

Committee on Energy and Commerce
U.S. House of Representatives
Witness Disclosure Requirement - "Truth in Testimony"
Required by House Rule XI, Clause 2(g)(5)

1. Your Name: Tara O'Toole		
2. Your Title: Executive Vice President		
3. The Entity(ies) You are Representing: I am representing myself and my own views		
4. Are you testifying on behalf of the Federal, or a State or local government entity?	Yes	No X
5. Please list any Federal grants or contracts, or contracts or payments originating with a foreign government, that you or the entity(ies) you represent have received on or after January 1, 2013. Only grants, contracts, or payments related to the subject matter of the hearing must be listed. None		
6. Please attach your curriculum vitae to your completed disclosure form.		

Signature: _____

Date: 2/9/16

TARA O'TOOLE, M.D., M.P.H.
CURRICULUM VITAE

Name: Tara J. O'Toole, MD, MPH

[REDACTED]

[REDACTED]

[REDACTED]

EDUCATION AND TRAINING

UNDERGRADUATE:

<u>Dates Attended</u>	<u>Name & Location of Institution</u>	<u>Degree Received</u>	<u>Major Subject</u>
1969 - 1974	Vassar College Poughkeepsie, New York	B.A.	Multidisciplinary major in Science, Technology and Society

GRADUATE:

<u>Dates Attended</u>	<u>Name & Location of Institution</u>	<u>Degree Received</u>	<u>Major Subject</u>
1987 - 1988	Johns Hopkins University School of Hygiene & Public Health Baltimore, Maryland	M.P.H.	Public Health
1977 - 1981	The George Washington University School of Medicine Washington, DC	M.D.	Medical Doctor

POSTGRADUATE:

<u>Dates Attended</u>	<u>Name & Location of Institution</u>	<u>Degree Received</u>
1988-89	Johns Hopkins School of Hygiene & Public Health Department of Occupational & Environmental Medicine Baltimore, Maryland	Fellowship
1981-84	Yale New-Haven Hospital Department of Internal Medicine New Haven, Connecticut	Residency

ACADEMIC APPOINTMENTS AND POSITIONS

<u>Years Inclusive</u>	<u>Name & Location of Institution of Organization</u>	<u>Rank/Title</u>
2004 - 2009	University of Pittsburgh School of Public Health, Division of Occupational Health and Department of Medicine, Division of Infectious Disease	Professor
2003 - 2009	Center for Biosecurity of the University of Pittsburgh Medical Center—Baltimore, MD	Director and Chief Executive Officer
2003	Johns Hopkins University School of Public Health	Public Health Professor
2001 – 2003	Johns Hopkins University Center for Civilian Biodefense Strategies	Director
1999 – 2003	Johns Hopkins University School of Public Health	Assistant Public Health Professor
1998 - 2001	Johns Hopkins University Center for Civilian Biodefense Strategies	Deputy Director
1998 – 1999	Johns Hopkins University School of Public Health	Visiting Scholar
1993 – 1998	University of Maryland School of Medicine Baltimore, Maryland	Clinical Assistant Professor
1989 – 1993	University of Maryland School of Medicine Baltimore, Maryland	Instructor, Dept. of Medicine & Preventative Medicine

CERTIFICATION and LICENSURE

SPECIALTY CERTIFICATION:

<i>Certifying Board</i>	<i>Year</i>
Preventive Medicine / Occupational Medicine	1990
Internal Medicine	1984

MEDICAL or OTHER PROFESSIONAL LICENSURE:

<i>Licensing Board/State</i>	<i>Year</i>
Medical License for State of Maryland	1981 - Present

PROFESSIONAL EXPERIENCE

Senior Fellow, Executive Vice President, In-Q-Tel, March 2014- present

In-Q-Tel (IQT) is a private, non-profit strategic investment firm established by Congress in 1999 to link the US Intelligence Community and venture-backed start-up firms on the leading edge of technological innovation. IQT invests in start-up technology companies that have developed commercially viable products that will deliver novel and disruptive, ready-soon technologies (within 36 months) that could effectively address some of the nation's most significant problems. Dr. O'Toole is leading a strategic IQT initiative called *BiologyNext* which is exploring opportunities and risks likely to arise in the next decade as a result of advances in the biological sciences and biotechnologies. *BiologyNext* will have a particular focus on detection of and defense against biological attacks, whether naturally occurring or deliberate.

Under Secretary, Science and Technology Directorate, 2009-13 US Department of Homeland Security

Nominated by President Obama and confirmed by the US Senate as the third Undersecretary of Science and Technology (USST) in 2009. The USST serves as the principal scientific advisor to the Secretary of Homeland Security and is the senior official in charge of the Science and Technology Directorate (S&T), an organization with a fiscal year 2013 budget of approximately \$1B, a staff of 800 and responsibility for conducting or overseeing all research and development conducted by the Department in pursuit of its missions. S&T also operates five national laboratories, and administers the university-based Centers of Excellence, which have provided increasingly valuable service to the nation and now encompass work in over 200 universities and colleges. S&T also manages an international network of research collaborations involving ten countries.

Key Accomplishments:

Halted severe cuts to S&T budget and won 25% increase in Congressional appropriations during austere budgetary environment of FY13 on basis of demonstrated performance, including rapid delivery of R&D projects to field use, high return on investments, and strong support from DHS' operational components.

Reorganized the Directorate to improve communications, agility, and coherence; reduced direct reports to the Under Secretary from 21 to nine; established cyber security research division and division dedicated to development of first responder technologies; established and funded divisions to improve partnerships with private sector, IQT, other federal agencies and universities.

Established annual review of S&T portfolio of R&D investments, based on criteria selected by S&T staff, and review by panel of technical experts and operators from DHS components, allowing transparent, shareable, and repeatable evaluation of projects, priorities and progress towards Directorate goals. In three years, increased the number of projects judged likely to transition to use within 2-5 years from ; increased the per cent of projects with outside funding from X to Y

Created "technology foraging" initiative to ensure that operational needs

Director and CEO / 2005-09
Center for Biosecurity of UPMC
Baltimore, MD

Professor of Medicine and Public Health 2005-09
The University of Pittsburgh School of Medicine, Division of Infectious Disease
The University of Pittsburgh School of Public Health, Occupational Health

Established in 2005, the Center for Biosecurity of UPMC was formed to provide research, analysis and policy recommendations designed to prevent natural epidemics or large-scale biological weapons attacks on civilian populations, and should prevention fail, to foster strategies and practices which would mitigate the suffering and social and economic consequences of such events. The Center employs a multidisciplinary approach to better understand and forge practical, non-partisan solutions to complex problems of medicine, public health, policy and practice. The Center has gained an international reputation for its authoritative scientific analyses, its influential disaster scenarios, and for its role in convening diverse communities of experts, practitioners, and government officials from around the world to examine complex problems and strengthen collective efforts to improve health security. As Director, I co-founded and edited the only peer-reviewed journal dedicated to biosecurity, *Biosecurity and Bioterrorism – Biodefense Strategy, Practice and Science*, which has become an influential international forum on these topics. In April 2013, the Center changed its name to the UPMC Center for Health Security to signal the expanded spectrum of threats – including emerging infectious diseases, natural disasters, pandemic flu, and nuclear accidents – addressed by the Center’s mission.

Director / 2001-2003
Deputy Director / 1999-2001
Center for Civilian Biodefense Strategies

Professor of Public Health
The Johns Hopkins University School of Hygiene and Public Health

The Johns Hopkins Center for Civilian Biodefense Studies was created in September 1998 to foster the development of medical and public health policies and organizational structures to protect civilian populations from bioterrorism. The Center pursues this mission through three main strategies: increasing awareness of the medical and public health threats posed by biological weapons; building the knowledge base upon which medical and public health responses to epidemics must depend; catalyzing the development of systems and collaborative efforts that will improve the institutional capacity to respond to possible bioterrorist attacks. In 2005, the Center and its staff joined the faculty of the University of Pittsburgh and established the Center for Biosecurity of UPMC.

Consultant
Industry and Government
1998-2000

Consultant to government and private sector on range of issues related to occupational safety, environmental health and organizational change. Projects since 1997 included: establishment of collaborative

union/management solutions to nuclear and industrial safety issues at Kaiser-Hill Co.; advised Kaiser Permanente Health Systems and Restructuring Associates Inc. on matters pertaining to creation of joint union/management approach to implementation of initiatives and systems to improve health care quality in national HMO; advised US Air Force on validity of technical and managerial processes governing environmental cleanup at the Massachusetts Military Reservation. Bioterrorism-related consultancies include Center for Naval Analysis, Science Applications International Corporation, the British Broadcasting Corporation.

Assistant Secretary of Energy for Environment Safety and Health
US Department of Energy
1993-1997

The Assistant Secretary for Environment Safety and Health (ASEH) is appointed by the President, confirmed by the US Senate, and reports to the Secretary of Energy.

During my tenure in the position, ASEH managed a budget of \$176 million and a staff of 450 professionals who provided oversight and technical expertise in environment safety and health (ESH) matters for the Department of Energy (DOE). DOE owns 27 national laboratories and the nuclear weapons complex and has an annual budget of \$17 billion.

• **Policy Development**

- Established ESH policy for DOE workforce of 17,000 federal employees and 80,000 contractors. DOE missions include basic and applied scientific research; disassembly and surveillance of nuclear weapons; storage and disposition of fissile material and chemical inventories; decontamination and decommissioning of surplus weapons production facilities; and planning and execution of the largest environmental cleanup effort in history.
- Represented the Department in dealings with the White House, the Office of Management and Budget and other federal agencies involving the formulation of Administration ESH policies including regulatory reform. Testified before Congress on Departmental and Administration ESH policies and budgets.
- Three-time winner of Vice President's Golden Hammer Award for re-inventing Government. Programs established included WorkSmart Standards, first successful approach to tailoring ESH requirements to the hazard level of the work performed; established Enhanced Work Planning, a worker-based multidisciplinary approach to work design and hazard control which resulted in increased safety and greatly improved productivity; an analytical system for assessing safety performance which improved usefulness and analytical rigor of safety measures while reducing tracking costs by 20%.
- Provided technical support to DOE program offices, the Office of the General Counsel and the Department of Justice on matters related to environmental, occupational and public health impacts of governmental activities including National Environmental Policy Act issues, workers' compensation actions, and litigation matters.

• **ESH Oversight**

- Conducted independent assessments of contractor and federal management of environment, safety and health including compliance with state and federal regulations.
- Reengineered ESH oversight functions: consolidated five organizations into single multidisciplinary oversight office; changed focus of inspections from compliance audits to assessments of ESH management systems; established first training programs, protocols and training standards for oversight inspectors; decreased annual oversight costs from \$40 million in 1992 to \$14 million in 1996.

• **Program Direction**

- Redefined and Reengineered the Office of Environment Safety and Health to address challenges posed by cleanup of environmental contamination and the end of the Department's Cold War national security mission.

- Designed and conducted first Department-wide assessments of ESH vulnerabilities associated with management of spent nuclear fuel, plutonium, uranium and toxic chemicals stranded in place by cessation of nuclear weapons production. Findings of these "vulnerability studies" prompted shifts in budget allocations worth hundreds of millions of dollars.
- Created and implemented model programs to improve work planning processes that demonstrably enhanced safety and operational efficiency. Heart of program structure was formation of multidisciplinary teams and active engagement of workers in "bottoms-up" approach to work planning and execution.
- Established center of expertise to define and evaluate ESH expectations and obligations set forth in contracts between the Department and private contractors who operate DOE facilities.
- **Administration**
 - Budget: Developed annual EH budget and defended proposed expenditures before Congressional authorization and appropriation committees. Developed organizational strategy and staffing plan to focus and sustain vital functions in face of significant budget reductions. Established first Department-wide process for identifying and tracking budget requests for risk-based health and safety priorities.
 - Information Management and Analysis: Designed and managed executive information systems pertaining to environmental compliance, nuclear safety operations, radiation doses, and occupational illness and injury data. Responsible for analysis of status, trends and vulnerabilities of environment safety and health performance throughout DOE.
- **Research and Analysis**
 - Occupational and Environmental Health Research: Managed approximately \$20 million in grants and cooperative agreements with other federal agencies, National Laboratories, unions and universities aimed at investigations of occupational and environmental health impacts of energy-related activities and development of practical and innovative approaches to assessing occupational exposures. Conducted intramural epidemiological analyses of occupational health effects among DOE workers.
 - International Radiation Studies: Managed international studies of radiation effects. US manager of the Radiation Effects Research Foundation in Japan, established to study the health impacts among atomic bomb survivors. Led US delegation to the US/Russian Joint Commission on Radiation Effects Research, established to conduct epidemiological research related to Chernobyl and the impacts of the Soviet nuclear weapons production.
 - Human Radiation Experiments: Chaired White House Interagency Working Group on Human Radiation Experiments; developed and coordinated systems for acquiring intellectual control over more than 300,000 documents pertaining to the history human radiation experiments; served as liaison with stakeholder groups and provided staff and administrative support for President's Independent Advisory Committee on Human Radiation Experiments.
 - Operational Analyses: Established and managed DOE-wide organization to track and analyze quantitative ESH performance indicators at corporate and site-specific levels. Conducted investigations of all serious accidents and fatalities and performed analyses of engineered safety systems and administration controls at the nuclear weapons complex.

**Senior Analyst/Project Director
Environment Program, Congressional Office of Technology Assessment (OTA)
1989-93**

OTA was created by Congress to provide bipartisan, multidisciplinary analyses of scientific and technical issues of national significance. Projects were undertaken at the request of Congressional committees. Reports were researched and written by OTA program staff in consultation with outside advisory committees assembled by OTA.

Worked with members and staff of Congressional committees to design and conduct OTA studies. Established and managed study budgets and schedules, advisory panels and workshops. Presented study results to Congress, media and stakeholder groups.

Specific OTA Studies

- *Complex Cleanup: The Environmental Legacy of Nuclear Weapons Production, 1991*
Requested by Senate Committee on Armed Services; principal analyst. Evaluated environmental restoration and waste management activities at DOE nuclear weapons complex. Researched and wrote sections of report addressing public health consequences of environmental pollution at nuclear weapons facilities. Issues addressed included technical and institutional obstacles to conducting environmental health studies; uses and limitations of risk assessments in assessing environmental health impacts of radiation and chemical contaminants; citizens' roles in assessing public health impacts of nuclear weapons sites; efficacy of existing regulations and institutional arrangements for preventing adverse impacts from environmental pollutants.
- *Hazards Ahead: Cleanup Worker Health and Safety at the Nuclear Weapons Complex, 1993*
Principal analyst and project director. Addressed potential occupational health and safety threats confronting workers engaged in environmental cleanup of the weapons complex and related management issues.
- *Other OTA work*
Included review of health risks associated with dioxin treatment technologies; health risks associated with book deacidification/preservation technologies; health and public policy questions associated with asbestos in public buildings; occupational and public health implications of chemical weapons destruction.

Clinical Assistant Professor/Clinical Instructor **University of Maryland School of Medicine** **1990-1997 (part time)**

Attending physician in hospital-based occupational medicine clinic (part-time, 1990-93). Responsibilities included care of patients with work-related and environmental illness; clinical supervision of medical students and residents in internal and family medicine; classroom lectures and seminars on occupational medicine for second year medical students, graduate students and preventive medicine residents.

General Internist **Baltimore Community Health Centers** **1984-87; 1987-89 (part time)**

General medical practice in Public Health Service-supported health centers in inner city Baltimore. Member, National Health Service Corps; active in numerous committees and initiatives dealing with access to care and quality of care issues.

Research Technician **Sloan-Kettering Institute for Cancer Research**

Worked with senior researchers in Dr. J. Burchenal's laboratory testing potential chemotherapeutic agents in murine models of leukemia and solid tumors.

MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

Organization

- American Public Health Association
- American Association for the Advancement of Science
- Federation of American Scientists

Year

1989 – Present
1980 – Present
2002 – 2010

HONORS and AWARDS

<u>Title of Award</u>	<u>Year</u>
George Washington University Distinguished Alumni Achievement Award	2013
Alpha Omega Alpha Honor Medical Society	2013
Delta Omega Honorary Society in the Public Health Alpha Chapter	2002
Secretary's Gold Award, US Department of Energy	1997
Vice President's Golden Hammer Award for Reinventing Government	1995, 96, 97
Oil Chemical and Atomic Energy Workers Council Award	1993
Commencement Speaker, George Washington University School of Medicine	1981
Lange Book Award, George Washington University School of Medicine	1979, 81
Sprague Chemistry Fellowship - Vassar College	1976
Mary Nourse Pemberton Award for Pre-medical Studies - Vassar College	1975

PUBLICATIONS – Refereed Articles

- Franco C, Toner E, Waldhorn R, Inglesby TV, **O'Toole T**. The National Disaster Medical System: Past, Present, and Suggestions for the Future. *Biosec Bioterr*. 2007;5(4):319-325.
- Hitchcock PJ, Chamberlain A, Van Wagoner M, Inglesby TV, **O'Toole T**. Challenges to Global Surveillance and Response to Infectious Disease Outbreaks of International Importance. *Biosecur Bioterror* 2007;5(3):206-227.
- Maldin B, Lam C, Franco C, Press D, Waldhorn R, Toner E, **O'Toole T**, Inglesby TV. Regional Approaches to Hospital Preparedness. *Biosec Bioterr*. 2007;5(1)43-53.
- Lam C, Waldhorn R, Toner E, Inglesby TV, **O'Toole T**, "The Prospect of Using Alternative Medical Care Facilities in an Influenza Pandemic," *Biosecur and Bioterror*. 2006;4(4)384-390.
- Inglesby TV, Nuzzo JB, **O'Toole T**, Henderson DA. Disease Mitigation Measures in the Control of Pandemic Flu. *Biosecur Bioterror* 2006;4(4)366-375.
- Franco C, Toner E, Waldhorn R, Maldin B, **O'Toole T**, Inglesby TV. Systemic Collapse: Medical Care in the Aftermath of Hurricane Katrina. *Biosecur Bioterror*. 2006;4(2)135-146.
- Toner E, Waldhorn R, Maldin B, Borio L, Nuzzo JB, Lam C, Franco C, Henderson DA, Inglesby TV, **O'Toole T**. Hospital Preparedness for Pandemic Influenza. *Biosecur Bioterror*. 2006;4(2)207-217.
- Hitchcock PJ, Mair M, Inglesby TV, Gross J, Henderson DA, **O'Toole T**, Ahern-Seronde J, Bahnfleth WP, Brennan T, Burroughs HEB, Davidson C, Delp W, Ensor DS, Gomory R, Olsiewski P, Samet JM, Smith WM, Streifel AJ, White RH, Woods JE. Improving Performance of HVAC Systems to Reduce Exposure to Aerosolized Infectious Agents in Buildings; Recommendations to Reduce Risks Posed by Biological Attacks. *Biosecur Bioterr*. 2006;4(1)41-54.
- Rubinson L, Nuzzo JB, Talmor DS, **O'Toole T**, Kramer BR, Inglesby TV, Working Group on Emergency Mass Critical Care. Augmentation of hospital critical care capacity after bioterrorist attacks or epidemics: Recommendations of the Working Group on Emergency Mass Critical Care. *Crit Care Med.*; October 2005;33(10):2393-403.
- Gilfillan L, Smith BT, Inglesby TV, Kodukula K, Schuler A, Lister M, **O'Toole T**. Taking the Measure of Countermeasures: Leaders' Views on the Nation's Capacity to Develop Biodefense Countermeasures. *Biosecur Bioterr*. 2004;2(4):320-327.
- Schuler A, Fitzgerald J, Inglesby TV, **O'Toole T**. Executive Government Positions of Influence in Biodefense: The Bio-Plum Book. *Biosecur Bioterr*. 2004;2(4):328-341.
- Schoch-Spana M, **O'Toole T**, Inglesby TV, Lien O, Working Group on Governance Dilemmas in Bioterrorism Response. Leading during Bioattacks and Epidemics with the Public's Trust and Help. *Biosecur Bioterr*. 2004;2(1):25-40.

- Smith B, Inglesby TV, **O'Toole T**. Biodefense R&D: Anticipating Future Threats, Establishing a Strategic Environment. *Biosecur Bioterr*. September 2003;1(3):193-202.
- **O'Toole T**, Inglesby TV. Battling Infectious Diseases. *Washington Times*. July 9, 2003, p A21.
- Gursky E, Inglesby TV, **O'Toole T**. Anthrax 2001: Observations on the Medical and Public Health Response. *Biosecur Bioterr*. 2003;1(2):97-110.
- Kwik G, Fitzgerald J, Inglesby TV, **O'Toole T**. Biosecurity: Responsible Stewardship of Bioscience in an Age of Catastrophic Terrorism. *Biosecur Bioterr*. 2003;1(1):27-35
- Borio L, Inglesby TV, **O'Toole T**, et. al. Hemorrhagic Fever Viruses as Biological Weapons: Medical and Public Health Management. *JAMA*. May 8, 2002;287(18):2391-2405.
- Inglesby TV, **O'Toole T**, Henderson DA, Bartlett J, Ascher M, et.al. Anthrax as a Biological Weapon. Updated Recommendations for Management. *JAMA*. May 1, 2002;287(17):2236-2252.
- **O'Toole T**, Mair M, Inglesby TV. Shining Light on Dark Winter. *Clin Infect Dis*. April 1, 2002;34:972-983.
- Barbera J, Macintyre A, Gostin L, Inglesby TV, **O'Toole T**, DeAtley C, Tonat K, Layton M. Large-Scale Quarantine Following Biological Terrorism in the United States: Scientific Examination, Logistic and Legal Limits, and Possible Consequences. *JAMA*. December 5, 2001;286(21):2711-2717.
- Borio L, Dennis F, Venkat M, Carlos C, Michael P, Mary R, Syed A, Constance D, Jacqueline A, Jack T, David F, **O'Toole T**, et.al. Death Due to Bioterrorism – Related Inhalational Anthrax: Report of 2 Patients. *JAMA*. November 28, 2001;286(20):2554-2559.
- Dennis D, Inglesby TV, Henderson DA, Bartlett JB, Ascher MS, Eitzen E, Fine A, Friedlander A, Hauer J, Layton M, Lillibridge S, Osterholm M, **O'Toole T**, et.al. Tularemia as a Biological Weapon: Medical and Public Health Management, Consensus Statement of the Working Group on Civilian Biodefense. *JAMA*. June 6, 2001; 285(21):2763-2773.
- **O'Toole T**, Inglesby TV. Epidemic Response Scenario: Decision-Making in a Time of Plague. *Public Health Rep*. 2001. Supplement 2;116:92-103.
- **O'Toole T**, Henderson DA. A clearly present danger: confronting the threat of bioterrorism. Harvard International Forum. 2001;23:49-53.
- **O'Toole T**. Emerging Illness and Bioterrorism: Implications for Public Health. *J Urban Health*. June 2001; 78(2).
- Arnon SA, Schechter R, Inglesby TV, Henderson DA, Bartlett JB, Ascher MS, Eitzen E, Fine A, Hauer J, Layton M, Lillibridge S, Osterholm M, **O'Toole T**, et.al. Botulinum Toxin as a Biological Weapon: Medical and Public Health Management, Consensus Statement of the Working Group on Civilian Biodefense. *JAMA*. Feb 28, 2001; 285(8):1059-1070.
- Inglesby TV, Grossman R, **O'Toole T**. A Plague on Your City: Observations from TOPOFF. *Clin Infect Dis*. Feb 1, 2001;(32)436-445.
- Inglesby TV, Henderson DA, **O'Toole T**, Dennis D. Safety Precautions to Limit Exposure to Plague-Infected Patients. *JAMA*. 2000 Oct 4; 284(13):1648-9.
- **O'Toole T**, Inglesby TV. Response to Facing the Biological Weapons Threat. *Lancet*. 2001 Feb 10; 357(9254):482.
- Inglesby TV, **O'Toole T**, Henderson DA. Preventing the Use of Biological Weapons: Improving Response Should Prevention Fail. *Clin Infect Dis*. June 2000;30(6):926-929.
- Inglesby TV, Henderson DA, Bartlett JG, Ascher MS, Eitzen E, Friedlander AM, Hauer J, Koerner J, Layton M, McDade J, Osterholm M, **O'Toole T**, et.al. Plague as a Biological Weapon: Medical and Public Health Management, Consensus Statement of the Working Group on Civilian Biodefense. *JAMA*. May 3, 2000; 283(17):2281-2290.
- **O'Toole T**. Smallpox: An Attack Scenario. *Emerg Infect Dis*. Jul-Aug 1999;5(4).
- Henderson DA, Inglesby TV, Bartlett JG, Ascher MS, Eitzen E, Jahrling P, Hauer J, Layton M, McDade J, Osterholm M, **O'Toole T**, et.al. Smallpox as a Biological Weapon: Medical and Public Health Management, Consensus Statement of the Working Group on Civilian Biodefense. *JAMA*. June 9, 1999;281(22):2127-2137.
- Inglesby TV, Henderson DA, Bartlett JG, Ascher MS, Eitzen E, Friedlander AM, Hauer J, McDade J, Osterholm M, **O'Toole T**, et.al. Anthrax as a Biological Weapon: Medical and Public Health Management Consensus Statement of the Working Group on Civilian Biodefense. *JAMA*. May 12, 1999;281(18):1734-1735.

OTHER PUBLICATIONS

Books, Editorials and Book Reviews:

- **O'Toole T**, Inglesby TV. Strategic Priorities for U.S. Biosecurity. *Bio Secur Bioterror*. 2009;7(1):25-28.
- Maldin-Morgenthau B, Toner E, Waldhorn R, Nuzzo JB, Franco C, Press D, **O'Toole T**, Inglesby TV. Roundtable: promoting partnerships for regional healthcare preparedness and response. *Bio Secur Bioterror*. 2007;5(2):180-5.
- Gronvall GK, Smith BT, Matheny J, Mair M, Chamberlain A, Deitch S, Borio L, Inglesby TV, **O'Toole T**. Biomedical Advanced Research and Development Authority (BARDA) roundtable. *Bio Secur Bioterror*. 2007;5(2):174-9.
- Maldin-Morgenthau B, Toner E, Wilkinson D, Horwitz B, Antons K, Inglesby TV, **O'Toole T**. Roundtable discussion: corporate pandemic preparedness. *Bio Secur Bioterror*. 2007;5(2):168-73.
- Gronvall GK, Fitzgerald J, Chamberlain A, Inglesby TV, **O'Toole T**. High-Containment Biodefense Research Laboratories: Meeting Report and Center Recommendations. *Bio Secur Bioterr*. 2007;5(1)75-85.
- Nuzzo JB, Henderson DA, **O'Toole T**, Inglesby TV. Comments from the Center for Biosecurity of UPMC on Proposed Revisions to Federal Quarantine Rules. *Bio Secur Bioterr*. 2006;4(2):204-206.
- Maldin B, Inglesby TV, Nuzzo JB, Lien O, Gronvall GK, Toner E, **O'Toole T**. Bulls, Bears, and Birds: Preparing the FUS BT, Inglesby TV, Brimmer E, Borio L, Franco C, Gronvall GK, Kramer B, Maldin B, Nuzzo JB, Schuler A, Stern S, Henderson DA, Larsen RJ, Hamilton DS, **O'Toole T**. Navigating the Storm: Report and Recommendations from the Atlantic Storm Exercise. *Bio Secur Bioterr*. 2005;3(3):256-67
- Rubinson L, **O'Toole T**. Critical Care During Epidemics. *Crit Care*. 2005;Aug;9(4):311-3.
- **O'Toole T**, Inglesby TV. Toward Biosecurity. *Bio Secur Bioterr*. 2003;1(1):1-3.
- Henderson DA, Inglesby TV, **O'Toole T**. 2002. "Bioterrorism: Guidelines for Medical and Public Health Management." *JAMA & Archives Journals*. July 2002; BP10:170-01 (Book Review).
- **O'Toole T**, Inglesby TV, Bartlett J, Mair M. 2002. Bioterrorism and Public Health. *eMedguides.com*. (An Internet Resource Guide).
- Inglesby TV, **O'Toole T**. 2001. Medical Aspects of Biological Terrorism. *Medical Knowledge and Self-Assessment Program (MKSAP)*, American College of Physicians. 12th Edition.
- **O'Toole T**, Inglesby TV. 2001. Facing the Biological Weapons Threat. *Lancet*. Feb. 10; (357)9254 (Editorial).
- **O'Toole T**, 2000. The Woman Who Knew Too Much. *Bulletin of the Atomic Scientist*. Jul-Aug (Book Review)
- US Congress, Office of Technology Assessment, Complex Cleanup: the Environmental Legacy of Nuclear Weapons Production, OTA-0-484 (Washington, DC: US Government Printing Office, February 1991).
- US Congress, Office of Technology Assessment, Hazards Ahead: Health and Safety Risks to Cleanup Workers at the Nuclear Weapons Complex, OTA-BP-O-85, (Washington, DC: US Government Printing Office, February 1993).

PROFESSIONAL ACTIVITIES

UNIVERSITY TEACHING:

- National Defense University, Building International Partnerships to Combat Weapons of Mass Destruction Symposium, "International Partnerships to Combat Biological Threats," Washington, DC, May 16, 2007.
- University of Pittsburgh MD/PhD Program, "Bioterrorism and Biodefense," June 15, 2005.
- National Defense University, Center for Study of WMD Symposium, "Combating WMD: A National Architecture for a New Century", May 25-26, 2005.

- University of Pittsburgh, 50th Anniversary Scientific Symposium: Remembering Polio: The History and Future of Vaccine Development, “Disease as a Weapon: A New Challenge for the 21st Century,” April 12, 2005.
- Teaching Faculty and principal organizer: BSPH Summer course “Medical and Public Health Aspects of Bioterrorism” in the Bloomberg School of Public Health Summer Institute in Health Policy and Management. Approx. 50 attendees including state and local public health officials, federal government employees, physicians, nurses, members of the military and BSPH graduate students. June 12-14, 2002, June 17-19, 2003.
- JHU School of Advanced International Studies, “How Prepared Are you to Prevent Bioterrorism?” October 14, 2003.
- JHU School of Advanced International Studies, National Security Decision Making Seminar, America’s New War, “Bioterrorism, Bioweapons and the Dept. of Defense”, December 5, 2002.
- JHU School of Advanced International Studies, “The Bioterrorism Threat: Next Steps”, November 6, 2002
- Bloomberg School of Public Health, Smallpox Symposium for Public Health Officials, “Smallpox as a Biological Weapon”, September 25, 2002
- Bloomberg School of Public Health, Bioethics Institute, “Dark Winter, Deliberate Epidemics and Ethical Disputes”, February 12, 2002
- BSPH Intercession Course, “Federal Response to Terrorism: Meshing Policy and Science”, January 14, 2002.
- “Anthrax: Public Health Issues and Uncertainties.” Johns Hopkins Bloomberg School of Public Health. November 26, 2001.
- “Bioterrorism and Bioweapons: Is the Threat Real? Are We Prepared?” Johns Hopkins University School of Advanced International Studies. W. Kennedy Auditorium. Washington, D.C. November 6, 2001.

INVITED TALKS, SPEECHES AND LECTURES (1998-2009)

- “Emerging Threats and the Mission of Public Health” Director’s Seminar. Centers for Disease Control and Prevention, Coordinating Office for Terrorism Preparedness and Emergency Response. Atlanta, GA. February 4, 2009.
- Keynote Speaker: “Important Considerations for Hospital Preparedness for BT and Major ID Emergencies.” Training Conference of Major Infectious Disease Emergencies and Bioterrorism Preparedness. Hong Kong. November 21, 2008.
- Keynote Speaker: “The Challenge of Bioterrorism, Present and Future.” Training Conference of Major Infectious Disease Emergencies and Bioterrorism Preparedness. Hong Kong. November 20, 2008.
- Keynote Speaker: “Thoughts on Biosurveillance.” Institute of Medicine/National Research Council Committee on Effectiveness of National Biosurveillance Systems: BioWatch and the Public Health System. Washington, D.C. November 3, 2008.
- Panel Participant: “Bioterrorism Preparedness: How Much Safer Are We?” Council on Foreign Relations, New York, NY. October 16, 2008.
- Panel Participant: Infectious Disease Panel, “Biosecurity and Pandemic Threats.” Committee on the U.S. Commitment to Global Health. Institute of Medicine Workshop. Washington, D.C. July 7, 2008.
- Keynote Speaker: “Building Biosecurity Capacity.” University of California, San Diego, and Carnegie Corporation of New York. Washington, D.C. May 29, 2008.
- Invited Participant: “The Biological Weapons Threat: A Growing Menace.” 2008 Weapons of Mass Destruction Center Symposium, WMD Proliferation and Use: Have We Been Effective, Lucky, or Overly Concerned?, National Defense University. Washington, D.C. May 7, 2008.
- Invited Participant: Study Group on Presidential Science and Technology Advisory Assets. Center for the Study of the Presidency. Washington, D.C. March 26, 2008.
- Panel Moderator: “Federal, State and Local Perspectives on National Preparedness for Public-Private Coordination in the Distribution of Medical Countermeasures”. Institute of Medicine Forum on Medical and Public Health Preparedness for Catastrophic Events. Washington, D.C. January 22, 2008.
- Invited Participant: “Preventing and Responding to Catastrophic WMD Terrorism”. National Defense University Center for the Study of Weapons of Mass Destruction’s Biological Attribution Workshop. Washington, D.C. December 18, 2007.
- Panel Participant: “What Should Be the Use and Purpose of American Power in the 21st Century?”. 50th Anniversary Celebration of The Fund for Peace, Washington, D.C. December 3, 2007.
- Panel Participant: “Academia/Science Panel”. U.S. Health and Human Services, Public Health Emergency Medical Countermeasures (PHEMC) Enterprise Stakeholders Workshop, Washington, D.C. July 31, 2007.
- Keynote Speaker: “Science and Technology: Informing U.S. Policy and Inspiring Future Generations.” Women in International Security and The Committee on Women in Science and Engineering. Washington, D.C. June 21, 2007.
- Invited Participant: “Citizen Preparation for Bioterrorism.” Biological Emergency Advisory Team. Wye Plantation, Queenstown, MD. April 26-27, 2007.

- Invited Participant: “Discussion of Public Health and Medical Preparedness.” The Biodefense Directorate of the Homeland Security Council. The White House, Washington, D.C. March 15, 2007.
- Invited Speaker: “Strategic Biodefense.” U.S. Secretary of Defense’s Office of Force Transformation and the Deputy Chief of Naval Operations. Arlington, VA. January 24, 2007.
- Invited Participant: Synthetic Genomics Policy Workshop: Risks and Benefits for Science and Society. Center for Strategic and International Studies. Washington, D.C. December 4, 2006.
- Invited Participant: National Academy of Sciences’ Committee on Biodefense Analysis and Countermeasures. Washington, D.C. November 16-17, 2006.
- Invited Speaker: “Pandemics: Challenges We Can Expect.” Pandemic Influenza Preparedness Symposium. Anne Arundel County Department of Health and Annapolis and Anne Arundel County Chamber of Commerce. Annapolis, MD. November 14, 2006.
- Panel Participant: An Interim Report “Preparing for Pandemic Flu: A Call to Action.” Financial Services Roundtable. Washington, D.C. November 1, 2006.
- Panel Participant: “Academia and Science.” U.S. Health and Human Services, BioShield Stakeholders Workshop, Arlington, VA. September 25-26, 2006.
- Invited Participant: Synthetic Genomics Policy Workshop: Risks and Benefits for Science and Society. Center for Strategic and International Studies. Washington, D.C. May 31-June 1, 2006.
- Panel Participant: “The Next Katrina: Achievable Goals and Objectives to Help Prepare America for the Next Domestic Emergency.” Senate Democratic Homeland Security Summit: Securing the Homeland, Protecting America. Washington, D.C. May 25, 2006.
- Welcome and Keynote Introduction and Panel Moderator: “What If Hospitals Cannot Take Everyone In? The Problem of Meeting Immense Medical Needs.” Disease, Disaster, & Democracy Summit. Washington, D.C. May 23, 2006.
- Invited Participant: 2006 Symposium, The Future Nuclear Landscape: New Realities, New Responses. Center for the Study of Weapons of Mass Destruction. National Defense University. Washington, D.C. May 17-18, 2006.
- Panel Participant: “Not If, But When: The Economic Impact of the Coming Flu Pandemic.” Milken Institute, Beverly Hills, CA. April 24, 2006.
- Invited Participant: “Critical Issue on Pandemic Flu Preparedness and Response.” U.S. Senate Democratic Steering and Outreach Committee. Washington, D.C. April 6, 2006.
- Panel Participant: “Technology & Policy in an Age of Terrorism.” Vassar College. Washington, D.C. February 16, 2006.
- Panel Participant: “The Risks and Potential Health Impact of an Avian Flu Pandemic.” CHT Leadership Conference: Business, the Economy & the Avian Flu. Washington, D.C. December 8, 2005.
- Invited Participant: “The Challenge of Biological Terrorism: When to Cry Wolf, What to Cry, and How to Cry It.” Woodrow Wilson International Center for Scholars, Washington, D.C. December 6, 2005.

- Roundtable Participant on the Potential for a Global Pandemic and Its Possible Impact on the Economy. United States Chamber of Commerce. Washington, D.C. November 2, 2005.
- “Biosecurity.” Director’s Luncheon at Belfer Center for Science and International Affairs. Kennedy School of Government, Harvard University. Boston, MA October 28, 2005.
- Roundtable Participant on the pending National Biodefense Act of 2005. Dr. Robert Kadlec, Staff Director of Senate Bioterrorism and Public Health Preparedness Subcommittee. The George Washington University Hospital. Washington, D.C. October 13, 2005.
- Panel Participant: “Shield New York Against Nuclear/Biological Terrorism: A Call to Action.” John Jay College of Criminal Justice. New York, NY. September 30, 2005.
- Invited Participant: Synthetic Genomics Policy Workshop: Risks and Benefits for Science and Society. Massachusetts Institute of Technology. Cambridge, MA. September 26-27, 2005.
- Invited Participant: Advancing National Strategies and Enabling Results (ANSER) Meeting to establish written report to Senate Subcommittee on Bioterrorism and Public Health, Committee on Health, Education, Labor, and Pensions. Washington, D.C. August 8, 2005.
- Roundtable Participant: “When Terror Strikes – Preparing an Effective and Immediate Public Health Response.” US Senate Committee on Health, Education, Labor and Pensions, Subcommittee on Bioterrorism and Public Health Preparedness. Washington, D.C. July 14, 2005.
- Panel Moderator: “Preparedness and Response: Where are we? Where do we need to go? How do we get there?” Biosecurity Conference. Library of Congress, Washington, D.C. June 9, 2005.
- Panel Participant: “Bioshield II: Biosecurity, Public Health and the Role of Industry.” The Center for American Progress. Washington, D.C. May 12, 2005.
- “Atlantic Storm” Briefing to Board of Directors of Nuclear Threat Initiative, Washington, D.C. April 5, 2005.
- Introduction and Closing Remarks. International Conference on Biosafety and Biorisks. World Health Organization. Lyon, France. March 2-3, 2005.
- “Defining the Problem: Bio-Risks and Terrorist Threats.” 1st Interpol Global Conference on Bioterrorism. Lyon, France. March 1, 2005.
- “Biological Threats and Biodefense – Where Are We Now? Where Do We Need to Be?” ORC Occupational Safety and Health Group and ORC Occupational Safety and Health Physicians Group. Washington, D.C. February 2, 2005.
- “Biological Threats to Societies.” World Economic Forum. Davos, Switzerland. January 27, 2005.
- Panel Participant: “Prepping for the Next Global Health Panic.” World Economic Forum. Davos, Switzerland. January 27, 2005.
- Panel Moderator: “Weapons of Mass Destruction.” World Economic Forum. Davos, Switzerland. January 26, 2005.
- “Issues in Bioterrorism and Epidemic Response.” Update on Internal Medicine 2004/PCIM Western Region Meeting. Pittsburgh, PA. November 18-19, 2004.

- BioShield Scenario Workshop: Anthrax. National Defense University. Ft. Lesly J. McNair, Washington, D.C. September 21, 2004.
- SMART TechTrends 2004 Conference. Keynote Speaker. Pittsburgh, PA. August 3-6, 2004.
- “Bioterrorism as a Strategic Opportunity for Health Care.” Dorsey Hughes Symposium. Beaver Creek, CO. July 29-31, 2004.
- Panel Discussion on: “Controlling Deadly Pathogens.” 2004 Carnegie International Non-Proliferation Conference. Washington, D.C. June 21, 2004.
- “Pandemic Influenza: Assessing Capabilities for Prevention and Response.” IOM Symposium. Washington, D.C. June 17, 2004.
- The National Academies. Scoping Exercise on Biological Threats to Security. Washington, D.C. May 20, 2004.
- “Medical Surveillance in Biodefense.” JASON Spring Meeting. McLean, VA. April 16, 2004.
- Panel Moderator. “Bioterrorism Preparedness: Assessment of Capabilities and Deficiencies.” 2004 Sam Nunn Policy Forum. Atlanta, GA. March 22-23, 2004.
- “The Biotechnology Revolution and the Biological Weapons Threat.” International Biosecurity Symposium. Securing High Consequence Pathogens and Toxins. Sandia National Laboratories. Albuquerque, NM. February 1-6, 2004.
- “Defining the Terrorism Threat.” Florida Health Plan Bioterrorism Preparedness Meeting. Bioterrorism Conference for Chief Medical Officers of Managed Care in Florida. Orlando, FL. December 4, 2003.
- “Bioterrorism and Bioscience: Peril and Promise.” Occupational Medicine Residency’s 25th Anniversary. Johns Hopkins Bloomberg School of Public Health. Baltimore, MD. October 30, 2003.
- “Committee on Genomics Databases for Bioterrorism.” The National Research Council. Washington, D.C. October 1, 2003.
- “Bioterrorist Threat Promise and Peril for Science & Technology.” The National Institute of Standards and Technology. Gaithersburg, MD. September 26, 2003.
- “Biodefense in 2003.” MPM Capital Biotechnology Retreat. Bermuda. June 16, 2003.
- “Smallpox in Europe Scenario.” Center for Civilian Biodefense Strategies. Brussels, Belgium. June 2-5, 2003.
- “How to Inform the Public of Bioterrorist Attacks.” The Washington Post. Washington, D.C. April 30, 2003.
- 9th Annual FDA Science Forum on Bioterrorism and Biodefense. “Protecting America’s Health.” Washington, D.C. April 25, 2003.
- Panel Discussion on “The Impact on Science and Technology of Limiting Information Access.” Security, Technology and Privacy: Shaping a 21st Century Public Information Policy Conference. Georgetown University Law Center. Washington, D.C. April 24, 2003.

- “Biodefense Strategies.” Address to the Board of Directors Kennedy School of Government. Harvard University. Cambridge, MA. April 8, 2003.
- “Biosecurity in the 21st Century Advisory Board.” Board of Directors, Nuclear Threat Initiative (NTI). Washington, D.C. March 6, 2003.
- Panel on “Scientific and Technical Information & Local, Regional, and State Counterterrorism Efforts.” The National Academies 170th Meeting of the Committee on Science, Engineering, and Public Policy. Washington, D.C. February 19-20, 2003.
- “How to Lead a Community During Times of Trouble – Lead Panelist.” Johns Hopkins Center for Civilian Biodefense Strategies: The Public as an Asset, Not a Problem – A Summit on Leadership During Bioterrorism. Washington, D.C. February 3-4, 2003.
- “Bioterrorism and Biotechnology: Anticipating Future Threats and Countermeasures.” National Academies of Sciences (NAS). Washington, D.C. January 23-24, 2003.
- “The Threat of Bioterrorism & Biological Warfare: The Problems of defending against this threat, particularly as it applies to actions by the American Military.” The Paul H. Nitze School of Advanced International Studies (SAIS). Baltimore, MD. December 5, 2002.
- “How Prepared Are you to Prevent Bioterrorism? How Ready Are You to Respond?” Harvard Medical International & School of Public Health BioSecurity 2002 Conference Las Vegas, Nevada. November 18-21, 2002.
- “The Other Shoe Drops: The Next Terrorist Attack on America.” CNBC Intellibridge Strategy & Risk Summit: Business Scenarios for a More Dangerous World. Ronald Reagan Building and International Trade Center – Washington, D.C. October 23-24, 2002.
- “Bioterrorism and Public Health Preparedness.” The Fourth Annual William J. Bicknell Lectureship in Public Health / Boston University School of Public Health. Boston, MA. October 18, 2002.
- “Responding to the Growing Threat of Terrorism and Biological Weapons: Possible Prevention Activities.” World Medical Association Scientific Session. Washington, D.C. October 3-4, 2002.
- “Enhancing Connectivity in Counter-Terrorism Efforts – Perspectives on Enhancing Connectivities.” The National Academy of Sciences. Washington, D.C. May 28, 2002.
- “Bioterrorism Preparedness a Changing Role for Environmental Health and Safety”; Keynote Address. Howard Hughes Medical Institute, Environment Safety and Health Conference. Chevy Chase, MD. April 30, 2002.
- “Bioterrorism Issues for Physicians”, University of Louisville/School of Medicine, Stuart Grave Memorial Policy Lecture for 2002, Louisville, KY. March 21, 2002.
- “Technology and Biodefense.” Forum on Technology and Innovation, US Capitol, Washington, D.C. March 14, 2002.
- “Bioterrorism and Public Health.” Princeton, University, The Woodrow Wilson School. Princeton, NJ. March 4, 2002.
- “Bioterrorism and Public Health Preparedness.” National Governor’s Association. Washington, D.C. February 25, 2002.

- “Perspectives on Enhancing Bioterrorism Preparedness.” US Conference of Mayors Emergency Summit. Fort Worth, Dallas. February 8, 2002.
- Bioterrorism and Emergency Preparedness. US Conference of Mayors. Washington, D.C. January 23, 2002.
- “Institutional Issues in Biodefense.” Symposium on Governance and Public Security. Syracuse, NY. January 18, 2002.
- “The Public Health Response to Terrorism.” JHU-School of Public Health. Intersession Course Lecture. January 14, 2002.
- “Balancing National Security and Open Scientific Communications: Implications of September 11 for the Research University.” The National Academies. Washington, D.C. December 14, 2001.
- “Bioterrorism: Ready or Not.” United Hospital Fund. The Roosevelt Hotel Madison Ave at 45th Street. New York City. December 13, 2001.
- Terrorism Preparedness Roundtable. JCAHO. Mayflower Renaissance Hotel. December 10, 2001.
- “How Can Biomedical Research Contribute to Fight Against Terrorism?” Public Health Issues. The American Society for Cell Biology. Washington Convention Center. Washington, D.C. December 9, 2001.
- “Bioterrorism: Preparing for and Responding to Attack.” American Medical Association Organized Medical Staff Section (AMA-OMSS). Grand Hyatt San Francisco. San Francisco, CA. November 29-30, 2001.
- “Bioterrorism - First Steps in Emergency Preparedness.” US Conference of Mayors. Washington, D.C. October 24, 2001.
- “Dark Winter” Bioterrorism Scenario. Andrews Air force Base, June 23-24, 2001.
- Carnegie Non-Proliferation Conference “Global Epidemiological Monitoring in Response to the Bioweapons Threat.” Washington, D.C. June 18-19, 2001.
- Ploughshares Fund Executive Briefing, “Opportunities to Lessen the Threat of Bioweapons.” Dirksen Senate Office Building, Washington, D.C. April 24, 2001.
- McCormick Tribune Foundation Catigny Conference on Terrorism and the Media. “Preparedness: Are Current Plans Adequate?” Wheaton, IL. February 26-28, 2001.
- International Policy Briefing for the Environmental Grantmakers Association, the Consultative Group on Biological Diversity and the Peace and Security Funders Group. “Broadening the Security Concept: Confronting Biological Weapons.” Washington, D.C. February 6, 2001.
- Joint Commission on Accreditation of Healthcare Organizations, Professional and Technical Advisory Committee. “Biological Weapons: Issues for the Health Care Community.” Chicago, IL. January 11, 2001.
- Interagency Working Group on Biosecurity, US Department of Agriculture. “Developing an Interagency Biosecurity Standard.” Washington, D.C. January 8, 2001.
- New York Academy of Medicine and the Mount Sinai School of Medicine, Challenges of Emerging Illness in Urban Environments. Keynote Address: “Emerging Illness and Bioterrorism: Implications for Public Health.” December 12, 2000.

- American Bar Association Meeting on National Security Law in a Changing World – Tenth Annual Review of the Field. “Legal Issues Raised by Responses to Catastrophic Terrorism.” Washington, D.C. December 2, 2000.
- National War College, “Potential Psychosocial Impacts of a Bioterrorist Attack.” Washington, D.C. October 2000.
- Center for Strategic and International Studies. “Biological Weapons: National Security Threat/ Public Health Emergency.” Washington, D.C. August 2000.
- American Bar Association Conference. “Catastrophic Terrorism and the Rule of Law.” Chicago, IL. July 2000.
- Centers for Disease Control and Prevention Regional Meeting on Bioterrorism. “Public Health Capacities Critical for Responding to Bioterrorism.” Philadelphia, PA. May 16-17, 2000.
- US Attorney General Janet Reno and Secretary of Health and Human Services Donna Shalala. “Bioterrorism: Public Health Emergency, Law Enforcement Crisis.” Washington, D.C. May 12, 2000.
- US Chamber of Commerce. “Potential Impacts of Bioterrorism on Pharmaceutical and Biotechnology Sectors.” Washington, D.C. May 2000.
- Congressman Jim Saxton and invited Congressional Staff, “The Medical and Public Health Consequences of Biological Terrorism.” Washington, D.C. March 2000.
- Johns Hopkins School of Public Health. “Public Health Grand Rounds.” Baltimore, MD. February 16, 2000.
- Yale University School of Public Health. “Public Health Implications of Biological Weapons.” 1999.
- Vassar College. “Nuclear Technologies and Social Responsibility.” 1999.
- US General Accounting Office. “Medical and Public Health Response Needs and the Threat of Biological Weapons”. 1999.
- Infectious Disease Society of New Jersey. “Medical and Public Health Implications of Biological Weapons”. 1999.
- Bridging Radiation Policy and Science. Wingspead Conference. Airlie,VA. 1999.
- Radcliffe College, Harvard Medical School. Fae Golden Kass Lecture. 1998.
- University of Washington. Second Annual Health of the Hanford Site Lecture. 1998
- Yale University School of Medicine. “The Worlds We Make and How to Change Them: Occupational Health Implications of Nuclear Weapons Manufacture.” 1998.
- Risk Assessment Corporation. “Risk Assessment and Public Policy: A Look to the Future.” 1998.
- US Department of Energy, Office of Energy Research. Annual Conference on Laboratory Safety. “The Brookhaven Reactor Leak: Complexity Theory and Organizational Accidents.” 1998.

Congressional Testimony

As Under Secretary for Science and Technology, Department of Homeland Security

House Committee on Appropriations
Subcommittee on Homeland Security
February 25, 2010: Biosurveillance

House Committee on Homeland Security
Subcommittee on Emerging Threats, Cybersecurity, and Science and Technology
March 3, 2010: Science and Technology Directorate Overview

House Committee on Science, Space, and Technology
March 15, 2011: Science and Technology Directorate Overview

House Committee on Appropriations
Subcommittee on Homeland Security
March 30, 2011: Science and Technology Directorate FY12 Budget Request

House Committee on Homeland Security
Subcommittee on Oversight, Investigations, and Management
July 15, 2011: Homeland Security Contracting

Senate Committee on Homeland Security and Governmental Affairs
October 18, 2011: Ten Years after 9/11 and the Anthrax Attacks

House Committee on Homeland Security
Subcommittee on Cybersecurity, Infrastructure Protection, and Security Technologies
November 17, 2011: Science and Technology Directorate on a Budget

House Committee on Appropriations
Subcommittee on Homeland Security
March 21, 2012: DHS FY13 Budget Request DHS Facilities

Senate Committee on Homeland Security and Governmental Affairs
July 17, 2013: Science and Technology Directorate 10th Anniversary

Congressional Testimony

As CEO and Director, Center for Biosecurity of UPMC

- **Committee on Homeland Security and Government Affairs, US Senate**, “Six Years After Anthrax: Are We Better Prepared to Respond to Bioterrorism?”, October 23, 2007.
- **Committee on Appropriations, Subcommittee on Homeland Security, US House of Representatives**, “Bioterrorism Preparedness and the Role of DHS Chief Medical Officer,” March 29, 2007.
- **Committee on Energy and Commerce, US House of Representatives**, “Project BioShield Reauthorization Issues,” April 6, 2006.
- **Subcommittee on Prevention of Nuclear and Biological Attack and the Subcommittee on Emergency Preparedness, Science, and Technology, US House of Representatives**, “Protecting the Homeland: Fighting Pandemic Flu From the Front Lines,” February 8, 2006.
- **Committee on Energy and Commerce Subcommittee on Oversight and Investigations, US House of Representatives**, “Creating the Department of Homeland Security: Consideration of the Administration’s Proposal,” June 25, 2002.
- **Budget Committee, US House of Representatives**, “Administration’s Health and Human Services Bioterrorism Budget Priorities for Fiscal Year 2003,” February 28, 2002.
- **House Intelligence Committee, US Senate Committee**, “Emerging Threats – Dark Winter.” November 2001.
- **Committee on Government Affairs, Subcommittee on International Security, Proliferation and Federal Services, U.S. Senate**, “Terrorism Through the Mail: Protecting Postal Workers and the Public (Part II),” October 31, 2001.
- **House Intelligence Committee, US House of Representatives**, “Leveraging Advances in Biotechnology and Medical Informatics to Improve Homeland Biodefense Capabilities – Report of the Defense Science Board Task Force:” September 2001,” October 3, 2001.
- **Committee on Government Affairs, Subcommittee on International Security, Proliferation and Federal Services, US Senate**, “FEMA's Role in Managing Bioterrorist Attack and the Impact of Public Health Concerns on Bioterrorism Preparedness,” July 23, 2001.
- **Committee on Government Oversight, US House of Representatives**, “Medical and Public Health Consequences of Bioterrorism”, September 22, 1999.

As Assistant Secretary of Environment, Safety and Health, US Department of Energy

- **Committee on Appropriations, Subcommittee on Energy and Water, US House of Representatives**, “Fiscal Year 1996 Budget Request for the Office of Environment, Safety and Health”, March 8, 1995.
- **Committee on Science, Subcommittee on Energy and Environment, US House of Representatives**, “Fiscal Year 1996 Budget Request for Office of Environment, Safety and Health”, February 14, 1995.
- **Committee on Commerce, Subcommittee on Commerce, Trade and Hazardous Materials and Subcommittee on Health and Environment, US House of Representatives**, “Regulatory Risk Assessment”, February 2, 1995.

- **Committee on Governmental Affairs, US Senate**, "Story of Cold War Human Radiation Experiments", December 1, 1994.
- **Committee on Science, Space and Technology, Subcommittee on Energy, US House of Representatives**, "DOE Health and Safety Strategy", September 22, 1994.
- **Committee on Science, Space and Technology**, "Environment, Safety and Health Challenges Facing the DOE and the Progress Made in Addressing Them", US House of Representatives, August 9, 1994.
- **Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, US House of Representatives**, "Worker Exposure Data for Radiation Experiments", March 17, 1994.
- **Committee on Science, Space, and Technology, US House of Representatives**, "Human Radiation Research Programs", February 10, 1994.
- **Committee on Labor and Human Resources, US Senate**, Fernald School, "Human Subject Research: Radiation Experiments", January 13, 1994.
- **Committee on Science, Space, and Technology, Subcommittee on Energy, U.S. House of Representatives**, "Overview of Environment, Safety and Health Programs", October 21, 1993.
- **Committee on Energy and Commerce, Subcommittee on Energy and Power, U.S. House of Representatives**, "Worker Exposure Data and Safety and Health Initiatives in the Department of Energy", July 22, 1993.
- **Committee on Armed Services, Subcommittee on Strategic Forces and Nuclear Deterrence, U.S. Senate**, "Cleanup of the DOE Nuclear Weapons Complex", May 17, 1991.
- **Committee on Armed Services, Department of Energy Nuclear Facilities Panel, U.S. House of Representatives**, "Nuclear Safety Issues Related to Cleanup of the DOE Nuclear Weapons Complex", April 11, 1991.
- **Committee on Science, Space, and Technology, Subcommittee on Environment, US House of Representatives**, "Health and Safety Issues Related to Cleanup of the DOE Nuclear Weapons Complex", March 7, 199

SERVICE

- Member, Council on Foreign Relations 2007-present
- Member of Biological Emergency Advisory Team, Department of Homeland Security, Washington, D.C. April 2007 - 2009
- National Academy of Sciences, Committee on Technical and Privacy Dimensions of Information for Terrorism Prevention and Other National Goals. 2006 - 2009
- Google Philanthropy, Board of Directors, International Networked System for Total Early Disease Detection 2006 – May 2009
- Member, BioChem 20/20, U.S. Department of Defense, Defense Intelligence Agency 2004 - 2009
- Federation of American Scientists, Chair of Board of Directors 2002 – 2006
- National Academy of Sciences, Biological Weapons Working Group 2002 - 2004
- ANSER Institute for Homeland Security, Advisory Board 2001 - 2003
- US Dept. of Defense, Defense Science Board – Task Force on Defense Against Terrorist Use of Biological Weapons Dec. 2001 - 2003
- US Dept. of Defense, Defense Science Board, "Technologies for Biodefense" April 2000 - Nov. 2001
- US Department of Health and Human Services, Senior Advisory Committee, Anti-Bioterrorism Organizational Options Study Fall 2000
- Maryland Dept. of Health and Mental Hygiene Steering Committee, Plan for Response to Weapons of Mass Destruction 1999 - 2000