Todd Kuiken, Ph.D. – Curriculum Vitae

Contact Information:
Phone: 919-515-2593 (office), 202-486-8654 (cell)
Email: tkuiken@ncsu.edu or karembiki@gmail.com
ORICD: https://orcid.org/0000-0001-7851-6232

Education

- Rochester Institute of Technology - Environmental Management & Technology - B.S. 2000
- The George Washington University - Environmental and Resource Policy - M.A. 2005
- Tennessee Technological University - Environmental Sciences - Ph.D. 2007

Professional Experience

- **2016-present- North Carolina State University, Raleigh NC**
  Genetic Engineering & Society Center - Senior Research Scholar
  - Manage, evaluate and design new research and governance strategies, which proactively address the biosafety, biosecurity and environmental opportunities and risks associated with emerging genetic technologies
  - Developed initiative exploring the current capabilities of the rapidly expanding community of citizen biologists, and growing network of community laboratories across the globe and developing programs to ensure safety and security
  - Developed and managed numerous projects related to the environment and public policy; including a partnership with the Genetic Biocontrol of Invasive Rodents
  - Initiated new opportunities and initiatives that furthered the mission of the Center
  - Represented the Center at relevant workshops, seminars, conferences and meetings that dealt with the regulation, oversight, and development of genetic technologies
  - Expanded the Center's focus from federal government oversight and policies to international governance and engagement
  - Served as the source of information and press contact for the Center
  - Co-creator of Arts Work in the Age of Biotechnology: Shaping Our Genetic Futures
  - Graduate Student Advisor
  - Primary Instructor for multiple courses
- **2008-2016 - Woodrow Wilson International Center for Scholars, Washington, DC**
  Science and Technology Innovation Program (STIP)—Senior Program Associate

- Primary investigator for the Science Technology and Innovation Program; including the Synthetic Biology Project and the Project on Emerging Nanotechnologies
- Developed and managed numerous projects related to the environment and public policy; ranging from synthetic biology to rare earth materials
- Developed the first research agenda for the ecological implications of synthetic biology
- Developed one of the first programs around biosafety and engagement with the Do-It-Yourself Biology community
- Managed a series of reports exploring the impacts of synthetic biology on the environment; including the first analysis of the global research investment in synthetic biology
- Responsible for tracking and analyzing the developments of U.S. investments, regulations, policies, and oversight mechanisms affecting the development, commercialization, and import/export of synthetic biology and nanotechnologies
- Initiated new opportunities and initiatives that furthered the mission of the Projects; including the design of an interactive map and report on the use of nanomaterials for environmental remediation
- Represented the Projects at relevant workshops, seminars, conferences and meetings that dealt with the regulation, oversight, and development of synthetic biology and nanotechnology
- Reviewed publications of the Projects' including editing, research assistance, and final product development
- Reviewed the progress of policy-analytical work being performed under contract
- Developed workshops and reports that addressed the regulations and policies affecting nanotechnology and synthetic biology
- Developed recommendations to the White House Office of Science and Technology Policy on Grand Challenges for science and technology
- Served as the source of information and press contact for the project
- Expanded the Projects' focus from federal government oversight and policies to international issues
- Managed budgeting, evaluation, reporting, intern hiring/advising and coordination of the Projects'

- **2003-2007 - Tennessee Technological University, Cookeville, TN**
  Center for the Management, Utilization and Protection of Water Resources – Graduate Research Assistant
  - Graduate research assistant at the Center for the Management, Utilization and Protection of Water Resources
  - Designed and executed a year-long field campaign on the mercury air/surface exchange within Standing Stone State Forest
  - Designed and executed a multi-state field campaign along the eastern seaboard of the U.S. analyzing the mercury air/surface exchange over terrestrial background surfaces

- Conducted various laboratory experiments and sample analysis related to the biogeochemical cycling of mercury including both soil and water
- Produced a dissertation on the mercury air/surface exchange over terrestrial background surfaces of the eastern U.S. and its policy implications

- **2002-2003 - National Wildlife Federation, Washington, DC**
  Clean the Rain Campaign – Special Project Assistant
  - Composed a national report on the deposition of mercury within the southern U.S.
  - Produced a mercury products guide, along with fact sheets and other educational materials related to mercury issues and policy for advocacy and public outreach campaigns
- **1999-2001 - Oak Ridge National Laboratory, Oak Ridge, TN**
  Research Assistant in the PIP program under the direction of Oak Ridge Associated Universities
  - Worked with Ph.D. research scientists to conduct research on the biogeochemical cycling of mercury
  - Duties included running experiments on mercury vapor levels in soils, and dissolved gaseous mercury concentrations in water. Soil collection in the Smokey Mountains for analysis of lead, inter-comparisons of different analytical methods of measuring mercury, and performing research technician duties for the laboratory
  - Fieldwork consisted of mercury monitoring within landfills near Orlando and Orange County, Florida; as part of a mercury emissions from landfills study. Mercury flux measurements within the Florida Everglades; as part of the Florida Everglades Dry Deposition Study. Dissolved gaseous mercury measurements within Saginaw Bay, Michigan; as part of the STAR grant. Plume measurements outside an oil refinery near Minneapolis, Minnesota. Air measurements within a municipal waste shredding facility; as part of an organic mercury in waste study, in addition to participation in the METAALICUS project within the Experimental Lakes Area in Ontario, Canada

Teaching Experience

- 2020 – NC State University, Primary Instructor, ARE 495, Ethics of Agricultural and other Emerging Biotechnologies
- 2020 – NC State University, Co-Instructor, GES 591, Special Topics in Genetic Engineering and Society
- 2019 – Lima, Peru, Instructor, USDA Foreign Agricultural Service Seminar, “Nuevas Técnicas Biotecnológicas de Mejoramiento Genético: Potenciales Aplicaciones y su Regulación”
- 2019 – Tuskegee University, Instructor, USDA Foreign Agricultural Service Training - Leveraging U.S. Biotechnology and Biosafety Systems for Côte D’Ivoire

- 2015-2019 – Fort Detrick, Instructor, FBI Weapons of Mass Destruction Directorate Agent Training (DIYbio section)
- 2018 – Lima, Peru, Instructor, USDA Foreign Agricultural Service Seminar, "La Biotecnología Moderna y sus Impactos en la Agricultura"
- 08/2017 – NC State University, Primary Instructor, NR 460/NR 560 - Renewable Natural Resource Management and Policy
- 2015 - Guest Lecturer – Georgetown University
- 2015 - Guest Lecturer – George Mason University

Funding Successes

- 2013 – NSF, Directorate for Biological Sciences, *Creating A Research Agenda for the Ecological Implications of Synthetic Biology*, Grant number: 1337431, $224,000 https://app.dimensions.ai/details/grant/grant.3488626
- 2014 – Alfred P. Sloan Foundation, *Synthetic Biology Project*, Grant number: 2014-3-05, $500,000
- 2016 – Robert Wood Johnson Foundation, *Facilitating interaction between the emerging 'makers in biology' ecosystem and formal regulatory institutions to ensure safe, responsible innovation*, Grant number: 73500, $300,058
- 2017 – Open Philanthropy Project Fund, *DIY biosafety and biosecurity landscape*, Grant number: 2017-170797 (5384), $706,750
- 2019 – NC State, R.L. Rabb Endowment, *Art's work in the Age of Biotechnology: Shaping Our Genetic Futures*, $10,000

Expert Advisory Boards/Professional Appointments

- Member - United Nations Convention on Biological Diversity Ad Hoc Technical Expert Group on Risk Assessment for the Cartagena Protocol
- Member - United Nations Convention on Biological Diversity Ad Hoc Technical Expert Group on Synthetic Biology
- Member – International Union for Conservation of Nature (IUCN) Task Force on Synthetic Biology
- Member – International Union for Conservation of Nature (IUCN) Technical Subgroup on Synthetic Biology
- Member – MIT-Broad Foundry Biosecurity and Biosafety Committee
- Member –TU Delft's PRISMA Project Advisory Board
- Founding Member – International Genetically Engineered Machines Competition (iGEM), Biosafety/Security Committee
- Co-Chairperson – iGEM, Human Practices Committee

Expert Testimony

- 10/2016 – European Commission DG Environment – Synthetic Biology
- 11/2015 – Royal Society Sackler USA-UK Scientific Forum, Trends in synthetic biology and gain of function and regulatory implication
- 07/2015 - U.S. National Security Agency Advisory Board
- 07/2015 - U.S. National Academies of Science
- 09/2014 - U.S. National Science Foundation Advisory Committee for Environmental Research and Education
- 02/2012 - Organization for Economic Co-operation and Development
- 12/2011 – United Nations Bioweapons Conventions
- 09/2010 - Wisconsin Legislature, Special Committee on Nanotechnology

Journal Service

- Reviewer for Science
- Reviewer for Conservation Biology
- Reviewer for Social Sciences and Humanities Research Council of Canada
- Reviewer for Biological Invasions
- Reviewer for Journal of Industrial Microbiology & Biotechnology
- Reviewer for Laws
- Reviewer for Elementa: Science of the Anthropocene
- Reviewer for Health Security

Selected Press & Media Appearances

- **New York Times Magazine -** The Gene Drive Dilemma: We Can Alter Entire Species, But Should We? 2020. https://www.nytimes.com/2020/01/08/magazine/gene-drive-mosquitoes.html
- **Science Friction** with Natasha Mitchell, ABC Radio National, Australian Broadcasting Corporation, *From bioerror to bioterror - does synthetic biology give new tools to terrorists?* 2019. https://www.abc.net.au/radionational/programs/sciencefriction/
- **Embo Reports –** Biohackers. 2019. https://onlinelibrary.wiley.com/doi/full/10.15252/embr.201948397
- **Civil Eats -** Synthetic Biology Is Changing What We Eat. Here's What You Need to Know. 2019. https://civileats.com/2019/05/14/synthetic-biology-is-changing-what-we-eat-heres-what-you-need-to-know/
- **The Guardian -** Debate rages on first gene-edited babies, drives to eliminate diseases. 2018. https://guardian.ng/features/health/debate-rages-on-first-gene-edited-babies-drives-to-eliminate-diseases/

- **Nature -** UN treaty agrees to limit gene drives but rejects a moratorium. 2018. https://www.nature.com/articles/d41586-018-07600-w
- **Nature -** Ban on 'gene drives' is back on the UN's agenda — worrying scientists. 2018. https://www.nature.com/articles/d41586-018-07436-4
- **MIT Technology Review -** United Nations considers a test ban on evolution-warping gene drives. 2018. https://www.technologyreview.com/s/612415/united-nations-considers-a-test-ban-on-evolution-warping-gene-drives/
- **Future Grind -** Ep. 29 - Biosafety and Biosecurity in DIYbio with Todd Kuiken. 2018. https://futuregrind.org/podcast-episodes/2018/10/13/ep-29-biosafety-and-biosecurity-in-diybio-with-todd-kuiken
- **OPINION -** The recent European Union ruling regarding gene-edited plants and GMO crops is more status quo than ground breaking or disruptive. 2018. https://research.ncsu.edu/ges/2018/08/eu-ruling-on-gene-edited-plants-and-gmos-is-more-status-quo-than-disruptive/
- **Science -** As lab-grown meat advances, U.S. lawmakers call for regulation. 2018. http://www.sciencemag.org/news/2018/05/lab-grown-meat-advances-us-lawmakers-call-regulation
- **The Sydney Morning Herald -** Would DNA Be Able To Altering Save Imperiled Species? 2018. https://www.smh.com.au/environment/conservation/could-wa-be-the-genetic-testing-ground-for-synthetic-mice-to-end-mice-20180221-h0wev9.html
- **Stat News -** Biohackers are about open-access to science, not DIY pandemics. Stop misrepresenting us. 2018. https://www.statnews.com/2018/06/04/biohacker-open-access-science/
- **Nature -** US defense agencies grapple with gene drives. 2017. https://www.nature.com/news/us-defence-agencies-grapple-with-gene-drives-1.22345
- **NPR WUNC The State of Things –** The Ability To Edit Genes Raises Big Questions On Regulation. 2017. http://wunc.org/post/ability-edit-genes-raises-big-questions-regulation#stream/0
- **Slate Magazine -** DARPA's Synthetic Biology Initiatives Could Militarize the Environment. 2017. http://www.slate.com/articles/technology/future_tense/2017/05/what_happens_if_darpa_uses_synthetic_biology_to_manipulate_mother_nature.html
- **Scientific American** - Should We Fear DIY Biologists' Use of Cutting-Edge Gene-Editing Technology? 2016. http://www.scientificamerican.com/article/should-we-fear-diy-biologists-use-of-cutting-edge-gene-editing-technology/
- **Washington Post** – The big trends in synthetic biology you need to know. 2015. https://www.washingtonpost.com/news/innovations/wp/2015/10/08/the-big-trends-in-synthetic-biology-you-need-to-know/
- **Science Magazine**– Shaping the future of synthetic biology. 2015.
- **NPR Science Friday** – Community Labs Practice Do-It-Yourself Biology. 2014. http://www.sciencefriday.com/segments/community-labs-practice-do-it-yourself-biology/
- **DIYSECT** - Bioterror & Bioerror. 2014. http://www.diysect.com/bioterrorbioerror/

- **New York Times** – A Dream of Trees Aglow at Night. 2013. http://www.nytimes.com/2013/05/08/business/energy-environment/a-dream-of-glowing-trees-is-assailed-for-gene-tinkering.html
- **New York Times** – Amateur Biologists Are New Fear in Making a Mutant Flu Virus. 2012. http://www.nytimes.com/2012/03/06/health/amateur-biologists-are-new-fear-in-making-a-mutant-flu-virus.html

Selected Peer-Reviewed Publications:

1. Serr, M.E., Valdez, R.X., Barnhill-Dilling, K.S., Godwin, J., **Kuiken, T.**, Booker, M. 2020. Scenario analysis on the use of rodenticides and sex-biasing gene drives for the removal of invasive house mice on islands. Biol Invasions. Available at: https://doi.org/10.1007/s10530-019-02192-6
2. George, D., **Kuiken T**., Delborne, J. 2019. Articulating free, prior and informed consent for engineered gene drives. Proc. R. Soc. B. 286: 20191484. Available at: http://dx.doi.org/10.1098/rspb.2019.1484
3. **Kuiken, T.** 2019. What Can Biotech Art Teach Us about Nature and Ourselves? In: Art's Work in the Age of Biotechnology: Shaping Our Genetic Futures. Available at: https://indd.adobe.com/view/5ceddb4b-cb3f-4a26-bc7d-4e92a8900c47
4. Lai, H.E., Canavan, C., Cameron, L., Moore, L., Danchenko, M., **Kuiken, T.**, Sekeyova, Z., Freemont, S. 2019. Synthetic Biology and the United Nations. Trends in Biotechnology. Vol. 37(11). Available at: https://doi.org/10.1016/j.tibtech.2019.05.011
5. **Kuiken, T**. ,Perello, E., Esvelt, K., Aphey, L. 2019. What does synthetic biology and gene drive have to do with biodiversity conservation? In: Redford, K.H., Brooks, T.M., Macfarlane, N.B.W. and Adams, J.S. (eds.) (2019). Genetic frontiers for conservation: An assessment of synthetic biology and biodiversity conservation. Technical assessment. Gland, Switzerland: IUCN. Available at: https://www.iucn.org/synbio
6. **Kuiken, T.**, Perello, E., Eggermont, H. 2019. Biodiversity conservation implications of synthetic biology applications not directly intended for conservation benefit. In: Redford, K.H., Brooks, T.M., Macfarlane, N.B.W. and Adams, J.S. (eds.) (2019). Genetic frontiers for conservation: An assessment of synthetic biology and biodiversity conservation. Technical assessment. Gland, Switzerland: IUCN. Available at: https://www.iucn.org/synbio
7. Millett, P.; Binz, T., Weiss Evans, S., **Kuiken, T.**, Oye, K., Palmer, M.J., van der Vlugt, C., Yambao, K., Yu, S. 2019. Developing a Comprehensive, Adaptive, and International Biosafety and Biosecurity Program for Advanced Biotechnology: The IGEM Experience. Applied Biosafety. Vol. 24(2).
8. Campbell, K.J., Saah, J.R., Brown, P.R., Godwin, J., Gould, F., Howald, G.R., Piaggio, A., Thomas, P., Tompkins, D.M., Threadgill, D., Delborne, J., Kanavy, D.M., **Kuiken, T.**, Packard, H., Serr, M., Shiels, A. 2019. A potential new tool for the toolbox: assessing gene drives for eradicating invasive rodent populations. In: C.R. Veitch, M.N. Clout, A.R.

Martin, J.C. Russell and C.J. West (eds.) (2019). Island invasives: scaling up to meet the challenge, pp. 6–14. Occasional Paper SSC no. 62. Gland, Switzerland: IUCN.
9. Boeke, J., Church, G., Hessel, A., Kelley, N.J., Arkin, A., Cai, Y., Carlson, R., Chakravarti, A., Cornish, V.W., Holt, L., Isaacs, F.J., **Kuiken, T.**, Lajoie, M., Lessor, T., Lunshof, J., Maurano, M.T., Mitchell, L.A., Rine, J., Sanjana, N.E., Silver, P.A., Valle, D., Wang, H., Way, J.C., Yang, L. 2016. The Genome Project-Write. Science. June, 2016.
10. **Kuiken, T.** 2016. Governance: Learn from DIY biologists. Nature. Vol. 531, 167-168.
11. Vance, M. E., **Kuiken, T.**, Vejerano, E.P., McGinnis, S.P., Hochella, M.F., Rejeski, D., Hull, M.S. 2015. Nanotechnology in the real world: Redeveloping the nanomaterial consumer products inventory. Beilstein J. Nanotechnol. 6, 1769–1780.
12. Oye, K., Esvelt, K., Appleton, E., Catteruccia, F., Church, G., **Kuiken, T.**, Lightfoot, S., McNamara, J., Smidler, A., Collins, J. P. 2014. Regulating Gene Drives. Science. Vol. 345(6197).
13. **Kuiken, T.**, Dana, G.V., Oye, K., Rejeski, D. 2014. Shaping Ecological Risk Research for Synthetic Biology. Journal of Environmental Studies and Sciences. Volume 4, Issue 3, pp 191-199.
14. Dana, G.V., **Kuiken, T.**, Rejeski, D., Snow, A.A. 2012. Four steps to avoid a synthetic biology disaster. Nature, 483, No. 7387, 29.
15. **Kuiken, T.** 2010. Cleaning up contaminated waste sites: Is nanotechnology the answer? Nano Today, 5(1), 6-8.
16. **Kuiken, T.** 2010. Nanomedicine and ethics: is there anything new or unique? WIRES: Nanomedicine and Nanobiotechnology, Volume 2, 1-12.
17. **Kuiken, T.** 2010. International Viewpoint and News, Nano in the Arctic. Environmental Earth Sciences. 60(4):903-907.
18. **Kuiken, T.** 2010. International Viewpoint and News, The Project on Emerging Nanotechnologies and Nanoremediation. Environmental Earth Sciences, 60(4), 903-907, 2010.
19. Stamenkovic, J., Weisberg, P., Pillai, R., Ericksen, J., **Kuiken, T.**, Lindberg, S., Zhang, H., Rytuba, J., Gustin, M. 2009. Application of a rule-based model to estimate mercury exchange for three background biomes in the continental United States. Environmental Science & Technology, 43, 4989-4994.
20. Karn, B., **Kuiken, T.**, and Otto, M. 2009. Nanotechnology and in Situ Remediation: A Review of the Benefits and Potential Risks. Environmental Health Perspectives, 117(12).
21. **Kuiken, T.**, Zhang, H., Gustin, M., Lindberg, S. 2008. Mercury emission from terrestrial background surfaces in the eastern USA: I. Air/surface exchange of mercury within a southeastern deciduous forest (Tennessee) over one year. Applied Geochemistry, 23(3), 345-355.
22. **Kuiken, T.,** Gustin, M., Zhang, H., Lindberg, S., Sedinger, B. 2008. Mercury emission from terrestrial background surfaces in the eastern USA: II. Air/surface exchange of mercury within forests from South Carolina to New England. Applied Geochemistry, 23(3), 356-368.
23. Zhang, H, Lindberg, S.E., **Kuiken, T.** 2008. Mysterious diel cycles of mercury emission from soils held in the dark at constant temperature. Atmospheric Environment, 42, 5424-5433.

24. Zhang, H, Dill, C, **Kuiken, T**, Ensor, M, Crocker, W. 2006. Change of Dissolved Gaseous Mercury (DGM) Concentrations in a Southern Reservoir Lake (Tennessee, USA) Following Seasonal Variation of Solar Radiation. Environmental Science & Technology, 40, 2114-2119.
25. Dill C, **Kuiken T**, Zhang H., Ensor M. 2006. Diurnal Variation of Dissolved Gaseous Mercury (DGM) Levels in a Southern Reservoir Lake (Tennessee, USA) in relation to solar radiation. The Science of The Total Environment, 357, 176-193.
26. Southworth, G., Lindberg, S.E., Bogle, M.A., Zhang, H., **Kuiken, T.**, Price, Reinhart, D., and Sfeir, H. 2005. Airborne emissions of mercury from municipal solid waste II: Potential losses of airborne mercury prior to landfill. Journal of Air & Waste Management Association, 55:870-877.
27. Lindberg, S.E., Southworth, G.R., Bogle, M.A., Blasing, T.J., Zhang, H., **Kuiken, T**., Price, J., Reinhart, D., Sfeir, H., Owens, J., Roy, K. 2005. Airborne emissions of mercury from municipal solid waste I: New measurements from six operating landfills in Florida. Journal of Air & Waste Management Association, 55:859-869.
28. Lindberg, S., Zhang, H., Vette, A., Gustin, M., Barnett, M., **Kuiken, T.** 2002. Dynamic flux chamber measurement of gaseous mercury emission fluxes over soils: II. Effect of flushing flow rate and verification of a two-resistance exchange interface model. Atmospheric Environment, 36, 847-859.

Book Chapters

1. **Kuiken, T.** 2019 (in press). Gene editing technology: Impacts on environment, ecology, and biodiversity. In: GMOs - Implications for Biodiversity Conservation and Ecological Processes. Edited by David L. Hawksworth, Manoela Pessoa de Miranda, Anurag Chaurasia. Springer Nature.
2. **Kuiken, T.** 2019. Biology without Borders: Need for Collective Governance? In: Synthetic Biology 2020: Frontiers in Risk Analysis and Governance. Edited by Benjamin D. Trump. Springer.
3. **Kuiken, T.** 2017. Vigilante Environmentalism: Are Gene Drives Changing How We Value and Govern Ecosystems? In: Gene Editing, Law, and the Environment: Life Beyond the Human. Edited by Irus Braverman. Taylor & Francis Group.
4. **Kuiken, T.**, Quadros, M., McGinnis, S., Hull, M. 2015. Public's Understanding, Perceptions, and Acceptance of Nanotechnology through the Lens of Consumer Products. In: Nanoengineering: Global Approaches to Health and Safety Issues, Edited by Patricia I. Dolez. Elsevier. ISBN: 9780444627476.
5. **Kuiken, T.** 2015. Nanomedicine: Ethical Considerations. In: Handbook of Safety Assessment of Nanomaterials. Edited by Bengt Fadeel. Pan Stanford., ISBN: 9789814463362.
6. **Kuiken, T.** 2013. Converging Technologies for a Smarter Health and Wellness Future. In OECD ICTs and the Health Sector: Towards Smarter Health and Wellness Models. OECD Publishing.

Other Major Reports

1. Welch, E. Bagley, M., **Kuiken, T.** and Louafi, S., 2017. Potential implications of new synthetic biology and genomic research trajectories on the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA or 'Treaty'). International Treaty on Plant Genetic Resources for Food and Agriculture.
2. **Kuiken, T.** 2015. U.S Trends in Synthetic Biology Research Funding. Woodrow Wilson Center.
3. **Todd Kuiken**, Kelly Drinkwater, Shlomiya Lightfoot, Julie McNamara, Kenneth Oye. 2014. Creating a Research Agenda for the Ecological Implications of Synthetic Biology. Woodrow Wilson Center.
4. Grushkin, D. **Kuiken, T.**, Millet, P. 2013. Seven Myths and Realities about Do-It-Yourself Biology. Synthetic Biology Project/Woodrow Wilson Center.

Selected Major Presentations

1. Kuiken, T. ASU/FBI Biosecurity Workshop. The Global DIYbio Community. December 2019.
2. Kuiken, T. Environmental Defense Fund Science Day. How do we manage, value and govern biodiversity/ecosystems in an era of synbio (biotechnologies)? October 2019.
3. Kuiken, T. Re-Thinking Animals Summit. Vigilante Environmentalism? How do we manage, value and govern ecosystems in an era of biotechnology and "new" eco-radicals? September 2019.
4. Kuiken, T. 4S – Society for Social Studies of Science. Biotech in (or creating) a World without Borders (Barriers to Entry). September 2019.
5. Kuiken, T. 4S – Society for Social Studies of Science. Genetic Frontiers for Conservation: An Assessment of Synthetic Biology and Biodiversity Conservation. September 2019.
6. Kuiken, T. Build-A-Genome. Biology in a World Without Walls: Broader Societal Issues Around Synthetic Biology ("ethics"). August 2019.
7. Kuiken, T. National Citizen Science Conference. Biology in a World Without Borders. March 2019.
8. Kuiken, T. Innovative Genomics Institute, UC Berkley. Biology in (or creating?) a World Without Borders. January 2019.
9. Kuiken, T. UNC Charlotte. Biology in (or creating?) a World Without Borders. October 2018.
10. Kuiken, T. American Chemical Society Annual Conference. What in the world does synthetic biology governance look like? August 2018.
11. Kuiken, T. Governance of Emerging Technologies Conference. The Challenges of Synthetic Biology and Digital Sequence Information for the Principles and Structures of the International Treaty for Plant Genetic Resources for Food and Agriculture. May 2018.

12. Kuiken, T. National Academies. Assessing the Security Implications of Genome Editing Technology. October 2017.
13. Kuiken, T. U.N. Food and Agricultural Organization. Synthetic Biology: Where it is and where it may go? March 2017.
14. Kuiken, T. Society for Risk Assessment. CRISPR and Gene Drives without Walls: Myths and realities about the democratization of genetic technologies. December 2016.
15. Kuiken, T. Future Today Summit. December 2016.
16. Kuiken, T. American Society of Tropical Medicine and Hygiene. Challenges to Governance of Gene Drive Research and Development. November 2016.
17. Kuiken, T. National Invasive Species Council/Environmental Law Institute. Gene Editing: A Next Generation Tool for Invasive Species Management? Feb. 2016. http://www.eli.org/events/gene-editing-next-generation-tool-invasive-species-management
18. Kuiken, T. National Institute for Public Health and the Environment. Netherlands. Feb. 2016.
19. Kuiken, T. Conference on Governance of Emerging Technologies: Law, Policy, and Ethics. May 2015.
20. Kuiken, T. What Genetics Can Learn from the Digital Revolution: Innovation, Safety, Privacy and Rights. Synbiobeta. March 2015.
21. Kuiken, T. Philanthropic Leadership Symposium on Integrating Social Science into Environmental Grant-making. February 2015.
22. Kuiken, T. Shaping Ecological Implications of Synthetic Biology. Society of Risk Assessment. December 2014.
23. Kuiken, T. Engagement @ the Technological Frontier: New approaches to governance from the NGO community (a DIYbio perspective). Democratizing Technologies: Assessing the Roles of NGOs in Shaping Technological Futures, U.C. Santa Barbara. November 2014.
24. Kuiken, T. Myths and Realities of the DIYbio Community. American Biological Safety Association. October 2014.
25. Kuiken, T. Ecological Implications of Synthetic Biology. Meetings of the U.N. Convention on Biological Diversity and its Protocols. October 2014.
26. Kuiken, T. Ecological Implications of Synthetic Biology. Synthetic Biology: Engineering, Evolution & Design, Manhattan Beach, CA. 2014. Kuiken, T. How will synthetic biology and conservation shape the future of nature; Cambridge, UK. April 2013 (invited speaker).
27. Kuiken, T. 1st Annual Conference on Governance of Emerging Technologies: Law, Policy, and Ethics; Phoenix, AZ, May 2013 (oral presentation).
28. Kuiken, T. Who Decides a Dual Use Exists, and Then What Happens? Council on Foreign Relations, 2013 (invited speaker).
29. Kuiken, T. 21st Century Borders/Synthetic Biology (21CB/SB): Focus on Responsibility and Governance, Institute on Science for Global Policy, December 2012 (invited speaker).
30. Kuiken, T. Society for Risk Assessment Annual Meeting, December 2012.

31. Kuiken, T. Council on Foreign Relations, Biological Threat Assessment: How Real are Dual/Misuse Potentials? November 2012 (invited speaker).
32. Kuiken, T. OECD 9th Meeting of the Working Party on Nanotechnology. Paris, France, February 2012 (invited speaker).
33. Kuiken, T. Emerging Risks of Synthetic Biology, Society for Risk Assessment, Washington, DC, February 2012 (invited speaker).
34. Kuiken, T. SYBHEL Workshop: Synthetic Biology for Global Health: A Policy Discussion. Hague, Netherlands, February 2012 (invited speaker).
35. Kuiken, T. United Nations Bioweapons Convention Comprehensive Review Conference. Geneva, Switzerland, December 2011 (invited speaker).
36. Kuiken, T. Society for Risk Assessment Annual Meeting. Charleston, SC, December 2011 (oral presentation).
37. Kuiken, T. Chemical and Biological Defense Science and Technology Conference. Las Vegas, NV, November 2011 (invited speaker).
38. Kuiken, T. NanoMex 2011. Merida, Yucatan, Mexico, November 2011 (invited speaker).
39. Kuiken, T. FBI: Safe and Secure Science: Partners of Today and Tomorrow. Washington, DC, August 2011 (invited speaker).
40. Kuiken, T. National Environmental Health Association Annual Meeting. Columbus, OH, June 2011 (invited speaker).
41. Kuiken, T. ArboraNano Annual Meeting. Washington DC, June 2011 (invited keynote address).
42. Kuiken, T. Nanoparticles: Regulatory Tools for Toxicity Assessment. Ottawa, Canada, May 2011 (invited plenary speaker).
43. Kuiken, T. Bridging Nano EHS Efforts: A Joint U.S.-E.U. Workshop. Washington, DC, March 2011 (invited speaker).
44. Kuiken, T. Policy Implications of Emerging Technologies. AAAS Policy Workshop, Washington, DC, November 2010 (invited speaker).
45. Kuiken, T. Critical Issues Affecting Emerging Technologies. FBI Synthetic Biology Workshop, Boston, MA, August 2010 (invited speaker).
46. Kuiken, T. Transatlantic Workshop on Nanotechnology and Innovation Policy. Atlanta, GA, March 2010 (invited speaker)
47. Kuiken, T. National Environmental Partnership Summit. Orlando, FL, March 2010 (invited speaker)
48. Kuiken, T. It's Time to Move Forward on Life Cycle Assessment of Nanomaterials. Nanotechnology and Life Cycle Analysis Work shop, Chicago, IL, November 2009 (invited speaker).
49. Kuiken, T. U.S. Environmental Protection Agency's (EPA's) Nanomaterial Case Studies Workshop, Raleigh, NC, October 2009 (invited participant).
50. Kuiken, T. Nanotechnology: What is it, where is it going, and what are the social, ethical and policy implications? FREE Conference-Science, Health, Nanotechnology and the Law. Bozeman, MT, July 2009 (invited speaker).
51. Kuiken, T. Nanotechnology and In situ Remediation: A review of the benefits and potential risks. FREE Conference-Science, Health, Nanotechnology and the Law. Bozeman, MT, July 2009 (invited speaker).

52. Kuiken, T. Silver Nanotechnologies and the Environment: Old Problems or New Challenges. EPA region 6 Annual Pretreatment Workshop, Dallas, TX, August 2009 (invited plenary speaker).
53. Kuiken, T. Silver Nanotechnologies and the Environment: Old Problems or New Challenges. Water Environment Federation Annual Meeting, Baltimore, MD, July 2009 (invited speaker).
54. Kuiken, T. Nanoremediation: Mapping Out the Technology. EPA Conference on the Environmental Implications and Applications of Nanotechnology, Amherst, MA, June 2009 (poster).
55. Kuiken, T. EPA System of Registries: What We Would Like to See. EPA Systems of Registry Conference, Washington, DC, May 2009 (invited speaker).
56. Kuiken, T. Environmental Management Leadership Symposium. Rochester, NY, May 2009 (invited participant).
57. Kuiken, T. Nanotechnology is Here To Stay: So what about the social, ethical and policy implications? Texas Environmental Health and Safety Conference, Austin, TX, April 2009 (invited speaker).
58. Kuiken, T. and Finan, C. Application of TRI to Nanomaterials. 2009 Toxics Release Inventory (TRI) National Training Conference, Washington, DC, April 2009 (invited speaker).
59. Kuiken, T. 2nd Annual Massachusetts Nanotechnology Workshop Promoting the Safe Development of Nanotechnology in Massachusetts. Boston, MA, January 2009 (invited moderator).
60. Kuiken, T. Nanotechnology is Here To Stay: So Now What? Boston Museum of Science Consumer Products Nano Forum, January 2009 (invited speaker).
61. Karn, B., Kuiken, T., Otto, M., Zhang, W. In Situ Remediation: Nanotechnology's Poster Child. 2008 International Environmental Nanotechnology Conference: Applications and Implications, Chicago, IL, October 2008 (oral)
62. Kuiken, T., Zhang, H. A Laboratory Study of Hg Air/Soil Exchange Using Hg-Free Carrier Gas. South eastern regional meeting of the American Chemical Society, Nashville, TN, 2008 (poster).
63. Kuiken, T., Zhang, H., Gustin, M., Lindberg, S.E. Natural background levels of mercury from an eastern deciduous forest floor: A yearlong study within Standing Stone State Forest in Overton County, Tennessee. Eight International Conference on Mercury as a Global Pollutant, Madison, WI, August, 2006 (poster).
64. Kuiken, T., Sedinger, B., Zhang, H., Gustin, M., Lindberg, S.E. Air-Forest floor mercury exchange along the eastern seaboard and New England. Eight International Conference on Mercury as a Global Pollutant, Madison, WI, August, 2006 (poster).
65. Crocker C., Zhang, H., Kuiken, T. Air/surface exchange of gaseous mercury in Cane Creek Lake of Putnam County (TN). East Tennessee Ozone Study 2006 Science Workshop, Oak Ridge, TN, May, 2006 (poster).
66. Kuiken, T., Zhang, H. Mercury air/surface exchange within deciduous forests: Implications for scaling and modeling. East Tennessee Ozone Study 2006 Science Workshop, Oak Ridge, TN, May, 2006 (poster).

67. Kuiken, T, Zhang, H, Lindberg, S., Mercury emissions from non-enriched sites: Policy implications and its effect on determining the global mercury budget. American Chemical Society 231st Annual Meeting, Atlanta, GA, March 2006 (oral).
68. Zhang, H., Kuiken, T., Dill, C., Ensor, M. Aquatic Photochemokinetic Rates of Production and Loss of Dissolved Gaseous Mercury (DGM) in a Southern Reservoir Lake of Tennessee. American Chemical Society 226th Annual Meeting. San Diego, CA, March, 2005 (oral).
69. Zhang, H., Dill, C., Kuiken, T., Ensor, M., Crocker, C. Sunlight-induced seasonal changes of dissolved gaseous mercury (DGM) loading in a southern reservoir lake. The 56th Southeast Regional Meeting ACS, Research Triangle Park, NC, November, 2004 (oral).
70. Crocker, C., Kuiken, T., Zhang, H. Emission of aquatic gaseous mercury from a small, southern reservoir lake. The 56th Southeast Regional Meeting ACS, Research Triangle Park, NC, November, 2004 (oral).
71. Kuiken, T., Zhang, H., Lindberg, S., Crocker, C., Gustin, M. Natural mercury emissions from southeast background forest soils: An on-going study within the Standing Stone State Forest of Tennessee. The 56th Southeast Regional Meeting ACS, Research Triangle Park, NC, November, 2004 (oral).
72. Zhang, H., Dill, H., Kuiken, T., Ensor, M. Diurnal changes of dissolved gaseous mercury (DGM) levels in a southern reservoir lake: Cane Creek Lake, Cookeville, TN. Tennessee Academy of Science Annual Meeting, Columbia, TN, November, 2004 (oral).
73. Crocker, C., Zhang, H., Kuiken, T. Estimation of emission of dissolved gaseous mercury (DGM) in a southern reservoir lake using a two-thin film model. Tennessee Academy of Science Annual Meeting, Columbia, TN, November, 2004 (oral).
74. Zhang, H., Dill, C., Kuiken, T., Nriagu, J., Lindberg, S. Driving force for diel change of dissolved gaseous mercury levels in surface freshwaters. Tennessee Academy of Science Annual Meeting, Franklin, TN, November, 2003 (oral).
75. Kuiken, T., Zhang, H. Quicksilver: Lead's toxic and environmental twin. Tennessee Academy of Science Annual Meeting, Franklin, TN, November, 2003 (oral).
76. Zhang, H., Lindberg, S., Southworth, G., Kuiken, T. Sunlight mediated biogeochemodynamics of mercury in the Everglades aquatic ecosystem: A case study. American Geophysics Union 2003 Fall Meeting, San Francisco, CA, December, 2003 (poster).
77. Dill, C., Kuiken, T., Ensor, M., Zhang, H. Aquatic Photochemodynamics of Dissolved Gaseous Mercury in a Small, Southern Lake (Cookeville, TN). The 55th Southeast Regional Meeting ACS, Atlanta, GA, November, 2003 (oral).
78. Zhang, H., Lindberg, S.E., Kuiken, T., Nriagu, J. Photochemical production of dissolved gaseous mercury in freshwater: The role of Fe(III). American Chemical Society 222nd Annual Meeting. Chicago, August, 2001 (oral).
79. Zhang, H., Lindberg, S, Vette, A., Barnett, M., Gustin, M., Kuiken, T. Dynamic flux chamber measurement of mercury emission fluxes over soils: Effect of sweep air flushing flow rate and verification of a two-resistance exchange interface simulation model. Society of Environmental Toxicology and Chemistry 21st Annual Meeting. Nashville, November, 2000 (oral)