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PROFESSIONAL APPOINTMENTS

- February 2017 to the present
 - Associate Professor (with tenure), School of Public Policy, University of Maryland, College Park
- August 2016 to present
 - Jefferson Science Fellow, U.S. Department of State, Office to Monitor and Combat Trafficking in Persons. Reports and Political Affairs Officer with portfolio responsibilities for 12 countries in the Caribbean and East/Central Europe.
 - Received 2018 Appreciation Award
- June 2014 to February 2017
 - Associate Professor (with tenure), Department of Political Science, North Carolina State University.
 - Director, Science, Technology, and Society Program, Interdisciplinary Studies, North Carolina State University (June 2014-June 2016).
- March 2012-June 2014
 - Associate Professor (with tenure), Department of Science and Technology Studies & Judith Reppy Institute for Peace and Conflict Studies, Cornell University, Ithaca, NY.
 - July 2013-June 2014: Associate Director, Judith Reppy Institute for Peace and Conflict Studies (formerly known as the Peace Studies Program), Cornell University, Ithaca, NY.
 - July 2012 to June 2013: Acting Director, Judith Reppy Institute for Peace and Conflict Studies (formerly known as the Peace Studies Program), Cornell University, Ithaca, NY.
- September 2011 to August 2012 (sabbatical leave)
 - Senior Fellow, International Security Studies Program, Woodrow Wilson International Center for Scholars, Washington, DC.
- January 2004 to March 2011
 - Assistant Professor, Department of Science and Technology Studies & Judith Reppy Institute for Peace and Conflict Studies, Cornell University, Ithaca, NY.
 - Co-Organizer, Science, Technology, and Security Program in the Judith Reppy Institute for Peace and Conflict Studies
 - Director of Undergraduate Studies, Department of Science and Technology Studies (July 2007-July 2011)
- January 2003 to December 2003
 - William C. Foster Fellow, Bureau of Nonproliferation, Office of Proliferation Threat Reduction, U.S. Department of State, Washington, DC.
- January 2002 to December 2002
 - Postdoctoral Fellow, Institute for Public Policy, University of New Mexico; Visiting Scholar, Cooperative Monitoring Center, Sandia National Laboratories, Albuquerque, NM.
- September 1999 to December 2001
 - Postdoctoral Associate, Peace Studies Program, Cornell University, Ithaca, NY.
- October 1998 to August 1999
 - Postdoctoral Fellow, Chemical and Biological Weapons Nonproliferation Program, Center for Nonproliferation Studies (CNS), Monterey Institute for International Studies, Monterey, CA.

EDUCATION

- 1998 Ph.D., Chemistry (Bio-inorganic/Bio-physical), Princeton University, Princeton, NJ
- 1997 M.A., Chemistry, Princeton University, Princeton, NJ
- 1993 B.A., Chemistry, Biology, & Spanish, magna cum laude, Drury College, Springfield, MO

ACADEMIC AND POLICY PEER REVIEWED PUBLICATIONS

Vogel, Kathleen M., “Big Data and Biodefense: Prospects and Pitfalls,” in *Defense Against Biological Attacks*, ed. S. Singh and J. Kuhn (Springer Nature, forthcoming).

Lynch, Sean, Paul Jones, and Kathleen M. Vogel, “Smart Digital Assistance for Intelligence Analysis,” *The Next Wave*, forthcoming.

Vogel, Kathleen M. and Sonia Ben Ouagrham-Gormely, “Anticipating Emerging Biotechnology Threats: A Case Study of CRISPR,” *Politics and the Life Sciences* vol. 37, no. 2 (2018): 1-17.

Vogel, Kathleen M. and Brian Balmer, “Secrecy and Intelligence: Introduction,” *Secrecy and Society*, vol. 2, no. 1 (2018): 1-19.

Vogel, Kathleen M. and Michael A. Dennis, “Tacit Knowledge, Secrecy, and Intelligence Assessments: STS Interventions by Two Participant-Observers,” *Science, Technology, and Human Values* vol. 45, iss 5 (February 2018): 834-863.

Kampe, Christopher, Gwendolynne Reid, Paul Jones, Colleen S., Sean S., and Kathleen M. Vogel, “Bringing the National Security Agency into the Classroom: Ethical Reflections on Academia-Intelligence Agency Partnerships,” *Science and Engineering Ethics* (2018): 1-30.

Hartney Swanson, Maureen and Kathleen M. Vogel, “Big Data, Intelligence, and Analyst Privacy: Investigating Information Dissemination at an NSA-Funded Research Lab,” *Intelligence and National Security* vol 33, no 3 (December 2017): 1-19.

Vogel, Kathleen M., Jessica Jameson, Sharon Joines, Beverly Tyler, Brian Evans, and Hector Rendon, “The Importance of Organizational Innovation and Adaptation in Building Academic-Industry-Intelligence Collaboration: Observations from the Laboratory for Analytic Sciences,” *The International Journal of Intelligence, Security, and Public Affairs* vol 19, iss 3 (2017): 171-196.

Vogel, Kathleen M. (lead editor), Brian Balmer, Sam Weiss Evans, Inga Kroener, Miwao Matsumoto, and Brian Rappert, “Knowledge and Security,” In *Handbook of Science and Technology Studies*, 4th edition, ed. U. Felt, C. Miller, L. Smith-Doerr, R. Fouche. Cambridge, MA: MIT Press, 2016): 973-1002.

Vogel, Kathleen M., “Aftershocks of the 2001 Anthrax Attacks,” In *Biological Threats in the 21st Century*, ed. F. Lentzos (London: Imperial College Press, 2016): 211-237.

Vogel, Kathleen M., “Project Jefferson: Technological Surprises and Critical Omissions,” In *Absence in Science, Security and Policy: From Research Agendas to Global Strategies*, ed. B. Rappert and B. Balmer, (Basingstoke: Palgrave, 2015): 114-131.

Vogel, Kathleen M., “More socio-technical assessments of synthetic biology to inform security deliberations,” *Journal of Responsible Innovation*, vol. 2, issue 1 (2015): 85-87.

Vogel, Kathleen M.

Vogel, Kathleen M., "Revolution versus evolution?: Understanding scientific and technological diffusion in synthetic biology and their implications for biosecurity policies," *BioSocieties*, vol. 9, iss. 4 (October 2014): 1-28.

Vogel, Kathleen M. and Christine M. Knight, "Analytic Outreach for Intelligence: Insights from a Workshop on Emerging Biotechnology Threats," *Intelligence and National Security*, (May 2014): 1-19.

Vogel, Kathleen M. "Expert Knowledge in Intelligence Assessments: Bird Flu and Bioterrorism," *International Security*, vol. 38, issue 3 (Winter 2013/14): 39-71.

Vogel, Kathleen M., "Necessary Interventions: Expertise and Experiments in Bioweapons Intelligence Assessments," *Science, Technology & Innovation Studies*, Vol. 9, No. 2 (October 2013): 61-88.

Vogel, Kathleen M., "The Need for Greater Multidisciplinary, Sociotechnical Analysis: The Bioweapons Case," *Studies in Intelligence*, Vol. 57, No. 3 (September 2013): 1-10.

Vogel, Kathleen M., *Phantom Menace or Looming Danger?: A New Framework for Assessing Bioweapons Threats* (Baltimore: The Johns Hopkins University Press, 2013).

Vogel, Kathleen M. and Sonia Ben Ouagrham-Gormley, "The Social Context Shaping Bioweapons (Non)Proliferation," *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, vol. 8, no. 1 (March 2010): 9-24.

Vogel, Kathleen M., "Biodefense: Considering the Socio-Technical Dimension," *Biosecurity Interventions: Global Health and Security in Question*, edited by Andrew Lakoff and Stephen J. Collier (New York: Columbia University Press, 2008): 227-256.

Vogel, Kathleen M., "Iraqi Winnebagos of Death: Imagined and Realized Futures of U.S. Bioweapons Threat Assessments," *Science and Public Policy*, vol. 35, no. 8 (October 2008): 561-573.

Vogel, Kathleen M., "Framing Biosecurity: An Alternative to the Biotech Revolution Model?" *Science and Public Policy*, vol. 35, no. 1 (February 2008): 45-54.

Vogel, Kathleen M., "Bioweapons Proliferation: Where Science Studies and Public Policy Collide," *Social Studies of Science*, vol. 36, no. 5 (October 2006): 659-690.

Frerichs, Rebecca L., Reynolds M. Salerno, Kathleen M. Vogel, Natalie B. Barnett, Jennifer Gaudioso, Lauren T. Hickok, Daniel Estes, and Danielle F. Jung, *Historical Precedence and Technical Requirements of Biological Weapons Use: A Threat Assessment, SAND 2004-1854* (Albuquerque: International Security Initiatives, Sandia National Laboratories, May 2004).

Ben Ouagrham, Sonia and Kathleen M. Vogel, *Conversion at Stepnogorsk: What the Future Holds for Former Bioweapons Facilities*, *Cornell University Peace Studies Occasional Paper #28* (Ithaca: Cornell University Peace Studies Program, February 2003).

Cameron, Gavin, Jason Pate, and Kathleen Vogel, "Planting Fear: How Real is the Threat of Agricultural Bioterrorism?" *Bulletin of the Atomic Scientists*, vol. 57, no. 5 (September/October 2001): 38-44.

Vogel, Kathleen M., "Pathogen Proliferation: Threats from the Former Soviet Bioweapons Complex," *Politics and the Life Sciences*, vol. 19, no. 1 (March 2001): 3-16.

Vogel, Kathleen M.

Tucker, Jonathan B. and Kathleen M. Vogel, "Preventing the Proliferation of Chemical and Biological Weapons Materials, Equipment, and Know-how from the Former Soviet Union," *The Nonproliferation Review*, vol.7, no. 1 (Spring 2000): 88-96.

Vogel, Kathleen M., "Tools to Catalyze International Assistance for Russian Chemical Weapons Destruction," *The Nonproliferation Review*, vol. 6, no. 4 (Fall 1999): 102-111.

Vogel, Kathleen M., "Ensuring the Security of Russia's Chemical Weapons: A Lab-to-Lab Partnering Program," *The Nonproliferation Review* vol.6, no. 2 (Winter 1999): 70-83.

OTHER PUBLICATIONS

Vogel, Kathleen M., "Rhodesia's Improbably Dirty War," *Survival*, vol. 60, iss.6 (2018): 199-206.

Vogel, Kathleen M. and Students from PLCY 306, "Crispr goes global: A snapshot of rules, policies, and attitudes," *Bulletin of the Atomic Scientists*, (5 June 2018), available at: <https://thebulletin.org/crispr-goes-global-snapshot-rules-policies-and-attitudes11873>

Ben Ouagrham-Gormley, Sonia and Kathleen M. Vogel, "Gene Drives: The Good, The Bad, The Hype," *Bulletin of the Atomic Scientists*, vol. 72 (October 2016), available at: <http://thebulletin.org/gene-drives-good-bad-and-hype10027>.

Vogel, Kathleen M., "Does Chicken Little Always Have to Shape Bioterrorism Policy?" *The Nonproliferation Review*, vol. 22, no. 2 (June 2015): 121-122.

Vogel, Kathleen M., Sonia Ben Ouagrham-Gormley, Slawomir Grunberg, and Slava Paperno, "A Man Named Guenna," *Cultures*, vol. 1, issue 4 (Autumn 2014): 76-85.

Vogel, Kathleen M. "Big Data, and the Invisible, Social Dimensions of Science," *Conference Proceedings of the Human-Centered Big Data Research*, Raleigh, NC, April 1-3, 2014, ASM (New York, NY, 2014): 1-3.

Vogel, Kathleen M., "Intelligent assessment: Putting emerging biotechnology threats in context," *Bulletin of the Atomic Scientists*, vol. 69, no. 1 (January 2013): 43-52.

Vogel, Kathleen M., Book Review: "Assessing the Legacy of The Soviet Bioweapons Program," *The Nonproliferation Review* (November 2012): 473-480.

Vogel, Kathleen M., Op-Ed – Improving Intelligence on Emerging Bioweapons Threats: New Engagements Needed Between Intelligence and Academia, Virtual Biosecurity Center (January 16, 2013), available at: <http://www.virtualbiosecuritycenter.org/blog/op-ed-improving-intelligence-on-emerging-bioweapons-threats-new-engagements-needed-between-intelligence-and-academia>

Vogel, Kathleen M., Op-Ed – Making Anthrax, Virtual Biosecurity Center (November 8, 2011), <http://www.virtualbiosecuritycenter.org/blog/op-ed-%e2%80%94-making-anthrax>

SCIENTIFIC PUBLICATIONS (selected)

Coyle, Candace M., Kathleen M. Vogel, Thomas S. Rush III, Pawel M. Kozlowski, Robert Williams, Thomas G. Spiro, Yi Dou, Masao Ikeda-Saito, John S. Olson, Marek Z. Zgierski, "FeNO Structure in Distal Pocket Mutants of Myoglobin Based on Resonance Raman Spectroscopy," *Biochemistry* vol. 42, no. 17 (2003): 4896-4903.

Vogel, Kathleen M.

Moffet, David A., Martin A. Case, John C. House, Kathleen Vogel, Robert D. Williams, Thomas G. Spiro, George L. McLendon, Michael H. Hecht, "Carbon Monoxide Binding by de Novo Heme Proteins Derived from Designed Combinatorial Libraries," *Journal of the American Chemical Society* vol. 123, no. 10 (2001): 2109-2115.

Kozlowski, Pawel M., Kathleen M. Vogel, Marek Z. Zgierski, Thomas G. Spiro, "Steric contributions to CO binding in heme proteins: a density functional analysis of FeCO vibrations and deformability," *Journal of Porphyrins and Phthalocyanines* vol. 5, iss. 3 (2001): 312-322.

Reynolds, Mark F., Ryan B. Parks, Judith N. Burstyn, Daniel Shelper, Marc V. Thorsteinsson, Robert L. Kerby, Gary P. Roberts, Kathleen M. Vogel, Thomas G. Spiro, "Electronic Absorption, EPR, and Resonance Raman Spectroscopy of CooA, a CO-sensing Transcription Activator from *R. rubrum*, Reveals a Five-Coordinate NO-heme," *Biochemistry* vol. 39, no. 2 (2000): 388-396.

Vogel, Kathleen M., Pawel M. Kozlowski, Marek Z. Zgierski, Thomas G. Spiro, "Role of the Axial Ligand in Heme-CO Backbonding; DFT Analysis of Vibrational Data," *Inorganica Chimica Acta* vol. 297, iss. 1-2 (2000): 11-17.

FELLOWSHIPS, GRANTS, AND AWARDS

- U.S. Air Force, "Assessment of CRISPR in China," June 1, 2018-May 31, 2020, \$156,309.
- Rutherford Fellow, Alan Turing Institute, London, UK, March 2018-March 2019, £63,450
- University of Maryland RASA fellowship, summer 2018 research, \$9,000.
- Ottawa Workshop on Strategic Foresight: Charting the Future of Technology and National Security and Defence Priorities, submission by Carleton University, University of Maryland, and Pherson Associates (USA), collaborative grant awarded to Carleton University, held at Carleton University, Ottawa, Canada, November 10, 2017, \$16,500
- North Carolina State University/University of Maryland, LAS DO7 Task Order: Collaboration," Laboratory for Analytic Sciences, January 1, 2017 to December 31, 2017, \$113,843.
- Outstanding Advisor Award, College of Humanities and Social Sciences, North Carolina State University, May 2016.
- U.S. National Academies of Science and U.S. Department of State, Jefferson Science Fellowship, August 2016-present.
- North Carolina State University, "LAS DO6 Task Order: Behavior Modeling," Laboratory for Analytic Sciences, January 1, 2016 to December 31, 2016, \$96,516.
- North Carolina State University, "LAS DO5 Task Order 5.6 Collaboration," Laboratory for Analytic Sciences, April 1, 2015 to March 31, 2015, \$70,850.
- North Carolina State University, Scholarship and Research Award, "The Anthrax Diaries," October 2014 to May 2015, \$3,738.
- Intelligence Community Centers for Academic Excellence (IC-CAE), Co-PI, institutional grant with Duke University, University of North Carolina-Chapel Hill, and North Carolina Central University, September 2014 to August 2019, \$1.86 million.
- National Science Foundation, "Workshop: Developing New Methods and Analytic Networks for Researching Intelligence Communities and De-Classified National Security Documents," September 2014-December 2015, \$24,938.
- North Carolina State University, "LAS DO3 Task Order 2.1 Collaboration," Laboratory for Analytic Sciences, May 1, 2014 to March 31, 2015, \$52,889.
- National Science Foundation, "Improving Intelligence: A New Dialogue Between S&TS Scholars and Intelligence Analysts," July 2012-June 2014, \$85,000.
- Cornell University, Cornell Institute for European Studies Innovation Fund, "Making Anthrax," film documentary on U.S. and Soviet bioweapons programs, Summer 2012, \$6,000

- Cornell University, Center for Teaching Excellence, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, fall 2011, \$1,400.
- Senior Fellow, Woodrow Wilson Center International Center for Scholars, Washington, DC, September 2011-May 2012, \$85,300.
- Cornell University, Department of Science and Technology Studies, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, fall 2011, \$2,500.
- Federation of American Scientists, Virtual Biosecurity Center, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, July 2011-December 2011, \$30,000.
- Cornell University, Einaudi Center for International Studies Seed Grant, “Making Anthrax,” pilot film documentary on U.S. and Soviet bioweapons programs, November 2010-December 2011, \$4,000.
- Carnegie Corporation of New York, “Living Legacy: An Oral History of U.S. and Soviet Bioweaponers and Its Implications for Understanding Past, Present, and Future Biosecurity Threats,” January 2008-December 2011, \$290,000.
- Mellon Humanities Project, Interface of Humanities and Sciences/Technology Cluster, “Biosecurity Threats: Risks, Assessments, and U.S. Preparedness,” April-October 2007, \$5,000.
- Ploughshares Fund grant, “Assessing the Bioterrorism Threat from Dual-use Biotechnology,” December 2005-December 2006, \$23,656.
- William C. Foster Fellowship, U.S. Department of State, January 2003-January 2004, \$52,727.
- Ed A. Hewett Fellowship, National Council for Eurasian and East European Research (NCEEER), January 2002-December 2002, \$60,000.
- Carnegie Scholar, Carnegie Corporation of New York, for project, “A Plague Upon the Nations: Proliferation Concerns from the Former Soviet Bioweapons Complex,” June 2000-May 2002, \$78,400.
- Grant (with Judith Reppy, Cornell) from Lawrence Livermore National Laboratory for the workshop, “Agro-Terrorism: What is the Threat?” Cornell University, Ithaca, NY, March 2000-July 2001, \$30,709.
- Union of Concerned Scientists (with Milton Leitenberg), Bioweapons scoping study, March-May 2001, \$10,000.
- United States Institute of Peace grant for project, “A Plague Upon the Nations: Proliferation Concerns from the Former Soviet Bioweapons Complex,” May 2000-December 2001, \$30,000.

INVITED TALKS: SELECTED

“Anticipating Emerging Biotechnology Threats: A Case Study of CRISPR,” Jonathan B. Tucker CBW Symposium, National Defense University, Washington, DC December 13, 2018.

“Anticipating Emerging Biotechnology Threats: A Case Study of CRISPR,” Symposium: Human Germline Editing—Perspectives of Global Regulation, University of Heidelberg, Heidelberg, Germany, November 14, 2018.

“Anticipating Emerging Biotechnology Threats: A Case Study of CRISPR,” International Studies Research Unit, School of Law and Politics, Cardiff University, Cardiff, England, October 31, 2018.

“Anticipating Emerging Biotechnology Threats: A Case Study of CRISPR,” UK Defence Science and Technology Laboratory, Porton Down, England, October 23, 2018.

“Bringing the National Security Agency into the Classroom: Ethical Reflections on Academia-Intelligence Agency Partnerships,” Department of Science and Technology Studies, University College London, London, UK, October 10, 2018.

“How to Evaluate Current and Prospective Biological Weapons Threats,” Roundtable on current and prospective biological terror threats as well as the role analytical frameworks play in the analysis of those threats, National Counterterrorism Center, March 8, 2018.

“Anticipating Emerging Biotechnology Threats,” Ottawa Workshop on Strategic Foresight: Charting the Future of Technology and National Security, Carleton University, Ottawa, Canada, November 10, 2017.

“Biosecurity,” Making the Living World Engineerable: Science, Practice, and Policy National Academy of Sciences, Engineering, and Medicine, Washington, DC, November 16, 2016.

“Ethics and Big Data Analytics: Bringing NSA into the Classroom,” Department of Science, Technology, and Society, Virginia Polytechnic Institute and State University, Blacksburg, VA, November 4, 2016.

“Biotechnology and Bioterrorism: Re-Conceptualizing Bioweapons Threats,” Animal and Plant Health Inspection Service/USDA, Riverdale, MD, September 27, 2016.

“Improving Threat Assessment,” Dogs that Haven’t Barked: Towards an Understanding of the Absence of Technological Threats, Lawrence Livermore National Laboratory, Livermore, CA, July 7, 2016.

“Oral History of the US and Soviet Bioweapons Programs: How Memory of the Past can Inform Current International Security Problems,” History, Security, and Arms Control Workshop, University College London, London, UK, June 22, 2016.

“New Technologies of Mass Destruction,” Tobin Project Meeting on Reassessing Threat Assessment, Washington, DC, May 20, 2016.

“Biosecurity and CRISPR,” Keynote talk for The Three Is & Biosecurity, The Carolina Inn, Chapel Hill, NC, April 14, 2016.

“Biotechnology and Bioterrorism: Re-Conceptualizing Bioweapons Threats,” Center for Global Security Research, Lawrence Livermore National Laboratory, Livermore, CA, September 4, 2015.

“Biological Warfare and Terrorism,” 7th Annual Center on Irregular Warfare and Armed Groups (CIWAG) Symposium, Irregular Warfare and Armed Groups: Retrospect and Prospect, United States Naval War College, Newport, Rhode Island, June 23-24, 2015.

“How to Analyze and Weigh the Validity of Information Generated by Insider Accounts,” Open Source Tools for the Assessment of Compliance with the Biological Weapons Convention, Expert workshop organized by the Research Group for Biological Arms Control, University of Hamburg, Geneva Switzerland, August 3, 2014.

“What is the role of tacit knowledge in what malevolent actors could achieve?” Presentation to National Ground Intelligence Center, Charlottesville, VA, July 23, 2014.

“S&TS Translations into Intelligence: Some Early Observations,” Translations of Security Conference, Centre for Advanced Security Theory (CAST), Department of Political Science, University of Copenhagen, Copenhagen, Denmark, May 20-22, 2014.

“What is the Role of Tacit Knowledge in What Malevolent Actors Could Achieve?” Flowers Consortium Workshop on ‘Synthetic Biology and Biosecurity,’ King’s College, London, UK, February 28, 2014.

“Revolution versus Evolution?: Understanding Scientific and Technological Diffusion in Synthetic Biology,” Q Symposium: Security in the Quantum Age’, the first annual conference of the University of Sydney’s Centre for International Security Studies, Sydney, Australia, February 20-22, 2014.

“Intelligence Forecasting: The Jefferson Experiment,” for Issues and Non-issues in Science and Medicine, University of Exeter, Exeter, UK, September 27-28, 2013.

“Synthetic Biology: A Case Study in Complexity for Bioterrorists,” DARPA/DSO Speaker Series, Arlington, VA, July 22, 2013.

“Threat Assessment and Mitigation Strategies: A Dialogue about Biological Weapons,” Center for Science Technology and Security Policy, American Association for the Advancement of Science, Washington, DC, June 20, 2013.

“Synthetic Biology: A Case Study in Complexity for Bioterrorists,” DARPA/DSO Speaker Series, Arlington, VA, July 22, 2013.

“Phantom Menace or Looming Danger?: A New Framework for Assessing Bioweapons Threats,” International Security Studies Program and Los Alamos National Laboratory Seminar Series, Woodrow Wilson International Center for Scholars, Washington, DC, March 22, 2013.

“The Duality of Technology,” Centre for Advanced Security Theory (CAST), University of Copenhagen, Copenhagen, Denmark, October 22, 2012.

“Bird Flu and Bioterrorism: Re-thinking the Use of Expert Knowledge in Intelligence Assessments,” Workshop on Understanding and Improving Intelligence Analysis: Learning from other Disciplines, Brunel University’s Centre for Intelligence and Security Studies in collaboration with University of Mississippi’s Center for Intelligence and Security Studies, London, UK, July 13-14, 2012.

“The Role of Tacit Knowledge in WMD Proliferation: Past and Present,” Seminar Series, International Security Studies Program, Woodrow Wilson International Center for Scholars and Los Alamos National Laboratory, Washington, DC, April 20, 2012.

“Intelligence Collection and Analysis on WMD Threats,” and “How Credible is the Threat of Attacks with Chemical-Biological Agents,” Workshop on Weapons of Mass Destruction Terrorism, NATO Centre of Excellence -Defence Against Terrorism, Ankara, Turkey, January 31-February 1, 2012.

“Tacit Knowledge: Some Introductory Remarks,” Role of Tacit Knowledge in NBC Weapons Proliferation, U.S. National Intelligence Council, Arlington, VA, November 21, 2011.

“The Challenges in Evaluating Emerging Biotechnologies,” 2011 Emerging Biodefense Threats and Information Sharing Strategies Symposium, Office of the Director of National Intelligence, National Cryptologic Museum, Fort Meade, MD, November 3, 2011.

“Biotechnology and Bioterrorism: Re-conceptualizing Bio-weapons Threat Assessments,” Counterproliferation and Strategic Analysis Office, Office of Intelligence and Analysis, U.S. Department of the Treasury, Washington, DC, July 1, 2011.

“Biotechnology and Bioterrorism: Re-conceptualizing Bio-weapons Threat Assessments,” Center for International Security and Cooperation (CISAC), Stanford University, Palo Alto, CA, January 20, 2011.

“Chem/bio nonproliferation regime and Bio/Chem Technology,” Strategic Trade Control Legal and Regulatory Development Training and Assistance to the Government of Jordan, Aqaba, Jordan,

November 16-18, 2009.

CONFERENCE PRESENTATIONS

Bringing the National Security Agency into the Classroom: Ethical Reflections on Academia-Intelligence Agency Partnerships, 2018 Forum on Philosophy, Engineering and Technology, College Park, MD, May 31, 2018.

“Co-constructing Anticipatory Intelligence,” 2017 International Studies Association, Baltimore, MD, February 25, 2017.

“Bringing NSA into the Classroom: Lessons Learned from Studying Student Workflows,” 2016 International Studies Association, Atlanta, GA, March 17, 2016.

“Interdisciplinary Teams for Intelligence Analysis: An Experiment at NC State,” 2015 Society for Social Studies of Science, Denver, CO, November 14, 2015.

“Creation of Multidisciplinary Teams for Improving Intelligence Analysis: A Natural Experiment at NC State,” 2015 American Political Science Association, San Francisco, CA, September 4, 2015.

“Interventions into Intelligence: Some Reflections by a Participant Observer,” 2015 International Studies Association Annual Meeting, New Orleans, LA, February 21, 2015.

“Ethnography of Engagement Between S&TS and U.S. Intelligence: Lessons-to-Date,” 2013 Society for the Social Studies of Science Annual Meeting, San Diego, CA, October 12, 2013.

“New Perspectives on Assessing Proliferation Risks,” ISA ISSS-ISAC Joint Annual Conference, Bridging the Academic/Policy Divide, George Washington University, Washington, DC, October 4-6, 2013.

“Understanding Scientific and Technological Diffusion in Synthetic Biology,” SB 6.0, London, UK, July 11, 2013.

“Assessing Deterrence,” 2013 International Studies Association Annual Meeting, San Francisco, CA, April 4, 2013.

“Project BACHUS: Forecasting Bioweapons Threats with Experiment and Demonstration,” 2013 International Studies Association Annual Meeting, San Francisco, CA, April 5, 2013.

“The H5N1 Controversy: Where Science Studies Meets Intelligence Practitioners,” 2012 Society for the Social Studies of Science Annual Meeting, Copenhagen, Denmark, October 20, 2012.

“Sociotechnical Factors in U.S. Bioweapons Intelligence Assessments,” 2012 International Studies Association Annual Meeting, San Diego, CA, April 3, 2012.

“Biosecurity Threats: Expertise and Intelligence Assessments,” 2010 American Political Science Association Annual Meeting, Washington, DC, September 3, 2010.

“Biosecurity Threats: Expertise and Intelligence Assessments,” 2009 Society for the Social Studies of Science Annual Meeting, Washington, DC, October 29, 2009.

“Living Legacy: An Oral History of U.S. & Soviet Bioweaponers and Its Implications for

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Understanding Past, Present, and Future Biosecurity Threats,” 2009 International Studies Association Annual Meeting, New York, NY, February 17, 2009.

“Imagined and Realized Futures of U.S. Bioweapons Threat Assessments,” 2007 Society for the Social Studies of Science Annual Meeting, Montreal, Canada, October 12, 2007.

“Synthetic Biology: Reframers, Rewriters, and Bioterrorism Policy,” 2006 Society for the Social Studies of Science Annual Meeting, Vancouver, Canada, November 3, 2006.

“Deconstructing the Bioterrorism Threat: New Insights from the Field of Science and Technology Studies,” 2005 National Meeting of the Association for Politics and Life Sciences, Washington, DC, September 2, 2005.

INVITED WORKSHOPS AND OTHER PROFESSIONAL INVITATIONS

“Workshop on Research Agendas in the Society Aspects of Synthetic Biology,” Arizona State University, Tempe, AZ, November 4-6, 2014.

“Delphi Study Workshop: Looking Forward to Synthetic Biology Governance,” North Carolina State University, Raleigh, NC, June 3-4, 2014.

Invited discussant, “Chemical and Biological Weapons Utility in the 21st Century Workshop,” U.S. National Intelligence Council, Arlington, VA, October 14, 2010.

Invited participant, “Transparency, Compliance, and Building Confidence in the Biological Weapons Convention,” American Association for the Advancement of Science, Washington, DC, August 13, 2010.

Invited participant, “Building Biosecurity Capacity,” University of California, San Diego, and Carnegie Corporation of New York, Washington, DC, May 29-30, 2008.

Invited workshop participant and paper discussant, “The Problem of Biosecurity: Approaches from the Critical Social Sciences,” Social Science Research Council, New York, NY, April 6-7, 2007.

Invited workshop participant, ISN/CTR Biosecurity Experts Group, American Association for the Advancement of Science, Washington, DC, June 2, 2006.

Invited workshop participant, Summer Workshop on Analysis of Military Operations and Strategy (SWAMOS) sponsored by Columbia University’s Arnold Saltzman Institute of War and Peace Studies, Cornell University, Ithaca, NY, July 11-30, 2004.

PROFESSIONAL SERVICE AND AFFILIATIONS

- Editorial Advisor, *Secrecy and Society*, 2017-present.
- Senior Fellow, Center for International and Security Studies (CISSM), University of Maryland, February 2017 to the present.
- Affiliated faculty, Communication Rhetoric and Digital Media Program, North Carolina State University, February 2017 to the present.
- Mentor, 2015 Society for the Social Studies of Science, Denver, CO, September 2015.
- Member of the Advisory Board of the Global Health Section of the International Studies Association (GHS), 2014- present
- Reviewer, National Science Foundation, 2012, 2015, 2016.
- Reviewer, *The Nonproliferation Review*, 2012, 2015.
- Reviewer, *BioSocieties*, 2014.

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- Reviewer, *Science and Public Policy*, 2013.
- Reviewer, *Contemporary Security Policy*, 2013
- Reviewer, *Science, Technology, & Human Values*, 2012.
- Editorial Board, *Politics and the Life Sciences*, December 2016 to present.
- Editorial Board, *The Nonproliferation Review*, December 2011 to present.
- September 2011-May 2012, Senior Fellow, Woodrow Wilson Center International Center for Scholars, Washington, DC.
- May-August 2010, Visiting Scholar, Center for Science, Technology, and Security Policy, American Association for the Advancement of Science, Washington, DC.
- Reviewer, *PLoS Pathogens*, 2010.
- Organizer of panel, “Re-thinking Expertise in Defense and Intelligence,” 2009 Annual Meeting of the Society for the Social Studies of Science, Washington, DC, October 29, 2009.
- Co-organizer (with Gerald Epstein) for panel, “S&T Advice for Congress: The Campaign to Restore the Office of Technology Assessment,” 2009 Annual Meeting of the Society for the Social Studies of Science, Washington, DC, October 29, 2009.
- Member, Committee on Assessing Fundamental Attitudes of Life Scientists as a Basis for Biosecurity Education, Policy and Global Affairs Division, U.S. National Research Council, 2007-2009.
- Co-organizer of panel (with Judith Reppy), “Technoscience in the Production of Contemporary Security Dilemmas,” 2007 Annual Meeting of the Society for the Social Studies of Science, Montreal, Canada, October 11-13, 2007.
- June-August 2007, Visiting Scholar, Center for Science, Technology, and Security Policy, American Association for the Advancement of Science, Washington, DC.
- Workshop facilitator, “Science, Technology and US National Security: Engaging the Next Generation,” Women in International Security, Washington, DC, March 26, 2007.
- Reviewer, Cornell University Press, 2008.
- Reviewer, *Social Studies of Science*, 2007, 2010, 2011.
- Reviewer, *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, 2007, 2010, 2011, 2014
- Reviewer, AAAS/U.S. National Academies Survey, “Security Risks in Life Science Research,” 2007.
- Co-organizer for panel (with Rebecca Slayton and Sonja Schmidt), “Black-Boxed Security” 2006 Annual Meeting of the Society for the Social Studies of Science, Vancouver, Canada, November 1-5, 2006.
- May-August 2006, Visiting Scholar, Center for Science, Technology, and Security Policy, American Association for the Advancement of Science, Washington, DC.
- Reviewer, Grant Program, U.S. Institute of Peace, Washington, DC, 2004.
- Member, Society for the Social Studies of Science (4S).
- Member, Society for the History of Technology (SHOT).
- Member, International Studies Association (ISA).
- Member, Women in International Security (WIIS).

UNIVERSITY OF MARYLAND SERVICE

- STS Minor Committee, Cross-college Committee, Spring 2019-present.
- Recruitment, Innovation, and Branding Committee, School of Public Policy, Spring 2019-present.
- Undergraduate Learning Assessment Committee, School of Public Policy, Spring 2019-present.
- Faculty Workload and Rewards Project, School of Public Policy, Fall 2018 to present
- Faculty Search Committee, Nonprofit Search, School of Public Policy, Summer 2017 to present.
- Executive Education Committee, School of Public Policy, Fall 2017 to present.

NORTH CAROLINA STATE UNIVERSITY SERVICE

- Data Science Advisory Council, December 2015 to February 2017.
- Executive Advisory Board for Emerging Plant Disease and Food Security Faculty Cluster, Chancellor's Faculty Excellence Program, June 2015 to February 2017.
- Graduate Faculty member, Communication, Rhetoric, and Digital Media Ph.D. Program, April 2015 to February 2017.
- Faculty Advisor, Science, Technology, and Society club, January 2015 to September 2016.
- College of Humanities and Social Sciences Undergraduate Curriculum Committee, January 2015 to May 2016.
- Chancellor's Faculty Excellence Program Selection Committee, January 2015 to June 2015.
- Data-Driven Science Faculty Search Committee, January 2015-June 2015.
- Associate Membership Graduate Faculty, North Carolina State University, October 2014 to February 2017.
- College of Humanities and Social Sciences Research Committee, September 2014 to February 2017.
- Director, Science, Technology, and Society Program, August 2014 to June 2016.
- Interdisciplinary Studies Council, August 2014 to February 2017.
- Sustainability Committee, August 2014 to July 2015.

CONFERENCE, WORKSHOP, AND MEETING ORGANIZATION

- Spring 2016, "Secrecy and Intelligence: Opening the Black Box," April 18-19, 2016 (co-organized with Brian Balmer, University College London).
- Spring 2015: Buchdahl Symposium on Science, Technology, and Human Values, April 10, 2015 (part of the symposium co-organized with Jeremy Packer, Communications, Rhetoric, and Digital Media Program).
- Fall 2012: Co-organized (with the UK Economic and Social Research Council's Genomics Policy and Research Forum), "US-UK Joint Workshop on Improving Intelligence Analysis for Emerging Biotechnology Threats," London, England, September 12-14, 2012.
- Spring 2012: Co-organized (with Einaudi Center for International Studies, Cornell-in-Washington, Cornell Club of Washington, DC, and Cornell-on-the Road), "Bugs & Bombs: Preparing Intelligently for Bioterrorism," Woodrow Wilson International Center for Scholars, Washington, DC, March 22, 2012.
- Spring 2010: Co-organized (with Matthew Evangelista), "Peace Studies Program 40th Anniversary Conference," Cornell University, April 9-10, 2010.
- Spring 2010: Co-organized (with Sonia Ben Ouagrham-Gormley), "Panel Discussion with Former Soviet Bioweapons Scientists," Biodefense Program, Department of Public and International Affairs, George Mason University, March 29, 2010.
- Spring 2009: Co-organized (with Sonia Ben Ouagrham-Gormley), "Panel Discussion with Former U.S. Bioweapons Scientists," Biodefense Program, Department of Public and International Affairs, George Mason University, March 17, 2009.