

KENNETH A. OYE
CURRICULUM VITAE
OCTOBER 2023

MIT Center for International Studies E40-437
77 Massachusetts Avenue
Cambridge, Massachusetts 02139

Office: +1 617 253 3412
Mobile: +1 781 492 1121
Email: oye@mit.edu

EDUCATION

1983 Harvard University Ph.D Political Science, with the Edmund Chase Dissertation Prize; 1971 Swarthmore College B.A. Economics and Political Science, with Highest Honors; 1969 Inter-University Consortium for Political Research at Institute for Survey Research, University Michigan; 1965, 1966 NSF Summer Institute Computer Mathematics, Moore School of Electrical Engineering, University of Pennsylvania.

EMPLOYMENT

Current: Massachusetts Institute of Technology, Professor of Political Science and Data, Systems and Society, Director Program on Emerging Technologies (PoET). 2018-2019 École Polytechnique Fédérale de Lausanne (EPFL), Professeur Invité, Faculté des Sciences de la Vie; 1990-2018 Massachusetts Institute of Technology, Associate Professor of Political Science and Engineering Systems, Director Center for International Studies; 1989-1990 Swarthmore College, Associate Professor of Political Science; 1980-1989 Princeton University, Assistant Professor of Politics; 1979-1980 Brookings Institution, Guest Scholar; 1976-79 University of California at Davis, Lecturer in Political Science; 1974, 1975 Harvard University, John F. Kennedy School of Government, Lecturer in Public Policy.

TEACHING

Courses: Science, Technology and Public Policy; International Relations; International Political Economy; American Foreign Policy Advising: 71 doctoral dissertations and 32 masters theses in Political Science and Engineering Systems at MIT and Princeton University. Awards: 2018 MIT School of Engineering, Joseph Martore Award for Exceptional Educational Contributions; 2018 MIT School of Engineering, Faculty Appreciation Award, Technology Policy Program; 2011 MIT School of Humanities, Arts and Social Sciences, James A. and Ruth Levitan Award for Excellence in Teaching; 2003 MIT School of Engineering, Faculty Appreciation Award, Technology Policy Program; 1998 MIT School of Humanities, Arts and Social Sciences, Graduate Council Teaching Award.

ACTIVITIES AND PUBLICATIONS CLUSTERED BY TOPIC

BIOLOGICAL ENGINEERING

2016-present Member, International Committee and Membership Committee, Engineering Biology Research Consortium (EBRC).
2013-present Faculty Associate, MIT Synthetic Biology Center
2015-2021 Chairperson, Biosafety and Biosecurity Committee, Broad Institute Foundry
2018-2022 Netherlands NWO and Ministerie van Infrastructuur en Milieu (RIVM), Netherlands, "SafeChassis," co-PI on testing designs to limit environmental effects of release; with Vitor Martins dos Santos (Wageningen) and Farren Isaacs (Yale)
2017-2019 DARPA Safe Genes Grant N66001-17-2-4054 "Daisy Drive Systems for the Precise Alteration of Local Populations." Kevin Esvelt, MIT Media Lab PI. Oye organizing workshops on data needs and testing methods for localization safeguards.
2011-2018 Founder and Co-chairperson, iGEM Safety Committee
2006-2016 Co-Director, Policy and Practices, NSF Synthetic Biology Engineering Research Center (SynBERC)
2016 Invited Expert, International Experts Group on Biosafety and Biosecurity Regulation (IEGBBR)
2015 Invited Expert, NIH National Science Advisory Board for Biosecurity
2013-2014 NSF, Molecular and Cellular Biology, "Creating a Research Agenda on Ecological Implications of Synthetic Biology," PI
"Information Hazards: Improving the Terms of Tradeoffs," Kenneth Oye, Gerald Epstein, Douglas Friedman, David Gillum, Rebecca Moritz, and Larisa Rudenko, paper in preparation.
"iGEM and gene drives: a case study for governance." Piers Millett, Tessa Alexanian, Megan J Palmer, Sam Weiss Evans, Todd Kuiken, Kenneth Oye Health Security, Volume 20, Issue 1, 2/1/2022.
"Core Commitments for Field Trials of Gene Drive Organisms," Long KC, Alphey L, Annas GJ, Bloss CS, Campbell KJ, Champer J, Chen CH, Choudhary, A, Church GM, Collins JP, Cooper KL, Delborne JA, Edwards OR, Emerson CI, Esvelt K, Evans SW, Friedman RM, Gantz VM, Gould F, Hartley S, Heitman E, Hemingway J, Kanuka H, Kuzma J, Lavery JV, Lee Y, Lorenzen M, Lunshof JE, Marshall JM, Messer PW, Montell C, Oye KA, Palmer MJ, Papathanos PA, Paradkar PN, Piaggio AJ, Rasgon JL, Rasic G, Rudenko L, Saah JR, Scott MJ, Sutton JT, Vorsino AE, Akbari OS. *Science*, 2020; Vol:370,.Issue: 6523. DOI: 10.1126/science.abd1908
"Emerging Biotechnology and Information Hazards," Anna Cornelia Nieuwenweg, Benjamin D. Trump, Katarzyna Klasa, Diederik A. Bleijs and Kenneth A. Oye in Emerging Threats of Synthetic Biology and Biotechnology: Addressing Security and Resilience Issues, Trump, B.D., Florin, M.-V., Perkins, E., Linkov, I. (Editors), Springer, 2021.
"Building biosecurity for synthetic biology, Benjamin D Trump, SE Galaitsi, Evan Appleton, Diederik A Bleijs, Marie-Valentine Florin, Jimmy D Gollihar, Alexander Hamilton, Todd Kuiken, Filippa Lentzos, Ruth Mampuy, Myriam Merad, Tatyana Novossiolova. Kenneth Oye, Edward Perkins, Natàlia Garcia-Reyero, Catherine Rhodes, Igor Linkov. *Molecular Systems Biology* (2020) 16: e9723
"Developing a Comprehensive, Adaptive, and International Biosafety and Biosecurity Program for Advanced Biotechnology: The iGEM Experience," Piers Millett, Thomas Binz, Sam Weiss Evans, Todd Kuiken, Kenneth Oye, Megan J. Palmer, Cecile van der Vlugt, Kathrina Yambao, and Samuel Yu, *Applied Biosafety: Journal of ABSA* 2019, Vol. 24(2) 1-8. DOI: 10.1177/1535676019838075
"Considerations for the Governance of Gene Drive Organisms," Larisa Rudenko, Megan J. Palmer & Kenneth A. Oye, *Pathogens and Global Health*. July 5, 2018, 20 pp.
"A Roadmap for Gene Drives: Using Institutional Analysis and Development to Frame Research Needs and Governance in a Systems Context," J Kuzma, F Gould, Z Brown, J Collins, J Delborne, E Frow, K Esvelt, D Guston, C Leitschuh, K Oye, S Stauffer, *Journal of Responsible Innovation*, 2018, Vol 5 Issue Sup 1, pages S13-S39.
"Revisit NIH Biosafety Guidelines," Kenneth A. Oye, Maureen O'Leary and Margaret Foster Riley, *Science*, 18 Aug 2017, V 357 (6352) 627.
"On Sources and Implications of Accelerating Innovation in Biotechnology: U.S. Opportunities and Challenges," Testimony for the U.S.-China Economic and Security Review Commission, March 16, 2017. 12 pp.
"On Revisions of the Coordinated Framework for the Regulation of Biotechnology," A White Paper Prepared for Consideration by the Biotechnology Working Group, U.S. Emerging Technologies Interagency Coordinating Committee, Kenneth A. Oye et al, 1/20/2016. 21pp.
"Regulate Home Brew Opiates," Oye KA, Lawson JC, Bubela T, *Nature*, 2015 May 21, pp 281-283.
"Regulating Gene Drives," Kenneth Oye, Kevin Esvelt, Evan Appleton, Flaminia Catteruccia, George Church, Todd Kuiken, Shlomiya Bar-Yam Lightfoot, Julie McNamara, Andrea Smidler, James Collins, *Science*, 8 August 2014.

- "Designing Safety Policies to Meet Evolving Needs: iGEM as a Testbed for Proactive and Adaptive Risk Management" Julie McNamara, Shlomiya Bar-Yam Lightfoot, Kelly Drinkwater, Evan Appleton and Kenneth Oye, *ACS Synthetic Biology*, December 2014.
- "Shaping Ecological Risk Research for Synthetic Biology," T. Kuiken, G. Dana, K. Oye, D. Rejeski, *Journal of Environmental Studies and Sciences* 4:191-199, published 22 May 2014
- "What Rough Beast: Synthetic Biology and the Future of Biosecurity," Gautam Mukunda, Kenneth A. Oye and Scott Mohr, *Politics and the Life Sciences*, September 2009, Volume 28, Number 2, pp 2-26.
- "Guide to US Federal Regulations Governing Synthetic Biology," Kenneth Oye et al in Markus Schmidt (editor), *Assessing Synthetic Biology Applications*, Wiley, 2012, 17 pages.
- "The Intellectual Commons and Property in Synthetic Biology," Kenneth A. Oye and Rachel Wellhausen, in Markus Schmidt (ed), *Synthetic Biology: The Technoscience and Societal Consequences*, Springer, 2009, pp 121-140.
- "Proactive and Adaptive Governance of Emerging Risks: The Case of DNA Synthesis and Synthetic Biology," Kenneth A. Oye, International Risk Governance Council, 23 pp.
- "Creating a Research Agenda for the Ecological Implications of Synthetic Biology" Research Report, MIT Program on Emerging Technologies / Woodrow Wilson International Center, May 2014, 36 pp.

MEDICINE AND HEALTH

- 2019-present Member, National Institutes of Health, Novel and Exceptional Technology and Research Advisory Committee (NExTRAC).
- 2012-present Consultant, Tufts Clinical and Translational Science Institute, on drug licensing, efficacy and effectiveness
- 2010-2022 Faculty associate and regulatory research lead, MIT Center for Biomedical Innovation
- 2017-2018 KAIST, Data Driven Innovation in Healthcare Systems: Consent, Privacy, IT Security and IP in Korea, Europe, US, PI.
- 2011-2013 Invited Expert, US President's Council of Advisors on Science and Technology, "Study on Propelling Innovation in Drug Discovery, Development and Evaluation."
- 2013 Invited Expert, World Health Organization, on addressing health effects of synthetic biology
- Harry P. Selker, Theodora Cohen, Ralph B. D'Agostino, Willard H. Dere, S. Nassir Ghaemi, Peter K. Honig, Kenneth I. Kaitin, Heather C. Kaplan, Richard L. Kravitz, Kay Larholt, Newell E. McElwee, Kenneth A. Oye, Marisha E. Palm, Eleanor Perfetto, Chandra Ramanathan, Christopher H. Schmid, Vicki Seyfert-Margolis, Mark Trusheim, Hans-Georg Eichler, "A Useful and Sustainable Role for N-of-1 Trials in the Healthcare Ecosystem," *Clinical Pharmacology and Therapeutics*, 22 September 2021. <https://doi.org/10.1002/cpt.2425H>
- "Efficacy and Effectiveness Too (EE2) Trials: Clinical Trial Designs to Generate Evidence on Efficacy and on Effectiveness in Wide Practice," H Selker et al, *Clinical Pharmacology and Therapeutics*, 04 January 2019 <https://doi.org/10.1002/cpt.1347>.
- "Adaptive Biomedical Innovation: Evolving Our Global System to Sustainability and Safely Bring New Medicines to Patients in Need," G Hirsch, M Trusheim, E Cobbs, M Bala, S Garner, D Hartman, K Isaacs, M Lumpkin, R Lim, K Oye, E Pezalla, P Saltonstall, H Selker, *Clinical Pharmacology and Therapeutics*, 2016 Dec;100(6):685-698. doi: 10.1002/cpt.509. Epub 2016 Oct 22.
- "The Next Frontier: Fostering Innovation by Improving Health Data Access and Utilization" Oye, KA, Jain G, Amador, M, Arnout R, Brown, JS, Crown W, Ferguson, J, Pezalla, E, Rassen JA, Selker JP, Trusheim, M, Hirsch G, *Clinical Pharmacology Therapeutics*. 2015 November 5.
- "Managing Uncertainty in Drug Development and Use: Enhancing Adaptability and Flexibility in Pharmaceuticals Regulation," Kenneth A. Oye (MIT), Mark Pearson (OECD), Theresa Mullin (FDA), Hans-Georg Eichler (EMA) and Anton Hoos (Amgen), pp. 63-80 *Improving Risk Regulation*, International Risk Governance Council 2015.
- "From adaptive licensing to adaptive pathways: Delivering a flexible life-span approach to bring new drugs to patients," Hans-Georg Eichler et al, *Clinical Pharmacology & Therapeutics*, 2015 February 4.
- "A Proposal for Integrated Efficacy-to-Effectiveness (E2E) Clinical Trials," H P Selker, K A Oye et al, *Clinical Pharmacology & Therapeutics*, (2014); 95 2, 147-153.
- "Legal Foundations of Adaptive Licensing" K Oye, L G Baird, A Chia, S Hocking, PB Hutt, D Lee, L Norwalk, V Salvatore, *Clinical Pharmacology & Therapeutics*, (2013); 94 3, 309-311.
- "Adaptive Licensing: Taking the Next Step in the Evolution of Drug Approval," H Eichler, K Oye et al, *Clinical Pharmacology & Therapeutics*, March 2013, pp. 426-437.

TECHNOLOGY FORECASTING, TECHNOLOGY TRANSFER AND RISK GOVERNANCE

- 2015-present Member, Executive Committee, MIT Internet Policy Research Initiative, planning on cyber risks and infrastructure project.
- 2009-2016 Member, Scientific and Technical Council, International Risk Governance Council, Lausanne
- 2015 Invited Expert, Defense Intelligence Board, on International R&D and Threats to National Security
- 2011-2014 Member, NRC, Board on Global Science and Technology
- 2011-2014 Member, NRC, Committee on Ethical Implications of Security Applications of Emerging Technologies
- 2010-2013 Member, International Advisory Board, European Union iNTeg-Risk, Stuttgart
- 2004-2010 NSF, IGERT on Implications of Emerging Technologies, PI wi Merritt Roe Smith (STS), Daniel Hastings, Dava Newman (ESD).
- 2008-2009 Consultant, United Nations Industrial Development Organization, on technology transfer, development, climate change
- 2003-2005 Alliance for Global Sustainability, Grant on Regulatory Strategy & Environment, PI
- 1996-1999 Japan Foundation, Environmental Aid and Chinese Coal Combustion, PI
- 1996-1999 MITI New Energy Development Organization, China Desulfurization Policy, PI
- "Planned Adaptation in Risk Regulation: An Initial Survey of United State Environmental, Health, and Safety Regulation," Lawrence McCray, Kenneth A. Oye and Arthur C. Petersen, *Technological Forecasting and Social Change*, Volume 77, Issue 6, pp. 951-959.
- "The Precautionary Principle and International Conflict over Domestic Regulation: Mitigating Uncertainty and Improving Adaptive Capacity," Kenneth A. Oye, *Water Science & Technology*, Fall 2005; pp 59-64.
- "Embracing Uncertainty," Kenneth A. Oye, *Issues in Science and Technology*, Vol XXVI, No 1, Fall 2009, pp 91-93.
- "International Responses to Japanese Plutonium Programs," E Skolnikoff, T Suzuki, K Oye, CIS Working Paper C/95-5, August 1995, 54 pp.
- "Research in Engineering Design: The Role of Mathematical Theory and Empirical Evidence," Research in Engineering Design, Daniel D. Frey, et al, 1995, Volume 21 Number 3, pp. 145-151.
- "Technology Transfer, Development and Climate Change," commissioned paper for UNIDO, January 2009, 38 pp.
- "Co-Benefits of Climate Policy - Lessons Learned from a Study in Shanxi China," Kristin Aunan, Jinghua Fang, Haakon Vennemo, Kenneth Oye and Hans M. Seip, Energy Policy, May 2003; Pages 567-581.
- "A Proposed Industrial Boiler Efficiency Program in Shanxi: Potential CO2 Mitigation, Health Benefits & Associated Costs," Jinghua Fang, Guanghai Li, Kristin Aunan, Haakon Vennemo, Hans M. Seip, Kenneth A. Oye, János M. Beér *J Applied Energy*, April 2002, pp 275-285.
- "Coal Utilization in Industrial Boilers in China - A Prospect for Mitigating CO2 Emissions," Jinghua Fang, Taofang Zeng, Lynn Yang, Kenneth A. Oye, Adel Sarofim, Janos Beer, *Journal of Applied Energy*, May 1999, pp 35-52.

INTERNATIONAL RELATIONS AND FOREIGN POLICY

- 2019-present Member, Board of Directors and Corporation, American Friends Service Committee.
- 1993-present Member, Council on Foreign Relations
- 1993-2021 Director, MIT Seminar XXI Program (1993-1998, 2020-2021).
- 1996-2021 Trustee, World Peace Foundation.
- 2012-2019 Member, International Programs Executive Committee, American Friends Service Committee.
- 2018-2019 Invited Expert, National Academy of Sciences, Board Behavioral, Cognitive & Sensory Sciences, ODN Framework Study.
- 1995-2001 MacArthur Foundation, Harvard-MIT Transnational Security Program, PI
- 1996-2002 Consultant, US Trade Policy Coordinating Committee, on Market Windows Institutions
- 1995-1996 Consultant, Peterson Institute for International Economics, on Export Financing Regimes
- 1999-2001 Member, US Export Import Bank, Chairperson's Advisory Council
- 1992-2000 Director, MIT Center for International Studies
- Kenneth A. Oye, *Cooperation under Anarchy* (Princeton, 1986).
- Kenneth A. Oye, *Economic Discrimination and Political Exchange* (Princeton, 1992).
- Kenneth A. Oye, Donald Rothchild, Robert J. Lieber, *Eagle Entangled: U.S. Foreign Policy in a Complex World* (Longman, 1979).
- Kenneth A. Oye, Robert J. Lieber, Donald Rothchild, *Eagle Defiant: U.S. Foreign Policy in the 1980s* (Little Brown, 1983).
- Kenneth A. Oye, Robert J. Lieber, Donald Rothchild, *Eagle Resurgent? The Reagan Era in American Foreign Policy* (Scott Foresman, 1987).
- Kenneth A. Oye, Robert J. Lieber, Donald Rothchild, *Eagle in a New World: Grand Strategy in Post Cold War Era*, (Harper Collins, 1991).
- "Cooperation under Uncertainty." Commissioned paper for NAS and Office of the Director of National Intelligence, August 2018, 28 pp.
- "Market Windows Institutions: Government Sponsored Enterprises in Trade Finance," Kenneth A. Oye and Peter C. Evans, Commissioned Report for U.S. Trade Promotion Coordinating Committee, US Treasury, Commerce, Export Import Bank, January 2004.
- "Regulatory Diversity: Can the World Trading System Cope?" Thomas Bernauer, Kenneth A. Oye, and David G. Victor, *Swiss Political Science Review*, Autumn 2000, Volume 6, Issue 3, pp 96-108.
- "Self-Interest and Environmental Management," Kenneth A. Oye & James Maxwell, *Journal Theoretical Politics*, V 6 # 4, pp 593-624; and Robert O. Keohane and Elinor Ostrom, *Local Commons and Global Interdependence: Heterogeneity and Collective Action* (Sage, 1995).
- "Self-Interest and the Common Good in International Environmental Agreements," Kenneth A. Oye, in Susan Hassol, John Katzenberger (eds), *Elements of Change 1995* (Aspen Global Change Institute, 1996), pp 157-160.
- "Explaining the End of the Cold War: Behavioral and Morphological Adaptations to the Nuclear Peace," Kenneth A. Oye, in Thomas Risse Kappen & R. Ned Lebow (eds), *End of the Cold War & International Relations Theory* (Columbia, 1995), pp 57-85.

SELECTED RECENT PRESENTATIONS

- 2023 "Responsible Development of Technology to Address Climate Change," Keynote Speaker, IRAS Conference, Star Island, NH June 29.
- 2023 "Laws and Regulations Fit for Complexity," Workshop Panelist, Royal Academy of Engineering, London, June 21.
- 2023 "Deep Dive on Synthetic Biology," Conference Panelist, OECD Inaugural Forum on Technology, Paris, June 6, 2023.
- 2022 "Designs for Risk Governance: Asilomar to NIH RAC to NIH NEXTRAC" NSF ATP-Bio Panel on Emerging Technologies, September 28.
- 2022 "Strategic Science and Technology Diplomacy for Coexistence" MOFA and Jeju Forum, Republic of Korea September 14 and 16.
- 2022 "Governing Risks & Benefits of Biotechnology," EPFL School of Life Sciences Symposium, Lausanne, Switzerland, September 9.
- 2022 "Managing Risks of Emerging Technologies: Lessons from NSF SynBERC, NSF Nano, NIH NEXTRAC" NSF ATP Bio, June 28.
- 2020 "Roundtable On Information Risks," Chatham House, London, virtual, December 15, 2020.
- 2019 "The Case for Proactive and Adaptive Consideration of Risks and Benefits," lecture, NIH NEXTRAC, Rockville, MD, December 5-6.
- 2019 "An Overview on Testing and Evaluation of Containment Designs," NWO Site Review, Wageningen, Netherlands Sept 23-24.
- 2019 "Comment on Regulatory Strategy and Synthetic Biology," EBRC Global Forum, Santa Cruz CA, September 9-10.
- 2019 "Emerging Technologies and Our Future World," University of Pretoria, Johannesburg, South Africa, June 25.
- 2019 "Security Implications of Advances in Synthetic Biology," lecture, UN BWC workshop, Geneva June 17.
- 2019 "Computer-generated Genome: The first step to artificial life?" ETHZ, Zurich CH May 27.
- 2019 "On Enabling Precision Medicine: Data Utilization, Licensing and Reimbursement Policies," EPFL-ETHZ, Bellinzona CH, May 12.
- 2019 "Adaptive Regulation: Retrospective Lessons, Current Applications, Prospective Uses," Hörsaal Pathologie, Basel CH February 14.
- 2019 "Safe Chassis: Planning for a Workshop on Data Needs and Testing," Wageningen University, January 29
- 2018 "CRISPR Babies? A Panel on Science, Ethics and Policy," EPFL, Lausanne, Switzerland, November 30.
- 2018 "Adaptive Governance of Systemic Biological Risks," Presentation, IASS, Potsdam, Germany, November 21.
- 2018 "Adaptive Risk Governance and Gateway Health Technologies" Brocher Foundation, Hermance, Switzerland, November 13.
- 2018 "Adaptive Risk Governance Under Uncertainty," Second International Conference on Molecular Robotics, Tokyo Japan October 9.
- 2018 "Future Governance of Biotech Risk: Black Swans, Precaution, Planned Adaptation," Complex Systems Society, Cambridge July 25.
- 2018 "Communication and Governance of Emerging Technologies," Keynote, Bremen, Germany, June 19.
- 2018 "Proposal on Localization Safeguards and Data Needs," presentation, DARPA Safegenes Retreat, Biosphere2, Oracle, AZ, April 29.
- 2018 "Cooperation," Presentation to NAS-ODNI Analytic Frameworks Project, National Academy of Sciences, Washington DC, March 28.
- 2018 "Uncertainty and Effects of Emerging Technologies," presentation, Regulation of Proteins and Cell Therapies, UCL, February 15.
- 2018 "On Gene Drives," NAS Workshop on Laboratory Animal Law, Harvard Law School, Cambridge, MA January 26.
- 2017 "Regulating the Data That Drives 21st Century Growth," Moderator, Council on Foreign Relations, Harvard University, December 6.
- 2017 "Institution Building for Data Drive Innovation in the Korean Healthcare System," Keynote, National Assembly, Seoul, Sept 27.
- 2017 "Safety and Security in iGEM," (wi King-Lau Chow) Presentation, Fujian Agriculture & Forestry University, Fuzhou, China, 27 August.
- 2017 "Emerging Biotechnologies: Issues Raised for the Current System of Biosafety Oversight," Moderator and Panelist with Feng Zhang, Zach Adelman, Drew Endy for Conference on "NIH Guidelines: Honoring the Past, Charting the Future," NIH, Rockville MD, July 17.
- 2017 "Governing Risks of Emerging Technologies: Transnational to Interstate, De Facto to De Jure, Bilateral to Multilateral?" Keynote, Conference on Multilateral Governance of Technological Risk, Lorentz Center Universiteit Leiden; Leiden NL May 22-23.
- 2017 "Hard Cases: Synthetic Biology Applications and Deep Uncertainty," Seminar on "Dealing with Uncertain Technological Risks: Planned adaptation in Health and Environment Policy," Netherlands Ministry of Mines and Environment (RIVM), Bilthoven, NE, May 19.
- 2017 "Assessing and Mitigating Synthetic Biology Risks: Exemplary Cases and Cautionary Tales," Presentation to STS Circle, Harvard University, Cambridge, MA, April 17.
- 2017 "Genome Editing Methods and Applications: Environmental, Safety and Security Implications, Keynote Lecture to Conference on Regulation of Synthetic Biology in Asia, HKUST Hong Kong April 3.
- 2017 "Emerging Issues in Biosafety and Biosecurity Regulation: New Technologies, Old Policies?" Presentation to the International Experts Group on Biosecurity and Biosafety Regulation (IEGBBR), Ministry of Public Health, Canberra, Australia, March 29.
- 2017 "On Sources and Implications of Accelerating Innovation in Biotechnology: U.S. Opportunities and Challenges," Testimony for U.S.-China Economic and Security Review Commission, March 16.