Statement to the Biological Weapons Convention Review Conference
United Nations Geneva, 29 November 2022

Mr President, Distinguished Representatives:

The biological risk landscape is becoming more complicated and more challenging.

There is an increasing number of maximum biocontainment labs that handle and conduct research with the most dangerous pathogens across the globe. Our Global BioLabs initiative has shown that there are now around 70 BSL-4 labs in operation, under construction or planned, and there are around 55 BSL3+ labs in operation. With more labs come more people, more work with pathogens, and ultimately increased safety and security risks.

But it’s not just an increase in the number of labs, we’re also seeing an increase in extreme high-risk biological research. One example is so-called “gain-of-function” research that enhances the virulence or transmissibility of potential pandemic pathogens compared to naturally occurring strains. In other words: experiments that make viruses more dangerous. Another example of extreme high-risk biological research is the growth in large-scale viral prospecting. This is research outside labs, in places like bat caves, where scientists try to identify potential pandemic pathogens in the wild before they spill over into human populations.

These trends not only make accidental disease outbreaks more likely, but they are lowering barriers to deliberately-caused outbreaks.

Regrettably, global biorisk management efforts are not keeping pace with the evolving biological risk landscape. Internationally, efforts are fragmented across regulatory, public health, and non-proliferation domains with wide variation in the levels of resources and attention devoted to biosafety, biosecurity, and dual-use research oversight. There are few legally-binding requirements in any of these three fields and even fewer mechanisms for verifying compliance with such requirements.

Nationally, our Global BioLabs initiative has shown that while 21 out of the 27 countries with BSL4 labs score high on biosafety governance, only 12 score high on biosecurity governance and only 1 scores high on dual-use research governance. And that leaves 6 countries out of the 27 with BSL4 labs only scoring moderately or low on biosafety governance, 15 scoring moderately or low on biosecurity governance, and 26 scoring moderately or low on dual-use research governance.

Mr President,

We emphatically support the joint NGO statement’s call for consistent implementation of international standards on appropriate biorisk management practices, especially in laboratories working with high-risk pathogens.
At the lab-level, institutions must work to cultivate a culture of safety, security, and responsible research with high-risk pathogens. A good place to start for maximum containment labs, and other labs that conduct research with hazardous pathogens, is to adopt the recently developed international standard for biorisk management known as ISO 35001.

At the national level, all countries, but particularly countries where high-risk pathogen work is conducted, must have laws, regulations and institutions in place that provide oversight of maximum containment labs, and that require comprehensive risk assessments of proposed research for safety, security and dual-use activities with significant potential to be repurposed to cause harm. In adopting, implementing, reviewing and updating national laws, regulations and other measures on biosafety, biosecurity and dual-use research, we encourage states to take into account relevant voluntary standards on biorisk management including the WHO Global Guidance Framework for Responsible Use of the Life Sciences, the WOAH Guidelines for Responsible Veterinary Research, and the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists.

In addition to laws and regulations, countries and the maximum containment labs within them should also implement and share best practices, and participate in peer reviews of practices in other maximum containment labs. Countries with experience in designing and operating maximum-containment laboratories should share their expertise in building risk-based laboratory infrastructure that is fit for purpose, is safe and secure, and can be maintained over the long term. Countries with maximum containment facilities must also provide complete, regular, and transparent reporting under the BWC’s CBMs and under UN Security Council Resolution 1540.

Mr President, Distinguished Representatives,

We invite you to join us for a side event on 9 December to re-launch our data-rich and interactive website on global maximum containment labs and biorisk management policies (GlobalBioLabs.org).

We thank you for your attention.

Side event registration: https://bit.ly/3gxPbGK
Dr Filippa Lentzos, Reader (Associate Professor) and Director of the Science & International Security graduate programme in the Department of War Studies at King’s College London.

Dr Gregory D. Koblentz, Associate Professor and Director of the Biodefense Graduate Program at George Mason University’s Schar School of Policy and Government.

Mayra Ameneiros, Research Associate in the Department of War Studies at King’s College London.

Becca Earnhardt, presidential scholar and doctoral student in the Biodefense program at the Schar School for Policy and Government at George Mason University.

Ryan Houser, doctoral student in the Biodefense program at the Schar School for Policy and Government at George Mason University.

Joseph Rodgers, doctoral student in the Biodefense program at George Mason University, and Associate Director and Associate Fellow at the Center for Strategic and International Studies (CSIS).

Hailey Wingo, Research Associate in the Department of War Studies at King’s College London.