

# Update from the NSABB Working Group on International Engagement

## 3<sup>rd</sup> International Roundtable



**David Franz, D.V.M., Ph.D.  
NSABB Board Meeting  
December 10, 2008**



# Previous Roundtables Hosted by NSABB

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- ***International Roundtable on Dual Use Life Sciences Research***
  - Co-sponsored by WHO and USG
  - February 26-27, 2007
  
- ***Dual Use Issues in Life Sciences Research: A Roundtable on Strategies for Fostering International Engagement***
  - Sponsored by USG
  - October 10, 2007



# 3<sup>rd</sup> International Roundtable

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- ***Sustaining Progress in the Life Sciences:  
Strategies for Managing Dual Use  
Research of Concern***
  - Co-sponsored by USG and WHO
  - Hosted by NSABB
  - November 5-6, 2008



# **Working Group on International Engagement**

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- **NSABB Members:**
  - Chair: David R. Franz, D.V.M., Ph.D.
  - Vice Chair: Stuart B. Levy, M.D.
  - Murray L. Cohen, Ph.D., M.P.H., C.I.H.
  - Lynn W. Enquist, Ph.D.
  - Barry J. Erlick, Ph.D.
  - Stanley M. Lemon, M.D.
  - Harvey Rubin, M.D., Ph.D.
  - Anne K. Vidaver, Ph.D.
- **Agency Representatives:**
  - Tom Hopkins, Ph.D.
  - George Herrfurth, M.A.
  - Peter Jutro, Ph.D.
  - Mary Mazanec, M.D., J.D.
  - Robert Mikulak, Ph.D.
  - Janet K.A. Nicholson, Ph.D.
  - Polly R. Sager, Ph.D.
  - Scott Steele, Ph.D.



# **3<sup>rd</sup> NSABB International Roundtable**

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- Presentations by countries and organizations that have taken concrete, practical steps to manage dual use research of concern (DURC)**
- Focus on lessons learned where activities have been implemented**



# **Objectives of 3<sup>rd</sup> Roundtable**

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- Determining the scope of countries' activities, interests, and concerns pertaining to dual use life science research, including strategies for managing dual use research of concern;
- Sharing specific approaches taken by different countries, institutions and organizations in managing dual use research of concern and lessons learned from the implementation of these approaches;
- Informing the international community about NSABB work products and the development of USG policy; and
- Establishing and maintaining communication with other countries and the international science and policy community to establish a larger, more robust dialogue on issues related to dual use life sciences research.



# Participants

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- Over 130 scientists, government and intergovernmental organization officials, journal editors, ethicists, and others
- Representation from 37 countries and over 72 organizations

# Geographic Distribution





# **Areas of Special Concentration**

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- Raising Awareness**
- Training and education**
- Codes of Conduct**
- Reviewing research proposals for DURC**
- Reviewing scientific communications  
(including publications) for DURC content**
- Review and recommendations for  
managing DURC by national-level  
advisory bodies**



# Overall Structure

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- **Plenary Presentations:**  
Individuals and Panels
- **Breakout sessions**
- **Plenary discussions**



# **Keynote: The Societal Context for Dual Use Research**

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***Alan I. Leshner, Ph.D.***

**Chief Executive Officer  
Executive Publisher, *Science*  
AAAS**

- **Described the relationship between science and society, including the tensions that exist**
- **The important role of the scientific community in engaging the public**
- **AAAS's strategy for communicating with the public to**
  - enhance their trust in science
  - ensure that research is responsive to the needs and priorities of the community



# Managing Dual Use Research Issues along the Research Continuum

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*Paul Keim, Ph.D.*

Member, NSABB

- Presented an overview of the NSABB *Proposed Framework for the Oversight of Dual Use Life Sciences Research: Strategies for Minimizing the Potential Misuse of Research Information*



# **Harnessing the Benefits of the Biotechnology Revolution while Managing the Potential Risks: The Role of the United Nations**

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***Robert Orr, Ph.D., M.P.A.***

**Assistant Secretary-General for Policy Planning  
United Nations**

- **Described the potential role that the United Nations, and specifically the Secretary-General, could play in helping to safely harness and disseminate the benefits of the revolution in biotechnology as a contribution to the Millennium Development Goals**



# **Moving the Field Forward: The Biological Weapons Convention**

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*Ambassador Georgi Avramchev*

**Permanent Mission of the Republic of Macedonia to the  
United Nations Office at Geneva**

**Chair of the 2008 Meetings of the Biological Weapons  
Convention**

- **Described the role and activities of the BWC in preventing biology from being used for malign purposes**
- **Explained how the BWC is engaging with the scientific community to develop a culture of responsibility**
- **Supported the need for scientists to retain the necessary freedom to advance science**



# Promoting Global Health Research: Building Partnerships and Training the Next Generation

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*Michael P. Johnson, M.D., M.P.H.*

Deputy Director

Fogarty International Center

National Institutes of Health

- Described the role and activities of the Fogarty International Center in advancing global health, fostering international collaboration in science, training international scientists, and building capacity for health research



# **Managing Dual Use Research of Concern: Practical Issues and Lessons Learned**

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- This session consisted of multiple panels focused on the specific detailed steps taken by various nations and organizations to manage DURC**
- Presenters focused on the areas of special concentration for the Roundtable**
- Presenters concentrated on practical experiences and lessons learned**
  - Why various approaches were selected**
  - Challenges and how they have been met and overcome**



# **Progress at the National Level**

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- Updates on activities presented at the 1<sup>st</sup> Roundtable and new DURC related activities**
- During the discussion session other meeting participants made brief comments on DURC related activities in their countries**



# **Some Activities Highlighted During National-Level Panel**

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- **Legislation**
  - Australia
  - Israel
- **Meetings**
  - Georgia (December 2007)
  - Poland (February 2008)
  - Uganda (March 2008, July 2008 and January 2009)
  - Philippines (July 2008)
  - Pakistan (November 2008)
  - Morocco (November 2008 and April 2009)
  - China (December 2008)
- **Training**
  - Brazil



# Moving the field forward: Perspectives of Non-governmental Entities

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- Descriptions by various non-government entities (e.g., science academies, science unions, industry, etc.) and intergovernmental organizations on their role in advancing the management of DURC
  - encouraging and facilitating activities at the national and international level
  - promoting a culture of responsibility
  - raising awareness
  - educating stakeholder populations and communities
  - reviewing research proposals
  - reviewing scientific communications



# Overall Structure

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- **Plenary Presentations:**  
**Individuals and Panels**
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# **Preparation for Breakout Sessions**

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- Pre-meeting conference calls with co-chairs and rapporteur of each breakout group
  - Developed topic-specific questions
  - Identified useful topic-specific background materials



# Breakout Sessions

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- **Each group**
  - explored activities and strategies for the management of dual use research of concern in its specific topic area
  - developed an inventory of various approaches used to manage DURC in its specific topic area
  - considered the practical experience of developing and implementing these management tools
- **Reviewed these approaches to identify common themes and principles for the management of DURC**
- **Developed suggestions for future management activities in their topic areas**



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# Key Concepts

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- ***Science and society are inseparable***
  - To fully realize the benefits that scientific progress offers there is a need for public trust and confidence
  - Public wants assurance that scientists are taking every reasonable measure to assess and mitigate risks posed by advancements in the life sciences
- ***Continuums of risk and misuse***
  - Continuums of biologic risk and misuse - ranging from research with unanticipated results which could be misused to intentional misuse
  - Perception of risk is based on local situations
  - Need a spectrum of risk management strategies suited to the local context
- ***Existing Frameworks***
  - Integrating risk management strategies into existing frameworks
  - Will serve the additional goal of increasing awareness and understanding within relevant communities
  - Prevent potential negative perceptions from the scientific community that management of DURC is an obstacle while still providing an appropriate and prudent mechanism for protection



# Awareness Raising/Training and Education

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- **Challenges to increased awareness of dual-use research include:**
  - diverse audience
  - various levels of training and professional development
  - many relevant disciplines
- **Proposed strategies to achieve goals include:**
  - development of standard components of educational programs
  - leveraging current educational efforts in various areas (e.g. ethics, biosafety, biosecurity, responsible conduct of research)



# Culture of Responsibility/Codes of Conduct

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- **Need to**
  - make codes relevant to the specific audience and context
  - customize existing codes
  - encourage the adoption of codes
- **Challenge: convincing individual scientists of the importance of attention to DUR issues and their ethical obligations to mitigate misuse of the results of their research**
- **Involvement of the life sciences community in developing and improving codes of conduct can also serve to educate the scientific community and raise awareness**



# **Review of Research Proposals/Guidelines for Review**

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- Must occur across the research life cycle from project design to proposal review to publication
- Need an enriched review process that includes legal, ethical, biosafety and security expertise as well as scientific expertise
- Review mechanisms need to be transparent and include academia, government, and industry



# **Scientific Communications/ Presentations and Publications**

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- Need to ensure “upstream” review of research as well as review at the time of submission for publication
- Need for a consistent approach for the identification of DURC across various scientific publications
- Need to provide instructions to authors and manuscript reviewers for the identification and management of risks
- To facilitate the review of scientific publications
  - establish core systems for journals to share experience and best practices
  - advise smaller journals in the review of manuscripts
  - Consider developing a registry of experts for this review



# Moving Forward

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- **Development of formal and informal mechanisms for sustained dialogue among all stakeholders**
- **Development and refinement of educational tools, codes of conduct, etc., including the sharing of best practices**
- **Sharing of best practices and expertise in and procedures for analyzing and managing any dual use potential in the review of research proposals and scientific communications**



# Other Findings

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- A range of DURC management activities worldwide covering each of the areas of special concentration are already in place
- Transparency and public trust are very important
- Shared responsibilities
- Benefits of regional approaches
- Simultaneous need for standards and consistency coupled with need to tailor approaches to specific (i.e., local) context
- Sensitivity to distinct situations in developing countries
- Collaborative, long-term international relationships are critical
- Life sciences are a rapidly advancing field and approaches to managing DURC need to be flexible



# Follow-up to Roundtable

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- Federation of American Scientists (FAS) Listserv
- *Biosecurity and Bioterrorism* Journal
- Engagement with Fogarty International Center
- Summary provided to BWC Meeting of States Parties
- Council of Science Editors

