

*Working together to strengthen the norms
against chemical and biological weapons.*



CBW Challenges Radar no. 11

What's new at CBWNet

CBWNet published a [Working paper \(No.19\)](#) edited by network coordinator Alexander Kelle, which summarizes the presentations held at the CBWNet conference on “Norm Contestation and Compliance: The Prohibition of Chemical and Biological Weapons”, which took place in Frankfurt am Main on 22–23 October 2025.

CBWNet researcher Barry de Vries published a [Working Paper \(No.18\)](#) on the Relevance of the Geneva Protocol 1925 in a Century of Progressive Prohibitions.

CBWNet researcher Barry de Vries published an [edited volume](#) on the norms against chemical and biological weapons. This book seeks to strengthen these norms by offering in-depth insight into the interconnectivity of international, domestic, and professional norms that support and enforce these prohibitions

The CBWNet project held a [conference](#) on 22-23 October 2025 in Frankfurt am Main, Germany, entitled Norm Contestation and Compliance: The Prohibition of Chemical and Biological Weapons.

News

- In his UN speech on 23 September 2025, US President Donald J. Trump proposed the idea of using AI to verify compliance with the BWC. Listen to the full speech [here](#).
- On 3 October 2025, the [Pugwash Chemical and Biological Weapons Working Group](#) held its first virtual event. The primary objective was to gather feedback on potential topics for the WG's development, to gain a deeper understanding of its specific role in the current academic and civil society landscape.
- Filippa Lentzos and Gemma Bowsher from King 's College London launched a [tracker](#) on 20 October 2025 to monitor disinformation about chemical, biological, radiological and nuclear threats.
- On 24 November 2025 UNIDIR hosted an [Innovations Dialogue](#) on Neurotechnologies and their implications for international peace and security.
- As part of the UNIDIR, BWC-ISU, and UNODA joint initiative Technical Briefs series on emerging technologies and the Biological Weapons Convention, the session on 26 November 2025 discussed [how the Biological Weapons Convention can address the dual-use challenges posed by AI-driven biodesign tools](#).
- Swiss Ambassador to Finland [Sabrina Dallafior](#) Matter was appointed as next Director-General of the OPCW by the Conference of the State Parties for a term of four years. She will be the OPCW's fifth Director-General and will assume office on 25 July 2026.
- As part of the UNIDIR, BWC-ISU, and UNODA joint initiative Technical Briefs series on emerging technologies and the Biological Weapons Convention, the session on 4 December 2025 addressed the topic of [Cyberbiosecurity: Emerging Risks and Opportunities for the Biological Weapons Convention](#).

Publications of interest

Publications and poster presentations by CBWNet researchers

- CBWNet researcher Kristoffer Burck and Sannimari Veini published a [paper](#) in the Journal of Conflict and Security Law on the attacks on chemical and nuclear facilities in Ukraine.

- CBWNet researchers Alexander Kelle, Thilo Marauhn, Kristoffer Burck, Barry de Vries and Ralf Trapp, each contributed a [chapter](#) to the edited volume Chemical and Biological Weapons - The Interconnectivity of Norms.
- CBWNet Researcher Kristoffer Burck presented a poster on norm contestation, change and identity at the 63rd [Pugwash Conference](#) in Hiroshima.
- Associate CBWNet researcher Alexander Ghionis contributed a [book chapter](#) to Julian Perry Robinson: Pioneer in the Prohibition of Chemical and Biological Warfare.
- CBWNet researcher Barry de Vries, published a [paper](#) in the Journal of International Criminal Justice examining whether the alleged use of riot control agents in Ukraine constitutes a War Crime.

CWC

- Meyle E. and Brenda A. Wilson published a [paper](#) in the American Journal of Bioterrorism, Biosecurity and Biodefense on Emerging Technologies in Chemical Threat Reduction.
- Zhehao Zhang, Lijia Zhang, Yulin Li, Kun Song, Yunhui Meng, Xiaobai Li, Shilong Yang and Hongwei Ma recently published a [paper](#) in Trends in Analytical Chemistry on the current status of research on chemical warfare agent detection technology.
- Boban Cekovic, Radovan Karkalic, Vladan Anicijevic and Dalibor Jovanovic published a [paper](#) in Talanta Open on detection and analytical challenges of Novichok nerve agents, with a focus on the Navalny and Skripal cases.
- Filippa Lentzos published an [article](#) in the Bulletin of the Atomic Scientists mapping a decade of chemical and biological disinformation.
- This [article](#) by Shravishtha Ajaykumar published in the Observer Research Foundation, addresses the chemical weapons allegations in Sudan's escalating conflict.
- Sarah Clapham and Peter Hotchkiss recently published a [paper](#) in Chemistry International on preventing the spread of chemical weapons in an era of rapid technological change.

- Stefano Econdi, Stefano Marchesi, Chiara Bisio and Matteo Guidotti contributed a [book chapter](#) to Spectrum of Dual-Use Technologies addressing dual-use chemicals.
- Daan Noort and Peter J. Hotchkiss published a [paper](#) in Nature Review Chemistry on scientific collaboration to rid the world of chemical weapons.
- A [paper](#) by Islam Islamov, Elshan Hashimov and Ramil Akhundov discusses big data analytics and machine learning for predicting radiation and chemical threats in the military sphere.
- IISS researcher Annemiek Dols recently published an [article](#) on Russia ´s use of banned chemicals in Ukraine.
- This [paper](#) by Oleksii Plotnikov published in the European Political and Law Discourse discusses the Restriction of riot control agents under the Chemical Weapons Convention of 1993, the Legal Problems and Future Perspectives.
- Elisabeth Hoffberger-Pippan published a [PRIF Working paper](#) on the Role of Courts in Enforcing Prohibitions on Biological and Chemical Weapons.

BWC

- Rohan Singh and Sana Zakaria published a [report](#) at RAND on a unified framework for International Health Regulations, the Biological Weapons Convention, and UN Security Council Resolution 1540.
- This [blog post](#) by Jean Pascal Zanders comments the speech by Donald J. Trump given at the UN General Assembly on the 23 September 2025.
- Hailey Wingo, Filippa Lentzos, Jez Littlewood and Alberto Muti published a [report](#) at Vertic on monitoring approaches to support BWC compliance.
- This [paper](#) by Amy E. Smithson published in Frontiers in Political Science analyses factors in illicit bioweapons programs in case studies of the Soviet Union/Russia and Iraq.
- Lily Boland, Jackson du Pont and Yong-Bee Lim published a [paper](#) in Health Security on the BWC at 50 and the opportunities and challenges of OSINT in the BWC Ecosystem.
- Yuhan Bao, Kirsten A. Angeles, Delfina Fernandes Hlashwayo, Ketan Thorat, Musonda Mandona, Keletso Masisi, Faizan Ahmad and Amèwouga

Kassegne published a [paper](#) in Health Security on enhancing the BWC through scientific communities and networks of new actors in the era of emerging science and technology.

- Eva Siegmann recently published a [paper](#) in Health Security on open-source monitoring of the BWC.
- This [paper](#) by James Revill in Health Security addresses the past and future utilities of biological weapons.
- Daniel Feakes, Hermann Alex Lampalzer, Oscar Meless and Clarissa Rios Rojas published a [paper](#) in Health Security on the long and unfinished road towards institutionalization of the Biological Weapons Convention from the perspective of the Implementation Support Unit.
- Matthew P. Shearer, Amanda K. Mui, Alanna S. Fogarty and Rachel A. Vahey published a [paper](#) in Health Security on envisioning the Next 50 years of the Biological and Toxin Weapons Convention.
- Glenn A. Cross and W. Seth Carus published a [paper](#) in Frontiers in Political Science discussing whether a biological weapons arms race is on the horizon and how scientific advances and strategic competition shape the risk.
- Mohammad Sukmanadi et al. published a [paper](#) in the Open Veterinary Journal on the historical military use of glanders and related bioterrorism concerns.
- This [article](#) by Matt Field in the Bulletin of the Atomic Scientists discusses US President Donald J. Trump ´s bioweapons prevention plan.
- Filippa Lentzos, Hailey Wingo, Jez Littlewood and Alberto Muti published an [article](#) in the Bulletin of the Atomic Scientists discussing how new technology could make it easier to identify covert bioweapons programs.
- A [paper](#) by Gian Marco Ludovici, Claudio Ricci, Guglielmo Manenti, Riccardo Quaranta and Andrea Malizia in The European Physical Journal Plus addresses the threat posed by the monkeypox virus and its potential use as a biological weapon.

- Steph Batalis and Vikram Venkatram published an [article](#) in the Bulletin of the Atomic Scientists on Building a foundation for the next era of biosecurity.
- Sabrina Chwalek published an [article](#) at the Council on Strategic Risks, breaking down the US Biodefense Budget 2026.
- Shawn J. Kim, Vanak Huot and Vivian Neilley published a [paper](#) in Health Security on blockchain in biosecurity as a case study for strengthening the Biological Weapons Convention.
- Zixuan Gao, Yuanjiao Gao, Shuojie Wang, Xinxin Li, Weihua Cao, Wen Deng, Linmei Yao, Xin Wei, Ziyu Zhang, Shiyu Wang, Yaqin Zhang, Minghui Li and Yao Xie published a [paper](#) in Biosafety and Health discussing application progress and biosafety challenges of gene editing and synthetic biotechnology in the diagnosis, treatment and prevention of infectious diseases.
- Andraz Kastelic and Louison Mazeaud published a [UNIDIR-report](#) on Cyberbiosecurity as a matter of international peace and Security.
- Eva Siegmann and Kyle Wilgus published an [article](#) at the Council on Strategic Risks on the mixed signals on biodefense in Trump's FY26 budget request.
- Georgia Adamson and Gregory C. Allen published a [report](#) of the CSIS Wadhvani AI Center on opportunities to strengthen U.S. biosecurity from AI-enabled bioterrorism.
- Sarah Ruth Opatowski published a [UNIDIR-report](#) on advancing biosecurity Education for life scientists.

AI

- Benjamin D. Trump et al. published a [paper](#) in EMBO Reports on governing the AI-biotech convergence.
- Roger Brent and Greg McKelvey Jr. published a [paper](#) at RAND on how contemporary foundation AI models increasing biological weapons risk.
- Crystal Grant published an [article](#) at the Council on Strategic Risks wrapping up 2025 as an important year for the continuing convergence of AI and biology.

- Kirolos Eskandar published a [paper](#) in AI and Ethics on Artificial intelligence and synthetic biology: biosecurity risks, dual-use concerns and governance pathways.
- A [paper](#) by Divyanshu Kumar, Nitin Aravind Birur, Tanay Baswa, Sahil Agarwal and Prashanth Harshangi addresses quantifying CBRN risks in frontier models.
- This [article](#) by James Revill published in the Bulletin of the Atomic Scientists discusses how AI can—and cannot—improve verification of the Biological Weapons Convention.
- Ash Jogalekar published an [article](#) in the Bulletin of the Atomic Scientists on how AI lowers the bar for chemical weapons.

Other publications of interest

- Walter E. Grunden and Olli H. Tuovinen published a [paper](#) in Frontiers in Microbiology on the legacy and impact of the 1925 Geneva Protocol.

Coming up!

- [Working Group on the strengthening of the Biological Weapons Convention](#), Eighth session, Geneva, 9 -13 Feb 2026
- [One Hundred and Eleventh Session of the Executive Council](#), The Hague, 10 -13 March 2026
- [One Hundred and Twelfth Session of the Executive Council](#), The Hague, 7 - 10 July 2026
- [Working Group on the strengthening of the Biological Weapons Convention](#), Ninth session, Geneva, 17 -21 August 2026





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