about how close they are to the fighting or about the safety of a family member in Ukraine or the region. They may be trying to make sense of the behavior of a classmate who is a refugee or the target of war-adjacent taunts due to their heritage. They may be reading about the war before bed and having bad dreams.

“Parents aren’t therapists of their kids. Rather, they’re nurturers of their kids,” Lifton said. As a nurturer, you are better positioned to comfort or offer practical assistance when you understand their specific concerns. If you learn that your child misunderstands an aspect of the war, for example, your gentle correction may offer reassurance. Keep in mind that younger children may not want as much information as older children.

Don’t lie as “kids are very sensitive to honesty,” according to Lifton. “Try to explain things as you understand them, in the most simple and direct language.” You may not be able to quell all of their concerns, but you can help them navigate complicated emotions.

“Worry about the war is not all bad—it means that a child has empathy,” Mary Alvord, a psychologist, [told](#) the American Psychological Association. The key is not to let fear overwhelm your child.

When addressing a child’s fears, Lifton recommends clear language such as: “The nuclear threat is real, and I understand why you’re afraid. I’m afraid too, but I, along with my friends and my partners in whatever life endeavor I have, am doing whatever possible to avoid that kind of nuclear threat or prevent the weapons from being used.” Your explanation can be tailored to your child’s level of understanding. Keep in mind that your tone of voice matters.

“When has saying ‘don’t worry’ ever worked for adults?” Gurwitch said. “It doesn’t work for children either.” This is especially true with regard to what Lifton calls “end-of-the-world” fears such as nuclear threats, climate change, and pandemics.

“A very simple but not-to-be-forgotten point is that a certain degree of nuclear fear is appropriate,” Lifton said. “[Children] can’t help but sense or hear the word ‘nuclear’ as something larger than ordinary war,” Lifton said.

That does not mean that children should be immobilized by fear. You can validate their concern without amplifying it. Young children should not be exposed to repetitive news feeds featuring the war’s gruesome details. “If they’re watching it over and over and over again, it’s happening over and over and over again [in their minds], which can really elevate anxiety and worry,” Gurwitch said.

### Model self-care, compassion, and resiliency

Breaks from news of the war, if possible, provide respite and opportunities for connection, according to Gurwitch. She recommends interspersing conversations about fears with activities like taking a walk, playing a family game, cooking a meal together, or watching a silly (rather than serious) show.

“Children should have a right both to express fear and to change the subject,” Lifton said. He also underscored the value of pursuing ordinary activities even as the war unfolds in real time.

Doom scrolling on social media and reading extremely partisan or fake news are not good for anyone, including children. For kids who want to stay abreast of world events, Common Sense Media provides [recommendations](#) of legitimate, kid-friendly news sources. Conflicts can often spread negative stereotypes about regions or groups of people from varied backgrounds. “This is an opportunity to have conversations about your values on how we treat people,” Gurwitch said. “This may be a window into a bigger conversation.” If your child shows symptoms of significant distress, such as sudden changes in sleeping or eating habits, irritability, physical aches or pains, or preoccupation with violent media, the American Psychological Association [recommends](#) seeking support from a pediatrician or child psychologist.

### Look for—and be among—the helpers

“When I was a boy and I would see scary things in the news,” Mr. Rogers, the kind-hearted American children’s television host in the last decades of the 20<sup>th</sup> century, once said, “my mother would say to me, ‘Look for the helpers. You will always find people who are helping.’”

Some [criticize](#) Mr. Rogers’ “[look for the helpers](#)” advice, especially when [directed at adults](#) because it appears to [foster passivity](#). But Gurwitch feels strongly that it offers sound advice for children—its original, intended audience—in the midst of war.



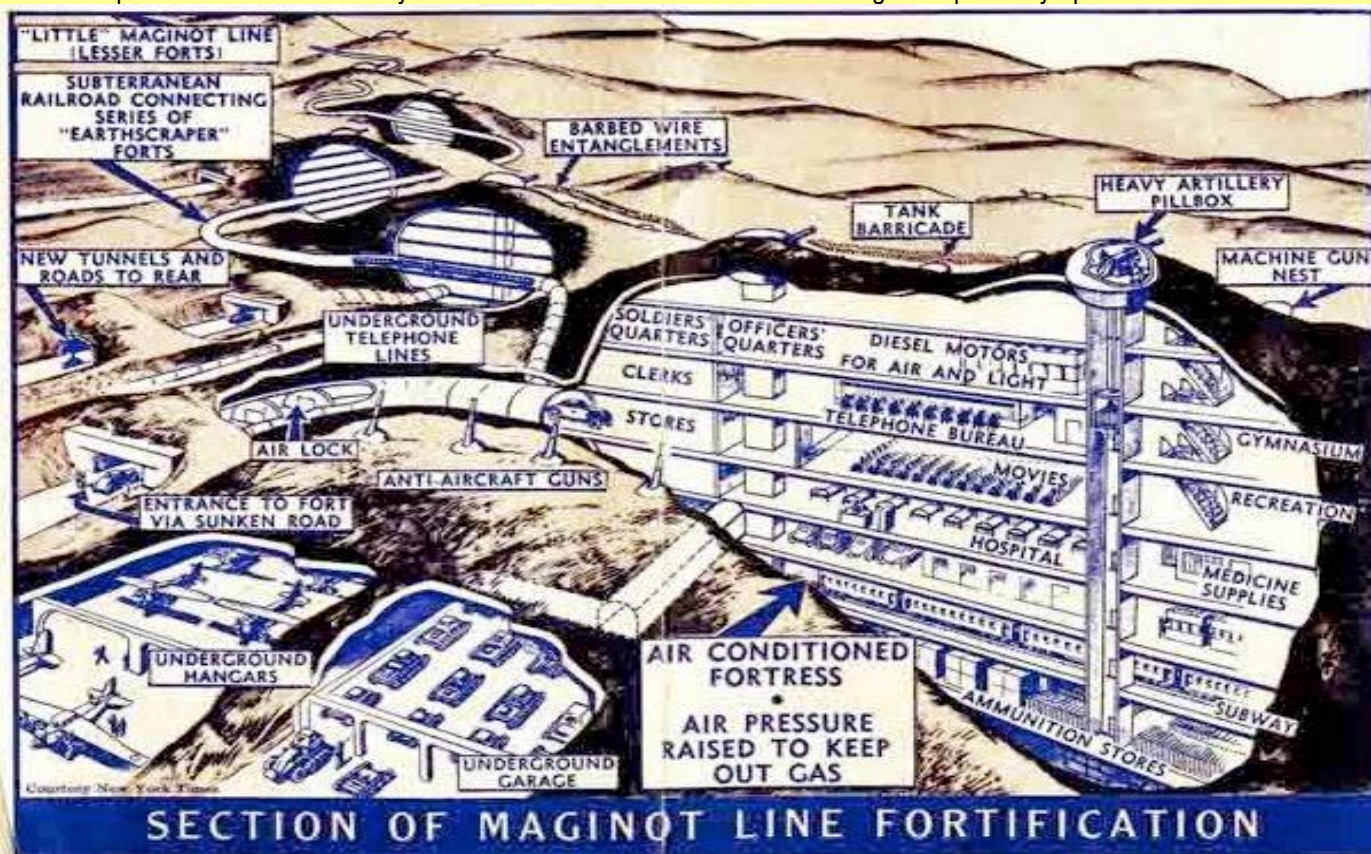


In the current war in Ukraine, mothers in Przemysl, Poland left [strollers](#) at a train station for refugees and their babies fleeing the war. Romanian border police and citizens left [stuffed animals](#) on a pedestrian bridge for Ukrainian children fleeing their homeland. Many individuals, humanitarian organizations, and governments around the world are hard at work in efforts to reestablish peace. Children of all ages often want to and can help. They can organize fundraisers, donate gently used toys or clothing, or write letters to service members or government officials. Helping can give children a sense of agency in difficult situations—such as a war set against the backdrop of a global pandemic and climate crisis. “Be as sensitive as you can in the process, but you won’t find a magic formula or a single way that’s foolproof of [addressing your child’s fears],” Lifton said. “There are a lot of individual judgments and also a requirement for parents to think about how they [themselves] are feeling.”

**Susan D’Agostino** is an associate editor at the *Bulletin of the Atomic Scientists*. Her writing has been published in *The Atlantic*, *Quanta Magazine*, *Scientific American*, *The Washington Post*, *BBC Science Focus*, *Wired*, *Nature*, *Financial Times*, *Undark Magazine*, *Discover*, *Slate*, *The Chronicle of Higher Education*, and others. Susan is the author and illustrator of [How To Free Your Inner Mathematician: Notes on Mathematics and Life](#) (Oxford University Press, 2020). She is a member of the editorial board of the Mathematical Association of America’s *Math Horizons* magazine. Susan earned a PhD in mathematics at Dartmouth College and an MA in science writing at Johns Hopkins University. She has received science writing fellowships from the National Association of Science Writers, the Council for the Advancement of Science Writing, and the Heidelberg Laureate Forum Foundation.

## Tactical Tunneling to Help Military Operations, Rescue Missions

Source: <https://www.homelandsecuritynewswire.com/dr20220406-tactical-tunneling-to-help-military-operations-rescue-missions>



Apr 06 – [DARPA's Underminer](#) program has demonstrated the feasibility of rapidly constructing tactical tunnel networks that enable secure, responsive resupply in denied environments. These networks could provide infrastructure for logistics support, such as pre-positioning supplies in advance of an operation or providing ongoing resupply as troops move through a contested area. The ability to rapidly bore tactical tunnels could also be helpful in rescue missions. Adversaries, peer competitor nations, and allies around the world are building and exploiting tunnels for tactical





operations. Tunneling capabilities exist in United States' commercial applications – mostly in the oil/gas, utility, geological, and environmental sectors – but the U.S. Department of Defense is not currently taking advantage of such technologies or equipment to support tactical tunnel creation or exploitation.

“The technologies demonstrated in the Underminer program offered unique insight into applications for tactical tunneling networks,” said [Andrew Nuss](#), Underminer program manager in DARPA's [Tactical Technology Office](#). “Through Underminer, DARPA has advanced the community's use of high-speed tactical tunnel creation, sensing, and positioning.”

Three teams collectively produced and matured technologies for rapid tunnel creation with a focus on diameter, distance, speed, and accuracy.

1. The [Colorado School of Mines](#) designed and demonstrated a continuous feed directional drilling concept that incorporated a hybrid drill bit system, an innovative drilling fluid management approach, and an intelligent drilling support system.
2. [General Electric Research Center](#) developed and demonstrated a novel robotic approach consisting of multiple artificial muscle systems.
3. [Sandia National Laboratories](#) implemented modifications to existing commercial hardware to demonstrate improvements to rate of penetration, accuracy and reduced operator demands.

“Tactical tunneling capabilities have tremendous opportunities to expand the combined arms maneuver trade space to include the vertical dimension in both natural and man-made subterranean environments,” added Dr. Nuss. “These unique capabilities have the potential to create secured logistics pathways in contested environments.”

Novel tunneling technologies and processes developed under the program have already transitioned to multiple industry and government partners. Some of those advances include an increased understanding of fluids management while drilling, localization of the drill bit without the use of beacons, and how to conduct branching operations while drilling at high rates of penetration.

## Hubris and Nemesis in politics



Apr 07 – Ukrainian President Volodymyr Zelenskyy and two fighters of the neo-Nazi Azof Battalion addressed the Greek Parliament ...





## War crimes – The other side of the moon



Apr 08 – Ukrainian Tocka-U (two) missile attack at the railway station of Kramatorsk (a city and administrative center of Kramatorsk Raion in the northern portion of Donetsk Oblast, in eastern Ukraine) against civilians during an evacuation process. 57 people killed; 109 wounded.

## Pierre Brochand (ex-DGSE): "We are experiencing unprecedented immigration"

Source: <https://www.lefigaro.fr/vox/societe/pierre-brochand-ex-dgse-nous-subissons-une-immigration-sans-precedent-20220324>

Mar 24 (via [Google Translator](#) from French) – Pierre Brochand was Director-General of the Directorate-General for External Security (DGSE) from 2002 to 2008, as well as Ambassador of France, in particular, to Hungary and Israel. He spoke at a conference of the Res Publica Foundation on the theme: "For a real immigration policy".

The mass immigration that France has been experiencing for decades has created distinct cultural groups in our country, believes Pierre Brochand. He judges that Europe is the only part of the world to deny the importance of cultural homogeneity, and pleads for a complete change of course in our public policies.



"All multicultural societies are doomed to deep rifts," Brochand warned, adding that "in such a situation, minorities are violent winners and majorities are calm losers."

The negative impact of mass immigration to France can no longer be ignored because it is "increasingly difficult to prevent the French from seeing reality" and also because "a revolutionary figure suddenly appeared in the standard world of politics who encouraged them to open their eyes.", Said Brochand.

The former intelligence chief warned that if Macron wins the presidential election and fails to radically change his approach to immigration, a civil war could ensue. "This gradual unrest of the French population is, if not the only challenge we face, the only one that directly threatens peace in our territory," Brochand said, warning that Muslim immigrants and others from outside Europe have developed a "spirit post-colonial revenge".





He also warned that the significantly higher birth rate of the migrant population and the fact that the younger generations of immigrants are "even less integrated into French society than their parents" threaten the web of French society. Brochand says the only solution is the one proposed by French candidate Eric Zémour: to motivate them or otherwise force them to return to their homelands.

Asked if it was too late, Brochand replied: "In any case, it is too late. Let's admit it: we're no longer dealing with scattered people, that is, with so many 'special cases', but with dispersions. The diaspora is an entity formed by immigrants and their descendants, whose population once reached a critical level, where it can now exert social pressure to perpetuate the beliefs and lifestyles of the countries of origin of its people." Brochand explained. "In this way, spontaneously closed foreign pockets are formed that turn their backs on the host country and its customs." Brochand's conclusion is sad. "All my accumulated experiences make me predict a dark, very dark, future for our children and grandchildren. At best, they walk unsuspectingly towards the collapse of their quality of life. At worst, we lead them into terrible controversies. "Most likely, there will be a combination of the two amid growing confusion." According to RemixNews, Brochand made these remarks amid a new wave of riots by immigrants affecting the metropolitan areas of France. "Since last week, the cities of Sevran and Aulnay-sous-Bois on the outskirts of Paris have become fields of real guerrilla warfare and we have seen similar scenes in Villeurbanne and Vénissieux, on the outskirts of Lyon. "Each time, riots broke out between riot police and violent criminals, causing riots, shootings, and multiple fires, with ambushes being set up against police stations called in to assist." A poll released last year found that a majority of French people were concerned that "European, white and Christian populations are threatened with extinction" as a result of "Muslim immigration".

## **Are war crimes only those involving enemy's civilians or military personnel (both sides) should also be included in the list?**





April 2022

186 children killed; 344 wounded

48-й день війни:

**РОСІЯ ВБИЛА 186 ДІТЕЙ**

понад 344 дитини поранила



**СЬОГОПНІ**



## Children fleeing war in Ukraine at heightened risk of trafficking and exploitation

Source: <https://www.unicef.org/press-releases/children-fleeing-war-ukraine-heightened-risk-trafficking-and-exploitation>



Mar 19 – Children fleeing war in Ukraine are at heightened risk of human trafficking and exploitation, UNICEF warned today. Traffickers often seek to exploit the chaos of largescale population movements, and with more than 1.5 million children having fled Ukraine as refugees since 24 February, and countless others displaced by violence inside the country, the threat facing children is real and growing.

According to a recent analysis conducted by UNICEF and the Inter-Agency Coordination Group against Trafficking (ICAT), 28 per cent of identified victims of trafficking globally are children. In the context of Ukraine, UNICEF child protection experts believe that children would likely account for an even higher proportion of potential trafficking victims given that children and women represent nearly all of the refugees who have fled the country so far.

“The war in Ukraine is leading to massive displacement and refugee flows – conditions that could lead to a significant spike in human trafficking and an acute child protection crisis,” said Afshan Khan, UNICEF’s Regional Director for Europe and Central Asia. “Displaced children are extremely vulnerable to being separated from their families, exploited, and trafficked. They need governments in the region to step up and put measures in place to keep them safe.”

More than 500 unaccompanied children were identified crossing from Ukraine into Romania from 24 February to 17 March. The true number of separated children who have fled Ukraine to neighbouring countries is likely much higher. Separated children are especially vulnerable to trafficking and exploitation.

“Children fleeing the war in Ukraine need to be screened for their vulnerability as they cross into a neighbouring country,” said Khan. “Every effort should be made to strengthen screening processes at refugee border crossings.”

To protect and support children and families who have fled Ukraine, UNICEF and UNHCR in partnership with governments and civil society organizations, are setting up “Blue Dots,” one-stop safe spaces for children and women. ‘Blue Dots’ provide key information to traveling families, help to identify unaccompanied and separated children and ensure their



protection, and provide a hub for essential services. 'Blue Dots' have already been established in countries hosting Ukrainian children and women and are being scaled up over the coming days, including 34 in Poland. UNICEF is urging the governments of neighbouring countries and other countries of destination to strengthen child protection screenings at border crossings, especially those with Ukraine, to better identify at-risk children. In addition, UNICEF is calling on governments to improve cross-border collaboration and knowledge exchange between and among border control, law enforcement and child protection authorities and to quickly identify separated children, implement family tracing and reunification procedures for children deprived of parental care. Additional screening for protection risks should be implemented in shelters, large urban train stations, and other locations where refugees are gathering or passing through. It is also critical for national and international law enforcement to monitor the movement of children and women and actively mitigate the risks facing vulnerable groups.

► Download UNICEF child protection [guidance](#) on trafficking prevention.

### What country is known for child trafficking?

India is at the top of the list with 14 million victims, China comes in second with 3.2 million victims, and Pakistan comes in at third with 2.1 million victims. Cambodia is also a transit, source, and a destination country for trafficking. 36% of trafficked victims in Asia are children, while 64% are adults.

## Ukrainians clean up parks around Poland to say **thank you** for welcome

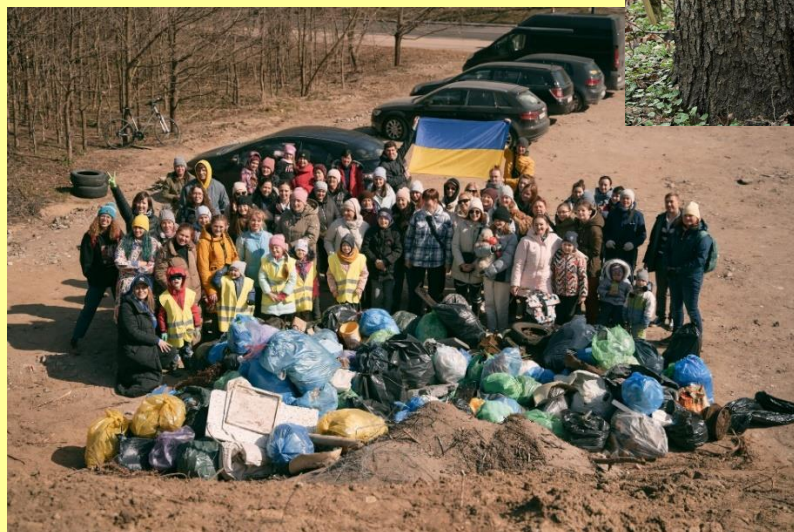
By Daniel Tilles

Source: <https://notesfrompoland.com/2022/04/11/ukrainians-clean-up-parks-around-poland-to-say-thank-you-for-welcome/>

Apr 11 – Ukrainians have been cleaning up parks, forests and other public spaces around Poland as a way of expressing gratitude to the country for receiving over two million refugees from their country since Russia's invasion.

In a tradition known as *subotnik* – coming from the name for Saturday, *subota* – Ukrainians tidy up homes and other places on Saturdays. Last month, a group of refugees brought that tradition to Suwałki, the Polish city that is hosting them, where they [tidied up a local park](#).

The practice has now spread, and this weekend saw similar actions take place across the country. In Wrocław, around 50 people collected rubbish from around a pond, reports local news service Nasze Miasto. "You helped us; we want to do something for you," said Nicola, one of those involved. Like many of those



involved, he is a Ukrainian who has already been living in Poland several years, not a recent refugee, but wanted to show gratitude for the welcome shown to his compatriots fleeing Russia's war.

"We want in this way to thank Poles for helping our compatriots fleeing the war," said another participant, Daria Onipchenko, who has also lived in Wrocław for several years.

In Poznań, several dozen people came to clean up the

Śródką neighbourhood, reports *Gazeta Wyborcza*. "This is our symbolic thank you to Poles





for their help,” said Oleksandr Shevchenko, a Ukrainian who has lived in Poland for five years. A similar action was organised in the city a week earlier. “We know that such cleaning once a week is probably not much,” said Lena Bondarenko, who has lived in the city for three years and recently brought her mother and sister over to join her. “But we want to say thank you. We have been really well received in Poznań.” Similar clean-up drives took place in three forests around Warsaw on Saturday, as well as in Kraków, Gdańsk, Katowice, Łódź, Szczecin, Białystok, Lublin and Rzeszów. **The tradition of *subotnik* began in the Soviet Union around a century ago and then later spread to other Eastern Bloc countries, including Poland. However, while in Poland the term disappeared after the fall of communism, in Ukraine it continued.** However, “it no longer has a propaganda overtone”, as it did in Soviet times, Shevchenko told *Gazeta Wyborcza*. “Just whole families went out to the streets and squares to devote their free time to the local community,” he explained. “And afterward, there was time for meetings, conversations, like at a picnic.” Since Russia invaded Ukraine, over 2.5 million people have crossed the border into Poland. While some have subsequently moved on to other countries and others have since returned home, over half that number currently remain in Poland.

**Daniel Tilles** is editor-in-chief of *Notes from Poland*. He has written on Polish affairs for a wide range of publications, including *Foreign Policy*, *POLITICO Europe*, *EUobserver*, and *Dziennik Gazeta Prawna*.

**EDITOR’S COMMENT:** Bravo!!! Have you EVER read or seen something similar from the millions of illegal immigrants flooding the gates of Europe (Spain, Italy, Greece)? **NEVER!** Offer nothing back in exchange for peace, benefits, and sunshine... In contrast, they throw food away, burn camps, or protest because the Internet connection was not fast enough for their super mobile telephones! Ukranian refugees did the same in various places in Greece as well.

## Chinese civilization and culture

By the Editor

In many instances we compare the Chinese civilization to Greek civilitation but is this the right thing to do? We use to favor the way Chinese people obey to the rules, directives, and orders given by their government but do they do it because they believe it or because they are scared and/or punished? And when we speak about a great civilization are the following inventions enough to win the “great” award: paper making; movable type printing; gunpowder; compass; alcohol; mechanical clock; tea; silk; umbrella; acupuncture; iron smelting; porcelain; earthquake detector; rocket; bronze; kite; seed drill; raw crop farming; toothbrush; paper money? What about cat and dog eating? And the most recent: inhuman attitude against Shanghai citizens with the excuse of Covid-



19 infection. It is time to stop the "great nation" propaganda/myth and focus on brutal reality that is a daily practice. Do you think that



Lao Tzu, Confucius, Mozi, Shang Yang, Mencius, Zhang Heng, Huineng, Zhu Xi, or Sun Tzu would agree with modern Chinese culture?





## Ukraine war – no age restrictions ...



## Russia's War in Ukraine: China's Lessons

By Ralph Jennings (writer covering China)

Source: <https://www.homelandsecuritynewswire.com/dr20220415-russia-s-war-in-ukraine-china-s-lessons>

Apr 15 – China is learning from Russia's troubled war in Ukraine to improve its battle strategies and prepare for economic sanctions if Beijing ever attacks self-ruled Taiwan, experts believe.

The country may also be looking harder at peaceful solutions for Taiwan, they say.

Russia is facing stronger-than-expected military resistance in Ukraine since its invasion on February 24, especially in the streets, along with stiff Western-led economic sanctions and stepped-up military aid from abroad.

Chinese officials are eyeing ways to take over Taiwan relatively fast by targeting the island's communications hubs and major political institutions, some analysts believe. They say China would need more logistical support for any amphibious attack on the island that's 160 kilometers away, and a media message to back up any invasion.

"China at least would learn that they'll need to better prepare for sufficient logistics support for the amphibious operation, as well as a great number of munitions, such as artillery and missiles, if China decides to attack Taiwan," said Chen Yi-fan, assistant professor of diplomacy and international relations at Tamkang University in Taiwan.

"Most importantly, China needs to command the moral high ground through cognitive warfare and media discourse," he said.

### Russian Setbacks

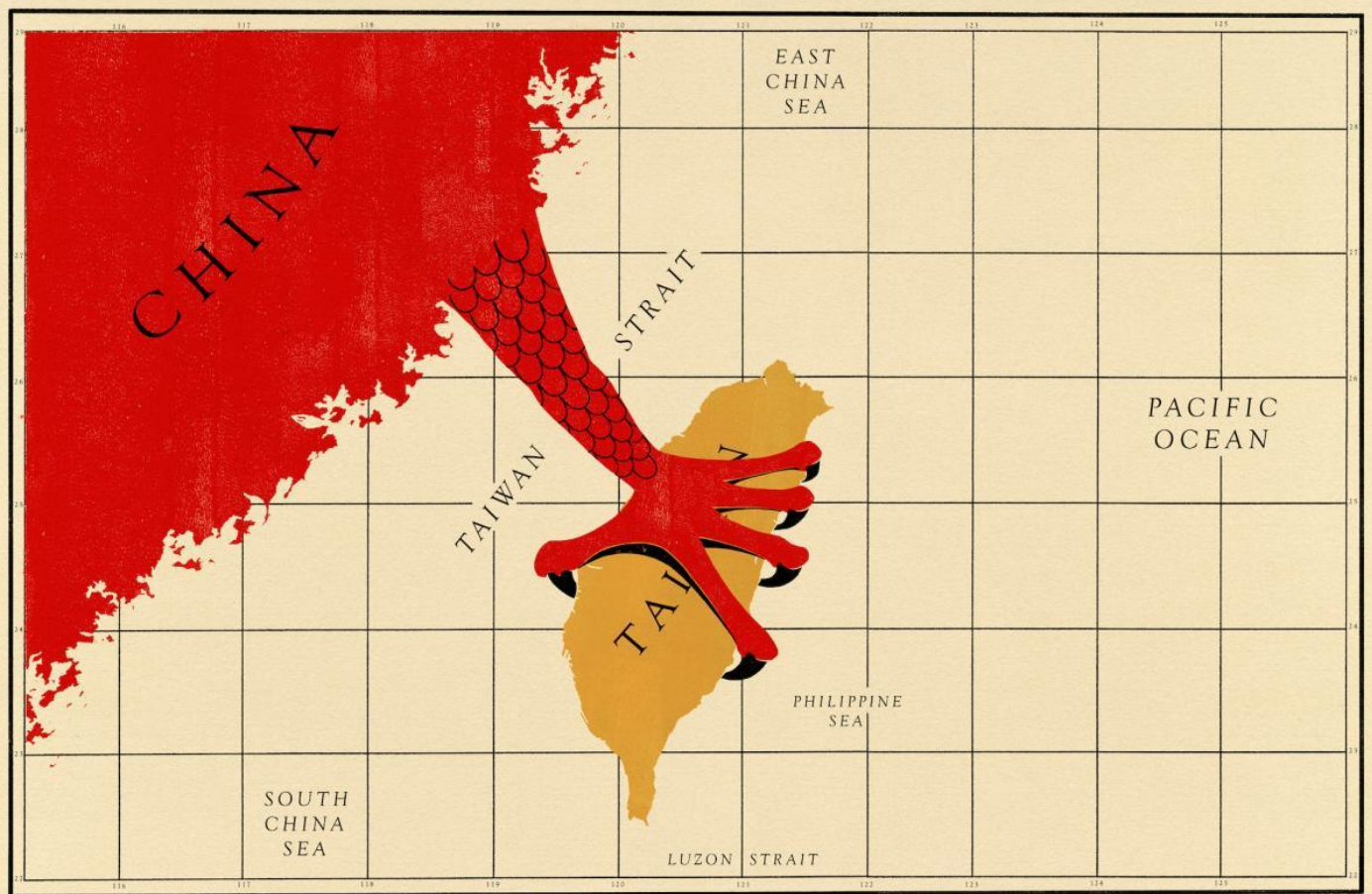
Ukraine said on April 3 its forces had retaken the whole zone around the capital, Kyiv, for the first time since Russia invaded. Russia had announced around the same time that its military would focus on two breakaway regions of eastern Ukraine rather than the capital or the country's interior.

The effect of Russian firepower is "overestimated," while advanced weapons systems have "limited supplies of ammunition," a retired Russian colonel warned in February before the war, as quoted by the Washington-based [Center for Strategic and International Studies](#). The colonel further predicted bloodshed from urban combat.





In a March 23 forecast, the [Institute of International Finance](#) said Russia's economy will shrink by about 15% this year because of the war.



### China vs. Taiwan

China has claimed sovereignty over Taiwan since the Chinese civil war of the 1940s, when Chiang Kai-chek's Nationalists lost to Mao Zedong's Communists and established a presence on the nearby island. The two sides have been self-ruled since then. Taiwan-China talks broke down in 2016 after Taiwan President Tsai Ing-wen took office. Her political party opposes unification with China. People's Liberation Army air force planes fly almost daily through a corner of Taiwan's air defense identification zone. Beijing has never ruled out use of force, if needed, to unify the two sides. China's most recent war anywhere in the world occurred in 1979, when it took over several cities near its shared land border with Vietnam but failed to stop Vietnam from toppling the pro-Beijing Pol Pot government in Cambodia.

### Battle Preparation

China, keeper of the world's third strongest armed forces, would vie with No. 21-ranked Taiwan in terms of military equipment and personnel.

Russia's setbacks, however, suggest that any Chinese attack would take time, possibly more than China is ready for, some experts say.

"If Beijing wants to take Taiwan by force, it won't act until it's convinced it can win decisively and quickly," James Jay Carafano, a scholar at the [Heritage Foundation](#), said in a commentary on March 8.

China would strive for a battle focused on disabling military installations and "decapitation" of Taiwanese leaders to ensure that no one stays on the ground as a "hero," said Alexander Huang, chairman of a military strategy research foundation in Taipei. Ukrainian President Volodymyr Zelenskyy has appealed to multiple sympathetic countries for military aid — and received it.

"I think a lot of the discussion inside China is how to perform a total information blockade so Taiwan cannot cry for rescue," Huang said.





Chinese military leaders should be rethinking their command structure, said Derek Grossman, senior defense analyst with the U.S.-based RAND Corporation research organization. “It is an open question whether a field commander can pull the trigger in a lot of these cases,” Grossman said. “They may still need to get Beijing’s authorization.”

### Bracing for Sanctions

Beijing is likely to recalibrate its expectations for the international response to any attack on Taiwan, Tong Zhao, senior fellow at the Carnegie Endowment’s Tsinghua Center for Global Policy in Beijing, told a conference hosted by [Boston radio station WBUR](#). “China is very surprised about the Western response,” Zhao said. “I think this shows that even ... Russian experts ... didn’t know there was going to be such strong international support to Ukraine. I think Chinese experts are starting to reevaluate these strategies and policies.”

Officials in China are braced only for “limited” economic sanctions lasting three to five years, said Oriana Skylar Mastro, fellow at Stanford University’s Freeman Spogli Institute for International Studies, who spoke at the WBUR event.

Compared to Russia, China depends more on other countries for economic stability. China is the world’s biggest exporter of manufactured goods with 14.7% of the world total from 1978 to 2020, the [U.N. agency UNCTAD](#) estimates.

### Peaceful Solution

Chinese Premier Li Keqiang, [asked in early March about Taiwan](#), pledged to “advance the peaceful growth of ... relations and the reunification of China.” Officials in Beijing are probably exploring harder now for a nonmilitary solution, Huang said. Taiwan and China have been at odds since 2016 on how to treat each other in any talks — as separate countries, parts of China or something else. “The lessons (from Ukraine) send a big alert to Beijing (that) if they cannot achieve the goal militarily, quickly, then it’s going to be a geostrategic disaster, and that might lead Beijing to think more about other measures, not the military option,” he said.

## Greece, Athens: Muslim interrupted the Divine Liturgy and began to shout Allahu Akbar



Apr 18 – Just wondering what would have happened if a Christian was doing the same thing in a mosque? The man was gently accompanied outside by church personnel.



2022  
security  
radar.

## NAVIGATING THE DISARRAY OF EUROPEAN SECURITY

**56%**

*of Turkish respondents  
feel that a number  
of areas outside  
its borders belong to  
Turkey*

## The unethical game of 2022

**The entire world is paying tons of money, provides tons of weapons to Ukraine  
just to continue its war with Russia.**

**(President Zelenskyy stated that he needs 7 billion USD per month!)**

All pretend that are unaware of the fact that one day of war is one year of reconstruction – ask Syria, Libya, or Yemen!  
Ukrainians are unaware that they are going to pay for all the “support” when the war will be over ... most of them believe that they  
are “donations” from the free world!

### Did you know that

High-rank German officers of the Wehrmacht 117th Jägerdivision who committed the Holocaust in [Kalavryta](#), Greece and officers of the "Edelweiss" Division, instead of being behind bars for war crimes, were recruited in high places of the German Armed Forces, after the war? In 1957, when the Germans regained airborne forces, their first commander was the one who carried out the Holocaust in [Kandano](#), Island of Crete, Greece!

## Strange Trend of Food Processing Plant Fires Appears Across the US

Source: <https://timcast.com/news/strange-trend-of-food-processing-plants-fires-manifests-across-the-us/>

Apr 21 – The fires began showing up regularly in the news after a [fire closed a Tyson Foods](#) meat processing plant in Kansas. The location was a primary beef processing location for the company and the U.S. supply chain, providing about 6% of U.S. beef.

After the fire, analysts began [speculating](#) that the impact could drive up market prices for meat nationwide. Dan Norcini, part of the beef and poultry trading markets, [said](#) the cattle market would likely “respond negatively” to news of the fire. He said the long-term impact would depend on how long the plant stays closed.

Just days later, in August of 2021, the [Patak Meat Processing facility burned](#) near Atlanta. The [media took notice](#) because the family-owned business is beloved in its community locally, and its products are purchased nationwide.

The fire in Georgia barely had a minor impact on the food supply chain nationwide. But, in September, a [fire at JBS USA](#), a meat processing facility in Nebraska, threatened the meat





## ICI C<sup>2</sup>BRNE DIARY – April 2022

supply for the entire nation profoundly. The plant [reportedly](#) processes about 5% of the nation's beef, and closure would directly impact the supply chain.



The trend has continued repeatedly through the end of 2021 and into 2022.

In February, Shearer's Food Processing Plant in Hermiston, Oregon, [burned down](#), leaving two employees injured. On April 13, Taylor Farms Food Processing Plant in Salinas, California, [burned and prompted evacuations](#). On April 19, the Headquarters of Azure Standard Food Processing Plant in Dufur, Oregon, also burned. People are beginning to notice because the fires are threatening an already stressed supply chain of food in the U.S. The trend continues: on March 16, a massive fire wiped out much of a Walmart fulfillment center in Plainfield, Indiana. The event was severe enough to warrant [the ATF](#) to investigate. Another incident occurred on April 11, at New Hampshire's East Conway Beef and Pork, when a fire so large broke out that it took respondents [16 hours](#) to extinguish. At least 16 such disasters have taken place at food processing facilities nationwide. While most of the incidents have shown [no foul play](#) after investigation, the trend presents a curious string of events across the country.

It remains to be seen what the direct impact will be. Still, as the nation continues to face soaring food prices and trouble with supply chain operations, there could be a significant impact on the cost and availability of food for Americans.







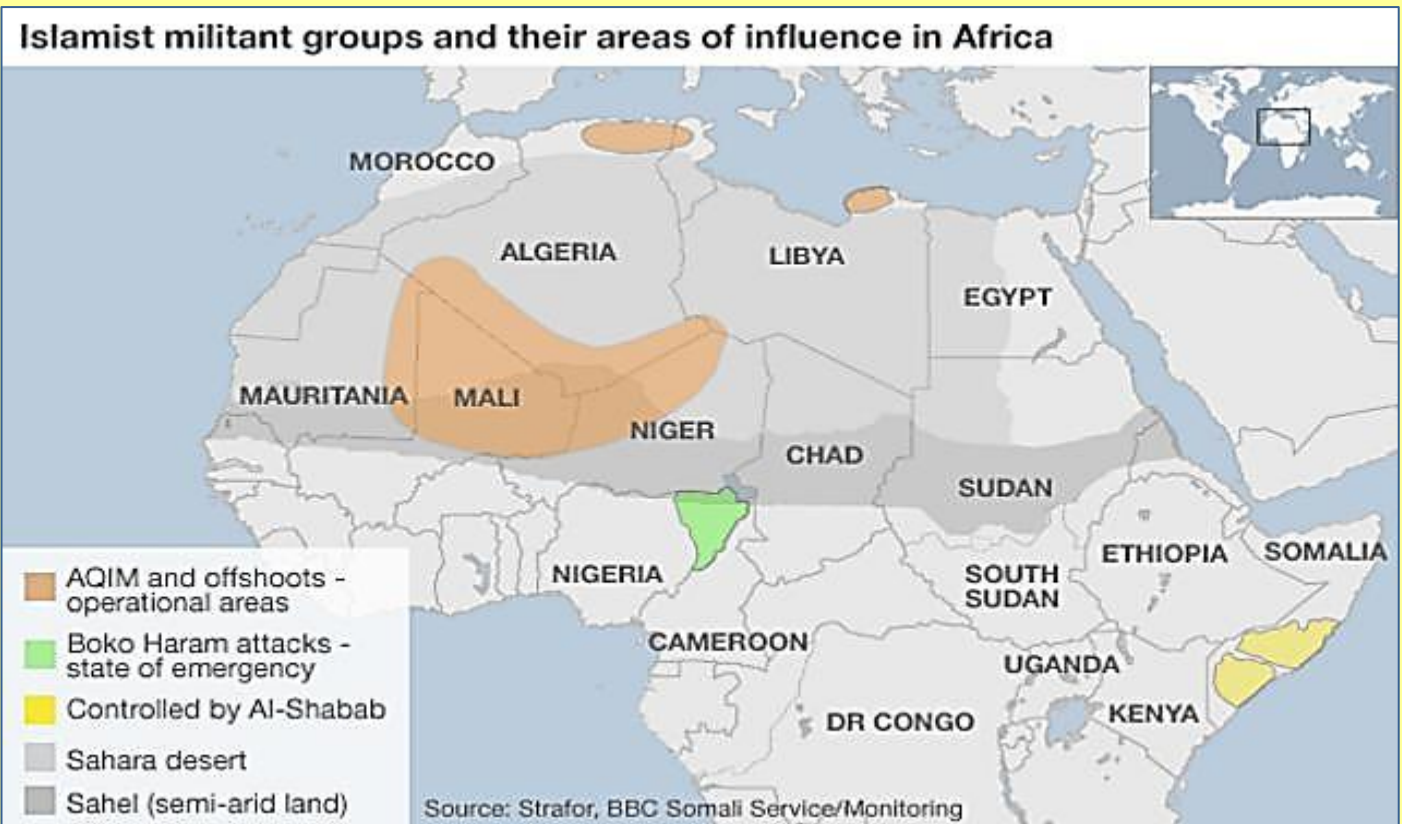
# T-NEWS



## Where is Boko Haram One Year After Abubakar Shekau's Death?

By Jacob Zenn

Source: <https://jamestown.org/program/briefs-362/>



Mar 25 – Just under one year ago, in May 2021, Boko Haram's leader Abubakar Shekau self-detonated an explosive to kill himself before the rival group, Islamic State in West Africa Province (ISWAP), would have captured him ([Vanguard](#), May 22, 2021). In the immediate aftermath of Shekau's death, ISWAP released videos showing former Shekau loyalists defecting from Boko Haram to ISWAP, while Shekau's loyalists around Lake Chad led by Bakura promised to fight in the late Shekau's honor ([Telegram](#), June 25, 2021; [Telegram](#), June 14, 2021). Bakura's fighters, like Shekau in the final audio he released before his death, also continued to assert that Islamic State (IS) was misled by ISWAP to support their theological interpretations over Shekau's ([Telegram](#), May 23, 2021). IS was so convinced of Shekau's disobedience of its directives that ISWAP's then-leader, Abu Musab al-Barnawi, claimed in an audio that IS itself had ordered him to launch the offensive to kill Shekau ([Telegram](#), June 25, 2021).

Shekau's group, which is commonly known as Boko Haram but whose formal name is *Jama'atu Ahlis-Sunna Lidda'Awati Wal-Jihad*, has continued to exist nominally under Bakura's leadership. However, the group no longer produces propaganda videos or audios, which significantly differs from regular releases from Shekau when he was alive. Thus, it is unclear whether Boko Haram really even exists anymore or whether the group is simply a collection of Bakura led jihadists around Lake Chad who conduct sporadic attacks on the Nigerian and neighboring countries' armies, ISWAP, and civilians, but not necessary in the name of any group ([crisisgroup.org](#), April 6, 2020). If the formal group no longer exists, then it means ISWAP and the al-Qaeda-affiliated and northwestern Nigeria-based Ansaru, which recently renewed its loyalty to al-Qaeda in the Islamic Maghreb (AQIM), are the two remaining jihadists groups in Nigeria ([Telegram](#), December 31, 2021).

Another question that arises is what happened to the Shekau loyalists in northwestern Nigeria. They had been appearing in videos showing loyalty to Shekau before his death ([Terrorism Monitor](#), July 28, 2020). They are geographically too far from Lake Chad to link up with Bakura and too extreme to ally with Ansaru, given Ansaru's history of opposition to Shekau's ideology and Shekau's record of ordering assassinations of Ansaru leaders. Their lack of any videos or audios or other communications since Shekau's death, therefore, leaves open the possibility they have joined with bandits, who had established communications with Shekau before his death ([Dailypost.ng](#), December 12, 2021). Alternatively, they may have



simply returned to their villages and continued to maintain the ideology of Shekau but do so now without any of the training or other ideological materials that Shekau's loyalists had provided.

Had Shekau not been killed by ISWAP, his group likely still would have continued to be marginalized by the militarily and ideologically more effective ISWAP. Nevertheless, Shekau would have continued to release his bombastic videos on a roughly monthly basis commenting on everything from Islamic, or specifically jihadist, theology to international affairs. His prior name-dropping of Vladimir Putin, including in the video claiming the "enslavement" of the Chibok girls in 2014, among other world leaders, suggests he may have felt the need to interject on the Russian invasion of Ukraine and other major current events ([Youtube](#), May 5, 2014). Without Shekau, Nigerian jihadism will gain less attention, but ISWAP will remain among the most active IS provincial groups in the world.

**Jacob Zenn** is an adjunct assistant professor on African Armed Movements and Violent Non-State Actors in World Politics at the Georgetown University Security Studies Program (SSP) and editor of *Terrorism Monitor* and senior fellow on African and Eurasian Affairs for The Jamestown Foundation in Washington DC. He authored the book, *Unmasking Boko Haram: Exploring Global Jihad in Nigeria*, which was published in April 2020 by Lynne Rienner in association with the Handa Centre for the Study of Terrorism and Political Violence, University of St Andrews. Zenn has also written on international security for academic journals such as *Studies in Conflict and Terrorism*, *Terrorism and Political Violence*, *Small Wars and Insurgencies*, *African Conflict and Peacebuilding Review*, *The Journal of Modern African Studies*, *Journal for De-Radicalization*, *African Security*, and the *International Journal of Not-for-Profit Law*. He has also drafted several reports and monographs on Boko Haram, including editing a multi-authored report for the West Point Combating Terrorism Center in 2018 called "Boko Haram Beyond the Headlines: Analyses of Africa's Enduring Insurgency." He also co-authored a book (in Russian) in 2017 with Erlan Karin called "Between ISIS and Al-Qaeda: Central Asian Foreign Fighters in the Syrian War" and a book chapter with Svante Cornell called "Religion and the Secular State" in *Uzbekistan's New Face*, which was edited by S. Frederick Starr and Svante E. Cornell and published by Rowman & Littlefield in 2018. Zenn graduated as a Global Law Scholar from Georgetown Law and from the Johns Hopkins School of Advanced International Studies (SAIS) Nanjing Center for Chinese-American Studies in Nanjing, China and has studied Uighur and Persian at Xinjiang University and Samarkand State University.

## Al-Shabaab's Expanding Anti-Turkish Campaign in Somalia

By Lucas Webber

Source: <https://jamestown.org/program/al-shabaabs-expanding-anti-turkish-campaign-in-somalia/>

Mar 25 – On January 18, al-Qaeda affiliated al-Shabaab conducted a suicide bombing outside of a Turkish military base in Somalia's capital city of Mogadishu, killing at least four people and injuring around 14 others ([Garowe Online](#), January 19). The group claimed responsibility for the attack through the official Shahada News Agency and touted the success of the operation against "Somali Special Forces who were trained by Turkish Forces." Al-Shabaab's target selection, and the three separate mentions of Turkey in the statement, runs consistent with the group's ongoing guerilla campaign against Turkish soldiers, nationals, and commercial interests in Somalia. The group views Turkey as an influential supporter of the Somali government and looks to drive the Turks out of Somalia with force. Al-Shabaab has accordingly excoriated Turkish troops stationed in Somalia as foreign "invaders" and "occupiers" ([Ahval News](#), December 31, 2019).



### Al-Shabaab Leadership Declares War on Turkey

Over the past decade, Turkey has markedly expanded its political influence and security footprint in Somalia, as indicated by the 2017 establishment of its largest overseas military installation in Mogadishu ([Terrorism Monitor](#), May 15, 2020). Camp TURKSOM is a base and an academy intended to improve the Somali military's operational capacities and counter-insurgency capabilities. This, in turn, has also made it a priority target for al-Shabaab plots and attacks.





Al-Shabaab's anti-Turkey campaign began around July 2013 with a vehicle-borne improvised explosives device (VBIED) attack against the Turkish embassy in Mogadishu, which killed three people and injured several others ([Hiiraan Online](#), July 27, 2013). Days after the bombing, Ahmed Abdi Godane, the group's emir at the time, reportedly criticized Turkey for "trying to divide [al-Shabaab's] leadership and its fighters." It further alleged that "countries like Qatar and Turkey as well former members of the defunct Union of the Islamic Courts (a movement that ruled most of Somalia's southern and central regions in 2006) are key players in these divisive deeds" ([Salaan Media](#), July 31, 2013). The anti-Turkish hostility continued to accelerate as Godane's successor, Ahmed Diriye, took direct aim at Turkey in his first audio statement after stepping into al-Shabaab's top leadership role. In 2016, Diriye declared the Turkish government to be "the enemy of the nation" and accused Turkey of "looting Somali resources." He asserted that "today Somalia's economy is in total collapse because of their intervention. ... Turkey has invaded this country economically. ... They have taken control of the Somali economy and all they want is to keep the nation in poverty" ([Daily Sabah](#), July 13, 2016). More recently, in a March 2021 video published by al-Shabaab's official Al-Kataib Foundation for Media Productions, Diriye chastised the "apostate troops" of Turkey for supporting the "coalition of disbelievers who came from various countries" to wage "a war against the Muslims of Somalia" ([Jihadology](#), March 27, 2021).

### Al-Shabaab Targets Turkish Nationals

For the past decade, al-Shabaab has been pursuing a campaign of violence aimed at Turkish politicians, diplomats, soldiers, and workers in Somalia. Notably, in 2015, the group conducted a suicide car bombing outside of the SYL Hotel in Mogadishu. At the time, Turkish delegates were meeting in preparation for President Recep Tayyip Erdogan's visit, which was scheduled for the next day ([Som Tribune](#), January 22, 2015).

Al-Shabaab's militant operations against Turkish nationals and interests had been conducted entirely on land until February 2, 2016, when the group dispatched a suicide bomber and attempted to take down a passenger plane. The original target was a Turkish Airlines flight, but its departure was canceled due to poor weather conditions. The suicide bomber, along with the other stranded passengers, then boarded a Somali-operated Daallo Airlines flight. Once in the air, the al-Shabaab operative detonated the explosive device (believed to be concealed in a laptop) and blew a hole in the fuselage. Of the 81 occupants onboard, only the bomber was killed while two other passengers were injured. Fortunately for the passengers, the aircraft remained functional and was able to successfully return to Aden Adde International Airport to perform an emergency landing. Al-Shabaab claimed responsibility for the bombing, telling al-Jazeera that the intended targets were Turkish NATO forces and Western officials ([Al Jazeera](#), February 13, 2016). Over the next few years, al-Shabaab continued its anti-Turkey campaign through propaganda messaging and militant operations. In December 2019, the group struck a convoy with a car bomb, killing two Turkish nationals. In the aftermath of the attack, al-Shabaab's spokesman, Ali Dhere, stated the group "will continue attacking Turks who invaded our country" and accused Turkey of conspiring to take control of Somalia's resources ([Ahval News](#), December 31, 2019). In terms of security assets, the Turkish military base in Mogadishu was targeted with rockets in May 2018 and with suicide bombings in June 2020 and January 2022 ([Mareeg](#), May 12, 2018; [Garowe Online](#), May 21, 2020; [Garowe Online](#), January 19). The group has also targeted Turkish commercial interests, as seen with the January 2, 2021, suicide attack on employees of a Turkish company working on the road from Mogadishu to Afgoye. The blast ultimately killed two Turkish nationals ([Daily Sabah](#), January 2, 2021). More recently, al-Shabaab took responsibility for a roadside bomb attack that injured four Turkish businessmen in Mogadishu on March 17, 2022, stating they intentionally singled out the foreign nationals ([allAfrica](#), March 17, 2022).

In addition to the attempted bombing of an airliner heading to Djibouti, there are further indications that Turkey potentially faces a transnational threat from al-Shabaab. In February 2021, for instance, Turkish police, in coordination with Somalia's National Intelligence Organization (MIT), arrested an alleged al-Shabaab militant in Turkey's capital city of Ankara. The suspect was a German-Italian national accused of having connections to al-Shabaab operatives in Kenya ([Garowe Online](#), February 24, 2021).

### Conclusion

Al-Shabaab has become notably more hostile towards Turkey in its propaganda content and has ramped up attacks against Turkish nationals and interests in Somalia. Ankara looks set to continue exerting politico-economic and military influence in the country and to maintain support for the Somali government's fight against al-Shabaab. The persisting commitment on both sides of this conflict makes it likely that al-Shabaab's attacks against Turkish interests will continue, and perhaps intensify, and may even take place outside of Somalia's borders.

**Lucas Webber** is a researcher focused on geopolitics and violent non-state actors. He is cofounder and editor at [militantwire.com](#).



## Islamists and Neo-Nazis Flirting

By Sam Westrop

Source: <https://www.meforum.org/63116/the-confluence-of-islamism-and-the-far-right>

Mar 21 – Mark Collett is a leading British neo-Nazi. A [Holocaust denier](#), fan of *Mein Kampf* and a self-avowed "white nationalist,"



Mark runs Patriotic Alternative, which British media frequently [refers](#) to as "Britain's fastest-growing far-Right group."

White nationalists such as Mark Collett (left) see Islamists such as Daniel Haqiqatjou (right) not as a threat to their designs, but as a means to impose them.

And then there's Daniel Haqiqatjou. A hardline American Islamist online preacher, an unabashed supporter of the most gruesome Islamist ideas, and a [cheerleader for](#) the Taliban, Daniel enjoys the support of hundreds of thousands of Western Islamists on [Facebook](#) and [YouTube](#).

Once living separate lives, the future of both radicals' extremism, both now seem to realize, may rely on each

embracing the other. Swept up in a whirlwind of an immutable, shared fear of Jews, women, homosexuals, democracy and secularism, this has all the elements of a great hate story.

While they may just appear to be online loudmouths, this concord between the two offers a fascinating possible glimpse into the future of ideological extremism across the Western world. Perhaps it was always a matter of time before white nationalists saw Islam not as a threat to their designs, but as a means to impose them.

### Understanding Haqiqatjou

Over the past few years, in videos on his YouTube channel, posts on his Facebook account, and hundreds of articles at his [online media outlet](#), Haqiqatjou has made quite a name for himself attacking other Western Islamists for their perceived embrace of "liberalism."

Groups such as [CAIR](#), leading Salafi clerics such as [Omar Suleiman](#), and legislators such as [Ilhan Omar](#) have all been denounced by Haqiqatjou, who accuses them of [diluting Islam](#) with "liberalism" and "social justice" by promoting "blasphemy and outright kufr." This conflict appears mostly limited to the Islamist world, with ordinary Muslims largely unaware of the endless furor. But Haqiqatjou's revolt against modernist Islamism's embrace of progressivism has certainly [struck a chord](#) with other, purist-minded Islamists across the West.

The targets of his ire have also noticed. In September 2020, Imam Omar Suleiman publicly apologized for engaging in an "unIslamic ritual" during a progressivist-organized immigration rights march, after Haqiqatjou [produced a video and social media](#) campaign that reached hundreds of thousands of Western Muslims.

Meanwhile, Haqiqatjou and his attacks are frequently discussed in a wide variety of Islamist forums and blogs based across the world. As a result, leading prominent clerics are often forced to respond to anger from hordes of online Islamists advancing Haqiqatjou's accusations and indignation.

Some within the Islamist scene have even termed Haqiqatjou and his ilk as part of a new "[akh-Right](#)" – a play on the Arabic word for "brother" and the much-discussed phenomenon of the Western "alt-Right."

But Haqiqatjou is not just writing angry social media posts in his quest for notoriety. He has spotted an opportunity to confront critics of his strain of Islam directly — [organizing](#) half a dozen online debates with a variety of ideological foes, and watched by hundreds of thousands on a variety of platforms.

In doing so, Haqiqatjou claims to be a rare Muslim voice in the West who actively advocates for Islam; in contrast, he claims, to other Muslim leaders, whom he insists have [instead](#) "fully adopted feminist liberal interfaith trash" and thus neglected their Islamic duties.





Haqiqatjou's debates are exhausting, with some going on for over four hours. Moreover, Haqiqatjou always insists on a "post-debate analysis" with his followers – one of which lasted just [under nine hours](#).

Notwithstanding their interminableness, these debates are reliably and steadfastly astonishing, with Haqiqatjou rarely missing an opportunity to reiterate his own radicalism. In a July 2020 debate with ex-Muslim activist Ridvan Aydemir, for instance, Haqiqatjou happily [called](#) for the killing of apostates, the stoning of adulterers, and the lashing of fornicators.

### The Islamist and the Neo-Nazi

On February 19, one of Haqiqatjou's debates took quite a turn. In contrast to the usual unrelenting hostility of his encounters, the February debate brought him and his guest together. Islamism and neo-Nazism, it seems, had more in common than both guests anticipated. If the performance of both is to be believed, each seemed as surprised by this realization as the other.

Initially, the debate appeared fractious. Both increasingly spoke over the other. Haqiqatjou appeared convinced that Collett represented the very system of "liberalism" and "Enlightenment" ideas that was corrupting Western Islam; Collett, meanwhile, considered Haqiqatjou too unwilling to accept the iniquitous influence of Jews over Western institutions.

The key turning point came when Collett realized Haqiqatjou also feared the influence of Jews – albeit not quite as strongly — and Haqiqatjou realized Collett did in fact eschew the set of ideas he considers the tenets of "liberalism." Although Haqiqatjou and Collett never quite solved the chicken or the egg dilemma about which threat appeared first, gradually, both began to comprehend they despised many of the same threats, and shared some similar suggested solutions.

Quickly, Collett and Haqiqatjou began to discover mutual passions. These appeared to include support for the execution of members of the infamous 'grooming gangs' in Britain and the establishment of theocracies in both the Middle East and Europe. To the delight of Haqiqatjou, Collett called for the prosecution of British lawmakers who send weapons to kill Muslims at the ostensible "behest" of Zionists.

Much of the remaining disagreement – a mildly shrewd observer with the patience to watch the entire debate will notice – is the product of confusion over terms and historical ideas. Enlightenment, multiculturalism, liberalism, and several important European historical moments, such as the French revolution, are spoken about factlessly and at cross-purposes consistently, for several hours. But this could not throw the new friendship off-track. As Haqiqatjou noted near the end: "We agreed on liberalism and the Enlightenment, we agreed even on technology. We agreed that there is this ultimate problem of degeneracy in liberalization, we disagree on the cause of that and the origins of that." Collett agreed, noting the "white nationalists" and "Muslims" were both leading the fight against "usury" and "global capitalism" – and, of course, the Jews.

Haqiqatjou's hardline Islamist fans – watching live in their thousands – quickly warmed to Collett and his white nationalism, especially when he pronounced: "I'd like to see Islam in the Middle East flourish and have the foot of Zionism taken off its neck."

Collett added: "I want you guys to have Islamic rule. ... I want the Shiite Muslims who live in Syria to take power into their hands. And if they want a theocracy and an Islamic theocracy, they should be allowed to have that, and good for them."

As it became clear that Collett sought to destroy the same system of individual liberty and secularism despised by Islamists, hundreds of commentators praised Mark and declared the event the beginnings of a new alliance.

Some – both Islamist and far-Right followers of Collett – encouraged Haqiqatjou to invite other "white nationalist" guests, such as the Holocaust denier Ryan Dawson and the American far-Right leader Nick Fuentes.

Collett reiterated that "I am not against Islam and I do believe Islam has a place in the world." He complained that too many people conflate him and his followers with the "anti-jihad movement." He denounced members of this "anti-jihad" movement as "Jews", "lesbians" and supporters of "liberalism" and "Zionism." Collett found a new following on February 19. And hundreds of the Islamists watching praised Collett as "one of us," and "one step away from being a Muslim so far." And indeed, Haqiqatjou and the viewers were quick to call Collett to Islam. In response, the white nationalist said that while he was Christian for the moment, he "would be happy to read the Quran and I'm always happy to go into things with an open mind."

Most extraordinarily, Collett, the leader of Britain's fastest growing far-Right movement, also declared he could "concede" being part of an Islamic white ethnostate in Europe. And so there is the nub of it. Collett the white nationalist would apparently not mind an Islamic theocracy in Europe, so long as it is a "white ethnostate." Haqiqatjou the Islamist, meanwhile, seemed unfazed by the idea of a white ethnostate in Europe, so long as it is Islamic.

### The Future of Islamism and the Far-Right

In the past, there have been harbingers of far-Right collaboration with Islamism.

In 2004, Daniel Pipes [revealed](#) that the inaugural 'Reviving the Islamic Spirit' conference in Toronto – organized and attended by [terror-linked activists and groups](#) – featured the neo-Nazi activist William W. Baker.



Daniel Greenfield, meanwhile, has [revealed](#) ties between a member of the Council on American-Islamic Relations (CAIR) and American neo-Nazi organizations. MEMRI has [noted](#) strong support for Islamist terror groups in neo-Nazi circles.

Indeed, Collett himself noted during his debate with Haqiqatjou that he had "done full afternoon discussions with Muslims in Syria, where they've agreed with me and I've agreed with them. And we both said that together, as white nationalists and as Syrian Muslims, we want to stand united against ... Zionist power."

Over the past decade, across Europe, meanwhile, far-Right politicians have grown [increasingly close with the Assad regime](#) and its Islamist backers in Tehran.

The French far-Right has enjoyed [close contact](#) with Iranian regime Islamists. The notorious anti-Jewish French comedian Dieudonne M'bala M'bala – who popularized the [quenelle](#), an inverted *Nazi salute* – spends his time off-stage expressing support for both [jihadists](#) and the [far-Right](#).

And in 2014, I [noted the involvement](#) of leading British Holocaust deniers and neo-Nazis at anti-Jewish events organized by Hamas and Jamaat-e-Islami Islamist groups in the United Kingdom.

Separately, there have also been milder expressions of a rejection of progressivism and an embrace of the Right by Muslim activists more generally. Ismail Royer, for instance, is a former jihadist who works for the multi-faith Religious Freedom Institute in D.C. He firmly rejects progressivism, and today urges an Islamic [alliance](#) with conservative Christian movements.

Similarly, the black Muslim leader Abdullah bin Hamid Ali – an interesting thinker who has for many years been found on the edges of various Islamist networks – has repeatedly urged American Muslims to rethink their political approach, suggesting in 2020 a "[new political vision](#)" that rejected "neoliberalism." Today, Ali's Twitter feed [contains a startling array](#) of Tucker Carlson clips and comments about the follies of anti-capitalist and anti-racist protest movements.

However, these gentler examples are just evidence of a more general growing Muslim dissatisfaction with the Islamist embrace of progressivism.

That some Islamists among the discontented are starting to move all the way towards bona fide neo-Nazis and white nationalists is evidence of a far more important shift. And in some ways – given the venom towards Jews, women, homosexuals, capitalism and democracy espoused by so many Islamist and "white nationalist" networks in the West – it is curious that such an alliance was not established long ago.



Then again, many Islamist networks in the West have been primarily led by a media-savvy, educated middle-class – much of it emerging from the Muslim Brotherhood networks emigrating from the Arab world – who possessed the political wherewithal to realize that inching closer to the progressivists would afford them access to real political power. A ragtag bunch of heavily tattooed neo-Nazis could not offer them the same opportunities.

#### [Mark Collett with a swastika-tattooed supporter](#)

But if the cost of that access, the growing "akh-Right" Islamist movement realizes, is the dilution of Islam, then it may be too heavy a price to pay.

It was perhaps, then, inevitable that angry online preachers such as Daniel Haqiqatjou (and a dozen other similar voices with hundreds of thousands of followers) are establishing a firm base of support. It is also perhaps inevitable that these new Islamist

networks would eventually align themselves with very radicals that earlier generations of Islamists had rejected as inadequate.

Reflecting on the evolution of Islamist ideologies in the West, it remains deeply curious that these battles within Islamism are firmly non-religious. Most of the intra-Islamist arguments, alliances and enmities revolve not around some school of jurisprudence or theology, but around Western political concepts. Few fatwas or other religious ruling on these questions can be found.

Haqiqatjou and his allies, as well as the targets of his fury, such as Omar Suleiman and groups such as CAIR, may mostly claim to desire the Islam of the East; but almost everything they do to advance these ideals is examined and carried out through the politics of the West.

As these new Western Islamist ideologues and their networks continue to develop their own strains of Islamism – gradually detaching from their Middle Eastern and South Asian ideological origins – the prospect of wholesale confluence with both the far-right and far-left





in Europe and America becomes more and more likely. After all, it is with these Western political extremes that growing numbers of Western Islamists now have more in common politically than their non-Western religious brethren.

From the perspective of counter-Islamists and our reformist Muslim allies, in some ways, this may not be such bad news. It'll certainly be easier to persuade fecklessly-subjective newspaper editors and tiresomely-cautious politicians to write and warn about the threat of Islamism if it is locked in a neo-Nazi embrace.

**Sam Westrop** is the director of Islamist Watch, a project of the Middle East Forum.

## UK terrorism watchdog vows to tackle child terrorists amid rising figures

Source: <https://www.thenationalnews.com/world/uk-news/2022/04/01/uk-terrorism-watchdog-vows-to-tackle-child-terrorists-amid-rising-figures/>

Apr 01 – The UK's terrorism watchdog has pledged to tackle child terrorists as arrest figures have risen.

Jonathan Hall QC, the [independent terrorism reviewer](#), has unveiled three core areas he will review in his 2022 report, predominantly focusing on online terrorism.

Last year a record number of children were arrested on suspicion of terror offences in Britain, which experts have linked to online radicalisation following the shutdown of schools during the pandemic. Under-18s accounted for 13 per cent of all terrorist arrests last year, up from 8 per cent. "There has been a significant increase in the number of terrorism-related arrests of children," he said.

"Much of this is related to internet activity, and many of these children are neuro-divergent and/or suffer from poor mental health."

He said one of the key areas he will be investigating is whether there are ways of "avoiding criminalising children while protecting the public". He is also examining terrorism acts online and the way terrorism is investigated. "My annual report this year is devoted to the operation of the terrorism acts online," he said. "Terrorist content online — Most standards are set by internet services operating overseas. Does UK terrorism legislation set the right standards (including by criminalising online speech)?

"Could UK terrorism legislation do more to promote acceptable standards (as it does, for example, by proscription of terrorist groups with an online presence)?

"Investigations — Investigating terrorism is complicated by encryption, remote storage and the volume of data seized.

"Is terrorism legislation adequate for investigating terrorism? Are there sufficient safeguards to make sure that personal or privileged information is not accessed unnecessarily, and stored for too long?" Mr Hall pledged to focus on online terrorism after he was reappointed to the role for a another three-year term. He was first appointed to the role in 2019 and his tenure was due to end in May. The Home Office announced his reappointment in March. It said the decision was made due to his successful tenure and that his new term in office would run from May 23 to May 22, 2025.

As part of his role, Mr Hall is required to provide an annual report on his findings, which the government must lay before parliament and publish. His latest report on extremism and radicalisation in prisons is due to be published shortly.

In February, he [urged the authorities to look at separation centres](#) to prevent extremists from forming gangs in prison.

His appeal came after the conviction of [three ISIS terrorists, including the brother of the Manchester Arena bomber, who had formed a gang in Belmarsh prison](#) in London and attacked a prison officer.

He suggested that measures such as "separation centres" could be used to keep terrorists in custody away from one another.

Mr Hall has also called for extremists to be given [lie detector tests](#), arguing that deradicalisation programmes do not work.

He said there is "no magic bullet or special pill" that can help to change convicted extremists. Mr Hall previously published a review into the 2019 London Bridge terrorist attack in which two people were killed, and made 45 recommendations.

## Nigeria Overtakes Iraq as Country with Highest Attacks By Islamic State Terrorists

Source: <https://sundiatapost.com/nigeria-overtakes-iraq-as-country-with-highest-attacks-by-islamic-state-terrorists/>

Apr 09 – A consultancy company, Jihad Analytics, which processes data on global and cyber jihad says Nigeria now has the highest number of attacks by the Islamic State (IS).

According the report, half of the attacks claimed by IS since the beginning of 2022 were in Africa, while the Islamic State in West Africa Province (ISWAP), an affiliate of IS, is now more active in Nigeria. Data by Jihad Analytics showed that while Nigeria has recorded a



total of 162 IS operations since January 2022, Iraq has recorded 120. “Since the beginning of the year, the Islamic State has



conducted half of its attacks in #Africa,” the company wrote in a tweet on Friday.

“For the first time in the history of the jihadi group, Iraq is no longer the country where #IS claims the highest number of operations: the group #ISWAP is now more active in Nigeria.” As of March, Nigeria ranked sixth on the 2022 global terrorism index (GTI). The ranking was viewed as a relative improvement as Nigeria dropped two places from the fourth position — a position it had been since 2017. IS has killed thousands and displaced millions in North-Eastern Nigeria. It has also severely attacked the convoy of the Governor of Borno state, Babagana Umara Zulum. The group has killed

thousands and displaced millions in North-Eastern Nigeria. The Nigerian military has repeatedly claimed that the insurgency had been largely defeated and frequently underplays any losses. In the past months, soldiers have been targeted by the insurgents, who lay in ambush on their path.

## A Time Bomb ‘Supercharged’ by the Pandemic: How White Nationalists Are Using Gaming to Recruit for Terror

Source: <https://www.independent.co.uk/news/world/americas/gaming-violence-white-nationalists-online-b2051956.html>

Apr 08 – The player’s profile picture raised no red flags: just the smiling Lego like-face of a typical Roblox avatar, little different from the estimated 220 million people who log in at least once a month to the wildly popular children’s video gaming platform. On closer inspection, however, the player’s “favorites” list had been arranged into an impromptu mosaic with the words: “Patriotic Front. Life, liberty, victory! Reclaim America!” The Patriot Front is an American group of fascist street fighters, who use “reclaim America” as their slogan. The player was also part of an in-game group called Justice 4 Floyd, whose logo appeared to be based on the black shield of Nazi German SS combat divisions in the Second World War. That group was linked by “alliances” to other Roblox groups with names such as the British Nationalist Vanguard, the Condor Division (similar to the Nazis’ Condor Legion), and the New Hampshire 2nd Infantry Platoon, whose description bore references to known neo-Nazi groups. This is just one of the suspicious networks uncovered in popular video games and gaming-related social networks by Alex Newhouse, a researcher at the Middlebury Institute of International Studies in Monterey, California.

## CEP Report: Dutch Foreign Fighters – Before, During And After The IS “Caliphate”

The Counter Extremism Project (CEP) today published a new report [Dutch Foreign Fighters: Before, During and After the IS ‘Caliphate.’](#) written by CEP Strategic Advisor Liam Duffy.

Based entirely on publicly available sources, the report documents the radicalization and recruitment process of Dutch Islamic State (IS) fighters, as well as the roles they played in the terror group’s various activities, including the Yazidi genocide.

As with the previous CEP paper [Western Foreign Fighters and the Yazidi Genocide](#), the intention is not to build a case against any individuals, but to encourage a more realistic debate about the actions and potential crimes of western jihadis—crimes for which, so far, they have yet to be held accountable.

**CEP Strategic Advisor Liam Duffy said:** “This report seeks to provide a snapshot into some of the roles and activities in the ‘Caliphate’ of Dutch recruits to the Islamic State. For those on whom information is readily available, the truth is certainly more complex than the existing tropes and caricatures imply.

“Too often, we fall back into easy explanations such as the unique and hypnotic power of IS propaganda. As this report demonstrates, Dutch citizens did not leave in their hundreds





because they were manipulated online, but in most cases because they wished to live under Sharia as implemented by the jihadists of IS.

“Dutch citizens were not simply cooks or welders, but many served in combatant roles. Some were connected to Islamic State’s worst abuses and excesses. Failing to confront these realities has blunted and softened the cry for justice and accountability, insulted the victims of IS, and leaves European societies vulnerable to future waves of jihadist recruitment.”

**CEP Executive Director David Ibsen added:** “The paper demonstrates that foreign fighters departing from the Netherlands to Syria were heavily geographically concentrated, often involving individuals who knew each other in the Netherlands prior to joining the Islamic State.

“Given the evidence presented in this report, that so many Dutch foreign fighters would now claim manipulation, ignorance, or never having been involved in violence arguably demonstrates a near total lack of personal responsibility for their individual decisions. This must be taken into account by lawmakers when considering how to prosecute them upon their return to the Netherlands.”

- ▶ To read CEP’s report *Dutch Foreign Fighters: Before, During and After the IS “Caliphate,”* please click [here](#).
- ▶ To read CEP’s report *Western Foreign Fighters and the Yazidi Genocide*, please click [here](#).

## Suspect in Brooklyn subway train shooting called in the tip that led to his arrest, sources say

Source: <https://edition.cnn.com/2022/04/13/us/brooklyn-subway-shooting-wednesday/index.html>

Apr 14 – The man suspected of shooting 10 people on a subway train in Brooklyn on Tuesday called in a tip to Crime Stoppers that led to his capture Wednesday, two law enforcement sources told CNN.

Frank James, 62, was arrested without incident by patrol officers in Manhattan’s East Village neighborhood on Wednesday afternoon, officials said.

James called in the tip and told authorities he was at a McDonald’s on the Lower East Side of Manhattan, the sources confirmed. He essentially told police he saw his face on the news and knew he was wanted, the sources said.



He told the operator he would be inside the restaurant charging his phone but could not provide his phone number, a senior law enforcement source said. The call dropped moments later and was followed by a 911 call from another person who said they had spotted James, one of the two sources told CNN.

Patrol officers arrived at the McDonald’s but did not see him, the sources said. Just down the block, they came across a bystander who flagged James to them, the senior law enforcement source said. James was in custody by roughly 1:40 p.m ET, about an hour after he made his call.

James is suspected of setting off smoke grenades and [firing a handgun 33 times](#)



on a crowded N train traveling toward the 36th Street station in Brooklyn’s Sunset Park neighborhood. The attack left 29 people injured, including 10 who were shot, though none of the injuries appeared to be life-threatening, officials said. Five of the victims were young people commuting to school, New York Gov. Kathy Hochul said.







A bag full of fireworks recovered in the Brooklyn subway station where several people were injured in the shooting on April, 12, 2022.

The motive of the shooting is not yet known.

James was charged in federal court with violating a law that prohibits terrorist and other violent attacks against a mass transportation system, according to Breon Peace, US Attorney for the Eastern District of New York. If convicted, he could spend life in prison, Peace said. He was in federal custody Wednesday afternoon.

James will have his initial court appearance Thursday, according to a spokesperson for the US Attorney's Office for the Eastern District of New York. CNN has reached out to his federal defender for comment.

James had nine prior arrests in New York dating from 1992 to 1998, including possession of burglary tools, criminal sex act, and theft of service, NYPD Chief of Detectives James Essig said. He also had three arrests in New Jersey in 1991, 1992 and 2007 for trespassing, larceny and disorderly conduct, Essig said.

Wednesday's arrest came hours after officials elevated James from a "person of interest" to a suspect -- and shortly after the city issued an emergency alert to residents saying James was "wanted" and asking for tips.

The subway shooting represents a long-feared nightmare scenario for New York City, which relies heavily on its mass transit system. Subway ridership cratered during the Covid pandemic as many workers stayed home, and ridership has not returned to its pre-pandemic levels, in part [due to wariness over an increase in violence](#) on the transit system.





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# How the Terrorist Groups get Financed and Sponsored in Afghanistan and the Region?



Published 1 day ago on April 19, 2022  
By **Ajmal Sohail**



**Ajmal Sohail** is Co-founder and Co-president of Counter Narco-terrorism Alliance Germany and he is National Security and counter-terrorism analyst. He is an active member of the Christian Democratic Union (CDU) as well.

## Afghanistan Regains Its Crown as Terror Central

By **Lynne O'Donnell**

Source: <https://foreignpolicy.com/2022/04/20/afghanistan-taliban-terrorism-jihad-control/>



Taliban fighters in armored vehicles take part in a military street parade in Herat, Afghanistan, on April 19. **MOHSEN KARIMI/AFP** via Getty Images

Apr 20 – Violence is intensifying in Afghanistan eight months after the United States' retreat allowed the Taliban to return to power, fueling concerns that the country may again become a hub of instability and terrorism across South and Central Asia and beyond.

Afghanistan has long been a base for militants with ambitions for global jihad. Dozens of groups that have been present since the Taliban's last turn in power from 1996 to 2001 are



again operational, looking for opportunities to expand their reach, said security, diplomatic, and military sources.

Al Qaeda, the Islamic State, the Islamic Movement of Uzbekistan (IMU), the East Turkestan Islamic Movement (ETIM), Tehrik-i-Taliban Pakistan (TTP), and Lashkar-e-Taiba are the most prominent of about 20 militant groups [identified](#) by the United States and the United Nations as having an armed presence in Afghanistan throughout the 20 years of its republic.

“Afghanistan is al Qaeda and al Qaeda is Afghanistan,” said Ali Mohammad Ali, a security expert and consultant who worked with the former Kabul government.

Warnings that a Taliban return to power could reignite the terrorist threat that led to the Sept. 11, 2001, attacks on the United States were ignored ahead of the Trump administration’s 2020 deal to pull out of the country and essentially hand over Afghanistan to the militant group. Under the terms of that deal, the Taliban pledged not to attack U.S. forces or the United States. Instead, Afghanistan is now a base for attacks on neighboring countries, including Pakistan and, seemingly, Uzbekistan.

If Taliban-ruled Afghanistan is again turning into an exporter of terror, it’s in part because of the collapse of its economy and law and order; security across the country is virtually nonexistent. An uptick in violence—from anti-Taliban attacks by a disparate but [growing resistance](#) to suicide attacks targeting ethnic minorities like Hazaras—indicates the Islamists are fast losing whatever governing grip they might have had. Militancy is thriving, much of it deployed to geopolitical ends.

“The Taliban’s inability to govern has effectively provided a carte blanche for terrorist groups to operate in and from Afghanistan’s territory,” Ali said.

Some of the terror groups operating in Afghanistan, such as the local Islamic State affiliate, known as the Islamic State-Khorasan, have teamed up with the IMU to destabilize some Central Asian neighbors that remain in Russia’s sphere of influence, said Mirwais Naab, a former deputy foreign minister of Afghanistan.

The Islamic State-Khorasan [announced](#) in a video on Monday that it had fired 10 rockets at a military base in Uzbekistan. Naab described it as “an attempt by [the Islamic State] to claim the IMU mission in Uzbekistan and connect itself with sleeping cells and extremist groups there. But I don’t see much difference between them. They are operating very closely.”

It was not immediately possible to verify the veracity of the Islamic State-Khorasan claim. The Uzbek government called it a “provocation” and said in a [statement](#) it was “absolutely untrue” and that the border region was stable.

But there may be a geopolitical motive behind attacks on Afghanistan’s Central Asian neighbors: Russia.

Many Central Asian states see their relationship with Moscow as a potential liability following the Russian invasion of Ukraine and Western sanctions that will send economic and social problems their way. Tight supplies of pricey commodities could bring unrest, as fuel price hikes did earlier this year in Kazakhstan. Loss of migrant workers’ remittances from Russia will cull billions of dollars from their economies, said Central Asia expert Raffaello Pantucci, a senior fellow at the S. Rajaratnam School of International Studies, a Singapore think tank.

Uzbekistan, Kazakhstan, Kyrgyzstan, and even Tajikistan and Turkmenistan have all signaled varying levels of unease with Russia’s war in Ukraine. Pantucci said some countries with large Russian-speaking populations regard Russian nationalism as a bigger potential threat than jihadism. Uzbekistan and Kazakhstan, the richest of the Central Asian states, have publicly distanced themselves from Russia over the war. Along with public expressions of disdain for the violence and support for Ukraine’s territorial integrity, both countries have sent [emergency supplies](#) of food, medicine, clothing, and bedding to Ukraine.

These actions will not have endeared Central Asian countries to Moscow, which has stopped [grain and fertilizer exports](#) and may play tough on access to outlets for oil, gas, and other export commodities. But Russia may have a trump card: its historic links to Afghanistan. Soviet support for a communist government in Kabul led to a Russian invasion in 1979 and a 10-year proxy war with the United States that ended with the rise of the Taliban.

Ties persist. In 2020, Russia offered Taliban militants [payment](#) to target U.S. and allied troops on the battlefield. Russia—along with China, Iran, and Pakistan—was one of the few countries to support the Taliban’s return and is so far the only country to accredit a Taliban diplomat and call for the group to be formally recognized.

“Given the increasingly cozy relationship between Russia and the Taliban and the latter’s marriage of convenience with ISKP, it is likely that Moscow signaled the Taliban to influence ISKP to strike the Central Asians states,” said Ali, the security consultant. The endgame, he said, is to quell any flirtation with independence and ensure that the Central Asian states understand the value of Moscow’s security umbrella.

The Taliban, riven with divisions of their own, are in a tough position to deal with threats from their associates and neighbors—and vice versa. China, which could invest in mining and infrastructure, wants the Taliban to deport members of the ETIM, which seeks independence for the Muslim-majority Chinese region of Xinjiang. Ethnic Uzbek and Tajik leaders of the Taliban in northern Afghanistan oppose the deportation of Uyghurs to almost certain execution.





“The fear of the northern guys is that if the Taliban are going to throw the Uyghurs under the bus, why wouldn’t they throw the Uzbeks under the bus too?” Pantucci said. The Taliban need a trade-based relationship with Uzbekistan, which supplies much of Afghanistan’s electricity.

That’s not the Taliban’s only problem. Pakistan has been infuriated by the enduring alliance between the Pakistani Taliban, or TTP, and the Afghan Taliban that Islamabad helped bring back to power. Contrary to Pakistan’s expectations, the TTP, like Islamist groups the world over, was energized by the Taliban’s victory.

A January [report](#) by the U.S. Institute of Peace said Pakistan “had long argued the TTP was largely a byproduct of the U.S. presence in Afghanistan combined with external support from the former Afghan government in cahoots with India” and expected its threat would diminish with the Taliban’s victory. The opposite has happened, with the Taliban enabling TTP attacks on Pakistani military targets. Acting Afghan Interior Minister Sirajuddin Haqqani—himself a sanctioned [terrorist](#)—has offered to mediate a peace deal.

Pakistani [air raids](#) in Afghanistan’s eastern Khost and Kunar provinces over the weekend killed more than 40 people, Afghan officials said. “Terrorists are using Afghan soil with impunity to carry out activities inside Pakistan,” said [Asim Iftikhar](#), Islamabad’s foreign ministry spokesperson.

**Lynne O’Donnell** is a columnist at *Foreign Policy* and an Australian journalist and author. She was the Afghanistan bureau chief for Agence France-Presse and the Associated Press between 2009 and 2017.

## Is Somali piracy finally under control?

By Timothy Walker and Denys Reva

Source: <https://issafrica.org/iss-today/is-somali-piracy-finally-under-control>

Apr 21 – Piracy off the coast of Somalia has long captivated the attention of the media and governments. But the expiry of the United Nations Security Council’s (UNSC) counter-piracy Resolution 2608 on 31 March attracted little publicity. It is the first time since 2008



that the UNSC has not renewed the region’s piracy resolution.

The UN Convention on the Law of the Sea gives coastal states extensive rights and security responsibilities over their territorial seas – a zone extending 12 nautical miles from the coastline. In Somalia’s case though, the government and navy were until recently practically non-existent, following the collapse of the state in 1991. Even so, international naval forces had to respect Somalia’s territorial waters.

The problem of pirates using this zone as a refuge and the 12 nautical mile boundary as a

barrier needed addressing. So annual UNSC resolutions since 2008 allowed foreign naval missions to legitimately use ‘all necessary means to repress acts of piracy and armed robbery’ in this zone, with Somali consent. The resolutions allowed states to intervene in Somali territorial waters to pursue, intercept, seize and arrest pirates.

Somalia’s government increasingly insisted that the UNSC’s resolutions had achieved their primary objective of suppressing piracy and need not be renewed. Resolution 2068, [adopted](#) on 3 December 2021, was given a timeframe of just three months instead of the usual year. Somalia saw its continuation as an unfair imposition for two reasons.



First, the country has made progress in taking responsibility for its own security, both offshore and onshore. In August 2021, Somalia's Maritime Directorate began revising its maritime resource and security strategy. The National Maritime Coordination Committee initiated a mapping of all maritime activities, including international support.

Somalia's Ambassador to the UN Abukar Osman [told](#) the UNSC, 'We have accelerated our efforts to build and capacitate our maritime law enforcement agencies and have established a specialised maritime unit to specifically deal with new international maritime threats and crimes'.

According to the Somalia Transition Plan, security forces are expected to take over all responsibilities from the African Union mission in the country by 31 December 2024. The AU Transition Mission in Somalia (ATMIS) has recently [replaced](#) the long-standing AU Mission in Somalia (AMISOM). Maritime security has seldom featured in AMISOM analysis and decision making, but piracy did [exacerbate](#) insecurity in Somalia by fuelling crime and corruption because of the circulation of large ransom payments.

Second, no successful hijacking has been reported since March 2017, and both attempts and attacks have declined sharply since 2013. This is referred to in the Secretary-General's 2021 [report](#) on piracy and armed robbery at sea off Somalia.

Observers such as the International Maritime Bureau suggest these remain insufficient reasons to let the UNSC resolution lapse, [urging](#) caution and pointing out that doing so might encourage piracy. Terrorism is worsening, as is the country's political crisis. It therefore seems unlikely that, in this context, Somalia's ability to provide maritime security will rapidly improve.

Several UNSC members, such as France, the United Kingdom and the United States (US), have advocated for the continuation of the anti-piracy measures, for example to protect World Food Programme vessels. The lapse is unlikely to reverse improved security trends but does raise questions about the continued presence of these and other big powers in the region.

First, crucial components of the maritime security architecture for dealing with Somali piracy remain in place. For instance, the internationally recognised transit corridor allows ships to safely travel the Gulf of Aden rather than sail close to Somalia. The shipping industry has also implemented [several](#) best practice measures that have reduced the risk of falling prey to pirates.

Second, criminal gangs capable of committing piracy have turned their attention to other illegal activities. To counter this threat, multilateral efforts are [broadening](#) their focus to incorporate transnational crimes at sea. Several counter-piracy initiatives have adapted to a new security reality off the coast of Somalia. The Jeddah Amendment to the Djibouti Code of Conduct and the Contact Group on Illicit Maritime Activities in the Western Indian Ocean took proactive steps to [revaluate](#) or expand their missions.

The European Union's (EU) Operation ATALANTA would be most affected by the non-renewal of the counter-piracy resolution because [access](#) to Somali territorial waters was an essential component of fulfilling its mandate. The EU extended the operation for a year, expecting the UNSC resolution to be renewed. The problem was somewhat mitigated after the EU Council recently launched its Coordinated Maritime Presences concept, which complements ATALANTA. The concept shows European resolve to stay involved in regional maritime security activities.

The changes brought on by the lapsing of the UNSC resolution will make it difficult for foreign countries to use counter-piracy to explain their military presence in the region. AU Peace and Security Council members have shared their [concerns](#) about foreign military bases in Africa, many of which were justified in the name of fighting Somali piracy.

The enormous investments made by countries such as the US, Japan, Germany, Italy and China, combined with the interest of states such as Djibouti in generating revenue from their presence, means they are unlikely to vacate their bases soon. Growing geopolitical competition and [militarism](#) in the Indian Ocean, and insecurity stemming from the Yemen conflict, are also reasons why the situation probably won't change soon.

The way the EU, US, China and others now choose to frame their longer-term intentions in the region and their commitment to building Somalia's governance and security capabilities will be illuminated for the world to see.

[Timothy Walker](#) is Project Leader and Senior Researcher and [Denys Reva](#), Researcher, Maritime @ ISS Pretoria.





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# CHEM NEWS



## Russia's Remaining Weapons Are Horrific and Confounding

By Christina Pazzanese

Source: <https://www.homelandsecuritynewswire.com/dr20220323-russia-s-remaining-weapons-are-horrific-and-confounding>

Mar 23 – Along with concerns over the possible deployment of tactical nuclear weapons, the Biden administration is now warning that the Russian military may launch a chemical weapons attack in Ukraine. Russia has used chemical weapons during past conflicts, notably in Chechnya and Syria, in violation of international law. Russian officials denied Biden's accusation during a U.N. Security Council meeting Tuesday.

[Matthew Bunn](#) is James R. Schlesinger Professor of the Practice of Energy, National Security, and Foreign Policy at [Harvard Kennedy School](#) and co-principal investigator of the [Belfer Center's](#) Project on Managing the Atom. Bunn spoke with the [Harvard Gazette's](#) Christina Pazzanese about Russia's potential use of chemical and biological weapons in Ukraine and how the Biden administration and the West may respond. Interview has been edited for clarity and length.

**Christina Pazzanese: Biden officials have warned that Russia may deploy chemical or biological weapons in Ukraine. Why, and what kinds of things might they do?**

**Matthew Bunn:** From a purely military perspective, there are no military targets that nuclear, chemical, or biological weapons could destroy that Russia can't destroy with its airpower and rockets. The main purpose of using them would probably be to try to shock the Ukrainians into surrender.

Unfortunately, a lot of Russia's capabilities are secret. Under the Biological Weapons Convention, they're not supposed to have any biological weapons, but they are thought to be violating that convention and still maintaining some offensive biological weapons capability. Similarly, under the Chemical Weapons Convention, they're not supposed to have any chemical weapons anymore, but are believed to have significant stocks. They have used small amounts of chemical weapons in assassinations or assassination attempts against dissidents, both in Russia, [against Alexey Navalny](#), and in the U.K., [against Sergei and Yulia Skripal](#). With chemical weapons, they could kill a lot of Ukrainian military people and they could attack civilians, as they have been doing with their conventional weapons. They have a lot of escalation opportunities just with their conventional weapons, as we've been seeing in recent days, as they shift to shelling and bombing cities more or less indiscriminately, and also directly targeting civilians.

**Pazzanese: What's the difference between a chemical weapon and a biological weapon?**

**Bunn:** Biological weapons cause disease, so they're bacteria, viruses, etc. It also includes toxic chemicals that were produced by biological means, so if you have bacteria that produce poison and you use that poison, that counts as a biological weapon. Chemical weapons are poisons. Some of them are unbelievably toxic. They tend more to cause suffering and blindness rather than kill — but they can kill. Chemical weapons have been used rarely in military engagements. The most recent cases have been in Syria, where the Syrian government, with Russian support, [used chemical weapons extensively](#). Terrorists have used chemical weapons as well, both in Syria and in Iraq.

**Pazzanese: How do nuclear weapons fit into this? Would Russia escalate from conventional warfare to chemical and/or biological weapons before reaching for nuclear options?**

**Bunn:** An obvious rationale would be that it's a smaller step from conventional weapons to nuclear weapons. No one has used nuclear weapons in anger since 1945 and there is a very strong presumption against their use. Nobody knows what would happen if nuclear weapons were used again. There are at least three very different kinds of nuclear use that could occur. One would be what's sometimes referred to as a demonstration shot, where you detonate in the sea or a remote area and very few people are killed, basically as a warning. Another would be you detonate it on a major military target or even a city. A third would be you attack NATO territory. I think Russia is deterred from attacking NATO territory. So far, just as NATO has been very careful not to send any of its troops and not to send any weapons with offensive capabilities that might escalate the conflict to involve NATO, Russia similarly has been very careful not to attack NATO targets even with conventional weapons.

**Pazzanese: What's the likelihood of nuclear deployment?**

**Bunn:** My bet is less than a 5 percent shot that nuclear weapons will get used in this conflict. I wish I thought it was inconceivable; I no longer think it's inconceivable. My colleague [Francesca Giovannini](#) had a [piece](#) quite early in the invasion in the Bulletin of the Atomic Scientists, saying if things get to what she called "a hurting stalemate," which is exactly where we are right now, where Putin can't afford to lose, the plausibility of escalating to the use of a nuclear weapon would be noticeably higher. I think that's where we are.

**Pazzanese: Are there any effective ways for NATO to prevent or counter the use of chemical weapons?**





**Bunn:** I imagine that NATO and the Biden administration are actively, but privately, messaging various parties to try to deter this from happening. I would guess that part of the long conversation between Biden and Xi was Biden leaning on Xi to warn the Russians, “We will not be with you if you do this.” Russia would be totally isolated in the world if it used any of these weapons against civilians. There were 35 countries that abstained on the UN General Assembly resolution condemning Russia’s invasion, including some big ones like China and India. Virtually all countries would condemn Russia if they went this direction, and some which had refused to join in sanctions before might be convinced to do so.

But there is a very difficult problem of what to do if Russia does this. Striking back with military force raises the risk of escalation to a war with Russia, which nobody wants. But more sanctions? There’s not much more that we haven’t done already that seems adequate to the task of deterring Russia from going forward. And so, exactly what the response should be is a difficult policy challenge that I have no good answer to and to which I have not heard a good answer from others. I am of the view that political and economic responses, and getting support from those that have not yet joined in, like China and India, are likely to be more important, along with the massive humanitarian response that would be needed, than any kind of military counterstrike.

**Christina Pazzanese** is a Harvard staff writer. This [interview](#) is published courtesy of the Harvard Gazette, Harvard University’s official newspaper.

## Professor Philipp Bleek Appointed to National Academy of Sciences Study on Preventing WMD Terrorism



Source: <https://www.middlebury.edu/institute/news/professor-philipp-bleek-appointed-national-academy-sciences-study-preventing-wmd-terrorism>



Professor Philipp Bleek speaks at CBRNe Convergence—a chemical, biological, radiological, nuclear, and improvised explosive threat and response practitioner conference—in November 2019 in Nashville, Tennessee.

Mar 24 – Middlebury Institute professor Philipp Bleek has been appointed to serve as an expert on a U.S. National Academies of Science, Engineering, and Medicine study titled “Assessing and Improving Strategies for Preventing, Countering, and Responding to Weapons of Mass Destruction Terrorism.”

Professor Bleek, a member of the faculty of the [MA in Nonproliferation and Terrorism Studies](#) degree program since 2011, will serve on a

subgroup of [the study](#) focused on chemical threats. Studies sponsored by the National Academies are designed to convene top experts in the nation on important current policy issues. “This particular study is a congressionally mandated, yearlong, three-pronged effort looking at WMD (weapons of mass destruction) terrorism,” explains [Bleek](#). “The end result is a report in which we look at each type of threat and at current responses to it, in particular identifying gaps in current responses.”

At the Institute, Bleek teaches a popular seminar on chemical, biological, radiological, and nuclear (CBRN) terrorism, and both CBRN terrorism in general and chemical terrorism in particular have been a significant focus of both his academic and policy work. In 2012–13 he took a leave to serve as senior advisor in the Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, an assignment that saw him help draft the *National Defense Strategy for Countering WMD*, the Department of Defense’s highest-level policy document on this topic.

“I really like CBRN terrorism as a topic,” says Bleek. “One thing I tell my students is that smart, well-informed people often differ dramatically about this topic, because it involves projecting futures that might be very different from what we’ve seen in the past. There are people who think the threat is wildly overblown, and people who genuinely lose sleep over it, and then a whole spectrum in between. I find that fascinating; I love the conceptual nature of projecting futures that might look very different and trying to be analytically rigorous about that.”

Bleek views the study as “an extraordinary opportunity” to be part of a conversation with some of the nation’s leading experts on WMD terrorism and expects the project to inform both his teaching and his research in the future. He has also applied for funding from the Institute to hire a graduate research assistant to support his work on the study. “One of the



highlights of my time at MIIS has been the opportunity to work with a number of students on research projects that have led to significant coauthored professional publications.”

“Dr. Bleek invests in students,” says his former graduate research assistant Cyrus Jabbari MANPTS '20, now an analyst serving in the Office of the Under Secretary of Defense for Research and Engineering. “I was thrilled to have the opportunity to collaborate with him to publish and brief on topics that had largely gone unnoticed in the CBRN world, such as microfluidics technology, acid attacks, and a possible Iranian biological weapons program. These opportunities allowed me to grow my network in the field, pursue multiple assistantships, internships, fellowships, and consultancies, and eventually land my dream job at the Pentagon.”

### Policy Engagement Is Valued alongside Academic Engagement

The [mission](#) of the National Academies of Sciences, Engineering, and Medicine is to “provide independent, objective advice to inform policy with evidence, spark progress and innovation, and confront challenging issues for the benefit of society.” The academies regularly organize studies that bring together leading experts on a particular topic. Professor [William Potter](#), founding director of the Institute’s [James Martin Center for Nonproliferation Studies](#) (CNS), has been appointed to several studies.

On the Institute campus, Professor Bleek is affiliated with both CNS and the [Center on Terrorism, Extremism, and Counterterrorism](#), and leads the [Cyber Collaborative](#). As the 2021 winner of the Institute’s annual [Excellence in Teaching Award](#), he was the featured faculty speaker at [winter Commencement](#) last December.

“MIIS is a place where policy engagement is valued as much as traditional academic engagement,” says Bleek, “and that’s fantastic both for me and for my students.”

**EDITOR’S COMMENT:** I envy this guy! 😊

## False Flag Isn’t Russia’s Only Chemical Weapons Scenario

By Peter Brookes

Source: <https://www.heritage.org/global-politics/commentary/false-flag-isnt-russias-only-chemical-weapons-scenario>

Mar 25 – It’s very possible that Russia might use chemical weapons in a [false flag](#) operation in [Ukraine](#), based on information the Biden administration has shared with the public on that frightening scenario.

But a false flag operation isn’t the only option for Russia to use [chemical weapons](#) in Ukraine, potentially blaming a strike on any number of possible Ukrainian, Russian, or even Belarusian civilian or military targets on Ukrainian, U.S., or even NATO forces.

Instead, considering the seesawing state of the battle for the future of Ukraine, [Moscow](#) could decide to use chemical weapons against Ukrainian forces or civilians to gain a potentially decisive advantage in the war.

But why use chemical weapons? There are a couple of reasons.

The first is to terrorize the Ukrainian government and its people by using a weapon of mass destruction. For instance, the Russians could strike an undefended Ukrainian village with a chemical weapon, such as industrial chlorine or the nerve agent [Novichok](#).

Many, undoubtedly, would die a horrible, agonizing death from those weapons. The news of the atrocity would spread quickly in the information space, causing mass panic and huge refugee flows across Ukraine.

The horrific attack would serve as a serious warning to those resisting Russian aggression both inside and outside the Ukrainian government: If you continue to oppose the invasion, you, too, may suffer the same fate as those innocent villagers.

A second reason would be to potentially destroy entrenched Ukrainian military and paramilitary forces engaged in urban warfare. Street-to-street and door-to-door fighting in large towns and, especially, cities can be very dangerous and bloody for an attacking force.

Indeed, the defender can have a big advantage, knowing the topography, streets, alleys, and buildings, which allows for effective military planning and the preparation of fortifications and fields of fire to blunt an offensive.

In some cases, to win in an urban environment, it is often said that it might take 10 attackers for every one defender.

If Russia intends to capture the Ukrainian capital, Kyiv, a huge city of a few hundred square miles, it could be very difficult for its forces—and turn out to be exceedingly costly in terms of the potential loss of personnel and equipment.

Instead of storming any city, Russia could saturate all or parts of a city and its well dug-in defenders with a variety of chemical weapons, using a range of delivery platforms from aircraft to missiles to artillery.

Unprotected from the unleashed Russian chemical agents and unable to stop the spread of the poisonous gas across the city, the Ukrainian defenders would be in great peril despite





their well-built bastions. Any of these tactics could arguably make a big difference in the battle for Ukraine. Unfortunately, those terrible tactics using deadly chemical weapons aren't unprecedented in recent military history. Just look at what Russia's ally [Syria](#) did with chemical weapons during some of the darkest days of the Syrian civil war. [Damascus](#), on a number of occasions, used chlorine gas and sarin nerve agent against its opponents, including innocent civilians. As a military ally of Damascus, Moscow certainly would have learned much from its Syrian sidekicks. [The State Department](#) claims Russia has an active, undeclared chemical weapons program and can't verify that Moscow has destroyed its chemical weapons stockpiles as required under the Chemical Weapons Convention. Indeed, the Kremlin has used those weapons (e.g., Novichok) against political [opponents](#) and others in recent years. As such, it should be expected that Russia would be willing to use chemical weapons in Ukraine.

Moreover, Russia has [troops](#) specializing in nuclear, chemical, and biological defense. These specialized forces are tasked with assisting the Russian military in operating in a contaminated battle space if necessary.

In response, [NATO](#) is expected to agree to provide assistance to Ukraine against this threat of Russian weapons of mass destruction at this week's emergency summit in Brussels.

Of course, Russia wouldn't admit responsibility for using chemical weapons in Ukraine, which would violate international law, well-established global norms, and the [Chemical Weapons Convention](#), of which Russia is a signatory.

Undoubtedly, Moscow would call upon its accusers to prove Russian involvement in such a heinous act of violence.

While there might be strong U.S., NATO, Ukrainian, or other information and even "smoking gun" intelligence that indicates Russian responsibility, Moscow would deny it, asking for independent evidence.

Obtaining that proof would be hard to get in a hot war zone.

The point here is that there are plenty of reasons to be concerned about Russia's potential use of chemical weapons in Ukraine—and it's not only the possibility of a false flag operation to justify its unprovoked and unjust invasion of its neighbor.

As such, the U.S., our allies, and partners need to be thinking about these other sobering scenarios for when [Russia](#) might unleash its chemical weapons on Ukraine.

**Dr. Peter Brookes** is The Heritage Foundation's Senior Research Fellow for Weapons of Mass Destruction and Counter-Proliferation. Before joining Heritage in 2002, Dr. Brookes served in the administration of President George W. Bush as deputy assistant secretary of defense for Asian and Pacific affairs. In this post, he was responsible for U.S. defense policy for 38 countries and five bilateral defense alliances in Asia. Before serving in the Bush administration, Dr. Brookes was a professional staff member with the House International Relations Committee. He also served with the CIA and the State Department. In the private sector, he worked in the defense industry. Prior to beginning his civilian career, Dr. Brookes served in the U.S. navy in aviation and intelligence assignments. Now a retired naval officer with the rank of Commander, while a reservist, he served with the National Security Agency, Defense Intelligence Agency, Office of Naval Intelligence, the Joint Chiefs of Staff, and the Office of the Vice President. He holds a doctorate from Georgetown University and a master's degree from Johns Hopkins University. He received his bachelor's degree from the U.S. Naval Academy, appointed to Annapolis by the late Congressman Jack Kemp (R-NY). Dr. Brookes is also an honor graduate of the Defense Language Institute, where he studied Russian, and the Naval War College. He has taught at the National Defense University and was an associate professor at the Joint Military Intelligence College at the Defense Intelligence Agency. Among his awards and honors are the Navy League of New York's Frank Knox Media Award; Joint Service Commendation Medal; Navy Commendation Medal (three); Navy Achievement Medal; Defense Language Institute's Kellogg Award; Joint Chiefs of Staff service badge; and Naval Aviation Observer wings.

## Mawlawi Asks Army to Guard Zouk Plant to Prevent Chemical Explosion

Source: <https://www.naharnet.com/stories/en/288735-mawlawi-asks-army-to-guard-zouk-plant-to-prevent-chemical-explosion>

Mar 24 – Interior Minister Bassam al-Mawlawi has asked the army to send soldiers to the Zouk power plant to protect fuel tanks and expired chemical materials that "could cause an explosion," a day after Cabinet tasked the army with safeguarding the site.

"The plant's current security situation is not appropriate due to the presence of holes in the electronic fence and the absence of any guards, which would allow individuals to enter into its premises, where hydrogen and fuel oil tanks and some expired dangerous materials are present," Mawlawi said in a statement.

Should there be "an act of sabotage," the aforementioned materials might "lead to an explosion," the minister warned, noting that "large gas tanks belonging to a company are also present near the plant."



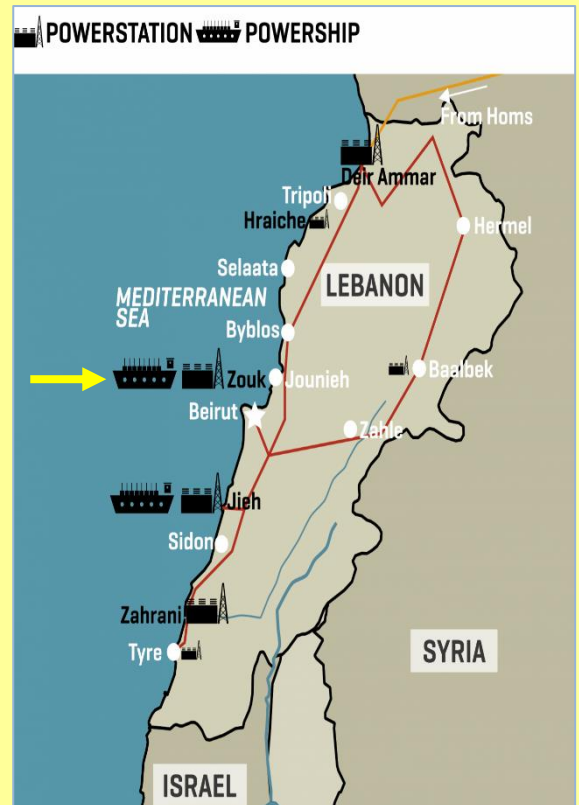


Mawlawi noted that he had asked Cabinet in Wednesday's session to "provide guards for the Zouk power plant and all its installations until its administration manages to continue repair works."

"The Ministry of Energy and Water was also tasked with dismantling the old plant or ridding it of dangerous materials," he added.

"Consequently, Cabinet decided to task the army to immediately provide a security checkpoint for the plant and to inspect the present materials, take the necessary measures to prevent any harm resulting from them, and work on removing them immediately," Mawlawi explained. Accordingly, he said he

has sent a memo to the Defense Ministry, demanding that all measures be taken to implement Cabinet's decision and warning that failure to take instant measures might jeopardize the safety of citizens and installations in the plant's vicinity. Mawlawi also reassures that he is following up closely on the matter. Speaking to al-Jadeed TV, the town's mayor warned that **"ammonium nitrate" is present at the plant, the same material behind the catastrophic 2020 explosion at the Port of Beirut.**



## Why Halabja should be recognized as genocide

By Farhang Faraydoon Namdar

Source: <https://www.jpost.com/opinion/article-702479>

Mar 27 – At the conclusion of the Iran-Iraq war (1980-1988), the Kurdish city of [Halabja](#) was chemically bombarded by the Iraqi army. It left thousands of children, women and men suffocated to death. After 34 years, the incident has been largely forgotten, and it is still not recognized as genocide.



On **March 16, 1988**, 32 Iraqi fighter jets began bombarding the city of Halabja for six consecutive days. "We hid in a cave on the border of Iran for days as the fighter jets continued to bombard," said Nawshirwan Pasha. He is now 45 and lives in Europe. Surprisingly, he is still labeled as a martyr of the chemical bombardment by the government, he added.

The fighter jets deployed internationally banned weapons of mass destruction (WMD) such as mustard gas, cyanide and nerve agents. **It left between 2,000 to 3,500, not 5,000 people, as it is publicly claimed, dead and more than 10,000 refugees.** The scene left in the unpaved streets of Halabja resembled the atrocities of the Holocaust.

Halabja is home to religious minorities such as Kakis, a distinct

religion found in Halabja. Kakai's holiest site is also located in Halabja. The town hosted a substantial Jewish population at the time.





## ICI C<sup>2</sup>BRNE DIARY – April 2022

All these religious minorities were ethnically [Kurdish](#), but the Ba'athist party in control of Iraq denied their existence – making it a textbook example of genocide. If genocide is the intentional extermination of an ethnic, national, racial or religious group, then Halabja suits all the categories.

Halabja is a city that lies only 15 km. from the Iranian border. During the eight-year Iran-Iraq war, the city was constantly shelled. The [Islamic Revolutionary Guards Corps](#) (IRGC) could not capture the city, as Saddam Hussein had positioned one of Iraq's nine divisions in the governorate of Sulaymaniyah which includes the district of Halabja.



Halabja Monument (Illustrative). (credit: Wikimedia Commons)

Hussein had positioned a brigade in Halabja. The Iraqi Army had shifted its military center to the area, after years of stalemate in the south. Each division included more than 30,000 troops assisted by various paramilitary forces, usually made up of the local Kurdish population.

[IRAQI-KURDISH children visit a cemetery for victims of the 1988 chemical attack in the Kurdish town of Halabja, near Sulaymaniyah, Iraq.](#)

The formidable Iraqi army, backed by the West, was difficult for the IRGC to defeat on its terms. Tehran was able to penetrate the rank-and-file of the Ba'athist army in Halabja using methods such as Shi'ite ideology and escape from Saddam's execution. It was common for commanders to be executed after failing to secure an objective.

IN 1988 an Iraqi brigadier general in charge of the Ba'athist army in Halabja, Ali Najafi, had secretly pledged allegiance to Tehran. In mid-March 1988, Tehran commenced "Operation Zafar 7" to capture the governorate of Sulaymaniyah. The objective of capturing Sulaymaniyah was to give Tehran a better bargaining position in the ongoing ceasefire talks.



As Halabja was under constant attack, on March 15, Hussein came to Sulaymaniyah, a city that lies 45 km. north of Halabja. According to a former Ba'athist adviser, who didn't want to be named, and various Kurdish military commanders and figures, from Sulaymaniyah Saddam Hussein directly radioed Ali Najafi and told him if he needed further assistance.



*"Silent Witness", photographed by Ramazan Öztürk.*

The commander replied, "let the assistance go to your dad's grave," a severe rebuke in Iraqi culture. Later that day, Najafi surrendered to Iran. IRGC alongside their Kurdish Peshmerga allies entered the city. The angered dictator gave the order. A decision was made to erase the city, to deny Iran any territorial claims, and save its army from disintegration and coups in Baghdad.

After eight years of trench warfare, Hussein was convinced that to save his country, he had to stop the war. A guilty conscience for Halabja did not convince Saddam to stop the war. But the collapse of its military in Halabja did convince the brutal, obstinate dictator to give in.

Although the decision to chemically bombard Halabja was not planned before, the Ba'athist regime had perpetrated similar crimes. On April 14, 1988, the Iraqi army commenced the Anfal campaign.

More than 182,000 Kurds of all ages and genders, from newly born infants to septuagenarians, were buried alive and treated in the worst possible ways in Saddam's gulags in the deserts of Iraq. Not to mention that its random targeting of Iranian cities during the war claimed thousands of lives. Serving as one of the main factors of concluding the longest war of the 20th century, Halabja has been denied its proper recognition.

Hussein felt the graveness of his crime. Months after the chemical bombardment Hussein built a brand-new Halabja city about 30 km. from the original Halabja. The city was populated in six months, mostly by internally displaced Kurds who had run from Halabja. My family was one of those families who moved to the city. In 1989, the dictator promoted the city to a municipality and named it "Saddamist Halabja." In colloquial language, it is called "The New Halabja." Now the city is officially known as Sharazoor.

The Ba'athist regime built the city to prove to the international community that it had not destroyed Halabja using WMD. The new city served as a façade for Saddam Hussein to hide its textbook example of genocide.

TEHRAN WAS quick to bring international journalists to cover what had really happened. Hundreds of journalists took photos of the people of Halabja who had suffocated to death and their corpses scattered across the streets.

Hundreds of infants and young children went missing. Many of the missing have assimilated into the places they were raised in; they don't know their real origins because they were infants or only one or two years old at the time. "It was appalling to see infants suffocated in their mothers' arms," said Ahmad Natqi, a veteran Iranian journalist who covered the incident





as the jets were flying over. The documents gathered in Halabja helped in toppling its perpetrators years later.

Halabja was a great factor in justifying the US invasion of Iraq. After months of looking for weapons of mass destruction, the coalition against Hussein did not find any evidence. Halabja became the center of attention but only to be forgotten hours later. Former US secretary of state Colin Powell; and provisional coalition administrator in Iraq, Paul Bremer, visited the newly repopulated Halabja.



The visit brought international media attention to prove that Hussein did possess weapons of mass destruction.

The West had supplied Hussein with its arsenal for the war's entirety. The Ba'athists did use chemical weapons on Iranian targets as well. Yet they did not possess the technology to make them. Though officially no evidence of WMD was found in Iraq, Halabja proved that Baghdad did possess WMD.

The incident demonstrates how the states that supplied Hussein can escape impunity. Producing WMD should be illegal. Even if the producer doesn't deploy it, these weapons would provide a rogue regime a reason to deploy them for

economic and scientific purposes.

HALABJA IS currently ruled by the Kurdish people, yet the city lags behind. It has not been entirely rebuilt, and its appearance is worse than before it was bombed. There are still tens of wounded from chemical weapons who need immediate attention. Every year several people lose their lives to their wounds.

More than 95 percent of its officials, including its governor, mayor and head of municipality live outside the city. Most of them only visit the city three or four times a week and stay there for a short period. In comparison, the Ba'athists who ruled the city did stay in the city until their duties were over.

The [genocidal](#) aspect of the atrocity aside, the incident tells us how war sacrifices everything for meaningless military victories. The war in Ukraine is far more dangerous, with far more lives in danger.

Halabja reminds us that genocide is usually a side effect of war. Most appalling genocides, including the Holocaust and the Armenian genocide, happened during war. Halabja deserves to be recognized as genocide internationally. It helped the world realize Hussein's threats to world peace and security.

[Farhang Faraydoon Namdar](#) is a researcher and journalist covering the Middle East and international affairs. His work has been published in The Jerusalem Post, The National Interest and various Kurdish magazines. He is a former editor-in-chief of Birst newspaper. Currently, he is a researcher at the Kurdistan Conflict and Crisis Research Center (KCCRC) focusing on international relations.

## Remember the Lessons of Tokyo Sarin Attack as Russia Further Threatens Ukraine

Source: <https://japan-forward.com/editorial-remember-the-lessons-of-tokyo-sarin-attack-as-russia-further-threatens-ukraine/>

Mar 28 – As the only nation that has suffered an atomic bomb attack and chemical terrorism, Japan must not view Ukraine as just a distant conflict.

It has been 27 years since the sarin gas attack on subways in the heart of Tokyo.

During rush hour on the morning of March 20, 1995, domestic terrorists dispersed the extremely toxic liquid nerve agent sarin in five cars on three subway lines running through the Kasumigaseki district, where the headquarters of several central government ministries and agencies were concentrated. As a result of the chemical attack, 14 people died and more than 6,000 others suffered physical problems, some serious.



## ICI C<sup>2</sup>BRNE DIARY – April 2022

This attack on the center of Japan's capital was an unprecedented case of indiscriminate terror. The aim of the cult that perpetrated the atrocity was nothing less than the overthrow of the Japanese government, as shown by the fact that it had purchased a military-use helicopter and automatic small arms from Russia.



Shoko Asahara, leader of the Aum Shinrikyo sect who ordered his followers to carry out the Tokyo Metro sarin gas attack.

The name of the cult was Aum Shinrikyo. In the wake of a series of deadly crimes carried out by its members on orders from its leader Shoko Asahara, born Chizuo Matsumoto, Asahara and 12 of his disciples were later sentenced to death. Their executions were carried out in July 2018.

Thirteen victims died in the March 20, 1995 Tokyo Metro sarin gas attacks alone, and several thousand were injured, including 54 victims with serious injuries.

Although 27 years have passed since that fatal March morning, the sorrow and pain of family members of those killed in the attack and surviving victims continues unabated, with many survivors still suffering from impaired vision and other after-effects. For them, that terror attack never ended.



On March 20, Shizue Takahashi, the widow of a subway employee who died in the attack, could be seen laying an offering of flowers at the Kasumigaseki Station on the Tokyo Metro.

She said she was afraid that the public would forget the horror of that day. "What I most hope to achieve through my activism is to tell young people [about the incident]. I hope to do so one step at a time."

Emergency workers respond to the Tokyo Metro sarin gas attack in full protective gear.



The government and related organizations too need to let the world know what happened in the subway attack, which was an exceptional case in which the nerve center of a nation was subjected to chemical terrorism.

After all, at this very moment Russia continues its invasion of Ukraine, with the chances rising of an attack with biological or chemical weapons on the capital of Kyiv or the port city of Mariupol in the southeast region of the country.

Russia has been spreading false reports alleging that the United States and Ukraine have been jointly developing biological and chemical weapons. US President Joe Biden says that these reports are a clear sign that Russia is itself considering using such inhumane weapons.

If biological and chemical weapons like sarin are employed even once, it will cause enormous suffering among the civilian population and stymie relief efforts. It would also constrain the efforts of Ukrainian authorities to maintain operation of transportation systems and other vital infrastructure, and prolong the horrendous

conditions their people are enduring.

Russian President Vladimir Putin is obviously incensed about how his war on Ukraine is not proceeding as he had expected. There is therefore growing concern that he might resort to the use of tactical nuclear weapons in addition to biological and chemical weapons.





Japan is the only nation that has suffered an atomic bomb attack. And its capital has also experienced chemical terrorism. The unfolding tragedy in Ukraine should not be viewed as just a conflict on the distant continent of Europe. Japan must give deep thought to the situation and then do the things that we are able to do. Keeping the memory of the sarin subway attack alive is certainly one of those things.

**EDITOR'S COMMENT:** The United States attacked Japan with nuclear weapons during WW2. The Tokyo subway sarin incident was a terrorist act by a religious cult. Imperial Japan attacked China with biological weapons during WW2 (remember Unit 731?). Russia is a legitimate nuclear state. In that respect, it is not necessary to threaten nobody. Russia never threatened to use chemical weapons against Ukraine or any other nation. On the other hand, the US, UK, NATO, Japan, and other countries warned that Russia will (not might) use chemical weapons against Ukraine and neighboring countries that belong to the NATO coalition. And there is also the open issue of US-backed biological labs in Ukraine. This is how things are and it is not nice to say otherwise.

## Russian oligarch Roman Abramovich and Ukrainian negotiators were targeted in a suspected poison attack, WSJ reports

By Jake Epstein and John Haltiwanger

Source: <https://www.businessinsider.com/roman-abramovich-ukraine-negotiators-poison-attack-symptoms-wsj-report-2022-3>



Responding to the confirm that three

"Abramovich, along with another Russian entrepreneur, had taken part in the negotiations alongside Ukraine's MP Rustem Umerov. The negotiation round on the afternoon of 3 March took place on Ukrainian territory, and lasted until about 10 pm," Bellingcat added. Three members of the negotiating team experienced symptoms after going back to their hotel that night, including "eye and skin inflammation and piercing pain in the eyes," the tweets said.

The next day the negotiators made their way toward Lviv, in Western Ukraine, and a Bellingcat investigator was asked to help provide an examination by chemical weapons specialists.

"Based on remote and on-site examinations, the experts concluded that the symptoms are most likely the result of international poisoning with an undefined chemical weapon," Bellingcat said. "The experts said the dosage and type of toxin used was likely insufficient to cause life-threatening damage, and most likely was intended to scare the victims as opposed to cause permanent damage. The victims said they were not aware of who might have had an interest in an attack."

Russia has been accused of suspected poison attacks in the past, including an incident involving the Soviet-era nerve agent Novichok that [nearly killed top Kremlin critic Alexei Navalny](#).

**Jake Epstein** is a Junior Breaking News Reporter on the Speed Desk, based in Boston. Prior, he worked at The Times of Israel, freelanced in the Boston area, and interned at CBS



Boston. He graduated from Lehigh University with a degree in journalism and international relations in May 2020. At Lehigh, he was the editor in chief of the independent student newspaper The Brown and White.

**John Haltiwanger** is a senior politics reporter at Business Insider. He reports on all things politics with a particular focus on national security and foreign policy. John has a BA in History from St. Mary's College of Maryland and an MSc in International Relations from the University of Glasgow.

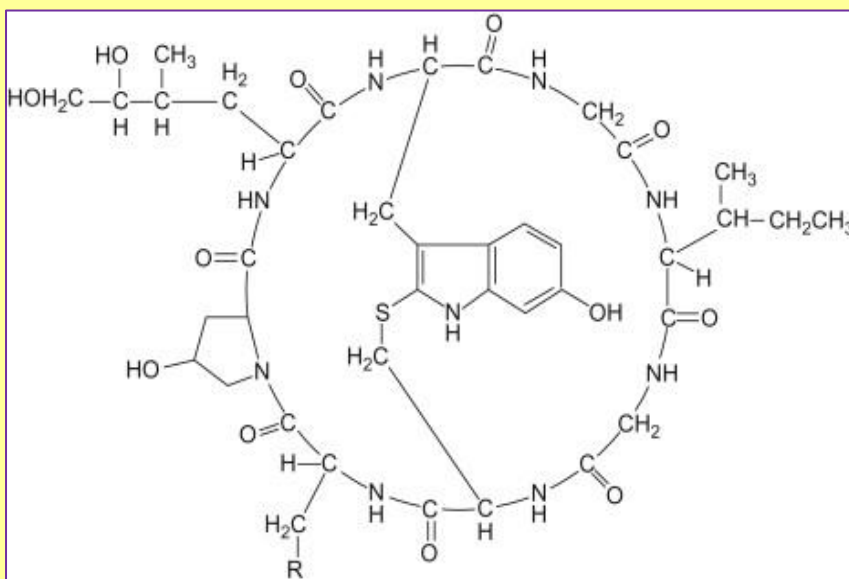
**EDITOR'S COMMENT:** It seems that for fake news the sky is the limit! Could it be an exposure to an agent like mustard-lewisite or alike alone or in combination (porphyrin/lead poisoning, organophosphates [nerve agents – e.g., Novichok], chloropicrin<sup>2</sup> or bicyclic substances [amatoxins/poisonous mushrooms])? Can those behind the alleged poisoning control the CWA/BWA dosing aiming not to kill but only to sicken the person exposed? And there is always the never solved Cuba (electromagnetic/microwave) mystery and the airborne stupidity virus! “When you hear about many cherries, hold a small basket” (a Greek saying) but also there is no smoke without a fire unless the burning material comes from a propaganda tree.



## Amatoxins

Source: <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/amatoxin>

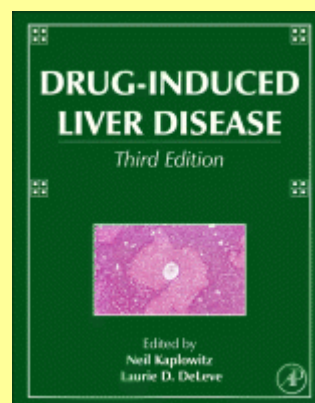
The [amatoxins](#) are bicyclic [octapeptides](#). There are different amatoxins; **alpha, beta, and gamma amatoxins are the most powerful toxins**. Their molecular weight is about 900 Da. [Amatoxins](#) are heat stable and are thus not destroyed by cooking; neither are they destroyed by freezing or freeze-drying. Amatoxins remain toxic after prolonged periods of storage. Amatoxin concentration varies in the different parts of the mushroom. The highest concentration is found in the ring (about 6 mg/g),



while the bulb has the lowest toxin content (about 0.2 mg/g) [10]. Overall, the toxin content is higher in mature mushrooms than in young specimens. Additionally, it seems that [amatoxin](#) content varies according to different geographic areas. It is slightly higher in *A. phalloides* specimens from Europe than in those from North America [10].

The absorption of amatoxins varies according to species. Rodents are unaffected, while guinea pigs, dogs, and human beings, among other species, readily absorb the toxin. Amatoxins are powerful toxins. Ingested amounts as low as 0.1 mg/kg are sufficient to be lethal [11]. A single full-grown specimen of *A. phalloides*, weighing 20 g, contains about 5–8 mg of amatoxin and is,

<sup>2</sup> Chloropicrin, also known as PS and nitrochloroform, is a chemical compound currently used as a broad-spectrum antimicrobial, fungicide, herbicide, insecticide, and nematicide. Its chemical structural formula is Cl<sub>3</sub>CNO<sub>2</sub>. In World War I German forces used concentrated chloropicrin against Allied forces as a tear gas. While not as lethal as other chemical weapons, it caused vomiting and forced Allied soldiers to remove their masks to vomit, exposing them to other, more toxic chemical gases used as weapons during the war.





ingestion. The distribution of the toxin to different compartments and tissues is also rapid. As a result, **amatoxin is unlikely to be detected in serum more than 36–48 h after ingestion**. Amatoxins do not bind to [plasma proteins](#). The main route of elimination is the kidney. Interestingly, toxins can still be found in urine after they have become undetectable in serum. Early after ingestion, the urine concentration of amatoxins is 10–100 times higher than the blood concentration [12]. There is also biliary excretion of amatoxins, which are found at a high concentration in gastroduodenal fluid. Importantly, there is enterohepatic recycling of this toxin, which contributes to a toxic circle. Experimental studies have shown that amatoxin transport into human hepatocytes is mediated by the nonspecific organic [anion](#) transporting polypeptide-1B3 (OATP-1B3), on the basolateral membrane [13]. The other transporters, OATP-1B1 (which is the main transporter of phallotoxin) and OATP-2B1, seem to have little or no transport activity for amatoxin.



Under experimental conditions, membrane transport of amatoxin and hepatocyte damage is inhibited by [cyclosporin A](#), [penicillin G](#), [rifampicin](#), and [silibinin](#) [13]. [Cholecystokinin octapeptide](#) also inhibits amanitin uptake into hepatocytes.

◀ [Amanita phalloides](#) | [A. ocreata](#) ▶

The mechanism of amatoxin toxicity is related to the propensity of this compound to form tight complexes with [RNA polymerase II](#) [2,14]. By complexing with the intracellular RNA



polymerase II enzyme, amatoxins inhibit the formation of mRNA and, in turn, protein synthesis, rapidly leading to cell necrosis. Cells expressing transporters are mainly affected. Experimental studies in mice have shown that, besides cell necrosis, apoptosis also occurs in amatoxin-induced toxicity [15,16]. Induction of apoptosis may result from the synergistic action of amatoxin with endogenous [tumor necrosis factor](#) (TNF- $\alpha$ ). Indeed, a 50% reduction in transcription by amatoxin is sufficient to sensitize liver cells to the toxicity of endogenous TNF- $\alpha$ , therefore promoting TNF- $\alpha$ -induced apoptosis [15]. In chronological order, and in parallel with the absorption and subsequent distribution of amatoxins, the principal targets are the intestinal mucosa, liver cells, and the proximal tubules of the kidney. Amatoxin concentration can be measured in urine and blood using [radioimmunoassays](#) or high performance liquid chromatography [17,18].

However, none of these techniques is routinely used. Direct identification of the toxin is not absolutely necessary for establishing the diagnosis of *A. phalloides* poisoning, nor is the measurement of toxin concentration helpful for the prognosis. A DNA-based microarray has been developed to identify *Amanita* mushrooms at the species level [19]. This test proved to be highly accurate at differentiating toxic species (*A. phalloides* and *A. ocreata*) from edible species. Mushroom DNA can be extracted from frozen, fresh, or dried specimens, when available [19]

●► **Read also:**

[Toxins](#) (WHO)

[Introduction to toxicology](#) (European Commission)

[Toxin types, toxicokinetics, and toxicodynamics](#) (Australia)

[Poisons, venoms, and toxins](#) (EOLSS)

[Marine toxins](#) (The Netherlands)

[Toxins and venoms](#) (Current Biology Journal)

## MIRA Safety CBRN NBC-77 SOF 40mm Filter

Source: <https://thepreppingguide.com/gas-masks-you-need-in-a-nuclear-attack/>

The best CBRN gas mask filter on the market today is the [MIRA Safety CBRN NBC-77 SOF 40mm filter](#). Unlike standard filters which are typically designed with a 6-year shelf life, MIRA's filters can **last for up to 20 years** and provide a full 24 hours of protection from the full spectrum of CBRN airborne contaminants and radiation.

The filters are produced with standard round threads according to STANAG 4155 (EN 148-1)- Rd 40x1/7". Filter all known CBRN agents, including radioactive iodine, rated for A2B2E2K2HgSXP3 D R.



Featuring rugged construction and individual, vacuum-sealed plastic packaging, these filters are well worth their premium price. Certified by European agencies and has the “CE” symbol. Compliant under EN 14387:2004 + A1:2008

### Application

The filter canister in connection with a suitable respirator or PAPR provides protection against solid and liquid particles, pepper spray (OC), smoke-producing substances, radioactive particles, bacteria and rickettsia, fungi, toxins, viruses, riot control agents (lachrymators, sternutators, vomiting agents), blister agents (vesicants), choking agents, blood agents, nerve agents, incapacitants, herbicides, pesticides, and TIC, such as bromoacetone, CS, CR, CN, CNC, CNS, CA substances, organic compounds of arsenic - diphenyldichlorarsine - CLARK I (DA), diphenylcyanoarsine - CLARK II (DC), adamsite (DM), diphenyldichlorarsine (DA), ethyldichlorarsine (ED), methyldichlorarsine (MD), mustard gas (H), sulphur mustard gas (HD), T-mustard gas, Q-mustard gas, nitrogen mustard gases (HN1, HN2, HN3), lewisite (L), mixed mustard gas (H-L), phosgene oxime (CX), phosgene (CG), diphosgene(DP), chloropicrin (PS), hydrogen cyanide (AC), cyanogen chloride (CK), arsine (SA), G-agents: sarin (GB), cyclosarin (GF), soman (GD), tabun (GA), IVA (GV), V-agents: VX, VR, VE, VG (amiton), VM and toxic industrial chemicals such as: fumes of organic or inorganic acids, hydroxides, organic solvents with a boiling point above 65° C, ammonia, amines, inorganic and acid gases, agricultural chemical combustion gases, other toxic substances, e.g. benzene, toluene, vinyl chloride, fluorine, hydrogen fluoride, sulphur oxides, chloroacetic acid, aldehydes, mixtures of inorganic acids, and organic substances, mercury vapors, radioactive iodine, organic compounds of iodine (Iodomethane, 129, 131), radioactive particles, etc.



### Gas mask filter storage and maintenance

Each NBC-77 SOF gas mask filter is sealed in a plastic bag by the manufacturer. Store the filters unopened in a clean place at even temperature, most appropriate at -5 to +30°C and relative humidity below 80%. Sealed filters tolerate also conditions of -30 to +50°C and RH below 95%. The storage period (month and year) for filters is marked on the filter label. Do not try to regenerate the filters. Never clean the filters with compressed air or compressed water.

## Biomedical Countermeasures: Non-Conventional Threats Require Non-Conventional Medical Solutions

By Mr. Frank Rando, CBRNE - Protective & Biomedical Countermeasures SME, University of Arizona & Ms. Dee Ruelas, Clinical Specialist, U.S. Customs and Border Protection, USA

*NCT Magazine 2022 6/19*

Source: <https://nct-magazine.com/nct-magazine-march/biomedical-countermeasures-non-conventional-threats-require-non-conventional-medical-solutions>



Amidst the backdrop of the armed conflict between Russia and Ukraine, looms the constant threat of non – conventional warfare utilizing CBRN agents, along with the inherent dangers of a radiological release from existing nuclear power facilities, including the remnants of the damaged Chernobyl Reactor #4.

Superimposed on this scenario, exists the possibility of biocontainment failures or other calamities associated with the seizure or destruction of biowarfare and biotechnological laboratories in the Ukraine.

**Chemical** – Antidotes, protective creams, antioxidants, newer decontamination agents, rapid assays, exposure biomarkers, PPE

**Biological** – Antimicrobials, antivirals, vaccines, antifungal compounds, antitoxins, immune boosters, rapid assays, advanced diagnostic platforms, immune modulators, pheresis for inflammatory cytokines in sepsis, nanotechnology drug delivery systems.





**Radiological-** Chelators, radioprotective agents, cytokines (for bone marrow suppression/ dysfunction) – may also be used for radiomimetic effects of mustard agents), bioassays, including chromosome/ cytogenetic analysis.

**Nuclear-** Novel burn treatments, novel decontamination products and processes.

Currently, the international community faces the implications and consequences of escalating aggression, violence and atrocities condoned and perpetrated by a nation – state actor which is a nuclear- capable superpower. In addition, we continue to face the challenges of mitigation and response to a pandemic emergency that has killed millions and overwhelmed global public health and health care delivery systems.

Emerging infectious diseases seem to be nature's perfect enemies facing humankind and purposely cultivating, engineering, and weaponizing microorganisms, old and new, to serve as weapons of war are a burgeoning threat to human, animal and plant life and health. Furthermore, the use of CBRN materials in both domestic and international acts of terrorism as well as accidental releases of hazardous materials cannot be discounted.

●► Read the full article at the source's URL.

## Advances in Field Diagnostics for Chemical Agents

By Col. Robin R. Neumeier, Commander, U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), USA & Dr. James Dillman, Director of Research, U.S. Army Medical Research Institute of Chemical Defense, USA

*NCT Magazine 2022 6/19*

Source: <https://nct-magazine.com/nct-magazine-march/advances-in-field-diagnostics-for-chemical-agents>

In the event of a chemical warfare agent exposure, the expedient administration of medical countermeasures is critical to prevent life-threatening consequences and facilitate warfighter return to duty. For most chemical nerve agent exposures, the onset of symptoms is immediate, but dermal exposures to some chemical warfare agents can

have a latent or pre-symptomatic period, thereby resulting in a delay in providing treatment.

Scientists at the U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), a subordinate element of the U.S. Army Medical

Research and Development Command, are tackling the problem of diagnosing pre-symptomatic exposures in innovative and unique ways. The ChemDx Test System is an ultra-portable, easy-to-use point-of-care diagnostic device for nerve agent exposure on the austere battlefield.

A skin exposure-detection spray, still in the early phases of development, uses a reactive elastomeric film to indicate the exact sites of cutaneous exposure to chemical agents.

### The benefits of the ChemDX Test System

The ChemDx Test System is designed to inform both medical and commander decisions as to the timely use of medical countermeasures, thereby enhancing survivability with respect to medical treatment of chemical casualties on the battlefield and lowering the burden on the medical response.

●► Read the full article at the source's URL.





## The Possibility of Heat Stress Reduction by Contemporary Body Cooling Systems

By Colonel Radovan Karkalic, Ph.D., Full Professor Military Academy, University of Defence, Belgrade, Republic of Serbia  
NCT Magazine 2022 6/19

Source: <https://nct-magazine.com/nct-magazine-march/the-possibility-of-heat-stress-reduction-by-contemporary-body-cooling-systems>

Personal protective equipment (PPE) is any physical material or equipment that is placed between the employee and workplace hazards to reduce the injury potential of the hazard. PPE are devices used to protect an employee from injury or illness resulting from contact with chemical, biological, radiological, nuclear, physical, electrical, mechanical or other workplace hazards.

Protection mechanisms are generally strongly associated with the physical state of the hazard. PPE must protect against CBRN agents in three physical states: gas or vapor, liquid, or aerosol (a solid particulate dust or liquid mist). Gases, vapors, and aerosols are airborne, whereas liquids are generally, short-range contact hazards only. Wearing PPE helps to reduce risk of exposure to different chemical warfare agents or other toxic chemicals. The level of protection depends of personal protective clothing types, wearing modality, environmental and other conditions. While working with pesticides that maximum attention should be paid the full chemical protection of the body and respiratory system. Body protection involves the use of different types of protective clothing, respiratory protection and adequate use of resources, from simple respirator to self-contained breathing apparatus.

COOLING VESTS WITH AIR VENTILATION		COOLING VESTS WITH TUBES AND COMPRESSOR	
<p><b>SWOUT*</b> (<a href="http://www.eng.bluechersystems.com">www.eng.bluechersystems.com</a>)</p> <p><b>Producer:</b> BLÜCHER SYSTEMS* GmbH, Van-der-Upwich-Str. 37, 41334 Nettetal, Germany</p> <p><b>Types:</b> standalone, with SK1 vest</p> <p><b>Cooling effects:</b> Swout* is an innovative ventilation shirt designed to provide the wearer with a comfortable and even body climate.</p> <p>The air that is blown into the system is neither dried nor cooled down. The Swout* system simply encourages evaporation so that the body can carry out its natural function of cooling itself via the evaporation of perspiration.</p> <p>Special <b>preparation</b> is no need. It can be worn under all kinds of clothing which tend to keep body heat trapped close to the skin.</p> <p><b>Active working time:</b> min 2 hrs</p> <p><b>Weight:</b> 1 kg</p>	 <p>Rechargeable battery</p> <ul style="list-style-type: none"> <li>1 Soft ballistic vest with integrated ventilation system</li> <li>2 Ventilation system with rechargeable battery and remote control</li> <li>3 Pouch for identity disc</li> <li>4 Main air outlet</li> </ul>	<p><b>ASPEN SYSTEMS</b> (<a href="http://www.aspensystems.com">www.aspensystems.com</a>)</p> <p><b>Producer:</b> Aspen Systems, Inc. 84 Cedar Hill Street, Marlborough, MA 01752, USA</p> <p><b>Types:</b> Man-mounted, Vehicle installed, Hand held</p> <p><b>Cooling effects:</b> The miniature refrigeration unit is used to chill a liquid (usually water), which is then circulated to a tube-lined garment worn by the user. A custom-designed digital control system maintains the circulating liquid temperature at the user-selected set point by varying the speed of the compressor. The rotary compressor was originally designed to provide 300 W of cooling in a 38 °C environment.</p> <p>Special <b>preparation</b> in no need.</p> <p><b>Weight:</b> 2.72 kg</p> <p><b>Active working time:</b> up to 4 hrs</p>	

One of the greatest tasks is the process of heat stress alleviation in the high toxic contamination environment. One of the methods is based on applying contemporary PCM (Phase Change Materials), cooling vests with different types of cartridges with salts or gels, cooling vests with tubes and specific compressors etc. All of these systems are more or less effective in the reduction of thermal stress. These technical and technological solutions greatly enhance safety and increase the user's physiological suitability, especially during different activities connected with dangerous chemicals.

●► Read the full article at the source's URL.

## Chemical Weapons in the Ukraine: Let's Talk Probability versus Reality

By Mr. Terrence K. Cloonan, Physical Scientist (Retired), CDC, NIOSH and former U.S. Army Major, CM-RA, USA

NCT Magazine 2022 6/19

Source: <https://nct-magazine.com/nct-magazine-march/chemical-weapons-in-the-ukraine-lets-talk-probability-versus-reality>

Smell something "fishy"? How about cut hay, grass, or fresh green corn smells? Perhaps a strong "fruity" smell? Or faint bitter almonds, strong garlic, or basement musty odors not commonly detected? If you do, you may have just stumbled upon a chemical warfare agent (CWA) release.





On an evolving city landscape being shelled and targeted with military precision since February 24, 2022, the smelly odors or “malodorants” can be indicators of special frangible chemical munition detonations. Such detonations or controlled releases rely on explosive bursts or sprays that disseminate airborne gases or liquids of naturally occurring or synthesized organic or inorganic chemical compounds.

Chemicals that are designed to injure or kill opposing military forces without relying on high explosive kinetics. Your innate senses allow you to see, smell, taste, touch, and execute muscle movements. If you have the presence of mind to stop and recognize such smelly odors before they accumulate in a large amount, you will be or may be able to take appropriate protective actions to stop, limit, or prevent yourself from being contaminated or exposed. Relevant key terms, related to your sense of smell are odor detection, odor recognition, and odor intolerance thresholds.

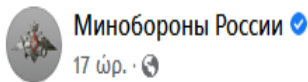
An odor detection threshold is defined as the concentration of gas or vapor that can be discriminated from fresh air. In 2022, it is known that each of us has slightly different odor detection, recognition and intolerance thresholds based on our physical fitness levels, our age, our use of “safe” technologies and our given genetics.

Weird odors out of place in a rubble pile of concrete are likely low dose nuisance odors from industrial gas leaks or chemical weapons that may be present in the air just before you inhale a sub-lethal or lethal dose of the toxic gas. From a fire fighter perspective, think of the peachy sweet smell you detect when you walk down the underground stairs of a fire academy live burn basement training site. The peachy smell is likely a mixture of volatile organic compounds (VOCs) such as benzene, cyanide, and arsenic compounds out/off-gassing from the soot coated concrete walls of the training basement. Once you smell that stop, hold your breath, and egress. If moving forward, stop and go-on-air with an SCBA.

**Chemical weapon odors on the battlefield are expected to be mixed in with other odors.** If you witness or survive a chemical weapons attack, one human factor you will/may experience is the smell of strange odors. Odors that are out-of-place with the location you are standing in. For example, if you smell a cut grass odor and it is wintertime, that is likely phosgene. If you smell a faintly fruity odor that could be the CWA known as GA or Tabun. Whereas there is almost no odor from pure GB, Sarin. The bitter almond smell is hydrogen cyanide (AC) and you better don a suitable protective mask quickly when you smell that. Distilled mustard blister agent (HD) is a thick oily pale-yellow liquid that gives off a faint garlic smell. Nitrogen mustard (HN) gives off a fishy, musty smell in low concentrations and a real fruity sweet smell at high concentrations. These odors in an urban battlefield normally indicate that a non-traditional weapon of mass destruction has been released.

► Read the full article at the source's URL.

### Suspicious questions ...



- The document dated December, 15, 2021 presents a response to request from Ukrainian Motor Sich company to the Turkish drone manufacturer Baykar Makina.
- Turkish drone manufacturer answers a number of questions of the Ukrainian side regarding the characteristics of its products.
- Questions 9 and 10 draw attention. Data on the maximum payload and aerosol spraying system/mechanism, with a capacity of over 20 litres, are required.
- Given the fact that the Russian Defence Ministry has already known about the implementation of US military biological programs in Ukraine under the guidance of DTRA, we can assume that the Bayraktars were planned to be adapted to spray chemical warfare substances over enemy territory, more precisely in his deep rear area, because the range of this UAV (Bayraktar Akinci) is almost 300 kilometres (twice as much as that of the standard TB2).

Document No: 211215-DRR-MTC-GDR-48 Date: 2021/12/15

Subject : Baykar Reply to The State Export Control Service of Ukraine Requests About MS-500V/GSST

References :

To: Motor-Sich JSC, 15, Motoroitskoye Avenue Zaporozhye, 69068, Ukraine  
Yushester Shuklin  
Senior Contract Engineer

Dear Mr. Shuklin

Baykar would like to express its sincere continuous support.

You may see Baykar reply for The State Export Control Service of Ukraine requests as follows in bold letters:

1. Название БПЛА? - БПЛА Bayraktar Akinci	1. UAV Type
2. Сфера применения БПЛА? - Двухцелевой (разведывательный и ударный)	2. UAV Application
3. Обуславливает ли использование БПЛА необходимость наличия оператора? - Да	3. Does the use of the UAV require the presence of an operator? - Yes
4. Максимальная продолжительность полета БПЛА? - 24 часа	4. Maximum flight duration of the UAV? - 24 hours
5. Препятствует ли взлету БПЛА осуществлять стабильный полет при скорости ветра 46,3 км/ч (25 узлов) или более? - Нет	5. Does the UAV have any problem to perform a stable flight at a wind speed of 46.3 km/h (25 knots) or more? - No
6. Способен ли доставить полезную нагрузку 300 кг? - Да	6. Is the UAV capable of carrying a payload of 300 kg? - Yes

- Нет, в зависимости от прямой видимости и идеальных погодных условий иногда БПЛА может преодолевать расстояние до 300 км, используя 1 наземный терминал передачи данных.	-No, depending on LOS and ideal weather conditions sometimes UAV can go up to 300km by using 1 ground data terminal.
7. Имеется функция автономно осуществлять управление полетом и навигацией? - Да	7. Does the UAV have a function of autonomous flight and navigation control? -Yes
8. Имеется функция осуществлять управляемый полет вне границ зоны прямой видимости при участии человека-оператора? - Да	8. Does the UAV foresee the capability to be controlled out of the "direct vision range" of the operator with the help of a human operator? -Yes
9. Имеется система/механизм распыления аэрозолей емкостью свыше 20л? -Нет	9. Is the UAV equipped a system / mechanism for spraying aerosols with a capacity of more than 20 liters? -No.
10. Какую максимальную полезную нагрузку (кг) и дальность полета (км) способен доставить БПЛА? - Максимальная полезная нагрузка: 3000фунт. Дальность полета: как указано в пункте 6.	10. What is the maximum payload (kg) and flight range (km) that the UAV can deliver? - Maximum payload: 3000lb Flight range: As mentioned in item 6.

We are looking forward to our continued close cooperation

Best regards,  
Mustafa KOSEOGLU  
Coordinator / Vice General Manager

Baykar Makina San. Tic. A.Ş.  
Address: Orhangazi Mah. Hadimköy/İstanbul Cad. No:238 Esenyurt /İstanbul  
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www.baykartoforce.com

**BAYKAR**

Date: 2021/12/15  
Document №: 211215-UKR-MTC-GNR/48

**Subject** : Baykar Reply to The State Export Control Service of Ukraine Requests About MS-500V-02ST  
**References** :

**To:** Motor-Sich JSC, 15, Motorostroiteley Avenue Zaporozhye, 69068, Ukraine  
Vyacheslav Shuklin  
Senior Contract Engineer

**Dear Mr. Shuklin**

Baykar would like to express its sincere respect to your company for continuous support.

You may see Baykar reply for The State Export Control Service of Ukraine requests as follows in bold letters:

Государственная служба экспортного контроля Украины просит предоставить следующую информацию про базовый БПЛА:	The State Export Control Service of Ukraine requests you to provide the following information on the basic UAV:
1. Название БПЛА? - <b>БПЛА Bayraktar Akinci</b>	1. UAV name. - Bayraktar Akinci UAV
2. Сфера применения БПЛА? - <b>Двухмоторный самолет с неподвижным крылом</b>	2. UAV scope. - Twin engine fixed wing aircraft
3. Осуществляет ли полет "естественно"? - Да	3. Is the UAV designed to take off and perform stable controlled flight in wind gusts of 46.3 km / h (25 knots) or more? -No
4. Максимальная продолжительность полета - 24 часа	4. Is the UAV capable of flying to distances of 300 km?
5. Предназначен ли для взлета и осуществления управляемого полета при порывах ветра 46,3 км/ч (25 узел) или больше? - <b>Нет</b>	5. Is the UAV capable of flying to distances of 300 km?
6. Способен ли достигать дальность полета 300 км?	6. Is the UAV capable of flying to distances of 300 km?

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www.baykartelefon.com

- Нет, в зависимости от прямой видимости и идеальных погодных условий иногда БПЛА может преодолевать расстояние до 300 км, используя 1 наземный терминал передачи данных.	-No, depending on LOS and ideal weather conditions sometimes UAV can go up to 300km by using 1 ground data terminal.
7. Имеется ли функция автономно осуществлять управление полетом и навигацией? -Да	7. Does the UAV have a function of autonomous flight and navigation control? -Yes
8. Имеется ли функция осуществлять управляемый полет вне границ зоны прямой видимости при участии человека-оператора? -Да	8. Does the UAV foresee the capability to be controlled out of the "direct vision range" of the operator with the help of a human operator? -Yes
9. Имеется ли система/механизм распыления аэрозолей емкостью более 20л? -Нет	9. Is the UAV equipped a system / mechanism for spraying aerosols with a capacity of more than 20 liters? -No.
10. Каковую максимальную полезную нагрузку (кг) и дальность полета (км) способен доставить БПЛА? -Максимальная полезная нагрузка: 3000фунт. Дальность полета: как указано в пункте 6.	10. What is the maximum payload (kg) and flight range (km) that the UAV can deliver? -Maximum payload: 3000lb Flight range: As mentioned in item 6.

We are looking forward to your reply.

Best regards,  
Mustafa KÖSEÖĞLU  
Coordinator / Vice General Manager

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The HALE UCAV has a 5.5+ tons of Maximum Takeoff Weight (MTOW) while 1350+ kg of this is composed by payload.



## Russian troops were killed after being given poisoned food and alcohol by Ukrainian civilians, officials say

Source: <https://www.businessinsider.com/russian-troops-killed-by-poisoned-food-alcohol-ukrainian-officials-2022-4>

Apr 02 – Some Russian troops were killed and many more were injured after being given poisoned food and alcohol by civilians in the Kharkiv Region, Ukrainian officials said on Saturday.

The soldiers were from the 3rd Russian motor rifle division, according to a [Facebook post](#) from Ukraine's Main Directorate of Intelligence.

The post said two Russian troops were killed and 28 were in intensive care after being given poisoned cakes in the city of Izium. Another 500 Russian troops were taken to hospitals due to heavy alcohol poisoning, according to the post.

Officials said the Russian government is writing off these cases as "non-combat losses."

The post also said that Ukrainian civilians were resisting the Russian forces by all available means.

Insider could not independently verify the poisonings.



**EDITOR'S COMMENT:** It seems that someone has read the monograph entitled "[Toxic Warfare](#)" by Theodore Karasik (RAND | Air Force Project | 2002)

## EU agrees to stockpile equipment, drugs against chemical, nuclear incidents – sources

Source: <https://www.reuters.com/world/europe/eu-agrees-stockpile-equipment-drugs-against-chemical-nuclear-incidents-sources-2022-04-01/>

Mar 31 – The European Union has agreed to launch a stockpiling operation to boost its defences against chemical, nuclear and biological incidents amid concerns over the conflict in Ukraine, according to EU documents and people familiar with the matter.

The stockpiling of protective gear and medicines is expected to last weeks, potentially a few months, and is meant to expand reserves available to the EU population and partner countries, including Ukraine.

The supplies will also include decontamination equipment, gloves, masks and other material for chemical, biological, radiological and nuclear defence (CBRN), two people familiar with the matter told Reuters on Friday.

The European Commission declined to comment.

Concerns about nuclear incidents in Ukraine partly prompted the move, according to the minutes of two meetings of EU health experts in March made public this week.

Russian troops took over the Zaporizhzhia nuclear site, the largest in Ukraine, in the early stages of the invasion, which the Kremlin calls a special operation.

"Nuclear sites are operated by highly trained and qualified staff, which is difficult within the current conflict situation, especially when taken over by military forces," EU officials said with reference to the takeover, the minutes of the March 16 meeting showed.

Russia has repeatedly raised the prospect of using nuclear weapons as it struggles to overcome Ukraine's military during the month-old war. [read more](#)

Western officials have also voiced fears that Russia may use chemical and biological weapons in Ukraine, with risks of spillover effects beyond the country. [read more](#)

France, which holds the rotating presidency of the EU, called in the internal meetings for a bloc-wide plan to distribute potassium iodide tablets, which are used to protect people exposed to nuclear radiation.

French officials in Brussels had no immediate comment.

**About 20 EU states already have stockpiles of iodine pills**, according to a survey conducted by the EU Commission and shared in the March 16 meeting of health experts.

Many of these national reserves predated the Ukraine crisis.

**Lithuania**, for instance, has distributed iodine pills since last year as a precautionary measure after the opening of the Astravets nuclear power plant in neighbouring Belarus.

It extended the practice last month to ensure full coverage of the eligible population.

**Sweden** has had reserves of potassium iodide for decades, Jan Johansson, government expert at the Swedish Radiation Safety Authority, told Reuters.



These pills are distributed to - or stocked for - people who live close to nuclear plants, and the government has decided to increase the number of eligible people, including those who live up to 100 km from nuclear sites, from next summer.

Johansson said that had nothing to do with the Ukraine war.

"We assess that an accident in Ukraine cannot have any impact on Sweden that would justify taking potassium iodide tablets. The distance is just too far," he said.

### CBRN defense

The sources did not clarify which medicines the EU is planning to stockpile as CBRN defense.

Together with the United States, Russia is the only country known to have the smallpox virus, infectious disease expert Antonino Di Caro told Reuters.

"This does not mean they will use it," Di Caro said, underlining that using viruses or bacteria as biological weapons also entails huge risks for those who deploy them.

The smallpox virus has been considered eradicated since 1980 after a global vaccination campaign. If it resurfaced, younger people would not be protected against it unless quickly vaccinated.

Di Caro, who until February led the section on biological weapons of the EU project TERROR for preparedness and response planning to biological and chemical attacks, said it was not clear how big the bloc's stockpile of smallpox vaccines is.

He said the risk of an attack with toxins such as botulinum could be higher as they are easier for attackers to control.

## CBRN Training Tools: How to Compare the Latest Technology

By Steven Pike

Source: <https://www.argonelectronics.com/blog/cbrn-training-tools-how-to-compare-the-latest-technology>

Mar 25 – It's especially tricky to choose between Live Agent Training (LATs), simulants, and simulators, as they each come with certain pros and cons. While each training situation demands different solutions, there are some key factors to keep in mind when researching. These include:

- Realism
- Environmental impact
- Scenario replication
- Indoor use
- Outdoor use
- Regulatory impact

Keep reading for a breakdown of each of these considerations, including a more comprehensive comparison chart between Live Agent Training (LATs), simulants, and simulators.

### Realism

This tends to be an overlooked aspect of training, with the ease of [index card](#) use regularly eclipsing the import of true-to-life experience. Keep in mind, however, that [realism has been shown](#) to be key to developing muscle memory and retaining key information.

As live agent training makes use of controlled quantities of real sources, it tends to be valued for its realism, especially in a CBRN environment. LATs are the closest students can get to a real experience, which is why they have become a popular option.

The problem with LATs, however, is that they fall under regulatory, economic, environmental, and time constraints. Simulants are another option here, as they make use of relatively safer chemicals, however it can be challenging to identify chemicals which accurately replicate live sources. In many situations, the realism can be lost due to chemicals which don't appropriately mimic live agents.

Simulators, on the other hand, allow for Real Experience Training at any time, and in any place, without needing to worry about regulatory constraints and environmental impact. With the right technology, trainers and trainees won't be impacted by the lack of live agents during the scenario.

### Regulatory Impact

Due to the hazardous nature of the materials used, LATs are subject to intense regulatory scrutiny. Although simulant training uses chemical substances which are relatively safer than





live agents, many are not biodegradable and can build up over time if used continuously in one area. Some have also been known to cause expensive damage to the operational detectors used to sense the simulants, especially if contaminated internally. Any

## A direct comparison of LAT, SAT and simulation training

ARGON™

Having addressed the merits of using LAT, SAT and simulation training, to project realism into CBRN training, along with the advantages/disadvantages, cost and the environmental impact of using the differing methods, it is time to summarise our findings.

The advantage/disadvantage decision matrix below uses a traffic light system to clearly indicate the pros and cons of each CWA training solution. This should allow training establishments and organisations to make a better assessment of which training method or combination best suits their requirements.

Event	LAT	Simulant	Simulation
Realism	Green	Orange	Green
Cost	Red	Orange	Red
Environmental Impact	Orange	Red	Green
GFE	Orange	Green	Green
Detection & Monitoring Simulators	Red	Red	Green
Safety Supervisor Required	Red	Orange	Orange
Wide area use	Red	Orange	Green
Restricted area use	Green	Green	Green
Contaminated areas	Red	Red	Green
Meteorological Impact	Orange	Red	Green
Maximise training time	Orange	Red	Green
Scenario Replication	Green	Red	Green
After Action Review Requirement	Green	Orange	Green
Consumable Requirement	Red	Red	Green
Specialist CBRN Users	Green	Green	Green
Non-Specialist Users	Red	Orange	Green
Indoor Use	Green	Red	Green
Outdoor Use	Orange	Green	Green
Command & Control Training	Red	Orange	Green

<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span>	Disadvantage
<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span>	Either / Or / No Requirement
<span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span>	Advantage

targeted in the exercises. They can also contaminate and saturate the training area with a detrimental impact on subsequent exercises.

LATs are invaluable for ensuring a replicable event, especially when the goal is for trainees to get a more in-depth understanding of key chemical hazards and their effects. However, they're subject to strict regulations, location and time restraints, and require trainees to already have a high level of proficiency with the materials. Real Experience Training simulators also offer repeatability with minimal variance. The difference is that they don't utilise the hazardous materials which are subject to health and safety concerns. This allows trainees without high levels of proficiency in hazardous materials to practise and repeat key scenarios.

resulting regulations could restrict simulant training, albeit to a lesser degree than LATs. This is where Real Experience Training simulators have a significant benefit over their live agent and simulant counterparts. As these simulators do not pose any risk to health, safety, or the environment, they aren't subject to the same regulations. Instructors are free to use these simulators when and where they want, without needing to navigate through the red tape that comes up with hazardous material use.

### Environmental Impact

Both LATs and simulants pose a risk to the environment, especially during training, as common mistakes can lead to unintended releases and other hazardous situations. Operators need to follow strict regulations when handling these materials, which in many cases limits certain types of training scenarios. Real Experience Training simulators, however, do not pose any environmental hazards. Teams can safely train anywhere and under any condition, which makes simulators the preferable option when considering environmental impact.

### Scenario replication

Replicating key scenarios, especially with little or no variance between events, is a necessary but challenging task. Simulants are unfortunately difficult to replicate, as they involve a variety of chemicals which may not behave similarly to the live agents



### Indoor use

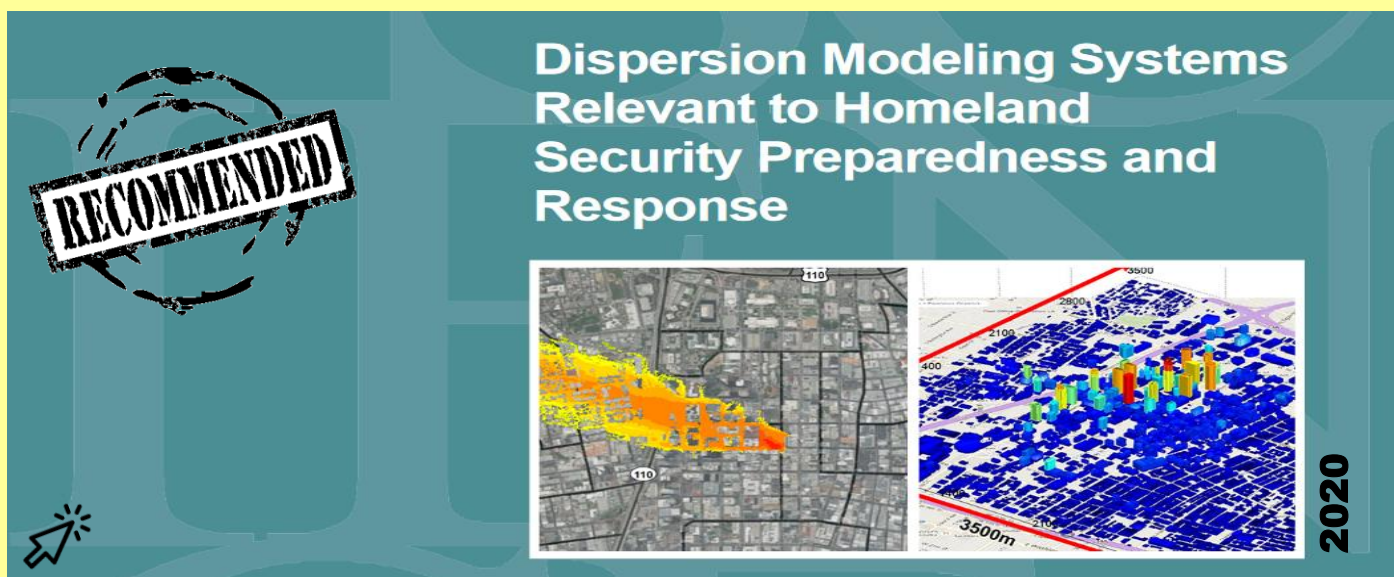
In order to provide the closest resemblance to real agent reactions, many instructors utilise wet simulants. However, most of these can only be used outdoors. LATs are better options when training inside buildings and other covered locations. However, Real Experience Training simulators offer more flexibility, as many LATs require specifically designed, unused and/or remote buildings which pose reduced health and safety hazards.

### Outdoor use

This is where LATs are potentially challenging to utilise. When planning LAT training outdoors, all elements of the scenario have to be rigorously controlled. Weather conditions, the nature and quantity of the chemical or biological agent, and even the time of day must all be taken into account. This can potentially limit training situations. Simulants are an alternative option to LATs, but instructors still need to take the weather, health, safety, and the environment into account. Real Experience Training simulators are built for either indoor or outdoor use, and can function in any meteorological condition.

### A Wider Comparison

The chart above provides a more comprehensive overview of key differences between LAT, simulant, and simulator training. As illustrated, there are various factors to consider when determining which type of training equipment and materials to use for a given scenario. Researching which delivers the most realism, repeatability, and replication is key, but it's also important to note where the scenario should take place and how this may affect health, safety, and the environment. Utilising Real Experience Training simulators might be the best option when taking these variables into account, but it may be difficult to move away from tried-and-tested LAT and simulant training.



## 'Chemical weapon' horror as Putin drops 'poisonous substance' on a city – 'People suffering'

By Tara Fair (journalist)

Source: <https://www.express.co.uk/news/world/1594611/russia-chemical-weapons-ukraine-latest-vladimir-putin-mariupol>



Apr 12 – [Russian](#) forces have dropped a "poisonous substance of unknown origin" from a drone on military and civilian targets in the besieged port city, [Mariupol](#), according to the city's Azov Battalion. People are reportedly suffering respiratory failure and neurological problems as a result. The Regiment's report states: "The victims have respiratory failure, vestibulo-atactic syndrome. The consequences of using an unknown substance are being clarified."





Ivanna Klymush, the chair of the Parliamentary Committee on Integration of Ukraine to the EU, said that Russia had "most likely" used "chemical weapons" in the attack.

The unconfirmed report comes hours after President Joe Biden warned Russia would pay a "severe price" if it used chemical weapons against Ukraine. He did not expand on what the consequences would be but ruled out direct confrontation between NATO and Russia. Russia has denied using chemical or biological weapons during its assault on Ukraine which began on February 24.

**EDITOR'S COMMENT:** Unknown origin poisonous substance + Azov Battalion + known CWA symptoms + Russians did that + UK daily newspaper + UK/USA repeated allegations of use of CWAs only by Russians + no photos of suffering people + no reports from hospitals + no samples send to international organizations (i.e., to OPCW) = amateuristic propaganda + bad journalism.

## OPCW Executive Council briefed on chemical weapons destruction progress in the United States

Source: <https://www.opcw.org/media-centre/news/2022/03/opcw-executive-council-briefed-chemical-weapons-destruction-progress>

Mar 25 — Members of the Organisation for the Prohibition of Chemical Weapons (OPCW) Executive Council attended a chemical demilitarisation transparency event hosted virtually by the United States of America and held at OPCW Headquarters in The Hague from 21 to 22 March 2022. The event focussed on destruction progress at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) in Richmond, Kentucky. The United States is in the process of completing destruction of its remaining chemical weapons stockpiles in line with a [decision](#) of the Conference of States Parties. Inspectors from the OPCW monitor and verify destruction progress 24/7. During the event, American officials provided an overview of the chemical weapons destruction in the United States and details on destruction progress at the BGCAPP. The destruction facility was designated to destroy all nerve agent-filled munitions stored at the Blue Grass Chemical Activity Chemical Weapons Storage Facility.

Topics covered in presentations and discussions included the measures that have been taken to accelerate destruction progress and the technologies used to destroy chemical weapons. Participants were also briefed on the approaches used to ensure the health and safety of people and the environment near the destruction sites including the involvement of the local community in decision making.

### Background

There are two remaining declared chemical weapons stockpiles in the world, both in the United States. As of 28 February 2022, the United States has completed the destruction of 97.65% of its declared Category 1 chemical weapons. All Category 2 and 3 chemical weapons declared by the United States have been destroyed. As the implementing body for the Chemical Weapons Convention, the OPCW, with its 193 Member States, oversees the global endeavour to permanently eliminate chemical weapons. Since the Convention's entry into force in 1997, it is the most successful disarmament treaty eliminating an entire class of weapons of mass destruction. Over 99% of all declared chemical weapon stockpiles have been destroyed under OPCW verification. For its extensive efforts in eliminating chemical weapons, the OPCW received the 2013 Nobel Peace Prize.

### OPCW Director-General Commends Major Milestone as Russia Completes Destruction of Chemical Weapons Stockpile under OPCW Verification

Source: <https://www.opcw.org/media-centre/news/2017/09/opcw-director-general-commends-major-milestone-russia-completes>

**September 2017** – The Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW), Ambassador Ahmet Üzümcü, made a statement today marking the completion of the full destruction of the 39,967 metric tons of chemical weapons possessed by the Russian Federation.

The Director-General stated: "The completion of the verified destruction of Russia's chemical weapons programme is a major milestone in the achievement of the goals of the Chemical Weapons Convention. I congratulate Russia and

I commend all of their experts who were involved for their professionalism and dedication.

I also express my appreciation to the States Parties that assisted the Russian Federation with its destruction program and thank the OPCW staff who verified the destruction."



The remainder of Russia’s chemical weapons arsenal has been destroyed at the Kizner Chemical Weapons Destruction Facility in the Udmurt Republic.

Kizner was the last operating facility of seven chemical weapons destruction facilities in Russia. The six other facilities (Kambarka, Gorny, Maradykovsky, Leonidovka, Pochep and Shchuchye) completed work and were closed between 2005 and 2015.

**EDITOR’S COMMENT:** From the above two OPCW articles it is obvious who is still having what. Unless, Russians will use Syrian hidden CWAs stockpile! It is also obvious that countries who destroyed their chemical weapons did not destroy the how-to-do-it manual as well. And modern technologies can speed the production if necessary

## Russian forces find Ukrainian drones equipped with liquids’ containers and sprayers

Source: <https://sana.sy/en/?p=269258>



Apr 13 – The Russian forces announced that, during a search of the headquarters of a Ukrainian military unit, they found unmanned aircraft equipped with containers for liquids and spraying machines

“Three of these drones were found, with a payload of up to 40 kg, and plastic tanks for liquids with a capacity of 30 liters were installed on them, in addition to control devices that contained coordinates for the locations of the Russian forces and the populated areas planned to be sprayed,” a military source told RT website on Wednesday. The source added that these drones are apparently used to spray toxic substances to harm either the Russian armed forces or the civilian population and agricultural lands.



The Russian Ministry of Defense had published documents obtained in Ukraine stating that the Ukrainian “Motor Sich” Corporation asked the Turkish company that manufactured Bayraktar drones about the existence of systems and mechanisms for spraying liquids from them.





## What to Do After a Chemical, Biological, or Nuclear Incident

Source: <https://www.medscape.com/viewarticle/972099>

Apr 13 — Are Belgian hospitals ready to face a chemical, biological, radiologic, or nuclear (CBRN) incident? On March 24, experts from Ghent University Hospital shared information, guidance, and advice at a well-attended [online seminar](#).

Since 1991, lawmakers have required all hospitals with a recognized emergency department to be prepared for minor CBRN incidents, meaning that they anticipate admitting at least one or two contaminated victims. But how is this requirement implemented? What are the specific characteristics and dangers of this type of incident? And what is the potential impact? Ghent University Hospital organized a webinar on the subject. Two hundred fifty doctors, nurses, prevention consultants, and emergency plan coordinators from various hospitals participated.

### Wetteren Derailment

This high turnout reflects a growing concern about such incidents. Belgium is no stranger to the threat of Russian President Vladimir Putin deploying nuclear weapons or launching attacks against Ukrainian nuclear power plants. But accidents are also possible, as the Chernobyl and Fukushima nuclear disasters and the large-scale chemical disaster in Bhopal, India, have shown.

In Belgium, [a freight train derailed in Wetteren in 2013](#). As a result of that incident, acrylonitrile, a toxic chemical product, seeped



into the sewers via the fire extinguishing water. One person died, eight others were severely poisoned, and 438 people went to emergency departments in the area. New accidents are not beyond the realm of possibility. In Belgium, hazardous substances such as acrylonitrile are still regularly transported by rail.

To show the potential magnitude of chemical terrorism, Peter De Paepe, MD, PhD, the head of the Ghent University Hospital's Emergency Department, presented a simulation of a chemical attack on a chlorine storage tank. In this US simulation, terrorists infiltrate an industrial site and rupture a chlorine storage tank with a small pack of explosives. A cloud of chlorine gas spreads to urban areas and results in 17,500 deaths, 10,000 persons severely injured, and 100,000 hospitalizations. De Paepe's



conclusion was truly sobering — these are numbers that no healthcare system can manage adequately.

### **An Invisible Danger**

As Katleen Gardeyn, emergency plan coordinator at Ghent University Hospital, explained, the true scale of a CBRN incident is often difficult to estimate. The danger is not always immediately obvious, and the health effects may only become apparent over the long term. According to Gardeyn, the challenge of a hospital emergency plan is keeping contaminated patients and regular patient areas strictly separate. Additionally, medical actions aimed at saving lives must always take priority over decontamination processes, she said. It is also important to report incidents to the competent authorities.

According to De Paepe, when it comes to chemical attacks, much can be learned from the 1995 [sarin](#) gas attack that took place in the Tokyo, Japan, subway. Twelve people died, 54 were seriously injured, and more than 5000 people were admitted to various hospitals. First, it is essential to have adequate protective equipment. Ten percent of the first responders and 23% of the hospital personnel involved suffered secondary contamination because of a lack of protective equipment. In one of the hospitals, victims were taken into a poorly ventilated chapel because of a lack of space. Sixty percent of the caregivers who worked there suffered secondary contamination.

De Paepe emphasized how important it is to have adequate protective equipment or to decontaminate patients before they enter the hospital. He also recommended taking advantage of trained and experienced clinical personnel who have in-depth knowledge of toxidromes. He added that healthcare providers should be sufficiently familiar with the symptoms and management of exposure to chemical products. Having immediately accessible stocks of antidotes is equally important, and a global supply strategy is crucial.

During the webinar, Tania Desmet, MD, of the Ghent University Hospital Emergency Department, focused on the consequences of a biological attack, which is the deliberate spreading of a virus or bacterium to cause infection. A very serious threat for the healthcare sector, biological terrorism is often hard to detect. Because the incubation period is often longer than with a chemical attack, healthcare providers are not initially aware of what is happening. A characteristic range of symptoms, larger groups of individuals exhibiting similar symptoms, or a connection between multiple patients and a single event or place may indicate a possible attack. The same is true for germs that show up out of season or germs that are not naturally present. For example, if many people in Belgium suddenly become sick after being infected with [dengue fever](#), it would raise suspicions, because the mosquito responsible for dengue fever is not usually found in this region.

### **Looking for Patterns**

Desmet stressed the need to look for models. It is difficult to know whether you are dealing with a bioterrorist on the basis of the germ itself. An intelligent bioterrorist will choose a germ that can be manipulated slightly. Such manipulation will alter the clinical features, change resistance patterns, and require different treatments. The **RAIN (recognize, avoid, isolate, notify) principle** describes the approach: try to recognize the model, make sure you can provide safe care, isolate the victims or, if necessary, the healthy segment of the population, and notify the competent authorities. This last point is always important, even if the case seems to be an isolated one. There may be similar cases at other hospitals. Consistent reporting and recognition of patterns go hand in hand.

With respect to treatment, Desmet advises healthcare providers not to get lost in the details. The plague, smallpox, [botulism](#), tularemia, [anthrax](#), and [viral hemorrhagic fever](#) are some of the common germs that bioterrorists might deploy. A detailed examination of all the treatments is extremely complex. Fortunately, two types of antibiotics are effective for anthrax, the plague, and tularemia — fluoroquinolone and [doxycycline](#).

### **Polonium Poisoning**

Tom Boterberg, MD, PhD, an oncologist at Ghent University Hospital, spoke on radiologic and nuclear incidents. There is a significant risk for accidents, inasmuch as Belgium still transports many isotopes by road. And although 90% of those isotopes are used in medicine, they can very much be used for ill, as the 2006 poisoning of Alexandr Litvinenko with polonium showed.

For such cases as well, protective measures and decontamination are crucial, especially because the victims may themselves be a source of radiation. In many cases, safely removing contaminated clothing reduces the radiation level considerably, unless the source is internal. In the United Kingdom, people are considered contaminated if they emit three times the natural background radiation. People who emit ten times more radiation than their environment must be decontaminated.

Different treatments are possible, depending on the radiation doses received. Hospitals must also provide separate areas with controlled access for these types of victims.





### Hot Zone

How healthcare providers can protect themselves and other patients was discussed in greater detail in a presentation by Steve D'hoker, head nurse at the Ghent University Hospital Emergency Department. The type of contamination is important, as is knowing whether the contamination is internal or external. D'hoker explained the organization of decontamination areas. It is important to make sure there is enough distance between regular patient areas and the contaminated area where victims are treated, he said. For example, caregivers can use a shower space between the "hot zone" and "cold zone" to decontaminate themselves. According to D'hoker, emergency departments need a decontamination plan appropriate to their size and resources. In any case, contaminated victims cannot be in the regular hospital area. It is essential to have a safe way to undress after providing care and good procedures. An exercise is planned at Ghent University Hospital for the near future.

## 'Remains of Chemical Weapons' Found After Russians Left: Ukrainian Mayor

Source: <https://www.newsweek.com/remains-chemical-weapons-found-after-russians-left-ukrainian-mayor-1698534>



Apr 17 – A Ukrainian mayor said this weekend that the "remains" of chemical weapons were found after Russian troops withdrew from the northern Sumy region of Ukraine.

Yuriy Bova, mayor of the Ukrainian city Trostianets, said officials found traces of **sarin** and other chemical substances. Sarin, a clear and odorless substance, is classified as a nerve agent and considered to be among the most toxic and rapidly acting of known chemical warfare agents, according to the [Centers for Disease Control and Prevention \(CDC\)](https://www.cdc.gov/cbrn/).

"We found the remains of chemical weapons in the village of Bilka—sarin and other substances. We discovered ampoules. The Security Service of Ukraine is currently working on this," Bova said in remarks published Saturday by the National News Agency of Ukraine. "It is possible that the occupiers wanted to use this chemical to strike Kyiv, Poltava or other cities."

*Newsweek* was unable to independently verify these claims.

**EDITOR'S COMMENT:** If a prominent US magazine like *Newsweek* (under the mother company *Washington Post*) was unable to independently verify these claims, why did they publish them? The propaganda war allows anybody to speak about everything! What happened to evidence-based journalism?

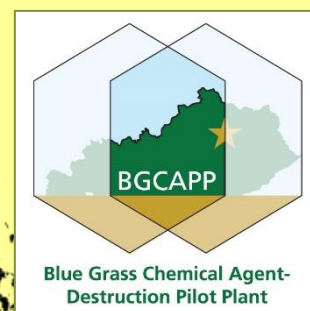
## Last US Stockpile of Deadly VX Agent Destroyed in Kentucky

Source: <https://www.military.com/daily-news/2022/04/20/last-us-stockpile-of-deadly-vx-agent-destroyed-kentucky.html>



Blue Grass Chemical Activity toxic materials handlers guide the last of the VX rockets into an enhanced on-site container for delivery to the Blue Grass Chemical Agent-Destruction Pilot Plant for demilitarization, April 7, 2022. (U.S. Army photo by Jana Felts)

Apr 20 — The last stockpiles of a deadly chemical agent in the U.S. have been safely eliminated, according to Kentucky officials in charge of destroying the Cold War-era weapons. The final M55 rocket containing VX nerve agent was destroyed Tuesday at the Blue Grass Chemical Agent plant. Officials at the Kentucky plant began disassembling about 18,000 of the rockets and draining the VX agent in July, according to a news



release from plant officials.

Candace Coyle, the plant's project manager, said Wednesday the nation's entire stockpile of VX nerve agent "is now completely destroyed."

VX is considered the deadliest of the chemical agents that was produced by the U.S., much of it in the 1960s. It has a consistency similar to motor oil and even a tiny amount causes



## ICI C<sup>2</sup>BRNE DIARY – April 2022

victims' bodies to flood with fluids, producing a feeling of drowning before death. Officials in 2017 declared that assassins used VX agent to kill the brother of North Korean leader Kim Jong Un in a Malaysian airport.

**The Kentucky Army depot still has 277 tons of other chemical agents left to be destroyed**, after beginning with more than 520 tons of VX, GB and mustard agent that was in storage for decades. Officials said it all should be gone by next year after it began eliminating its mustard agent stockpiles in 2019.



Blue Grass Chemical Agent-Destruction Pilot Plant operators place the first M55 rockets containing VX nerve agent on a conveyor to begin the destruction process on July 9. This marks the fourth of five destruction campaigns to begin at the Blue Grass Army Depot. (Blue Grass Chemical Agent Plant)

“After more than a half century of chemical weapons storage in central Kentucky, the final chapter at Blue Grass Army Depot will soon begin,” said Col. Stephen Dorris, commander of the depot in central Kentucky, where the plant is located. The mustard agent campaign finished in September. The plant also destroyed 4,000 projectiles with GB nerve agent in the first half of 2020. Another 13,000 155mm projectiles with VX agent were destroyed from January to May 2021. The military had planned decades ago to destroy the weapons in Kentucky by burning them, but after concerns from residents and environmental groups, a plan was settled on to use water and chemicals to neutralize the agents. There are also chemical weapons being destroyed at an [Army](#) facility in Pueblo, Colorado. The stockpiles at the two sites accounted for the last 10% of an original stockpile of more than 30,000 tons of chemical weapons in the U.S. The Army used incineration methods to destroy the weapons at other sites.

## Scientists Find an Enzyme That May Stop Brain Activity Getting Out of Control

Source: <https://www.sciencealert.com/proteins-that-keeps-your-brain-under-control-could-help-explain-various-disorders>

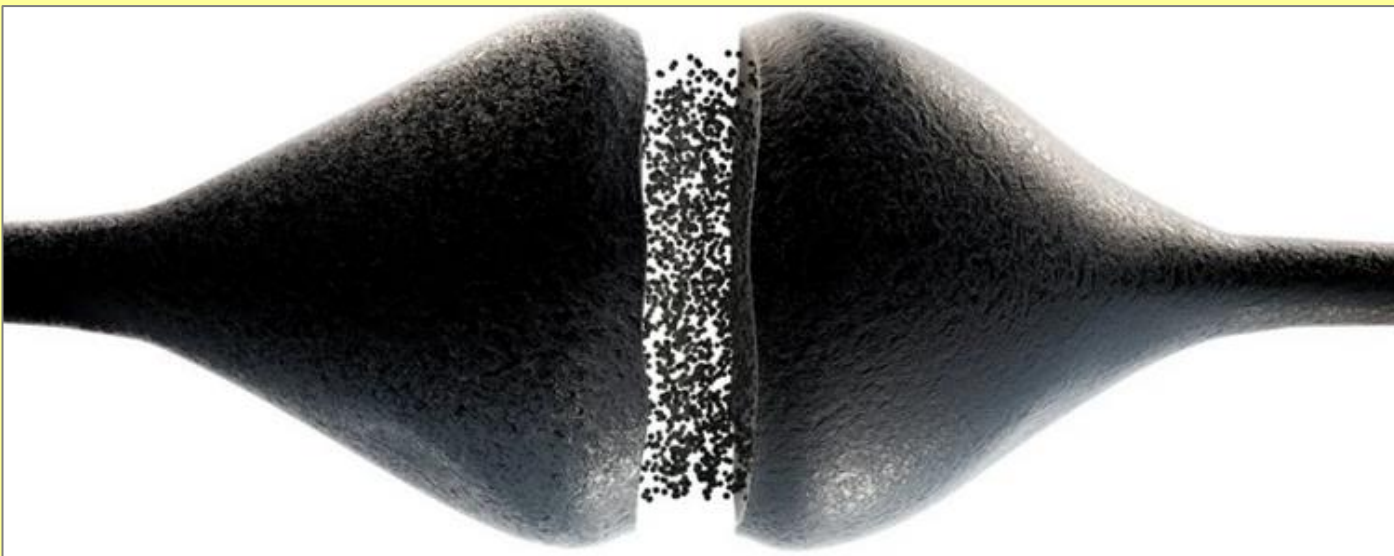
Apr 22 – Our brains are awash with various unsung chemical heroes, making sure the electrical signals traveling all over the place don't get out of control.

A new mouse study has now detailed the function of a pair of proteins vital to maintaining this balance – this could help us better understand a range of neurological disorders from epilepsy to [schizophrenia](#).





The two proteins – **Rab3-interacting molecule 1 (RIM1)** and an enzyme called **serine arginine protein kinase 2 (SRPK2)** – work together to modify the transmission of information across the gaps between nerves called **synapses**.



Without their efficient policing of neural activity, messages could either get lost due to insufficient signal, or flood important junctions, overwhelming key networks and burying important signals in a cacophony of noise.

Using neurons from specially prepared lab mice, researchers from Germany and Australia have now described in detail the precise chemical interplay between the two proteins, which not only helps us better understand typical brain functioning but could one day provide therapeutic targets for conditions where this process goes awry.

Synapses might be thought of as transport terminals connecting commuters in your brain with different services. Some services leave the moment a handful of passengers arrive; others wait until they're hit with a surge of commuters.

Like any efficient public transport system, this flow of travelers needs guidance on when to wait and when to board. Which is where RIM1 comes in.

Instead of commuters waiting at the station, neurons have tiny bubbles filled with transmitters perched on the brink of release at the synapse, ready to spill out the moment a suitable signal arrives.

"However, the amount of neurotransmitter released by the presynapse and the extent to which the postsynapse responds to it are strictly regulated in the brain," [says](#) neurologist Schoch McGovern from University Hospital Bonn, Germany.

Much of what we know about this regulation is based on relatively simple organisms. It was from studying the larvae of fruit flies, for example, that researchers noticed the activity of RIM1.

It's likely more complex animals will have different mechanisms that help fine-tune their own brains, so researchers analyzed the mechanisms of the protein extracted from mouse brains to see just how it operated.

They found the enzyme SRPK2 modifies RIM1 by adding molecules with phosphate groups onto specific links of its amino-acid structure, increasing or decreasing the number of neurotransmitter bubbles that are released into the synapse.

"Which effect occurs depends on the phosphorylated amino acid," [says](#) Johannes Alexander Müller, a neurophysiologist at University Hospital Bonn.

What happens to the phosphorylated RIM1 proteins after they've done their job isn't clear, leaving room for a range of other enzymes to be at work, further fine-tuning the process.

As with any biological function, it can be just as handy knowing what happens when it doesn't all go according to plan. There are already genetic hints that RIM1 could be involved in conditions [such as autism](#) and [schizophrenia](#).

"We now want to further elucidate these relationships," [says](#) McGovern.

"Perhaps new therapeutic options for these diseases will emerge from our findings in the long term, although there is certainly a long way to go before that happens."

●► This research was published in [Cell](#).

**EDITOR'S COMMENT:** Could this be of importance regarding the effect of nerve agents on the neural synapses?



## Russian Ministry of Defence Briefing on a **Provocation** against Russia prepared by the USA and NATO with the accusation of using nuclear, biological and chemical weapons

2022-04-23

Source: <https://russiaeu.ru/en/news/russian-ministry-defence-briefing-provocation-against-russia-prepared-usa-and-nato-accusation>

The Ministry of Defence of the Russian Federation possesses the information related to the preparation of provocations by the United States of America in order to accuse the Russian Armed Forces of using chemical, biological or tactical nuclear weapons. This plan has already been developed and represents a response to the success of Russia in conducting the special military operation.

Only in March and April senior officials of the Western countries have been making regular provocative 'warning' statements. The mass media propagate the points about the possibility of using weapons of mass destructions by Russia.

For example, the National Security Advisor J.Sullivan has commented on Biden's words that the USA "in kind" to the possible use of weapons of mass destructions by our country. And on February 27 the American permanent representative to the UN Greenfield announced an intention of Russia to use any instruments 'under a false flag', including chemical and biological weapons for intimidating the Ukrainian population and the international community.

Against this background, the US State Department considered positively the transfer of up to 400 sets of personal protection equipment, 390 NBC reconnaissance devices and 15 'Stryker' reconnaissance vehicles.



**JOINT PROJECT MANAGER, NBC CONTAMINATION AVOIDANCE**

### Stryker Nuclear, Biological, Chemical Reconnaissance Vehicle

The vehicle is equipped with the following systems and sensors:

- Force XXI Battle Command, Brigade-and-Below CECOM-Managed
- Laptops
- Laser Printer
- AN/VDR-13 RADIAC
- AN/VDR-2 RADIAC
- METSMAN Meteorological Sensor
- Chemical Vapor Sampling System
- Chemical Biological Mass Spectrometer
- Joint Service Lightweight Standoff Chemical Agent Detector
- Joint Biological Point Detection System
- Automatic Chemical Agent Alarm
- Inertial Reference Unit GDLS-Managed
- Double Wheel Sampling System GDLS-Managed





### Examples of falsification

We inform you that this kind of projects has already been implemented many times by the USA for achieving its goals. The most vivid example of an information provocation is the speech of the US Secretary of State Colin Powell on February 5, 2003. The vial with laundry detergent in his hands provided a pretext to invade Iraq and caused death of half a million civilians.

In 2017, the widely spread photographs of the 'White Helmets' that showed people taking samples in a site of the alleged sarin attack and using simple gauze bandages, while the people standing around lacked any personal protection equipment, caused a missile attack on Shayrat airfield in Syria.

And in 2018, a staging of the Syrian children who had been allegedly poisoned by chlorine caused the destruction of a scientific research centre in Barzeh and Jamra. Only the testimony of the witnesses of those developments who had been brought by the Russian Federation to the Hague have opened the eyes of the international community to these events.

Until now, no one has been held accountable for these provocations.

### Staging scenarios

This time there are three scenarios to be applied in order to accuse the Russian Federation.

The first one is a 'staged incident under a false flag' that is the most probable.

This could include a real use of chemical and biological weapons that would cause deaths among the population or staging 'sabotages' from Russia at the facilities of Ukraine involved in the development of components for weapons of mass destruction.

The abovementioned scenario can be implemented in the chemical and biological facilities located in Kharkov and Kiev. There also may occur a provocation in the nuclear energy facilities: above all others, it could refer to Zaporozhie Nuclear Power Station controlled by the Russian Federation. **On April, 21, a convoy of 10 motor vehicles that was transporting dangerous goods to the nuclear station was stopped and turned about to Zaporozhie.**

In addition, the leadership of Ukraine is seriously considering striking at the radioactive waste storage facility at the former Pridneprovsky Chemical Plant in the village of Kamenskoye in Dnipropetrovsk Region. The Ministry of Defense has documents confirming the critical condition of the storage facility and the inappropriate spending of funds allocated by the European Union for the maintenance of the facility.

The second one refers to a 'Maximally covert use of weapons of mass destruction in small volumes' for neutralising the will power and the capacity to resist within the fulfilment of a particular operational task.

This scenario was supposed to be implemented in 'Azovstal'. But the order of the Supreme Commander-in-Chief to cancel the assault of the entity has frustrated the plans of the Pentagon.

The third and the least probable one is the 'overt use of weapons of mass destruction at a combat area' in case of failure to succeed in using conventional armaments in the combat zone.

This scenario was considered for Slavyansk and Kramatorsk that had been transformed into fortified towns.

The high probability of staging the application of chemical arms is confirmed by the facts of the supply of antidotes with toxic substances to Ukraine. **Only in 2022, on request of the Ministry of Healthcare of Ukraine, more than 220 thousand of vials with atropines.** This fact is an evidence of a targeted preparation of a provocation that includes the use of toxic nerve-paralytic substances.

### Incidents investigation

The US State Department has already determined the procedure of investigation and has assigned the officials who will be responsible for its implementation.

The chemical incidents will be investigated by the attributive staff of the Organisation for the Prohibition of Chemical Weapons that permits to fabricate the necessary proofs and to sentence the responsibility as it can be seen fit.

It will be essential to gather evidence at the scene (sampling, questioning of witnesses, photo- and videographic documenting).

The investigative mechanism applied to the cases of possible use of biological weapons will be put in operation with the authorisation of the UN Secretary-General that determines the expert panel basing on his own preferences.

It is planned to involve the Red Cross International Committee representatives equipped with means of personal protection and indication to operate in the combat zones to which the NATO representatives will have no access.

### Staging results

Staged use of WMD is aimed at accusing Russia of using prohibited weapons with the subsequent implementation of the so-called «Syrian scenario», in which the state is



subjected to economic and political isolation, as well as exclusion from international organizations, including the UN Security Council. A possible way forward is to put pressure on the countries loyal to and friendly to the Russian Federation, including India and China, to compel them to impose sanctions on our country.

We would like to recall that the Russian Federation completely destroyed its chemical arsenal on September 27, 2017, which is confirmed by an OPCW certificate. In turn, the United States, with its strong financial, economic and technical potential, is the only country party to the Chemical Weapons Convention that still possesses an impressive arsenal of chemical warfare agents (672.5 tons).

CIA Director Burns' statement about Russia's possible use of tactical nuclear weapons is absurd. With the current level of technical equipment of the international nuclear test monitoring system, it is impossible to conceal the use of such weapons. If the CIA director does not understand this, then he is either unprofessional, or he is being misled.

The biological weapons programs in the USSR were completely phased out in 1972. At the same time, the number of U.S. biological laboratories is incomparable to other countries. According to the Chinese Foreign Ministry, Washington controls 336 laboratories in 30 countries, which is of great concern.

### **Features of U.S. legislation**

Note, that contrary to its international obligations, the U.S. has retained domestic legislation that permits biological weapons work. The United States ratified the 1925 Geneva Protocol with a number of reservations, one of which allows for the retaliatory use of chemical and toxin weapons.

Under the U.S. «Uniting and Strengthening America to Obstruct Terrorism Act» research into biological weapons is permitted with the approval of the U.S. government. Participants in such research are not criminally liable for developing such weapons.

Given the blocking by the United States of any international initiatives to verify the Biological (Toxin) Weapons Convention, there are prerequisites for violating international agreements on the non-proliferation of biological weapons.

### **Unmanned aerial vehicles**

We noted earlier that Ukraine had sent a request to the manufacturing company about the possibility of equipping the Bayraktar drones with aerosol attachments.

It is a matter of concern that on 9 March Russian reconnaissance units in Kherson Region discovered three unmanned aerial vehicles equipped with 30-litre containers and equipment for spraying formulations.

According to available data, in January 2022, Ukraine purchased more than 50 such devices through intermediary organizations, which can be used to apply biological formulations and toxic chemicals.

On April 21, 2022, a container with ampoules was dropped onto the position of Russian troops from a drone. It was planned that their destruction would cause a chemical reaction that would cause an explosion and fire, releasing toxic substances not included in the convention lists.

With regard to the contents of the ampoules, a chemical analysis is carried out in laboratory 27 of the Scientific Center of the Russian Ministry of Defense, accredited by the Organization for the Prohibition of Chemical Weapons, the results of the analysis will be sent to its technical secretariat in the prescribed manner.

### **WMD**

In addition, I would like to recall that today the United States is the only state in world history that has used all three types of weapons of mass destruction.

The dropped nuclear bombs during the Second World War on Hiroshima and Nagasaki, the use of toxic chemicals in Vietnam and Iraq - all these crimes were not properly assessed by relevant international organizations.

Thus, in an attempt to discredit the special military operation of the Russian troops, the Kyiv regime, at the suggestion of the American administration, is able to implement scenarios in the near future that will lead to the death of tens of thousands of Ukrainian citizens and cause an environmental and humanitarian catastrophe.





## 2022 CBRNe-related conferences

**11<sup>TH</sup> SYMPOSIUM ON CBRNE THREATS**<https://nbc2022.org/>

The NBC 2022 symposium on CBRNE threats has been rescheduled to take place at the [Sibelius Hall](#) in [Lahti](#), Finland on **June 5 – 8, 2022**.

**NCT CBRNe Pavilion @ Eurosatory 2022**

13-17 June 2022 | Paris, France

<https://nct-events.com/event/nct-cbrne-pavilion-eurosatory-2022>

For its first edition, the NCT CBRNe Pavilion will gather the global CBRNe community under one flag at the leading defense and security exhibition worldwide: Eurosatory 2022.

During five days, you will have the opportunity to meet with leading companies in the field and discover their latest innovations. Daily **workshops and conference sessions** will tackle the trendiest topics in the field, creating a unique platform to exchange on best practices and lessons learned. Operators will also have the chance to join in the **NCT PRO Experience** for mock CBRNe scenario trainings led by expert instructors, while **Live Demonstrations** will showcase European CBRNe capabilities.

Join the CBRNe experts, industry leaders and operators to discover the world of Chemical, Biological, Radiological, Nuclear and Explosive defense. Don't miss the NCT CBRNe Pavilion @ Eurosatory 2022!

**CBRNe Summit EMEA 2022**

10-12 May 2022 | Kharkiv, Ukraine

<https://intelligence-sec.com/events/cbrne-summit-emea-2022/>

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We are pleased to bring our CBRNe Summit series to Kharkiv, Ukraine for our first CBRNe Summit EMEA conference and exhibition. The event will provide you a great opportunity to hear from leading military, civil and scientific officials from across Ukraine, Middle East, South Eastern Europe and the Caucasus regions.

With the recent global COVID pandemic other key CBRNe incidents have taken place in the region which will all be discussed during the conference. CBRNe Summit EMEA will discuss national CBRNe capabilities, pandemic response, recovery and lessons learnt, chem-bio threats in the region, threat intelligence, international cooperation, first responder challenges and lessons learnt, medical countermeasures to biological outbreaks and asymmetrical threats.

Many governments in light of the global pandemic are now creating CBRNe jobs and placing more emphasis on improving their CBRNe capabilities to be better prepared for future CBRNe incidents and global pandemics. CBRNe Summit EMEA will provide you the perfect opportunity to network with leading officials who work tirelessly in the CBRNe domain.

To be part of our CBRNe Summit EMEA conference and exhibition please contact us via email at [events@intelligence-sec.com](mailto:events@intelligence-sec.com) or by phone +44 (0)1582 346 706 and we will be happy to provide you further information on how you can participate either as a speaker, sponsor/exhibitor or as delegates.

**CBRNe Summit USA 2022**

4-6 Oct 2022 | Denver, Colorado USA

<https://intelligence-sec.com/events/cbrne-summit-usa-2021-2-2/>

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Our 2<sup>nd</sup> annual CBRNe Summit USA will be coming to Denver, CO on the 4<sup>th</sup> – 6<sup>th</sup> October 2022. This event brings together leading officials from the military, civil and scientific agencies to provide you will a full perspective on all CBRNe threats and challenges.

Over the 2-day conference and exhibition you will hear different perspectives on CBRNe preparedness, resilience and response. With the world entering a new chapter with the



## ICI C<sup>2</sup>BRNE DIARY – April 2022

global COVID pandemic behind us many governments are now seeing the importance to improve CBRNe capabilities to deal with a future pandemic.

CBRNe Summit USA will also focus on Colorado State CBRNe response capabilities and analyse the challenges they face across the State; Chem-Bio countermeasures and emergency response procedures and agency collaboration; First responder techniques and training to allow inter-agency response to CBRNe incidents; International CBRNe threats and response techniques and Military CBRNe capabilities and development.

To take part in our inaugural CBRNe Summit USA conference and exhibition as either a speaker, sponsor, exhibitor or delegate please contact us at [events@intelligence-sec.com](mailto:events@intelligence-sec.com) or call us at +44 7792 47 32 46.

### Global Health Security Conference

28 Jun – 01 Jul 2022 | Singapore

<https://www.ghsconf.com/event/ce6e8302-3682-4893-9a1f-26827766de77/summary>



### CBRNe Protection Symposium

20-22 September 2022 | Malmö, Sweden

<https://cbw.se/>

As an engaged professional within the CBRNe-protection field this symposium is for you! Contribute to the symposium through fruitful meetings, elaborated conversations and sharing of recent research. Visit the exhibition of CBRNe protection equipment, where industry and institutes display their latest products and research in an encouraging environment. The exhibition offers a good opportunity for the symposium participants to make themselves acquainted with commercially available state-of-the-art equipment related to CBRNe-protection.

### Radiological Emergency Planning

18-22 Jul 2022 | Harvard Longwood Campus; Boston, MA

<https://www.hsph.harvard.edu/ecpe/programs/radiological-emergency-planning/>



This program moves beyond the basics of emergency planning to provide skills and strategies for communicating about radiological emergencies, medically managing casualties of incidents involving radioactive material, and supporting other organizations during these crises.

This course is designed for anyone involved in emergency planning, response, or recovery in the public, private, or nonprofit sectors. Health physicists, public safety professionals, and first receivers and responders will also find this program beneficial. Foreign and domestic participants from organizations with the following functions are likely to attend:

- Nuclear or energy-industry regulatory bodies
- Homeland security and emergency management agencies
- Defense or military organizations
- Departments of health
- Power generation, especially nuclear power generation
- State and local emergency agencies
- State radiation control agencies







## NCT Events 2022

<https://nct-events.com/>

NCT is back! After the stop imposed on us by the pandemic, we have a large calendar of events coming up in 2022. We will start in Abu Dhabi, February 7<sup>th</sup> and 8<sup>th</sup>. We will then reach almost every continent: NCT is scheduled for Brazil, Germany, Thailand, Croatia, the United States, and South Korea. [Visit our website](#) for the latest news regarding dates and locations!

Dear colleagues,

**CANNES  
INTERNATIONAL  
RESILIENCE FORUM**  
Prepare for tomorrow, today

23 - 26 OCTOBER 2022 | Palais des Festivals et des Congrès - Cannes | [www.cannesirf.com](http://www.cannesirf.com)

**It is always good to have a Plan B.**

I am pleased and honoured to invite you to participate in the first edition of the Cannes International Resilience Forum (CIRF). CIRF is an international conference dedicated to crisis management and resilience, which will take place at the Palais des Festivals et des Congrès in Cannes from Sunday 23<sup>rd</sup> to Wednesday 26<sup>th</sup>, October 2022.

IsraTeam Ltd., established in Israel in 1988, has a renowned expertise in the field of emergency management and mitigation, particularly during times of war, natural disasters or terrorist attacks. Its team is comprised of highly qualified experts, including high ranking personnel in the Israel Defence Forces (IDF) and Ministry of Health.

Regarding the prevention and management of major risks, Cannes is a pioneer city as it was certified in 2018 by the Ministry of Europe and Foreign Affairs for its expertise in “preventing terror risk during the organisation of events”. In March 2021, the City of Cannes obtained an enlargement of this labelling to “sanitary and natural risk”, as part of the Ministry program meant to highlight the expertise of local authorities.

The first edition of the Cannes International Resilience Forum will focus on building resilience strategies to face the consequences of Covid-19 pandemic as well as on sanitary crisis management.

Main issues to be discussed at the conference will be - Building the Resilience today to be ready for the next generation and will dive into such topics as:

1. "COVID-19" – LESSONS LEARNT.
2. "POST – COVID-19 ERA" Health Systems Preparedness.
3. CLIMATE CHANGE EFFECTS ON EMERGENCY PREPAREDNESS
4. The Mayor leadership



5. RADIOLOGICAL DISASTER MANAGEMENT
6. BUILDING RESILIENCE.
7. "THE CYBER WORLD" Threats and responses.
8. The Financial Challenge in a Disaster
9. The Functional Continuity in the Supply of electricity and Water
10. The Activity of First Responses
11. "THE WORLD TERRORISM" Counter terrorism and responses
12. Multidisciplinary Simulation Exercise Simulation systems to emergencies and crises events
13. TECHNOLOGICAL INNOVATION FOR BETTER RESILIENCE
14. The advance methodology to deal with MASS CASUALTY INCIDENT (MC)

Undoubtedly, the lessons learnt from COVID-19 Pandemic would be very useful for any case of mass disaster mitigation; it will be extremely crucial factor in any mitigation planning or crisis management in the future.

Your contribution to the conference will surely lead to a better understanding of the governing powers, the participants' roles, and the possibilities to be properly prepared in the future at the national and global levels.

**General Abraham Bachar**

*Chair of the Cannes International Resilience Forum*

Founder and CEO of IsraTeam

Former Chief of Staff, Israeli Home Front Command and

Former Head of the Israeli National Emergency Management Agency.

## 3rd CBRN-E Forensic Course

Dates: 23 September – 02 October 2022

<https://www.cbrndefence.com/yazi/3-adli-kbrn-p-kursu>

**Organized by:**

In cooperation with CBRN Defense Policy Development Association & Forensic Scientists Association

●▶ **Deadline for registration: September 25, 2022**

Recent events including the Iran-Iraq war in the 1980s, the chemical attack on the Tokyo subway, the bioterrorist attacks after the September 11, 2001 attack, the chemical weapons used numerous times in our neighboring Syria, the nuclear power plant accidents, the misuse of radiation in our daily lives, the recent Russian-Ukrainian war where chemical and nuclear danger's been on agenda, and especially the COVID-19 pandemic, which is claimed to be a biological weapon, have shown that "Chemical Biological-Radiological and Nuclear" threat, called CBRN, will, unfortunately, increase in the coming years, perhaps this unseen dangerous agents will be used in conflicts like wars and terrorist events. It shows us that it will increase the possibility of using advanced technological weapons insidiously. However, more importantly, the threat of CBRN weapons, which has evidently increased more in the Middle East geography, including our country, has taken its place in the asymmetric war/terror threat. Defense and protection against these events is a situation that not only the security forces react to but also all civilian citizens should know, and that forces us to increase our awareness and consciousness on this issue.

Based on the reasons mentioned above; As the Chemical Biological Radiological Nuclear (CBRN) Defense Policy Development Association (CBRN Defense Platform) together with the Forensic Scientists Association, we will organize an online 3rd CBRN-E Forensic course between September 23-October 02, 2022 to raise awareness of CBRN threat in our country and to increase the awareness of this danger.





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The training of the 3rd of the Forensic CBRN-P course whose first two of which were held in the year 2001 with great attention will be delivered at a very sensitive period when our world is talking about CBRN threat. In this training course, our expert academicians' lectures will cover topics including Forensic Sciences, Food Safety, Food Defense and Agroterrorism, Bioterrorism, Chemical Warfare Agents, Weapons of Mass Destruction, CBRN-P Substances Usage Methods, Targets, Dissemination Devices, Bomb / Dirty Bomb, Radioactive threats, Radionuclear Accidents, and Incidents, Suspicious Biological Package, Crime Scene Investigation and Forensic CBRN (Dirty Evidence) Investigation Laboratory in CBRN-P Attacks, Toxic Industrial Chemicals, Emergency, and Disaster Management in CBRN Incidents, CBRN Crime Scene Management. During this course, applications like scenario-based interactive studies of referee/cross-examination and table-top exercises on CBRN event management will also be performed.

The lessons are 60 hours in total and will be held between 09.00-18.00 on weekends and between 18.00-23.00 on weekdays. Attending at least 70 percent of the courses and being successful in the exam is mandatory for certification. It is also mandatory to open the camera during the lesson. Since the course will be given in return for a donation, there is no refund.

### Sponsorship Registration Procedures:

Sponsorships from worldwide CBRN companies are kindly welcome for the 60-hour 3rd Forensic CBRN-E Course to be organized by the Chemical Biological Radiological Nuclear (CBRN) Defense Policy Development Association (CBRN Defense Platform) together with the Forensic Scientists Association.

### **GOLD SPONSORSHIP - 2000 USD**

DURING THE 60-HOUR COURSE, THE SPONSORING COMPANY LOGO WILL BE PUBLISHED DURING THE ENTIRE PANEL PRESENTATIONS. THE SPONSORING COMPANY WILL ALSO BE PROMOTED AS ONE COURSE HOUR COMPANY PRESENTATION.

### **SILVER SPONSORSHIP - 1500 USD**

DURING THE 60-HOUR COURSE, THE SPONSORING COMPANY LOGO WILL BE PUBLISHED DURING THE ENTIRE PANEL PRESENTATIONS.

### **BRONZE SPONSORSHIP - 1000 USD**

THE SPONSORING COMPANY WILL MAKE A ONE-HOUR PRESENTATION ABOUT THE COMPANY

Sponsorship fees will be deposited to the account of the Forensic Scientists Association, with the explanation of "Forensic CBRN Education Donation Gold/Silver/Bronze Sponsorship" to the IBAN address. Please contact us by e-mail or telephone before depositing. After the sponsorship process, Training materials will start to be sent to you and if you submit your mobile phone number, you will be registered to the 3rd Forensic CBRN-P whatsapp group.

**Account Name:** KİMYASAL BİYOLOJİK RADYOLOJİK NÜKLEER, QNB Finansbank Batıkent Şubesi (USD account)

IBAN No: 12001110000000095144488

**Contact Number:** +90 532 282 67 59

Turkish Chemical Biological Radiological Nuclear (CBRN) Defense Policy Development Association (CBRN Defence Platform)





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# BIO NEWS





## Far-UVC (222 nm) efficiently inactivates an airborne pathogen in a room-sized chamber

By Ewan Eadie, Waseem Hiwar, Louise Fletcher, et al.

*Scientific Reports* volume 12, Article number: 4373 (Mar 23, 2022)

Source [full text]: <https://www.nature.com/articles/s41598-022-08462-z>



### Abstract

Many infectious diseases, including COVID-19, are transmitted by airborne pathogens. There is a need for effective environmental control measures which, ideally, are not reliant on human behaviour. One potential solution is Krypton Chloride (KrCl) excimer lamps (often referred to as **Far-UVC**), which can efficiently inactivate pathogens, such as coronaviruses and influenza, in air. Research demonstrates that when KrCl lamps are filtered to remove longer-wavelength ultraviolet emissions they do not induce acute reactions in the skin or eyes, nor delayed effects such as skin cancer. While there is laboratory evidence for Far-UVC efficacy, there is limited evidence in full-sized rooms. For the first time, we show that Far-UVC deployed in a room-sized chamber effectively inactivates aerosolised *Staphylococcus aureus*. At a room ventilation rate of 3 air-changes-per-hour (ACH), with 5 filtered sources the steady-state pathogen load was reduced by 98.4% providing an additional 184 equivalent air changes (eACH). This reduction was achieved using Far-UVC irradiances consistent with current American Conference of Governmental Industrial Hygienists threshold limit values for skin for a continuous 8-h exposure. Our data indicate that Far-UVC is likely to be more effective against common airborne viruses, including SARS-CoV-2, than bacteria and should thus be an effective and “hands-off” technology to reduce airborne disease transmission. The findings provide room-scale data to support the design and development of effective Far-UVC systems.

## What We Know About The New Omicron **Subvariant BA.2** Spreading Around The World

By Prakash Nagarkatti and Mitzi Nagarkatti

Source: <https://www.sciencealert.com/two-scientists-answer-all-your-questions-about-the-new-ba-2-variant>

Mar 23 – A new Omicron subvariant of the [virus](#) that causes [COVID-19](#), BA.2, is quickly becoming the predominant source of infections amid rising cases around the world.



*Immunologists Prakash Nagarkatti and Mitzi Nagarkatti of the University of South Carolina explain what makes it different from previous variants, whether there will be another surge in the US and how best to protect yourself.*

### What is BA.2, and how is it related to Omicron?

BA.2 is the latest [subvariant of Omicron](#), the dominant strain of the [SARS-CoV-2](#) virus that causes COVID-19. While the origin of BA.2 is still unclear, it has quickly become the dominant strain in many countries, including [India, Denmark, and South Africa](#). It is [continuing to spread](#) in Europe, Asia, and many parts of the world.

The Omicron variant, officially known as B.1.1.529, of SARS-CoV-2 has [three main subvariants](#) in its [lineage](#): BA.1, BA.2, and BA.3. The earliest omicron subvariant to be detected, BA.1, was first reported in [November 2021 in South Africa](#).

While scientists believe that all the subvariants may have [emerged around the same time](#), BA.1 was [predominantly responsible](#) for the winter surge of infections in the Northern Hemisphere in 2021.

The first Omicron subvariant, BA.1, is unique in the number of alterations it has compared to the original version of the virus – it has [over 30 mutations](#) in the [spike protein](#) that helps it enter cells.

Spike protein mutations are of high concern to scientists and public health officials because they affect how infectious a particular variant is and whether it is able to [escape the protective antibodies](#) that the body produces after vaccination or a prior COVID-19 infection.

BA.2 has [eight unique mutations](#) not found in BA.1, and [lacks 13 mutations](#) that BA.1 does have. BA.2 does, however, share [around 30 mutations](#) with BA.1. Because of its relative genetic similarity, it is considered a [subvariant](#) of Omicron as opposed to a completely new variant.

### Why is it called a 'stealth' variant?

Some scientists have called BA.2 a "[stealth](#)" [variant](#) because, unlike the BA.1 variant, it [lacks a particular genetic signature](#) that distinguishes it from the [Delta variant](#).

While standard [PCR tests](#) are still able to detect the BA.2 variant, they might not be able to tell it apart from the Delta variant.

### Is it more infectious and lethal than other variants?

BA.2 is considered to be [more transmissible](#) but not more [virulent](#) than BA.1. This means that while BA.2 can spread faster than BA.1, it might not make people sicker.

It is worth noting that while BA.1 has [dominated case numbers around the world](#), it causes [less severe disease](#) compared to the Delta variant. Recent studies from the [UK](#) and [Denmark](#) suggest that BA.2 may pose a similar risk of hospitalization as BA.1.

### Does previous infection with BA.1 provide protection against BA.2?

Yes! A [recent study](#) suggested that people previously infected with the original BA.1 subvariant have robust protection against BA.2. Because BA.1 caused widespread infections across the world, it is likely that a significant percentage of the population has protective immunity against BA.2. This is why some scientists predict that BA.2 will be [less likely to cause another major wave](#).

However, while the [natural immunity](#) gained after COVID-19 infection may provide strong protection against reinfection from earlier variants, it weakens against Omicron.

### How effective are vaccines against BA.2?

A [recent preliminary study](#) that has not yet been peer-reviewed of over 1 million individuals in Qatar suggests that two doses of either the Pfizer-BioNTech or Moderna COVID-19 vaccines protect against symptomatic infection from BA.1 and BA.2 for several months before waning to around 10 percent.

A booster shot, however, was able to elevate protection again close to original levels.

Importantly, both vaccines were 70 to 80 percent effective at preventing hospitalization or death, and this effectiveness increased to over 90 percent after a booster dose.

### How worried does the US need to be about BA.2?

The rise in BA.2 in certain parts of the world is most likely due to a [combination](#) of its higher transmissibility, people's waning immunity, and relaxation of COVID-19 restrictions.

CDC data suggests that BA.2 cases are rising steadily, making up [23 percent of all cases](#) in the US as of early March. [Scientists are still debating](#) whether BA.2 will cause another surge in the US.





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Though there may be an uptick of BA.2 infections in the coming months, [protective immunity](#) from vaccination or previous infection provides defense against severe disease.

This may make it less likely that BA.2 will cause a significant increase in hospitalization and deaths. The US, however, [lags behind other countries](#) when it comes to vaccination, and falls even further behind on boosters.

Whether there will be another devastating surge depends on how many people are vaccinated or have been previously infected with BA.1.

It's [safer to generate immunity](#) from a vaccine, however than from getting an infection.

Getting vaccinated and boosted and [taking precautions](#) like wearing an N95 mask and social distancing are the best ways to protect yourself from BA.2 and other variants.

**Prakash Nagarkatti** is a Professor of Pathology, Microbiology, and Immunology @ the University of South Carolina.

**Mitzi Nagarkatti** is a Professor of Pathology, Microbiology, and Immunology @ the University of South Carolina.

### COVID-19 Potentially Thwarted by TB Infection... at Least in Mice

Using mice that were chronically infected with Mycobacterium tuberculosis, researchers show that the immune response mounted against tuberculosis prevents mice from developing COVID-19. The findings demonstrate that tuberculosis infection makes the lungs inhospitable to SARS-CoV-2. If the same is true for humans, this discovery may be one reason why there have been few reports of individuals with both tuberculosis and COVID-19 in the absence of other complications.

[+ MORE](#)

### Insidious Insights: Implications of viral vector engineering for pathogen enhancement

By Jonas B. Sandbrink, Ethan C. Alley, Matthew C. Watson, Gregory D. Koblenz, and Kevin M. Esvelt

*Gene Therapy* (2022)

Source [full text]: <https://www.nature.com/articles/s41434-021-00312-3>

#### Abstract

Optimizing viral vectors and their properties will be important for improving the effectiveness and safety of clinical gene therapy. However, such research may generate dual-use insights relevant to the enhancement of pandemic pathogens. In particular, reliable and generalizable methods of immune evasion could increase viral fitness sufficient to cause a new pandemic. High potential for misuse is associated with (1) the development of universal genetic elements for immune modulation, (2) specific insights on capsid engineering for antibody evasion applicable to viruses with pandemic potential, and (3) the development of computational methods to inform capsid engineering. These risks may be mitigated by prioritizing non-viral delivery systems, pharmacological immune modulation methods, non-genetic vector surface modifications, and engineering methods specific to AAV and other viruses incapable of unassisted human-to-human transmission. We recommend that computational vector engineering and the publication of associated code and data be limited to AAV until a technical solution for preventing malicious access to viral engineering tools has been established.

### Current and Future Challenges to National Biodefense

Source: <https://www.homelandsecuritynewswire.com/dr20220325-current-and-future-challenges-to-national-biodefense>

Mar 25 – The Bipartisan Commission on Biodefense met last Tuesday to discuss the expanding landscape of current and future biological threats, the roles and responsibilities of the federal government in assessing and preparing for various biological threats, and biological weapons, bioterrorism, and biological arms races with the public.

[Pandora Report](#) notes that in its 2015 bipartisan report, [A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts](#), the Commission described biological threats to the nation and made 33 recommendations to optimize U.S. efforts to prevent, deter, prepare for, detect, respond to, attribute, recover from, and mitigate intentionally introduced, accidentally released, and naturally occurring biological events.



Seven years later, the U.S. experience with COVID-19 continues to validate our original findings and the need for an [Apollo Program for Biodefense](#) as biological threats to the Nation continue to expand and increase.

Biodefense Program Director, Dr. Gregory Koblentz, also testified during this event, providing insight on the future of biodefense. On the risks posed by dual-use research of concern and effective biosafety and biosecurity risk management, Koblentz concluded: “Whether or not the current pandemic was caused by a laboratory accident, it does not mean the next pandemic won’t be. Indeed, efforts to prevent and prepare for the next pandemic, ironically, include a range of activities that serve to increase the risk posed by an accident. Given that existing national and international systems to ensure that such research is conducted safely, securely, and responsibly are already inadequate, we need a new global architecture for biorisk management that can address the growing challenges we face in this domain.”

●► The event recording is available [here](#).

## **EXCLUSIVE: Hunter Biden DID help secure millions in funding for US contractor in Ukraine specializing in deadly pathogen research, laptop emails reveal, raising more questions about the disgraced son of then vice president**

By Josh Boswell (For Dailymail.com)

Source: <https://www.dailymail.co.uk/news/article-10652127/Hunter-Biden-helped-secure-millions-funding-military-biotech-research-program-Ukraine.html>

- The Russian government held a press conference Thursday claiming that Hunter Biden helped finance a US military 'bioweapons' research program in Ukraine
- However the allegations were branded a brazen propaganda ploy to justify president Vladimir Putin's invasion of Ukraine and sow discord in the US
- But emails and correspondence obtained by DailyMail.com from Hunter's abandoned laptop show the claims may well be true
- The emails show Hunter helped secure millions of dollars of funding for Metabiota, a Department of Defense contractor specializing in research on pandemic-causing diseases
- He also introduced Metabiota to an allegedly corrupt Ukrainian gas firm, Burisma, for a 'science project' involving high biosecurity level labs in Ukraine
- The president's son and his colleagues invested \$500,000 in Metabiota through their firm Rosemont Seneca Technology Partners
- They raised several million dollars of funding for the company from investment giants including Goldman Sachs

Mar 25 – Moscow’s claim that [Hunter Biden](#) helped finance a US military 'bioweapons' research program in Ukraine is at least partially true, according to new emails obtained exclusively by DailyMail.com.

The commander of the Russian Nuclear, Biological and Chemical Protection Forces, claimed there was a 'scheme of interaction between US government agencies and Ukrainian biological objects' and pointed to the 'financing of such activities by structures close to the current US leadership, in particular the investment fund Rosemont Seneca, which is headed by Hunter Biden.'

Intelligence experts say the Russian military leader's allegations were a brazen propaganda ploy to justify president Vladimir [Putin's invasion of Ukraine](#) and sow discord in the US.

But emails from Hunter's abandoned laptop show he helped secure millions of dollars of funding for Metabiota, a Department of Defense contractor specializing in research on pandemic-causing diseases that could be used as bioweapons.

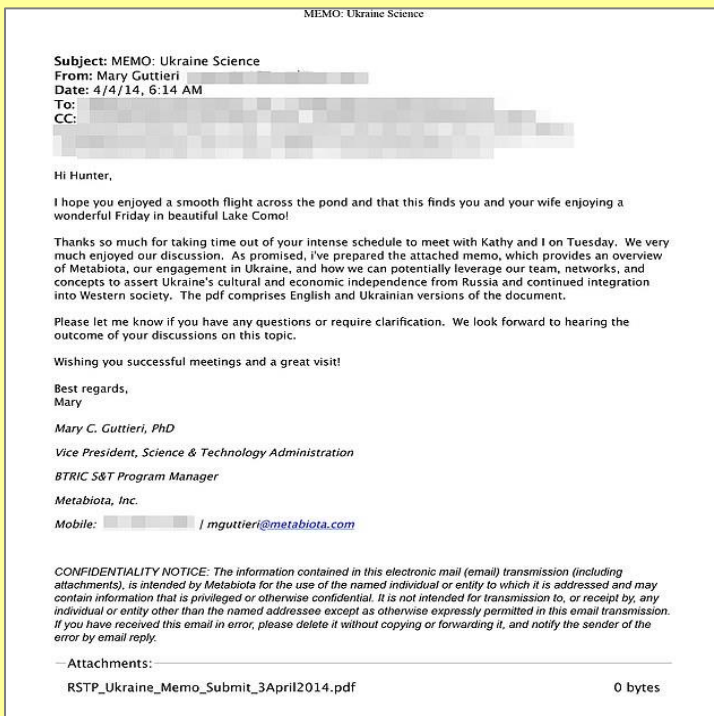
He also introduced Metabiota to an allegedly corrupt Ukrainian gas firm, Burisma, for a 'science project' involving high biosecurity level labs in Ukraine.

And although Metabiota is ostensibly a medical data company, its vice president emailed Hunter in 2014 describing how they could 'assert Ukraine's cultural and economic independence from Russia' – an unusual goal for a biotech firm.

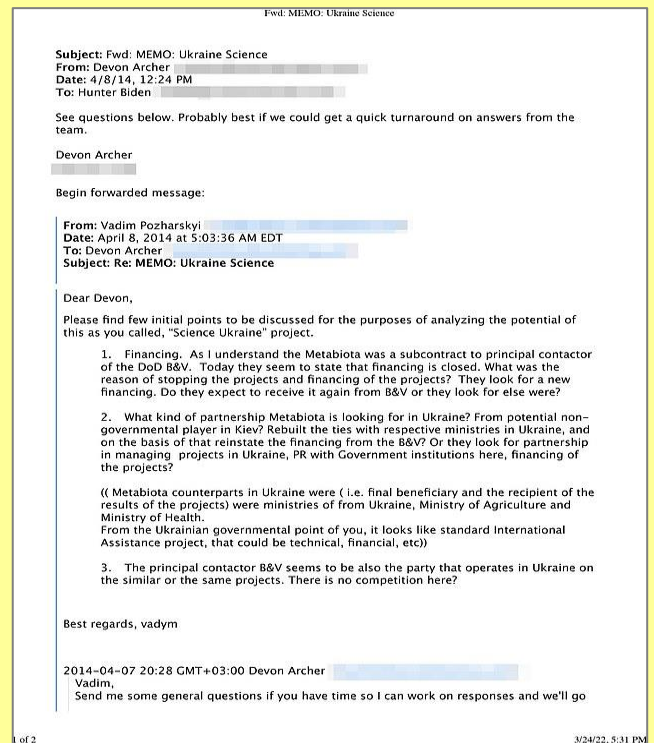




## ICI C<sup>2</sup>BRNE DIARY – April 2022



In April 2014, Metabiota vice president Mary Guttieri wrote a memo to Hunter outlining how they could 'assert Ukraine's cultural and economic independence from Russia'. 'Thanks so much for taking time out of your intense schedule to meet with Kathy [Dimeo, Metabiota executive] and I on Tuesday. We very much enjoyed our discussion,' Guttieri wrote



Four days after Guttieri's April 2014 email, Burisma executive Vadym Pozharskiy wrote to Hunter revealing that the then-Vice President's son had pitched a 'science project' involving Burisma and Metabiota in Ukraine. 'Please find few initial points to be discussed for the purposes of analyzing the potential of this as you called, 'Science Ukraine' project,' Pozharskiy wrote

 **USASpending.gov**

AWARD PROFILE  
 Contract Summary

Definitive Contract  PIID HDTRA114C0104

Awarding Agency	Recipient
Department of Defense (DOD)	<b>METABIOTA, INC.</b> 1 SUTTER ST STE 600 SAN FRANCISCO, CA 94104-4923 Congressional District: CA-12 UNITED STATES

\$ Award Amounts

**\$18.4 Million**  
 Obligated Amount

Government spending records show the Department of Defense awarded an \$18.4million contract to Metabiota between February 2014 and November 2016, with \$307,091 earmarked for 'Ukraine research projects'

Emails and defense contract data reviewed by DailyMail.com suggest that Hunter had a prominent role in making sure Metabiota was able to conduct its pathogen research just a few hundred miles from the border with Russia.

The project turned into a national security liability for Ukraine when Russian forces invaded the country last month.

Metabiota has worked in Ukraine for Black & Veatch, a US defense contractor with deep ties to military intelligence agencies, which built secure labs in Ukraine that analyzed killer diseases and bioweapons.

Earlier this month US officials warned congress that 'Russian forces may be seeking to gain control' of these 'biological research facilities',

prompting fears that deadly and even engineered pathogens could fall into Russian hands. Hunter and his colleagues at his investment firm Rosemont Seneca Technology Partners (RSTP) routinely raised millions of dollars for technology companies, hoping the firms would take off and make them all fortunes. Metabiota was one of those firms. Emails between Hunter and his colleagues excitedly discuss how the company's monitoring of medical data could become an essential tool for governments and companies looking to spot outbreaks of infectious diseases.



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The president's son and his colleagues invested \$500,000 in Metabiota through their firm Rosemont Seneca Technology Partners. They raised several million dollars of funding for the company from investment giants including Goldman Sachs. But emails show Hunter was also particularly involved in Metabiota's operations in Ukraine. Hunter's pitches to investors claimed that they not only organized funding for the firm, they also helped it 'get new customers' including 'government agencies in case of Metabiota'. He and his business partner Eric Schwerin even discussed subletting their office space to the firm in April 2014, their emails reveal.

That month, Metabiota vice president Mary Guttieri wrote a memo to Hunter outlining how they could 'assert Ukraine's cultural and economic independence from Russia'.

[Mary Guttieri, Metabiota vice president, is seen at a meeting with U.S. and Ukrainian military](#)

'Thanks so much for taking time out of your intense schedule to meet with Kathy [Dimeo, Metabiota executive] and I on Tuesday. We very much enjoyed our discussion,' Guttieri wrote.

'As promised, I've prepared the attached memo, which provides an overview of Metabiota, our engagement in Ukraine, and how we can potentially leverage our team, networks, and concepts to assert Ukraine's cultural and economic independence from Russia and continued integration into Western society.'

Former senior CIA officer Sam Faddis, who has reviewed emails on Hunter's laptop, told DailyMail.com that the offer to help assert Ukraine's independence was odd for a biotech executive.

'It raises the question, what is the real purpose of this venture? It's very odd,' he said.

Science & Technology Center in Ukraine

## HIGHLIGHTS AND ACCOMPLISHMENTS

### TRILATERAL MEETING WITH UKRAINE, POLAND, AND THE UNITED STATES REGIONAL COLLABORATION ON BIOLOGICAL SECURITY, SAFETY, AND SURVEILLANCE



Expertise in Kyiv and Lviv's Institute of Epidemiology and Hygiene also took an active part in the discussions.

The Chief Veterinary Officer of the National Veterinary Research Institute in Pulawy, Mr. W. Skorupski, led the Polish delegation which included subject matter experts from the same organization.

The United States delegation included representatives of the US Department of Defense DTRA (K. Garrett, G. Braunstein, W. Sosnowski, and J. Wintrol), as well as representatives of the Black & Veatch and Metabiota corporations (D. Mustra, Dr. M. Guttieri, S. Anderson, T. Borth and others). Curtis "BJ" Bjelajac, Executive Director, and Vlada Pashynska, Senior Specialist represented the STCU.

The meeting focused on existing frameworks, regulatory coordination, and ongoing cooperative projects in research, surveillance and diagnostics of a number of dangerous zoonotic diseases, such as avian influenza, leptospirosis, Crimean Congo hemorrhagic fever, and brucellosis. A special session was devoted to the current increase in cases of African Swine Fever (ASF) in both

On October 3-4, 2016 in Lviv, Ukraine, a tri-lateral meeting with representatives of Ukraine, Poland, and the United States of America convened to discuss regional collaboration on biological security, safety, and surveillance. Attendees included government and scientific experts, who discussed regional (Ukraine and Poland) cooperation in surveillance and prevention of especially dangerous infectious diseases, including zoonotic diseases in Ukraine and neighboring countries.

The president's son and his colleagues invested \$500,000 in Metabiota through their firm Rosemont Seneca Technology Partners. They raised several million dollars of funding for the company from investment giants including Goldman Sachs

RSTP Fundraising Update

**Subject:** RSTP Fundraising Update  
**From:** Eric Schwerin  
**Date:** 12/15/14, 10:04 PM  
**To:** Hunter Biden

From the RSTP call today, it seems that there will be an \$11m close of the Metabiota deal on Friday. Short of the \$25m that we had carved out - and that was apparently oversubscribed. John told Nathan that the final amount would close by end of January. It sounds like the groups coming in for Metabiota are not coming into the fund itself so the idea is to have the next close of the fund be at the end of January to sync up with the Metabiota close.

Unclear if we would see a distribution out of the \$11m close this month. Also, not sure if there is some benefit to push the close to January in order to rejigger the splits beforehand.

Finally RSTP filed an amended Form D with the SEC which stated that we had only raised \$27.5m of our \$250m and gives us an extra six months to continue to fundraise. Apparently Nueberger begrudgingly agreed to the six months but won't go beyond that.

Eric D. Schwerin  
Rosemont Seneca Partners, LLC  
1010 Wisconsin Ave., NW  
Suite 705  
Washington, DC 20007

P Consider the environment before printing this email.

Emails between Hunter and his colleagues at Rosemont Seneca excitedly discuss how the company's monitoring of medical data could become an essential tool for governments and companies looking to spot outbreaks of infectious diseases

IC Materials

**Subject:** IC Materials  
**From:** John DeLoche  
**Date:** 3/10/14, 2:36 AM  
**To:** Hunter Biden, Neil Callahan, Devon Archer, William Lee <will@rstp.com>

IC Committee,

In the interest of establishing a clear process for our investment approvals I wanted to give you a preview of the agenda for the first IC Committee call, which I hope we can do on our weekly call tmw. In the future we will plan to have full memos distributed to the committee for each deal the Friday before the Monday committee meeting. Apologies we were not able to put together a memo for Metabiota given our front end loading of Lyft. We will put one together for Metabiota shortly.

We have three deals to discuss tmw.

The first is an increase in our investment in Metabiota by \$250k. Docs are attached. They raised about \$2.4mm of which we represent \$500k (250k from the first investment plus this one). They intended to raise a max of \$1.6mm but it was oversubscribed. They way to think about this one is that Palantir is the to the CIA what Metabiota is to the USDA. The company's plan is to take advantage of the current fundraising climate and start raising a series A as soon as this series seed closes. They hope to raise another \$15mm at at least \$80mm pre which would be a nice 5x mark-up to our investment. We are planning to show it to Founders Fund, Andreessen and Google Ventures (among others) as potential leads.

The second is an investment in Lyft (doc attached)

The third is an increase in our investment in Counsyl. Goldman is going to committee on Lyft and Counsyl on Tuesday.

Best,  
John  
John DeLoche  
Managing Director  
Rosemont Seneca Technology Partners  
333 Bush Street, 21st Floor  
San Francisco, CA 94104  
office: [redacted]  
mobile: [redacted]

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Attachments:  
Metabiota - Series Seed - Preferred Stock Investment Agreement (Execution) 0 bytes

1 of 2 3/24/22, 5:34 PM





Guttieri had a leading role in Metabiota's Ukraine operations, meeting with other company executives and US and Ukrainian military officials in October 2016 to discuss 'cooperation in surveillance and prevention of especially dangerous infectious diseases, including zoonotic diseases in Ukraine and neighboring countries' according to a 2016 report by the Science and Technology Center in Ukraine. At the time, Hunter was serving as a board member of Ukrainian gas firm Burisma, owned by former top government official and allegedly corrupt billionaire Mikolay Zlochevsky.

Four days after Guttieri's April 2014 email, Burisma executive Vadym Pozharskyi wrote to Hunter revealing that the then-Vice President's son had pitched a 'science project' involving Burisma and Metabiota in Ukraine.

'Please find few initial points to be discussed for the purposes of analyzing the potential of this as you called, 'Science Ukraine' project,' Pozharskyi wrote.

'As I understand the Metabiota was a subcontract to principal contactor of the DoD B&V [Black & Veatch].

'What kind of partnership Metabiota is looking for in Ukraine? From potential non-governmental player in Kiev? Rebuilt the ties with respective ministries in Ukraine, and on the basis of that reinstate the financing from the B&V? Or they look for partnership in managing projects in Ukraine, PR with Government institutions here, financing of the projects?'

Faddis told DailyMail.com that the attempt to get Metabiota to form a partnership with Burisma was a perplexing and worrying revelation. 'His father was the Vice President of the United States and in charge of relations with Ukraine. So why was Hunter not only on the board of a suspect Ukrainian gas firm, but also hooked them up with a company working on bioweapons research?' Faddis said. 'It's an obvious Russian propaganda attempt to take advantage of this. But it doesn't change the fact that there does seem to be something that needs to be explored here. 'The DoD position is that there's nothing nefarious here, this is pandemic early warning research. We don't know for sure that's all that was going on. 'But the question still remains: why is Hunter Biden in the middle of all this? Why is the disgraced son of the vice president at the heart of this – the guy with no discernible skills and a cocaine habit.' Pozharsky said in his email to Hunter that he had encountered such biological research projects before in his former job as a Ukrainian government official, and claimed that B&V worked on 'similar or the same projects' as the proposed contract for Metabiota. Government spending records show the Department of Defense awarded an \$18.4million contract to Metabiota between February 2014 and November 2016, with \$307,091 earmarked for 'Ukraine research projects'.

In a May 2014 email, RSTP partner Schwerin suggested: 'there are obviously some real potential synergies between Xiaoying's husband's work at the CDC and what Metabiota

Metabiota

Subject: Metabiota  
From: Eric Schwerin  
Date: 5/29/14, 4:22 AM  
To: Hunter Biden

Now that you got me thinking this way there are obviously some real potential synergies between Xiaoying's husband's work at CDC and what Metabiota does. Something else to think about.

Eric D. Schwerin

Sent from my iPhone

Re: Metabiota DD

Subject: Re: Metabiota DD  
From: Rob Walker  
Date: 10/10/14, 12:07 AM  
To: John DeLoche, Hunter Biden, Eric Schwerin  
CC: Devon Archer, Neil Callahan, William Lee, Rob Walker

I am going to have a friend reach out to DoD on the down low.

On Oct 9, 2014 5:49 PM, "John DeLoche" wrote:  
Guys,

Is there anyone we can call in DC to get a sense of how Legit Metabiota is viewed within the various government agencies? We want to make sure we thoroughly do our diligence here, especially as Goldman and now Morgan Stanley will be doing diligence on the fund and Metabiota towards investing in both.

Additionally, who have we introduced them do in DC? Can you please provide a list of the various folks within Cornerstone as well as outside the firm where we have made intros? This data will go in our investment memo which we are trying to complete and get to potential LPs by Tuesday.

Will and I met with Nathan on Tuesday and he said they plan to retain Cornerstone btw which is great news so they have come around on that front. We are meeting again with them today and tomorrow to discuss terms of the Series A.

Thanks for the help and input.

Best,  
John

John DeLoche  
Co-founder and Managing Director  
Rosemont Seneca Technology Partners  
333 Bush Street, 21st Floor  
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office:  
mobile:

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does. Something else to think about'

The US Defense Threat Reduction Agency (DTRA) also commissioned B&V to build a Biological Safety Level 3 laboratory in Odessa, Ukraine in 2010, which 'provided enhanced equipment and training to effectively, safely and securely identify especially dangerous pathogens' according to a company press release.

Such labs are used to 'study infectious agents or toxins that may be transmitted through the air and cause potentially lethal infections,' the US Department of Health and Human Services says. B&V was awarded a further five-year \$85million contract in 2012.

In another sign of the deep ties between Metabiota and the Department of Defense, Hunter's RSTP business partner Rob Walker said he would 'have a friend reach out to DoD on the down low', in order to prove the company's bona fides to top prospective investors Goldman Sachs and Morgan Stanley in October 2014



In another sign of the deep ties between Metabiota and the Department of Defense, Hunter's RSTP business partner Rob Walker said he would 'have a friend reach out to DoD on the down low', in order to prove the company's bona fides to top prospective investors Goldman Sachs and Morgan Stanley in October 2014.

RSTP was a subsidiary of Rosemont Capital, an investment company founded by Hunter and former Secretary of State John Kerry's stepson Chris Heinz in 2009.

Metabiota also has close ties to the Wuhan Institute of Virology (WIV), suspected to be the source of the COVID-19 outbreak.

WIV was a hotspot for controversial 'gain of function' research that can create super-strength viruses.

Chinese scientists performed gain of function research on coronaviruses at the WIV, working alongside a US-backed organization EcoHealth Alliance that has since drawn intense scrutiny over its coronavirus research since the COVID-19 pandemic.

Researchers from the Wuhan institute, Metabiota and EcoHealth Alliance published a study together in 2014 on infectious diseases from bats in China, which notes that tests were performed at the WIV.

Shi Zhengli, the WIV Director of the Center for Emerging Infectious Diseases who became dubbed the 'bat lady' for her central role in bat coronavirus research at the lab, was a contributor to the paper.

Metabiota has been an official partner of EcoHealth Alliance since 2014, according to its website.

## Amid false Russian allegations of US “biolabs” in Ukraine, it’s worth asking: What is a bioweapon?

By Matt Field

Source: <https://thebulletin.org/2022/03/amid-false-russian-allegations-of-us-biolabs-in-ukraine-its-worth-asking-what-is-a-bioweapon/>

Mar 25 – Earlier this month, the Russian ambassador to the United Nations all but accused the United States and Ukraine of having biological weapons. While governments around the world have signed an international treaty banning germ warfare, Russia, Vassily Nebenzia said, had “grounds to think that those hopes did not come true completely.” According to the ambassador, the Russian military had found proof that US-funded “biolabs” in Ukraine were [engaged](#) in nefarious research and were enhancing dangerous pathogens.

Experts say [the documents](#) that the Russian military allegedly acquired show that labs in Ukraine were working on public health research and aren't evidence of a weapons program. Some of the Russian claims, [at least](#), come from publicly available sources. At the heart of the allegations are dozens of labs in Ukraine. They are [not a secret](#); they're run by Ukrainian officials and partner with the US government on health research programs, for instance, surveys on [natural exposure to endemic pathogens](#) like hantavirus. These aren't biological weapons laboratories, but the allegations raise important questions. Just what are bioweapons, anyway? How have they been used and developed throughout the years? And how can real bioweapons facilities be identified?

### What is a biological weapon?

George Mason University Professor Greg Koblenz, the director of the school's biodefense graduate program, said the bacterium that causes anthrax infection has been the most commonly studied biological agent in modern biowarfare programs. That's because *Bacillus anthracis* forms a spore that can be aerosolized and spread through the air, the main way to deliver a large-scale biological attack. “This is a very strenuous experience for the pathogen,” Koblenz said. “They don't like being blown up. They don't like UV radiation. They don't like being suspended in air. This process will kill most of the bacteria or viruses in a biological weapon once it's being disseminated. Anthrax spores provide that ability for them to survive that process much better than other pathogens.” With a [fatality rate of 80 percent](#), inhaled anthrax bacteria can be a deadly weapon.

Other diseases, including the bacterial illness tularemia, have also been studied, but, Koblenz said, weapons programs have shied away from diseases like influenza that spread easily. While the Soviet Union did weaponize [smallpox](#) and [plague](#), two contagious diseases, the US program tended to “shy away from” these agents, he said.

“You wouldn't purposefully develop a biological weapon that is highly contagious that could cause a pandemic because that will affect your country along with everyone else,” Koblenz said.

### What is the history of biological warfare?

By the 1300s, [warring armies in Europe](#) had arrived at the idea of using dead animals and people, including plague victims, as weapons. According to [one historical account](#), a Mongol army in 1346 loaded plague victims on catapults and “hurled” them into Caffa, a fortified Genoese trading post in present-day Ukraine. In 1650, Kazimierz Siemienowicz, a Polish





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general, reportedly laced bullets with [saliva from rabid dogs](#). And colonial British forces in the United States gave [smallpox infested blankets](#) to Native Americans on at least one occasion. But the best example of modern biowarfare, Koblentz said, comes from the Japanese invasion and occupation of China.

Japan's infamous Unit 731 conducted [grotesque experiments](#) on prisoners to assess the effects of biological agents like the bacteria



that causes cholera, including dissections on living, unanesthetized people. The unit allegedly experimented on at least 3,000 prisoners of war; an estimated 1,000 died, according to [a 1997 report](#) by the US Surgeon General.

Genoese fortifications at Caffa in present-day Ukraine. Credit: Janmad. CC BY 3.0 via Wikimedia Commons (color edited).

But far from limiting its work to lab settings, the Japanese military also

tested weapons on the public in Chinese cities. Planes would fly over communities and drop plague infested fleas, [attacks](#) that were followed by reports of outbreaks. "What's not well known is that they actually integrated their use of biological weapons with their conventional military operations in China," Koblentz said.

Despite the horrors committed by Unit 731, several of its officials were given immunity from war crimes prosecution; the United States, which by then had its own offensive biological weapons program, sought to understand what the Japanese had learned.

### Which countries have had biological weapons programs?

According to a [2008 tabulation](#) by the James Martin Center for Nonproliferation Studies, more than 20 countries have or have had a biological weapons program.

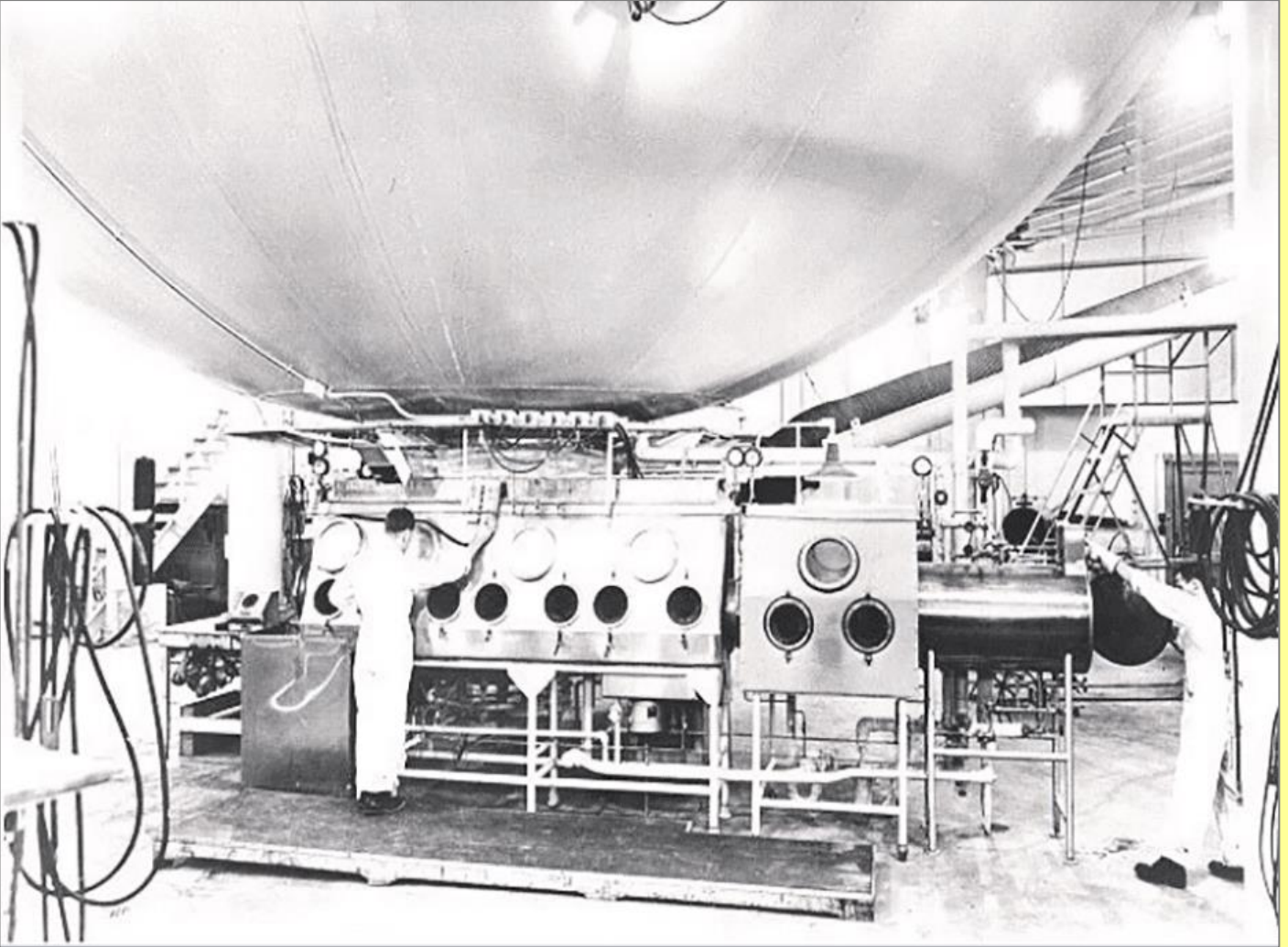
Of those programs, the former Soviet Union once maintained the world's most extensive. While the country had been developing bioweapons since the 1920s, the Soviet government secretly expanded that effort after signing the 1972 Biological Weapons Convention. The Soviet program intended to capitalize on advances in genetic engineering to produce pathogens that were [more suitable](#) for weaponization than naturally occurring strains, and tens of thousands of scientists and others [worked](#) on the illicit effort. They conducted research to make hybrid pathogens with genetic material from more than one virus; pathogens that could elude diagnostic tests; and pathogens made up of both bacteria and viruses. The Soviets had the ability to [produce massive amounts](#) of anthrax agent and other pathogens, according to a 2002 Congressional Research Service report.

The United States also had a formidable weapons program. The military had a research and development lab at Ft. Detrick in Maryland, an open-air test site in Utah, and a production plant in Arkansas which produced biological agents and filled them into delivery devices, including spray tanks, bombs, and bomblets. According to a 2009 National Defense University [case study](#), the program's wares included lethal antipersonnel agents, incapacitating agents, and anti-crop weapons. The offensive program, however, ended in 1969, when President Richard Nixon, after an internal review, unilaterally abandoned the weapons and had the US stockpile destroyed.

That review found that pathogens take time to incubate, making them an impractical weapon during battle, and that they could mutate or establish themselves in animal species. Officials reasoned bioweapons couldn't be used first without drawing international condemnation and, moreover, that the country had a powerful nuclear arsenal to deter an attack. The Army destroyed its supplies of the pathogens that cause anthrax, tuleremia, and other diseases between 1971 and 1972, along with tens of



thousands of munitions filled with biological agents, according to the case study. The United States ratified the Biological Weapons Convention in 1975.



The US military tested biological warfare agents using the One-Million-Liter Test Sphere, also called the Eight Ball, at Ft. Detrick in Maryland. Credit: US Army.

### How have biological weapons been tested?

At Ft. Detrick, military researchers used a giant steel [sphere](#) known as the Eight Ball to test aerosolized agents on military volunteers. At the Dugway Proving Ground in the Utah desert, researchers [conducted](#) open-air experimentation, where germs were spread on the wind toward soldiers who had volunteered for tests. While researchers used animals in offensive weapons tests, the purpose of human tests was murkier, Koblentz said. More than 2,000 conscientious objectors, mainly from the Seventh-Day Adventist Church, participated in the Project Whitecoat program. That effort exposed volunteers to several diseases, including [tularemia](#), which was eventually standardized as a biological weapons agent. The experiments led to knowledge that could be used in both in offensive weapons and for defensive purposes, Koblentz said.

The military also conducted various tests in public places using agents that could simulate dangerous pathogens. For example, researchers in the 1950 exposed the San Francisco Bay-area to aerosolized *Bacillus globigii* and *Serratia marcescens*, bacteria which were thought to be benign. According to the Surgeon General's report, however, there were subsequent reports of infections in the surrounding communities.

Bioweapons accidents in the Soviet Union led to several deaths.

In 1971, a research vessel on the Aral Sea [sailed](#) near Vozrozhdeniya Island and into a "brownish haze." The island was an out-door Soviet bioweapons testing site, and the haze was aerosolized version of the virus that causes smallpox. An infected crew member took





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the virus back home and nine people fell sick in a subsequent outbreak; three including the researcher's brother died, according to a BBC report.

One of the worst bioweapons accidents happened in 1979 when anthrax spores leaked from a plant in the city of Sverdlovsk, now called Yekaterinburg. The leak killed at least 66 people, and perhaps more. A team that [included](#) Jeanne Guillemin and Matthew Meselson, noted bioweapons experts, [plotted](#) where each of the victims had been and, based on meteorological data, placed them in a zone downwind from the weapons plant known as Compound 19. The research showed that perhaps even less than 1 gram of anthrax spores—equivalent to a quarter teaspoon of salt—could kill many people. Had the wind been blowing toward Sverdlovsk, the death toll could have been far higher.

In 1992, former Russian President Boris Yeltsin [acknowledged](#) that the Sverdlovsk outbreak had been caused by military activity and ordered an end to Russia's offensive bioweapons program that year.

### How can bioweapons programs be identified?

Identifying a bioweapons program is no easy task, Koblentz said. That's because many of the pathogens and equipment that would be necessary for an offensive program also have legitimate uses: "You can't just look at a facility and say, 'Oh, you have a fermenter of this size, therefore, it is civilian, or therefore it is part of a bioweapons program.'" The same goes for pathogen strains, he said. Labs might have virulent anthrax in order to produce vaccines or detection systems, for example, or because they're dealing with public health outbreaks in the area. "Just seeing something there is by no means sufficient," Koblentz said.

But by analyzing various facts about a site, Koblentz said, a facility's true intention can be apparent.



The Stepnogorsk biological weapons complex in Kazakhstan. Credit: US Department of Defense.

Near the Kazakhstani city of **Stepnogorsk**, a Soviet biological weapons production facility contained "[towering fermenters](#)" that could produce two tons of anthrax in a day. The Stepnogorsk plant also [produced](#) civilian products, but the purpose of the facility was clear to analysts. "There was no plausible civilian rationale for having that production capacity," Koblentz said. "Next door to that production building there were fortified bunkers that were



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designed to store the ammunition that this anthrax would go into. So, looking at this combination of facilities and capabilities, you could say this is a biological weapons production facility.”



(Left) Villages with animal anthrax. Six villages where livestock died of anthrax in April 1979 are A, Rudniy; B, Bolshoye Sedelnikovo; C, Maloye Sedelnikovo; D, Pervomaiskiy; E, Kashino; and F, Abramovo. Settled areas are shown in gray, roads in white, lakes in blue, and calculated contours of constant dosage in black.

Inspectors and analysts don't have access to all facilities they suspect of being involved in biological weapons activities. The US government, for instance, has alleged that Russia still maintains an offensive biological weapons program. Even without access,

Koblentz said, there are ways to assess whether a country has an offensive program. The US government, for example, has accused a military facility at [Sergiev Posad](#) of being part of the program. “The fact that this is a military facility, it's top secret, no outsiders are allowed in, [the] lack of transparency in itself is a tell,” Koblentz said.

In contrast, Koblentz said, the recent Russian allegations of illegitimate biological research being conducted in Ukraine rely on publicly available information. “The Russians were putting up slides being used at scientific conferences. These researchers are publishing in peer reviewed journals, right?” he said. “You don't [do that](#) if you're trying to hide a secret bioweapons program in Ukraine.”

### How are biological weapons regulated?

The Biological Weapons Convention has [183 members](#), called states parties. By contrast, just 10 countries have not signed or ratified the treaty. The treaty doesn't ban pathogens or the equipment like fermenters used to work with them, biosecurity expert Filippa Lentzos said at a recent event. “We're saying, ‘You're not allowed to use it if it's not for peaceful purposes.’ It comes down to intent.” While the convention has helped shape norms against biological weapons, [some](#) observers [point](#) to a gap in the agreement, the lack of a “[formal verification regime to monitor compliance](#).” As it stands, members participate in [confidence-building measures](#), for example, by sharing reports on biological research centers and biodefense initiatives. Violating the treaty, Koblentz said, doesn't necessarily come with a steep price. “The treaty itself doesn't have any real penalties and given the difficulty of proving in an unclassified way that a country is in violation—it's challenging,” he said. “That's been a major weakness in the whole bioweapons non-proliferation regime from the beginning.”





Part of why the Soviet Union [proceeded to expand](#) its bioweapons program after joining the Biological Weapons Convention was because officials thought that Nixon's order to end the US offensive program was a ruse and that the United States was continuing to develop offensive capabilities. Some fear that [false accusations](#) about bioweapons programs, like the recent Russian disinformation, could erode trust and weaken the norm that prohibits the operation of clandestine programs. Well-documented cases of countries using bioweapons in war have been rare. But if a country were to reverse course, as the Sverdlovks anthrax leak suggests, the results could be catastrophic.

**Matt Field** is Editor, Disruptive Technologies at the *Bulletin of the Atomic Scientists*. Before joining the *Bulletin*, he covered the White House, Congress, and presidential campaigns as a news producer for Japanese public television. He has also reported for print outlets in the Midwest and on the East Coast. He holds a master's degree in journalism from Northwestern University.

## 30 million under Covid lockdown in China as cases spiral to highest since 2020

Source: <https://www.thenationalnews.com/coronavirus/2022/03/15/30-million-under-covid-lockdown-in-china-as-cases-spiral-to-highest-since-2020/>

Mar 15 – Nearly 30 million people were under lockdown across [China](#) on Tuesday, as surging coronavirus cases prompted the return of mass testing and hazmat-suited health officials to streets on a scale not seen since the start of the pandemic.

China reported 5,280 new Covid-19 cases on Tuesday, more than double the previous day's tally, as the highly transmissible [Omicron](#) variant spread across a country that has stuck rigidly to a zero-Covid strategy.

Though [China's](#) caseload is still small by global standards, health experts said the rate of increase in daily infections over the next few weeks would be a crucial factor in determining whether its tough "dynamic clearance" approach – aiming to contain each outbreak as soon as it arises – is still effective against the rapidly spreading Omicron strain.

A [Covid-19](#) forecasting system run by Lanzhou University in China's north-west predicted that the current round of infections would eventually be brought under control early next month after an accumulated total of about 35,000 cases.

The university said in its latest assessment published on Monday that while the latest outbreak was the most serious on the mainland since Wuhan in 2020, China could bring it under control as long as stringent curbs remained in place.

### Millions under lockdown in Chinese cities

**At least 13 cities across China are currently in lockdown.**

The north-eastern province of [Jilin](#) has been worst hit by Omicron with more than 3,000 new cases on Tuesday, the National Health Commission said.

Residents of several cities, including provincial capital [Changchun](#), home to nine million people, are under stay-at-home orders.

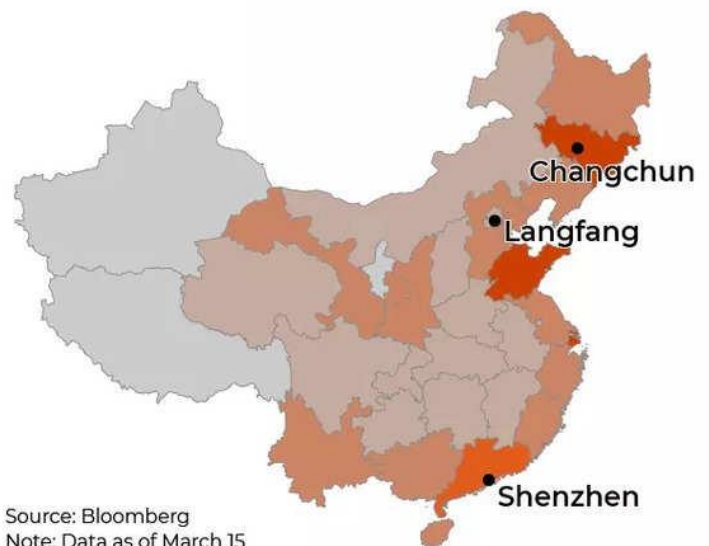
Health officials said more than 8,200 Jilin residents have been admitted to hospital, with the vast majority showing mild or no symptoms.

[Shenzhen](#), the southern technology hub of 17.5 million people, is three days into a lockdown with many factories closed and supermarket shelves emptying, while China's largest city Shanghai is under a lattice of restrictions.

### Rapidly Spreading Outbreak

New confirmed cases in mainland China over the last 7 days

■ No confirmed cases ■ 1-50 ■ 51-500 ■ 501-2000 ■ > 2000  
● Under lockdown



City officials said at a press conference on Tuesday "it is not necessary to lock down Shanghai at present", instead opting for more "precise" measures.

Scenes of closed neighbourhoods, panic buying and police cordons cast minds back to the early phase of the pandemic, after the coronavirus first appeared in China in late 2019.

Although cases from the chaotic initial outbreak in early 2020 are widely believed to have been under-reported, life since then had largely returned to normal in China under its strict zero-Covid approach.

### What's happening in Hong Kong?

[Hong Kong](#), a special administrative region of China, is dealing with a [dramatic rise in cases and deaths](#) linked to Covid-19 after initially dealing with pandemic well.

Its 4,300 deaths in fewer than three months, mostly in care homes, have sparked criticism of Hong Kong leader Carrie Lam's administration over low vaccination rates and unclear messaging.

A former government adviser on Tuesday condemned Ms Lam and called for her to "resign in shame". Wong Chack-kie joined a chorus of pro-Beijing loyalists in condemning Hong Kong's chief executive at a politically sensitive juncture for the city with a new leader to be selected by July 1.

Leading Chinese officials, including President Xi Jinping, are also expected to be in town by that date for the 25th anniversary of Hong Kong's handover from Britain to China.

"If a leader is of any virtue, he or she should resign in shame after seeing so many elderly people die of policy faults," Mr Wong wrote in an opinion piece published on Tuesday in the *Ming Pao* newspaper, calling the Covid crisis a "man-made calamity".

"After the situation got out of hand, all the officials knew was to shirk the responsibilities by repeatedly emphasising that the outbreak had overwhelmed the government's capacity," the former top adviser to Ms Lam's predecessor Leung Chun-ying said.

## COVID-19 Infection Linked to Risk of Cutaneous Autoimmune and Vascular Diseases



Source: <https://www.medscape.com/viewarticle/970985>

Mar 26 – Following infection with SARS-CoV-2 infection, patients between the ages of 18 and 65 were at a significantly increased for developing certain cutaneous autoimmune and vascular diseases. This predominately favored systemic disease states with cutaneous involvement, rather than skin-limited processes.

The findings come from a large multicenter analysis that Zachary Holcomb, MD, presented during a late-breaking abstract session at the annual meeting of the American Academy of Dermatology.

"Viral triggers have been implicated in the pathogenesis of rheumatologic disease, but information regarding development of autoimmune disease following SARS-CoV-2 infection is limited," said Holcomb, chief resident in the Harvard Combined Internal Medicine–Dermatology Residency, Boston. "Given its proposed thrombo-inflammatory pathobiology, we hypothesized that SARS-CoV-2 infection increases the risk of development of autoimmune disease with cutaneous manifestations and sought to define incidence rates of newly-diagnosed autoimmune diseases following SARS-CoV-2 infection."

The researchers drew from the TriNetX Dataworks platform, an online cloud-based system that contains aggregated and deidentified patient information from about **75 million patients across 48 health care organizations**. The infected cohort was defined as having a positive lab test for severe SARS-CoV-2 within the study window using Logical Observation Identifiers Names and Codes (LOINC). Healthy controls consisted of a documented health care contact (inpatient or outpatient visit) during the study window without a positive SARS-CoV-2 lab test. Each cohort included patients aged 18-65 at the time of the study, and patients with previously diagnosed cutaneous autoimmune or vascular diseases were excluded from the analysis.

After propensity matching, the COVID-19 infected cohort and the healthy cohort included 1,904,864 patients each, with no baseline differences in age at index event, ethnicity, race, or sex. The study window was between April 1, 2020, and Oct. 1, 2020. The index event was a COVID-19 infection for the infected group and first documented health care contact in the healthy control group. The researchers looked at a window of 60 days following this index event for new incidence of cutaneous or vascular disease.

In the realm of connective tissue and related diseases, they found the incidence was increased among the COVID-19 infected group compared with controls for **dermatomyositis** (risk ratio, 2.273;  $P = .0196$ ), **scleroderma** (RR, 1.959;  $P = .0001$ ), and **systemic lupus erythematosus** (RR, 1.401;  $P < .0001$ ). They also noted a significant





decrease in the new incidence of **alopecia areata** in the COVID-19 infected group compared with controls (RR, 0.527;  $P < .0001$ ). No significant differences in the incidence of bullous and papulosquamous diseases were observed between the two groups. However, **sarcoidosis** was significantly more common in the COVID-19–infected group compared with controls (RR, 2.086;  $P < .001$ ). "When taking all of these autoinflammatory diseases as a whole, there was an increased incidence in the COVID-19 infected group overall with a RR of 1.168 ( $P < .0001$ )," Holcomb said.

In the realm of vascular skin diseases, there was an increased incidence in the COVID-19 infected group in acrocyanosis (RR, 2.825;  $P < .001$ ), Raynaud's phenomenon (RR, 1.462;  $P < .0001$ ), cutaneous small vessel **vasculitis** (RR, 1.714;  $P < .0001$ ), **granulomatosis with polyangiitis** (RR, 2.667;  $P = .0002$ ), and **temporal arteritis** (RR, 1.900;  $P = .0038$ ).

"Interestingly, despite the academic and lay press reports of COVID toes, we did not see that in our data related to the COVID-infected group," he said.

Holcomb acknowledged certain limitations of the study, including a narrow study window with a relatively short follow-up. "We were able to propensity match based on baseline demographics but not necessarily so based on health status and prior autoimmune disease," he said. In addition, since the study was limited to those aged 18-65, the results may not be generalizable to pediatric and elderly patients, he said.

He described the study findings as "somewhat hypothesis-generating." For instance, "why would we have more of a systemic process [at play?]. **Our theory is that the severe inflammatory nature of COVID-19 leads to a lot of internal organ damage and exposure of autoantigens in that process, with relative skin sparing.**"

One of the session moderators, Robert Paul Dellavalle, MD, PhD, professor of dermatology at the University of Colorado, Aurora, characterized the findings as "intriguing" but preliminary. "It would be interesting to look at more recent cohorts and see how vaccination for COVID-19 would impact the incidence rates of some of these diseases," he said.

## Alpaca nanobodies potentially neutralize SARS-CoV-2 variants

Source: <https://news.ki.se/alpaca-nanobodies-potently-neutralize-sars-cov-2-variants>



Fu2 nanobody (pink) bound to the viral spike. Credit: Hrishikesh Das and Martin Hällberg.

Mar 25 – Researchers at Karolinska Institutet have developed a novel strategy for identifying potent miniature antibodies, so-called nanobodies, against emerging SARS-CoV-2 variants. The approach led to the discovery of multiple nanobodies that in cell cultures and mice



effectively blocked infection with different SARS-CoV-2 variants. The findings, which are described in the journals *Nature Communications* and *Science Advances*, could pave the way for new treatments against COVID-19.

“With the help of advanced laboratory techniques, we were able to identify a panel of nanobodies that very effectively neutralized several variants of SARS-CoV-2,” says [Gerald McInerney](#), professor at the [Department of Microbiology, Tumor and Cell Biology \(MTC\)](#), Karolinska Institutet, and joint senior author of both studies.

Despite the roll-out of vaccines and antivirals, the need for effective therapeutics against severe COVID-19 infection remains high. Nanobodies—which are fragments of antibodies that occur naturally in camelids and can be adapted for humans—are promising therapeutic candidates as they offer several advantages over conventional antibodies. For example, they have favourable biochemical properties and are easy to produce cost-effectively at scale.

In the now published studies, the labs of Gerald McInerney and Ben Murrell, also at MTC, identify several potent nanobodies derived from an alpaca immunised with SARS-CoV-2 antigens.

### Reduced viral load

The first report in *Nature Communications* describes a single nanobody, Fu2 (named after the alpaca Funny), that significantly reduced the viral load of SARS-CoV-2 in cell cultures and mice. Using electron cryo-microscopy, the researchers found that Fu2 naturally binds to two separate sites on the viral spike, thus inhibiting the virus’ ability to enter the host cell. This part of the study was conducted in collaboration with [Hrishikesh Das](#) and [Martin Hällberg](#) at the [Department of Cell and Molecular Biology](#) at Karolinska Institutet.

The researchers next delved deeper into the alpaca’s nanobody repertoire by combining a range of advanced laboratory techniques and computational methods, resulting in a library of nanobodies described in detail.

The results, presented in *Science Advances*, revealed additional nanobodies that in cell cultures and mice effectively cross-neutralized both the founder and beta variant of SARS-CoV-2 and even neutralized the more distantly related SARS-CoV-1.

### Promising therapeutic candidates

“These nanobodies represent promising therapeutic candidates against several SARS-CoV-2 variants,” says first author [Leo Hanke](#), a postdoctoral researcher who established the nanobody technology in the [McInerney group](#).

The researchers are currently applying the same techniques to identify which nanobodies from this set are best able to neutralize Omicron, the now dominating SARS-CoV-2 variant.

“Once established, these libraries can be expanded and mined for nanobodies that neutralize new emerging variants,” says Assistant Professor [Ben Murrell](#), also joint senior author of both studies.

Funding was provided by David and Astrid Hagelén Foundation, the Clas Groschinskys Minnesfond and a Jonas Söderquist’s scholarship, European Union’s Horizon 2020 research and innovation program, Swedish Research Council, and Knut and Alice Wallenberg Foundation.

## Experimental nasal spray prevents COVID-19 in mouse models

Source: <https://newatlas.com/health-wellbeing/nasal-spray-prevents-covid19-infection-mice-cornell/>

Mar 28 – New research led by a team from Cornell University and the University of British Columbia has demonstrated a novel nasal spray can prevent infection from SARS-CoV-2. The experimental treatment was found to be effective in preliminary animal studies with the researchers now looking to optimize the spray and move to human trials in the near future.

A nasal spray that can protect a person from a SARS-CoV-2 infection is certainly a compelling prospect. Imagine taking a few short puffs in the morning before heading out in the world and knowing that you are protected from one of the most infectious airborne viruses known to humanity. It’s an ambitious goal, and a new study is indicating it could be possible.

An article published in *Nature* is describing the discovery and development of a new small molecule that can inhibit the entry of SARS-CoV-2 particles into animal cells. The molecule, dubbed N-0385, was discovered as researchers explored a variety of ways to inhibit the mechanisms SARS-CoV-2 uses to enter human cells.





To test the new molecule the researchers turned to a special kind of engineered mouse model. Normal mice, the mainstay of lab research, unfortunately, are not useful for most COVID-19 studies because they don't carry the same receptors that SARS-CoV-2 attaches to in humans. Scientists have, however, genetically engineered a **specific mouse model** to express those human receptors and enable effective testing of new COVID-19 treatments.

**This is the first of its kind. One advantage is that it works early in the infection, even after someone has already acquired the virus.**

The new research tested intranasal dosages of N-0385 in this particular mouse model and found it effectively prevented SARS-CoV-2 infection. The nasal spray was protective against the original strain of SARS-CoV-2, as well as several variants including Alpha and Delta. It has yet to be tested against Omicron, but the researchers expect it to remain effective.

As well as working successfully as a prophylactic the nasal spray was found to also serve as an effective treatment, reducing disease when it was administered within 12 hours of the animals being exposed to the virus. Hector Aguilar-Carreno, senior author on the study, said this new molecule is unique in its ability to work as both a preventative tool and an antiviral treatment.

"There are very few, if any, small molecule antivirals that have been discovered that work prophylactically to prevent infection," said Aguilar-Carreno. "This is the first of its kind. One advantage is that it works early in the infection, even after someone has already acquired the virus."

The research is not the first to look at developing a nasal spray that can prevent SARS-CoV-2 infection. [A human clinical trial is already underway in Australia](#) testing a widely used anti-coagulant called heparin for this very purpose. That Australian research expects to have some results to report later this year.

The team behind N-0385 optimistically suggest it is possible the treatment could be available by the end of the year. But that timeframe depends on large volumes of money being quickly raised and every stage of human trials going perfectly.

It is more likely this research will move a little more slowly as plenty of work is still needed to establish the safety of this new molecule in humans. Aguilar-Carreno does indicate this molecule is promising as it could hypothetically be used to target a number of viral infections such as influenza and other coronaviruses that rely on this same mechanism of cellular entry.

"The N-0385 therapy is simpler and less expensive to mass produce than other types of COVID-19 treatments, such as monoclonal antibodies," added Aguilar-Carreno.

●► The new study was published in the journal [Nature](#).

## NIST: Ultraviolet light capable of cleaning N95 masks for reuse

By Chris Galford

Source: <https://homelandprepnews.com/stories/76446-nist-ultraviolet-light-capable-of-cleaning-n95-masks-for-reuse/>

Mar 29 – The life of N95 masks – a component in fighting the spread of COVID-19 – may be extendable for far longer than initially thought with the use of ultraviolet light, according to recent research from the National Institute of Standards and Technology (NIST).

In a study published in the Journal of Research of the National Institute of Standards and Technology, the researchers assessed UV-exposed N95 masks for traces of virus while examining their protective and structural components to guarantee no changes occurred. They discovered that disinfection through UV light has little impact on the masks' form or function, clearing them for reuse.

"Right now, UV technologies are really in their infancy with respect to the health care environment," Dianne Poster, NIST research chemist/senior advisor and a co-author of the study, said. "And the data in this paper could be really instrumental in building the foundation for these applications to become more routine."

Many healthcare facilities had begun disinfecting masks and other protective equipment for reuse during the COVID-19-induced supply shortages in 2020. However, at the time, no one was certain if methods like UV made such equipment genuinely safe and effective for reuse



as N95 masks were created to be single-use. But what was a matter of no other choice, NIST scientists have shown that it was likely the right call and could make things significantly easier for future needs.

During the study, masks were each blasted with UV light 10 times, over three-minute intervals. Some of the masks were doused with a relative of SARS-CoV-2. After, researchers ran a gamut of tests, examining the masks down to their fibers, which determined no significant changes to composition, filtering ability, or breathing allowances, while eradicating most lingering viruses.

NIST partnered with two companies for this study: UV-Concepts, a manufacturer of UV-C systems not currently marketed for N95 disinfection; and ResInnova Laboratories, an antimicrobial testing company.

"UV standards developed through collaborations such as this could help us respond to the next emergency we encounter where the PPE supply chain is strained," Poster said.

**Chris Galford** is a Michigan-based writer and a graduate of Michigan State University's School of Journalism. For years, he has reported on the Midwest, as well as business and governmental issues.

## COVID While Pregnant More Common, Less Severe With Omicron

Source: <https://www.medscape.com/viewarticle/970964>

Mar 29 – Women who were pregnant during the recent Omicron surge had more than eight times the rate of COVID-19 diagnoses, but lower odds of severe illness compared with pregnant women diagnosed earlier in the pandemic, according to new research.

Doctors in Texas **studied 2,641 women** with COVID-19 infections during pregnancy from May 2020 through January 2022. While the weekly numbers of deliveries were similar throughout the study period, the average weekly number of infected women giving birth was 17 early in the pandemic, 14 during the Delta era, and 138 during Omicron, the researchers reported in JAMA.

**Fewer than 1% of women infected during the Omicron wave required hospitalization, compared to nearly 12% during Delta**, they found. "We got very lucky" that Omicron's transmissibility was not matched by its severity, study leader Dr. Emily Adhikari of UT Southwestern said in a statement.

## Pandemic War

Source: <https://vaccineimpact.com/2022/covid-19-vaccine-massacre-68000-increase-in-strokes-44000-increase-in-heart-disease-6800-increase-in-deaths-over-non-covid-vaccines/>

<b>Comparison of Vaccine Deaths &amp; Injuries COVID Vaccines vs. Non-COVID Vaccines</b>	
<b>15 Months COVID Vaccines</b>	<b>30 Years Non-COVID Vaccines</b>
<b>Deaths: 26,059</b>	<b>Deaths: 9,066</b>
<b>Permanent Disabilities: 48,342</b>	<b>Permanent Disabilities: 20,096</b>
<b>Hospitalized: 143,198</b>	<b>Hospitalized: 76,992</b>
<b>Life Threatening: 29,443</b>	<b>Life Threatening: 13,752</b>
<b>Strokes: 2,992</b>	<b>Strokes: 104</b>
<b>Heart Inflammation: 21,340 (carditis)</b>	<b>Heart Inflammation: 1,162 (carditis)</b>

**Source: VAERS - Updated 3/18/2022**

When corporate media switches their focus to trying to convince the American public that Russia and Putin are a threat to our national security, that's an indication to look around and see what they are trying to cover up and hide.

And one does not have to look very far to see the damaging effects of their COVID-19 vaccines. The government's own database of *Vaccine Adverse Events Reporting System*





(VAERS) through March 18, 2022 shows that there are unprecedented increases in recorded deaths and injuries following COVID-19 vaccines for the past 15 months since they were issued emergency use authorizations (EUAs), as compared to recorded deaths and injuries reported following all FDA-approved vaccines for the previous 30 years.



These government statistics show there is no greater danger to the lives of Americans today than our own government which is sitting on data that show the following increases of reports in VAERS following COVID-19 vaccines:

- 68,000% increase in strokes
- 44,000% increase in heart disease
- 6,800% increase in deaths
- 5,700% increase in permanent disabilities
- 5,000% increase in life-threatening injuries
- 4,400% increase in hospitalizations

This is mass murder and genocide.

If the corporate media switched from covering the war in Ukraine and published this data directly from the government's own database, there would be riots all across the U.S. right now, if not a Civil War.

But the largely brain-dead American consumer is content to watch their corporate news and blame all the world's problems on Russia right now instead, as we face huge labor shortages and supply chain bottlenecks due to all these deaths and injuries from the COVID-19 vaccines that will now be blamed on Russia.



## Smart bandage only releases medication when infections put the heat on

While antibiotics are very effective at treating infected wounds, they should definitely be used sparingly. An experimental new bandage was designed with this fact in mind, as it only dispenses medication when it detects the heat of an infection. [Read more](#)



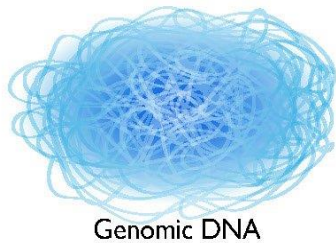
## Global effort realizes first 100% complete sequence of human genome

An international team of scientists has published the first complete, gap-free sequence of the human genome. The new reference genome adds hundreds of millions of base pairs to earlier drafts, filling in crucial gaps to improve studies of disease. [Read more](#)

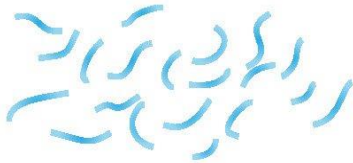


### Human Genome Sequencing

#### Generating a Reference Genome Sequence (e.g., Human Genome Project)



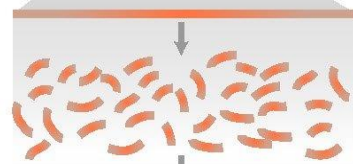
Break genome into large fragments and insert into clones



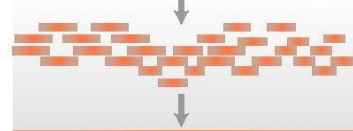
Order clones



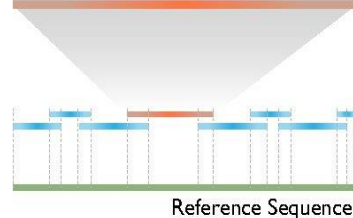
Break individual clones into small pieces



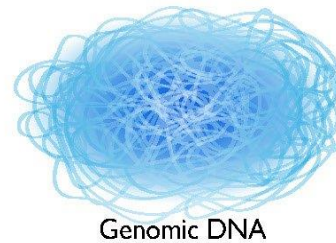
Generate thousands of sequence reads and assemble sequence of clone



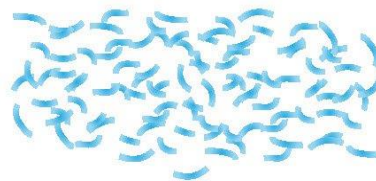
Assemble sequences of overlapping clones to establish reference sequence



#### Generating a Person's Genome Sequence (e.g., Circa ~2016)



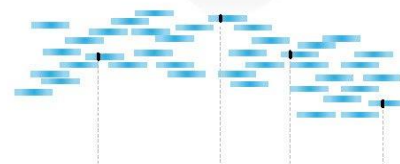
Break genome into small pieces



Generate millions of sequence reads

... TATGCGATGCGTATTTCGTA ...

Align sequence reads to established reference sequence



Deduce starting sequence and identify differences from reference sequence





DE GRUYTER

Open Medicine 2021; 16: 955–963



## Research Article



Vladan Radosavljevic\*

# Analysis of COVID-19 outbreak origin in China in 2019 using differentiation method for unusual epidemiological events



\* Vladan Radosavljevic, Institute of Epidemiology, Military Medical Academy, Crnotravaska 17, 11000 Belgrade, Serbia

## Pfizer, Moderna vaccines aren't the same; study finds antibody differences

By Beth Mole

Source: <https://arstechnica.com/science/2022/03/pfizer-moderna-vaccines-spur-slightly-different-antibodies-study-finds/>

Apr 01 – The mRNA-based COVID-19 vaccines made by Pfizer/BioNTech and Moderna have proven highly effective at priming our immune systems to fight the pandemic coronavirus—preventing substantial amounts of infection, severe disease, and death throughout several waves of variants. But despite their similar design and efficacy, the two vaccines are not exactly the same—and our immune systems don't respond to them in the same way.



An early hint of this came from some real-world data that found startling differences in the effectiveness of the two vaccines, despite both shots performing nearly identically in Phase III clinical trials, with efficacies of [95 percent](#) and [94 percent](#). Amid last year's delta wave, [a Mayo Clinic study](#) found that Pfizer's effectiveness against infection dipped to 42 percent while Moderna's fell to 76 percent.

According to [a new study in Science Translational Medicine](#), such differences might be explained by evidence that the two vaccines spur the immune system to produce slightly different antibodies against SARS-CoV-2. Both vaccines generate strong levels

of neutralizing antibodies, which can bind to the virus and prevent it from infecting cells. But according to the study, the vaccines generated different antibody profiles overall.

Specifically, the antibody response to the [Pfizer/BioNTech](#) vaccine skewed to a class of antibodies called [IgG](#) and [IgM](#), which are often found in the blood.

The [Moderna](#) vaccine, meanwhile, generated relatively elevated levels of [IgA](#) antibodies, a class of antibodies generally found on mucosal surfaces, such as the respiratory tract—where SARS-CoV-2 infections begin. Additionally, the Moderna vaccine spurred relatively higher levels of antibodies that activate immune cells called [natural killer cells](#). It also generated higher levels of antibodies that activate immune cells called neutrophils to ingest and kill (phagocytize) invading germs.

### Detailed differences

The study, led by Harvard immunologist and virologist Galit Alter, identified the differences by comparing the antibody profiles of 28 people vaccinated with the Moderna vaccine and 45 people vaccinated with the Pfizer/BioNTech vaccine. The numbers were small, and the participants were largely healthy young female medical workers, which is not representative



of the overall population. The study also didn't look at immune responses over time. Instead, the researchers looked at antibody profiles about a month after each participant received a second vaccine dose.

Still, "despite these limitations, these data provide evidence for potential nuanced differences in the quality of the humoral immune response induced by SARS-CoV-2 mRNA vaccines," Alter and her colleagues wrote. Though both vaccines produce strong immune responses overall, these slight antibody variances "might provide insights into potential differences in protective immunity conferred by these vaccines," they concluded.

Alter and her colleagues will have to do more research to determine if these differences are linked to varying levels of protection and vaccine effectiveness. And they'll also need to do more research to understand what exactly is causing the differences. The Pfizer/BioNTech and Moderna vaccines are not only made with distinct formulations of components; they are also given at different doses and different time intervals between doses. Moderna's vaccine is given as two 100 microgram doses four weeks apart, while the Pfizer/BioNTech vaccine is given as two 30 microgram doses three weeks apart.

Those factors could alter how the immune system responds to the vaccines. But digging into those distinctions could help researchers create "tunable" mRNA vaccines that generate specific antibody responses to provide the strongest protection. In the meantime, the findings make a case for people to mix and match mRNA vaccine boosters, particularly if they've started with doses of the Pfizer/BioNTech vaccine. **Switching to another vaccine for a future booster could diversify antibody responses, providing broader protection.**

**Beth Mole** is Ars Technica's health reporter. She's interested in biomedical research, infectious disease, health policy and law, and has a Ph.D. in microbiology.

## Ivermectin **worthless** against COVID in largest clinical trial to date

By Beth Mole

Source: <https://arstechnica.com/science/2022/03/largest-trial-to-date-finds-ivermectin-is-worthless-against-covid/>

Apr 01 – The largest clinical trial to date on the use of the antiparasitic drug ivermectin against COVID-19 concluded that the drug is completely ineffective at treating the pandemic disease, according to [results published in The New England Journal of Medicine](#) on Wednesday.

The double-blind, randomized, placebo-controlled clinical trial was primarily designed to test if ivermectin could reduce the need for hospitalization among **1,358 COVID-19 patients** at high risk of severe disease. Ivermectin did not, according to the international team of researchers behind the trial, dubbed TOGETHER. "We did not find a significantly or clinically meaningful lower risk of medical admission to a hospital or prolonged emergency department observation with ivermectin," the researchers reported.

The folks with TOGETHER also found that the drug failed to reduce all other secondary outcomes of COVID-19, including the time to recovery, time to viral clearance on PCR test, time spent in the hospital, the need for mechanical ventilation, the duration of mechanical ventilation, death, or the time to death. "We found no important effects of treatment with ivermectin on the secondary outcomes," the researchers wrote.

### Seriously, y'all

The findings align with some smaller trials and [current medical consensus](#) that ivermectin has not proven effective at treating COVID-19. Yet ivermectin—a drug typically used by humans to treat gastrointestinal parasites and river blindness and commonly used in veterinary medicine for deworming horses, cows, cats, and dogs—has become a wildly popular COVID-19 treatment.

Ivermectin's popularity is fueled by **misinformation**, [Republican politics](#), and dubious data. An early [study using cells in petri dishes](#) suggested that ivermectin has antiviral properties at very high concentrations and could inhibit the pandemic coronavirus, SARS-CoV-2. But the result of trials and other clinical studies have been mixed at best. Some small studies—many of which are of poor quality—have claimed that ivermectin has benefits against COVID-19. A few meta-analyses, including those questionable studies, have also provided a veneer of efficacy.





This has led to fierce debates about ivermectin online as well as skyrocketing use. In December 2020, ivermectin prescribing in the US [increased 964 percent over prepandemic prescription levels](#). This giant increase was estimated to cost health insurers [more than \\$129 million annualized](#). Not everyone desperate to take the drug was received a prescription, so some turned to veterinary formulations. This caused [spikes in poisonings](#) and led the Food and Drug Administration to release an unusual warning: "[You are not a horse. You are not a cow. Seriously, y'all. Stop it.](#)"

The researchers behind the new trial say their data should finally put ivermectin's use against COVID-19 to rest—though they're not expecting that to be the case.

"The overall number of events that occurred in our trial is larger than the number of all the combined events in these meta-analyses," the TOGETHER researchers noted. "The results of this trial will, therefore, reduce the effect size of the meta-analyses that have indicated any benefits." But, they go on, "Given the public interest in ivermectin and the support of its use by paramedical groups, we suspect that there will be additional criticism that our administration regimen was inadequate."

### Trial design

The trial took place across 12 public health clinics in Brazil from March 23, 2021, to August 6, 2021, enrolling 1,359 COVID-19 patients in total. Of those, 679 were randomly assigned to get ivermectin, and 679 were randomly assigned a placebo. All of the enrolled patients were ages 18 or older, tested positive for COVID-19 on a rapid test, and had onset of COVID-19 symptoms within seven days. All had at least one condition that put them at higher risk of severe COVID-19, such as being older than age 50 or having diabetes, high blood pressure, cancer, or lung disease. All of the patients were monitored for 28 days, with contact on days 1, 2, 3, 4, 5, 7, 10, 14, and 28 from the time of their randomization. The people in the ivermectin group received a dose of 400 micrograms per kilogram for the first three days.

The researchers noted they initially planned to give patients a smaller dose of ivermectin for only one day. But after receiving "feedback from advocacy groups," they extended the experimental treatment to three days at a relatively high dose. They also checked to ensure that the patients in the trial didn't have a history of ivermectin use, given its popularity in Brazil.

The trial's main goal was to see if taking ivermectin early in an infection could reduce the risk of hospitalization in high-risk patients. However, Brazil had periods when hospitals were overwhelmed with patients, turning some sufferers away. As such, the researchers also counted visits to emergency departments when a patient was kept for observation for six or more hours due to worsening COVID-19 symptoms, which was considered a proxy for hospitalization if hospital capacity was not limited.

**Overall, the researchers saw no significant difference in the number of hospitalizations or prolonged emergency department visits between the ivermectin and placebo groups.** Exactly 100 participants (15 percent) in the ivermectin group had that outcome, while 111 (16 percent) of the placebo group did. The finding didn't change when the researchers narrowed their analysis to exclude a handful of people who went to the hospital within 24 hours of starting the trial and people who didn't report 100 percent compliance with their ivermectin or placebo regimens. The researchers also saw no benefits among the secondary outcomes. And in a subgroup analysis, they saw no benefit in patients who happened to start ivermectin within three days from the onset of symptoms instead of seven days.

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## US Has a Catastrophic Rise in Fentanyl-Contaminated Drugs, Researchers Find

Source: <https://www.sciencealert.com/illegal-pills-laced-with-fentanyl-are-becoming-an-increasingly-common-problem-in-the-us>

Apr 01 – The proportion of illicit pills laced with a dangerous opioid has continued to rise throughout the [coronavirus pandemic](#), doubling between January 2018 and December 2021, according to a recently published study funded by the US National Institute on Drug Abuse.

Using data on drug seizures collected by agencies across a nation-wide program, a team of researchers led by New York University epidemiologist Joseph J. Palamar evaluated the state of the opioid black market in the past three years.

They found the number of seizures of powders containing fentanyl – a rapid-acting synthetic opioid – leapt from 424 in the first quarter of 2018 to more than 1,500 at the end of last year, backing up [predictions of a surging death toll](#) from opioid overdoses in coming years.

Nearly 30 percent of the fentanyl-laced powders were already in pill form as well, with those seizures growing from 68 to 635 over the same period.



## ICI C<sup>2</sup>BRNE DIARY – April 2022

"For the first time we can see this rapid rise in pills adulterated with fentanyl, which raises red flags for increasing risk of harm in a population that is possibly less experienced with opioids," [says](#) Palamar.

Similar to analgesics like codeine and heroin, fentanyl is a compound used to treat pain by acting on opioid receptors in the brain. The fact it absorbs far more easily into fat allows it to deliver rapid relief to patients experiencing serious discomfort.

Yet it's also a drug that sits on a knife's edge when it comes to dosage, with the amount needed for a therapeutic effect teetering dangerously close to an overdose. Around 50 times more potent than heroin, just a couple of milligrams of the substance is all it takes for a person to be at risk of dying.



It's this very potency that has made fentanyl a tempting choice of additive for a variety of illicit drugs, including heroin, cocaine, methamphetamine, and benzodiazepines; adding it into the mix provides a quicker effect for very little powder.

Yet in an unregulated market, there's no clear way of knowing exactly what's gone into any one home-brewed batch, especially once it's pressed into pill form and passed through a chain of buyers and sellers.

"Pills are often taken or snorted by people who are more naïve to drug use, and who have lower tolerances. When a pill is contaminated with fentanyl, as is now often the case, poisoning can easily occur," [says](#) National Institute on Drug Abuse director, Nora D. Volkow.

That poisoning is already occurring at unprecedented rates. Centers for Disease Control and Prevention data estimates around 106,000 people died from drug overdoses between October 2020 and October 2021, a number represented largely by fentanyl and similar synthetic opioids.

It's hard to know exactly what to do in the face of such striking numbers. What's more, unlike the health risks posed by an airborne [virus](#), drug-taking behaviors are heavily stigmatized, making it far harder to build public support and build trust over effective strategies.

"We absolutely need more harm reduction strategies, such as naloxone distribution and fentanyl test strips, as well as widespread education about the risk of pills that are not coming from a pharmacy," [says](#) Palamar.

Sadly, a significant number of individuals experimenting with illegal opioids found themselves abandoned by a [medical system that itself experimented](#) with a historically laissez faire approach to pain management.

Without proper management in using heavily addictive medications that have been [aggressively marketed by pharmaceutical companies](#) for decades, many have found themselves with an addiction to painkillers and no easy way to get help.

Keeping tabs on alternative sources of opioids and the risks they pose to community health is vital if those lives are to be kept safe from harm.

[The High Intensity Drug Trafficking Areas \(HIDTA\) grant program](#) Palamar and his team used for their data doesn't differentiate between similar fentanyl-like compounds, or provide information on its concentration.





But when you're gambling on the presence of mere milligrams of a deadly substance, the conclusion is the same. "The immediate message here is that pills illegally obtained can contain fentanyl," [says](#) Palamar. Whether it's a message that will save lives, time will tell.

●► This research was published in [Drug and Alcohol Dependence](#).

## New study shows COVID-19 can cause brain inflammation and small bleeds

Source: <https://newatlas.com/science/covid19-brain-damage-bleeding-inflammation-mild/>

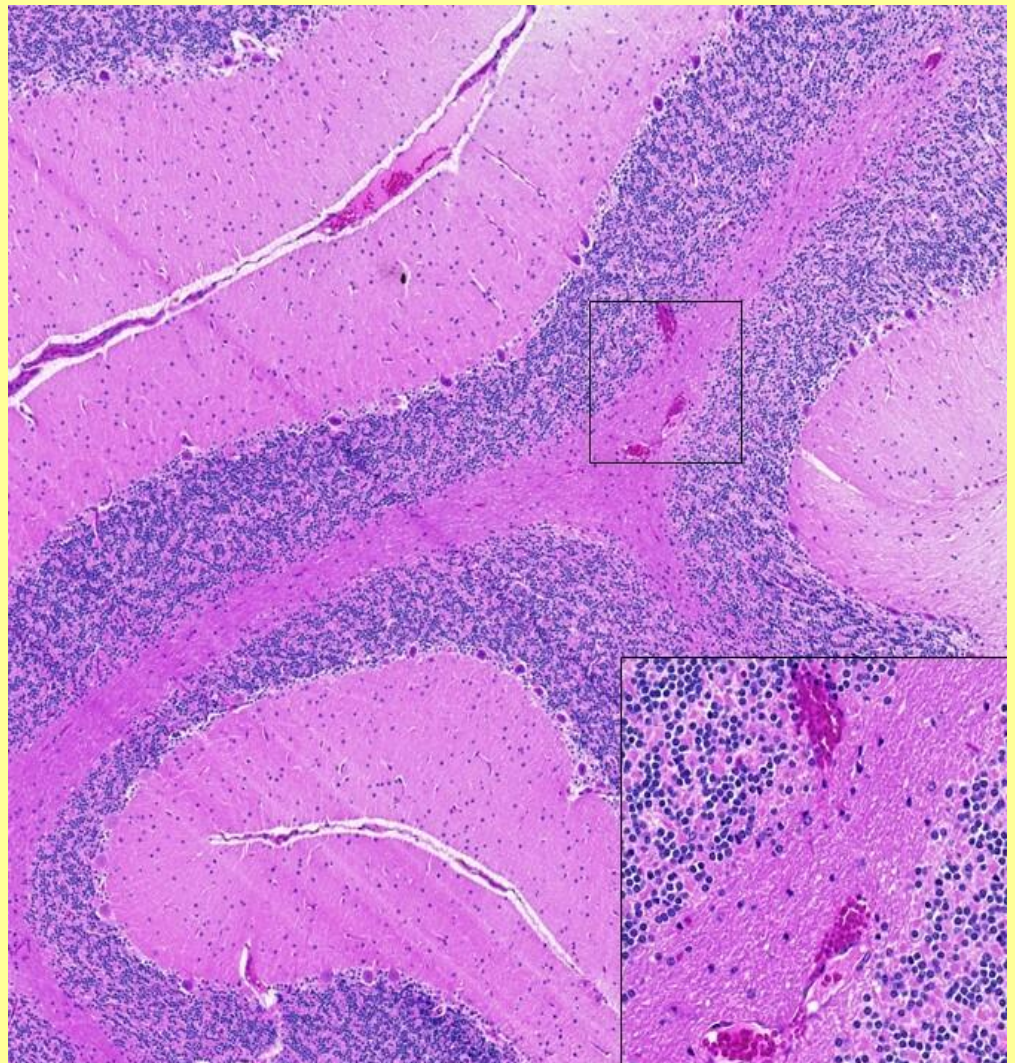
Apr 03 – A new study published in *Nature Communications* has offered the most comprehensive investigation to date into the effects of COVID-19 on the brain using nonhuman primates. The study found SARS-CoV-2 infection, regardless of disease severity, can lead to neuroinflammation and small bleeds which may account for many of the neurological symptoms reported by patients. The study was led by Tracey Fischer from the Tulane National Primate Research Center. Recognizing the potential future need to develop nonhuman primate models for COVID-19 Fischer's research began early in pandemic. The team's initial work revealed SARS-CoV-2 infections caused microhemorrhages in the brain. These preliminary findings came so early in the pandemic that experts not affiliated with the work were skeptical. At that point those neurological symptoms had not yet been detected in human patients.

An increase in the number of brain microhemorrhages is observed with SARS-CoV-2 infection, as depicted here in the cerebellum from an infected African green monkey (Dr. Tracy Fischer, Tulane University School of Medicine)

"You see the pathology, and it's so distinct and so profound," Fischer said. "I've been looking at the central nervous system for decades, so long that you know when something doesn't appear normal and appears to be in line with the infection."

Fischer and her team spent an additional year validating those initial findings, as other researchers began to find evidence of similar neurological symptoms in humans. Control animals were studied and research protocols were refined in order to affirm those initially detected brain changes were directly linked to the coronavirus infection.

Alongside the small bleeds, the researchers found severe widespread brain inflammation and neuron damage. Fischer said the neurological damage was not linked to the severity of respiratory disease. This means many animals displayed only mild COVID-19 symptoms yet still experienced neurological damage.



The new study also offers valuable insight into the ongoing debate over whether the neurological impact of COVID-19 is due to [broader effects of systemic inflammation](#) or the [virus directly infecting the brain](#). Although the researchers did detect small traces of the SARS-CoV-2 virus in several parts of the brain, the majority of the damage was hypothesized as likely due to intermittent, localized hypoxia.

"This was observed in all infected animals, regardless of disease severity, suggesting reduced brain oxygen may be a common complication of infection," the researchers concluded in the study. "Even minor, but sustained, reductions in oxygen may promote injury, particularly among neurons, which appear to have suffered the greatest insult in this study."

The findings add to a growing body of evidence reporting on the effects of [COVID-19 on the brain](#). These studies are helping shed light on a number of [acute and chronic neurological symptoms](#) associated with the disease, from [fatigue and brain fog](#) to [mental health problems](#).

The researchers do note there are limitations to their findings, particularly in considering the animals used in the investigations were of advanced age. So it is unclear whether older brains are more susceptible to this kind of cerebrovascular damage, and it's also still unclear whether this kind of neurological damage is reversible. Long-term follow-up studies on long COVID patients will be needed to answer these questions.

●► The new study was published in [Nature Communications](#).

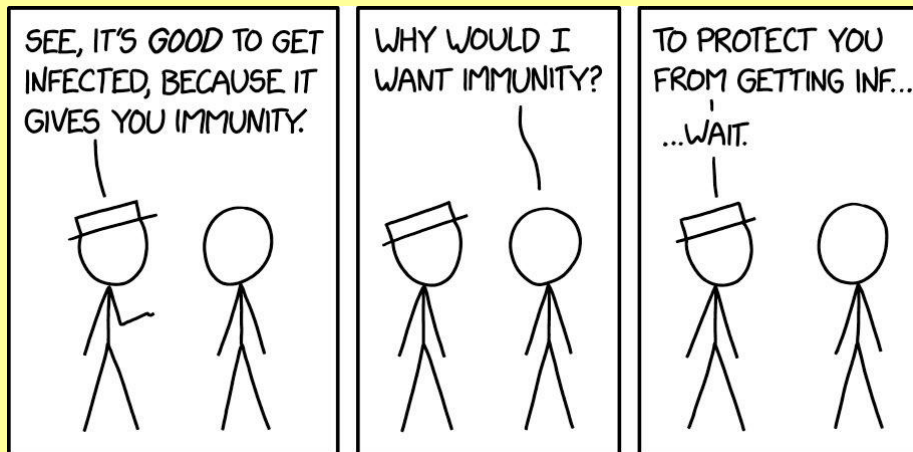
## Large-Scale Study Confirms Which Type of Immunity Best Protects Against COVID

Source: <https://www.sciencealert.com/huge-study-confirms-hybrid-immunity-gives-best-covid-protection>

Apr 04 – People with the "hybrid immunity" of having been both fully vaccinated and previously infected with [COVID-19](#) have the strongest protection against the [virus](#), two new studies said on Friday.

After two years of a [pandemic](#) that has seen nearly 500 million people infected and billions vaccinated, the studies highlighted the importance of getting jabbed for those who have natural immunity after recovering from the disease.

One of the two studies published in [The Lancet Infectious Diseases](#) medical journal analyzed the health data of more than 200,000 people in 2020 and 2021 in hard-hit Brazil, which has the world's second-largest COVID death toll.



It found that for people who have already had COVID, Pfizer and AstraZeneca's vaccines offered 90 percent effectiveness against hospitalization and death, China's CoronaVac had 81 percent and Johnson & Johnson's one-shot jab had 58 percent.

"All four of these vaccines have proven to provide significant extra protection for those with a previous COVID-19 infection," said study author Julio Croda of the Federal University of Mato Grosso do Sul.

"Hybrid immunity due to exposure to natural infection and vaccination is likely to be the norm globally and might provide

long-term protection even against emerging variants," Pramod Kumar Garg of India's Translational Health Science and Technology Institute [said in a comment piece linked to the study](#).

A study using Sweden's nationwide register up to October 2021 meanwhile found that people who recovered from COVID retained a high level of protection against re-infection for up to 20 months.

And people with two-vaccine-dose hybrid immunity had a further 66 percent lower risk of re-infection than those with just natural immunity.

Paul Hunter, a professor in medicine at the University of East Anglia who was not involved in the study, told AFP that the 20 months of "very good protection" from natural immunity was "far better than we would expect for the original two-dose vaccine schedule".





But he cautioned that both studies were completed before the Omicron variant became dominant across the world, and that it had "notably dropped the protective value of a prior infection".

[A study in Qatar published on the medRxiv](#) pre-publication website last week gave an insight into the protection offered by hybrid immunity against Omicron.

It found that three vaccine doses had 52 percent effectiveness against symptomatic infection of the BA.2 Omicron subvariant – but that number jumped to 77 percent when the patient had been previously infected.

The study, which has not been peer reviewed, found that "hybrid immunity resulting from prior infection and recent booster vaccination confers the strongest protection" against both the BA.1 and BA.2 subvariants.

## NHS quietly expands list of Covid symptoms to include NINE new signs of illness - including body aches, runny nose and diarrhea... but critics say it's two years too late

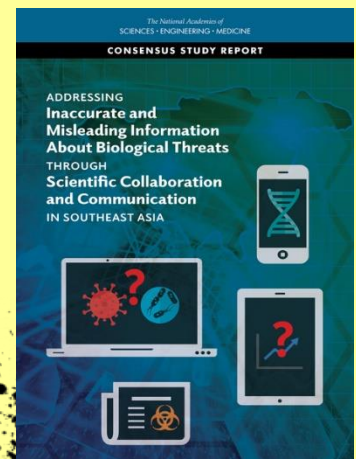
Source: <https://www.dailymail.co.uk/news/article-10683395/NHS-expands-Covid-symptom-list-add-NINE-new-signs-illness-including-body-aches-diarrhoea.html>



## Addressing Inaccurate and Misleading Information About Biological Threats Through Scientific Collaboration and Communication in Southeast Asia

Source: <https://nap.nationalacademies.org/catalog/26466/addressing-inaccurate-and-misleading-information-about-biological-threats-through-scientific-collaboration-and-communication-in-southeast-asia>

Misinformation about outbreaks, epidemics, and pandemics is a decades-old problem that has been exacerbated by the rise of the internet and the widespread use of social media. Some false claims may be addressed through sound scientific analysis, suggesting that scientists can help counter misinformation by providing evidence-based, scientifically



defensible information that may discredit or refute these claims. This report explains how scientists can work collaboratively across scientific disciplines and sectors to identify and address inaccuracies that could fuel mis- and disinformation. Although the study focused on a scientific network primarily in Southeast Asia, it is relevant to scientists in other parts of the world. A companion "how-to-guide", available in print and in digital form, outlines practical steps that scientists can take to assess mis- or disinformation, determine whether and how they should address it, and effectively communicate the corrective information they develop.

## A biological weapons threat to Ukraine is a biological weapons threat to the world



By Asha M. George

Source: <https://thebulletin.org/2022/04/a-biological-weapons-threat-to-ukraine-is-a-biological-weapons-threat-to-the-world/>

Apr 01 – When the invasion of Ukraine began, many thought that Russia would use traditional military tactics and weapons to dominate and eventually take over the country. Instead, the Ukrainian people put up stiff resistance and engaged in a counteroffensive, leveling the field to a greater extent than expected. Embarrassed and faced with the prospect of a stalemate, Russia has indiscriminately bombarded cities and seems increasingly willing to do whatever it deems necessary to take Ukraine. Russia may decide to use biological weapons.

Nuclear explosive weapons are extremely destructive, and radiological and chemical weapons could render critical infrastructure inoperable. Additionally, international mechanisms for responding to nuclear and chemical weapons use are fairly well-defined, but the [Biological and Toxin Weapons Convention](#) (BWC), which bans the production and use of biological weapons, provides little in



the way of an enforcement mechanism, should countries violate it. **Russian leaders could view the use of biological weapons as a way to control and preserve Ukrainian critical infrastructure while denying access to others.**

Last year, the US Department of State [reported](#) that Russia and North Korea possess active biological weapons programs, with China and Iran not far behind. Even though it is a state party to the BWC, Russia never fully eliminated its biological weapons program, as the convention requires. Russia did not end its biological weapons efforts when the United States ceased its program in 1979, and to this day Russia has not granted other countries full access to its biological weapons laboratories. Russia did not destroy tons of previously weaponized smallpox, plague, anthrax, and other biological agents, choosing instead to [bury them on Vozrozhdeniya Island in the Aral Sea](#).<sup>3</sup> Accordingly, Russia will not need to ramp up efforts to produce biological agents and weapons if it decides to use them in Ukraine.

Russian mis- and disinformation campaigns accusing other countries of using biological weapons attempt to mask Russia's true intent and divert attention from its own activities in this regard.

These campaigns—some of which falsely claim that the United States has been using biological laboratories around the world to develop biological weapons—are complex, multilayered, and mostly unimpeded. Recently, Russian disinformation focused on false allegations about dozens of labs in Ukraine. The labs are [not secret](#)

<sup>3</sup> Rebirth Island (*Vozrozhdenie araly*) was an island in the Aral Sea. The former island's territory is split between Uzbekistan and Kazakhstan. In 1954, the Soviet Union constructed a biological weapons test site called Aralsk-7 there and on the neighbouring Komsomolskiy Island, which also no longer exists.





and they are not used for biological weapons research or production; they are former Soviet biological weapons research facilities now run by Ukrainian officials who received funding from the US government to develop [biological detection and diagnostic capabilities](#).

The United States and other countries are dusting off old, and developing new, contingency plans for responding to biological attacks in general and a Russian biological attack on Ukraine in particular. Congress has mandated that the US intelligence community increase its biological intelligence activities. The US Department of Defense is conducting a biodefense posture review. These efforts are laudable but should have begun decades ago. At the latest, they should have begun shortly after COVID-19 swept the world and revealed national and global vulnerabilities to biological threats.

Naturally occurring diseases continue to create pandemics. Accidental releases from laboratories occur frequently and will increase as the number of laboratories conducting biological research multiplies. Dual-use biological research continues nearly unabated worldwide. Russia and North Korea are not the only nations pursuing biological weapons, and al Qaeda and the Islamic State are not the only terrorist organizations seeking the asymmetric advantage that biological weapons afford. Russia happens to be the first country in decades whose threatened use of biological weapons has captured our attention. It is unlikely to be the last.

**The United States and other nations around the world must follow Europe's lead and plan for the possibility of biological attacks on Ukraine and elsewhere.** They must also view COVID-19 as only the first of many potentially devastating biological events with which the world must contend. The risk of biological catastrophe has never been higher than at this moment.

Earlier this year, the Bulletin of the Atomic Scientists Science and Security Board set the [Doomsday Clock](#) at 100 seconds to midnight. Death is on the doorstep, and disease is ringing the bell.

**Asha M. George** is the executive director of the Bipartisan Commission on Biodefense and a member of the Bulletin's [Science and Security Board](#). She is a public health security professional whose research and programmatic emphasis have been practical, academic, and political. George served in the US House of Representatives as a senior professional staffer and subcommittee staff director at the House Committee on Homeland Security in the 110th and 111th Congress. She has worked for a variety of organizations, including government contractors, foundations, and non-profits. As a contractor, she supported and worked with all federal Departments, especially the Department of Homeland Security and the Department of Health and Human Services. George also served on active duty in the US Army as a military intelligence officer and as a paratrooper. She is a decorated Desert Storm Veteran. She holds a Bachelor of Arts in Natural Sciences from Johns Hopkins University, a Master of Science in Public Health from the University of North Carolina at Chapel Hill, and a Doctorate in Public Health from the University of Hawaii at Manoa. She is also a graduate of the Harvard University National Preparedness Leadership Initiative.

**EDITOR'S COMMENT:** From a scholar with such an impressive CV one would expect a more objective view of things. OK, Russians buried their biological weapons, and they can just unbury them and use them. It is naïve to believe that the US does not know how to produce biological weapons in a very short time. It is equally naïve to believe that the direct US DoD supervision of more than 30 biological labs in Ukraine was purely for scientific reasons. As for the "Europe's lead" allow me to have my doubts; same for overall CBRN threats. Many still believe that all these are so exotic threats to become reality.

## Six paths forward to a "pandemic treaty"

By Daniel Gerstein

Source: <https://thebulletin.org/2022/04/six-paths-forward-to-a-pandemic-treaty/>

Apr 01 – Throughout wave after wave of COVID-19, a range of voices have called for reforming the way governments manage pandemics. From mixed messages to inequitable vaccine distribution, the global response to COVID-19 just hasn't cut it. In particular, critics have highlighted the World Health Organization (WHO) as a primary target for reform efforts, and, by now, several groups inside and outside of the organization have begun developing proposals that range from reforming the WHO to developing whole new international forums specifically designed to prepare for and mount an effective pandemic response.

Last December, at a special meeting of the World Health Assembly, the governing body of the WHO, country representatives agreed to kick off reforms when they [voted](#) for negotiating an international agreement or pandemic treaty. With the vote, the conversation seemingly moved beyond simply reforming the WHO and towards the creation of a stand-alone legally binding instrument: a new international structure to address pandemics.



Pandemics could become [more frequent](#) in the years to come as the world grows even more interconnected, increased agricultural production leads to more contact between humans and animals with the potential for further spread of zoonotic diseases, and humans encroach further into wildlife areas. While an international pandemic organization sounds important in theory, organizations like the UN Security Council can't necessarily solve the problems they were intended to solve. Creating a new pandemic response system will likely require years of difficult negotiations and could still result in a structure unable to forcefully respond to an outbreak, or an agreement supported by only some countries and perhaps not all of the key global leaders. By looking at the reform ideas that people and organizations have put forward, one can begin to see the contours of what a new global response system might look like.

### Reform at the WHO

Each major public health emergency during the last 20 years has led to the pervasive conclusion that the WHO has serious shortfalls that have prevented it from effectively communicating with and supporting member nations and the broader global community in response to health crises.

The WHO was established in 1948 as the health policy body within the UN system and was given the [responsibility](#) to “direct and coordinate the world’s response to health emergencies.” The centerpiece for WHO pandemic preparedness and response are the [International Health Regulations](#), which trace their roots back to the cholera epidemics of the mid-1800s. The regulations have been updated in response to subsequent public health emergencies, and the most recent major update happened after the 2003 Severe Acute Respiratory Syndrome (SARS) coronavirus outbreak, a virus related to the one that causes COVID-19. The 2005 rules require all countries to detect, assess, report, and respond to public health events.

Despite efforts at reform over the last 20 years, fundamental flaws remain. The WHO’s International Health Regulations [don’t](#) allow the organization to conduct independent investigations of international public health emergencies or to compel countries to act during such crises. The organization can’t even enforce its regulations. Furthermore, it can employ only the limited authorities, capacities, and funding that the 194 member nations have given it. This lack of agency is not an oversight, but rather a deliberate limitation of the WHO’s power—many countries do not want to have an international organization interfering in the internal affairs of sovereign nations. Given the WHO’s lack of authority, countries that violate the International Health Regulations are unlikely to face any repercussions. It also means that the WHO must take a collaborative approach in dealing with nations to gain their cooperation.

### COVID-19 shortfalls

SARS-CoV-2 has exposed key shortfalls in pandemic preparedness and response. The WHO remains underfunded and has limited power. It’s had trouble effectively offering [guidance and coordination](#) to its member states.

Several high visibility missteps provide poignant examples of underperformance at the organization.

Early on, the WHO was slow to declare COVID-19 an international emergency, and at times, provided inconsistent and inaccurate information. For example, the organization revised a [global risk assessment](#) from “moderate” to “high” in late January 2020 after admitting it made a mistake in previous reports. The WHO was also [slow](#) to call for a comprehensive investigation of the origins of the virus, which contributed to a loss of confidence in the organization by some member countries. As a result, some have accused the WHO of failing to be independent or even of being too “China centric.”

Recognizing the need to examine its early COVID-19 actions, the WHO commissioned an [independent panel](#) in May 2020. The group’s year-long deliberations “found weak links at every point in the chain of preparedness and response.” The panel found, for example, threat warnings were not acted on, funding allocated by nations to their responses was not adequate, and coordinated global leadership was absent. These shortfalls were well documented and highlighted actions necessary to end the current pandemic—as well as longer-term recommendations for ensuring that future outbreaks do not become pandemics.

The panel recommended developing a “global health threats council” which would be led by heads of state. Separate from the WHO, the council would be able to hold countries accountable for controlling epidemics. Specific long-term recommendations of the independent panel included elevating pandemic preparedness and response to the highest level of political leadership; strengthening the independence, authority, and financing of the WHO; investing in new preparedness measures; building a new surveillance and alert system; and giving national pandemic coordinators a direct line to heads of state or government.

World leaders, infectious disease experts, and worried citizens alike have also [voiced concerns](#) about the WHO’s COVID-19 response and what it portends for ending the current crisis and preparing for the future. The calls for reform have been resounding, and reform advocates have identified at least six discrete reform initiatives. These initiatives are certainly not the only calls for change, but they reflect an interesting range of transformational activities that might change the way world governments prepare for and respond to pandemics. Each seeks to address the shortfalls of the COVID era.





### **A WHO-adjacent organization**

WHO members agreed to start the reform process when they met at the World Health Assembly in May 2021. Informed by the independent panel, members called for a special meeting on reform to be held in the fall, signaling that a new organization would likely be related to, but not under WHO leadership. The proposed global health threats council led by heads of state could serve as a model for this agreement. At the November 2021 special meeting, countries formally [agreed](#) to initiate a process “for negotiating a pandemic treaty or other international pact.” The move was seen as an important step that could lead to “sweeping reforms of global health if it succeeds.” WHO Director General Tedros Adhanom Ghebreyesus called the decision a “cause for hope”—the goal would be to begin negotiations in March 2022 and to [develop](#) a “global agreement to strengthen pandemic prevention and response” by as early as May 2024.

### **The European approach**

The European Union also offered [a proposal](#) for a standalone international treaty on pandemics. The proposal identifies areas that would be covered under an agreement: improved early detection and prevention of outbreaks; increased pandemic resilience; more rapid pandemic response; a stronger international health framework; and more complete integration of so-called “One Health” policies that recognize the interconnections among people, animals, plants, and their environment. At this stage, it is the most encompassing of the six proposals, but would undoubtedly require negotiators to make sure that it does not conflict with current (and likely overlapping) WHO authorities. Given the comprehensive approach, negotiating a treaty that might give countries new responsibilities for reporting—and even require they submit to inspections—will likely be a challenge. At the special November World Health Assembly, supporters believed they had gained critical international receptivity for the EU proposal to serve as the basis for a “treaty or pact.”

### **An outside-of-government proposal**

A group of non-governmental, concerned citizens have offered [a third proposal](#), the Pandemic Mitigation Project. It calls for the adoption of a more modest agreement that would require countries to provide immediate notification of potential epidemic/pandemic events, grant immediate access to pre-vetted specialists “to assist in identification, isolation and mitigation of the pandemic threat,” and accept enforcement provisions that would encourage compliance. As with the EU proposal, the Pandemic Mitigation Project proposal would be a legally binding, standalone agreement that would need to be negotiated.

### **The G20 way**

Another proposal comes from [a statement](#) of G20 nations’ science academies. The statement urges their governments to “promote the creation of a global surveillance network that could detect the harbingers of a potential new pandemic.” It calls for not only a global biosurveillance network but also the capacity for manufacturing and delivering medical countermeasures and other supplies as well as working toward a formal international treaty. However, at the [G20 meeting in Rome](#) in October 2021, the discussion on pandemics focused on the more immediate issue of gaining additional vaccine commitments for developing countries rather than longer-term and broader pandemic preparedness and response issues. It is noteworthy that on the eve of the G20 leaders’ summit, health and finance ministers established a Finance-Health Task Force [to strengthen](#) both “public health measures and the funding to support them.”

### **The UN or Biological Weapons Convention routes?**

Other ideas worth considering include actions within existing international organizations other than the WHO. For example, governments could develop a UN Security Council [resolution](#) for pandemics. Under the UN charter, resolutions adopted by the Security Council are considered binding, carry the force of law, and can be used to compel nations to act. Security Council resolutions have been [successful](#) in other areas such as nonproliferation of weapons of mass destruction. One Security Council resolution, 1540, for example, calls for countries to adopt policies to keep the financing, technologies, and materials needed to create weapons of mass destruction out of the hands of terrorists.

The final initiative considers the possibility of [using](#) the Biological Weapons Convention, the treaty that bans bioweapons, as an avenue for international reform. This could have the most relevance in outbreaks and pandemics where the origin is suspected to have come from deliberate use of biological pathogens or release from an illicit bioweapon’s lab. The first step could be a discussion along these lines at the upcoming 2022 Biological Weapons Convention review conference, where representatives meet every five years to discuss the treaty. The convention includes [provisions](#) for bilateral or multilateral consultations in the event of questionable activity and a route for bringing intractable issues



to the UN Secretary-General. Using the Biological Weapons Convention would take advantage of an existing arms control convention. The legally binding instrument, however, lacks verification and compliance mechanisms to ensure countries are adhering to the treaty, a frequent source of complaints from member nations.

### Which path to reform?

No single path seems superior at this point; more detail would be required before making a decision on which to choose. However, each of the six initiatives provides interesting elements that could be useful in a future international mechanism to ensure global preparedness and response capabilities are in place and functional. The decision on a path forward should also account for the realities of international cooperation and collaboration. Developing new agreements and treaties is normally a time-consuming process that does not ensure that the final product will achieve the desired outcomes. Intensive negotiations can also expose fissures within the international community. For example, the discussion of a legally binding treaty has put the European Union, Britain, and some 70 other countries on opposing sides with the United States, Brazil, and India, which have been [reluctant](#) to commit to such an approach. *Politico Europe* [cited](#) one European Union official as characterizing the United States as “one of the most difficult partners” in talks to develop a legally binding agreement. Given these differences, a May 2024 agreement might be overly optimistic for a comprehensive pandemic agreement. Several proposals would likely have significant costs associated with them. Sweeping reforms, such as those proposed by the European Union, or foreshadowed by the WHO independent panel, could include expansive new public health measures; the plans might be costly both to establish and maintain. More narrowly focused proposals such as the Pandemic Mitigation Project and UN Security Council proposals would undoubtedly have less upfront and sustaining costs. Adapting existing organizations such as the WHO and the Biological Weapons Convention could also be challenging as their long histories often get in the way of comprehensive reform efforts. Even [updating](#) the International Health Regulations—which were developed for pandemic detection, assessment, reporting, and response—would likely require negotiators to extensively rewrite WHO policies to grant the organization greater authority and to develop the new enforcement mechanisms necessary for reform to have a meaningful effect. The acceptability and terms of a pandemic agreement would also be key. Any agreement that includes only a [“slice of the world’s countries”](#) but not major powers like the United States would be problematic; economically powerful countries would likely be the source of the funding and technical capability necessary for successful implementation of a treaty. Likewise, agreements that rely on consensus might result in “least common denominator” solutions, hardly what the world needs from reform. Still, the six proposals provide grist for thought and even potential starting points from which deliberations could begin; however, unless WHO member nations are willing to expand a future pandemic organization’s authorities, capacities, and funding beyond what the WHO currently has, the prospects for success will be limited. Whatever pathway reform efforts proceed down, one thing is clear: The death; sickness; and political and economic destabilization of the last two pandemic years make it clear that the world needs to do something different next time.

[Daniel M. Gerstein](#) works at the RAND Corporation. He formerly served as the undersecretary (acting) and deputy undersecretary in the Science and Technology Directorate of the Department of Homeland Security from 2011 to 2014.

## Is tactical combat casualty care in terrorist attacks suitable for civilian first responders?

By Felix Borgers, Sam van Boxstael, and M. Sabbe

*Journal of Trauma and Acute Care Surgery* | July 06, 2021

Source: <https://www.semanticscholar.org/paper/Is-tactical-combat-casualty-care-in-terrorist-for-Borgers-Boxstael/69ab891a6662b37a675fc69219e9f1358b81a05c>

Prehospital management of intentional mass casualty incidents is a unique challenge to Emergency Medical Services. Tactical Combat Casualty Care (TCCC) and the use of tourniquets for extremity hemorrhage have already proven to reduce mortality on the battlefield. This literature review aims to determine the place of these military concepts in a civilian high-threat prehospital setting.

**METHODS:** The PubMed database was searched for articles published between January 1, 2000, and December 1, 2019, containing descriptions, discussions, or experiences of the application of tourniquets or other TCCC-based interventions in the civilian prehospital setting. Data extraction focused on identifying important common themes in the articles.

**RESULTS:** Of the 286 identified articles, 30 were selected for inclusion. According to the Oxford Centre for Evidence-based Medicine Levels of Evidence, the overall level of evidence was low. Most articles were observational, retrospective cohort studies without a non-





tourniquet control group. Outcome measures and variables were variably reported. Two articles specifically analyzed tourniquet use during high-threat situations, and three described their application by law enforcement personnel. Overall, tourniquets were found to be effective in stopping major limb bleeding. Reported mortality was low and related complications appeared to be infrequent. Only four articles mentioned the application of other TCCC-based maneuvers, such as airway and respiratory management.

**CONCLUSION:** This literature review shows that tourniquets appear to be safe tools associated with few complications and might be effective in controlling major bleeding in civilian limb trauma. For example, during mass casualty incidents, their use could be justified. Training and equipping ambulance and police services to deal with massive bleeding could likewise improve interoperability and victim survival in a civilian high-threat prehospital setting. More qualitative research is needed to further evaluate the effects of hemorrhage control training for first responders on patient outcomes. Literature describing the application of other TCCC-based principles is limited, which makes it difficult to conclude their use in a civilian setting.

## Vaccine and Drug Development Could Be Faster, Cheaper With DNA Nanotechnology

A new, revolutionary, tool may help speed up the development of vaccines and other pharmaceutical products by more than one million times while minimizing costs. A novel technique called **SPARCLD** (single-particle combinatorial lipidic nanocontainer fusion based on DNA mediated fusion) allows high-throughput combinatorial methods on the nanoscale, minimizing the use of materials and energy. SPARCLD could help meet future pandemics with an accelerated response. [+ MORE](#)

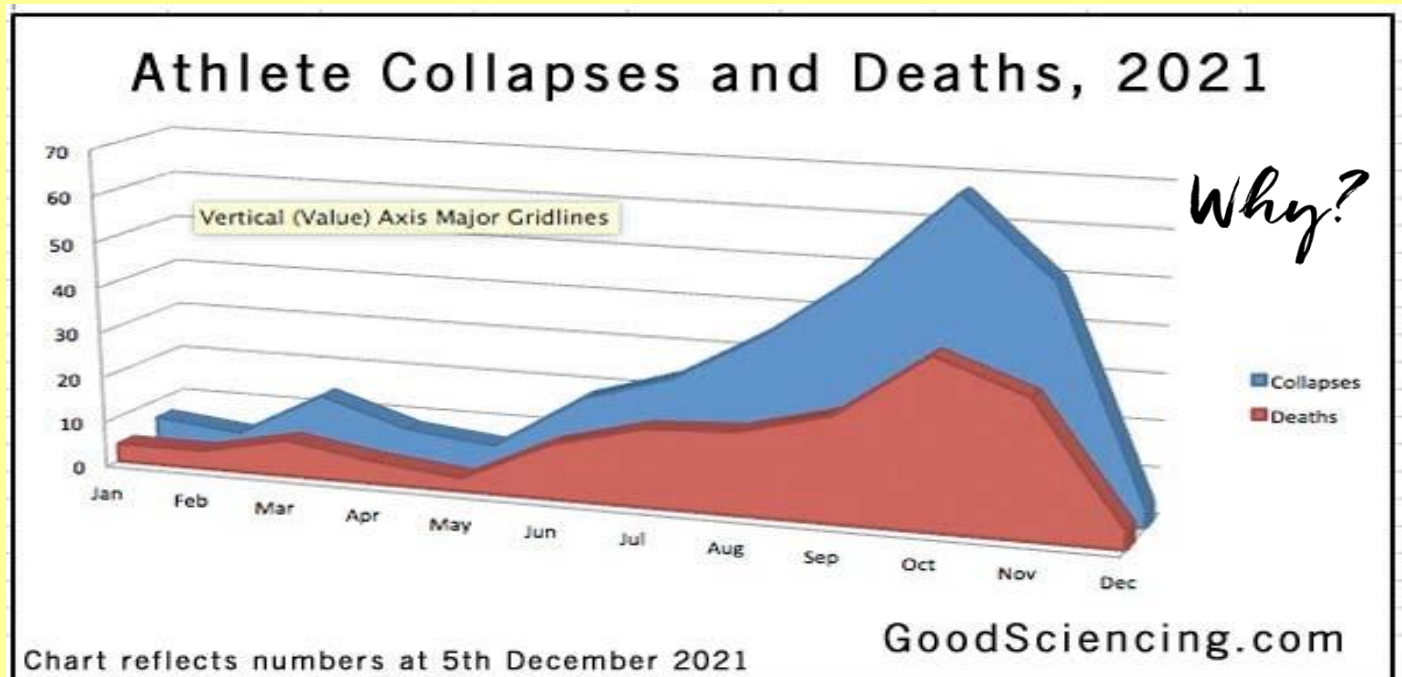
## 769 ATHLETES HAVE COLLAPSED IN THE PAST YEAR

Source [video]: <https://rumble.com/vz2ro5-769-athletes-have-collapsed-in-the-past-year.html>



Since when have we ever seen an athlete collapse on the field without it being due to a collision with another player or an object. Once? Now 769 in a year? Those are the ones we know about. No government, no administration, no mainstream media that even care. It is definitely not normal for so many mainly young athletes to suffer from cardiac arrests or to die while playing their sport, but it is happening. Many of these heart issues and deaths come shortly after they got a COVID vaccine. While it is possible this can happen to people who did not get a COVID vaccine, the sheer numbers clearly point to the only obvious cause. The so-called health professionals running the COVID vaccine programs around the world keep repeating that “the COVID vaccine is a normal vaccine and it is safe and effective.”

Read also: <https://yournews.com/2021/12/08/2262859/report-shows-nearly-300-athletes-worldwide-collapsed-or-suffered-cardiac/>



## Provision of pre-hospital medical care for terrorist attacks

By Claire L. Park and Gareth R. Grier

*British Journal of Anaesthesia*, 128 (2): e85ee89 (2022)

Source: <https://www.sciencedirect.com/science/article/pii/S0007091221006930>

The delivery of medical care to the severely injured during major incidents and mass casualty events has been a recurring challenge for decades across the world. From events in resource-poor developing countries to richly funded military conflicts, to the most equipped of developed nations, the provision of rapid medical care to the severely injured during major incidents and mass casualty events has been a priority for healthcare providers. This is often under the most difficult of circumstances. Whilst mass casualty events are a persistent global challenge, it is clear in developed countries that patients and their families demand and expect a high standard of care from their rescuers, that this care should be delivered rapidly, and this should be of the highest quality possible. Whilst there is respect afforded to those who 'run towards danger' during a high-threat situation, first responders are subjected to a high degree of scrutiny for their actions, even when the circumstances they are presented with are considered to be extraordinary. Likewise, even for those who are catastrophically injured beyond salvage, society expects the response to be dignified, calculated, and thorough.

## SARS-CoV-2 Causes Severe Inflammation in Some People. Here's How

Source: <https://www.genengnews.com/virology/coronavirus/sars-cov-2-causes-severe-inflammation-in-some-people-heres-how/>

Apr 06 – Severe COVID-19 disease is known to be linked to increased inflammation. However, how SARS-CoV-2 triggers that inflammation is not understood. Now, researchers show, for the first time, how COVID-19 causes severe inflammation in some people, leading to acute respiratory distress and multi-organ damage.

The study found that SARS-CoV-2 can infect monocytes and macrophages. Once infected, both types of immune cells die via pyroptosis and release an explosion of inflammatory alarm signals. Surprisingly, the study also found that antibodies developed by people with COVID-19 can sometimes lead to more inflammation, while antibodies generated by mRNA COVID-19 vaccines seem not to.

The investigators analyzed fresh blood samples from patients with COVID-19 in the emergency department at Massachusetts General Hospital in Boston. They compared these with samples from healthy people and patients with other respiratory conditions. They also looked at lung autopsy tissue from people who had died from COVID-19.

"We wanted to understand what distinguishes patients with mild versus severe COVID-19," said Judy Lieberman, MD, PhD, professor of pediatrics at Harvard Medical School. "We know that many inflammatory markers are elevated in people with severe disease, and that inflammation is at the root of disease severity, but we hadn't known what triggers the inflammation."

**They found that SARS-CoV-2 can infect monocytes (immune cells in the blood) as well as macrophages (in the lungs). Both monocytes and macrophages, the authors explained, are sentinel cells that sense invasive infection to form inflammasomes that activate caspase-1 and gasdermin D. This leads to inflammatory deaths, known as **pyroptosis**, and the release of potent inflammatory mediators. The researchers uncovered that about 6% of blood monocytes in COVID-19 patients are infected with SARS-CoV-2.**

"In the infected patients, about 6% of blood monocytes were dying an inflammatory death," said Lieberman. "That's a large number to find, because dying cells are rapidly eliminated from the body."

Examining the lung tissue from people who died from COVID-19, they found that about a quarter of the macrophages in the tissue were dying. When the researchers studied the cells for signs of SARS-CoV-2, they found that about 10% of monocytes and 8% of lung macrophages were infected.

The fact that monocyte and macrophages can be infected with SARS-CoV-2 was a surprise, since monocytes don't carry ACE2 receptors, the classic entry portal for the virus, and macrophages have low amounts of ACE2. Lieberman thinks SARS-CoV-2 infection of monocytes might have previously been missed in part because researchers often study frozen blood samples, in which dead cells do not show up.

The study also showed that while SARS-CoV-2 was able to infect monocytes and macrophages, it wasn't able to produce new infectious viruses. The researchers believe the cells died quickly from pyroptosis before new viruses could fully form.





“In some ways, uptake of the virus by these ‘sentinel’ cells is protective: it sops up the virus and recruits more immune cells,” said Lieberman. “But the bad news is that all these inflammatory molecules get released. In people who are more prone to inflammation, such as the elderly, this can get out of control.”

A certain group of monocytes was especially likely to be infected—those carrying the CD16 receptor. These “non-classical” monocytes make up only about 10% of all monocytes, but their numbers were increased in patients with COVID-19. They were also more likely to be infected—about half were infected, as compared with none of the classical blood monocytes.

The CD16 receptor recognizes antibodies against the SARS-CoV-2 spike protein. The researchers believe these antibodies may facilitate infection of monocytes carrying the receptor. “The antibodies coat the virus, and cells with the CD16 receptor then take the virus up,” Lieberman said.

However, when the team studied healthy patients who had received mRNA vaccines against COVID-19, the antibodies they developed did not appear to facilitate infection. The reason for this is still unclear; the researchers suggest that vaccine-generated antibodies have slightly different properties than antibodies that develop during infection and don’t bind as well to the CD16 receptor. As a result, the cells don’t take the virus up.

Lieberman and her colleagues believe these findings may have implications for using monoclonal antibodies to treat COVID-19, helping to explain why the treatment works only when given early. “It may be that later on, antibodies may help enhance inflammation,” she says. “We may need to look at the properties of the antibodies.”

●► This work is published in *Nature*, in the article, [“FcγR-mediated SARS-CoV-2 infection of monocytes activates inflammation.”](#)

## Fatigue After COVID Is a Real Issue. Here Are 5 Things You Can Do About It

By Natasha Yates

Source: <https://www.sciencealert.com/feeling-fatigued-after-a-bout-of-covid-here-s-five-tips-on-how-to-deal-with-it>



Apr 07 – People are often surprised by how fatigued they are during a COVID infection.

Fatigue is more than being worn out or sleepy. It’s an excessive tiredness that persists [despite resting or good sleep](#). It’s likely a result of our body’s strong immune response to the [virus](#).

But in some people the fatigue drags on even when the infection is gone. This can be debilitating and frustrating. Simply resting more makes no difference.

Here’s what we know about post-COVID fatigue, and what can help.

### Fatigue or tiredness? What’s the difference?

The term fatigue can mean different things to different people. Some people mean their muscles are easily weakened. Walking to the mailbox feels like they have run a marathon.

Others describe a generalized exhaustion, whether they are moving or not. People can experience [physical, mental, or emotional](#) fatigue, or any combination of these.



The difference between tiredness and fatigue is this: Tiredness can get better with enough rest, while [fatigue persists](#) even if someone is sleeping and resting more than ever.

### How big a problem is this?

Because there is no agreed definition of post-COVID fatigue, it is impossible to give exact numbers of how many people experience it. Estimates vary considerably worldwide. [One review of 21 studies](#) found 13-33 percent of people were fatigued 16-20 weeks after their symptoms started. This is a worryingly widespread problem.

### When should I see my GP?

There are many potential causes of fatigue. Even before the [pandemic](#), fatigue was one of the most [common reasons to see a GP](#). Most serious causes can be ruled out when your GP asks about your symptoms and examines you. Sometimes your GP will investigate further, perhaps by ordering blood tests.

Symptoms that should raise particular concern include [fevers](#), unexplained weight loss, unusual bleeding or bruising, pain (anywhere) that wakes you from sleep, or drenching night sweats.

If your fatigue is getting worse rather than better, or you cannot care for yourself properly, you really should seek medical care.

### Is it like long COVID?

Early in the pandemic, we realized some patients had a cluster of debilitating symptoms that dragged on for months, which we now call long COVID.

Some [85 percent](#) of long COVID patients experience fatigue, making it one of the most common long COVID symptoms.

However, people with long COVID have a range of other symptoms, such as "brain fog", headaches, and muscle aches. Patients with long COVID therefore experience more than fatigue, and sometimes don't have fatigue at all.

### Is this like chronic fatigue syndrome?

We knew about [chronic fatigue syndrome](#), otherwise known as [myalgic encephalomyelitis](#), well before COVID.

This often develops after a viral infection (for instance after infection with [Epstein-Barr virus](#)). So, understandably, there has been concern around the [coronavirus](#) potentially triggering [chronic fatigue syndrome](#).

There are striking similarities between chronic fatigue syndrome and long COVID. Both involve debilitating fatigue, brain fog, and/or muscle aches.

But at this stage, researchers are still [untangling any link](#) between post-COVID fatigue, long COVID, and chronic fatigue syndrome. For now, we know many people will have post-COVID fatigue but thankfully do not go on to develop long COVID or chronic fatigue syndrome.

### What helps me manage my fatigue?

Expect you or a loved one may develop post-COVID fatigue, [regardless of how unwell you or they were](#) during the actual infection. Vaccines help reduce the risk of post-COVID fatigue by lowering the chance of catching COVID in the first place. Vaccinated people who do catch COVID are [less likely to report fatigue](#) and are [less likely to develop long COVID](#).

However, vaccination is not 100 percent protective and there are plenty of fully vaccinated people who go on to [develop longer term fatigue](#).

The evidence for what helps you recover from post-COVID fatigue is in its infancy. However, a few things do help:

- 1. Pace yourself:** Adjust the return to normal activities to your energy levels. [Choose your priorities](#) and focus on what you can do rather than what you can't.
- 2. Return to exercise gradually:** A [gradual return to exercise](#) may help your recovery, but you may need some support about how to manage or avoid fatigue afterwards. Some therapists – occupational therapists, physiotherapists, and exercise physiologists – specialize in this. So ask your GP for a recommendation.
- 3. Prioritize sleep:** Rather than feeling guilty about sleeping so much, remind yourself that while you sleep, your body [conserves energy](#) and [heals](#). Disrupted sleep patterns are an unfortunate COVID symptom. Having a strict bedtime, while also resting when you feel tired during the day, is important.
- 4. Eat a range of nutritious foods:** Loss of smell, taste, and appetite from COVID can make this tricky. However, try to view food as a way of fueling your body with both energy and the micronutrients it needs to heal. Be careful not to spend a fortune on unproven "remedies" that often look good in small studies, but more robust research finds [make little difference](#).





**5. Monitor your fatigue:** Keep a diary to monitor your fatigue, and look for a gradual improvement. You will have good days and bad days, but overall there should be a slow trajectory towards recovery. If you are going backwards, get input from a health professional, such as your GP.

**Natasha Yates** is an Assistant Professor, General Practice @ Bond University.

## Study advances understanding of bacterial bioterrorism agent

Source: <https://news.vumc.org/2022/04/07/understanding-bacterial-bioterrorism-agent/>

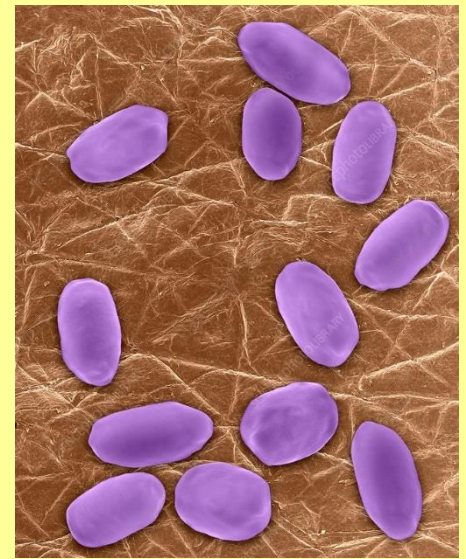


Apr 07 – Vanderbilt researchers have identified a critical regulatory factor in *Bacillus anthracis*, the bacterium that causes the disease anthrax and has been used as a biological weapon. The findings, reported in the journal [Nature Communications](#), provide new insights into bacterial gene regulation and may guide novel antibacterial therapeutic strategies.

*B. anthracis* forms dormant spores — the infectious form of the bug — that can survive in the environment for decades. Although rare in the U.S., *B. anthracis* is found in soil around the world and causes severe disease in livestock, wild animals and people.

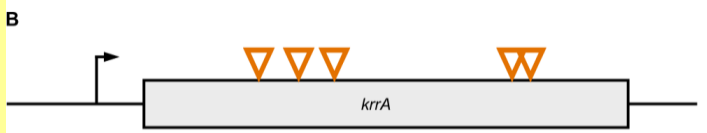
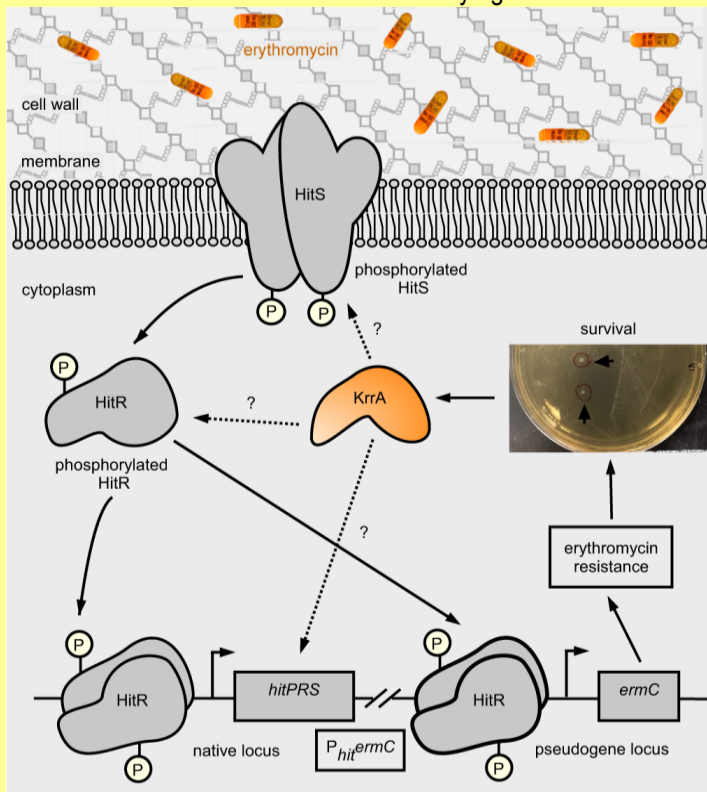
It is considered one of the most likely agents to be used for bioterrorism, because of the

long-lived spores that can be released without detection, for example in powders, sprays, food or water. In 2001, powdered *B. anthracis* spores mailed in letters in the U.S. caused anthrax in 22 people; five of them died.



Like other bacteria, *B. anthracis* has evolved systems that enable its survival and multiplication in the hostile host environment. These “two-component systems” (TCSs) include a sensor protein that detects stress and a responder protein that alters gene expression to cope with the stressor. Some TCSs also have other modulator proteins.

**A** Schematic of the genetic selection strategy: a strain containing *ermC* driven by a HitR promoter ( $P_{hit}ermC$ ) was plated on medium containing toxic levels of erythromycin and colonies that arose represented bacteria that acquired mutations that constitutively activate the  $P_{hit}$  promoter. **B** All 21 erythromycin-resistant suppressors isolated from genetic selections exhibit frameshift mutations at five different positions within *krrA*.



Immunology and director of the Vanderbilt Institute for Infection, Immunology and Inflammation.

Skaar’s team previously characterized the *B. anthracis* TCS called HitRS, which responds to disruptions of the cell envelope (the protective outer layers of the bacterium). It was unclear, Skaar said, how HitRS signaling is regulated to ensure response specificity in times of cell envelope damage.

“Two-component systems are prevalent in bacteria, but they are absent in humans and animals, which makes them attractive targets for developing novel antibacterial agents,” said [Eric Skaar](#), PhD, MPH, Ernest W. Goodpasture Professor of Pathology, Microbiology and



Postdoctoral fellow Hualiang Pi, PhD, led studies to search for regulators of HitRS. Using an unbiased genetic selection strategy, the researchers identified a regulatory protein they named **KrrA**. They found that KrrA functions as an RNA-binding protein that binds to the HitRS messenger RNA (mRNA, the “expressed” form of the gene that is ready to be translated into protein) and modulates its stability.

KrrA appears to have functions broader than HitRS regulation, they discovered.

“We found that KrrA also binds to more than 70 other RNAs, and directly or indirectly affects the expression of over 150 genes involved in processes including genetic competence, sporulation, RNA turnover, DNA repair, transport and cellular metabolism,” said Pi, first author of the study.

KrrA did not exhibit RNA-degrading activity, and the mechanism it uses to modulate mRNA stability remains unclear, Pi said.

“Understanding how *B. anthracis* senses and responds to external threats could allow us to target these systems for the development of new antibiotics. If we can prevent *B. anthracis* from defending itself, we can make it easier to kill, which could make anthrax easier to treat,” Skaar said.

## Risk of serious blood clot events **spike** in the months after COVID-19

Source: <https://newatlas.com/health-wellbeing/risk-serious-blood-clot-increases-covid19-months/>



Apr 07 – New observational research out of Sweden has tracked more than one million COVID-19 cases for months after their acute illness in order to determine how the disease influences subsequent risk of blood clots. **The findings indicate COVID-19 significantly increases a person’s risk of deep vein thrombosis and pulmonary embolism in the months after infection.**

The large study, published in *The BMJ*, looked at health data from 1,057,174 positive COVID-19 cases. This covers every single positive recorded case in Sweden from the beginning of the pandemic up to May 2021. A control group of four million age- and sex-matched subjects not positive with COVID was generated to quantify the increase in risk for blood clots caused by infection.

In the 30 days after an initial COVID-19 diagnosis the researchers found a 33-fold increase in pulmonary embolism risk, a five-fold increase in deep vein thrombosis (DVT) risk and a two-fold increase in general bleeding events. The heightened risk, compared to the uninfected control group, persisted 60 days for bleeding, 90 days for DVT, and 180 days for pulmonary embolism.

Factoring in acute disease severity, the researchers found those initially hit hardest with COVID-19 did experience greater long-term risk for blood clotting events. However, the increased risk was not zero in those experiencing mild COVID. Those with only a mild infection still showed a three-fold risk of DVT and a seven-fold risk of pulmonary embolism.

While this new study is the most robust to investigate the relationship between blood clots and SARS-CoV-2 infection it is not the first to identify this association. [A large UK study](#) last year found similar signs when it compared rates of hematological and vascular events after COVID-19 to rates of those same events after COVID vaccination.





That study more generally found significant increases in rates of stroke, heart attack and blood clotting a month after a COVID infection. It also found these rates of adverse events were much higher after COVID-19 than after vaccination, validating the suggestion that the deleterious after-effects of COVID-19 are much more impactful than any potential harms caused by vaccination. [Another UK study published last year](#) found incidences of and deaths from thromboembolism doubled in the first six months of the pandemic compared to rates seen in the years prior.

This new study focused on unvaccinated COVID-19 patients so there is no direct data on what protective effect is conferred by vaccination in regards to the increased blood clotting risk after SARS-CoV-2 infection. An [editorial in \*The BMJ\*](#) accompanying the new study, from researchers at the University of Glasgow, hypothesizes there still may be a risk of these blood clotting events in patients experiencing vaccine breakthrough infections.

“... current vaccines are highly effective against severe covid-19 but confer only moderate protection against infection with the Omicron variant,” the editorial states. “Although many infections with the Omicron variant are mild, the new study confirms an increased risk of venous thromboembolism even among those with milder infections who do not require admission to hospital.”

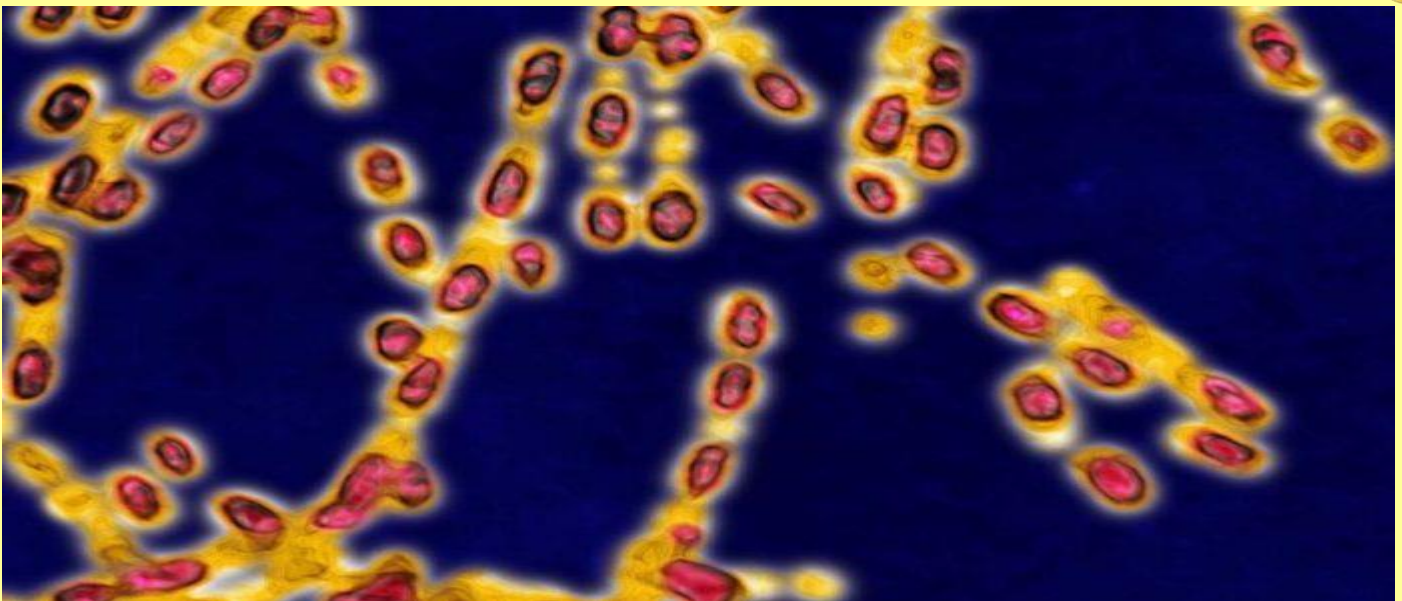
Ioannis Katsoularis, an author on the new Swedish study from Umeå University, said the findings affirm the value of vaccination in reducing the likelihood and severity of COVID-19. Plus, he said older COVID-19 patients who are already at a high risk of blood clotting events should be closely watched in the months after an acute infection.

“The results underline the importance of people getting vaccinated against COVID-19 but also of healthcare providers identifying individuals with COVID-19 who are at increased risk of blood clots so that blood thinners can be used,” Katsoularis added.

●► The new study was published in [The BMJ](#).

## UCLA develops nanoparticle system to treat bioterrorism organism

Source: <https://www.tunisieoir.com/health/ucla-develops-nanoparticle-system-to-treat-bioterrorism-organism-28522-2022/>



UCLA develops nanoparticle system to treat bioterrorism organism

Tularemia is a serious infectious disease caused by the bacterium *Francisella tularensis*. The disease is named after Tulare County, California. The Centers for Disease Control and Prevention (CDC) has designated the *F. tularensis* bacterium as a top-tier bioterrorism agent, meaning that it is considered to pose a high risk to national security and public health. Now, researchers at the California NanoSystems Institute at UCLA have developed a nanoparticle delivery system for the antibiotic moxifloxacin, which markedly improves the drug's effectiveness against pneumonic tularemia. Their findings were published in the journal *ACS Nano*.

Senior author Jeffrey Zink, PhD, a distinguished professor of chemistry and biochemistry, developed the mesoporous silica nanoparticles used for drug delivery. He and his team conducted an extensive process to find the best particle for the delivery system. He



explained, “The nanoparticles are full of deep empty pores. We place the particles in drug solution overnight, filling the pores with drug molecules. We then block the pore openings on the nanoparticle’s surface with molecules called nanovalves, sealing the drug inside the nanoparticle.”

**When the antibiotic containing nanoparticles are injected into an infected animal, in this case a mouse, the drug stays in the nanoparticles until they reach their target: white blood cells called macrophages. Macrophages consume nanoparticles into compartments that have an acidic environment. The nanovalves, which are designed to open in response to the more acidic surroundings, then release the drug.** Dr. Zink said, “We tested several different particles and nanovalves until we found the ones that would carry the maximum amount of drug and release it at just the right pH value.”

“*F. tularensis* survives and multiplies within macrophages, especially those in the liver, spleen and lung,” explained the other senior author, Marcus Horwitz, MD, a distinguished professor of medicine and microbiology, immunology and molecular genetics. He added, “Macrophages readily devour mesoporous silica nanoparticles, making these particles ideal for treating these types of infections.” Moxifloxacin is a potent treatment for tularemia; however, it has side effects when administered as a free drug in the bloodstream. The researchers strove to maximize the effectiveness of the treatment while reducing side effects. **“When you give a drug freely in the blood, only 1 or 2 percent of it gets to where you want it to go,”** explained Dr. Horwitz. He added, “With this system, the drug is contained inside the nanoparticles until they are inside macrophages, delivering a much larger amount of the drug directly to the site of infection.” He added that freely flowing drugs are metabolized and excreted from the moment they are administered, whereas nanoparticles protect drug molecules from metabolism and excretion until after their release in the target cells; thus, making nanotherapeutics potentially very potent.

The study compared the effectiveness of freely injected moxifloxacin with that delivered by the controlled-release nanoparticles. In mice given a highly lethal dose of *Francisella tularensis*, the nanoparticle-delivered moxifloxacin caused few side effects and was more effective at reducing the number of bacteria in the lungs than a dose of freely injected moxifloxacin two to four times greater.

**The authors note that the nanoparticle delivery system has the potential to maximize antibiotic effectiveness and reduce side effects in other infectious diseases such as tuberculosis, Q fever, and Legionnaires’ disease.**

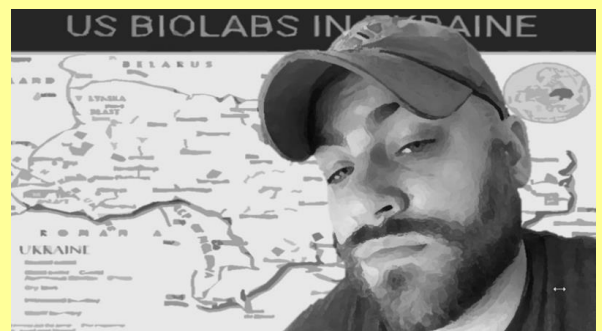
## Unmasking “Clandestine,” the Figure Behind the Viral “Ukrainian Biolab” Conspiracy Theory



Source: <https://www.homelandsecuritynewswire.com/dr20220407-unmasking-clandestine-the-figure-behind-the-viral-ukrainian-biolab-conspiracy-theory>

*Update: On Tuesday, April 5, 2022, Creech appeared on the Alex Jones Show, where he confirmed his identity — and his role in perpetrating the biolab conspiracy theory.*

Apr 07 – The ADL Center on Extremism has, with a high degree of confidence, identified “Clandestine,” the man behind the viral biolab conspiracy theory, as **Jacob Creech**, a self-described former restaurant manager and Army National Guard veteran living in rural Virginia. The discovery highlights how a fringe [QAnon](#) figure, harnessing the power of social media, sparked a viral conspiracy theory that – in just a few weeks – made its way from QAnon to the world stage, amplified by [Tucker Carlson](#), white supremacists [Nick Fuentes](#) and [Vincent James](#), members of [the Proud Boys](#), and [Steve Bannon](#) – and even the Kremlin.



### Background

On February 24, as Russia’s invasion of Ukraine [got underway](#), Creech, tweeting from his now-suspended [@WarClandestine](#) account, posted a thread claiming that Russian airstrikes were targeting “U.S. biolabs” in Ukraine.

“China and Russia indirectly (and correctly) blamed the US for the C19 [Covid-19] outbreak,” Creech tweeted. “And [they] are fearful that the US/allies have more viruses (bioweapons) to let out.” The invasion, he posited, was a smokescreen for Russia to destroy U.S. biolabs in Ukraine, thus preventing another global pandemic.

Within hours of Creech’s initial tweet, InfoWars, a conspiracy site run by [Alex Jones](#), published a story promoting the biolab conspiracy, crediting [@WarClandestine](#) for





uncovering what it dubbed the “ulterior motive theory.” QAnon forums and Telegram channels also began to share the theory. Meanwhile, the hashtag #USBiolabs began [trending](#) on Twitter and TikTok, where posts promoting the conspiracy racked up tens of thousands of likes.

While Russia has peddled false claims about U.S. biolabs [in the past](#), Creech’s thread helped revive a languishing Russian disinformation narrative, providing the Kremlin with another explanation to justify its invasion of Ukraine. On February 27th – just three days after his thread was posted – the Russian Embassy in Bosnia and Herzegovina posted on Facebook endorsing the theory, accusing the United States of stuffing “Ukraine with biolaboratories, which – quite possibly – were used to study methods for the destruction of the Russian people at the genetic level.” Creech celebrated the embassy’s claims, tweeting from a new account, @clandestinenot, “My hypothesis was correct!... Russian air strikes in Ukraine have nothing to do with Ukraine, but rather AMERICAN ASSETS in Ukraine! It means this “war” is MUCH bigger than Ukraine. It’s a skirmish with the United States of America.” Russia’s false biolab claims quickly raised concerns that it was laying the groundwork for a future attack against Ukraine using biological weapons. During a Senate Foreign Relations Committee hearing on March 8, Senator Marco Rubio (R-FL) [questioned](#) U.S. Undersecretary of State Victoria Nuland about Russia’s claims. During her testimony, Nuland confirmed that Ukraine had “biological research facilities” and noted that the U.S. was concerned Russia could gain control of them.

Nuland’s testimony was quickly seized upon by QAnon adherents and right-wing media outlets as “proof” that the biolabs conspiracy was true. A day after the Senate hearing, Fox News host Tucker Carlson, citing Nuland’s testimony, [accused](#) the U.S. government of lying about funding secret biolabs in Ukraine. “If, for example, you were funding secret bio labs in Ukraine, but wanted to hide that fact from the people who are paying for it, in whose name you’re doing it, then you might lie about it by claiming the Russians were lying about it,” Carlson said.

### Conspiracy Theory Goes Viral

As the biolab theory continued to gain traction, Creech repeatedly took credit for coming up with the conspiracy and celebrated its dissemination in mainstream spaces. “YOU GUYS TUCKER’S OPENING STATEMENT IS THE BIOLABS STORY. The story is on the most watched show in America,” Creech wrote on Telegram on March 9, shortly after Tucker Carlson’s broadcast began. “HOLY SHIT WE FUCKING DID IT.” In a follow up post, Creech wrote, “I am trying to get in contact with Tucker [Carlson], [Dan] Bongino, [Jesse] Waters, [Steve] Bannon, Alex Jones. If they wanna use my thread and they wanna send this mainstream, then I guess it’s time to go mainstream.”

Creech, under his aliases WarClandestine and BioClandestine, has twice appeared on RedPill78, a popular QAnon show hosted by Zak Paine, to promote the biolab theory. “I’m the one who wrote the [Twitter] thread that kind of took the world by storm. If you’re hearing about the bio labs it was me,” Creech said during a February 26 appearance on the show. He also promoted the theory, under his alias BioClandestine, during a March 15th appearance on election fraud conspiracy theorist Seth Holehouse’s show Man in America, saying, “they’re trying to establish a narrative that Russia is going to be the one releasing these biological weapons after they said there were no biological weapons in Ukraine. So now they’re in this mass cover-up phase.”

Creech has attempted to distance himself from QAnon, criticizing news reports that refer to him as a “QAnon influencer.” A review of Creech’s prior social media activity, however, shows he’s been following Q since 2018.

Creech previously tweeted other conspiracies under the monikers “Clandestine Rosenstein” and “Sneaky Rod,” positing that then U.S. Deputy Attorney General Rod Rosenstein was a secret “white hat” in Trump’s war to take down the [“Deep State.”](#) Rosenstein, who appointed Robert Mueller to lead the Russia probe, was a frequent target of “Q,” who accused him of trying to “entrap” Trump by secretly recording him in the White House.

“RR [Rod Rosenstein] has been Team Trump since April 2017 when Trump appointed him,” Creech tweeted in April 2020 under the handle @arbiter1776. “All RR has done is prove Trump right, CONFIRM the Russia conspiracy allegations were false, and expose bad actors like McCabe and Comey.”

Creech has repeatedly invoked “Q” over the years. In 2018, he tweeted from his @ClandestineRos1 account, “There are many stances on Q, but we cannot deny the reality and magnitude of the movement.” In 2020, he tweeted under @arbiter1776, “... what is our role as Anons to assist the Q team and carry on The Great Awakening? It is our personal responsibility to be informed.” Creech also appeared on RedPill78 in November 2020, under his alias Clandestine Rosenstein, just a few weeks after the election, where he, alongside host Zak Paine and fellow QAnon influencer Beer at the Parade, peddled false claims that the 2020 presidential election was “stolen.”

He has also allegedly called for various public officials to be executed. Replying to a February 2022 tweet from the Ottawa Police thanking GoFundMe for withholding funding from the Trucker’s Convoy, he [wrote](#), “Don’t worry Ottawa [sic] police. We got enough rope for your fascist asses too. When all is said and done, you’ll be swinging with the rest of them.”



The biolabs conspiracy isn't the first time that Creech has spread misinformation on Twitter. In July 2019, Creech, tweeting from his @RodSneaky account, alleged that the media was not reporting on the [NXVIM sex trafficking case](#). While the @RodSneaky account was suspended by Twitter shortly after for "platform manipulation and spam," screenshots of Creech's tweets continued to circulate online, prompting Reuters to publicly [debunk](#) the claim.

As the war in Ukraine rages on, the biolab conspiracy has quickly emerged as the prevailing narrative among QAnon adherents to explain Russia's invasion of Ukraine. Not only does it "justify" the invasion in their eyes, it also validates their belief that Covid-19 is a U.S.-created bioweapon. This flood of disinformation could have far-reaching implications in the long term, sowing further distrust in democratic institutions and exacerbating political polarization.

## 'Ukraine Biolabs': How Attempts to Debunk a Conspiracy Theory Only Helped It Spread

By Daniel Whelan-Shamy and Timothy Graham

Source: <https://www.homelandsecuritynewswire.com/dr20220407-ukraine-biolabs-how-attempts-to-debunk-a-conspiracy-theory-only-helped-it-spread>

Apr 07 – On February 24, as Russian forces began their invasion, stories of US-funded biolabs and bioweapon research in Ukraine [began to spread](#) on social media.

The [false claims](#) spread from right-wing circles but became more widespread, and were soon picked up by Fox News host Tucker Carlson. It wasn't long until the Russian government, which had [spread tales of Ukrainian biolabs in the past](#), adopted the narrative as a belated justification for the invasion.

We studied how the biolabs narrative was amplified on Twitter, and made an unsettling (if not entirely surprising) discovery. Most of those responsible for sending the story viral were trying to debunk it, but only ended up giving it more oxygen.

### Debunking Gone Wrong

We initially set out to look for coordinated groups of conspiracy theorists promoting the bioweapons theory.

To do this, we searched for Twitter accounts that retweeted posts mentioning both Ukraine and biolabs. Then, to see how these accounts were connected to each other, we looked at whether any two accounts retweeted the same thing *at the same time*. We found 1,469 such accounts, and 26,850 links between them.

In the visualization of our results below, each dot is an account that retweeted at least one post about Ukraine biolabs. When two accounts retweeted the same thing within a minute of each other on more than one occasion, [we draw a line between them](#).

You can see the accounts are split up into clusters of coordinated retweeting behavior. We found 50 such clusters, and 49 of them were trying to debunk the bioweapon theory. Only one small group was trying to spread it.

Within other large clusters in this network we saw tweets from accounts working to debunk the bioweapon conspiracy, such as White House press secretary Jen Psaki, the Pentagon, the Kyiv Independent, and Sky News.

Our analysis concludes that those most prominent in spreading the narrative were those trying to debunk it. Most of the clusters were retweeting Psaki.

### Disinformation for Everyone

One place to start understanding what's going on is with the American scholar Kate Starbird's idea of "[participatory disinformation](#)". This process often starts with highly visible users (like politicians, celebrities, or opinion leaders) disseminating news to their online audiences.

However, for the biolabs conspiracy theory, the narrative began on alt-tech platform Gab and gained traction on Twitter due to the efforts of a fringe QAnon account. But as discussion was building on Twitter the theory was picked up by Chinese and Russian foreign affairs ministries, culminating in a segment on the Fox News program Tucker Carlson Tonight.

This is how a conspiracy theory becomes "news." The audiences filter the news through their own world views, which are already influenced by the media they regularly interact with. The audiences build, change and promote these interpretations in their own social networks.

"Grassroots" participants pick up the disinformation going round in their communities, augment and disseminate it; the process recurs in a self-reinforcing feedback loop.





By the time political players such as Psaki or Russian government officials tweet about a conspiracy theory, it doesn't matter whether they're trying to dispel it or boost it: they only end up [giving it oxygen](#).

### The New Conspiracism

If working to debunk false narratives only continues the feedback loop, what else can be done?

Participatory disinformation cycles have helped land us in [a crisis about how we as societal groups make sense of the world](#).

American political scientists Russel Muirhead and Nancy L. Rosenblum call the result of this crisis "[new conspiracism](#)".

Where old-fashioned conspiratorial thinking relied on complex theories to justify its claims, for new conspiracists an idea can be true simply because it's getting a lot of attention.

The spread of new conspiracism has intensified with the [erosion of trust in traditional institutions](#) over recent decades.

Donald Trump and [other politicians around the world](#) have worked to accelerate this erosion, but they're only part of the problem.

A bigger part is that [misinformation is lucrative for social media companies](#), and social media is integral to how we socialize and form opinions.

### What Can Be Done?

Time and again we have witnessed conspiracy theories spread on social media, contributing to political polarization and undermining democratic authority.

It's time we rethink our media ecosystem and how we regulate it, before trust in democratic institutions and principles decline further. Addressing this is a Herculean task and it's not enough for countries to individually legislate and regulate platforms. It needs to be a global effort. [Financial sanctions](#) are no longer enough – there needs to be systemic change that disincentivizes platforms profiting from mis- and disinformation.

Likewise, politicians and communicators such as Psaki need to be better informed that giving oxygen to these conspiracy theories can have unintended effects; attempts to raise awareness or debunk them can result in worldwide amplification.

For regular users of social media, the advice as always is to think twice before sharing or retweeting.

When a piece of content evokes a strong emotional response this can often be a sign false information is at play. If you really want to share something, taking a screenshot of the content is preferable to further amplification of the source as it cuts the disinformers out of the chain.

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## Facebook Fails to Appropriately Label 80% of Bioweapon Conspiracy Articles on Its Platform

Source: <https://www.homelandsecuritynewswire.com/dr20220407-facebook-fails-to-appropriately-label-80-of-bioweapon-conspiracy-articles-on-its-platform>

Apr 07 – It is no secret that Facebook remains an inviting home to conspiracy theorists and fringe groups, despite the launch of platforms like Parler and Truth Social.

[Pandor Report](#) notes that in recent years, Facebook and other platforms have begun labeling misleading and false posts with warnings, with varying levels of success. For example, during the early 2021 U.S. Senate election in Georgia (a state where the 2020 presidential election was decided by just 12,000 votes), Facebook [failed to apply fact check labels](#) to 60 percent of top-performing posts using false election information.

This has been a recurring theme regarding health information throughout the pandemic as well. Russia's invasion of Ukraine offers more examples of the sorry state of Facebook's monitoring. either. According to a study released by the Center for Countering Digital Hate Similarly, Facebook [failed to label 80 percent](#) of articles on its service which promote conspiracy theories about U.S. labs in Ukraine and Ukraine's supposed intent to use CBW against Russia. The Center also [found](#) Facebook fails to label 91 percent of posts containing Russian propaganda about Ukraine posted between 24 February and 14 March this year.

The Center is renewing its calls for Meta to better enforce its use of "false information," "partly false information," and "missing context" labels in light of its findings.



"If our researchers can identify false information about Ukraine openly circulating on its platform, it is within Meta's capability to do the same," said [Center for Countering Digital Hate](#) (CCDH) chief executive Imran Ahmed. "But we found that in the vast majority of cases, conspiracy theories are given a free pass."

## US' exclusive opposition to the biological weapons verification regime an egregious act of seeking global hegemony

Source: <https://www.globaltimes.cn/page/202204/1258858.shtml>

**Editor's Note (Apr 08):** *The US has ignited a war between Russia and Ukraine for its own selfish interests, the flames of war have also unveiled a darker side of the US' secret biological experimentation activities around the world. Although the US government has repeatedly claimed that it is not developing biological weapons, numerous facts show that this claim is hardly convincing. Biological weapons have always been an extremely sensitive topic in the international military and political arena. However, the US first pushed for the conclusion of the Biological Weapons Convention (BWC) and then exclusively opposed the establishment of a multilateral verification mechanism for the convention for more than 20 years. Observers and experts reached by the Global Times noted that hidden behind this flip-flopping stance is the US' elaborate calculations of international and domestic realities, which is another nefarious attempt to seek global hegemony under its narrow view of security.*

### US says 'No' to BWC verification

As the world frowns at the three recognized weapons of mass destruction - nuclear weapons, chemical weapons and biological weapons, the US is happy to have so many of them.

It is well known that the US possesses nuclear weapons with the capacity to destroy the world multiple times. In the case of chemical weapons, "The US is the sole possessor state party of chemical weapons," said Chinese Foreign Ministry spokesman Zhao Lijian at a regular press conference on March 10. At the same time, the US is the only country that has so far opposed the establishment of a biological weapons verification mechanism.

As the cornerstone of international biological arms control, the BWC was opened for signature in 1972 and entered into force in 1975, with more than 180 states parties. It is the first international convention of the international community to ban an entire category of weapons of mass destruction, and together with the Geneva Protocol and UN Security Council Resolution 1540 (2004), constituting the basic arrangement of the international biological arms control system.

The lack of monitoring, verification and punishment for compliance by states parties to the convention has led to widespread international recognition of the need for a protocol that includes a verification mechanism. After years of negotiations, the draft Biological Weapons Convention Compliance Protocol, which integrates the positions of all parties, was formed.

However, in 2001, the states' parties to the Convention suddenly discovered that years of effort had been in vain as "a new US administration with a demonstrated antipathy to arms treaties is about to block the final step," said Barbara Hatch Rosenberg, co-founder of American Scientists Working Group on Biological and Chemical Weapons.

At that time, the administration of then US president George W. Bush alleged that the US rejected the draft verification protocol because it had numerous problems and serious errors. Subsequently, at successive review meetings, the US clearly expressed its opposition to restarting the relevant negotiations.

The US was one of the countries that initially pushed for the BWC. Influenced by international and domestic political, scientific and cultural factors, US biological weapons policy is a strategic approach based on precise calculation and a fragile balance based on realism, said Wang Xiaoli, biological expert of the China Arms Control and Disarmament Association.

With the development of the times, especially the changes in biotechnology, this strategic orientation and fragile balance can easily collapse, Wang told the Global Times.

### US harvests labs & scientists after Soviet dissolution

After the Cold War ended, the US harvested a large number of bio-labs and scientists from the former Soviet Union with the excuse of "preventing bio weapons threats."

After the Soviet Union collapsed, Russia did not have enough money to destroy the nuclear and biological weapons inherited from the Soviet states.







Russia's Ambassador to the UN Vasily Nebenzya shows pictures during the UN Security Council meeting discussing US biological warfare labs in Ukraine, on March 11, 2022. Photo: IC

In 1991, US senators Sam Nunn and Richard Lugar promoted related legislation, through which the Cooperative Threat Reduction Program (CTR) was set up to address these weapons of mass destruction.

The program was supervised by the Defense Threat Reduction Agency and included the Cooperative Biological Engagement Program (CBEP). Related efforts have been extended repeatedly by Washington and lasted for decades.

According to an article of the Bulletin of the Atomic Scientists in 2008, the initial focus of the program was on the nuclear weapons inherited by Belarus, Kazakhstan, and Ukraine and on Russia's nuclear weapons, materials, and facilities.

Following the successful denuclearization of Belarus, Kazakhstan and Ukraine, and with a bulk of the most pressing Russian nuclear proliferation threats resolved, CTR's efforts turned its focus to dealing with biothreats.

However, the CBEP gradually became different from what it was intended for. The US did not destroy all facilities storing dangerous pathogens in Soviet states, instead, it upgraded many labs. These labs, although located outside the US, are in fact controlled by Washington and their materials and research results have been transferred to the US, according to documents recently disclosed by Russia. After the dissolution of the Soviet Union, tens of thousands of scientists lost their jobs. With the excuse to prevent these scientists from going to "rogue countries" for a living, the US established the Civilian Research & Development Foundation (CRDF) to recruit related scientists. According to open materials, the US passed related legislation in 1992 and established the CRDF in 1995. Founders of the CRDF include public agencies like the US State Council and the US Department of Defense as well as private agencies such as the Open Society Foundations, founded by American billionaire George Soros.

At first, the US Department of Defense allocated \$5 million for the launch of CRDF and Soros donated another \$10 million. Yearly budget for the CRDF was about \$10 million at the beginning. In 2000, then US president Bill Clinton proposed that the spending of the CRDF that year should be tripled from \$64 million to \$176.5 million.

### US goes back on its words

In 2001, a decade after the end of the Cold War, the US made clear its opposition to the establishment of a multilateral verification mechanism for the BWC, probably because of its



intensifying research on biological weapons and the improvement of its own biological research capabilities.

John Bolton, then US undersecretary of state for arms control and international security affairs, in 2002 explained three reasons why the US rejected the Draft Protocol to the BWC: first, it was based on a traditional arms control approach that will not work on biological weapons; second, it would have compromised national security and confidential business information; and third, it would have been used by proliferators to undermine other effective international export control regimes.

Biological arms control has its particularities, but the measures including declaration, visit and verification proposed in the Draft Protocol to the BWC are feasible and supported by most countries, Guo Xiaobing, a research fellow with the China Institutes of Contemporary International Relations, responded to the US' "explanation."

The US seems to have a skeleton in its closet in the field of biology, Guo said. The biological laboratories at Fort Detrick, for instance, severely lack transparency, and it is unclear whether the US is pursuing biological weapons under the guise of defensive biological researches, he added.

Wang believes that there are deeper reasons for the US' rejection of a verification regime. First of all, the US has put its domestic politics ahead of the common interests of the international community. Both the BWC and the Draft Protocol to the BWC are the result of the contracting parties maximizing international interests and seeking common ground while putting aside differences. But the volatile political climate in the US can easily break this fragile balance.

Secondly, the driving mechanism of the US to resolve the biological weapons issue has changed, Wang said. The development of biological technologies, including synthetic biology and gene editing, has prompted the US to reexamine the strategic value of biological weapons. In the name of protecting itself against bio-terrorism threats, the US has drastically increased its bio-defense budget. It becomes an important strategic goal of the US to maintain its superiority and hegemony in biotechnology, and to achieve absolute security in the field of biology. Thirdly, out of the protection of the military and industrial interests of the US and its allies, the US is wary of the multilateral agreements on biological weapons arms control that require transparency and are governed by international laws, said Wang. And the lobbying of American biopharmaceutical and biotechnology industries pushes the US further away from the negotiating table of the verification protocol, he added.

### US' credit deficits under dark records

Despite US President Joe Biden's recent solemn statement that Washington has no biological and chemical weapons in Europe, no one can take his statement at face value as the US has lost its credibility over repeated lies throughout the years. After World War II, the US sought to gain an edge in biological weapons research by making a secret deal with Japan to protect the Japanese war criminal, microbiologist Shiro Ishii who led Unit 731. Located near Harbin, Northeast China's Heilongjiang Province, and at the time occupied by Japanese invaders, Unit 731 was notorious for conducting Japanese biological warfare experiments. Ishii later served as a bioweapons consultant at Fort Detrick Biological Warfare Laboratories. In addition, after the end of World War II, the US "recruited" a large number of Nazi scientists. One of them was Kurt Blome, director of the Nazi Biological Warfare Program.

Several US-funded biological laboratories have been found to have carried out deadly human experiments. The location of Washington's overseas biological laboratories also overlaps with the site of many reported local accidents.

The US remains the only country in the world that still possesses chemical weapons. It also stands alone in opposing the establishment of the verification regime. The country has twice exceeded the time limit to destroy all its chemical weapons stockpiles despite repeated requests by the international community. It is also tight-lipped about research carried out in biological laboratories overseas. Faced with Russia's evidence, the US simply tried to dismiss it as "disinformation." As Chinese Foreign Ministry spokesperson Zhao said, the US responses so far have been self-contradictory and perplexing.

## Ukraine pandemic

(Rank 22 | as of Apr 11, 2022)

Total cases	Total deaths	Serious, critical	Population
4,982,249	108,118	177	43,268,832

<https://www.worldometers.info/coronavirus/>

## Sabizabulin Cuts COVID-19 Death; Trial Stopped Early Due to Efficacy

Source: <https://www.empr.com/home/news/drugs-in-the-pipeline/sabizabulin-cuts-covid-19-death-trial-stopped-early-due-to-efficacy/>

Apr 11 – Positive results were announced from a phase 3 trial evaluating **sabizabulin** in hospitalized COVID-19 patients at high risk for acute respiratory distress syndrome (ARDS).





**Sabizabulin is an oral cytoskeleton disruptor that blocks microtubule trafficking.** The investigational treatment is expected to provide both antiviral and anti-inflammatory effects, thereby treating both the SARS-CoV-2 infection and the cytokine storm and septic shock that lead to ARDS.

The double-blind, randomized, placebo-controlled trial (ClinicalTrials.gov Identifier: [NCT04842747](https://clinicaltrials.gov/ct2/show/study/NCT04842747)) included approximately 210 patients hospitalized with moderate to severe COVID-19 (WHO Ordinal Scale for Clinical Improvement score of at least 4) who were at high risk for ARDS and death.

Patients were randomly assigned 2:1 to receive sabizabulin orally once daily for up to 21 days or placebo. Both treatment arms were allowed to receive standard of care, which included [remdesivir](#), [dexamethasone](#), anti-interleukin 6 (IL6) receptor antibodies, and Janus kinase (JAK) inhibitors.

The primary endpoint was the proportion of patients who died by day 60. The key secondary endpoint was the proportion of patients who were alive without respiratory failure on day 15, day 22, and day 29.

An interim analysis showed that treatment with sabizabulin resulted in a clinically and statistically meaningful 55% relative reduction in deaths in the intent to treat population ( $P = .0029$ ). The mortality rates for the sabizabulin and placebo groups were reported to be 20% and 45%, respectively. As for safety, sabizabulin was well tolerated with no clinically relevant safety concerns compared with placebo. According to the Company, secondary efficacy endpoints are still being analyzed.

Based on these positive efficacy and safety results, the independent Data Safety Monitoring Committee has recommended that the trial be stopped early. Veru intends to meet with the Food and Drug Administration (FDA) to discuss next steps including the submission of an emergency use authorization application.

“What makes these findings more relevant is that the pharmacological activity of sabizabulin is independent of COVID-19 variant type. Pending upcoming discussion with FDA, this treatment option may be made available soon so we can be ready for when the next clinically important wave of COVID infections comes,” said Gary Barnette, PhD, Chief Scientific Officer of Veru.

The FDA previously granted Fast Track designation to sabizabulin for this indication.

#### Reference

Veru's novel COVID-19 drug candidate reduces deaths by 55% in hospitalized patients in interim analysis of phase 3 study; Independent Data Monitoring Committee halts study early for overwhelming efficacy. News release. Veru Inc. Accessed April 11, 2022. <https://www.globenewswire.com/news-release/2022/04/11/2419839/11676/en/Veru-s-Novel-COVID-19-Drug-Candidate-Reduces-Deaths-by-55-in-Hospitalized-Patients-in-Interim-Analysis-of-Phase-3-Study-Independent-Data-Monitoring-Committee-Halts-Study-Early-for-.html>

**EDITOR'S COMMENT:** I always had an issue with the double-blind, randomized, placebo-controlled trials – especially when death is at stake ...

## Should We Be Worried About XE, The New COVID Hybrid? Here's The Science

By Jemma Geoghegan, David Welch, and Joep de Ligt

Source: <https://www.sciencealert.com/should-we-be-worried-about-xe-the-new-covid-hybrid-here-s-the-science>

Apr 11 – A new hybrid [COVID-19](#) variant dubbed XE has [sparked fresh concerns](#) recently. XE is a combination of the highly transmissible BA.1 and BA.2 Omicron variants and was first [detected in the UK](#) in mid-January. Its spike protein derives from BA.2, which is potentially good news for New Zealand since this is the dominant variant (more than 90 percent of recent infections) and people who have been infected should have some protection against XE.

Globally, around 700 viral genomes have been assigned XE so far. The variant has mainly been detected in the UK and now in a handful of cases elsewhere, including Thailand and US, most likely due to travel-related spread.

According to current [estimates from the UK](#), XE has a slight (5–10 percent) transmission advantage over BA.2, which would make it the most transmissible subvariant of Omicron identified to date. Any time a new more transmissible variant emerges, it has the chance of becoming the dominant variant over time.

XE has not been assigned its own Greek letter yet. For the moment, it belongs to Omicron until significant differences in transmission and disease characteristics, including severity, are identified.



So far there is not enough evidence to draw solid conclusions about XE's transmissibility and there is almost no data about its severity or ability to evade immunity.

### How hybrid variants emerge

Usually, every individual virus is a near exact copy of its single parent virus. But [viruses](#) also undergo a process called recombination – they can have two parents. Recombinant viruses can emerge when two or more variants infect the same cell in an individual, allowing the variants to interact during replication. This can result in a mix-up of their genetic material, forming new virus combinations. Some viruses, such as influenza, have segmented genomes and can mix up whole segments through a [process called reassortment](#). Viral recombination and reassortment are common among viruses but rates vary markedly, depending on the type of virus and the chance of co-infection.

More than two years into the [pandemic](#) and with high infection rates globally, [SARS-CoV-2](#) recombination is both more likely and more easily detectable than during earlier stages. The global Omicron wave has seen a rapid increase in COVID prevalence, which increases the chances of co-infection and gives the virus more chances to recombine.

We are also more able to detect recombination than we were previously. Early in the pandemic, there was little genetic diversity in the SARS-CoV-2 virus and recombinants looked much like non-recombinants because the two parent virus were close to identical. But now there are several genomically distinct variants infecting people in the same area, making recombinant genomes a lot easier to spot among the millions of genomes generated to date. Viral recombination will likely play an important role in the ongoing evolution of SARS-CoV-2.

### Known viral recombinants

Recently there have been several recombinant SARS-CoV-2 variants identified, named XA, XB, XC etc., right through to XS. Some of these variants were sequenced as early as mid-2020. Some have only been seen a few times, while others have several hundreds of genomes assigned to them. There are two main types of recombinants now frequently detected: mixtures of Delta and Omicron (dubbed Deltacron) and mixtures of Omicron subvariants. A few of these recombinants are being watched closely. They include XD and XF, which consist of genetic material from Delta and the BA.1 Omicron subvariant. XD was first detected in France and contains a mixture of the spike protein from BA.1 and the rest of the genome from Delta. There was some concern it would inherit BA.1's ability to evade our immune defences and Delta's high virulence. To date, XD does not appear to be spreading widely or rapidly.

### Should we be concerned?

There isn't yet evidence suggesting recombinant viruses are more of a public health threat than any other variants. But recombinants should be closely monitored so that we can understand if they induce changes to the virus' transmissibility, disease severity or ability to escape vaccine-induced immune protection. At this point, there's no need to be overly concerned about XE. But we need to continue surveillance of SARS-CoV-2 on a global scale to spot new variants and understand the risks they might pose. Our best approach to limiting the rate of new recombinants or other variants emerging is limiting the spread of the virus. Despite widespread acceptance around the world that SARS-CoV-2 will be [with us for the foreseeable future](#), we can still employ protective measures to slow and suppress the virus. These include regular testing, isolating when we are infectious, wearing good quality masks and improved ventilation. All these measures reduce the chances of getting co-infected and becoming a host to a new recombinant.

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## A Covid worker beat a dog to death in Shanghai after its owner tested positive

Source: <https://edition.cnn.com/2022/04/08/china/shanghai-corgi-death-china-covid-intl-hnk/index.html>

Apr 08 - A pet dog was beaten to death by a health worker in Shanghai in an incident that sparked fury online, offering a glimpse into the growing frustrations of locked-down residents in China's [Covid-19](#) hotspot.

A video of the beating at a residential compound in the Pudong district of the city was met with horror after going viral Wednesday on Chinese social media. The clip, which appears





## ICI C<sup>2</sup>BRNE DIARY – April 2022

to have been filmed by a resident of a nearby building, shows a Covid prevention worker -- dressed head to toe in protective gear -- **chasing the corgi down a street and hitting it three times with a shovel**. It then shows the dog lying motionless.

In two photos posted online, the corgi is seen running after a bus said to be taking its owner to an isolation facility. Another photo shows its body being taken away in a plastic bag.

The video and photos have been reposted and deleted by multiple users. CNN cannot identify the original uploader of the video.

The corgi's owner was in quarantine at the time of the attack, according to state-run magazine China News Weekly, and had released the dog onto the streets after being unable to find anyone to care for the animal in his absence.



**EDITOR'S COMMENT:** 2-feet proud beast (中国的耻辱) | **By the way,** why Chinese are so panicked in Shanghai?

All of Shanghai's [25 million residents](#) are under lockdown until further notice and face several rounds of mass testing. Those who test positive face mandatory isolation.

"In the end, I thought I could let (the corgi) loose outside to become a stray, at least it wouldn't starve to death," the owner wrote in an online group, explaining he had no dog food left at home, according to [China News Weekly](#). "I never thought once we had left, it would be beaten to death."

He claimed a neighborhood committee had declined to help care for the dog, the magazine reported. The committee said it was concerned the corgi could have been infected too.

"At that time, the workers did not consider (the matter) very comprehensively. We will communicate with the owner and offer compensation later," the committee said in response, according to China News Weekly.

CNN has made several attempts to contact the committee.

The incident spread widely across Chinese social media platform Weibo. One hashtag about the topic was viewed tens of millions of times before it was removed from the highly censored site. The footage prompted shock and anger, with many calling the dog's killing cruel and unnecessary.

[International health authorities](#) have said the risk of transmission from animals to humans is possible but low, and there is no evidence that animals are playing a significant role in the spread of Covid-19 to humans.

And China's National Health Commission has stated there is so far no evidence of people catching Covid from pets.

"What use is compensation? That is a life," said one popular post on Weibo.

"Pets are family too," another user wrote -- a sentiment echoed by many others.



Some even voiced something once considered unthinkable within the country: that China's zero-Covid battle had gone too far.

### 'We would rather coexist with a virus'

Throughout the pandemic, China has adhered to a zero-Covid policy that aims to stamp out all clusters and chains of transmission through border controls, mass testing, quarantines and strict lockdowns. It has at times resorted to extreme measures, including separating infected toddlers from parents and barring residents from leaving their homes for weeks on end.

This policy has been broadly popular among the public, with many feeling it was necessary to avoid the high death tolls and economic collapses seen in other countries like the United States or the United Kingdom.

This isn't the first time a pet has been killed for fear it carries the virus. Three cats met the same fate last September, and another corgi last November. However, at the time, reaction on social media was mixed -- though some expressed sympathy and anger, others argued killing the animals was necessary given the pandemic.

This time, the reaction appears vastly different, with most comments online condemning the killing -- perhaps a sign of the public's thinning patience as living conditions deteriorates under lockdown.

Many Shanghai residents have complained of being unable to access basic supplies like food and medicine. There have been incidents reported of non-Covid patients with other emergencies dying before they could receive medical attention. And these frustrations have only been exacerbated by mixed messaging from Shanghai's government, which had insisted just two weeks ago that it had no plans for a citywide lockdown.

For some, the corgi's death was the last straw. One Weibo user mocked the neighborhood committee's response: "It's been two years, and they still think (the corgi) has the virus. Are these people not from Earth?" Another user put it more bluntly: "We would rather coexist with a virus than with this vicious and perverted person."

## Что известно о планах США делать биологическое оружие в Монголии?

### What is known about the US plans to make biological weapons in Mongolia?

Source (in Russian): [https://aif.ru/society/safety/cto\\_izvestno\\_o\\_planah\\_ssha\\_delat\\_biologicheskoe\\_oruzhie\\_v\\_mongolii](https://aif.ru/society/safety/cto_izvestno_o_planah_ssha_delat_biologicheskoe_oruzhie_v_mongolii)



## World hits 500 million official COVID cases but real tally likely billions

Source: <https://newatlas.com/health-wellbeing/world-milestone-500-million-covid19-cases/>

Apr 12 – The world has surpassed over 500 million officially recorded COVID-19 cases, according to data from [Johns Hopkins University](#). This grim milestone is almost certainly an undercount, with some researchers estimating nearly half of the world's total population has likely been infected at least once with SARS-CoV-2 over the past two years.

With the emergence of the [Omicron variant](#) official COVID-19 cases have skyrocketed over the past few months. At the beginning of 2022 the world had formally counted less than 300 million COVID-19 cases but a month into the new year that global case count had crossed 400 million.

Now, according to the [Johns Hopkins Coronavirus Resource Center](#), there have officially been over half a billion COVID-19 cases since the pandemic kicked off in early 2020. And this number is just the tip of the iceberg in terms of the real spread of this novel coronavirus across the world.

Since the beginning of the pandemic many researchers [have stressed](#) how official COVID-19 case counts are significantly lower than the real infection numbers. A variety of studies have tracked cases in different parts of the world and found vast numbers of undocumented cases. Even in the United States the Centers for Disease Control and Prevention (CDC) has [estimated less than a quarter of infections](#) are officially recorded.

A striking report last week from the World Health Organization analyzed more than 150 individual studies to conclude [around 65 percent of all people in Africa](#) had likely been infected with SARS-CoV-2 by the end of 2021. That is 97 times higher than the officially recorded case count on the continent.

A new study published in [The Lancet](#), from the Institute for Health Metrics and Evaluation (IHME) at the University of Washington in Seattle, looked to provide a comprehensive analysis of global COVID-19 cases by analyzing local data from 190 countries and territories. The researchers described the findings as "staggering", with their estimates suggesting 3.39 billion people had been infected with COVID-19 at least once by mid-November 2021.





This equates to around 44 percent of the world's total population. And perhaps most striking, these estimates only run up to a time point just before the Omicron variant emerged.

Up to November 14 last year the researchers calculate 400 million people globally had experienced a COVID-19 reinfection. Although the new study did not incorporate the impact of Omicron into its model, the researchers hypothesized billions more cases, including vaccine breakthrough infections and reinfections, have occurred across early 2022.

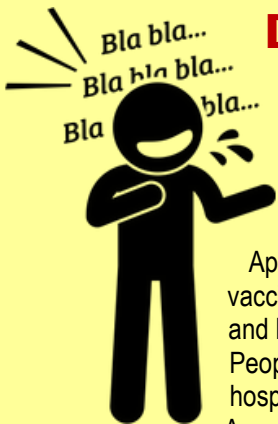
"Models suggest that more than 50 percent of the world might have been infected with Omicron already – however, a detailed analysis will have to await new seroprevalence data emerging in the coming months," the researchers write in [the new study](#). "Cumulative infections for COVID-19 through to March, 2022, might be nearly double what occurred through Nov 14, 2021."

The IHME researchers also pointed out the data shows no sign of herd immunity developing in highly infected populations. Even when the model estimated local population infection levels of up to 80 percent it detected no significant decline in rates of COVID-19 infections.

The researchers hypothesize the emergence of new variants as playing a significant role in continuing high infection rates. The idea of herd immunity reducing rates of community transmission is suggested as needing, "[a] very high degree of combined natural and vaccine-derived immunity."

[Commenting on the new study](#) Emory University epidemiologists Kayoko Shioda and Ben Lopman said the novel statistical model used by the IHME team is a technical achievement delivering robust estimates of global COVID cases. However, the duo also noted the stunning extent of global infections to date raises a host of new questions that researchers now need to investigate.

"To what extent do the population's historical infections – in terms of timing and variants – protect against infection and severe disease of new variants?" the epidemiologists asked in the [Lancet commentary](#). "Relatedly, how do layers of vaccine-induced and virus-induced immunity combine to confer protection to the population? Perhaps most importantly at this moment in the pandemic, we need to identify the sub-populations that remain susceptible to severe disease and death."



## Do You Need a 4th COVID Vaccine Dose? An Epidemiologist Has the Evidence

By Katelyn Jetelina

Source: <https://www.sciencealert.com/an-epidemiologist-explains-whether-you-ll-be-needing-a-second-booster-in-the-future>

Apr 14 – In late March 2022, the US Food and Drug Administration [authorized a second booster shot](#) of COVID-19 vaccines for vulnerable populations in the US, a move that was [soon after endorsed](#) by the Centers for Disease Control and Prevention.

People ages 50 years and older and certain immunocompromised individuals who are at higher risk for severe disease, hospitalization and death are eligible four months after receiving the initial booster shot.

A second booster shot is equivalent to a fourth dose for people who received a [Pfizer-BioNTech or Moderna mRNA series](#) or a third dose for those who received the [single-shot Johnson & Johnson vaccine](#).

In Israel, people in these same vulnerable categories [began receiving fourth doses](#) in January 2022. The UK recently started administering a fourth dose for people [75 years and older](#) and coined it a "[spring booster](#)". In Germany, those [over 60 years old](#) are now eligible for a fourth shot of the mRNA series.

I am an epidemiologist at the [University of Texas Health Science Center](#) School of Public Health and founder and author of [Your Local Epidemiologist](#), a newsletter translating the latest public health science for everyday use.

The latest recommendations have left many wondering about the importance of boosters for protection against COVID-19. Does the third shot wane over time? Is a fourth dose necessary? What if you've had a previous infection?

After reviewing the mounting body of research on how the immune system shifts over time following each dose, it is clear that another booster for vulnerable populations has meaningful benefit with very little risk.

### Vaccine effectiveness following the first booster dose

[There is clear evidence](#) that a third dose of the mRNA series – or the first booster dose – was and still is critical for ensuring a robust immune response against [the omicron variant](#) for all age groups. This is in part because the immune response [waned over time](#) and also in part because omicron has proved to be partially effective at evading immunity from the existing COVID-19 vaccines and from prior infections.



But then the question becomes: How well is immunity from the first booster holding up over time?

The best real-time data to follow on vaccine effectiveness over time is in the UK. The UK Health Security Agency currently has follow-up data for 15 weeks after the third dose, or first booster shot.

[In its latest report](#), the effectiveness of vaccines against infection wanes significantly after a third dose. In the UK report, vaccine effectiveness against hospitalization is holding up much better compared to effectiveness against infection.

But even protection against hospitalization is slightly decreasing over time. While this data is insightful, 15 weeks of follow-up data isn't very helpful in the US because many Americans got their third dose up to 24 weeks ago.

A [recent study](#) assessed the durability of a Moderna third dose after six months. Researchers found waning levels of neutralizing [antibodies](#) six months after the booster. The CDC [also found significant waning protection](#) against emergency department and urgent care visits five months after the first booster.

Vaccine effectiveness against hospitalization decreased a little but largely held up five months after the booster.

The studies mentioned above pooled all age groups. But researchers know that older adults don't mount as durable an immune response as younger people. This explains why breakthrough infections have occurred at a much [higher rate](#) among people ages 65 and up.

A recent study in the *Lancet* [assessed the durability of a third dose](#) among people ages 76 to 96 years old. Researchers found that the third dose improved neutralizing antibodies, but in the face of omicron, antibodies still dropped substantially following a booster.

### Data on the second booster dose/fourth shot

Now that Israel has been delivering a fourth dose for several months, researchers have some data to rely on to assess its effectiveness. There are three studies that have been released so far, one which has not yet been peer-reviewed.

In one study published in the *New England Journal of Medicine*, scientists assessed the [rates of infection and severe illness after a fourth dose](#) – or second booster – among more than a million people ages 60 and older in Israel.

The researchers found that after a fourth dose, the rate of COVID-19 infection was two times lower than after a third dose. However, this protection quickly waned after six weeks. They also found the rate of severe disease was four times lower compared to those who received only three doses. It's important to note, though, that hospitalizations among both groups were very low.

Importantly, [another study](#) assessed the effectiveness of a fourth dose among younger health care workers in Israel. The results confirmed that antibody levels dropped significantly five months after the third dose.

Unfortunately, the effectiveness of the fourth dose was no different from the effectiveness of a third dose in this population of younger health care workers. In other words, there may not be meaningful benefit of a second booster of the same formula for young, healthy populations.

Researchers carried out a third study, [one that has not yet been peer-reviewed](#), at a large health care system in Israel among people aged 60 to 100 years.

Among 563,465 patients in the health care system, 58 percent received a second booster. During the study period, 92 people who received the second booster died compared to 232 people who had only the first booster. In other words, the second booster equated to a 78 percent reduction in death compared to the first booster alone.

### What if you had a COVID-19 infection with Omicron?

The combination of being both vaccinated and having experienced a COVID-19 infection is called "[hybrid immunity](#)." More than [35 studies](#) have shown that hybrid immunity offers complimentary and broad protection. This is because immunity from the vaccines targets the spike protein – after which the [COVID-19 vaccines were designed](#) – and infection-induced immunity aims more broadly at the whole [virus](#). So, it is not unreasonable to skip a second booster with a confirmed infection of omicron. This doesn't mean that people should purposefully get [SARS-CoV-2](#), the virus that causes COVID-19. But it is clear that hybrid immunity is a viable path to protection. In short, there is strong evidence that a fourth dose – or second booster – provides meaningful protection among vulnerable populations, including people over 60. So, another booster is reasonable for some groups.

And while a fourth dose may benefit a select group, it is far more important that people receive their first, second and third doses.

[Katelyn Jetelina](#) is an Assistant Professor of Epidemiology @ University of Texas Health Science Center at Houston.

**EDITOR'S COMMENT:** Clever! Not a fourth jab but a second booster as if boosters are somehow different than the original first dose ...





## The Efficacy of Common Household Cleaning Agents for SARS-CoV-2 Infection Control



By Catarina F. Almeida, Damian F. J. Purcell, Dale I. Godfrey and Julie L. McAuley

Peter Doherty Institute for Infection and Immunity, Melbourne, Australia

*Viruses* 2022, 14(4), 715

Source: <https://www.mdpi.com/1999-4915/14/4/715/htm>

The COVID-19 pandemic caused by SARS-CoV-2 is having devastating effects on a global scale. Since common household disinfectants are often used to minimise the risk of infection in the home and work environment, we investigated the ability of some of these products to inactivate the virus. We tested generic brands of vinegar, bleach, and dishwashing detergent, as well as laboratory-grade acetic acid, sodium hypochlorite, and ethanol. Assays were conducted at room temperature (18–20 °C, 40% relative humidity), and two time points were used to reflect a quick wipe (30 s) and a brief soak (5 min). Vinegar, and its active ingredient, acetic acid, were completely ineffective at virus inactivation even when exposed to the virus at 90% v/v (a final concentration equivalent to 3.6% v/v acetic acid). In contrast, ethanol was capable of inactivating the virus at dilutions as low as 40% v/v. Dishwashing detergent effectively rendered SARS-CoV-2 inactive when diluted 100-fold (1% v/v). Bleach was found to be fully effective against SARS-CoV-2 at 0.21 g/L sodium hypochlorite after a 30 s exposure (1/200 dilution of commercial product). Given reports of infectious virus recovered from the surface of frozen packaging, we tested the persistence of infectiousness after multiple freeze-thaw cycles and found no change in infectious SARS-CoV-2 titre after seven freeze-thaw cycles. These results should help inform readers of how to effectively disinfect surfaces and objects that have potentially been contaminated with SARS-CoV-2 using common household chemicals.



- 2mL of **dishwashing liquid** in one liter of water is sufficient for effective cleaning of surfaces, which should additionally be wiped to remove the virus and dried
- 5mL of **bleach** in a liter of water is an ideal ratio for a surface disinfectant in the bathroom
- over 40% must be **alcohol** content for cleaning products, including hand antiseptics and general cleaning, in order to be effective against the virus
- Vinegar failed to inactivate viruses
- Combinations of cleaning products is not recommended because one might neutralize the other

## FDA authorizes first Covid-19 breath test

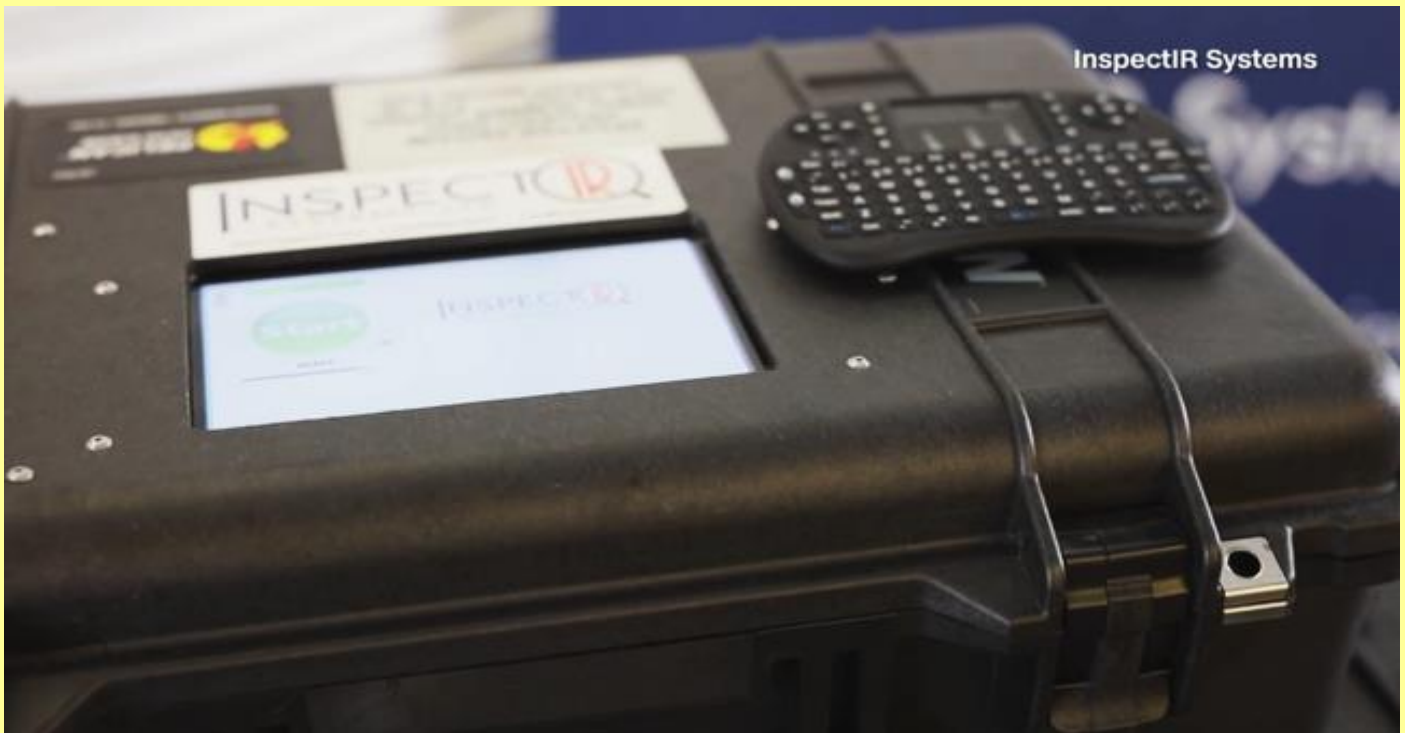
Source: <https://edition.cnn.com/2022/04/14/health/covid-breath-test/index.html>

Apr 15 – The US Food and Drug Administration has granted [emergency use authorization](#) to the first Covid-19 test that spots chemical compounds associated with the [coronavirus](#) in breath, the agency said Thursday. The FDA said the [InspectIR Covid-19 Breathalyzer](#), which is about the size of a piece of carry-on luggage, can be used in medical offices and mobile testing sites. It can give results in less than three minutes.

The system separates and identifies chemical mixtures to detect five compounds associated with SARS-CoV-2 infection.

A study of the InspectIR Breathalyzer found it accurately identified more than 91% of positive





samples and nearly 100% of negative samples. Similar sensitivity was found in another study that focused on the Omicron coronavirus variant. However, a positive result should be confirmed with a PCR test, the FDA said.

"Today's authorization is yet another example of the rapid innovation occurring with diagnostic tests for COVID-19," Dr. Jeff Shuren, director of the FDA's Center for Devices and Radiological Health, said in a statement. "The FDA continues to support the development of novel COVID-19 tests with the goal of advancing technologies that can help address the current pandemic and better position the U.S. for the next public health emergency."

## Why So Many COVID Predictions Were Wrong

By Jerusalem Demsas (staff writer at *The Atlantic*)

Source: <https://archive.ph/dOlfB#selection-463.0-502.0>

Apr 07 – As many prominent policy makers reckon uncomfortably with persistent inflation after months of forecasting that the phenomenon would be transitory, I've started making a list of other pandemic predictions about the economy that never materialized. There was the eviction tsunami and the "she-cession" and the housing-market crash, and you can't forget the state- and local-government deficit explosion. In each case, expectations set by economists, policy makers, advocates, and businesses have not borne out. Let's take them together, one by one.

In August 2020, the Aspen Institute released a report warning that 30 million to 40 million people in the United States were at risk of eviction, a number equivalent to roughly one in 10 Americans. But in December 2021, Princeton's Eviction Lab found that in the 31 cities where it had collected data, all but one recorded fewer eviction filings than the historical average. Not only was the prediction startlingly off base—evictions actually declined.

From May to August 2020 McKinsey & Company surveyed more than 40,000 people and found that roughly 25 percent of women were considering leaving the workforce "or downshifting their career" that year. As the Harvard economist Claudia Goldin has noted, much of the media coverage of this finding failed to note that 20 percent of men were *also* considering leaving the workforce or cutting back. A *New York Times* story hypothesized that the pandemic





would reduce women's share of the workforce for years to come. However, as Goldin writes in a recently released study, the labor-force participation rate for women ages 25 to 54 was the same in November 2018 as it was in November 2021: "Employed mothers, by and large, did not leave the labor force ... and those who remained employed did not downshift as much as had been thought." Basically no one predicted the gangbusters housing market. Some economists thought home-price growth would flatten, and others thought the recession could tank the market. Businesses were pessimistic too: Opendoor, a company that buys and sells homes online, sold off roughly \$1 billion worth of inventory in 2020 and paused its purchasing for several months, leading to significant losses. We now know that home prices have risen dramatically throughout the pandemic.

In the summer of 2020, fears of a state and local budget crisis were widespread. Moody's Analytics, for instance, predicted "inescapable shortfalls" totalling \$500 billion. One October 2020 *Wall Street Journal* headline proclaimed that states were facing their "Biggest Cash Crisis Since the Great Depression." In July 2021, the Government Accountability Office released a report indicating that state revenues had rebounded in the second half of 2020. And although some variation exists in how well states are doing, they're certainly not facing the crisis once predicted—many states are now even reporting massive surpluses.

If, after reading this, your reaction is to say, "Well, duh, predictions are difficult. I'd like to see you try it"—I agree. Predictions are difficult. Even experts are really bad at making them, and doing so in a fast-moving crisis is bound to lead to some monumental errors. But we can learn from past failures. And even if only some of these miscalculations were avoidable, all of them are instructive. Here are four reasons I see for the failed economic forecasting of the pandemic era. Not all of these causes speak to every failure, but they do overlap.

### Cause No. 1: Fighting the last war

In the Great Recession that started in 2008, the housing market crashed, state- and local-government budgets were decimated, and the federal government's rescue efforts were in many ways too little too late. Early on in the pandemic, think tanks, journalists, columnists, and economists all leaned heavily on the preceding recession to try to understand just how bad things were going to get. "There was an awful lot of last-war-type thinking," Jason Furman, the Harvard economist and former chair of the Council of Economic Advisers, told me. Although looking to the past is normally a good rule of thumb for forecasters, this overreliance missed how different the Great Recession and the pandemic-induced recession were from each other.

Unlike the extended recession that began in 2008, the pandemic recession was extremely brief: It lasted just two months, from March to April 2020, making it the shortest in U.S. history.

The recession was so short in part because the United States spent more than \$5 trillion in economic stimulus following the COVID-19 outbreak in an overwhelmingly bipartisan undertaking—the first pandemic bill, the CARES Act, passed the Senate 96–0, marking a shift in both parties' willingness to enact large stimulus packages. According to the Tax Foundation, the United States had the second-largest fiscal response as a percentage of GDP of all industrialized countries, an effort that included direct checks to almost every American and generous extended unemployment benefits.

The Brookings Institution economist Louise Sheiner explained to me that Great Recession heuristics were a poor fit for this recession because the government had made many people financially whole. Unemployment benefits, for instance, replaced more than 100 percent of wages for many people who found themselves without work. This ensured that people kept buying things and paying their rent. In fact, poverty declined significantly, and as researchers at the Federal Reserve Bank of St. Louis noted, personal savings skyrocketed. Even among folks who did lose their job, unemployment benefits led to tax revenue, both in the form of income taxes and sales taxes from benefit-enabled purchases, which buoyed state coffers. Job recovery was also much swifter after this recession than the last. Permanent job losses took nearly eight years to recover after 2007; this time they've taken just two.

This success may be related to another failed prediction: that a wave of small-business failures would hinder rehiring. But, according to research from the Federal Reserve, actual closures are "likely to have been lower than widespread expectations from early in the pandemic." Because many businesses did not permanently close, workers were able to get rehired as the economy stabilized.

These facts lead to one potential umbrella explanation for why dire warnings based on the previous recession never came to pass: Quite simply, policy makers heeded those warnings and effectively intervened.

"The eviction tsunami didn't happen not because we wrongly warned everyone but because advocacy works and governments responded to the threat," Diane Yentel, the president of the National Low Income Housing Coalition (NLIHC) and a co-author of the Aspen Institute report, explained to me.

This seems partly true but also overstated. "Predictions of 30–40 million people suddenly being evicted, there's a problem of face validity there," Peter Hepburn, a Princeton sociologist and Eviction Lab researcher, told me. A recent report he co-wrote estimated that 1.36 million eviction cases were prevented in 2021 because of policy interventions such as



the eviction moratoria, emergency rental assistance, and other fiscal support. That's a lot, but still a far cry from the 12.6 million to 17 million cases that many researchers had been projecting.

Not just government intervention but technology helped buffer the economic impacts of the pandemic, including food-delivery services (which kept many restaurants afloat), virtual home tours that helped enable people to continue buying and selling houses, and remote work. On that last point, Adam Ozimek, the Economic Innovation Group's chief economist, told me he thinks a "pro-urbanism bias" is why people missed the effects of remote work on stabilizing businesses and employment rates. Ozimek argued that many people who view "agglomeration and urbanization" as extremely important trends that drive productivity and economic growth saw "remote work in opposition to that." They didn't factor in how many employers could function just fine with their knowledge workers scattered around the country, Zooming from their living room.

Not every bad prediction was based on expectations from the Great Recession. No one talked of a "she-cession" back then, for instance—in fact, job losses were concentrated among men. So what else went wrong?

### Cause No. 2: Data overload

Private-market and survey data have proliferated in recent years, and they played a large role in the public's early understanding of COVID-19's economic effects. For example, OpenTable's reservations data provided a useful proxy for whether people were avoiding indoor activities. And alongside all these new data sources was also real-time analysis: by academics in the form of working papers, journalists in the form of articles, and anyone else who wanted to participate in the form of tweets. This barrage of information was backed up by charts and graphs and tables that at times felt unending.

Data alone are value-neutral. But "a certain amount of the real-time research on COVID was knowledge-subtracting and introduced ideas into the world that were untrue," Furman, the Harvard economist, told me.

One new source of government data that was a useful but imperfect tool was the Census Bureau's Household Pulse Survey. First fielded on April 23, 2020, it was "designed to be a short-turnaround instrument that provides valuable data to aid in the pandemic recovery." The relevant question asked respondents to determine their confidence in their ability to make the following month's rent. This survey undergirded many of the claims of a coming eviction tsunami, including the Aspen Institute's 30-million-to-40-million estimate, but it was a "really poor barometer for how likely people were to be evicted," Yuliya Panfil, the director of New America's Future of Land and Housing program, told me. Panfil said that people are generally terrible at discerning their confidence in future events and that the survey was likely picking up generalized fears about the pandemic.

Other data sources proved unreliable as well, such as the McKinsey survey warning that one in four women might leave the workforce or "downshift." Goldin, the Harvard economist, pointed out that respondents were exclusively "executives, senior VPs, VPs, senior managers, managers, and entry-level office and corporate employees, such as customer-service reps," not exactly the embattled low-income women one might imagine being on the edge of falling out of the labor market.

Over and over again in the pandemic, the same pattern played out: A new study would circulate on Twitter, and then months later, more research would surface showing massive flaws in the earlier data. For example, right after the first round of stimulus checks went out, one study found that "most" of the money had been spent on food and gas. Six months later, more credible research found that only 29 percent of the money had been used for consumption, while the great majority had been used as savings or for paying down debt. Similarly, stories about food insecurity were pervasive. Although this matter is far from settled, recent research from the U.S. Department of Agriculture indicates that food insecurity actually did not increase in 2020.

Early in the pandemic, people were desperate for certainty about what the world would look like the next day—or even the same day. Eager for information, they may not have applied the appropriate skepticism to claims backed by "data" or "research." One study or viral chart could bake in a narrative. It was a perfect environment for incubating bad predictions.

### Cause No. 3: Bias

Many early pandemic predictions pointed toward a similar solution: a left-of-center policy agenda. A she-cession justified universal day care and paid family leave; an eviction tsunami justified stronger legal protections for renters; state and local distress seemed to require what Republicans called "blue-state bailouts." But if this trend suggests bias at work, where was it coming from?

Goldin believes part of why many forecasts were incorrect is that much of the relevant research was produced by advocacy organizations. The McKinsey report on women leaving the workforce, for instance, was co-published by LeanIn.Org.

Similarly, the Aspen eviction study was co-written not only by researchers from think tanks and academic institutions, but also by three leaders of advocacy organizations. And those authors made judgment calls that perhaps depicted a bleaker landscape than was warranted. As Panfil explained, "The Aspen Institute study, in coming up with the largest





number, the 40-million number, included not just people who said they had *no* confidence in making rent but also people who said they had *moderate* confidence in making rent.”

I don't mean to suggest anything more sinister than motivated reasoning. Some advocates may have regarded the coronavirus pandemic as an opportunity to shoehorn in important social policies that they felt were long-justified, and, to a certain extent, they saw in the data what they wanted to see. As Hepburn, the Princeton sociologist, argued, the numbers generated by Aspen may have been useful “from a lobbying standpoint,” and Panfil noted that perhaps “it was helpful to the movement of activists who were pushing for relief measures to be put into place to cite some of these larger figures.” Katherine McKay, a researcher at the Aspen Institute, told me that the report was useful for lobbying, not because of the eye-catching evictions estimate, but because it represented “a large group of people and organizations speaking with one voice.” She said she believes the government response is the primary reason that evictions did not become an “overwhelming crisis.” Yentel, the NLIHC president, stands by the original Aspen research, calling it “not far off base.” She also noted that, in the text of the report, the researchers were transparent about a large range of potential outcomes. However, both the Aspen Institute and NLIHC chose to make the 30-million-to-40-million figure the headline of their report and press releases. And that's the figure media outlets repeated. Relatedly, bias may also have lurked in how the media presented research more generally. A [2020 study showed](#) a significant negative slant in how the U.S. mainstream media covered the pandemic compared with English outlets outside the U.S.

#### Cause No. 4: Underestimating resilience

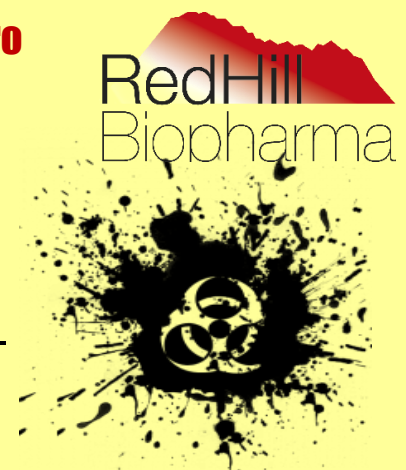
Michael Strain, an economist at the American Enterprise Institute, marveled at “the resilience, creativity, and ingenuity of people and businesses and workers” when we spoke. He told me that “businesses really figured out a way to survive. That meant that as the economy returned to normal, there were businesses around to hire unemployed workers.” And although many small businesses closed, others opened; in fact, more small businesses exist now than did before the pandemic. Essentially, when things get bad, most people figure it out. They find a way to make rent, to stay in business, to work a full-time job even as they care for children or sick relatives. Many forecasters seem to have underestimated this resilience. Women were substantially burdened, many more so than men, but they did not leave the workforce en masse. As Goldin [writes](#), “Employed women who were helping to educate their children, and working adult daughters who were caring for their parents, were stressed *because* they were in the labor force, not because they had left. The real story of women during the pandemic is that they remained in the labor force. They stayed on their jobs, as much as they could, and persevered.” Low-income renters were substantially burdened as well; but an eviction tsunami did not occur. After the federal eviction moratorium expired, renters navigated a complex web of government bureaucracy to receive emergency rental assistance; soldiering through widely reported access issues, 3.5 million households received aid through the program. To make their rent payments, they also took out loans, or denied themselves other important expenses such as medicine, food, and clothing. That affected populations are resourceful should not be surprising; the structural disadvantages facing women and low-income renters more acutely during the pandemic well predate March 2020. Persevering isn't pretty, and in no way is the fact of perseverance an argument against expanded social support. Conditions at the bottom of the housing market were bad enough to justify government aid, eviction tsunami or not. Housing advocates won an eviction moratorium and billions in rent relief, and state and local governments are just a bit too flush with cash. Arguably, the failed forecasting was useful. But these flawed predictions still come with a cost. In a crisis, credibility is extremely important to garnering policy change. And failed predictions may contribute to an unhealthy skepticism that much of the population has developed toward expertise. Panfil, the housing researcher, worries about exactly that: “We have this entire narrative from one side of the country that's very anti-science and anti-data ... These sorts of things play right into that narrative, and that is damaging long-term.” More important, if data are being misinterpreted, misunderstood, or manipulated, and leave policy makers with a poor model of the world, they'll make bad policies or fail to focus on the most urgent problems. Many economists now question the wisdom of the half a billion in aid to small businesses contained in the CARES Act. Even now, Congress has stalled on urgent pandemic funding for testing and therapeutics in part because that might require taking money back from state governments, most of which are in no need of support.

### Experimental Pill Shows Promise Against Omicron in Vitro

Source: <https://www.medscape.com/viewarticle/972058>

Apr 13 – An experimental drug being developed by RedHill Biopharma Ltd that improved outcomes in a randomized trial involving severely ill COVID-19 patients infected with earlier versions of the coronavirus is showing promise against the Omicron variant in vitro, researchers said. The oral drug, **opaganib**, has dual anti-inflammatory and antiviral effects.

RedHill  
Biopharma



When opaganib was added to treatment with Gilead Sciences' remdesivir and corticosteroids in hospitalized patients infected before Omicron was predominant, it improved the average time until patients no longer had detectable virus in their blood by four days, **sped up recovery by 34%, and reduced mortality by 70%, compared to a placebo**, according to data released previously by the company but not yet formally published.

On Monday, the company announced that in lab experiments, opaganib impaired Omicron replication.

Opaganib's antiviral/anti-inflammatory mechanism "is expected to act independently of viral spike protein mutations and remain effective against Omicron subvariants BA.2, XE and other emerging and future variants," the company said.

## Post COVID-19 Vaccination Vulvar Aphthous Ulcers: An Unpopular Case Series

By Ashli Lawson, Anne-Marie Priebe, and Julie Strickland

Children's Mercy Hospital

*Journal of Pediatric & Adolescent Gynecology* | Volume 35(2), p.226, April 01, 2022

Source: <https://www.jpagonline.org/action/showPdf?pii=S1083-3188%2822%2900132-2>

Vulvar aphthous ulcers have been described since the early 1900s. These non-sexually acquired genital ulcers typically appear in the perimenarchal population as 1-3 painful ulcers that spontaneously resolve within 21 days. Etiology is not completely understood but there is believed to be a large immunologic component given a high association with a recent viral infection. With the COVID-19 pandemic, our institution saw COVID associated aphthous ulcers. After increased use of the Pfizer vaccine in those 12 years old and over, our institution also saw a series of post vaccination aphthous ulcers.

**Case:** At our tertiary care children's hospital the division of pediatric and adolescent gynecology saw three patients from 6/2021 through 9/2021 presenting with vulvar aphthous ulcers all of whom were recently given their **second COVID-19 Pfizer vaccination**. Patients ranged from age 12 to 15 years old and were both pre- and post-menarchal. None of the patients to their knowledge had a history of COVID or a recent COVID exposure. In addition, there were no recent symptomatic viral illnesses. Of those who agreed to cytomegalovirus (CMV) and Epstein-Barr Virus (EBV) testing, all were negative. These patients had all received their first dose of the Pfizer vaccine without complications and were all 2 days post second vaccine when they first noticed pain. On average, they presented to the emergency room within 24-48 hours of presentation of symptoms and had gynecologic follow-up within 48 hours. Physical exam was consistent with a diagnosis of vulvar aphthous ulcers with no exceptional characteristics. There were multiple ulcerations with fibrinous exudate and some with necrotic islands. All resolved spontaneously by 3 weeks and no further follow-up was needed. There were no diagnoses of COVID-19 infection after the diagnosis of the aphthous ulcer.

**Comments:** The COVID vaccine is safe and efficacious for protection against COVID-19. National organizations such as American College of Obstetricians and Gynecologists (ACOG), Society for Maternal-Fetal Medicine (SMFM), American Academy of Pediatrics (AAP), and North American Society for Pediatric and Adolescent Gynecology (NASPAG) have endorsed vaccination in their respective audience. Specifically, AAP and NASPAG have encouraged eligible patients 12 through 16 to receive the Pfizer COVID-19 vaccination. Although this is a series of adverse outcomes post COVID-19 vaccination, it does shed light on the multifaceted immune response one gains from a COVID-19 mRNA based vaccine. In addition, this series further supports the long-held belief that vulvar aphthous ulcers are an immunologic response rather than a sign of a genital infection themselves.

## Briefing on the results of the analysis of documents related to the **military biological activities of the United States** on the territory of Ukraine (April 14, 2022)

Source: <https://telegra.ph/Briefing-on-the-results-of-the-analysis-of-documents-related-to-the-military-biological-activities-of-the-United-States-on-the-t-04-14>

Apr 14 – A special military operation by Russian troops has yielded additional information on US military and biological activities in Ukraine, confirming numerous violations of the Biological Weapons Convention.

Taking advantage of existing gaps in international law and the lack of a clear verification mechanism, the US administration has consistently built up its military-biological capabilities in various regions of the world.

The Russian Federation has made continuous efforts to establish a BTWC verification mechanism, but this initiative has been consistently blocked by the collective West, led by the US, since 2001.





# ICI C<sup>2</sup>BRNE DIARY – April 2022

The existing UN Secretary-General's Mechanism to Investigate the Suspected Use of Biological and Toxin Weapons, as well as the 1925 Geneva Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases and Bacteriological Methods of Warfare and Military Conflict, do not cover the verification of States Parties' biological activities. The Organisation for the Prohibition of Chemical Weapons, based in The Hague, has no such authority either.

We have previously provided a scheme for US coordination of biological laboratories and research institutes in Ukraine.

One of its elements is the Ukrainian Science and Technology Centre (STCU), a seemingly non-public organisation that has nothing to do with the Pentagon.

The Russian Defence Ministry has managed to uncover its role in US military and biological activities in Ukraine.

According to its statutes, the STCU is an international intergovernmental organisation established to "...prevent the spread of knowledge and expertise related to weapons of mass destruction..."

Its legal status is defined by the Agreement of October 25, 1993 between the governments of Ukraine, Canada, the USA and Sweden and the Protocol of Amendment of July 7, 1997.

STCU is headquartered in Kiev and has regional offices in Baku, Chisinau and Tbilisi, as well as in Kharkov and Lvov.

However, the Russian Ministry of Defence's Chemical and Biological Threat Expertise Centre found that the STCU's main activity is to act as a distribution centre for grants for research of interest to the Pentagon, including biological weapons research.

In recent years alone, Washington has spent more than \$350 million on STCU projects.

The U.S. customers and sponsors of STCU are the Department of State and the Department of Defense. Funding is also provided through the Environmental Protection Agency, the US Departments of Agriculture, Health and Energy.

In addition, note the document prepared by the STCU curators, dated March 11, 2022, which underlines the true nature of this organisation. It notes, quote: "...there has been an outflow of scientific experts in the development of means of delivery and advanced weaponry who have worked for Ukrainian institutions, as well as experts in the development of biological, radiological, chemical and nuclear weapons. The best-trained professionals with experience of working with dual-use materials and technologies (between 1,000 and 4,000) have found themselves in unfavourable professional and financial circumstances. This makes them vulnerable to defection to other states to participate in programmes to develop WMD, delivery systems and other weapons..."

By using such words, Washington actually acknowledges Ukrainian experts' work on the development of weapons of mass destruction delivery and use, and considers it appropriate to continue funding them.

**Here are the names of the officials who were involved in the military-biological programmes.**

**Officials of Science and Technology Centre in Ukraine**

**Bjelajac Curtis Michael**  
Executive Director of STCU (since 2014)  
1991–1995 senior business consultant at Arthur Andersen LLP.  
January–June 1998 financial services partner in Emergex Business Solutions.  
1994–2014 Chief Financial Officer of STCU.  
Since 2014, executive director of STCU.

**Hood Andrew Anthony**  
Executive Director of STCU (2004–2012).  
1985–1996 Foreign Military Weapons Analyst, Office of Naval Intelligence, U.S. Navy.  
1996–2000 Foreign Policy Analyst, Bureau of Intelligence and Research, U.S. Department of State.  
2000–2004 Senior Science Centers Coordinator, Bureau of Nonproliferation Studies, U.S. Department of State.  
2004–2012 Executive Director, STCU.

**Pauwels Natalie**  
Representative of the STCU Board of Directors from the European Union  
2001–2005 researcher at the Free University of Brussels in Natural Resources and Natural Resource Conflicts.  
2005–2019 served in various positions in the European Commission.  
2019–2021 Deputy European Commissioner for Crisis Management.  
From 2021, Head of the Global and Interregional Threats Unit of the External Affairs Service

**Maier Eddie Arthur**  
Chairman of the STCU Board from the European Union  
1998–2020 Principal Administrator and Deputy Head of the Division for Nuclear Safety Cooperation Programmes of the European Commission.  
2014–2020 Deputy Head of Division, Head of Chemical, Biological, Radiological and Nuclear Protection Sector of the European Commission.  
From 2020, Chairman of the STCU Board.

**United States Department of State**  
Bureau of International Security and Nonproliferation  
Washington, D.C. 20520  
January 13, 2011  
Mr. Andrew Hood  
Executive Director  
Science and Technology Center in Ukraine  
Kyiv, Ukraine  
Dear Mr. Hood:  
The United States is pleased to recommend the Black & Veatch Special Projects Corporation for consideration in the Partner Program Science and Technology Center in Ukraine (STCU).  
Black & Veatch is a leading global engineering, consulting and construction company specializing in infrastructure development in energy, water, telecommunications, management consulting, federal and environmental markets.  
Black & Veatch has read and accepts the terms of the recognition objectives of the STCU, the terms of the STCU Agreement and Statute, and accepts the Principles for Non-party Participation in the STCU.  
We are confident that the Black & Veatch will provide a valuable contribution to the STCU. Additional information about the company is available on their website, www.bv.com.  
Sincerely,  
Eric T. Lund  
Program Coordinator (STCU)  
International Security, Nonproliferation  
Office of Cooperative Threat Reduction

**BLACK & VEATCH**  
A leading global engineering, consulting and construction company specializing in infrastructure development in energy, water, telecommunications, management consulting, federal and environmental markets. Our extensive experience encompasses over 100 years of global project delivery. Black & Veatch is a member of the Jacobs Group of Companies, a leading provider of infrastructure, industrial, federal and environmental markets in a variety of complex fields. Our diverse client base includes government and private sector clients in 100+ countries. We are proud to be a part of the STCU.  
Dear Mr. Lund:  
Black & Veatch is a leading global engineering, consulting and construction company specializing in infrastructure development in energy, water, telecommunications, management consulting, federal and environmental markets. Our extensive experience encompasses over 100 years of global project delivery. Black & Veatch is a member of the Jacobs Group of Companies, a leading provider of infrastructure, industrial, federal and environmental markets in a variety of complex fields. Our diverse client base includes government and private sector clients in 100+ countries. We are proud to be a part of the STCU.  
We have read and accept the terms of the recognition objectives of the STCU, the terms of the STCU Agreement and Statute, and accept the Principles for Non-party Participation in the STCU.  
We are confident that the Black & Veatch will provide a valuable contribution to the STCU. Additional information about the company is available on their website, www.bv.com.  
Sincerely,  
Eric T. Lund  
Program Coordinator (STCU)  
International Security, Nonproliferation  
Office of Cooperative Threat Reduction

**...the United States is pleased to recommend Black & Veatch Special Projects for participation in the Ukrainian Science and Technology Centre (STCU) partnership programme...**

**...in 2008 the Defense Threat Reduction Agency of the Department of Defence of the United States of America (DoD) signed a Contract with Black and Veatch Special Projects Corp. to implement the Technical Assistance Plan (TAP) for the Ministry of Health of Ukraine. This TAP include implementation of Cooperative Biological Research (CBR) projects between Ukrainian and international researchers in variety of biological fields that enhance disease diagnostics, detection, and prevention, etc. Within this TAP we plan to support approved by DTRA projects over the next 3 years...**

**...In this regard, we are interested in managing grant payment distribution in Ukraine within the CBR projects through the STCU as a STCU Partner...**

The post of STCU executive director is held by Bjelajac Curtis Michael, a US citizen. Born August 27, 1968 in California, he studied at California's Anderson University of Management. He holds a master's degree in international finance and has worked in Ukraine since 1994.





## ICI C<sup>2</sup>BRNE DIARY – April 2022

The European Union chairman of the STCU board is Maier Eddie Arthur; the US chairman is Phil Dolliff, who is the State Department's Deputy Assistant Secretary for International Security and WMD Nonproliferation Programmes.

Documents received by the Russian Ministry of Defence confirm STCU's ties to the US military department. The slide shows a formal recommendation from the US State Department endorsing the STCU's cooperation with the Pentagon's main contractor, Black & Veach. The correspondence expresses the willingness of Matthew Webber, the company's vice president, to work with the STCU on ongoing military-biological research in Ukraine.

Between 2014 and 2022, the Ukrainian Science and Technology Centre implemented five hundred R&D projects in post-Soviet countries (Ukraine, Georgia, Moldova and Azerbaijan).

US supervisors were primarily interested in dual-use research, such as project 6166, Development of Technologies for Modelling, Evaluation and Prediction of Effects of Conflicts and Threats of Mass Destruction Weapons Spread, and project 9601, Transfer of Ukrainian Technologies for the Production of Complex Dual-Use Materials to the European Union.

Many of them are aimed at studying potential biological weapons agents (plague, tularaemia) and pathogens of economic importance (pathogenic avian influenza, African swine fever).

### Specific features of US law in the biological sphere Conducting experiments outside national jurisdiction

#### Patriot Act



**Other short titles** Uniting and Strengthening America by Providing Appropriate Tools to Restrict, Intercept and Obstruct Terrorism Act of 2001

**Long title** An Act to deter and punish terrorist acts in the United States and across the globe, to enhance law enforcement investigatory tools, and for other purposes.

**Acronyms (colloquial)** USA PATRIOT Act

**Nicknames** Patriot Act

PUBLIC LAW 107-56—OCT. 26, 2001

UNITING AND STRENGTHENING AMERICA BY PROVIDING APPROPRIATE TOOLS REQUIRED TO INTERCEPT AND OBSTRUCT TERRORISM (USA PATRIOT ACT) ACT OF 2001

#### SEC. 817. EXPANSION OF THE BIOLOGICAL WEAPONS STATUTE.

Chapter 10 of title 18, United States Code, is amended—

(1) in section 175—

(A) in subsection (b)—

(i) by striking “does not include” and inserting “includes”;

(ii) by inserting “other than” after “system for”;

and

(iii) by inserting “bona fide research” after “protective”;

(B) by redesignating subsection (b) as subsection (c);

and

(C) by inserting after subsection (a) the following:

“(b) **ADDITIONAL OFFENSE.**—Whoever knowingly possesses any biological agent, toxin, or delivery system of a type or in a quantity that, under the circumstances, is not reasonably justified by a prophylactic, protective, bona fide research, or other peaceful purpose, shall be fined under this title, imprisoned not more than 10 years, or both. In this subsection, the terms ‘biological agent’ and ‘toxin’ do not encompass any biological agent or toxin that is in its naturally occurring environment, if the biological agent or toxin has not been cultivated, collected, or otherwise extracted from its natural source.”;

(2) by inserting after section 175a the following:

“(4) The term ‘lawfully admitted for permanent residence’ has the same meaning as in section 101(a)(20) of the Immigration and Nationality Act (8 U.S.C. 1101(a)(20)).

“(c) Whoever knowingly violates this section shall be fined as provided in this title, imprisoned not more than 10 years, or both, but the prohibition contained in this section shall not apply with respect to any duly authorized United States governmental activity.”; and

(3) in the chapter analysis, by inserting after the item relating to section 175a the following:

“175b. Possession by restricted persons.”.

#### USA Freedom Act



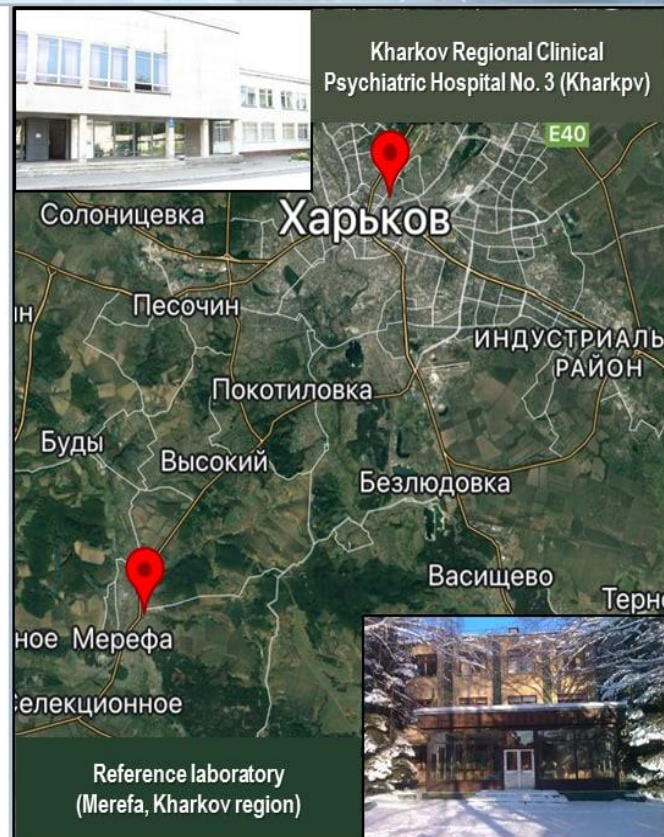
**Other short titles** Uniting and Strengthening America by Fulfilling Rights and Ensuring Effective Discipline Over Monitoring Act of 2015

**Long title** An Act to reform the authorities of the Federal Government to require the production of certain business records, conduct electronic surveillance, use pen registers and trap and trace devices, and use other forms of information gathering for foreign intelligence, counterterrorism, and criminal purposes, and for other purposes.

**Acronyms (colloquial)** USA FREEDOM Act

**Nicknames** Freedom Act

**Enacted by** the 114th United States Congress



Projects P-364, 444, and 781, aimed at studying the spread of dangerous pathogens through insect vectors, wild birds, and bats, were funded by the Centre directly in the interests of the military department. Note the documents of Project 3007 "Monitoring of the epidemiological and environmental situation regarding hazardous diseases of aquatic origin in Ukraine". During the work, Ukrainian specialists, supervised by American scientists, systematically collected water samples in a number of major Ukrainian rivers, including the Dnepr, Danube and Dniester, as well as in the North Crimean Canal, to determine the presence of particularly dangerous pathogens, including cholera, typhoid, hepatitis A and E pathogens, and draw conclusions about their possible waterborne spread. The project assessed the damage properties of the selected samples and deposited the strains in a collection and subsequently exported them to the USA. This is a map of Ukraine's water resources. Its analysis shows that the results of this work can be used to create an unfavourable biological situation not only in the Russian





Federation, but also in the Black Sea and the Sea of Azov, as well as in Eastern Europe - Belarus, Moldova and Poland. Our concern about Washington's activities in Ukraine stems from the fact that, contrary to its international obligations, the US has retained norms in its national legislation that allow for work in the field of biological weapons. The ratification of the 1925 Geneva Protocol by the United States was accompanied by a number of reservations, one of which allows for the retaliatory use of chemical and toxin weapons. Under the US Federal Unity and Cohesion Against Terrorism Act, research into biological weapons is permitted with the approval of the US government. Participants in such research are not criminally liable for developing such weapons. Thus, the US administration is implementing the principle that domestic law takes precedence over international law in this area. The most ethically controversial research is conducted outside national jurisdictions.

**Thus, during the special operation in Ukraine, it was established that US scientists from a laboratory in Merefa (Kharkov Region) were testing potentially dangerous biological drugs on patients of the regional clinical psychiatric hospital No 3 in Kharkov between 2019 and 2021. Persons with mental disorders were selected for the experiments on the basis of their age, nationality and immune status. Special forms were used to record the results of 24-hour patient monitoring. The information was not entered into the hospital database and the staff of the medical institution signed a non-disclosure agreement.**

In January 2022, the laboratory in Merefa was shut down and all equipment and preparations were moved to western Ukraine. There are a number of witnesses to these inhuman experiments, whose names we cannot disclose for the sake of their safety. Finally, in a previous briefing we described a technical device for the delivery and application of biological formulations that has been patented in the US. At the same time, it was noted that Ukraine had sent a request to the manufacturing company regarding the possibility of equipping the Bayraktar drones with aerosol equipment. It is a matter of concern that on March 9, three unmanned aerial vehicles equipped with 30-litre containers and equipment for spraying formulations were detected by Russian reconnaissance units in Kherson region. In January 2022, Ukraine reportedly **purchased more than 50 such devices** through intermediary organisations, which can be used to apply biological formulations and toxic chemicals. We continue to analyse the evidence of crimes committed by the US administration and the Kiev regime in Ukraine.

## Is COVID More Dangerous Than Driving? How Scientists Are Parsing COVID Risks.

Source: <https://news.yahoo.com/covid-more-dangerous-driving-scientists-112721912.html>

Apr 18 – Like it or not, the choose-your-own-adventure period of the pandemic is upon us. Mask mandates have fallen. Some free testing sites have closed. Whatever parts of the United States were still trying to collectively quell the pandemic have largely turned their focus away from communitywide advice.

Now, even as case numbers begin to climb again and more infections go unreported, the onus has fallen on individual Americans to decide how much risk they and their neighbors face from the coronavirus — and what, if anything, to do about it.

For many people, the threats posed by COVID have eased dramatically over the two years of the pandemic. Vaccines slash the risk of being hospitalized or dying. Powerful new antiviral pills can help keep vulnerable people from deteriorating.

But not all Americans can count on the same protection. Millions of people with weakened immune systems do not benefit fully from vaccines. Two-thirds of Americans, and more than one-third of those 65 and older, have not received the critical security of a booster shot, with the most worrisome rates among Black and Hispanic people. And patients who are poorer or live farther from doctors and pharmacies face steep barriers to getting antiviral pills.

These vulnerabilities have made calculating the risks posed by the virus a fraught exercise. Federal health officials' recent suggestion that most Americans could stop wearing masks because hospitalization numbers were low has created confusion in some quarters about whether the likelihood of being infected had changed, scientists said.

"We're doing a really terrible job of communicating risk," said Katelyn Jetelina, a public health researcher at the University of Texas Health Science Center at Houston. "I think that's also why people are throwing their hands up in the air and saying, 'Screw it.' They're desperate for some sort of guidance."

To fill that void, scientists are thinking anew about how to discuss COVID risks. Some have studied when people could unmask indoors if the goal was not only to keep hospitals from being overrun but also to protect immunocompromised people.



Others are working on tools to compare infection risks to the dangers of a wide range of activities, finding, for instance, that an average unvaccinated person 65 and older is roughly as likely to die from an omicron infection as someone is to die from using heroin for 18 months.

But how people perceive risk is subjective; no two people have the same sense of the chances of dying from a year and a half of heroin use (about 3%, by one estimate).

And beyond that, many scientists said they also worried about this latest phase of the pandemic heaping too much of the burden on individuals to make choices about keeping themselves and others safe, especially while the tools for fighting COVID remained beyond some Americans' reach.

"As much as we wouldn't like to believe it," said Anne Sosin, who studies health equity at Dartmouth College, "we still need a society-wide approach to the pandemic, especially to protect those who can't benefit fully from vaccination."

### Collective Metrics

While COVID is far from America's only health threat, it remains one of its most significant. In March, even as deaths from the first omicron surge plummeted, the virus was still the third leading cause of death in the United States, behind only heart disease and cancer.

More Americans overall have been dying than would have in normal times, a sign of the virus's broad toll. As of late February, 7% more Americans were dying than would have been expected based on previous years — a contrast with Western European nations like Britain, where overall deaths have lately been lower than expected.

How much virus is circulating in the population is one of the most important measures for people trying to gauge their risks, scientists said. That remains true even though case numbers are now undercounting true infections by a large margin because so many Americans are testing at home or not testing at all, they said.

Even with many cases being missed, the Centers for Disease Control and Prevention now places most of the Northeast at "high" levels of viral transmission. In parts of the region, case numbers, while far lower than during the winter, are nearing the peak rates of autumn's delta variant surge.

Much of the rest of the country has what the CDC describes as "moderate" levels of transmission.

The amount of circulating virus is critical because it dictates how likely someone is to encounter the virus and, in turn, roll the dice on a bad outcome, scientists said.

That is part of what makes COVID so different from the flu, scientists said: The coronavirus can infect many more people at once, and with people more likely to catch it, the overall chance of a bad outcome goes up.

"We've never seen flu prevalence — how much of it there is in the community — in the numbers we've seen with COVID," said Lucy D'Agostino McGowan, a biostatistician at Wake Forest University.

### COVID Versus Driving

Even two years into the pandemic, the coronavirus remains new enough, and its long-term effects unpredictable enough, that measuring the threat posed by an infection is a thorny problem, scientists said.

Some unknown number of people infected will develop long COVID, leaving them severely debilitated. And the risks of getting COVID extend to others, potentially in poor health, who may consequently be exposed.

Still, with far more immunity in the population than there once was, some public health researchers have sought to make risk calculations more accessible by comparing the virus with everyday dangers.

The comparisons are particularly knotty in the United States: The country does not conduct the random swabbing studies necessary to estimate infection levels, making it difficult to know what share of infected people are dying.

Jetelina, who has published a set of comparisons in her newsletter, *Your Local Epidemiologist*, said that the exercise highlighted how tricky risk calculations remained for everybody, public health researchers included.

For example, she estimated that the average vaccinated and boosted person who was at least 65 years old had a risk of dying after a COVID infection slightly higher than the risk of dying during a year of military service in Afghanistan in 2011. She used a standard unit of risk known as a micromort, which represents a one-in-a-million chance of dying.

But her calculations, rough as they were, included only recorded cases, rather than unreported and generally milder infections. And she did not account for the lag between cases and deaths, looking at data from a single week in January. Each of those variables could have swung estimates of risk.

"All of these nuances underline how difficult it is for individuals to calculate risk," she said.

"Epidemiologists are having a challenge with it as well."





For children under age 5, she found, the risk of dying after a COVID infection was about the same as the risk of mothers dying in childbirth in the United States. That comparison, though, highlights other difficulties in describing risk: Average numbers can hide large differences between groups. Black women, for example, are almost three times as likely as white women to die in childbirth, a reflection in part of differences in the quality of medical care and of racial bias within the health system.

Cameron Byerley, an assistant professor in mathematics education at the University of Georgia, built an online tool called COVID-Taser, allowing people to adjust age, vaccine status and health background to predict the risks of the virus. Her team used estimates from earlier in the pandemic of the proportion of infections that led to bad outcomes. Her research has shown that people have trouble interpreting percentages, Byerley said. She recalled her 69-year-old mother-in-law being unsure whether to worry earlier in the pandemic after a news program said people her age had a 10% risk of dying from an infection.

Byerley suggested her mother-in-law imagine if, once out of every 10 times she used the restroom in a given day, she died. “Oh, 10% is terrible,” she recalled her mother-in-law saying.

Byerley’s estimates showed, for instance, that an average 40-year-old vaccinated over six months ago faced roughly the same chance of being hospitalized after an infection as someone did of dying in a car crash in the course of 170 cross-country road trips. (More recent vaccine shots provide better protection than older ones, complicating these predictions.)

For immunocompromised people, the risks are higher. An unvaccinated 61-year-old with an organ transplant, Byerley estimated, is three times as likely to die after an infection as someone is to die within five years of receiving a diagnosis of stage 1 breast cancer. And that transplant recipient is twice as likely to die from COVID as someone is to die while scaling Mount Everest.

With the most vulnerable people in mind, Dr. Jeremy Faust, an emergency physician at Brigham and Women’s Hospital in Boston, set out last month to determine how low cases would have to fall for people to stop indoor masking without endangering those with extremely weakened immune systems. He imagined a hypothetical person who derived no benefit from vaccines, wore a good mask, took hard-to-get prophylactic medication, attended occasional gatherings and shopped but did not work in person. He set his sights on keeping vulnerable people’s chances of being infected below 1% over a four-month period.

To achieve that threshold, he found, the country would have to keep masking indoors until transmission fell below 50 weekly cases per 100,000 people — a stricter limit than the CDC is currently using but one that he said nevertheless offered a benchmark to aim for. “If you just say, ‘We’ll take masks off when things get better’ — that’s true I hope — but it’s not really helpful because people don’t know what ‘better’ means,” Faust said.

### Layered Protections

For people with immune deficiencies, the end of collective efforts to reduce infection levels has been unnerving.

“All of the layered protections we’ve been talking about for the entire pandemic, each of those is being stripped away,” said Marney White, a professor of public health at Yale University, who is immunocompromised. She said families in her local school district were encouraging each other not to report COVID cases. “It’s impossible to calculate risk in these situations,” she said.

Dr. Ashish K. Jha, the White House COVID response coordinator, said that the administration had helped mitigate people’s risks by making rapid tests and masks easier to get and by partnering with clinics to quickly prescribe antiviral pills. Better communication was needed to distribute preventive medicine for immunocompromised people, he said.

“We need a system that can very readily deliver therapeutics for them,” he said. “That’s very much the responsibility of government.” Preparing better for the present surge — and future ones — could make people’s risks more manageable, even if it does not eliminate them, scientists said. By ventilating indoor spaces, guaranteeing paid sick leave, delivering booster shots to people’s doorsteps and making it easier to get treated, the government could help people make choices with less fear of catastrophe, they said.

“We should be setting infrastructure in place that allows us to respond rapidly when we have the next wave,” said David Dowdy, a public health researcher at Johns Hopkins University. “We should be training people that, when those waves hit, there are certain things we’re going to have to do,” he added, like imposing short-term mask mandates. “You can then live your life in respect of that possibility — but not in fear that it might happen at any minute.”

## SARS-CoV-2 viral fragments found in feces 7 months after mild COVID-19

Source: <https://newatlas.com/health-wellbeing/sarscov2-feces-months-after-mild-covid-viral-rna/>

Apr 19 – A new study from researchers at Stanford University has found some COVID-19 patients can shed fragments of the virus in their feces up to seven months past their initial infection. The researchers hypothesize the persistence of viral material in the gut may potentially play a role in long COVID symptoms.



Across the first few months of the pandemic, as the novel coronavirus SARS-CoV-2 rapidly spread, most people thought of COVID-19 as a straightforward respiratory disease. However, as 2020 progressed and scientists learned more about this new disease, it became apparent that many COVID-19 patients were experiencing severe gastrointestinal problems.

Around one in five COVID-19 patients [were reporting gut problems](#) including nausea, diarrhea and stomach pain. But at the time it wasn't entirely clear whether these gastrointestinal symptoms were due to the virus directly infecting the gut, or simply a result of more general systemic inflammation.

Now, in 2022, it is relatively clear that SARS-CoV-2 can infect gut cells but what isn't clear is just how long viral particles can persist in the gut beyond the acute infection. This new research followed 113 patients with mild to moderate COVID-19 for up to 10 months. The study found traces of SARS-CoV-2 viral RNA in the feces of just under 50 percent of the cohort within a week of their initial diagnosis. Four months later 12.7 percent of patients were still shedding viral fragments in their feces, and seven months later four percent were still showing viral RNA.

The researchers are cautious to stress the viral fragments being detected are not infectious viral particles. So this research is not at all suggesting this is a novel transmission route for COVID-19. Instead, the findings offer more evidence SARS-CoV-2 does directly infect cells in the gut. And the persistence of viral particles in the gut are hypothesized as potentially playing a role in the lingering symptoms linked to long COVID.

"No one really knows what causes long COVID, but our study shows that SARS-CoV-2 can hide out in the gut for months," said Ami Bhatt, an author on the new study. "Maybe long COVID – and the wide variety of symptoms it causes – is due to the immune system's response to viral proteins in hidden reservoirs throughout the body."

Bhatt hypothesized the gastrointestinal symptoms often seen in long COVID patients could be an inflammatory response to the prolonged presence of SARS-CoV-2 viral particles in the gut. It is all speculation at this stage but the fact that a significant number of mild COVID cases were still shedding viral particles months after an infection is evidence the virus can persist in other parts of the body.

The new study also calls into question the veracity of using wastewater surveillance as a way of tracking the prevalence of SARS-CoV-2 in a city or county. Bhatt said if levels of the virus in wastewater are going to be used to determine public health decisions then it is crucial to understand the long-term dynamics of viral shedding.

"We're clearly seeing large and increasing amounts of the Omicron subvariant BA.2 in wastewater nationwide," Bhatt added. "At the same time, there have been lay reports that Omicron is more likely than previous variants to cause GI symptoms. So, is this wastewater increase really proportional to the number of people who are infected? Or are more people shedding the virus in their feces for longer?"

Of course, more work will be needed to try and answer these questions but this new study offers clear evidence that extended shedding of SARS-CoV-2 RNA in feces can last for months following mild disease.

●► The new study was published in the journal [Med](#).



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SITUATION UPDATE APR 19<sup>TH</sup>, 2022

**HHS SECRETARY CONFIRMS VACCINES  
ARE KILLING BLACKS AND LATINOS**

Brighteon.com



## Question by the Editor

If – according to American cardiologist [Peter Andrew McCullough](#) and a Swedish study (Marcus Alden et al.) – the mRNA vaccines are changing the DNA of people, then should we also update global Criminal DNA Databases for future use?

## Why Cheap, Older Drugs That Might Treat COVID Never Get Out of the Lab

Source: <https://www.medscape.com/viewarticle/972381>



Apr 19 – In March 2020, Dr. Joseph Vinetz left the contemplative world of his Yale University infectious disease laboratory and plunged into the covid ward at Yale New Haven Hospital, joining an army of health care workers who struggled to treat the deadly viral disease.

There were no drugs against covid-19, and no way to predict which infected patients would develop pneumonia or fall into an inflammatory tailspin leading to severe illness or death. In desperation, Vinetz and countless other doctor-scientists trawled the literature for existing medicines that might help.

"We were in the hospital. We had nothing," Vinetz said. "I was one of tens of thousands of doctors around the world who said, 'We gotta figure out what to do.'"

On April 16, 2020, Vinetz saw an [article in the journal Cell](#) about a drug called **camostat**, licensed in [Japan in 1985](#) to treat inflammation of the pancreas. Research during the first SARS epidemic, in 2004, had shown the drug had a plausible biochemical mechanism for slowing coronavirus infections, so Vinetz and his colleagues quickly organized a small clinical trial on outpatients with mild to moderate symptoms.

In those days, before covid vaccines and covid-specific treatments appeared on the market, Vinetz's experiment was one of thousands conducted by doctors who hoped older vaccines and drugs, usually cheap and off-patent, might provide them with options. Mostly, the drugs were too toxic or had no clear effect. Of the [more than 1,500](#) trials for potential covid drugs listed on the website of the National Institutes of Health — including antivirals, anti-inflammatories, and drugs used for cancer, asthma, heart disease, and dozens of other conditions — few have produced helpful medicines.

**In fact, only one older drug is routinely used to fight covid.** That's the steroid **dexamethasone**, [proven by British scientists](#) to help keep hospitalized patients from requiring supplemental oxygen or intubation.

Drugs like **hydroxychloroquine** and **ivermectin** showed hints of value initially but failed in clinical trials — only to remain in circulation, at least partly because their use symbolized affinity in the culture war for some of President Donald Trump's followers.

A few old drugs still show promise, but they've had trouble getting traction. The ivermectin and hydroxychloroquine fiascoes soured doctors on repurposed medications, and the pharmaceutical industry has shown little interest in testing them, especially when it can earn billions from even mediocre new ones, scientists tracking the field say.

American and European scientists have confirmed the theoretical basis for camostat's impact on covid. But evidence for its effects is weak; last year the [drug was dropped](#) from a big NIH trial comparing various treatments.

A more promising story emerged with **fluvoxamine**, licensed under the brand name Luvox in 1994 to treat obsessive-compulsive disorder. The drug is in the same class as common antidepressants such as Prozac, Lexapro, and Zoloft.

A child psychiatrist noticed fluvoxamine might be good for covid. In March 2020, while recovering from a bout of covid, Dr. Angela Reiersen of Washington University in St. Louis saw a 2019 study in mice that showed how fluvoxamine could activate a protein similar to one [missing in patients](#) with Wolfram syndrome, a genetic disease that causes diabetes, neurological issues, and, eventually, death.

Reiersen and her colleague Dr. Eric Lenze, a geriatric psychiatrist, began a [clinical trial of the drug](#) in people with symptoms of covid. Of the 80 in the fluvoxamine group, none suffered a serious decline, while six of 72 patients given sugar pills got pneumonia, and four were hospitalized.

In a follow-up [1,500-patient trial](#) in Brazil, people who took at least 80% of their fluvoxamine pills were 66% less likely to require emergency care or hospitalization than those who got sugar pills. Only one died, compared with 11 in the placebo group.

Since October, when the Brazilian study was published, fluvoxamine's future has dimmed. Neither the NIH nor the [Infectious Diseases Society of America](#) recommends fluvoxamine to prevent respiratory distress. The NIH panelists [noted that the better outcomes](#) in the Brazilian trial were only statistically significant among those who remained in the trial. (Because of nausea and other side effects, only 74% of trial participants in the fluvoxamine wing took all their pills, compared with 82% in the placebo wing.)



The NIH panel also was put off by the fact that the Brazilian trial counted hospitalizations as well as people put under a doctor's care for six hours or more — not a standard measure. Trial organizers said that was necessary because Brazilian hospitals were so packed with covid patients that many people got their care in makeshift outdoor shelters.

Regulators and experts are awaiting results from two other big trials, one [organized by a consortium](#) of universities and hospitals, [the other by the NIH](#). But both studies are using doses of 100 milligrams of fluvoxamine a day, compared with 200 or 300 milligrams in the successful trials.

"I have concerns that they are not using a high-enough dose," Reiersen said, given that fluvoxamine operates on a different biochemical pathway to fight covid than the one involved in psychiatric treatment.

The concern is shared by Craig Rayner, a former drug company scientist who worked on the Brazilian trial and other big tests of repurposed drugs. "You can do the largest, most well-funded study in the world," he said, "but if you choose the wrong dose, it's rubbish in, rubbish out."

The team overseeing NIH's trial opted for a lower dose because higher doses had already been used in the earlier trials — and often caused side effects, said Sarah Dunsmore, a program director at NIH's National Center for Advancing Translational Sciences.

On Dec. 21, David Boulware, a University of Minnesota infectious-disease expert, petitioned the FDA to approve a change in fluvoxamine's label stating it can be used to prevent respiratory distress in at-risk patients with mild to moderate covid. He hasn't received a response yet.

It's a different story for big drug companies. Two days after Boulware's submission, [FDA authorized Merck](#) to market its drug [molnupiravir](#), which in its clinical trial showed about as much effectiveness as fluvoxamine, and also had side effects like nausea and dizziness. Fluvoxamine also can cause insomnia and anxiety; molnupiravir is [not recommended for pregnant women or anyone](#), male or female, having unprotected sex, because it caused genetic and fetal damage in test animals.

Still, federal guidelines [recommend molnupiravir](#) in certain settings, and the government has bought [more than 3 million doses](#) for about \$2.2 billion, or \$733 per dose. Fluvoxamine, a generic, goes for less than \$5 a pill.

"You hate to say that Big Pharma has a lot of influence, but clearly they do," Boulware said. "The molnupiravir data was not that great, but we're spending billions on the drug and it got fast-track emergency use authorization" while fluvoxamine remains in a gray area.

With the arrival of effective vaccines and the trickle of antiviral treatments, the urgency of rehabilitating old drugs for U.S. patients has ebbed. But the need remains high in lower- and middle-income countries where vaccines and new covid treatments remain unavailable.

It's not rare for a pharmaceutical company to synthesize or study a drug for one purpose, only to discover it works better for something else. The classic instance is [sildenafil](#), or Viagra, which was being developed as a drug for hypertension when scientists noticed a remarkable side effect. [Remdesivir](#), now a front-line drug against covid, was aimed at treating Ebola.

It's less common for a drug marketed for one use to acquire an entirely different purpose, but the pandemic drove scientists to try. They tested thousands of compounds in petri dishes for their virus-killing power, but the journey from test tube to human remedy is long, said Rayner, who is also a professor of pharmaceutical sciences at Monash University in Melbourne, Australia.

If fluvoxamine were a new drug, the company sponsoring it would have spent the money needed to get the drug approved and to show the FDA it has the means to monitor the drug's safety and efficacy. Since it's an old drug, it will be up to independent scientists, or perhaps a reluctant generics manufacturer, to sponsor safety monitoring should the FDA provide an emergency use authorization, Rayner said.

An EUA or approval "comes with strings. You have to continue to monitor the safety, to make sure no signals pop up when you move it from thousands to millions of patients," he said. "That's very expensive."

U.S. physicians can prescribe drugs off label, but most are leery of doing so until a drug has won approval for the new use. That's especially true now.

Definitive answers on some repurposed drugs were slow in coming because there were too many small, poorly designed studies by "every man and his dog," Rayner said. He calculates up to \$5.6 billion has been wasted on hydroxychloroquine clinical trials alone.

A recent [World Health Organization resolution](#) called for better coordination and information-sharing among those organizing trials so that definitive answers can be obtained quickly with big pots of data.

As for camostat, Vinetz said those who took the drug felt better than those who got a placebo. "It basically prevented loss of smell and taste, which people really bitterly care about," he said. "That means there's a real biological effect. That merits further exploration."

But will that happen? Vinetz's team has sought publication of their research for five months with no success. He'd like to see whether camostat can prevent long covid, but such





investigations cost millions. Camostat's Japanese manufacturer [apparently lost interest in it](#) as a covid drug after its own small, unsuccessful trial.

**"When there's no profit motive, it's tough,"** Vinetz said. Meanwhile, he's resumed his research into controlling a neglected tropical disease: [leptospirosis](#).

## A Dangerous Liver Disease Is Spreading in US Kids, Seemingly Related to a Virus

Source: <https://www.sciencealert.com/mysterious-liver-rash-is-spreading-in-kids-cdc-warns-here-s-what-you-need-to-know>

Apr 22 – A dangerous, liver-compromising [virus](#) is spreading among kids in the US.

On Thursday, the Centers for Disease Control and Prevention (CDC) issued [an alert](#) to healthcare providers, warning that a "cluster" of at least nine unusual pediatric hepatitis cases have been spotted in Alabama in recent months, and there could be more out there nationwide.

The CDC said these cases of liver inflammation appear to have been caused by an adenovirus, not [COVID-19](#).

The first US cases were identified in October 2021 at a "large children's hospital" in Alabama, the CDC said. By November, five of the patients there had suffered "significant" liver injury, and three of them had acute liver failure. Two patients required liver transplants, though none died.

Similar cases were [reported in the UK](#) earlier this month, and [the World Health Organization said last week](#) that there have been others spotted in Spain and Ireland. The CDC [told Stat last week](#) that the US cases are in kids ranging in age from 1 to 6 years old, and the [Alabama health department said in a release](#) on April 14 that the children infected were all under 10 years old.

### A respiratory adenovirus at work?

The culprit behind the cases of liver inflammation seems to be a pathogen called [adenovirus 41](#), a virus that spreads (like COVID does) through close contact, and respiratory excretions. [Adenoviruses can also spread through stool](#), making hand-washing important.

The children with this hepatitis were all previously healthy, and did not have COVID-19, the health agency said. That is puzzling, because adenovirus 41 typically only infects immunocompromised children, and is "not known to be a cause of hepatitis in otherwise healthy children," according to the CDC. **There is no treatment for the illness.**

Adenovirus 41 often causes pediatric acute gastroenteritis, with [symptoms](#) including:

- diarrhea,
- vomiting,
- [fever](#),
- as well as respiratory symptoms.

For now, the CDC is recommending that medical providers test kids with unusual, inexplicable hepatitis cases for the adenovirus, using PCR tests.

## Shorter Telomers Linked to COVID-19 Severity in Women

Source: <https://www.insideprecisionmedicine.com/topics/patient-care/coronavirus/shorter-telomers-linked-to-covid-19-severity-in-women/>

Apr 22 – At least in women, shorter telomeres may influence the severity of COVID-19 and the risk of dying from the disease, according to new research. No significant differences were found in relative telomere length between men who survived COVID-19 and those who died of the disease.

The study is from Ana Virseda-Berdices, María Ángeles Jiménez-Sousa, and Amanda Fernández-Rodríguez from the Health Institute Carlos III, Madrid, Spain and colleagues. [It was presented](#) at this year's European Congress of Clinical Microbiology & Infectious Diseases (ECCMID) in Lisbon, Portugal.

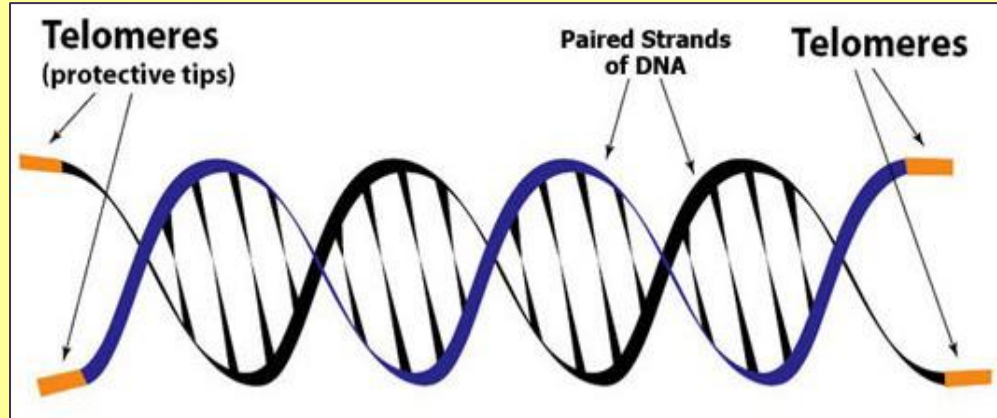
**Telomeres are protective caps on the end of chromosomes (DNA)** that shorten over the lifetime, and their length is often used as a measure of cellular age. Shorter telomeres are associated with a number of age-related diseases including cancer and osteoarthritis, and are also linked with higher risk of developing infections.

In this study, researchers investigated the association between relative telomere length (RTL) at disease onset and COVID-19 mortality in 608 adults hospitalized with COVID-19 during the first wave of the pandemic (from March to September 2020). Blood samples were



collected within 20 days of COVID-19 diagnosis or hospitalization, and genetic analysis using polymerase chain reaction (PCR) was done to measure telomere length in blood cells.

Researchers estimated survival probabilities and used modelling to explore the association between RTL and mortality, taking into account patient characteristics including age, gender, smoking status and comorbidities, including chronic kidney disease, chronic neurological disease, and neoplasia.



Overall, **533 patients** survived, with an average age of 67 years, 58% male, 73% white, 24% Hispanic. On the other hand, 75 died from COVID-19, with an average age of 78 years, 67% male, 77% white and 21% Hispanic.

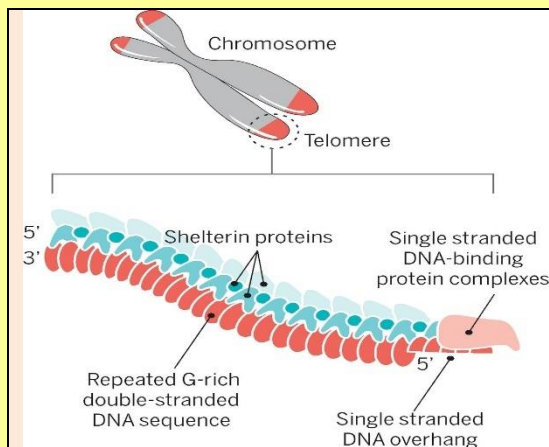
The analyses found that in all patients, relative telomere length was significantly inversely associated with dying from COVID-19 at 30 and 90 days after hospital discharge. Shorter telomeres were associated with an increased risk of death, while longer telomeres were associated with a reduced risk of death.

Further analyses stratifying by age and gender, revealed that a longer RTL was associated with a 70% lower risk of dying from COVID-19 in all women at 30 days, and a 76% reduced risk of dying from the disease at 90 days.

Similarly, in women aged 65 years or older, longer RTL was associated with a 78% lower risk of death from COVID-19 at 30 days, and 81% reduced risk at 90 days.

“Our findings implicate telomere length in COVID-19 mortality and highlight its potential as a predictor of death and severe outcome, particularly in older women” says Virseda-Berdesics. “While we do not know the reasons for the strong association found in women, it’s possible that the lack of association between telomere length and COVID-19 mortality in men could be due to increased comorbidities and risk factors in men that masked the effect. Female patients tend to present with less severe disease and are more likely to survive COVID-19, probably due to fewer lifestyle risk factors and comorbidities than men. Besides ageing, telomere dysfunction is also associated with smoking, poor diet, higher body mass index and other factors that promote oxidative stress, chronic inflammation and cancer.”

**The authors acknowledge that the study was observational and does not prove cause and effect, and was conducted during the first wave of the pandemic, which may limit the conclusions that can be drawn.**



**Telomeres** are the protective end-complexes at the termini of eukaryotic chromosomes. Telomere attrition can lead to potentially maladaptive cellular changes, block cell division, and interfere with tissue replenishment. Recent advances in the understanding of human disease processes have clarified the roles of telomere biology, especially in diseases of human aging and in some aging-related processes. Greater overall telomere attrition predicts mortality and aging-related diseases in inherited telomere syndrome patients, and also in general human cohorts. However, genetically caused variations in telomere maintenance either raise or lower risks and progression of cancers, in a highly cancer type-specific fashion. Telomere maintenance is determined by genetic factors and is also cumulatively

shaped by nongenetic influences throughout human life; both can interact. [Source +](#)





## 2022 Next Gen for Biosecurity Competition Challenge: Developing New Verification Strategies for the Biological Weapons Convention

By **Amelia Crabtree** (Intern, Global Biological Policy and Programs)

Source: <https://www.nti.org/atomic-pulse/2022-next-gen-for-biosecurity-competition-challenge-developing-new-verification-strategies-for-the-biological-weapons-convention/>

Apr 22 – Nearly a half-century after the world came together to approve the Biological Weapons Convention (BWC), Russia's unfounded allegations of biological weapons research facilities in Eastern Europe have piqued global interest in this summer's review conference of the long-standing treaty.

Entered into force in 1975, the BWC prohibits the development, production, acquisition, transfer, stockpiling, and use of biological and toxin weapons. While establishing a stringent global norm against biological weapons, the treaty still lacks a strong verification protocol.

Today, leaders preparing for the BWC's [Ninth Review Conference](#) in August are exploring whether the global community can leverage increased attention and political will to strengthen the BWC by building mechanisms that increase transparency and trust with the goal of reducing the risk of global catastrophic biological events. A particular aim is determining whether there are effective and politically viable ways to enforce the treaty.

The question also is fundamental to NTI | bio's work and as a result is the focus of [this year's Next Generation for Biosecurity Competition](#).

Competing teams have been asked to explore the issue by answering:

- What should "verification" mean for the BWC?
- What barriers to verification protocols exist or have previously existed? What risks are associated with maintaining the status quo?
- What are potential approaches for a verification protocol from both scientific and technical perspectives?
- What types of policy proposals can increase the likelihood of adopting a verification mechanism?

BWC experts explored these questions during a 2022 Next Generation for Biosecurity Competition webinar on March 24th. Moderated by [Joshua Monrad](#), an NTI Consultant, researcher at Oxford University's Future of Humanity Institute, and a 2020 Next Generation for Biosecurity Competition winner, the webinar provided an overview of this year's competition prompt and requirements. Panel discussions explored the importance of verification under the BWC, private sector involvement in the design and implementation of any effective mechanism, and the need to engage countries of differing technological resources in the process.

### Verification Protocols for the Biological Weapons Convention

Panelists included Jeremy (Jez) Littlewood, senior policy analyst with the Government of Alberta, Canada; Ryan Morhard, head of Policy and Partnership at Gingko Bioworks; and Melanie Reddiar, chief director at the Secretariat of the South African Council for the Non-Proliferation of Weapons of Mass Destruction.

To set the stage for this year's competition, Monrad asked panelists about the effectiveness of the BWC in reducing global catastrophic biological risks (GCBRs). Reddiar noted the Convention provides "a platform for reducing GCBRs" but questioned its effectiveness without a verification protocol. She highlighted that States Parties have varying forms of BWC-related legislation resulting in inconsistent implementation and decreasing the Convention's global efficacy. Building off Reddiar's comments, Littlewood emphasized the BWC's role as one part of the anti-biological weapons regime, praising the clear prohibitions and obligations within the Convention. He noted the Convention's lack of a verification protocol allows it to be more flexible in responding to new advancements in science and technology when compared to other related arms control conventions, though this also highlights a significant gap in the Convention's reach.

Considering the biggest obstacles to developing an effective verification protocol, Morhard discussed the wide application of biotechnology and the growth of the bioeconomy. With novel applications of biotech in new industries, Morhard said "there is a greater opportunity than ever to have a world that's safer against biological emergencies," but also noted that biological risks are expanding at an unprecedented rate as well. Reddiar discussed the importance of clarifying that dual-use controls are not intended to stifle innovation and growth but instead aim to promote peaceful use and innovation of technologies.

The moderator asked panelists how countries with differing technical capabilities are involved in conversations about verification. Reddiar noted the challenges of balancing countries' differing objectives. She framed the Convention as an opportunity for countries



with different rates of technological development to work together, including through regional groups, to develop concrete global biosecurity improvements.

Littlewood listed causes for optimism in strengthening the BWC into the future, including the opportunity to leverage technological advancements made over the past 20 years. He emphasized that BWC verification, if successful, will not be like other arms control efforts and instead would need to focus on “managing risks and thinking about governance of technology.” Morhard warned against developing verification protocols in a vacuum and encouraged competition participants to “build a verification approach that reflects new technology, reflects the broader bioeconomy,” and provides incentives to all parties to build confidence in the BWC’s implementation.

Reddiar said she was hopeful the competition can serve as a platform for young people to develop “a culture of nonproliferation and biosecurity” early in their careers adding that those new to the field should not be afraid to develop, share, and shape new ideas. Morhard agreed, adding that young people have every reason to be confident in their ideas. He noted the willingness of those in the field to engage with students and early career professionals and said seasoned biosecurity experts will be counting on younger professionals in the future.

### Information About the Next Generation for Biosecurity Competition

Now in its sixth year, [the Next Generation for Biosecurity Competition](#) offers an opportunity for students and early career professionals to contribute to the global conversation around verification measures for the Biological Weapons Convention. In partnership with the [Next Generation for Global Health Security \(GHS\) Network \(NextGen\)](#), the [iGEM Foundation](#), [SynBio Africa](#), and the [Global Health Security Network \(GHSN\)](#), the winning team will have its paper published on the NTI website and have the opportunity to present during a side event at a prestigious global health security event.

More information on eligibility and submission requirements can be found on [the competition page](#). Additional information regarding finding a team is available at this [link](#). Submissions to the competition are due by April 18, 2022 at 11:59 PM ET and must be sent by email to [nti-bio@nti.org](mailto:nti-bio@nti.org). Winners will be announced in June 2022.

●► The full recording of this event, including the virtual panel for this year’s competition, can be viewed [here](#).

## The U.S. Can End Pandemics Within a Decade

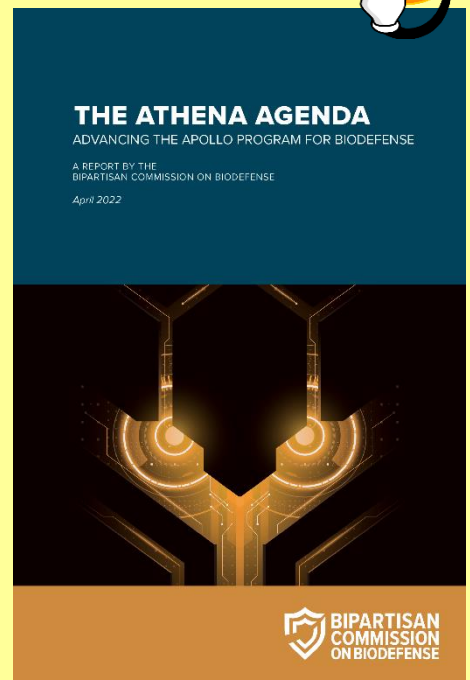
Source: <https://www.homelandsecuritynewswire.com/us-can-end-pandemics-within-decade>

Apr 22 – Last week, the [Bipartisan Commission on Biodefense](#) released a report containing specific recommendations to Congress and the administration about how the U.S. could put an end to pandemics within a decade. This report comes as the United States approaches one million human deaths from COVID-19, culls millions of chickens to prevent the spread of avian influenza in the Midwest, and works to combat the use of biological weapons against Ukraine and throughout the world.

[The Athena Agenda: Advancing The Apollo Program for Biodefense](#), provides recommendations to implement the 15 technology priorities described by the Commission in its 2021 report, [The Apollo Program for Biodefense](#), and also identifies the U.S. government organizations responsible for leadership, accountability, and engagement in public-private partnerships necessary for success. Athena is the Greek goddess of wisdom, reason, and strategy. The Commission named this report after her to represent and symbolize the insight, strategy, and technological craft needed to achieve the Apollo Program for Biodefense.

“Throughout our history, our Nation has achieved many great things once thought impossible,” said former Senator and Commission Co-Chair Joe Lieberman. “It was hard to imagine landing a person on the Moon in 1961, when President John F. Kennedy committed the United States to achieving that goal in 10 years. We accomplished the Apollo 11 mission 9 years later, with 161 days to spare. The United States can similarly put an end to pandemics within a decade if we commit ourselves fully to that goal.”

Sen. Lieberman noted that the President’s Budget Request for FY23 significantly addresses ten of the technology priorities identified by the Bipartisan Commission on





Biodefense in its 2021 Apollo Program for Biodefense report. “We thank the Biden Administration for this important leadership,” Sen. Lieberman added.

“Our country must decide to make prevention and deterrence of biological threats top priorities,” said former Secretary of Homeland Security and Commission Co-Chair, Governor Tom Ridge. “We simply cannot afford to focus only on responding to the current pandemic. Our continued vulnerabilities to biological threats increase the likelihood of biological attacks on our country, especially as advances in science and technology make it easier to produce biological weapons.”

●► For more information, visit [TheNextApollo.com](https://TheNextApollo.com) to learn more about The Apollo Program for Biodefense.

### Athena Agenda: Develop next-generation personal protective equipment

Personal protective equipment (PPE) can be used to protect against a broad spectrum of biological threats. However, the current state of PPE burdens its users, requires experience in proper usage, is seldomly reusable, is not widely available to all populations, and does not properly fit everyone (e.g., children). Additionally, since the primary goal of PPE is to prevent the wearer from becoming infected, not enough emphasis has been placed on preventing the wearer from infecting others. Shortages of PPE leave frontline and essential workers at risk, threatening their health and reducing their capacity to respond. The COVID-19 pandemic has highlighted limitations in our knowledge of PPE and exposed an inadequate ability to rapidly scale up production. However, the pandemic has also catalyzed efforts to make PPE reusable, spurred new ideas about respirator designs, seen the advent of personalized PPE, and eventually brought new production capacity to fruition. While these efforts mark advancements, focused research efforts and innovative approaches could achieve much more.

**To develop the next generation of PPE, we should make innovations in the following areas:** 1) reusable, sterilizable, and self-disinfecting equipment; 2) modular designs responsive to a wide range of threats, including those which go beyond biological threats; 3) personalization to ensure adequate protection, comfort, and attractiveness; 4) rapid production from widely available materials without supply vulnerabilities; 5) the ability to neutralize pathogens; 6) sensing capabilities to detect potential exposures, and 7) protection beyond traditional masks, respirators, gloves, gowns, etc., that safeguard the wearer without burden. The government should invest in and incentivize the development of these PPE innovations through inducement prize challenges, intramural and extramural research and development efforts, advance purchase commitments and consistent acquisition, and use-inspired basic research programs, such as DARPA’s Personalized Protective Biosystem effort. Establishing distributed capacity will ensure PPE is available in advance, and maintaining capability will ensure increased production and surge in response to a threat. Additionally, the government should develop standards and metrics for the evaluation of all forms of PPE to quantify capabilities, standardize comparisons, and assess progress.

The government has invested in the research and development of next-generation PPE. **For example**, NIH invested in the research and development of a smart mask that changes colors when exposed to COVID-19.<sup>141</sup> A team at the NASA Jet Propulsion Laboratory developed a 3D printable Powered Air-Purifying Respirator with custom filters and commercial off-the-shelf components to help provide more PPE during the COVID-19 pandemic,<sup>142</sup> making the design, components, and production guide openly available. NASA also worked with hospitals during the pandemic to develop new methods and technologies for decontaminating PPE.<sup>143</sup> Additionally, the private sector also invests in developing next-generation PPE.<sup>144</sup> In fact, many companies participated in the 1448 submissions to the “Mask Innovation Challenge: Building Tomorrow’s Mask”, led by BARDA DRIVE and the National Institute for Occupational Safety and Health, to develop innovative masks to protect from respiratory pathogens such as SARS-CoV-2.<sup>145</sup> However, the government needs to update standards for public use of PPE (e.g., cloth masks) to ensure adequate protection against infectious disease threats.

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## Surveying the Biological Warfare Landscape

By Stu Cvrk

Source: [https://www.theepochtimes.com/surveying-the-biological-warfare-landscape\\_4392080.html](https://www.theepochtimes.com/surveying-the-biological-warfare-landscape_4392080.html)



Chinese and Japanese experts investigate and categorize munitions excavated from a site known to contain Japanese chemical weapons left behind from World War II in Mudanjiang, in China's northern Heilongjiang Province, on July 5, 2006. (Natalie Behring/Bloomberg via Getty Images)

Apr 17 – Biological warfare may already be underway.

The COVID-19 pandemic has sensitized the world to the spread of dangerous viral diseases. The Russo-Ukrainian war has exposed the presence of U.S.-funded biological research labs in Ukraine. Do either of these issues actually involve biological warfare in violation of the 1972 [Biological and Toxic Weapons Convention](#) that has been signed by over 100 nations?

Let us examine the topic.

### US Bioweapons Testing

The United States did not “invent” [bioweapons](#). Bioweapons have actually been used in various forms [since ancient times](#). Methods included using arrows dipped in feces, using dead bodies to poison wells during wars in the Middle Ages, and intentionally spreading





smallpox during the French and Indian War in the 18<sup>th</sup> century. The Germans and the Russians conducted small-scale biological attacks during World War I.

After World War I, the Geneva Protocol of 1925 was signed by 108 nations, including the United States, that “prohibited” the development and use of biological agents (and chemical weapons such as those used in the World War I trench warfare on both sides). But that treaty had no verification measures, and many nations continued their research and development.

A Biological and Toxin Weapons Convention (BTWC) was signed in 1972, with [the signatories agreeing](#) “not to develop, produce, stockpile, or acquire biological agents or toxins ‘of types and in quantities that have no justification for prophylactic, protective, and other peaceful purposes,’ as well as weapons and means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.”

The United States learned a great deal about bioweapons from World War II adversaries, particularly the Japanese at the notorious [Unit 731](#). The Japanese weaponized cholera, typhus, and the plague [to kill over a half-million Chinese](#) in at least 11 separate biowarfare attacks on Chinese cities during the war.

Experiments in the use of biowarfare agents—such as botulism and anthrax—were also conducted against prisoners of war (POWs) at the Mukden POW Camp in northeast [China](#). By the end of the war, the Japanese had stockpiled 400 kilograms of anthrax to be used in a specially designed fragmentation bomb that was never deployed. The United States interrogated survivors of Unit 731 after the armistice and learned the full extent of the Japanese program.

The United States conducted considerable biological warfare-related research during the Cold War before the BWTC was negotiated and signed in 1972.

In 2015, [the Smithsonian Magazine published an article](#) describing a U.S. Navy bioweapons test in 1950, two miles off the northern California coast, using a bacterium that produced a red pigment to make it easy to examine its effects. Eleven residents later were determined to have urinary tract infections related to the bacteria.

That article further stated that the U.S. military performed other biowarfare-related tests in the United States until President Richard Nixon halted biowarfare research in 1969.

Francis Boyle, now a professor at the University of Illinois College of Law, was the principal drafter of the Biological Weapons Anti-Terrorism Act of 1989 (BWATA), which implemented the 1972 Biological and Toxic Weapons Convention.

According to [LewRockwell.com](#), Boyle made the following allegation: “Since Sept. 11, 2001, we [the United States] have spent somewhere in the area of \$100 billion on offensive biological warfare.”

Was Boyle’s sensational claim correct?

Fast-forward to the Russo-Ukrainian war and allegations by [Russia](#) and [China](#) about U.S.-funded “bioweapons-related research laboratories” in Ukraine. Although there has been much circumstantial evidence, speculation, and propaganda swirling about this topic, a final determination of what transpired in those biological research labs will probably have to wait until a thorough investigation is completed after the war.

Questions certainly need to be answered, but the continuing accusations by China, in particular, raise an obvious red flag since the Chinese communists are masters at psychological warfare and disinformation in order to shift attention away from their own transgressions.

Let us examine China’s biowarfare history. What might the Chinese Communist Party (CCP) be hiding on this topic?

### Communist China and Biowarfare

Since the Chinese themselves had been [victims of Imperial Japan’s biological warfare campaign](#) during World War II, it is no surprise that communist China began research into the development of bioweapons after 1949.

An excellent 2020 article from [Air University](#) makes several key points about China’s likely biological warfare program:

- China signed the Geneva Protocol of 1925 in 1952.
- China signed the 1972 Biological and Toxin Weapons Convention (BTWC) in 1984; the Chinese were assessed as having a robust biowarfare research program before they signed the convention.
- Before signing the BTWC, China insisted on the insertion of a clause that meant the treaty was only binding if all other signatories were also following the guidelines, thus giving the Chinese an out to not only pursue biological weapons but to use them if determined “appropriate.”
- While denying the existence of an offensive biological program, China has developed a robust biodefense infrastructure and a biotechnology industry that **has substantial dual-use capabilities** that can be used for both biodefense and bioweapons.



- By 2005, China was the biggest violator of export restrictions under the BTWC. It sold dual-use equipment and vaccines with both civilian medical applications and biological weapons applications to other countries.
- It is believed that China has helped Iran and other Middle Eastern nations build their own biological weapons programs.
- According to a 2014 U.S. State Department report, it is clear that “China possesses the required technology and resources to mass-produce traditional [biological weapon] agents as well as expertise in aerobiology.”

At least two flu pandemics in the past century—in 1957 and 1968—originated in China and were triggered by avian (“bird flu”) viruses that evolved to become easily transmissible between humans.

The [1957-1958 H2N2 pandemic](#) killed an estimated 1.1 million people worldwide and 116,000 in the United States, according to the Centers for Disease Control and Prevention (CDC).

The [1968 H3N2 pandemic](#) killed an estimated 1 million people worldwide and about 100,000 in the United States, according to the CDC.

In November 2002, Severe Acute Respiratory Syndrome (SARS) was discovered in southern China. According to the CDC, a coronavirus (SARS-CoV) infected 8,098 people worldwide, including eight in the United States, and killed 774 people worldwide (none in the United States)—a death rate of 10 percent. It was largely “contained” by July 2003.

The Smithsonian Magazine published an article about the [bird flu in 2017](#) that is almost a precursor of the spread of the SAR-CoV-2 virus. It stated the following:

- The [Avian influenza A \(H7N9\) virus](#) first spread from birds to humans in 2013.
- There have been five waves of that “bird flu” virus (now six, [per the CDC](#): “China is currently experiencing its sixth epidemic of Asian H7N9 human infections”).
- The fifth wave began in October 2016 and infected 766 people—far more than any of the four preceding waves.
- There have been 1,589 total cases of H7N9, with 616 of them fatal (a 39 percent mortality rate).
- If H7N9 were to mutate further and develop the ability to pass readily from person to person, it could spread rapidly and kill millions of people worldwide.



A technician conducts tests for the H7N9 bird flu virus at the Kunming Center for Disease Control in China on April 10, 2013. Chinese scientists believe new cases of H7N9 bird flu in East China may indicate the risk of a fresh outbreak of the virus during winter. (ChinaFotoPress/Getty Images)





Then there is another coronavirus that first made its appearance in 2019 in China's Wuhan city: the SARS-CoV-2 virus or [CCP virus](#). Thousands of articles have detailed the worldwide COVID pandemic over the past two years! Are all these China-originated viruses merely acts of nature or something more sinister? It is alleged that the Wuhan National Biosafety Laboratory is just a cover for the research and development of Chinese bioweapons. Could SARS-CoV-2 have been bioengineered at the Wuhan Institute of Virology?



An aerial view shows the P4 laboratory at the Wuhan Institute of Virology in Wuhan in China's central Hubei Province on April 17, 2020. (Hector Retamal/AFP via Getty Images)

Despite open-source speculation by reputable scientists and others, the origin of the CCP virus remains unconfirmed, albeit very likely.

Have the Chinese communists given us any clues to the puzzle?

A document written by Chinese scientists and public health officials in 2015 actually predicts that biological warfare will be the basis for conducting "World War III." [Is this document a harbinger?](#)

The document, titled "The Unnatural Origin of SARS and New Species of Man-Made Viruses as Genetic Bioweapons," stated that *SARS coronaviruses could be engineered* as a "new era of genetic weapons" that can be "artificially manipulated into an emerging human disease virus" and then weaponized and released into the general population in unprecedented ways.

Another piece of the puzzle was an obscure FBI tactical intelligence report from November 2019 that detailed an incident in which a Chinese scientist was caught carrying viruses from China into the United States in November 2018.

As reported two years after the incident by [yahoo! news](#), the details are shocking: "Inspection of the writing on the vials and the stated recipient led inspection personnel to believe the materials contained within the vials may be viable Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) materials. ... [T]he FBI concluded that the incident, and two other cases cited in the report, were part of an alarming pattern [of ongoing U.S. biosecurity risks]."

There are no such things as coincidences! And a clear pattern emerges.

### Conclusion

Available open-source information from U.S. government agencies and news reports enables a logical conclusion that communist China has an ongoing offensive biological warfare program that is camouflaged by an extensive Chinese dual-use biodefense infrastructure and a biotechnology industry developed over the past several decades.



Chinese authorities have suggested that World War III may be fought with biological warfare weapons. A Chinese scientist was caught entering the United States with MERS and SARS virus samples in 2018. The world continues to endure waves of viral pandemics that originated in China. The SARS-CoV-2 was almost certainly [engineered by humans](#). Has World War III already started?

**Stu Cvrk** retired as a captain after serving 30 years in the U.S. Navy in a variety of active and reserve capacities, with considerable operational experience in the Middle East and the Western Pacific. Through education and experience as an oceanographer and systems analyst, Cvrk is a graduate of the U.S. Naval Academy, where he received a classical liberal education that serves as the key foundation for his political commentary.





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