**Kathleen M. Vogel**

**School for the future of innovation in society**

**arizona state university**

**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

## **PROFESSIONAL APPOINTMENTS**

* August 2020 to present
  + Professor (with tenure), School for the Future of Innovation in Society, Arizona State University.
    - July 2021-August 2022: Interim Director.
    - September 2021: Senior Global Futures Scientist, Julie Ann Wrigley Global Futures Laboratory.
    - August 2020-June 2021: Deputy Director.
* July 2018-June 2023­­­­­
  + Honorary Lecturer, Department of Science and Technology Studies, University College London.
* February 2017 to August 2020
  + Associate Professor (with tenure), School of Public Policy, University of Maryland, College Park.
    - August 2019-August 2020: Director of Strategic Research Initiatives.
    - February 2017-August 2020: Senior Fellow, Center for International and Security Studies (CISSM), University of Maryland.
* August 2016 to 2019
  + Appointment as Jefferson Science Fellow, U.S. Department of State, Office to Monitor and Combat Trafficking in Persons (JTIP). Reports and Political Affairs Officer with portfolio responsibilities for 12 countries in the Caribbean and East/Central Europe.
    - Wrote narratives for the annual U.S. Department of State *Trafficking in Persons* report for Western Hemisphere, European, and African countries; coordinated with relevant State Department and interagency offices; conducted consultations and official visits with foreign government officials in The Bahamas, Barbados, Saint Vincent and the Grenadines, Trinidad and Tobago, and Washington, DC.
    - I continued on as an expert consultant with the JTIP office until March 2021.
* June 2014 to February 2017
  + Associate Professor (with tenure), Department of Political Science, North Carolina State University, Raleigh, NC.
    - June 2014-June 2016: Director, Science, Technology, and Society Program, Interdisciplinary Studies.
  + 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.
    - July 2012 to June 2013: Acting Director, Judith Reppy Institute for Peace and Conflict Studies.
* 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.
    - January 2004-August 2011: Co-Organizer, Science, Technology, and Security Program in the Judith Reppy Institute for Peace and Conflict Studies.
    - July 2007-July 2011: Director of Undergraduate Studies, Department of Science and Technology Studies.

## 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 & Biological Weapons Nonproliferation Program, Center for Nonproliferation Studies (CNS), Monterey Institute for International Studies, Monterey, CA.

**GOOGLE SCHOLAR CITATIONS, KATHLEEN M. VOGEL’S PAPERS (as of September 2022)**

All Since 2017

Citations 2628 629

h-index (number of papers (h) with a citation number ≥ h) 24 12

i10-index (number of publications with at least 10 citations) 39 18

**BOOKS**

*AI and the Future of Intelligence Analysis*, book manuscript under development.

*Innovation and Intelligence*, with Carl Ford, book manuscript under development.

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

**refereed journal Publications**

Note: \* indicates co-first-authors.

Vogel, Kathleen M., “Comparative Analysis of Human Trafficking in Caribbean and African Islands from the annual *Trafficking in Persons Report*,” *Journal of Global South Studies*, special issue dedicated to human trafficking in Africa, Latin American, and the Caribbean, accepted and forthcoming Spring 2023.

Gwendolynne Reid, Christopher Kampe, and Kathleen M. Vogel, “Tech Trajectories: A Methodology for Exploring the Tacit Knowledge of Writers Through Tool-Based Interviews,” *Composition Forum* special issue, forthcoming Fall 2022.

Vogel, Kathleen M. and Sonia Ben Ouagrham-Gormley, “Scientists as Spies? Assessing U.S. Claims about the Security Threat Posed by China’s Thousand Talents Program for the U.S. Life Sciences,” *Politics and the Life Sciences* (June 3, 2022), <https://www.cambridge.org/core/journals/politics-and-the-life-sciences/article/abs/scientists-as-spies/DA5B1DD06F939076B5CD0D72423FB025>.

Gillum, David, Henry Wyneken, Jennifer Marmo, Karl Nubbe, and Kathleen M. Vogel, “Experiences During the COVID-19 Pandemic: A Survey of Biosafety Professionals,” *Applied Biosafety*, published online August 5, 2022, <https://doi.org/10.1089/apb.2022.0012>

Vogel, Kathleen M. and Sonia Ben Ouagrham-Gormley, “China’s Biomedical Data Hacking Threat: Applying Big Data Isn’t As Easy As It Seems,” *Texas National Security Review* (Summer 2022), <https://tnsr.org/2022/04/chinas-biomedical-data-hacking-threat-applying-big-data-isnt-as-easy-as-it-seems/>.

Vogel, Kathleen M., “Big Data, AI, Platforms, and the Future of the U.S. Intelligence Workforce: A Research Agenda,” *IEEE Technology and Society Magazine* vol. 40, no. 3 (September 2021): 84-92.

Vogel, Kathleen M., Gwendolynne Reid, Christopher Kampe, and Paul Jones, “The impact of AI on intelligence analysis: Tackling issues of collaboration, algorithmic transparency, accountability, and management,” *Intelligence and National Security* vol. 36, iss. 6 (July 2021): 827-848.

Vogel, Kathleen M., Gwendolynne Reid, Christopher Kampe, and Paul Jones, “Tackling the Challenges of Intelligence Analysis with Workplace Productivity Software,” *Journal of Intelligence and Analysis* vol. 25, no. 2 (2021): 30-51.

Matthew Schmidt and Kathleen M. Vogel, “Algorithms that Empower? Platformization in U.S. Intelligence Analysis,” ***2020 IEEE International Symposium on Technology and Society (ISTAS)* (12-15 November 2020),** DOI: [10.1109/ISTAS50296.2020](https://doi.org/10.1109/ISTAS50296.2020).

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* vol. 25, iss. 3 (June 2019): 869-898.

Vogel, Kathleen M. and Beverly B. Tyler, “Interdisciplinary, Cross-sector Collaboration in the US Intelligence Community: Lessons Learned from Past and Present Efforts,” *Intelligence and National Security* vol. 34, no. 6 (June 2019): 851-880.

Vogel, Kathleen M. and Sonia Ben Ouagrham-Gormley, “Anticipating Emerging Biotechnology Threats: A Case Study of CRISPR,” *Politics and the Life Sciences* vol. 37, no. 2 (Fall 2018): 203-219.

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.

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., “**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. and Christine M. Knight, “Analytic Outreach for Intelligence: Insights from a Workshop on Emerging Biotechnology Threats,” *Intelligence and National Security* vol. 30., no. 5 (2015): 683-703.

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. “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. 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., “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.

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.

## 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.

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.

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 Shelver, 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.

Vogel, Kathleen M., Songzhou Hu, Thomas G. Spiro, Elizabeth A. Dierks, Anita E. Yu, Judith N. Burstyn, “Variable Forms of Soluble Guanylyl Cyclase: Protein-Ligand Interactions and the Issue of Activation by Carbon Monoxide,” *Journal of Biological Inorganic Chemistry* vol. 4, no. 6 (1999): 804-813.

Vogel, Kathleen M., Pawel M. Kozlowski, Marek Z. Zgierski, Thomas G. Spiro, “Determinants of the FeXO (X=C, N, O) Vibrational Frequencies in Heme Adducts from Experiment and Density Functional Theory,” *Journal of the American Chemical Society* vol. 121, no. 43 (1999): 9915-9921.

Vogel, Kathleen M., Thomas G. Spiro, Daniel Shelver, Marc V. Thorsteinsson, Gary P. Roberts, "Resonance Raman Evidence for a Novel Charge Relay Activation Mechanism of the CO-Dependent Heme Protein Transcription Factor CooA," *Biochemistry* vol. 38, no. 9 (1999): 2679-2687.

Rojas, Nina R.L., Satwik Kamtekar, Cyrena T. Simons, Jeremy E. McLean, Kathleen M. Vogel, Thomas G. Spiro, Ramy M. Farid, Michael H. Hecht, “DeNovo Heme Proteins from Designed Combinatorial Libraries,” *Protein Science* vol. 6, no. 12 (1997): 2512-2524.

Dierks, Elizabeth A., Songzhou Hu, Kathleen M. Vogel, Anita E. Yu, Thomas G. Spiro, Judith N. Burstyn, “Demonstration of the Role of Scission on the Proximal Histidine-Iron Bond in the Activation of Soluble Guanylyl Cyclase Through Metalloporphyrin Substitution Studies,” *Journal of the American Chemical Society* vol. 119, no. 31 (1997): 7316-7323.

Hu, Songzhou, Kathleen M. Vogel, Thomas G. Spiro, “Deformability of Heme Protein CO Adducts: FT-IR Assignment of the FeCO Bending Mode,” *Journal of the American Chemical Society* vol. 116, no. 24 (1994): 11187-11188.

Campbell, Douglas M., Frank J. Millero, Rabrindra N. Roy, Lakshmi N. Roy, Marcia Lawson, Kathleen M. Vogel, Catherine Porter Moore, “The Standard Potential for the Hydrogen-Silver, Silver-Chloride Electrode in Synthetic Seawater,” *Marine Chemistry* vol. 44 (1993): 221-233.

Roy, Rabindra N., Lakshimi N. Roy, Kathleen M. Vogel, C. Porter Moore, Tara Pearson, Catherine E. Good, Frank J. Millero, Douglas M. Campbell, “The Dissociation Constants of Carbonic Acid in Seawater at Salinities 5 to 45 and Temperatures 0o to 45oC,” *Marine Chemistry* vol. 44 (1993): 249-267.

Roy, Rabindra N., Lakshmi N. Roy, Marcia Lawson, Kathleen M. Vogel, C. Porter Moore, William Davis, Frank J. Millero, “Thermodynamics of the Dissociation of Boric Acid in Seawater at S=35 from 0o to 55oC,” *Marine Chemistry* vol. 44 (1993): 243-248.

Roy, Rabindra N., C. Porter Moore, Monica N. White, Lakshmi N. Roy, Kathleen M. Vogel, David A. Johnson, Frank J. Millero, “Thermodynamic Properties of Aqueous Mixtures of HCl and CoCl2 at Different Temperatures. Application of Pitzer’s Formalism,” *Journal of Physical Chemistry* vol. 96 (1992): 403-407.

Roy, Rabindra N., Kathleen M. Vogel, Catherine E. Good, William B. Davis, Lakshmi N. Roy, David A. Johnson, Andrew R. Felmy, Kenneth S. Pitzer, “Activity Coefficients in Electrolyte Mixtures: HCl + ThCl4 + H2O for 5o -55oC,” *Journal of Physical Chemistry* vol. 96 (1992): 11065-11072.

Roy, Rabindra N., Susan A. Rice, Kathleen M. Vogel, Lakshmi N. Roy, Frank J. Millero, “Activity Coefficients for HCl + BaCl2 + H2O at Different Temperatures and Effects of Higher Order Electrostatic Terms,” *Journal of Physical Chemistry* vol. 94 (1990): 7706-7710.

**EDITED BOOKS**

Jameson, Jessica, Beverly Tyler, Kathleen M. Vogel, and Sharon Joines (eds), *Facilitating Interdisciplinary Collaboration among the Intelligence Community, Academy, and Industry* (Newcastle upon Tyne, UK: Cambridge Scholars Publishing, 2020).

* Jameson, Jessica Katz, Beverly B. Tyler, Kathleen M. Vogel, and Sharon S.B. Joines, “Facilitating Interdisciplinary Collaboration Among the Intelligence Community, Academy, Industry,” Chapter 1.
* Jameson, Jessica Katz, Kathleen M. Vogel, Beverly B. Tyler, and Sharon Joines, “Supporting Interdisciplinary Collaboration,” Chapter 2.
* Vogel, Kathleen M., Paul Jones, Matthew Schmidt, and Chris Argenta, “Supporting Collaboration and Discovery with Novel Computing Technologies,” Chapter 6.
* Vogel, Kathleen M., Jessica K. Jameson, Beverly B. Tyler, and Sharon S.B. Joines, “Conclusion,” Chapter 14.

**BOOK CHAPTERS**

Vogel, Kathleen M., “Improving the health security intelligence workforce and research agenda,” *Health Security Intelligence in a Post COVID World* (London: Routledge, accepted and forthcoming 2023).

Vogel, Kathleen M., “Open Source Research and Intelligence,” *Verification in the Age of Google*, Henrietta Wilson, Olamide Samuel and Dan Plesch (eds), (London: World Scientific Publishing, forthcoming Fall 2022).

Vogel, Kathleen M., “The Impact of Technology on Intelligence Analysis,” in *A Research Agenda for Intelligence Studies and Government*, Rob Dover, Huw Dylan and Michael Goodman (eds),(Cheltenham: Edgar Publishing, forthcoming November 2022).

Vogel, Kathleen M. and Matthew Schmidt, “AI Platforms and U.S. Intelligence: Opportunities for Collaboration, Dialogue, and Negotiation,” in *Contemporary Trends in Conflict and Communication: Technology and Social Media*, Jessica Katz Jameson and Melissa Hannah (eds), (Berlin: De Gruyter, 2022).

Vogel, Kathleen M., “Big Data and Biodefense: Prospects and Pitfalls,” in *Defense Against Biological Attacks, Vol. 1,* ed. Sunit K. Singh and Jens H. Kuhn (Cham: Switzerland: Springer Nature, 2019): 297-316.

Vogel, Kathleen M. (lead), 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., “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.

**MANUSCRIPTS UNDER REVIEW**

Coulthart, Stephen, M. Shahriar Hossain, Christopher Kampe, and Kathleen M. Vogel, “Data-Science Literacy for Future Security and Intelligence Professionals,” manuscript submitted September 2022 to *Journal of Policing, Intelligence, and Counterterrorism.*

Worsnop, Catherine Z. and Kathleen M. Vogel, “Short-term shocks and long-term vulnerabilities: natural disasters and the supply and demand for human trafficking,” manuscript submitted September 2022 to the *Journal of Human Trafficking*.

**WORKS-IN-PROGRESS**

Roba Abbas, Katina Michael, Jeremy Pitt, Kathleen M. Vogel, and Marina Zafeirakopoulos, “Socio-Technical Ecosystem Considerations: Threats and Opportunities for AI in Cybersecurity” Alan Turing White Paper, forthcoming 2023.

Vogel, Kathleen M. and Sonia Ben Ouagrham-Gormley, “CRISPR in China: Agricultural Applications and Policy Issues,” manuscript in preparation for submission to the *CRISPR Journal.*

Vogel, Kathleen M., “COVID-19 and Cuba’s Foreign Medical Missions Program: Problems and Prospects in Cuba’s International Health Diplomacy,” manuscript in preparation for submission to the *Journal of Human Trafficking.*

**Editorial Roles**

* Mariarosaria Taddeo (University of Oxford, UK), Paul Jones (National Cyber Security Center, UK), Roba Abbas (University of Wollongong, AU), and Kathleen M. Vogel, editors, for a special issue on “Socio-Technical Ecosystem Considerations: Threats and Opportunities for AI in Cybersecurity” for *Transactions on Technology and Society*, IEEE, forthcoming 2022.
* Kathleen M. Vogel, editor, for a special issue on biological weapons for *The Nonproliferation Review* vol. 27, iss 4-6(2020), [The Nonproliferation Review: Vol 27, No 4-6 (Current issue) (tandfonline.com)](https://www.tandfonline.com/toc/rnpr20/current). Vogel wrote an introduction to the special issue and provided editorial review of all 21 papers in the special issue.
* Kathleen M. Vogel and Elzbieta Gozdziak (Georgetown University) were co-editors for a special issue of the *Journal of Human Trafficking* vol. 6 no (2020), [Journal of Human Trafficking: Vol 6, No 2 (tandfonline.com)](https://www.tandfonline.com/toc/uhmt20/6/2?nav=tocList): “Palermo at 20: A Retrospective and Prospective.” Vogel and Gozdziak wrote an introduction to the special issue and provided editorial review of all 12 papers in the special issue.
* Kathleen M. Vogel and Brian Balmer (University College London) served as co-editors for a special issue of the journal *Secrecy and Society* (vol. 2, iss. 1, 2018): “Secrecy and Intelligence.” Vogel and Balmer wrote an introduction to the special issue, and provided editorial review of all eight papers in the special issue: <https://scholarworks.sjsu.edu/secrecyandsociety/vol2/iss1/>
* Kathleen M. Vogel, Amanda J. Ozin, and Jonathan E. Suk served as co-editors for a special issue of *Frontiers in Public Health* (May 2015): “Dual-use life science research and biosecurity in the 21st Century: Social, Technical, Policy, and Ethical Challenge.” The editors wrote an introduction to the special issue and provided editorial review of all 19 papers in the special issue: <https://www.frontiersin.org/research-topics/2211/dual-use-life-science-research-and-biosecurity-in-the-21st-century-social-technical-policy-and-ethic#articles>

**book reviews**

Vogel, Kathleen M., Roundtable 11-13 on *Global Data Shock: Strategic Ambiguity, Deception, and Surprise in an Age of Information Overload* for *H-Diplo-ISSF* (March 13, 2020), available at: <https://issforum.org/roundtables/11-13-data>.

Vogel, Kathleen M., Book Review of Patrick F. Walsh, *Intelligence, Biosecurity, and Bioterrorism,* in *Intelligence and National Security* (May 2019): 1-3, DOI: [10.1080/02684527.2019.1622265](https://doi.org/10.1080/02684527.2019.1622265).

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

Vogel, Kathleen M., Book Review: “Assessing the Legacy of The Soviet Bioweapons Program,” *The Nonproliferation Review* vol. 19, no. 3 (November 2012): 473-480.

**other publications**

Zhang, Joy, Sonia Ben Ouagrham-Gormley, and Kathleen M. Vogel, “Creating Common Ground with Chinese Researchers,” *Issues in Science and Technology*, forthcoming October 2022.

Gillum, David, Rebecca Moritz, Yong-Bee Lim, Kathleen M. Vogel, “Charting a new course for biosafety in a changed world,” *Issues in Science and Technology* (May 23, 2022), <https://issues.org/new-course-biosafety-prevent-pandemics-gillum-moritz-lim-vogel/>.

Vogel, Kathleen M., “Combating Human Trafficking in the Americas: 2021 TIP Report Findings,” *Human Rights and International Humanitarian Law Seminar 2021* (Washington DC: Inter-American Defense College, 2022), [http://publications.iadc.edu/proceedings/human-rights-and-international-humanitarian-law-2021-4/http://publications.iadc.edu/proceedings/human-rights-and-international-humanitarian-law-2021-4/](http://publications.iadc.edu/proceedings/human-rights-and-international-humanitarian-law-2021-4/).

# **Lee, Yong-Bee, David Gillum, Kathleen M. Vogel, “**Twenty Years After the Patriot Act, What Is the Future of Biosecurity?,” *Issues in Science and Technology* (October 25, 2021), <https://issues.org/biosecurity-20-years-after-patriot-act-lim-gillum-vogel/>.

# **Gillum David, Kathleen M. Vogel, Rebecca Moritz, “Reporting all biosafety errors could improve labs worldwide – and increase public trust in biological research,” *The Conversation* (October 12, 2021),**

# <https://theconversation.com/reporting-all-biosafety-errors-could-improve-labs-worldwide-and-increase-public-trust-in-biological-research-168552>.

Vogel, Kathleen M., “Combating Human Trafficking in the Americas: 2020 TIP Report Findings,” *Human Rights and International Humanitarian Law Seminar 2020* (Washington DC: Inter-American Defense College, 2021), [http://publications.iadc.edu/ebook/human-rights-and-international-humanitarian-law-seminar-2020/](https://urldefense.com/v3/__http:/publications.iadc.edu/ebook/human-rights-and-international-humanitarian-law-seminar-2020/__;!!IKRxdwAv5BmarQ!LlbZAJ3tDj-Al6nuw5zWsxp7nsvG_BcY6tmfRoVJlcwWiMQPJ-q8joD_okMn_UypWB8Y2ds$).

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Ben Ouagrham-Gormley, Sonia and Kathleen M. Vogel, “Follow the money: What the sources of Jianke He’s funding reveal about what Beijing authorities knew about illegal CRISPR babies, and when they knew it,” *Bulletin of the Atomic Scientists* vol. 76, iss 4 (July 20, 2020): 192-199, <https://thebulletin.org/2020/07/follow-the-money-what-the-sources-of-jiankui-hes-funding-reveal-about-what-beijing-authorities-knew-about-illegal-crispr-babies-and-when-they-knew-it/>.

Ellison, Mary C. and Kathleen M. Vogel, *Human Trafficking Trends in the Western Hemisphere* (Washington, DC: William J. Perry Center, National Defense University, June 2020), <http://williamjperrycenter.org/sites/default/files/publication_associated_files/Human%20Trafficking%20Trends%20in%20the%20Western%20Hemisphere.pdf>.

Gozdziak, Elzbieta M. and Kathleen M. Vogel, “Palermo at 20: A Retrospective and Prospective,” *Journal of Human Trafficking* vol. 6, no. 2 (2020): 109-118.

Lynch, Sean, Paul Jones, and Kathleen M. Vogel, “Smart Digital Assistance for Intelligence Analysis,” *The Next Wave* vol. 22, no. 2 (2019): 30-35, available at: <https://www.nsa.gov/Portals/70/documents/resources/everyone/digital-media-center/publications/the-next-wave/TNW_22-2.pdf?ver=2019-02-25-104515-237>

Vogel, Kathleen M. and Brian Balmer, “Secrecy and Intelligence: Introduction,” *Secrecy and Society* vol. 2, no. 1 (2018): 1-19.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., Amanda J. Ozin, and Jonathan E. Suk, “Biosecurity and dual-use research: gaining function—at what cost?” *Frontiers in Public Health* (02 February 2015), available at: <https://www.frontiersin.org/articles/10.3389/fpubh.2015.00013/full>.

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., Op-Ed – Improving Intelligence on Emerging Bioweapons Threats: New Engagements Needed Between Intelligence and Academia, Virtual Biosecurity Center (16 January 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 (8 November 2011), <http://www.virtualbiosecuritycenter.org/blog/op-ed-%e2%80%94-making-anthrax>

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.

## **FELLOWSHIPS AND GRANTS RECEIVED**

Total Funding to Kathleen M. Vogel: $2,030,475 for external funding to support her research; in addition, Vogel was a co-PI on $1.86 million institutional grant with North Carolina State University, Duke University, University of North Carolina-Chapel Hill, and North Carolina Central University.

* Open Philanthropy, “The Collapse of the Normative Prohibitions on “Targeted Killings”

and the Rise in Use of CBW Agents in Assassinations,” October 1, 2022 to March 31, 2024, $354,750; 100% of grant awarded to Kathleen M. Vogel (in collaboration with Glenn Cross).

* The Alan Turing Institute, “Socio-Technical Ecosystem Considerations: Threats and Opportunities for AI in Cybersecurity,” October 15, 2022-February 14, 2023, $124,883; 50% of grant to Kathleen M. Vogel (in collaboration with Roba Abbas, Katina Michael, Jeremy Pitt, and Marina Zafeirakopoulos.
* U.S. Department of State/U.S. Embassy Beijing, “Creating a Bio-Governance Commons,” September 1, 2021-August 31, 2022, $18,840; 100% of grant awarded to Kathleen M. Vogel (in collaboration with Joy Zhang, University of Kent, UK and Sonia Ben Ouagrham-Gormley, George Mason University).
* U.S. National Science Foundation, “Standard: Ethical Issues Surrounding Human Germline Genome Editing in China's Global Scientific Strategy,” September 1, 2019-August 31, 2023, $399,165; grant awarded to Kathleen M. Vogel, with a sub-award to GMU; 52% of grant funds to Vogel ($209,182).
* U.S. Air Force, “Assessment of CRISPR in China,” June 1, 2018-May 31, 2020, $156,309; grant awarded to Sonia Ben Ouagrham-Gormley, George Mason University (GMU), with a sub-award to Kathleen M. Vogel; 50% split in grant funds ($78,154 each) between GMU and UMD/Vogel
* Rutherford Fellow, Alan Turing Institute, London, UK, March 2018-March 2019, £63,450 (USD $83,200); 100% of grant awarded to Kathleen M. Vogel.
* University of Maryland RASA fellowship, summer 2018 research, $9,000; 100% of grant awarded to Kathleen M. Vogel
* 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), November 10, 2017, $16,500; collaborative grant awarded to Carleton University; 100% of grant to Carleton University, Ottawa, Canada.
* **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; 100% of grant awarded to Kathleen M. Vogel.**
* **North Carolina State University, “LAS DO6 Task Order: Behavior Modeling,” Laboratory for Analytic Sciences, January 1, 2016 to December 31, 2016, $96,516; 100% of grant awarded to Kathleen M. Vogel.**
* **North Carolina State University, “**LAS DO5 Task Order 5.6 Collaboration,” **Laboratory for Analytic Sciences, April 1, 2015 to March 31, 2015, $70,850; 100% of grant awarded to Kathleen M. Vogel.**
* North Carolina State University, Scholarship and Research Award, “The Anthrax Diaries,” October 2014 to May 2015, $3,738; 100% of grant awarded to Kathleen M. Vogel.
* Intelligence Community Centers for Academic Excellence (IC-CAE), Co-PI, institutional grant with North Carolina State University, Duke University, University of North Carolina-Chapel Hill, and North Carolina Central University to create intelligence studies educational programs, courses, and activities across each of the campuses, September 2014 to August 2019, $1.86 million (Note: Vogel left NC State in February 2017).
* 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; 100% of grant awarded to Kathleen M. Vogel.**
* **North Carolina State University, “**LAS DO3 Task Order 2.1 Collaboration,” **Laboratory for Analytic Sciences, May 1, 2014 to March 31, 2015, $52,889; 100% of grant awarded to Kathleen M. Vogel.**
* National Science Foundation, “Improving Intelligence: A New Dialogue Between S&TS Scholars and Intelligence Analysts,” July 2012-June 2014, $85,000; 100% of grant awarded to Kathleen M. Vogel
* Cornell University, Cornell Institute for European Studies Innovation Fund, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, Summer 2012, $6,000; 100% of grant awarded to Kathleen M. Vogel
* Cornell University, Center for Teaching Excellence, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, fall 2011, $1,400; 100% of grant awarded to Kathleen M. Vogel.
* Senior Fellow, Woodrow Wilson Center International Center for Scholars, Washington, DC, September 2011-May 2012, $85,300; 100% of fellowship awarded to Kathleen M. Vogel.
* Cornell University, Department of Science and Technology Studies, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, fall 2011, $2,500; 100% of grant awarded to Kathleen M. Vogel.
* Federation of American Scientists, Virtual Biosecurity Center, “Making Anthrax,” film documentary on U.S. and Soviet bioweapons programs, July 2011-December 2011, $30,000; 100% of grant awarded to Kathleen M. Vogel
* 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; 100% of grant awarded to Kathleen M. Vogel.
* Carnegie Corporation of New York, “Living Legacy: An Oral History of U.S. and Soviet Bioweaponeers and Its Implications for Understanding Past, Present, and Future Biosecurity Threats,” January 2008-December 2011, $290,000; 100% of grant awarded to Kathleen M. Vogel.
* Mellon Humanities Project, Interface of Humanities and Sciences/Technology Cluster, “Biosecurity Threats: Risks, Assessments, and U.S. Preparedness,” April-October 2007, $5,000; 100% of grant awarded to Kathleen M. Vogel.
* Ploughshares Fund grant, “Assessing the Bioterrorism Threat from Dual-use Biotechnology,” December 2005-December 2006, $23,656; 100% of grant awarded to Kathleen M. Vogel.
* William C. Foster Fellowship, U.S. Department of State, January 2003-January 2004, $52,727; 100% of grant awarded to Kathleen M. Vogel.
* Ed A. Hewett Fellowship, National Council for Eurasian and East European Research (NCEEER), January 2002-December 2002, $60,000; 100% of grant awarded to Kathleen M. Vogel.
* 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; 100% of grant awarded to Kathleen M. Vogel.
* 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; 100% of grant awarded to Kathleen M. Vogel (post-doc) and Judith Reppy (professor).
* Union of Concerned Scientists (with Milton Leitenberg), Bioweapons scoping study, March-May 2001, $10,000; 50% of grant ($5000) awarded to Kathleen M. Vogel.
* 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; 100% of grant awarded to Kathleen M. Vogel.

**GRANTS UNDER REVIEW**

* U.S. National Science Foundation, “Assessing U.S. Biosafety and Biosecurity Compliance

for Potential Pandemic Pathogen Research and Dual Use Research of Concern,” $772,914, with ASU’s David Gillum (co-PI), submitted September 2022.

## **AWARDS RECEIVED**

* 2021 Director’s Service Award, School for the Future of Innovation in Society, Arizona State University.
* 2019 U.S. Department of State Appreciation Award, Office to Monitor and Combat Trafficking in Persons.
* Rutherford Fellowship, The Alan Turing Institute, London, UK, March 2018-March 2019.
* 2018 U.S. Department of State Appreciation Award, Office to Monitor and Combat Trafficking in Persons.
* **U.S. National Academies of Science and U.S. Department of State, Jefferson Science Fellowship, August 2016-2018.**
* **Outstanding Advisor Award, College of Humanities and Social Sciences, North Carolina State University, May 2016.**

**Invited talks (since 2012)**

“Western Hemisphere/Caribbean Regional Trends and Coordination to Combat Human Trafficking,” Caribbean Area Studies Seminar, Foreign Service Institute, September 1, 2022 (Zoom presentation).

“Western Hemisphere/Caribbean Regional Trends and Coordination to Combat Human Trafficking,” Caribbean Area Studies Seminar, Foreign Service Institute, June 30, 2022 (Zoom presentation).

“Western Hemisphere/Caribbean Regional Trends and Coordination to Combat Human Trafficking,” Caribbean Area Studies Seminar, Foreign Service Institute, February 24, 2022 (Zoom presentation).

“How are emerging technologies (re)-shaping the security landscape? Centre for Science and Security Studies (CSSS), Department of War Studies, King’s College London, UK, January 19, 2022 (Zoom presentation).

"Biosecurity: What are we missing?,” BioRAFT Environmental Health and Safety Community Connection Webinar Series, November 4, 2021, [EHS Community Connection Webinars (bioraft.com)](https://www.bioraft.com/ehs-community-webinars) (Zoom presentation).

“Western Hemisphere/Caribbean Regional Trends and Coordination to Combat Human Trafficking,” Caribbean Area Studies Seminar, Foreign Service Institute, October 21, 2021 (Zoom presentation).

“Human Trafficking in the Americas,” Human Rights and International Humanitarian Law Seminar, Inter-American Defense College, October 22, 2021 (Zoom presentation).

“Lab Leak Case Study,” STS Summer School @ Harvard, August 3, 2021 (Zoom presentation).

“USG Policy & Practice in the Caribbean Region,” Caribbean Area Studies Seminar, Foreign Service Institute, July 1, 2021 (Zoom presentation).

“Secrecy & U.S. Nuclear Weapons,” (with Alex Wellerstein and Erik Arnesen), Washington History Seminar: Historical Perspectives on International and National Affairs,” The Wilson Center, May 10, 2021, [Secrecy and U.S. Nuclear Weapons | C-SPAN.org](https://www.c-span.org/video/?512061-1/secrecy-us-nuclear-weapons) (Zoom presentation).

“Western Hemisphere Regional Trends and Coordination to Combat Human Trafficking,” (with Rebecca Morgan), Caribbean Area Studies Seminar, Foreign Service Institute, March 2, 2021 (Zoom presentation).

“Algorithms that Empower: ACS and the Future of Intelligence Analysis,” IEEE ISTAS20, November 15, 2020 (Zoom presentation).

“Human Trafficking in the Americas,” Human Rights and International Humanitarian Law Seminar, Inter-American Defense College, October 28, 2020 (Zoom presentation).

“Western Hemisphere Regional Trends and Coordination to Combat Human Trafficking,” (with Rebecca Morgan), Caribbean Area Studies Seminar, Foreign Service Institute, June 25, 2020 (Zoom presentation).

“Western Hemisphere Regional Trends and Coordination to Combat Human Trafficking,” (with Mary Ellison), Caribbean Area Studies Seminar, Foreign Service Institute, Arlington, VA, August 21, 2019.

“Intelligence-Academia Engagement,” Department of War Studies, King’s College, London, UK, May 16, 2019.

“Big Data, Privacy, and the U.S. Intelligence Workforce,” Judith V. Reppy Institute for Peace and Conflict Studies, Cornell University, April 25, 2019.

“Methods,” Triangle Institute for Security Studies, Intelligence Community Center for Academic Excellence Conference, TISS at Sixty: Intelligence in a National Security Context, University of North Carolina, Chapel Hill, North Carolina. April 13, 2019.

“Tackling the Challenges of Intelligence Analysis with Workplace Productivity Software,” The Alan Turing Institute, London, UK, March 20, 2019.

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

“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,” (with Sonia Ben Ouagrham-Gormley), 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, McLean, VA, 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,” (with Sonia Ben Ouagrham-Gormley), 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.

**Conference Presentations**

“Biosecurity Education: Building the Next Generation, Biosecurity, Biosafety, and Bioethics Conference, AlChE (American Institute of Chemical Engineers) 2020 Biosecurity, Biosafety, Bioethics Conference, Arizona State University, December 4, 2020 (Zoom presentation).

“Algorithms that Empower? Platformization in U.S. Intelligence Analysis,” ISTAS 20: International Symposium on Technology and Society, November 15, 2020 (Zoom presentation).

“Examples of Tradecraft Development and Project Successes,” 2019 Symposium on Cryptologic History: From Discovery to Discourse, Center for Cryptologic History, National Security Agency, Kossiakoff Center, Laurel, MD, October 12, 2019.

“Algorithms that Empower? ACS and the Future of Intelligence Analysis,” 2019 Society for the Social Studies of Science, New Orleans, LA, September 2019.

“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 Bioweaponeers and Its Implications for 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**

Computing Community Consortium (CCC) / Code 8.7 Workshop on Applying AI in the Fight Against Modern Slavery, Washington, DC, March 3-4, 2020.

Code 8.7: Using Computational Research and Artificial Intelligence to End Modern Slavery, United Nations University, New York, NY, February 19-20, 2019.

“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.

**GRADUATE STUDENT ADVISING**

**Ph.D. Students**

* Nicholas Shadid, PhD. Candidate-Biology and Society, Prospectus Committee Member, School of Life Sciences, Arizona State University, August 2022.
* Yagana Hafed, Ph.D. candidate-Innovations in Global Development, Committee Member, School for the Future of Innovation in Society, Arizona State University, August 2022 to present.
* Chantal Sathi, Ph.D. candidate-Innovations in Global Development/Human and Social Dimensions of Science and Technology, Interim faculty advisor, School for the Future of Innovation in Society, Arizona State University, January 2022 to present.
* Denise Simmons, Ph.D. candidate-Innovations in Global Development, Committee Member, School for the Future of Innovation in Society, Arizona State University, October 2021 to present.
* Dwayne Renville, Ph.D. candidate-Innovations in Global Development, Co-Chair of Ph.D. Committee, School for the Future of Innovation in Society, Arizona State University, October 2021 to present.
* Aurel Liddell, Ph.D. candidate-Innovations in Global Development, Committee Member, School for the Future of Innovation in Society, Arizona State University, September 2021 to present.
* Gabrielle Lout, Chair of Ph.D. Committee-Human and Social Dimensions of Science and Technology, School for the Future of Innovation in Society, Arizona State University, graduated May 2022, “Improving Human Rights in Global Fisheries.”
* Rebecca Earnhardt, Ph.D. candidate, Chair of Ph.D. Committee, UMD School of Public Policy, August 2019 to June 2020.
* Shelby Hickman, Ph.D. Committee Member, Department of Criminology and Criminal Justice, August 2019 to August 2020.
* Kristine Rodgers, Ph.D. candidate, Committee Member, UMD College of Information Studies, August 2017-August 2020.
* Paul Jones, Ph.D. candidate, Committee Member, Dissertation: Self-Tracking Instrumentation Agents and Analytics to Enable Knowledge Creation and Collaborative Intelligence from Analytical Workflows, Department of Computer Science, North Carolina State University, 2015-2017; graduated 2017.
* Shannon Fye-Marnien, Ph.D. candidate, Committee Member, Dissertation: An Examination of Contingency in Synthetic Genomics Research and Implications for National Security, Biodefense Program, George Mason University, 2010-2015; graduated 2015.
* Benjamin Wang, Ph.D. candidate, Committee Member, Dissertation: Contaminated Landscapes: Explosive Remnants of War in Sudan, Department of Science and Technology Studies, Cornell University, 2009-2013; graduated 2013.
* Dong Hao, Ph.D. candidate, Committee Member, Department of Materials Science and Engineering, College of Engineering, Concentration: Social Studies of Science and Technology, Cornell University, Fall 2009-2012; student passed away in 2012.
* Daniel Plafcan, Jr., Ph.D. candidate, Field Appointed Reader, Dissertation: Between State and Transnational Community: U.S.-Japan Technoscientific Diplomacy in Earth Observation, Department of Science and Technology Studies, Cornell University, 2006; graduated 2007.

**Master’s Students**

* Mitsushi Suzano, Applied Project, Master of Science and Technology Policy, ASU, 2022
* Phil Kane, Applied Project, Master of Science and Technology Policy, ASU, 2021
* Jacob Robertson, Applied Project, Master of Science and Technology Policy, ASU, 2021
* Jenna Robinson, Applied Project, Master of Science and Technology Policy, ASU, 2021
* Francesca Lascala, Applied Project, Master of Science and Technology Policy, ASU, 2021
* Fritz Smith, Applied Project, Master of Science and Technology Policy, ASU, 2020
* Blaine Rivas, Applied Project, Master of Science and Technology Policy, ASU, 2020
* Heather Allen, Cornell Institute for Public Affairs
  + Supervised MPA thesis, Fall 2006-Spring 2007
  + Thesis: “What Drives South Africa’s Military Policy? A Case Study of Air-Lift Technology,” MPA degree, May 2007

**Undergraduate Students**

* Mark Danciu, Undergraduate Honors Thesis, Second Reader, SFIS, Arizona State University, 2023.
* Leon Dilly, Undergraduate Honors Thesis, Second Reader, SFIS, Arizona State University, 2022.
* Jacklyn Ho, “Human Trafficking in Cuba’s Foreign Medical Missions Program,” SFIS Undergraduate Research Program, Fall 2020, Arizona State University.
* David Liendo Uriona, Biology and Society undergraduate thesis, 2014, Cornell University.

**COURSES**

**Arizona State University**

* HSD 502, Advanced Science and Technology Policy, Spring 2022.
* FIS 111, Welcome to the Future, Spring 2021.

**University of Maryland**

Note: At UMD, I have developed all courses, with the exception of PLCY 699W.

* PLCY 306 Public Policy Analysis in Action (Spring 2018, 2019, and 2020)
* PLCY 388V **Special Topics in Public Policy; From Artificial Intelligence to Genetic Engineering: The Policy Implications of Emerging Technologies (Spring 2018)**
* PLCY 388Y/698Y Summer Study Abroad: Bombs, Bugs, and Poisons: Critical Policy Issues in Weapons of Mass Destruction: England and Austria (May-June 2019)
* PLCY 400 Senior Capstone; this is the undergraduate senior public policy capstone course (Spring 2020)
* PLCY 798C Science, Technology, and International Security (including an Executive Education course on the same topic at the U.S. National Reconnaissance Office, Chantilly, VA) (Fall 2018; Spring 2019)
* PLCY 688E Social, Ethical, and Policy Implications of Big Data/AI Systems, Executive Education course at the U.S. National Reconnaissance Office, Chantilly, VA (Summer 2019)
* PLCY 699W and 790 Selected Topics Public Policy; Policy Engagement Project A (Fall 2019 and Spring 2020); this is the core master’s in public policy capstone course (with Jonas Siegel)
* Graduate Workshop on Fundamentals of Scholarly Communication and Engagement: 6-week science policy/science communication workshop for UMD graduate students in science, engineering, and policy (Spring 2019) [with Rosina Bierbaum (School of Public Policy), Karen Lips (Biology), and Melissa Kenney (Earth System Science Interdisciplinary Center]

**North Carolina State University**

Note: At NC State, I developed both of the following courses

* IPGK 295 Current Controversies in Health and the Life Sciences: Ebola [new course]
* PS 498/598 Science, Technology, and National Security

**Cornell University**

Note: At Cornell, I developed STS 1112, STS 4391, STS 4711, and STS 6241; the other courses I inherited from other faculty but made modifications each year that I taught the courses.

* STS 1112 Bugs and Bombs: Thinking about Bioterrorism Threats in a Post 9-11 World [new course]
* STS 2011 What is Science? An Introduction to the Social Studies of Science and Technology
* STS/BSOC 2051 Ethical Issues in Health and Medicine
* STS/BSOC 3011 Life Sciences and Society
* STS 4391 The Science of Spying: S&T in U.S. Intelligence [new course]
* STS 4711 The Dark Side of Biology [new course]
* STS 4831 The Military and New Technology
* STS 6241 Science, Technology, and International Security [new course]
* STS 7111 Introductory Seminar in Science and Technology Studies (co-taught with Michael Lynch)

**EDITORIAL/ADVISORY BOARDS**

* World Health Organization, Health Security Interface - Technical Advisory Group (HSI-TAG), September 2022-present.
* IEEE Transactions on Technology and Society Associate Editor, July 2022 to present.
* **Judith V. Reppy Institute of Peace and Conflict Studies, Cornell University, Fall 2021 to present.**
* Editorial Advisor, *Secrecy and Society*, 2017-present.
* Editorial Board, *Politics and the Life Sciences*, December 2016 to present.
* Editorial Board, *The Nonproliferation Review*, December 2011 to present.

**OTHER Professional service and Affiliations**

* U.S. National Academies of Sciences, Engineering, and Medicine, Workshop Planning Committee on Engaging Scientists to Prevent Harmful Exploitation of Advanced Data Analytics and Biological Data in Southeast Asia, August 2022 to present.
* Reviewer, National Institutes of Health, 2021.
* Reviewer, National Science Foundation, 2020, 2021.
* Co-organizer of panel, Science, Technology, and International Security, Society for the Social Studies of Science Annual Meeting, New Orleans, LA, 2019-2020.
* 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, 2020.
* Reviewer*, Intelligence and National Security*, 2021.
* Reviewer, *Politics and the Life Sciences*, 2021.
* Reviewer, *Survival,* 2020.
* Reviewer, The International Journal of Intelligence, Security, and Public Affairs, 2020.
* Reviewer, Agriculture and Human *Values*, 2018, 2019.
* Reviewer, *Journal of Human Trafficking*, 2019.
* Reviewer, *The Nonproliferation Review*, 2012, 2015, 2019.
* Reviewer, *BioSocieties*, 2014.
* Reviewer, *Science and Public Policy*, 2013.
* Reviewer, *Contemporary Security Policy,* 2013.
* Reviewer, *Science, Technology, & Human Values*, 2012.
* Reviewer, *Social Studies of Science*, 2007, 2010, 2011.
* Reviewer, *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, 2007, 2010, 2011, 2014
* 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, 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.
* Member, Scientist Working Group on Biological and Chemical Security, Center for Arms Control and Nonproliferation, 2004 to the present.
* 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).

**ARIZONA STATE UNIVERSITY SERVICE**

* University Graduate Council, August 2022-present
* University Promotion and Tenure Committee, August 2022-present
* Search Committee Chair, Justice, Equity, Diversity, and Inclusion (JEDI) Faculty Search, successful cluster hire of 4 faculty candidates in Science, Technology, Innovation and Racial Justice (assistant and full professor), Public Engagement with Science, Technology, and Innovation (associate professor), Just and Sustainable Energy Transitions (assistant professor), January 2021-July 2021, School for the Future of Innovation in Society.
* Chair, Master of Science and Technology Policy degree, School for the Future of Innovation in Society, August 2020-present.
* Associate Director for Faculty, School for the Future of Innovation in Society, August 2020-August 2021.
* Ombudsperson, School for the Future of Innovation in Society, August 2020-August 2021.

**UNIVERSITY OF MARYLAND SERVICE**

* Chair, Faculty Diversity Committee, School of Public Policy, January 2020 to June 2020.
* Diversity, Inclusion, and Belonging Task Force, School of Public Policy, Fall 2019 to June 2020.
* S&T Policy Pillar head, School of Public Policy, Fall 2019 to June 2020.
* University Research Council, Fall 2019 to June 2020.
* Director of Strategic Research Initiatives, Fall 2019 to June 2020.
* Chair, Mentoring Committee for Assistant Professor Catherine Worsnop, School of Public Policy, Fall 2019-Spring 2020
* APT Committee Chair for Assistant Professor Lucy Qiu, School of Public Policy, Spring 2019-June 2020.
* Robertson Foundation Fellowship Selection Committee, School of Public Policy, Spring 2019.
* Science, Technology, and Society Minor Committee, Cross-college Committee, Spring 2019-June 2020.
* Recruitment, Innovation, and Branding Committee, School of Public Policy, Spring 2019-June 2020.
* Undergraduate Learning Assessment Committee, School of Public Policy, Spring 2019-present.
* Faculty Workload and Rewards Project, School of Public Policy, Fall 2018-June 2020.
* Mentoring Committee for Assistant Professor Joannie Tremblay-Boire, School of Public Policy, Fall 2018-June 2020.
* Mentoring Committee for Assistant Professor Alec Worsnop, School of Public Policy, Fall 2017-June 2020.
* Faculty Search Committee, Nonprofit Search, School of Public Policy, 2017-2018.
* Executive Education Committee, School of Public Policy, 2017-2018.
* Science & Technology Policy Initiative, School of Public Policy, Fall 2017-June 2020.

**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.

**CORNELL UNIVERSITY SERVICE**

* Faculty Advisor, Dial of Ahaz Pre-Health Society, August 2012 to June 2014.
* Faculty Advisor, Bioethics Society, 2007-2011; August 2012 to June 2014.
* Nominating Committee, College of Arts and Sciences, July 2012 to June 2014.
* Graduate Minor Field Faculty Member, Peace Studies and Peace Science, Summer 2010-June 2014.
* Faculty-in-Residence, Cornell-in-Washington Program, Washington, DC, Spring 2011.
* Department of Science and Technology Studies faculty search committee, 2012-2013; 2010-2011;

2006-2007.

* Graduate Field Faculty Member, Cornell Institute for Public Affairs, Fall 2006-June 2014.
* Member of Einaudi Center Foreign Policy Network, Fall 2005-June 2014.
* Member, Institute for Peace and Conflict Studies Executive Steering Committee, 2004-June 2014.
* Graduate Field Faculty Member, Department of Science and Technology Studies, Spring 2004-June

2014.

* Director of the Biology and Society and STS Undergraduate majors in the STS Department, 2007-2011.

**CoNFERENCE, Workshop, AND MEETING Organization**

* Spring-Summer 2021, “Workshop on cybersecurity, artificial intelligence and society,” January-June 2021 (co-organized with Katina Michael, Arizona State University, George Balston, The Alan Turing Institute, London, UK; Paul Jones, UK National Cyber Security Centre).
* Spring 2016, “Secrecy and Intelligence: Opening the Black Box,” Raleigh, NC, April 18-19, 2016 (co-organized with Brian Balmer, University College London).
* Spring 2015: Buchdahl Symposium on Science, Technology, and Human Values, Raleigh, NC, 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, Arlington, VA, 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, Arlington, VA, March 17, 2009.