Ninth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

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Follow-up to the recommendations and decisions of the Eighth Review Conference and the question of future review of the Convention

Advocating Responsible Biological Research: the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists

Submitted by China and Pakistan

Co-sponsored by Brazil and North Macedonia

1. Advances in biological science and technology continue to play an important role in fostering human health and well-being. However, they also carry potential risks of misuse or abuse. Advocating responsible biological research and guiding the conduct of biological scientists have been a major topic in global biosecurity governance. The development of necessary codes of conduct and relevant self-regulatory mechanisms by States Parties will be conducive to unleashing the full potential and benefits of biological science and technology and will help to prevent its misuse or abuse.

2. The Sixth Review Conference of the Convention in 2006 reached consensus in its final document on recognition of "the importance of codes of conduct and self-regulatory mechanisms in raising awareness, and call(ed) upon States Parties to support and encourage their development, promulgation and adoption".

3. Based on the working paper submitted by China and Pakistan in 2016 and its following discussions in the framework of the Convention, the Center for Biosafety Research and Strategy (CBRS) of the Tianjin University, Johns Hopkins Center for Health Security, and the InterAcademy Partnership (IAP) cooperated to host in-depth and dedicated discussions, communicated widely with scientists from academia and industry from States Parties spanning four continents and formulated the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists (hereinafter called the Tianjin Guidelines) in July 2021.

4. The Tianjin Guidelines cover major aspects of responsible biological research and represent ten guiding principles and standards of conduct, such as Ethical Standards, Laws and Norms, Responsible Conduct of Research, Respect for Research Participants, Research Process Management, Education and Training, Research Finding Dissemination, Public Engagement on Science and Technology, Role of Institutions, and International Cooperation.

5. The development of the Tianjin Guidelines responds to the aspirations of and the determination of international scientific community to responsibly conduct biological research activities. Such an international process, based on science and characterized with broad representation, constitutes an effective approach to strengthen global biosecurity governance and international cooperation.

6. Since the development of the Tianjin Guidelines, the three participating organizations of the Tianjin Process have been continuously advancing their global dissemination for governments and scientific research institutions to refer to, supplement, or update their own

codes of conduct. The Tianjin Guidelines have been widely welcomed and supported by many States Parties of the Convention.

7. China and Pakistan have submitted working papers to the Meeting of Experts and Meeting of the States Parties in 2020 as well as the Preparatory Committee to the Ninth Review Conference on the introduction of the Tianjin Guidelines and the progress of its dissemination. The Tianjin Guidelines were also publicized through thematic side events and the Biosecurity Diplomacy Workshop for Young Scientists from the Global South 2022 Cohort hosted by the Implementation Support Unit (ISU).

8. China has distributed the Tianjin Guidelines as an official document (A/76/346) of the 76th session of the UN General Assembly under agenda items of 22(a) (Science, Technology and Innovation for Sustainable Development), 100 (General and Complete Disarmament) and 107 (Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction). The Tianjin Guidelines have also been incorporated into Youth Declaration for Biosecurity.

9. The Tianjin Guidelines have been incorporated into Global guidance framework for the responsible use of the life sciences issued by the World Health Organization (WHO) in September 2022, which aims to guide Member States and stakeholders to strengthen their management of dual-use biological research and to mitigate biorisks.

10. The Tianjin Guidelines have also been widely appreciated and effectively promoted at the national level:

(a) The National Health Commission (NHC) of China, Ministry of Science and Technology (MOST) and the Chinese Academy of Science (CAS) have provided platforms for the dissemination of the Tianjin Guidelines to encourage the science community to endorse, particularly when relevant conferences and seminars are hosted;

(b) Pakistan is pushing for the Tianjin Guidelines to be incorporated in its national biosafety/biosecurity curriculum. The National Institute of Health of Pakistan launched its revised Code of Conduct for Life Scientists. The elements of the Code of Conduct are complementary with the Tianjin Guidelines, and the revised Code is an attempt to apply the Guidelines in a domestic context with periodic updates;

(c) Brazil fully recognized the significance and role of the Tianjin Guidelines in managing biological research and decided to co-sponsored relevant working papers;

(d) The working paper (BWC/MSP/2020/MX.2/WP.10) submitted by Switzerland highly recognized the importance of the Tianjin Guidelines and recommended it to be endorsed by the Ninth Review Conference. Many States Parties have expressed their recognition, appreciation or support for the Tianjin Guidelines.

11. The promotion of Tianjin Guidelines relies on the strong support of the global science community. The IAP has formally endorsed the Tianjin Guidelines and is exploring their publication, including through its four regional networks, to encourage its member academies to support, adopt and promote the Tianjin Guidelines. The International Union of Biochemistry and Molecular Biology (IUBMB) has published the Tianjin Guidelines as a guideline in the field of biosecurity for reference and further discussion by its members.

12. The three participating organizations of the Tianjin Process have translated the Tianjin Guidelines into all six official languages of the UN for voluntary reference by audiences in all official languages of the UN. They have also been actively raising awareness and undertaking promotion activities about the Tianjin Guidelines, via international academic conferences, forums, training and teaching activities. The Guidelines have also been presented to a wide range of practitioners associated with biosafety and biosecurity, with the encouragement to incorporate them into the biosecurity education practice.

13. China, Pakistan, together with Brazil, North Macedonia and other co-sponsors of this working paper fully subscribe to the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists and believe that the Tianjin Guidelines will contribute to the realization of the goals and objectives of the Convention, and to the discussions in other multilateral fora to further advance global biosecurity governance. The Tianjin Guidelines are hereby annexed to this working paper. It is proposed that the Ninth Review Conference take actions to:

(a) Endorse the Tianjin Guidelines and encourage all stakeholders to voluntarily incorporate elements from the Guidelines in their practices, protocols, and regulations, and to disseminate the Guidelines, as appropriate; and

(b) Task the inter-sessional process to exchange information, experiences and good practices about the dissemination of the Tianjin Guidelines and report the outcomes of these exchanges and dissemination to the Tenth Review Conference.

Annex

The Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists

1. Advances in the biological sciences bring about wellbeing for humanity, but the same advances could be misused, particularly for the development and proliferation of biological weapons. To promote a culture of responsibility and guard against such misuse, all scientists, research institutions, and governments are encouraged to incorporate elements from the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists in their national and institutional practices, protocols, and regulations. The ultimate aim is to prevent misuse of bioscience research without hindering beneficial outcomes, in accordance with the articles and norms of the Biological and Toxin Weapons Convention (BWC), and in advancement of progress towards achieving the UN Sustainable Development Goals.

I. Ethical Standards

2. Scientists[1] should respect human life and relevant social ethics. They have a special responsibility to use biosciences for peaceful purposes that benefit humankind, to promote a culture of responsible conduct in biosciences and to guard against the misuse of science for malicious purposes, including harm to the environment.

II. Laws and Norms

3. Scientists should be aware of and observe applicable domestic laws and regulations, international legal instruments, and norms relating to biological research, including those on the prohibition of biological weapons. Scientists and their professional bodies are encouraged to contribute to the establishment and further development and strengthening of relevant legislation.

III. Responsible Conduct of Research

4. Scientists should promote scientific integrity and strive to prevent misconduct in research. They should be aware of the multiple applications of biological sciences, including their potential use for developing biological weapons. Measures should be taken to prevent the misuse and negative impacts of biological products, data, expertise, or equipment.

IV. Respect for Research Participants

5. Scientists have a responsibility to protect the welfare of both human and non-human research participants and to apply the highest ethical standards in research conduct, with full respect for the subjects of research.

V. Research Process Management

6. Scientists should identify and manage potential risks when they pursue the benefits of biological research and processes. They should consider potential biosecurity concerns at all stages of scientific research. Scientists and scientific institutions should put in place oversight mechanisms and operational rules to prevent, mitigate, and respond to risks, and establish a culture of safety and security.

[1] For purposes of this document, “scientists” are practitioners engaged in work that includes biological science, including those involved in funding, education, and training; research and development (in the public and private sectors); project planning, management, dissemination, and oversight.

VI. Education and Training

7. Scientists, along with their professional associations in industry and academia, should work to maintain a well-educated, fully trained scientific community that is well versed in relevant laws, regulations, international obligations and norms. Education and training of staff at all levels should consider the input of experts from multiple fields, including social and human sciences, to provide a more robust understanding of the implications of biological research. Scientists should receive ethical training on a regular basis.

VII. Research Findings Dissemination

8. Scientists should be aware of potential biosecurity risks that might result from deliberate misuse of their research. Scientists and scientific journals should strike a balance when disseminating research findings between maximizing benefits and minimizing harm and communicate widely the beneficial aspects of research while minimizing potential risks that could result from such publication.

VIII. Public Engagement on Science and Technology

9. Scientists and scientific organizations should play an active role in encouraging public understanding and interest in biological science and technology, including its potential benefits and risks. They should communicate scientific facts and address concerns, uncertainties and misunderstandings to maintain public trust. Scientists should advocate for peaceful and ethical applications of the biosciences and work collectively to prevent misuse of biological knowledge, tools, and technologies.

IX. Role of Institutions

10. Scientific institutions, including research, funding, and regulatory bodies, should be aware of the potential for misuse of bioscience research, and ensure that expertise, equipment, and facilities are not used for illegal, harmful, or malicious purposes at any stage of bioscience work. They should establish appropriate mechanisms and processes to monitor, assess, and mitigate potential vulnerabilities and risks in scientific activities and dissemination, and establish a training system for scientists.

X. International Cooperation

11. Scientists and scientific institutions are encouraged to cooperate internationally and to collaborate in the pursuit of peaceful innovations in and applications of the biosciences. They should promote learning and exchange opportunities to share best practices in biosecurity. They are encouraged to actively provide relevant expertise and assistance in response to potential biosecurity threats.

12. The Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists focus on the prevention of intentional misuse of bioscience research, as per the articles and norms of the BWC, though the prevention of unintentional harm is equally important and closely intertwined. With the inclusion and implementation of elements from the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists, institutions, professional organizations, and all scientists can increase biosecurity and minimize risks of misuse and harm.