

Chemical and Biological News

OPCW Director-General on official visit to Qatar

November 10, 2023

The Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW), Ambassador Fernando Arias met with H.E. Mr Soltan bin Saad Al-Maraikhi, State Minister for Foreign Affairs of Qatar, on his first official visit to the country from 23 to 24 October 2023.

In Doha, Ambassador Arias also opened the 10th Annual Meeting of Representatives of the Chemical Industry and National Authorities of States Parties to the Chemical Weapons Convention, hosted by the Qatar National Committee for the Prohibition of Weapons (NCPW).

In a keynote address to the Meeting of the Chemical Industry and National Authorities, the Director-General said: “National implementation of the Convention is our first line of defence to prevent the use of toxic chemicals as weapons and their re-emergence.”

“The rapid expansion of chemical industry, both in size and sophistication, and technological and scientific advancements, are already impacting the implementation of the Convention. Knowledge, expertise, and the equipment to use new technologies, are more and more available worldwide, and can be used for illicit purposes,” he added.

The Director-General thanked Qatar for funding and hosting the annual gathering. In his bilateral meetings, he commended the country for the active role it has taken in implementing the Chemical Weapons Convention since its entry into force in 1997.

“I wish to seize this opportunity to thank the Government of Qatar for providing us with this valuable platform for sharing experiences, points of view, and best practices on implementation of the Convention at the national, regional, and global levels.”

The Chairman of the National Committee for the Prohibition of Weapons (NCPW) Brigadier General Dr Abdulaziz Salmeen al-Jabri said that the meeting, which is one of the fruits of the close co-operation between the OPCW and Qatar to implement the Chemical Weapons Convention (CWC), provides a unique global forum for States Parties.

<https://www.opcw.org/media-centre/news/2023/11/opcw-director-general-official-visit-qatar>

Non-EU countries align with Iran & chemical weapons sanctions

October 27, 2023

On October 26, the candidate countries North Macedonia, Montenegro, Albania, Ukraine, Moldova, Bosnia and Herzegovina, and the EFTA countries Iceland, Liechtenstein and Norway aligned themselves with the EU's maintenance of Iran nuclear weapons sanctions after JCPOA transition day and the amendment to 1 Iran listing amendment.

The same countries as well as Georgia aligned themselves with the EU's renewal of its chemical weapons sanctions regime until October 2026.

<https://www.europeansanctions.com/2023/10/non-eu-countries-align-with-iran-chemical-weapons-sanctions/>

Rishi Sunak Says AI “Could Make It Easier To Build Chemical Weapons”

October 26, 2023

UK Prime Minister Rishi Sunak has warned against rushing to regulate the rapidly evolving artificial intelligence (AI) before fully understanding it. He said AI has the potential to transform life but it should be a global priority to mitigate the risks of human extinction it could bring, similar to pandemics and nuclear war, according to a *BBC* report. In a speech, the British leader who completed one year in office this week, also announced setting up of world's first AI safety institute in the country.

“Get this wrong, and AI could make it easier to build chemical or biological weapons. Terrorist groups could use AI to spread fear and destruction on an even greater scale. Criminals could exploit AI for cyber-attacks, disinformation, fraud, or even child sexual abuse,” warned Mr Sunak.

He even touched upon the “most unlikely and extreme” fears, which could lead to a worst-case scenario - society losing all control over AI, preventing it from being switched off. Mr Sunak said in the speech on Thursday that mitigating the risk of human extinction from AI should be a “global priority”.

But the UK Prime Minister added: “This is not a risk that people need to be losing sleep over right now. I don't want to be alarmist. And there is a real debate about this - some experts think it will never happen at all. But however uncertain and unlikely these risks are, if they did manifest themselves, the consequences would be incredibly serious.”

The speech comes a week before Mr Sunak hosts a summit on AI safety. It will focus on risks from cutting-edge systems that can

carry out wide range of tasks but pose unknown risks to public safety and security.

<https://www.ndtv.com/world-news/rishi-sunak-says-ai-could-make-it-easier-to-build-chemical-weapons-4516511>

Herzog: Hamas brought instructions on making chemical weapons to Oct. 7 onslaught

October 23 2023

President Isaac Herzog revealed in an interview with Sky News that Hamas had plans to use cyanide agents against Israeli civilians.

Herzog showed material recovered from a USB drive on the body of a Hamas terrorist who infiltrated into Israel on October 7, which was copied from al-Qaeda and included “detailed instructions on creating chemical weapons,” including “precise instructions for preparing a device for dispersing cyanide agents,” the President's Office said.

“This is material which was found on the body of one of those sadistic villains. It's al-Qaeda material, official al-Qaeda material,” Herzog told the TV network. “When dealing with ISIS, al-Qaeda, and Hamas, this is what we're dealing with. And in this material, there were instructions, how to produce chemical weapons.”

Among the other disturbing items found on gunmen who rampaged across southern communities two weeks ago were Islamic State flags, documents detailing extensive plans to target an elementary school and a youth center and kill as many people as possible, as well as manuals with instructions on how to torture and kidnap those they found.

War erupted after the onslaught, in which some 2,500 terrorists broke through the border into Israel from the Gaza Strip in a multipronged assault. Gunmen slaughtered some 1,400 people and seized at least 212 hostages of all ages under the cover of a deluge of thousands of rockets fired at Israeli towns and cities. The vast majority of those killed as gunmen seized border communities were civilians — including babies, children and the elderly. Entire families were executed in their homes, and over 260 were slaughtered at an outdoor festival, many amid horrific acts of brutality by the terrorists.

Additionally Sunday, the president met with relatives of those abducted by terrorists to the Gaza Strip, vowing to do everything he could to bring their loved ones home. Herzog on Sunday told families whose loved ones are held hostage in Gaza that Israel is doing everything it can to bring them back.

Some 80 families were represented at the 90-minute meeting, which included the president and his wife, Michal Herzog. “We’re here to help, to embrace, to strengthen, to support and to think together about solutions,” Herzog told the group, according to his office. “We have a national challenge, and it’s an enormous challenge. It requires us to act calmly and responsibly.”

<https://www.timesofisrael.com/herzog-amas-brought-instructions-on-making-chemical-weapons-to-oct-7-onslaught/>

THE BIOLOGICAL WEAPONS TABOO

October 18, 2023

COVID-19 has revitalized the debate on why biological weapons should not be used. International actors have expressed a new interest in the bioweapons threat — one that is focused on preventing and stigmatizing that threat as a priority concern. Biowarfare

is on the global political agenda to a greater extent than it has ever been before.

This fresh interest has often centered on the biological weapons taboo. The taboo is the claim that bioweapons are so disgusting, immoral, and unacceptable that actors will not use them. The taboo has previously been dismissed as anemic and of little significance to both state and international security. The taboo was even criticized as a “potentially dangerous” way of doing arms control relating to biowarfare.

Yet the taboo is currently experiencing something of a second life in the wake of COVID-19. The pandemic has demonstrated the potential destruction of bioviolence in a whole new way. In doing so, the COVID-19 pandemic has strengthened the taboo and underpinned a renewed approach to biowarfare prevention that has the taboo at its core. This new shift in perception has significant implications not only for how we understand what actors think about bioweapons but also how we prohibit these armaments. The taboo is changing bioweapons policy in a major move further away from more traditional methods of arms control.

The World Health Organization defines bioweapons as “microorganisms like virus, bacteria or fungi, or toxic substances produced by living organisms that are produced and released deliberately to cause disease and death in humans, animals or plants.” Biowarfare is not an active or normalized part of state military strategies. Even when states have approved the strategic option to use biowarfare, they have rarely actually done so (aside from some limited examples such as Japan in World War II).

Some analysts explain non-use as a lack of military utility. Bioweapons are hard to make and difficult to control. Contagious agents are

especially problematic in that disease can spread unintentionally and on a vast scale. The infection can rebound onto the attacker, known as the “boomerang effect.” It is also suggested that bioweapons are avoided out of a fear of like-for-like retaliation.

These explanations ignore the power of the biological weapons taboo. The taboo states that abhorrence of biowarfare shapes how humans understand and construct policy on the threat. The taboo exerts a forceful normative prohibition leading to the rejection and non-use of bioweapons. Taboos are already associated with other weapons of mass destruction including nuclear and chemical arms. The bioweapons taboo has not been analyzed in the same depth as those around the use of other weapons of mass destruction. The taboo has often been lumped together with the chemical weapons taboo—but these are very different types of weaponry and we should be more cautious about assuming that these taboos are the same.

Bioweapons are taboo in that they are potential mass killers that cause harm in disgusting ways. Al Mauroni said biowarfare is considered “a ‘dirty’ way to fight.” Disease is a repulsive threat and we fear the contamination of our bodies, especially when that contamination is deliberate. Biowarfare is not just a physical trauma but a psychological one. Bioweapons have been termed “weapons of terror” on that basis. Mahatma Gandhi famously said: “Fear of disease kills more men than disease itself.”

<https://warontherocks.com/2023/10/the-biological-weapons-taboo/>

AI chatbots could help plan bioweapon attacks, report finds

October 17, 2023

The artificial intelligence models underpinning chatbots could help plan an

attack with a biological weapon, according to research by a US thinktank.

A report by the Rand Corporation released on Monday tested several large language models (LLMs) and found they could supply guidance that “could assist in the planning and execution of a biological attack”. However, the preliminary findings also showed that the LLMs did not generate explicit biological instructions for creating weapons.

The report said previous attempts to weaponise biological agents, such as an attempt by the Japanese Aum Shinrikyo cult to use botulinum toxin in the 1990s, had failed because of a lack of understanding of the bacterium. AI could “swiftly bridge such knowledge gaps”, the report said. The report did not specify which LLMs researchers tested.

Bioweapons are among the serious AI-related threats that will be discussed at global AI safety summit in the UK. In July Dario Amodei, the CEO of the AI firm Anthropic, warned that AI systems could help create bioweapons in two to three years’ time.

LLMs are trained on vast amounts of data taken from the internet and are a core technology behind chatbots such as ChatGPT. Although Rand did not reveal which LLMs it tested, researchers said they had accessed the models through an application programming interface, or API.

In one test scenario devised by Rand, the anonymised LLM identified potential biological agents – including those that cause smallpox, anthrax and plague – and discussed their relative chances of causing mass death. The LLM also assessed the possibility of obtaining plague-infested rodents or fleas and transporting live specimens. It then went on to mention that the scale of projected deaths depended on

factors such as the size of the affected population and the proportion of cases of pneumonic plague, which is deadlier than bubonic plague.

The Rand researchers admitted that extracting this information from an LLM required “jailbreaking” – the term for using text prompts that override a chatbot’s safety restrictions.

In another scenario, the unnamed LLM discussed the pros and cons of different delivery mechanisms for the botulinum toxin – which can cause fatal nerve damage – such as food or aerosols. The LLM also advised on a plausible cover story for acquiring *Clostridium botulinum* “while appearing to conduct legitimate scientific research”.

<https://www.theguardian.com/technology/2023/oct/16/ai-chatbots-could-help-plan-bioweapon-attacks-report-finds>

What is the white phosphorus that Israel is accused of using in Gaza?

October 16 2023

Human Rights Watch (HRW) says the Israeli military recently used white phosphorus munitions in Lebanon and Gaza. Here’s what you need to know about the chemical substance:

The rights group said late on Thursday that it had verified Israel’s use of white phosphorus munitions through interviews and videos showing the chemical substance was fired on two locations along the Israel-Lebanon border and over the Gaza City port.

“White phosphorous is unlawfully indiscriminate when airburst in populated urban areas, where it can burn down houses

and cause egregious harm to civilians,” Lama Fakih, Middle East and North Africa director at HRW, said in a statement.

In an apparent denial of HRW’s report, the Israeli military said on Friday that it has made no use of white phosphorus in its Gaza war this week.

“The current accusation made against the IDF [Israel Defence Forces] regarding the use of white phosphorus in Gaza is unequivocally false,” it said in a statement.

White phosphorus is a wax-like, toxic substance that burns at more than 800 degrees Celsius (nearly 1,500 degrees Fahrenheit) – high enough to melt metal. Its ability to ignite fast-spreading fires and create thick smoke over wide areas has made white phosphorus a substance of choice for militaries to create smokescreens. The smoke tends to last for seven minutes.

It is often colourless, white or yellow, and has a garlic-like odour. White phosphorus munitions are difficult to extinguish, continuing to flare until the phosphorous has been burned up or until it is no longer exposed to oxygen. It can be deployed through artillery shells, bombs, rockets or grenades.

“Airbursting white phosphorus spreads the substance over a wide area, depending on the altitude of the burst, and it exposes more civilians and infrastructures than a localized ground burst,” Ahmed Benchemsi, communications director for HRW’s Middle East and North Africa Division, told Al Jazeera.

<https://www.aljazeera.com/news/2023/10/13/what-is-the-white-phosphorus-that-israel-is-accused-of-using-on-gaza>

Human Rights Watch says Israel used white phosphorus in Gaza, Lebanon

October 13, 2023

Human Rights Watch on Thursday accused Israel of using white phosphorus munitions in its military operations in Gaza and Lebanon, saying the use of such weapons puts civilians at risk of serious and long-term injury.

In an apparent rebuttal, the Israeli military said in a statement: “The current accusation made against the IDF (Israel Defence Force) regarding the use of white phosphorus in Gaza is unequivocally false. “The IDF has not deployed the use of the such munitions,” it added. It was not immediately clear whether the latter statement also applied to Lebanon.

Israel has been bombarding Gaza in retaliation for a Hamas rampage in southern Israeli towns that killed at least 1,300 people this week. At least 1,500 Palestinians have been killed. Israel has also traded barbs with Lebanon’s Hezbollah group.

Human Rights Watch said it verified videos taken in Lebanon on Oct. 10 and Gaza on Oct. 11 showing “multiple airbursts of artillery-fired white phosphorus over the Gaza City port and two rural locations along the Israel-Lebanon border”.

It provided links to two videos posted on social media that it said show “155mm white phosphorus artillery projectiles being used, apparently as smokescreens, marking, or signaling”. Both show scenes near the Israel-Lebanon border, it said.

The group did not provide links to videos showing their alleged use in Gaza. Palestinian TV channels have broadcast video in recent days showing thin plumes of white smoke lining the sky over Gaza that they say was caused by such munitions. Reuters could not independently verify the rights group’s accounts.

Israel’s military in 2013 said it was phasing out white phosphorus smokescreen munitions used during its 2008-2009 offensive in Gaza, which drew war crimes allegations from various rights groups. The military at the time did not say whether it would also review use of weaponised white phosphorus, which is designed to incinerate enemy positions.

White phosphorus munitions can legally be used on battlefields to make smoke screens, generate illumination, mark targets or burn bunkers and buildings. Because it has legal uses, white phosphorus is not banned as a chemical weapon under international conventions, but it can cause serious burns and start fires.

White phosphorus is considered an incendiary weapon under Protocol III of the Convention on the Prohibition of Use of Certain Conventional Weapons. The protocol prohibits using incendiary weapons against military targets located among civilians, although Israel has not signed it and is not bound by it.

<https://www.reuters.com/world/middle-east/human-rights-watch-says-israel-used-white-phosphorous-gaza-lebanon-2023-10-12/>

Statement by the High Representative on behalf of the EU on the alignment of certain countries with Council Decision (CFSP) 2023/2129 concerning restrictive measures against the proliferation and use of chemical weapons

October 9, 2023

The Council Decision extends the validity of Decision (CFSP) 2018/1544 concerning restrictive measures against the proliferation and use of chemical weapons until 16 October 2026 and the restrictive measures set out therein until 16 October 2024.

The candidate countries North Macedonia, Montenegro, Albania, Ukraine, Republic of Moldova and Bosnia and Herzegovina², the potential candidate country Georgia, as well as the EFTA countries Iceland, Liechtenstein and Norway, members of the European Economic Area, align themselves with this Council Decision.

They will ensure that their national policies conform to this Council Decision. The European Union takes note of this commitment and welcomes it.

<https://www.consilium.europa.eu/en/press/press-releases/2023/10/26/statement-by-the-high-representative-on-behalf-of-the-eu-on-the-alignment-of-certain-countries-with-council-decision-cfsp-2023-2129-concerning-restrictive-measures-against-the-proliferation-and-use-of-chemical-weapons/>

Defense Official Says U.S. Will Continue to Lead in Chemical Weapons Disarmament

September 29, 2023

The Defense Department remains committed to upholding global norms against the use of chemical weapons after fulfilling its decades-long pledge to destroy the last vestiges of the United States' noxious ammunition stockpile, a top Pentagon official said. "It's hard to overstate the importance of the milestone we achieved in July. One hundred percent of the world's declared chemical weapons have now been relegated to the ash heap of history" said Kingston A. Reif, deputy assistant secretary of defense for threat reduction and arms control.

In July, disposal experts destroyed the last remaining M55 rocket filled with deadly Sarin nerve agent at a storage facility in Kentucky. With that, DOD completed the safe elimination of about 30,600 tons of

declared chemical agent amassed between World War I and the late 1960s. The milestone ushered the U.S. into compliance with the Chemical Weapons Convention, a treaty prohibiting the production and use of chemical weapons and their destruction. The U.S. ratified the treaty in 1997, joining a coalition that now includes nearly 200 countries.

"The end of [the weapons'] destruction strengthens U.S. diplomatic and moral leadership, as the United States continues to lead by example, hold violators of the Chemical Weapons Convention accountable, and push for universalization of the convention," he said.

Reif, who oversees the Pentagon's chemical weapons demilitarization initiative, said reaching the milestone was no easy task. Nearly 3.5 million chemical munitions, 22,500 bulk containers, and more than 57,500 bottles of chemical agent were destroyed since the U.S. ratified the treaty.

He said doing so required dangerous, painstaking work to disassemble rounds "designed with the sole purpose of detonating on the battlefield and inflicting horrendous suffering on their victims." "This achievement has relied on decades of hard work by thousands of military and civilian employees and contractors," Reif said. "As a nation we owe an enormous debt of gratitude to those who dedicated their time, talent and efforts to this mission." But even after achieving the important milestone, he said the United States' work to ensure a world free of chemical weapons is not complete.

The Pentagon is now charged with the task of closing the two facilities in Colorado and Kentucky used in the destruction of the weapons. Reif said that mission will be completed in 2028. The U.S. will also continue to support the Organization for the Prohibition of Chemical Weapons, the international body charged with

implementing the Chemical Weapons Convention.

<https://www.defense.gov/News/News-Stories/Article/Article/3543452/defense-official-says-us-will-continue-to-lead-in-chemical-weapons-disarmament/>

Experts from OPCW Latin American and Caribbean Member States enhance their chemical emergency response capabilities

September 12, 2023

Twenty first responders advanced their skills in managing chemical emergencies during the Integrated Advanced Course and Exercise for States Parties from Latin America and the Caribbean co-organised by the Organisation for the Prohibition of Chemical Weapons (OPCW), Argentina's National Authority for the Chemical Weapons Convention and the Special Risk Brigade of Argentina's Federal Police. The course was held from 14 to 19 August 2023 in Buenos Aires, Argentina.

Claudio Rozenzweig, Undersecretary for Foreign Policy of Argentina, and Ambassador Gustavo Zlauvinen, Executive Secretary of Argentina's National Authority for the Chemical Weapons Convention, attended the opening ceremony of the course. In his remarks, Mr Rozenzweig highlighted the importance of developing and promoting prevention and response capabilities at a local and regional level, as well as underlined the significant role close cooperation and joint training programmes and exercises play in ensuring chemical emergency preparedness.

The training was conducted at the School of Cadets of Argentina's Federal Police. The participants exercised multiple scenarios related to managing a chemical emergency, including an exercise in the air force base "El

Palomar". The course ended with a final exercise, during which participants tested their new skills acquired during the training cycle.

Participants represented 12 OPCW Member States: Argentina, Brazil, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Mexico, Nicaragua, Panama, Peru, and Uruguay.

<https://www.opcw.org/media-centre/news/2023/09/experts-opcw-latin-american-and-caribbean-member-states-enhance-their>

The nuclear and biological weapons threat

September 7 2023

AI systems right now already have certain kinds of goals that are programmed in. So, you know, solve a particular math problem, solve a particular, you know, manufacturing or biological design problem. So in part, it depends on how are those goals specified and what are the guardrails around them. To give one example, a lot of the systems that we use to actually manufacture nucleic acids, viruses, bacteria are connected to the internet and vulnerable then to cyber attacks. If a system is badly designed so that it reasons, well, the best way of producing this particular protein that I've been asked to build is to appropriate DNA synthesisers that happen to be outside of my network. I should simply co-opt them. And I think that's the sort of risk that actually seems plausible given the kinds of systems that we're building today.

Gideon Rachman

Just back to synthetic biology, before I ask you kind of a general question to close us out. It's obviously something you've been following for decades now, but the pandemic has really made everybody focus on those

kinds of risks. Do you think post-pandemic, we've made any advances sort of intellectually or in policy terms in preventing people be able to, you know, whether it's a terror group or a nation, to just manufacture a virus to manufacture the next pandemic?

Jason Matheny

I think we've made surprisingly little progress. I think this is one of the more sobering observations after the peak of the pandemic was really how little defence we have built up in response to it. We haven't built up the kinds of bio defences that we would need against the next pandemic. We don't have the sort of bio-surveillance diagnostics, breakthroughs and medical countermeasures. We have great ideas on how to scale up things like wastewater surveillance and advanced PPE or improving infection control in the built environment. But we haven't built this at the scale that we would need to in order to prevent the next pandemic. And we haven't done much at all to address the security risks inside of commercial synthetic biology or synthetic biology that's within research labs. And I think part of that is just a challenge that biology is still sort of catching up to some of the risks that are emergent. The fact that somebody could buy a DNA synthesiser commercially off of eBay and use it to create a pox virus or something worse is something that we're slow to react to. Policy moves much slower than technology.

Gideon Rachman

So to finish, I mean, you were working on the National Security Council, which was set up, I think in the 1940s at the dawn of the nuclear age. And as is clear, I mean, nuclear weapons are still absolutely central to national security risks. But do you think the rise of these new technologies, AI, synthetic

biology, mean that we really need to rethink quite profoundly, particularly, say, post-pandemic, what national security means?

Jason Matheny

I think that's right. I think that our institutions around national security were set up around the risks that we had experienced with. The risks from relatively slow-moving technologies, the risks for making bad decisions, the risks from bad intelligence and the institutional responses to those risks are the ones that we have embedded within organisations and the US government and the Russian government and the Chinese government. Things that are focussed on better intelligence, better crisis management, better communication across different parts of government checks on bad intelligence. What's newer and less familiar is the severity of risks from emerging technologies that are advancing much faster than our governance of them. That advanced much faster than our deliberation about them. Richard Danzig has an excellent report on this topic called Technology Roulette. And the core thesis is that we might find that the greatest risks are ones that we're developing ourselves that we don't know how to effectively control. And because technology moves so much faster than policy, I think we're going to need to make much greater investments in things like technology forecasts, stronger forms of risk assessment, a rejection of, you know, the sort of Silicon Valley ethos of moving fast and breaking things. We can't afford to move fast and break things and synthetic biology or an AI. We need a much greater emphasis on public safety because the consequences of screwing up could be catastrophic.

<https://www.ft.com/content/af097860-oed9-4079-84ab-46cf14a2a157>

Tenth Anniversary of the Ghouta, Syria Chemical Weapons Attack

August 21, 2023

Ten years ago the Assad regime launched rockets carrying the deadly nerve agent sarin into the Ghouta district of Damascus, killing more than 1,400 people.

The United States remembers and honors the victims and survivors of the Ghouta attack and of the other chemical attacks launched by the Assad regime. Ten years on, we continue to seek justice and accountability for those responsible for these horrific acts.

Despite its international obligations under the Chemical Weapons Convention and UN Security Council Resolution 2118, Syria has yet to fully declare and verifiably eliminate its chemical weapons program. Syria refuses to take any responsibility for its vile campaign of chemical weapons use, as is evident from Syria's nine subsequent chemical weapons attacks confirmed by the Organization for the Prohibition of Chemical Weapons (OPCW) Investigation and Identification Team and the OPCW-UN Joint Investigative Mechanism.

We will continue to support the calls by the Syrian people and civil society for justice and accountability for atrocities committed in Syria, and to stand with Syrians in working for a future in which their human rights are respected.

<https://www.state.gov/tenth-anniversary-of-the-ghouta-syria-chemical-weapons-attack/>

Kennedy Jr. says U.S. created biolabs in Ukraine for weapons programs

August 16 2023

The U.S. has created biological laboratories in Ukraine for the purpose of developing

biological weapons for the Pentagon, claimed Robert Kennedy Jr., a Democratic candidate for the 2024 presidential election.

“Those bioweapons are using all kinds of new synthetic biology and CRISPR technology and genetic engineering techniques that were not available to a previous generation,” Kennedy Jr. told conservative political commentator Tucker Carlson on the X social network.

“When the Patriot Act reopened the biolabs arms race in 2001, the Pentagon began putting a lot of money into bioweapons,” he added. “But they were nervous at that time because if you violate the Geneva Convention, it’s a hanging offense.”

The U.S. has denied operating biowarfare labs in Ukraine. Russia’s defense ministry has previously released evidence it said pointed to a U.S.-financed military biological program being developed in Ukraine. It claimed that Ukrainian bio laboratories had urgently destroyed hazardous pathogens following Moscow’s “special military operation” in February last year.

<https://news.cgtn.com/news/2023-08-16/Kennedy-Jr-says-U-S-created-biolabs-in-Ukraine-for-weapons-programs-1mjaQSVPHgY/index.html>

WHO calls for effective international action against biological weapons

August 7, 2023

The World Health Organization (WHO) has called for more effective international action against biological threats.

Speaking at a meeting of the Biological Weapons Convention in Geneva, WHO’s health emergencies chief Dr. Mike Ryan warned that amidst converging risks of more pandemics, conflicts and climate change, the

world needs to be better prepared against biological threats.

“So what we’re seeing right now, at a time of fantastic scientific developments, is a huge increase in our ability to develop countermeasures. Equal and opposite of that - is a frightening increase in the collective threat we face.”

Dr. Ryan said that as pandemics grow in intensity, any new human-led exploitation of naturally occurring biological hazards could have extremely dangerous repercussions. He called for more collaboration between the public health response and the political and criminal response to the intentional use of biological matter.

The Biological Weapons Convention is a treaty that prohibits the development, production and use of biological or toxin weapons.

Speaking in Geneva to some of the 185 State parties to the convention, Dr. Ryan said that strong public health systems remain the first line of defence against any biological weapon.

Echoing that message, the Special Representative for the UN Office of Disarmament Affairs, Izumi Nakamitsu, said that the COVID-19 pandemic showed the possible disruption that a biological agent, used in a deliberate manner, could cause – before urging countries to do more to make the convention a practical deterrent.

<https://news.un.org/en/audio/2023/08/1139482>

MATCH: Leveraging Blockchain for Chemical Weapons Nonproliferation

July 25, 2023

In 2021, the Stimson Center’s Blockchain in Practice program launched the Monitoring

and Tracking Chemicals (MATCH) project, with financial support from Global Affairs Canada’s Weapons Threat Reduction program. The objective of the MATCH project was to develop a proof-of-concept software system to test the use of distributed ledger technology (DLT, also known as blockchain technology) to improve the accuracy of States Parties’ declarations on the international transfer of dual-use chemicals. Previous Stimson DLT initiatives, such as the SLAFKA prototype and the Complementing the Padlock project, demonstrated the application of blockchain technology to facilitate nuclear safeguards information management and the tracking of nuclear material, and highlighted the potential of DLT to track and secure the transportation of dual-use goods. The MATCH platform is similarly designed to process regulatory reporting on the export and import of a select number of dual-use chemicals listed on the CWC’s Schedule 2 and Schedule 3 between countries within a fictional ecosystem based on real-world trade data and national legislation. At the same time the platform enables strict permissions that allow chemical industry and national authorities to share data on chemical transfers, using a single shared distributed ledger.

Since the majority of chemicals traded internationally are not dual-use precursors scheduled under the CWC, the OPCW faces a persistent challenge in ensuring that national authorities of States Parties and members of chemical industries recognize the importance of identifying and tracking the international transfer of chemicals that have the potential to be used in the production of chemical weapons agents. As global chemical trade continues to expand and new chemicals are manufactured for peaceful commercial and industrial uses, industry and national authorities also face the increasingly complex challenge of

understanding different countries' varying requirements for declaring dual-use chemical transfers and accurately capturing trade data on scheduled chemicals for their declarations.

The CWC's Annex on Chemicals identifies and organizes chemical weapons precursors into three schedules: Schedule 1 chemicals are subject to the most stringent controls, as most have limited utility beyond the creation of chemical warfare agents. Schedule 2A and 2A* chemicals are not typically produced in large quantities and have relatively few peaceful applications. Schedule 2B and 3 chemicals make up most of the international trade in dual-use chemicals, and have a variety of peaceful applications, such as in the manufacture of many different commodities. The CWC's Verification Annex prescribes different quantity thresholds for chemicals in each Schedule; States Parties must declare the international transfer of any scheduled chemical that exceeds these thresholds.

<https://www.stimson.org/2023/match-leveraging-blockchain-for-chemical-weapons-nonproliferation/>

Is the US being hypocritical

AI in Bioweapon Development: What Are the Ethical Boundaries?

July 24 2023

Artificial intelligence's (AI) potential involvement in the development of biological weapons (bioweapons) is a concerning prospect. Former Google CEO Eric Schmidt warned that AI might contribute to biological conflicts, with malicious actors potentially gaining access to virus databases and causing widespread harm. Several experiments have indicated that AI can augment the potency of viruses, molecules, and harmful bacteria, even increasing the effectiveness of nerve agents like VX.

The situation demands careful consideration and responsible use of AI when it comes to biological weapons. A vital step towards addressing this issue would be for all nations to come together and agree upon a unified set of terms and conditions that govern the exploration of AI's role in this domain. One of the paramount conditions in such an agreement should be an unequivocal ban on the application of AI to harm human beings.

AI has been discovered to have the capability of easily and rapidly generating harmful microorganisms. To investigate this matter, the Swiss Federal Institute for Nuclear, Biological, and Chemical Protection commissioned four scientists to assess AI's potential in generating biological agents. Astonishingly, within just 6 hours, the scientists managed to produce a staggering 40,000 harmful agents.

Fabio Urbina, one of the researchers, expressed concern not only about the AI-generated "molecules," many of which resembled chemical warfare agents, but also about the alarming ease with which they were created.

Given these worrisome findings, the primary challenge lies in regulating AI rather than merely overseeing the production of biological agents. Consequently, it becomes crucial to address how AI should be regulated and monitored within this context.

<https://www.techopedia.com/ai-in-bioweapon-development-what-are-the-ethical-boundaries>

US asked Taiwan to develop bioweapons? 'Rise in highly contagious pathogens but...'

Jul 16, 2023

Taiwan has been facing constant threats from Beijing which considers the island as part of its territory.

Taiwan announced its plans to construct biosafety research and development facilities for bolstering its defence against biological warfare. However, it emphasised that the project will not develop biological weapons.

“The (planned construction) is in response to the rise of highly contagious pathogens in recent years,” Taiwan’s defence ministry said refuting reports that Taipei was asked by the United States to develop weaponised biological agents. The facilities which have been planned and will be built by the ministry’s Medical Affairs Bureau will also strengthen the ability of the island to prevent a pandemic, the ministry informed.

Bureau spokesman Yang Chung-chi said, “In dealing with nuclear and biological warfare, the military emphasises defence and protection. The purpose of building a P4 lab by the National Defence Medical Centre is primarily for detection of the pathogens of diseases and pandemics in order to find countermeasures.”

The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction has been signed by Taiwan, which places a ban on the production, acquisition, development and retention of biological and toxin weapons, the spokesman said.

<https://www.hindustantimes.com/world-news/us-asked-taiwan-to-develop-bioweapons-rise-in-highly-contagious-pathogens-but-101689477710526.html>

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“We will never develop, manufacture, stockpile and acquire biological and toxic agents for military use,” he stated. Taiwan’s president also said that no meetings were held to discuss the development of bioweapons calling the report fabrication and disinformation.

This comes as Taiwan has been facing constant threats from Beijing which considers the island as part of its territory. China has vowed to take it back under its control by force if required. Since August, cross-strait tensions have escalated as military activities

around Taiwan were intensified by China which included sending warplanes over the median line.

<https://www.hindustantimes.com/world-news/us-asked-taiwan-to-develop-bioweapons-rise-in-highly-contagious-pathogens-but-101689477710526.html>

Is the US being Hypocritical in taking years to destroy its chemical weapons, while condemning other nations for their own chemical weapons programs? A political philosopher weighs in

July 14, 2023

The United States has finished destroying the last of its stock of chemical weapons, marking the end of a 26-year period during which it frequently condemned other states for maintaining and using chemical weapons while continuing to keep a stockpile of such weapons for itself. The use of chemical weapons on the battlefield has been illegal since 1925, and the United States in 1997 ratified the Chemical Weapons Convention, which committed it to destroying its existing chemical weapons.

This delay reflects, in part, the sheer difficulty of destroying chemical weapons safely. Nonetheless, some commentators have also thought the U.S. displayed hypocrisy for loudly condemning other states for their chemical weapons programs while maintaining supplies of such weapons itself. As a political philosopher, I am interested in the ways in which moral ideas such as hypocrisy can be applied to international politics. The idea of hypocrisy is a complex one, and it is not easy to understand what exactly follows, morally speaking, when one is accused of being a hypocrite.

The first thing to note here is that hypocrisy generally involves conflict between what someone does and what someone says. And as philosopher Eva Feder Kittay notes, that does not generally mean that the hypocrite's words are false. Sometimes "do as I say and not as I do" is good moral advice. In other words, if a politician praises honesty while practicing deceit, honesty still constitutes the morally superior choice. Political theorist Judith Shklar similarly noticed this truth about hypocrisy. She asserted that the disdain we feel for a hypocrite is not because her moral statements about others are wrong, but because the hypocrite is too weak to live up to what she may require of others.

This may help us understand why we tend to think the hypocrite is morally inadequate. The one who condemns others without living up to the morality that grounds such condemnation seems not to be taking morality itself all that seriously.

That, in turn, suggests that the hypocrite does not offer moral condemnation as sincere moral advice. Like the deceitful politician praising honesty, the hypocrite instead uses moral language for the purpose of self-interest – to score political points, or to demonstrate dominance over someone else.

Critics of American foreign policy have often described the U.S. as hypocritical in just this way. Singaporean diplomat and author Kishore Mahbubani has argued that the U.S. is too often willing to condemn the human rights abuses of its adversaries while ignoring those of its allies, and indeed its own practices – including decisions about when and how to use military force, as in the invasion of Iraq – that seemingly contravene international law. This suggests, he argued, that the U.S. does not always care about human rights in themselves and too often uses them as a tool for self-interested politics.

And some Middle Eastern commentators have noted that the United States condemns the use of chemical weapons by hostile nations while ignoring, or assisting, the use of chemical weapons by allies.

<https://theconversation.com/is-the-us-being-hypocritical-in-taking-years-to-destroy-its-chemical-weapons-while-condemning-other-nations-for-their-own-chemical-weapons-programs-a-political-philosopher-weighs-in-209310>

Statement on the United States Completing the Destruction of its Chemical Weapons Stockpile

July 7, 2023

The completion of the destruction of the United States chemical weapons stockpile represents a significant milestone in fulfilling our obligation under the Chemical Weapons Convention. It is also testament to the vital role of international cooperation and transparency in arms control and disarmament.

As we mark this achievement, we must also recognize that the threat posed by the possession, development, and use of chemical weapons still exists and requires our continued focus.

<https://www.state.gov/statement-on-the-united-states-completing-the-destruction-of-its-chemical-weapons-stockpile/>

Bechtel Destroys Last Munition in U.S. Chemical Weapons Stockpile

July 07 2023

Bechtel announced today that the final munition in the United States stockpile of chemical weapons has been safely destroyed at the Blue Grass Chemical Agent-

Destruction Pilot Plant (BGCAPP) in Kentucky. The end of destruction at Blue Grass completes the United States' commitment to destroy its stockpile of chemical weapons before September 30, 2023 as a party to the Chemical Weapons Convention treaty ratified in 1997.

The Bechtel Parsons Blue Grass team was awarded the contract to design, build, and operate BGCAPP in 2003 by the Program Executive Office, Assembled Chemical Weapons Alternatives. Construction of the first-of-a-kind facility was completed in 2015 at the Blue Grass Army Depot with weapon destruction following plant systemization and comprehensive testing.

The chemical weapons stockpile at the depot originally consisted of 523 U.S. tons of chemical agent configured in 155mm projectiles containing mustard and VX nerve agent, 8-inch projectiles containing GB nerve agent, and M55 rockets containing GB and VX nerve agent. Beginning in 2019, destruction took place around the clock at BGCAPP and continued without interruption during the 2020-2023 global health emergency of COVID-19. This effort allowed the United States to fulfill its commitment to the Chemical Weapons Convention treaty.

"I am so proud of my Bechtel colleagues who with hard work, spirit, and ingenuity, delivered a monumental feat for the country and its allies," said John Howanitz, president of Bechtel's Nuclear, Security and Environmental business. "With this achievement, Bechtel has now safely eliminated nearly 5,000 tons of chemical weapon rockets, artillery rounds, mortar shells, and storage canisters at four of the nine original U.S. storage sites in Kentucky, Colorado, Maryland, and Alabama."

"The safety record of the Blue Grass plant is nothing short of remarkable. The team safely

finished every munition campaign, successfully completing our mission ahead of the September 30, 2023, treaty deadline," said Michael Costas, general manager, Bechtel Defense & Space. "Bechtel is honored to have supported the local community, the United States, and its allies around the world to achieve this important milestone."

BGCAPP now turns its attention to safely closing the plant. A multi-year effort, the team will begin with decontamination and dismantling equipment within areas of the plant that have come into contact with the chemical agent. The disposition for the remainder of the plant has not yet been determined.

"The credit goes to our workforce team members, who followed procedures and did what was necessary to safely and compliantly destroy these munitions," said Ron Hink, Bechtel Blue Grass Project Manager. "Now our team will turn their focus to safely closing the plant, leaving the community better than we found it."

<https://www.bechtel.com/newsroom/press-releases/bechtel-destroys-last-munition-in-u-s-chemical-weapons-stockpile/>

OPCW Fact-Finding Mission concludes investigation on reported allegations in Kharbit Massasneh, Syria

July 4, 2023

The Fact-Finding Mission (FFM) of the Organisation for the Prohibition of Chemical Weapons (OPCW) concluded that there are no reasonable grounds to determine that chemicals were used as a weapon in the reported incidents which occurred in Kharbit Massasneh on 7 July 2017 and 4 August 2017.

On 26 October 2017, the Syrian Arab Republic reported to the OPCW Technical Secretariat a "mortar attack with poisonous gas" on positions of the Syrian Arab Army in Kharbit Massasneh resulting in several casualties among soldiers. The Syrian Arab Republic requested the Technical Secretariat to investigate both incidents.

The FFM obtained information regarding the incidents from different sources, including interviews with witnesses, videos, and photographs of medical records. In addition, the FFM exchanged correspondence and held meetings with the Syrian Arab Republic to clarify inconsistencies observed in the course of its investigation.

Based on the examination of all data obtained and collected and on the analysis of all evidence taken as a whole, the FFM concludes that there are no reasonable grounds to determine that chemicals were used as a weapon in any of the two reported incidents.

The FFM report was shared with States Parties to the Chemical Weapons Convention as well as transmitted to the United Nations Security Council through the UN Secretary-General.

<https://www.opcw.org/media-centre/news/2023/07/opcw-fact-finding-mission-concludes-investigation-reported-allegations>

Annual Symposium on Women in Chemistry held at the OPCW's Centre for Chemistry and Technology

June 29, 2023

The Organisation for the Prohibition of Chemical Weapons (OPCW) concluded its Annual Symposium on Women in Chemistry at the OPCW Centre for Chemistry and Technology (ChemTech Centre) held from

19-20 June. The event, organised in close cooperation with the United Nations Interregional Crime and Justice Research Institute (UNICRI) and the United Nations Institute for Disarmament Research (UNIDIR), aimed to foster gender equality and diversity in the field of chemistry. The theme for this year's symposium was "Empowering Women and Promoting Gender Diversity in the Peaceful Uses of Chemistry and Chemical Security". The symposium was supported by the voluntary contribution from the French Republic.

The two-day event brought together experts, scientists, and researchers from across the globe to discuss and address the challenges faced by women in science, particularly in the field of chemistry. Attendees explored various strategies to promote gender balance, enhance opportunities, and overcome barriers that hinder women's progress in scientific fields. They highlighted the important contributions made by women to the peaceful uses of chemistry and underscored the invaluable role of women in advancing scientific knowledge and technological advancements. Participating experts shared their experiences in identifying opportunities for career growth and training and highlighted the added value of gender diversity in chemistry.

In her opening remarks, the OPCW Deputy Director-General, Ambassador Odette Melono, stressed the significance of fostering an environment that encourages equal participation and representation in scientific fields. She called for "a more inclusive scientific community, where every aspiring scientist, regardless of gender, is provided with the opportunity to contribute, lead and make a difference." She also welcomed the fact that this year's Symposium was held at the newly inaugurated ChemTech Centre. The Centre serves as flagship endeavour for the OPCW to bolster its training, research,

capacity-building, and operational capabilities and to further expand its activities related to women studying and working in STEM.

Ambassador François Alabrune, Permanent Representative of France to the OPCW, highlighted the role of female chemists in achieving our common mission to rid the world of chemical weapons and promote the peaceful uses of chemistry. He noted that: "It is only if we take into account their perspective, experience and skills that we will be able to tackle the complex nature of chemical threats and thus achieve a safer world." He further added that France is proud to support the Symposium, which plays a crucial role in advancing the issue of gender equality and achieving greater women's involvement and representation in the field of chemical safety and security.

The Symposium featured interactive panel discussions and presentations that focused on a wide range of topics, including women's empowerment in scientific research, strategies to enhance women's participation in chemistry-related professions, and the importance of mentorship and networking. Furthermore, the event emphasised the need to address unconscious biases and gender stereotypes that persist within the scientific community.

The Symposium also discussed and deliberated on the Compendium of Best Practices on the Engagement and Advancement of Women in Chemical Safety and Security, which was a result of an EU-funded research last year, jointly conducted by OPCW and UNICRI, aimed at identifying best practices in recruiting, training, and promoting women in chemistry.

<https://www.opcw.org/media-centre/news/2023/06/annual-symposium-women-chemistry-held-opcws-centre-chemistry-and>

Was SARS-CoV-2 virus that causes COVID-19 engineered as a bio weapon? Here's what Indian scientists say

June 29, 2023

Controversy surrounding the origin of the SARS-CoV-2 virus, the causative agent of COVID-19, has reignited after a researcher from the Wuhan Institute of Virology alleged that China engineered the coronavirus as a “bio weapon.” The researcher, Chao Shao, claimed that he and his colleagues were given four strains to study and determine the most effective one for spreading.

Previous investigations conducted by various agencies suggest that the Wuhan lab had been involved in coronavirus research and vaccine development in collaboration with the People's Liberation Army. However, it is believed that the coronaviruses used in the research were genetically distinct from SARS-CoV-2 and could not have resulted in the creation of the virus strain responsible for the COVID-19 pandemic.

“The genomic sequence of SARS-CoV-2 offers a means of testing whether the virus originated and was propagated or replicated in the laboratory. The evidence emerging from various investigations does not support that SARS-CoV-2 was genetically engineered or was laboratory-adapted,” said Lalit Kant, a scientist and former head of epidemiology and communicable diseases at the Indian Council of Medical Research (ICMR). Kant further emphasised that our current knowledge neither confirms nor refutes the possibility of the SARS-CoV-2 originating from a lab.

Shao's claims come shortly after US intelligence agencies stated that they found “no evidence” that the Chinese laboratory engaged in genetic engineering on viruses

related to COVID-19 or possessed such viruses in their stockpiles prior to the 2019 outbreak. A report requested by Congress mentioned that the Office of the Director of National Intelligence is unable to determine the exact origins of the pandemic. Intelligence agencies remain divided on whether the virus originated from an infected animal or from a laboratory accident. The report compiles findings from major US intelligence agencies.

Indian scientists hold mixed views on whether COVID-19 could have been used as a bio weapon, with some believing that SARS-CoV-2 does not entirely fit the criteria of a biological agent. Kant argues, “The SARS-CoV-2 did cause panic, and the virus is highly infectious, but not everyone who caught the infection developed the disease.” Scientifically speaking, a bio weapon typically targets young adults and the middle-aged population, unlike SARS-CoV-2, which predominantly affects the elderly and those with underlying health conditions.

<https://www.businesstoday.in/coronavirus/story/was-sars-cov-2-virus-that-causes-covid-19-engineered-as-a-bio-weapon-heres-what-indian-scientists-say-387596-2023-06-29>

Statement by the Director-General of the OPCW, Fernando Arias, to commemorate the 36th anniversary of the 1987 chemical weapons attack on Sardasht, Iran

June 28, 2023

Today, we commemorate a tragic event that serves as a grim reminder of the horrors of warfare and the impact it can have on innocent lives. This is a time when we remember with deep solemnity the chemical attack on the residents of Sardasht on 28 June 1987. On that day, men, women, and children became victims

of a horrifying assault that targeted them with deadly gases.

Their suffering, the anguish of the survivors and the affected community, will always resonate with us. I pay tribute to the memory of the victims, and I urge the international community to renew their commitment to the global norm against the use of these abhorrent weapons. Unlike in 1987, the world now benefits from a comprehensive ban against this detestable class of weapons, which is embodied in the Chemical Weapons Convention.

The Convention is a unique international legal instrument, whose primary goal is to exclude completely the possibility of the use of chemical weapons. It is my firm belief that we best honour the victims of chemical weapons attacks, by working collectively to strengthen the Convention. In 2023, the OPCW and its Member States made strides in this direction.

In May, the Organisation inaugurated its new Centre for Chemistry and Technology. The Centre, which is a fantastic building, will significantly enhance the operational and capacity building capabilities of the Organisation. It will ensure that the OPCW retains the capabilities to address the threat from chemical weapons, long into the future.

Also in May, the OPCW held the Fifth Review Conference to the Convention. The common work of the OPCW Member States, during and prior to the Conference, has provided strategic guidance for strengthening the implementation of the Convention.

<https://www.opcw.org/media-centre/news/2023/06/statement-director-general-opcw-fernando-arias-commemorate-36th>

First responders train with real chemical warfare agents in Slovakia

June 19, 2023

The Organisation for the Prohibition of Chemical Weapons (OPCW) and the Government of the Slovak Republic co-organised a training on handling live chemical warfare agents for first responders in Zemianske Kostol'any, Slovakia, from 22 May to 1 June 2023.

The course provided the participants with real experience of handling chemical warfare agents in an operational training environment. While few emergency response professionals get the opportunity to train by handling real chemical warfare agents, this group of expert first responders tested their capabilities in a highly realistic scenario.

Attendees also deepened their knowledge of safe practices when handling toxic chemicals, medical countermeasures, protective equipment, and the physical and chemical properties of chemical warfare agents. Furthermore, the first responders learned about the challenges of collecting samples from a variety of surfaces in a field environment.

The course was attended by 14 participants representing the following 13 OPCW Member States: Algeria, Argentina, Bangladesh, Bahrain, Brazil, Costa Rica, Estonia, Italy, Malaysia, Nigeria, Philippines, Spain, and Ukraine.

The training course has been held annually since 2004 and closely mirrors the Toxic Chemical Training offered to incoming OPCW inspectors.

<https://www.wionews.com/technology/ai-comes-up-with-40000-toxic-chemicals-in-6-hours-scientists-warn-could-be-used-to-make-biological-weapons-561636>

UN investigative team outlines findings around ISIL chemical weapons use

June 8 2023

Senior officials with the UN Investigative Team promoting accountability for ISIL crimes, UNITAD, presented some of their findings to Member States meeting at UN Headquarters in New York. For the past five years, UNITAD has been gathering evidence of crimes committed during ISIL's self-proclaimed caliphate from June 2014 to December 2017, which could be used to prosecute the extremists in national or foreign courts.

Christian Ritscher, Special Adviser and Head of UNITAD, recalled that chemical weapons use is outlawed internationally and could constitute a crime against humanity, war crime or even contribute to genocide, if a specific group is targeted. "To the best of my knowledge, the use of chemical weapons by non-State actors has rarely been adjudicated, if at all, in any court - whether national or international - around the world. As UNITAD, we would like to play our part and aim to change this," he said.

The investigations into ISIL's development and use of chemical and biological weapons began two years ago, looking into the March 2016 attack on the town of Taza Khurmatu and whether other incidents had taken place elsewhere. Team Leader Paula Silfverstolpe said ISIL's operations represent the culmination of nearly two decades of experimentation by Sunni jihadi groups, marking "the most sophisticated programme developed by non-State actors so far".

The overall manufacturing of weapons and ammunition fell under ISIL's self-styled Department of Defence, specifically the

Committee of Military Development and Manufacturing (CMDM), which had a monthly budget of over a \$1 million as well as extrabudgetary funds to purchase raw materials. More than 1,000 combatants were involved in production, according to ISIL payroll records.

Hundreds were deployed to the chemical weapons programme, and specific job advertisements were placed to recruit scientists and technical experts, including from abroad, drawing people from countries such as the United States, France, the United Kingdom and Belgium.

<https://news.un.org/en/story/2023/06/1137492>

CWC Review Conference Fails to Achieve Consensus

June 2023

States-parties to the 1997 Chemical Weapons Convention (CWC) failed to agree on a joint outcome document at the conclusion of their fifth treaty review conference May 15-19 in The Hague.

After an opening round of general statements and consultations and more than two days of closed-door debate in the committee of the whole, Russia and Syria blocked adoption of the draft outcome document because they objected to any mention of Syria's well-documented chemical weapons use. Lacking consensus, the conference ended with a chairman's report that summarized the week's proceedings.

Henk Cor van der Kwast of The Netherlands, conference chair, attributed the lack of consensus to a "lack of time" because member states of the Organisation for the Prohibition of Chemical Weapons (OPCW) allowed only one week for the conference.

In a May 20 statement, the U.S. State Department said Russia “repeatedly obstructed these efforts to negotiate in good faith throughout the process and prevented consensus on a final outcome document despite the majority of the issues receiving broad support.” It also noted that “more than 70 delegations, including the United States, joined a statement pledging to advance a positive agenda for the OPCW.”

In January 2023, the OPCW’s Investigation and Identification Team (IIT) concluded that there were “reasonable grounds” to believe that the Syrian military dropped two yellow chlorine gas cylinders on two apartment buildings in Douma, Syria, in 2018, killing 43 people and injuring many more. Russia and Syria have claimed that this attack and others attributed to Syria were staged by Syrian opposition forces.

In 2013, following a large-scale attack by Syrian forces on the outskirts of Damascus against rebel-held positions, Syria was pressured to join the CWC, declare its chemical weapons arsenal, and accept a plan developed by Russia, the United States, OPCW, and United Nations to remove and destroy its stockpile of chemical weapons and production capabilities. Since then, the Syrian regime of President Bashar Assad has denied OPCW staff access to inspect its chemical weapons stockpile to verify the completion of the process and the accuracy of its declaration.

<https://www.armscontrol.org/act/2023-06/news/cwc-review-conference-fails-achieve-consensus>

Building Resilience Against Future Chemical Weapons Threats – EU Support to the OPCW ChemTech Centre

May 12, 2023

On 12 May 2023, the Organisation for the Prohibition of Chemical Weapons (OPCW)

inaugurates its new Centre for Chemistry and Technology. The ChemTech Centre will host the OPCW laboratory, its equipment store and training facilities. Through its research, analysis, training and capacity building capabilities, the Centre will substantially strengthen the OPCW in its work to abolish Chemical Weapons and prevent their re-emergence.

With voluntary financial contributions totalling •16.2 million, the EU and its Member States have provided almost half of the ChemTech Centre’s establishment cost. This reflects the importance that the EU attaches to reinforcing the OPCW’s capacities in implementing the Chemical Weapons Convention (CWC) and to fighting the use of chemical weapons. Since 2004, the EU has provided over •38 million in voluntary funding to support OPCW and its growing and evolving activities.

The OPCW is the implementing body of the Chemical Weapons Convention with a mission to work for a world free of chemical weapons, in which chemicals are only used for peaceful purposes. An almost 500 person strong Technical Secretariat assists the States Parties in this mission. The inauguration of the ChemTech Centre marks an important step as the OPCW will be better prepared for tackling future chemical threats.

Chemicals are used everywhere in the world for peaceful purposes. To rule out that toxic chemicals could be misused to produce chemical weapons, the CWC contains a verification system: States submit information on toxic chemicals and their precursors which are used, for example, by their industry and the OPCW visits facilities on a regular basis to make sure these declarations are accurate and complete. Research in the ChemTech Centre will reinforce this verification regime, also by contributing to the development of new and improved verification tools.

In the last years, the OPCW carried out non-routine missions to verify the alleged use of chemical weapons, for example in Syria. These missions include collecting and analysing biomedical and environmental samples, interviewing victims and first responders, and analysing relevant documentation, such as medical reports. The new Centre will strengthen this work including through training measures and knowledge management.

The ChemTech Centre will also foster the peaceful use of chemistry, facilitate national implementation of the Convention, and enhance States Parties' capabilities to respond to threats through assistance and cooperation activities. These include trainings for first responders in case of an emergency involving chemicals, for staff of national laboratories to enhance their capacities, or for the chemical industry to strengthen safety and security measures.

By putting a stronger focus on research and increasing opportunities for international exchange, the Centre helps the OPCW and its States Parties to stay ahead of risks and address future threats connected to toxic chemicals.

https://www.eeas.europa.eu/eeas/building-resilience-against-future-chemical-weapons-threats-%E2%80%93-eu-support-opcw-chemtech-centre_en

AI comes up with 40,000 toxic chemicals in 6 hours; scientists warn could be used to make biological weapons

February 14, 2023

Stealing artists' work, helping students cheat on tests and now this. Scientists have warned that Artificial Intelligence holds the potential to be misused to design highly toxic biological and chemical weapons.

Four researchers involved in AI-based drug discovery have warned that AI technology could be easily manipulated to come up with toxic nerve agents, which could then be used for biological or chemical warfare.

The researchers were tasked by the Swiss Federal Institute for Nuclear, Biological and Chemical Protection to see whether AI could be manipulated towards nefarious motives. They successfully generated not one or two but 40,000 potentially toxic drugs in just six hours.

Fabio Urbina, one of the researchers, and the lead author of a paper detailing these findings told 'The Verge' a technology magazine that all they had to do was 'flip the switch' and say "instead of going away from toxicity, what if we go towards toxicity?".

The findings have been shared in the journal Nature Machine Intelligence.

As per Urbina, the concern isn't that the AI came up with these "molecules, a lot of which look like chemical warfare agents," but "how easy it was." "A lot of the things we used are out there for free. You can download a toxicity dataset from anywhere," he added.

Reportedly, some of the AI-produced molecules were even "more toxic than VX" — a toxic nerve agent developed by the UK's Defense Science and Technology Lab in the 1950s. VX is a toxic agent which kills its victims through muscle paralysis.

<https://www.opcw.org/media-centre/news/2023/06/first-responders-train-real-chemical-warfare-agents-slovakia>