



THE 2ND INTERNATIONAL FORUM ON BIOSECURITY

Summary of an International Meeting, Budapest, Hungary March 30 to April 2, 2008 (2009)

Continuing advances in the life sciences over the last 50 years have led to great benefits for health, the economy, and the environment. However, there is concern that the knowledge, tools, and techniques gained through these developments could be used by states or terrorists to do harm, such as to produce biological weapons or for bioterrorism. The 2nd International Forum on Biosecurity, held in Budapest, Hungary on March 30 - April 2, 2008, was organized to identify the roles and responsibilities of the international science community in fostering policies to address these risks, and promote continuing scientific progress and greater international security. More than 80 life science professionals from 31 countries and 6 international organizations participated in the Forum. The group focused on identifying a range of potential next steps and opportunities where international scientific organizations could make substantive contributions and offer their advice and expertise to policy discussions. Specifically, the meeting addressed the challenges and opportunities to:

- Build a culture of responsibility within the science community regarding biosecurity through education and awareness raising, codes of conduct, and other mechanisms;
- Identify standards and practices for research oversight from the review of proposals through the conduct of research, publication and communication, and the range of approaches to achieving their widespread adoption;
- Provide scientific advice to governments and international organizations and develop the role of the science community in global governance.

The following key themes and concerns emerged throughout the discussions:

International focus. Participants agreed that progress in the life sciences is global, and that a dialogue on issues—such as risks that may arise from potential misuse of life sciences and strategies to minimize such risks—must also be international. Because of the differences in priorities of various regions, nations, and segments of the scientific and policy communities, it was suggested that a toolkit be developed with multiple options for addressing topics such as education, oversight, and governance.

Clear and consistent terminology. There are challenges associated with how some terms, such as “biosecurity”, are used and interpreted. Many participants said that clear and consistent terminology is necessary in order to effectively address issues of risk.

Risk. Participants determined that biosecurity and dual use issues in the life sciences were fundamentally about risk, specifically assessing relative risks and developing appropriate risk management options. Many participants agreed that achieving an optimum mix among potential risks and efforts to address them is critical. It is important to take steps to minimize risks that the life sciences will be misused for harm; to recognize the serious risks to human, veterinary, and environmental health that could result from such misuse; and to minimize overemphasizing security, which could stifle progress in the life sciences.

Reaching Agreement. Discussions will need to continue within the international scientific community so that it continues to work toward agreement. Most participants felt that providing clear and consistent advice on biosecurity issues to additional stakeholders, such as government policy makers and the general public, would be strengthened if the life sciences community could speak in greater harmony.

Oversight. Participants expressed different views about where the most appropriate level of oversight lies on the spectrum from self-governance to more formalized regulation. A mix will most likely be needed between “bottom-up” and “top down” oversight measures.

Education. Education was presented as an essential part of any strategy to help move toward greater awareness of dual use issues, and ultimately toward greater consensus about risks and risk management strategies within the scientific community. The education techniques suggested included highlighting benefits of continuing scientific developments, incorporating specific historical examples of previous misuse of science, and promoting active thinking and learning about biosecurity.

Communication and collaboration. Building networks, sharing information about current efforts and initiatives, and sharing resources offer great value to the community. Most participants thought that no single organization could address all aspects of biosecurity and biosafety, and that they could benefit from the results and materials produced by various groups and initiatives tackling aspects of these topics. Many also highlighted the need for evaluation of the efforts. One idea was to create a clearinghouse of materials and information for use by the community.

Greater collaboration among international scientific organizations. Within the nongovernmental community, participants pointed to important roles for organizations such as the International Council for Science (ICSU), the InterAcademy Panel on International Issues (IAP), the Academy of Sciences for the Developing World (TWAS), and the disciplinary science unions, since these groups are neutral networks that can engage scientists from many countries. In addition, they can take advantage of their networks to help exchange opinions and disseminate information. It was also suggested that the IAP and ICSU could strengthen their collaboration to continue dialogues on biosecurity issues within the scientific community. On the intergovernmental level, many participants felt that organizations such as the United Nations and the World Health Organization are critical, as they are able to effectively bridge between communities of scientific experts and governmental agencies.

Funding. Most participants agreed that financial support is needed for meetings to discuss biosecurity, to develop and deliver educational programs such as seminars, and to maintain networks and forums for sharing information. Although it is not clear at present where such funding will come from, governments have an important role to play in providing sustained resources.

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For More Information

Copies of *The 2nd International Forum on Biosecurity: Summary of an International Meeting, Budapest, Hungary March 30 to April 2, 2008* are available from the National Academy Press; call (800) 624-6242 or (202) 334-3313 (in the Washington metropolitan area), or visit the NAP website at www.nap.edu. For more information on the project, contact staff at (202) 334-2816 or visit the Policy and Global Affairs website at www.nationalacademies.org/biosecurity.