NTI Virtual Global Biosecurity Dialogue
Overcoming Challenges, Assessing Progress, and Setting Trajectories

Commitments

Closing Plenary Session
23 February 2021

	Biosecurity Capability Development Workstream: *Actions & Comments*
Workstream Proposed Actions:	1. Establish an Action Accelerator Vehicle comprised of regional subject matter experts (SMEs) to provide technical support for the national implementation of biosafety and biosecurity commitments of regional governance structures. 2. Launch an Exemplary Laboratory project to build biosafety and biosecurity capabilities (i.e. provide appropriate biosafety equipment/needs related to inventory, storage, and control commensurate with existing infrastructure) with a corresponding plan for sustainment and expansion. Implement via the Action Accelerator Vehicle to demonstrate local achievability of biosecurity and biosafety JEE targets to a "developed" capacity.
Pledged Actions:	• The **Southern Africa Regional Biosafety and Biosecurity Technical Working Group** will pilot the Action Accelerator Vehicle and the Exemplary Laboratory Project as part of the **Africa Centres for Disease Control and Prevention (Africa CDC) Biosafety and Biosecurity Initiative**. – **Point of Contact**: *Mr. Zibusiso Masuku, Biosafety Technical Manager, National Institute for Communicable Diseases, South Africa, zibusisom@nicd.ac.za* – **Point of Contact:** *Dr. Talkmore Maruta, Senior Biosafety and Biosecurity Officer, Africa CDC, talkmorem@africa-union.org* • The **Global Partnership Biological Security Working Group's Signature Initiative** will contribute to the implementation of the proposed actions of the workstream. – **Point of Contact**: *Professor David Harper, 2021 Co-Chair, Global Partnership Biological Security Working Group and Senior Consulting Fellow, Chatham House, david@harperpublichealth.com* • **International Federation of Biosafety Associations (IFBA)** will contribute to the proposed actions of the Capability Development Workstream.

	– **Point of Contact**: *Ms. Maureen Ellis, Executive Director, International Federation of Biosafety Associations, m.ellis@internationalbiosafety.org* • The **Caribbean Public Health Agency (CARPHA)** will implement the Action Accelerator Vehicle as a component of their existing regional structures. – **Point of Contact**: *Ms. Sacha Wallace-Sankarsingh, Biorisk Manager, CARPHA, wallacsa@carpha.org* • **The Global Health Security Agenda (GHSA) Action Package Prevent-3 (APP3) on Biosecurity and Biosafety** will support regional or sub-regional technical working groups to accelerate the translation of regional promises to national actions that result in measurable improvements in biosecurity and biosafety capacity. – **Point of Contact**: *Ms. Sacha Wallace-Sankarsingh, Biorisk Manager, CARPHA, Chair, APP3, ghsa.app3@gmail.com* • **Partners from Latin America** will create a common tool or network to navigate biosecurity and biosafety practice advancements in the region, working with entities such as NTI, IFBA, and UNODA, and through the GHSA, to quicken progress. – **Point of Contact:** *Ms. Leonora Nusblat, Biochemist, ANLIS, Argentina, leonora373@gmail.com* – **Point of Contact:** *Ms. Cecilia Gazzo, MSc. Biologist, Peruvian National Institute of Health, ceciliagazzo@yahoo.com* – **Point of Contact:** *Mr. Javier Rodriguez, Director, Initiative for Global Security, jrodriguez@igsec.org*
Comments:	• David Harper (Chatham House) is working closely with Zibusiso Masuku on laboratory safety initiatives. The Chatham House tool "Sustainable Laboratories Initiative: Prior Assessment Tool[1]" will be useful in the implementation of these proposed actions. • Talkmore Maruta (Africa CDC) notes that the actions listed under this workstream will prove to be relevant and invaluable to the Africa CDC Biosecurity and Biosafety Initiative, such as making use of the national structures already in place, establishing regional centers of excellence alongside the Exemplary Laboratory project, and rethinking the usage of high-containment facilities. • Sacha Wallace-Sankarsingh (CARPHA) welcomes the vehicle for regional subject matter experts (SME) to be developed. While CARPHA already has a network of national focal points, they need further efforts to streamline the required competencies. • Daniel Feakes (BWC ISU) notes that under the BWC, a total of 133 states have nominated "national contact points" responsible for coordinating BWC implementation; some of these contact

	points already liaise regionally, but more efforts could be made to build on and make use of this existing network. • The work of the International Experts Group of Biosafety and Biosecurity Regulators (IEGGBR)[2] contributes to the strengthening of international biosafety and biosecurity oversight and provides reference tools and materials to benefit the international community[3].
Resources:	1. Chatham House Sustainable Laboratories Initiative: Prior Assessment Tool - https://www.chathamhouse.org/2019/06/chatham-house-sustainable-laboratories-initiative-prior-assessment-tool 2. **Point of Contact**: Ms. Leanne DeWinter, International Experts Group of Biosafety and Biosecurity Regulators (IEGBBR) Secretariat, Public Health Agency of Canada, contact@iegbbr.org 3. The IEGBBR mobile application "Compendium of International Biosafety and Biosecurity Oversight Systems for Human and Animal Pathogens and Toxins" can be found in the Google Play store (https://play.google.com/store?hl=en). It provides detailed descriptions of the 11 national biosafety and biosecurity oversight systems of the IEGBBR member countries.

Emerging Biological Risks Workstream: *Actions & Comments*	
Workstream Proposed Actions:	1. Interested Global Biosecurity Dialogue participants contribute to the development of technical requirements for an international, cost-effective, and sustainable common mechanism to globally expand synthetic DNA screening practices to prevent illicit DNA synthesis and misuse (hereafter referred to as "DNA screening mechanism"). These efforts would be informed by the workstream discussion and led by NTI and the World Economic Forum (WEF)[1]. 2. The Biosecurity Innovation and Risk Reduction Initiative (BIRRI) Working Group on Seal of Approval will partner with iGEM, Africa CDC, and other interested partners on pilot programs to identify the technical requirements for a potential "Seal of Approval". These efforts can shape minimum standards for biosecurity and may be linked to the biofunders compact concept which incorporates risk assessment into funding process. 3. NTI BIRRI and the Bio Policy & Leadership Initiatives at Stanford University will work with organizations that are developing dual use risk management frameworks and processes

	to assist in cross organizational learning and the development of case studies and improved transparency in processes. These groups may include IEGBBR, iGEM, Biosecure, the WHO Ensuring Responsible Use of Life Sciences Research Initiative supported by Canada's Weapons Threat Reduction Program, representatives from the Netherlands, and other organizations below who are pursuing similar initiative including supporting training activities. Organizations interested in participating in discussions around best practices will assist in identifying other partners. Visibility Initiatives may be linked to the biofunders compact concept which incorporates risk management into funding process.
Pledged Actions:	• **NTI** and **WEF** will develop technical requirements for a standardized DNA screening mechanism, in partnership with interested parties, and contribute to relevant international dialogues such as the Ninth Review Conference of the BWC. – **Points of Contact**: *Dr. Andrew Hebbeler, hebbeler@nti.org and Dr. Nicole Wheeler, nw17@sanger.ac.uk, NTI* – **Point of Contact:** *Mr. Daniel Feakes, Chief, BWC Implementation Support Unit, daniel.feakes@un.org* • **iGEM** and **Africa CDC** will partner with the **NTI BIRRI**[2] Working Group to conduct pilot programs that shape the technical requirements for a biosecurity "Seal of Approval". – **Point of Contact**: *Dr. Piers Millett, Vice President, iGEM Foundation, piers@igem.org* – **Point of Contact:** *Dr. Talkmore Maruta, Senior Biosafety and Biosecurity Officer, Africa CDC, talkmorem@africa-union.org* – **Points of Contact**: *Ms. Hayley Severance, severance@nti.org and Professor Wilmot James, wgj2104@columbia.edu, NTI* • **NTI BIRRI** and the **Bio Policy & Leadership Initiatives at Stanford University** will work with **iGEM**, the **Moroccan Biosafety Association**, the **Pakistan Biological Safety Association** and **National Institute of Health**, as well as other relevant stakeholders to develop case studies and frameworks to assist in cross organizational learning about dual use risk management and its transparency throughout the research lifecycle. – **Point of Contact**: *Dr. Piers Millett, Vice President, iGEM Foundation, piers@igem.org* – **Point of Contact:** *Dr. Senouci Samira, Moroccan Biosafety Association (MOBSA), sensafa54@gmail.com*

	– **Point of Contact**: *Dr. Faheem Tahir, Pakistan Biological Safety Association, National Institute of Health, Pakistan, faheemtahir2000@gmail.com* – **Point of Contact**: *Dr. Megan Palmer, Executive Director of Bio Policy & Leadership Initiatives, Department of Bioengineering, Stanford University, mjpalmer@stanford.edu*
Comments:	• Daniel Feakes (BWC ISU) also suggests raising the conversation of DNA screening in the upcoming Ninth Review Conference of the BWC, perhaps with supportive text being included in the conference's final declaration. The conference was planned for November 2021 but will likely be postponed to 2022. • Georgia Lagoudas (US Dept of State) highlights the apparent momentum regarding the DNA screening mechanism. There is ongoing discussion in the United States about potential changes to this process and how to appropriately integrate it on a national scale. Discussions with NTI and WEF would be helpful. • The IEGBBR "Review of Oversight of Dual-Use in Life Sciences" is a reference tool currently being developed into a second IEGBBR mobile application that describes the regulatory and non-regulatory oversight approaches for dual-use issues in the IEGBBR member countries. Testing of the pilot app is anticipated within the IEGBBR in summer 2021 and public launch of the mobile app will follow.
Resources:	1. Biosecurity Innovation and Risk Reduction: A Global Framework for Accessible, Safe, and Secure DNA Synthesis - https://media.nti.org/documents/Biosecurity_Innovation_and_Risk_Reduction.pdf 2. Biosecurity Innovation and Risk Reduction Initiative - https://www.nti.org/about/projects/fostering-biosecurity-innovation-and-risk-reduction/

Biosecurity Policy Frameworks Workstream: ***Actions & Comments***	
Workstream Proposed Actions:	1. In an effort to diversify funding lines and ensure sustainable progress toward biosecurity capability development, GBD participants will engage with private sector and philanthropic donors. Participants will form national and regional coalitions to raise awareness and interest in biosecurity, particularly among legislative and parliamentary bodies. These coalitions could encourage higher funding allocations for biosecurity capacity building efforts and their creation and functioning should be incentivized by funders seeking to advance these efforts. It is

	critical that these coalitions engage local leaders in their advocacy work. 2. GBD participants will encourage transparent and non-punitive reporting chains in their home institutions, countries and regions. These chains should include bi-directional information flow from the institutional level up to national oversight bodies using well-defined and agreed-upon measures. Reporting chains should take into account existing legal and regulatory frameworks, as well as work to minimize perverse incentives to not report while creating strong incentives to accurately and timely report incidents. Trends should be analyzed and reported to demonstrate how investment in capacity and training is leading to better safety and security outcomes. Academic and research institutions should be included in the effort to build a culture of responsibility and to educate the next generation. Non- traditional partners – such as writers and journalists – could also be engaged to build public knowledge of these issues. 3. Regional networks will develop common metrics that can be used to report progress of biosecurity initiatives (i.e. the Africa CDC's Biosecurity and Biosafety Initiative). These metrics should be based on internationally accepted frameworks, such as the GHS Index, PVS, or JEE and should focus on a few indicators that align with initiative priorities. Tracking progress toward these priority indicators can help measure the impact of national and international (i.e. GP Signature Initiative) investment in biosecurity capacity building.
Pledged Actions:	• **Africa CDC** reaffirmed their commitment to develop a model biosafety and biosecurity legislative framework and the **Global Partnership Biological Security Working Group** committed to assisting the Africa CDC in the development and roll-out of this effort as part of their Signature Initiative. – **Point of Contact:** *Dr. Talkmore Maruta, Senior Biosafety and Biosecurity Officer, Africa CDC, talkmorem@africa-union.org* ○ **Point of Contact**: *David Elliott, Programme Manager, UK International Biosecurity Programme, Defence Science & Technology Laboratory, UK Ministry of Defense, delliott@dstl.gov.uk* • **GHSA APP3** members will contribute to the shaping and delivery of advocacy messages on the importance of investment in biosecurity.

	○ **Point of Contact**: *Ms. Sacha Wallace-Sankarsingh, Biorisk Manager, CARPHA, Chair, APP3, ghsa.app3@gmail.com* • **NTI** and the **Pandemic Action Network** will champion the development of a global fund to accelerate and target investments in global health security, including biosafety and biosecurity as core, multisectoral components of a needed system. ○ **Point of Contact**: *Ms. Carolyn Reynolds, Co-Founder, Pandemic Action Network, carolyn.reynolds@pandemicactionnetwork.org* ○ **Point of Contact**: *Mr. Jacob Eckles, Program Officer, NTI, eckles@nti.org*
Comments:	• Luam Ghebreghiorghis (Project Manager, Robert Koch Institute) echoed Dr. Wilmot James' point on a need for a whole-of-government approach. Ghebreghiorghis finds that national ownership with repeated structures and stakeholders can be hard to achieve in a sustainable manner. • Zibusiso Masuku (NICD, South Africa) highlights that the ability to track progress through effective monitoring and evaluation is a key contributor to the sustainability of biosecurity interventions. • Luciana Vazquez (Biorisk Certifier, IGS) comments that the application of an evaluation and monitoring system would be a necessary tool to build a unifying, reproducible criterion. As governments evolve, a long-lasting evaluation and monitoring tool creates a history of costs and benefits thus able to incentivize government support, both financially and legislatively. • Daniel Feakes (BWC ISU) adds that the BWC Implementation Support Unit aims to publish a guide which will include best practice and examples from BWC States Parties' legislation. The guide is posed to be published by April, first in English and then in the other UN languages. • Carolyn Reynolds (Pandemic Action Network) mentions the WHO and others are calling for a new pandemic treaty. The Global Biosecurity Dialogue participants may consider contributing to that discussion. • Case studies presented by Africa CDC and the African Union emphasize the need for regional enforcement structure, as they prove to maximize legislative progress and effectiveness. • The Global Partnership Signature Initiative would be open to more participants and regional voices in their working technical group.