Jennifer Kuzma, Ph.D.
Professor
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EDUCATION AND FELLOWSHIPS:

- American Association for the Advancement of Science (AAAS) Fellow: Risk Assessment & Science Policy Fellow, United States Department of Agriculture, Washington, DC (1997-1998)
- Life Science Research Foundation Postdoctoral Fellow, The Rockefeller University, New York (1995-1997); plant molecular biology lab
- Ph.D., University of Colorado at Boulder, (1995); biochemistry (environmental biochemistry)
- B.A., University of St. Thomas, St. Paul MN; summa cum laude (1990); chemistry and biology.

ACADEMIC POSITIONS:

- 2013-present **Professor**, **Goodnight-NC GSK Foundation Distinguished Professor in the Social Sciences (2013-2023),** School of Public and International Affairs**,** College of Humanities and Social Sciences, NC State University
- 2022-present, **Associate Director, Precision Microbiome Engineering Research (PreMiEr) Center.** Director of NC State site for PreMiEr. Also lead for Societal and Ethical Implications Core. National Science Foundation Engineering Research Center. Duke, NC State, UNC-CH, UNC-Charlotte, NC A&T.
- 2013-present **Co-Founder, Director (2025) & Co-Director (2013-2024), Genetic Engineering and Society Center,** NC State University
- 2013-present, **Genetic Engineering and Society Ph.D. Minor Executive Committee,** NSF-IGERT, NSF-NRT, and GES minor, NC State
- 2017-2022, **NC State Faculty Senator**, Faculty Senate Executive Committee (2019-2020, 2021-2022)
- 2015-2017 **Graduate Faculty, Duke University,** Science and Society Master's Program.
- 2007-2013, **Associate Professor of Science, Technology and Environmental Policy (STEP),** Humphrey School of Public Affairs, University of Minnesota
- 2006-2009 **Area Chair, Master of Public Policy-STEP and Master of Science- STEP Degree Program Chair,** Humphrey School of Public Affairs, University of MN.
- 2003-2009**, Associate Director** and **Interim Director, Center for Science, Technology, and Public Policy**, Humphrey Institute, University of MN
- 2003-2007, **Assistant Professor ,** Humphrey School of Public Affairs, University of Minnesota
- 2009-2013**, Senior Member of Graduate Faculty** of Masters of Science in Security Technologies
- 2007-2013, **Executive Committee of NSF-IGERT Minor PhD.,** NSF-funded U of M Interdisciplinary Graduate Education and Research and Training (IGERT) program on Risk Analysis for Introduced Species and Genotypes (ISG)
- 2006-2013, **Senior Member of Graduate Faculty** of the Conservation Biology Ph.D. Program
- 2004-2005**, Associate Director**, Initiative for Renewable Energy and the Environment, University of MN

PROFESSIONAL APPOINTMENTS:

- 1999-2003, **Study Director, Program Director, and Senior Program Officer,** National Academy of Sciences, National Research Council, Washington, DC
- 1998, **Program Specialist,** Cooperative Research, Education and Extension Services, United States Department of Agriculture, Washington, DC
- 1997-1998 **Risk Analyst/Fellow,** Office of Risk Assessment and Cost Benefit Analysis, United States Department of Agriculture.

HONORS, APPOINTMENTS, AND AWARDS:

- Nominated for and Service on National Science Advisory Board on Biosecurity and on Ad Hoc Working Group for Safeguarding *in silico* Research with Potential Dual Use Concerns. (2024-present) (advisory committees halted January 21, 2025)
- Best Paper Award (2022) Global Public Policy and Governance (Springer) journal.
- Council of Canadian Academies (CCA) Expert Member of Committee on Regulatory Framework for Gene Edited Organisms for Pest Control (2022-2024)
- United Nations Food and Agricultural Organization (UN FAO) Expert Committee on Gene Editing for Agrifood Systems (2022-2023)
- AAAS Advisory Committee for Path to Public Interest Technology - Building Institutional Infrastructure Initiative, AAAS Scientific Responsibility, Human Rights and Law Program (2022-present)
- NSF Stakeholder Engagement and Impact Collaborative (SEIC) Working Group (2022-present)
- International Risk Governance Council: Ensuring the environmental sustainability of emerging technologies (ESET) Case Study Author Committee (2022)
- Alumni Association Outstanding Research Faculty Award-NC State (2020)
- Research Leadership Academy, NC State (2020 inducted)
- American Association for the Advancement of Science Fellow (lifetime honor, elected) 2019
- National Academy of Medicine Committee on Emerging Science, Technology and Innovation Principles and Commitments Working Group (2021-2022)
- Canada Fulbright Research Chair in Science and Society, 2017-2018 (U of Ottawa)
- AAAS-UNESCO Consultative Group on Responsible Research and Innovation (2020-2021)
- Elected Officer of AAAS Section X Societal Implications of Science and Eng (2018-2022)
- AAAS-ABA National Council for Scientists and Lawyers. (2019-present)
- Outstanding Social Scientist Research Award , NC State (2019)
- Academy of Excellence in Global Engagement, NC State (2019)
- World Economic Forum Global Futures Council on Technology, Values and Policy (2016-2018)
- National Academy of Sciences Committee on Future Biotechnology Products (2016-2017)
- Council on Agricultural Science and Technology (CAST) Taskforce on Gene Editing (2015-2017)
- Special Recognition for Outstanding Mentoring NCSU (2017)
- 2014 SRA Sigma Xi Distinguished Lecturer Award (for contributions to risk studies) (2014)
- Goodnight-NC GSK Foundation Distinguished Professor in the Social Sciences, NCSU (2013-present)
- Elected Secretary and Council Member for Society for Risk Analysis (2014-2016)
- Humphrey School Dean's Scholar (awarded to faculty for outstanding contributions) (2012-2013)
- Hennebach Visiting Professorship, Colorado School of Mines (Spring 2011)
- Appointed to Expert Group. European Union (EU) FP7 project 'SYNTH-ETHICS' (2011)
- U.S. Food and Drug Administration (FDA) Blood Products Advisory Committee (2011-2014)
- Best Technical Article, Minnesota Magazine and Publishing Association (2010)
- Elected Vice Chair (2012) and Chair (2014) for Gordon Research Conference on S&T Policy
- Elected Chair (2012) of Risk Policy and Law Subgroup for Society for Risk Analysis.

- Nominated for Association of Policy, Planning and Management (APPAM) Best Comparative Policy Analysis Paper Award (2010)
- European Commission Expert Group for 2011 Science in Society Work Programme (2009)
- Selected to serve on the United Nations WHO/FAO Expert Committee on Food and Nanotechnology (2009)
- Institute on the Environment (IonE) Resident Fellow (2009-2012)
- Selected for Executive Committee of International Society for the Study of Nanoscience and Emerging Technologies (2008-2010)
- Teacher of the Year, Humphrey School of Public Affairs, (2004).
- Elected to Board of the Bio Business Alliance of Minnesota, (2005).
- Elected to the MN Governor's Biosciences Council, (2004).
- United States Department of Agriculture, Cooperative Research, Education, Extension Service Outstanding Employee Award (1998)
- American Association for the Advancement of Science Fellowship (1997-1998)
- Department of Energy Life Sciences Research Fellow Award (1995-1997)
- National Science Foundation Atmospheric Chemistry Traineeship (1993-1994)
- National Institutes of Health (NIH) Traineeship (1990-1991)
- College of St. Thomas Science Scholarship (full tuition, 4 years, 1986-1990)
- USA-Today (newspaper) All-USA Academic Team (1990)
- American Institute of Chemists Foundation Award (1990)
- Chemical Rubber Company Chemistry Achievement Award (1986)

PUBLICATIONS[1]

Journal Articles & Peer-reviewed/Edited Book Chapters

1) Cumings, C., Landreville K, & **J. Kuzma** (2025). Natural vs. Genetically Engineered Microbiomes: Understanding Public Attitudes for Indoor Applications and Pathways for Future Engagement. *Frontiers in Genetics* 16, https://doi.org/10.3389/fgene.2025.1560601.

2) Cummings C., Landreville K, and **J. Kuzma**. (2024). Taking the temperature of the US public regarding microbiome engineering. *Frontiers in Public Health* 12:1477377.

3) Ahmad, J., Grunden, A. and **Kuzma, J**. (2024). Biotechnology Executive Order Opens Door for Regulatory Reform and Social Acceptance of Genetically Engineered Microbes in Agriculture. *GM Crops & Food* 15(1): 248–26.

4) Grieger, K, Wiener J, **& J. Kuzma** (2024). Improving Risk Governance Strategies via Learning: A Comparative Analysis of Solar Radiation Modification and Gene Drives, *Environmental Systems & Decisions* 44: 1054–1067.

5) DB. Resnik, R F. Medina, F Gould, G Church, **J Kuzma**. (2024). Genes Drive Organisms and Slippery Slopes. *Pathogens & Global Health* 118(4): 348-357.

6) Streicker DS, Griffiths M, Rustom A, Bergner L, Bowman P, Vitoria dos Santos de Moraes M, Esvelt K, Famulare M, Gilbert A, He B, Jarvis M, Kennedy D, **Kuzma J,** Nasimiyu Wanyony C, Remien C, Rocke T, Rosenke K, Schreiner C, Sheen J, Simons D, Yordanova IA, Bull JJ and Nuismer SL. (2024). Commitments for the responsible development of transmissible vaccines for animal infectious diseases. *Science* 384 (6693): 275-277. April

7) Hardwick A, Cummings C, Graves Jr., J. **Kuzma, J.** (2024). Can Societal and Ethical Implications of Precision Microbiome Engineering Be Applied to the Built Environment? A Systematic Review of the Literature: *Environment, Systems and Decisions* 44: 215–238. Feb

[1] Student, postdoc, and other junior (non-tenure track, research fellow) coauthors are underlined.

8) Kendig C, Selfa T, Thompson P, Anthony R, Bauchspies W, Blue G, Curry H, Das A, Harrison R, Henke C, Jin S, **Kuzma J**, Lipschitz F, Richter K, Ruelle M, Silberg T, Takahashi B. (2024). The need for more inclusive deliberation on ethics and governance in food biotechnology. *Journal of Responsible Innovation* 11(1): 2304383. March
9) Wei, W., Grieger K, Cummings C., Loschin N., and **J. Kuzma**. (2024) Identifying Sustainability Assessment Parameters of Genetically Engineered Agrifoods. *Plants, People, Planet* 6(1):29-43. https://doi.org/10.1002/ppp3.10411.
10) DB. Resnik, R F. Medina, F Gould, G Church, **J Kuzma**. (2024). Genes Drive Organisms and Slippery Slopes. *Pathogens & Global Health* 118(4): 348-357. June.
11) Grieger K, and **J. Kuzma**. (2023) Ensuring Sustainable Novel Plant Biotechnologies Requires Formalized Research and Assessment Programs. *ACS Agricultural Science & Technology* https://pubs.acs.org/doi/10.1021/acsagscitech.3c00380.
12) **Kuzma J.,** Grieger K, Cimadori I, Cummings C., Loschin N, and W. Wei (2023). Parameters, Practices, and Preferences for Regulatory Review of Emerging Biotechnology Products in Food and Agriculture. *Frontiers in Bioengineering and Biotechnology* https://doi.org/10.3389/fbioe.2023.1256388.
13) Medina R. and **J. Kuzma.** (2023) Engineered and Natural Gene Drives: Mechanistically the Same, Yet not Same in Kind. *Nature Communications* 14: 5994. https://www.nature.com/articles/s41467-023-41727-3.
14) Tang, L**., Kuzma, J**., Zhang, X., Song, X., Li, Y., Liu, H. and Hu, G., (2023). Synthetic biology and governance research in China: a 40-year evolution. *Scientometrics.* https://doi-org.prox.lib.ncsu.edu/10.1007/s11192-023-04789.
15) Beck, M., R, Ahmed, H Douglas, MS Driedger, M Gattinger, S Kiss, **J Kuzma**, P Larkin, K O'Doherty, AM.L. Perrella, TT. Williams, G Wolbring. (2023). Motivated reasoning and risk governance: what risk scholars and practitioners need to know. In *Democratizing Risk Governance :Bridging Science, Expertise, Deliberation and Public Values.* Palgrave MacMillan https://link.springer.com/chapter/10.1007/978-3-031-24271-7_2.
16) **Kuzma, J.,** Williams, T.T. (2023). Public Inclusion and Responsiveness in Governance of Genetically Engineered Animals. In: Gattinger, M. (eds) *Democratizing Risk Governance*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-24271-7_8
17) **Kuzma, J.** (2023). Social Concerns and Regulation of Cisgenic Crops in North America. In: Chaurasia, A., Kole, C. (eds) Cisgenic Crops: Safety, Legal and Social Issues. Concepts and Strategies in Plant Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-10721-4_8.
18) **Kuzma J.** (2023). Governance of Gene-Edited Plants: Insights from the History of Biotechnology Oversight and Policy Process Theory. *Science, Technology and Human Values* 48(6)1260-1291.
19) **Kuzma, J.** (2022). Gene drives: Environmental impacts, sustainability, and governance. In M.-V. Florin (Ed.) (2023). Ensuring the environmental sustainability of emerging technologies (Edited volume). Lausanne: EPFL. (Edited volume). Lausanne: EPFL. International Risk Governance Center. DOI: 10.5075/epfl-irgc-298445
20) Riley I. Taitingfong, Cynthia Triplett, Váleri N. Vásquez, Ramya M. Rajagopalan, Robyn Raban, Aaron Roberts, Gerard Terradas, Bridget Baumgartner, Claudia Emerson, Fred Gould, Fredros Okumu, Cynthia E. Schairer, Hervé C. Bossin, Leah Buchman, Karl J. Campbell, Anna Clark, Jason Delborne, Kevin Esvelt, Joshua Fisher, Robert M. Friedman, Gigi Gronvall, Nikos Gurfield, Elizabeth Heitman, Natalie Kofler, Todd Kuiken, **Jennifer Kuzma,** Pablo Manrique-Saide, John M. Marshall, Michael Montague, Amy C. Morrison, Chris C. Opesen, Ryan Phelan, Antoinette Piaggio, Hector Quemada, Larisa Rudenko, Natéwindé Sawadogo, Robert Smith, Holly Tuten, Anika Ullah, Adam Vorsino, Nikolai Windbichler, Omar S. Akbari, Kanya Long, James V. Lavery, Sam Weiss Evans, Karen Tountas & Cinnamon S. Bloss (2022). Exploring the Value of a Global Gene Drive Project Registry. *Nature Biotechnology*. https://doi.org/10.1038/s41587-022-01591-w.
21) Merck AW, Grieger K, and **J. Kuzma** (2022). How can we promote responsible innovation in U.S. nano-agrifood research? *Environmental Science & Policy* 137: 185–190.

22) **Kuzma J.** (2022). Implementing Responsible Research and Innovation: A Case Study of U.S. Biotechnology Oversight. *Global Public Policy and Governance* 2: 306-325. DOI: 10.1007/s43508-022-00046-x.

23) **Kuzma, J.** (2022). Making Space for Technology Governance. *Issues in Science & Technology* 38(4): Summer. https://issues.org/technology-governance-mathews-fabi-offodile-forum/

24) Merck, AW., Grieger, KD, Cuchiara, M. and **J. Kuzma**. (2022). What role does regulation play in ensuring the responsible innovation of nanotechnology in food and agriculture? Insights and framings from stakeholders. *Bulletin of Science, Technology & Society* 1-19 https://doi-org.prox.lib.ncsu.edu/10.1177/02704676221102066.

25) Grieger, K., Merck AW, and **J. Kuzma.** (2022). Formulating best practices for responsible innovation of nano-agrifoods through stakeholder insights and reflection. *Journal of Responsible Technology* 10: 100030. https://doi.org/10.1016/j.jrt.2022.100030.

26) Williams, T. and **J.Kuzma** (2022). Narrative Policy Framework at the Macro Level—Cultural Theory-Based Beliefs, Science-Based Narrative Strategies, and their Uptake in the Canadian Policy Process for Genetically Modified Salmon. *Public Policy & Administration* 37(4): 480-515.

27) Jordan, N., **Kuzma J,** K. Foot, M. Snider, D. Ray, K. Miller, E. Wilensky-Lanford, & G. Amartiello (2022). Should Gene Editing Be Used to Develop Crops for Continuous-Living-Cover Agriculture? A Multi-Stakeholder Assessment using a Cooperative Governance Approach. *Frontiers in Bioengineering & Biotechnology* 10: 1-17. https://doi.org/10.3389/fbioe.2022.843093

28) Grieger, K.; Zarate, S.; Barnhill-Dilling, S.K.; Hunt, S.; Jones, D.; **Kuzma, J.** (2022). Fostering Responsible Innovation through Stakeholder Engagement: Case Study of North Carolina Sweetpotato Stakeholders. *Sustainability* 14: 2274-2290. https://doi.org/10.3390/su14042274

29) Ruzante, J. M., Shumaker, E. T., Holt, S., Mayer, S., Kokotovich, A., Cuchiara, M., Binder, A. R., **Kuzma, J.,** & Grieger, K. (2022). Eliciting stakeholder perceptions using a novel online engagement platform: A case study on nano-agrifoods. RTI Press. RTI Press Occasional Paper No. OP-0071-2201 https://doi.org/10.3768/rtipress.2022.op.0071.2201(peer reviewed)

30) Kokotovich, A., **Kuzma J.,** Cummings, C., and K. Grieger. (2021). Definitions, practices, and motivations for responsible innovation for nanotechnology applications in food and agriculture. *NanoEthics* 1-15. https://doi.org/10.1007/s11569-021-00404-9.

31) **Kuzma J.** (2021). Deficits of Public Deliberation in U.S. Oversight for Gene-Edited Organisms *Hastings Center Report* 51(6): S25-S34.

32) Grieger K, A Merck, M. Cuchiara, AR Binder, A. Kokotovich, C. Cummings & **J. Kuzma** (2021). Responsible Innovation of Nano-Agrifoods: Insights and Views from U.S. Stakeholders. *Nanoimpact* 24: 100365, 1-13.

33) **Kuzma J.** and C.L. Cummings (2021). Cultural Beliefs and Stakeholder Affiliation Influence Attitudes Towards Responsible Research and Innovation among U.S. Stakeholders involved in Biotechnology and Gene Editing. *Frontiers in Political Science* 3: 74-89..

34) Cummings, C., **Kuzma, J.,** Kokotovich, A, Glas, D., and K. Grieger (2021). Barriers to Responsible Innovation of Nanotechnology Applications in Food and Agriculture. *NanoImpact: Int'l J of NanoSafety Res* 23: 100326-100336.

35) Jaffe, G. & **J. Kuzma**. (2021). New Bioengineered (aka GM) Food Disclosure Law: Useful Information or Consumer Confusion? *Food Drug and Law Institute Mag.,* Summer 2021 *(peer reviewed)*

36) **Kuzma J.** and K. Grieger. (2020). Community-led governance for gene-edited crops. *Science* 370(6519): 916-918.

37) K Long, L Alphey, C Bloss, K Campbell, J Champer, C-H Chen, A Choudhary, GM Church, JP Collins, KL Cooper, JA Delborne, O Edwards , C Emerson, K Esvelt, S Weiss Evans, RM Friedman VM Gantz, F Gould, S Hartley, E Heitman, J. Hemingway, H Kanuka, **J. Kuzma**, et al. O. Akbari. (2020). Core commitments for field trials of gene drive organisms. *Science* 370 (6523):1417-1419.

38) Roberts, JP, Herkert J, and **J. Kuzma** (2020). Responsible Innovation in Biotechnology: Stakeholder Attitudes and Implications for Research Policy. *Elementa: Science of the Anthropocene* 8(1): 10.1525/elementa.446.

39) **Kuzma J** (2020). Engineered Gene Drives: Ecological, environmental, and societal concerns. *In* Chaurasia, Hawksworth, Pessoa de Miranda, eds. *GMOs - Implications for Biodiversity Conservation and Ecological Processes* p. 371-399: Nature, Switzerland. *ISBN:* 978-3-030-53182-9. https://link.springer.com/chapter/10.1007/978-3-030-53183-6_17 (peer reviewed and edited)

40) S. Zhao, C-H Yue, and **J. Kuzma** (2020) Consumer expectations and attitudes toward nanomaterials in foods. Pages 705-733. *Handbook of Food Nanotechnology: Applications and Approaches* Academic Press Elsevier: Cambridge MA. July 2020. https://doi.org/10.1016/B978-0-12-815866-1.00017-0.

41) **Kuzma J.,** J. Paradise, G. Ramachandran, JA Kim, A. Kokotovich, SM. Wolf. (2020) An Integrated Approach to Oversight Assessment for Emerging Technologies. Chapter 17 *in Emerging Technologies: Ethics, Law and Governance.* Eds. Gary E. Marchant, Wendell Wallach. London: Routledge. 23 pp. July 2020 https://doi.org/10.4324/9781003074960

42) G. Ramachandran, S M. Wolf, J Paradise, **J Kuzma**, R Hall, E Kokkoli, L Fatehi. (2020) Recommendations for oversight of nanobiotechnology: dynamic oversight for complex and convergent technology *in Emerging Technologies: Ethics, Law and Governance.* Eds. Gary E. Marchant, Wendell Wallach. London: Routledge. 27 pp. July 2020. https://doi.org/10.4324/9781003074960

43) **Kuzma J.,** Grieger K, Brown ZS, Cummings C. (2020) Pandemics call for systems approaches to research and funding. *Issues in Science and Technology* (May 4, 2020).

44) **Kuzma J** (2020). U.S. Oversight of GM Crops: A Place for Values? *In* Eds Goldberg, A. *Feeding the World Well*. John Hopkins University Press: Baltimore, MD.

45) Ndoh, C., Cummings C., and **J. Kuzma**. (2020) **"**The Role of Expert Disciplinary Cultures in Assessing Risks and Benefits of Synthetic Biology". *In* Trump, B., Cummings, C., **Kuzma, J.** and I. Linkov. (Eds) (2020). *Synthetic Biology 2020: Frontiers in Risk Analysis and Governance*. Springer: Dordrecht. p. 351-370

46) Trump, B. Cummings, C., Galaitsi, S. **Kuzma J.,** and I. Linkov (2020). Synthetic Biology: Perspectives on Risk Analysis, Governance, Communication, and ELSI. *In* Trump, B., Cummings, C., **Kuzma, J.** and I. Linkov. (Eds) (2020) *Synthetic Biology 2020: Frontiers in Risk Analysis and Governance*. Springer: Dordrecht. p 1-18

47) Grieger K, Jones J., Hansen SF, Hendren CO, Jensen KA, **Kuzma J**, A Baun. (2019) Translating Best Practices from Nanomaterial Risk Analysis to Other Emerging Technologies. *Nature Nanotechnology 14* (11), 998-1001.

48) Valdez RX, **Kuzma J,** Cummings C, and N. Peterson**.** (2019). Anticipating Risks, Governance Needs, and Public Perceptions of De-extinction *Journal of Responsible Innovation* 6(2): 211-231.

49) **Kuzma J.** (2021). Governance of genetically engineered animals in the wild: A need for procedurally-robust risk analysis. *Regulation and Governance* 15(4): 1144-1165. (top-cited Wiley article 2023)

50) Kofler, N., Collins JP, **Kuzma J**, Marris E, Brown, T., Caccone A., Dahlman JE, Esvelt K, Jacobsen R, Nelson MP, Newhouse A, Prince S, Rothschild LJ, Semenov M, Viglotti VS, and OJ Schmitz. (2018). Editing Nature: A call for global integrated deliberation to safeguard gene-editing of wild species. *Science* 362(6414): 527-529.

51) **Kuzma J.** (2018). Regulating Gene Edited Crops. *Issues in Science & Technology* 35(1): 80-85.

52) **Kuzma J.** & P. Roberts (2018): Cataloguing the barriers facing RRI in innovation pathways: a response to the dilemma of societal alignment, *Journal of Responsible Innovation,* 5(3): 338-346.

53) Gould F., Brown ZS, and **J Kuzma**. (2018). Wicked evolution: Can we address the sociobiological dilemma of pesticide resistance? *Science* 360: 728–732. *DOI*: 10.1126/science.aar3780

54) Linkov, I., Trump BD, Anklam E, Berube D, Boisseasu P, Cummings C, Dana G, Ferson S, Florin M-V, Goldstein B, Hristozov, Jensen, **Kuzma J,** et al. (2018). Science and practice of risk policy

and governance for emerging technologies. *Environmental Systems and Decisions* 38(2): 170-176. https://doi.org/10.1007/s10669-018-9686-5.

55) **Kuzma, J.** F Gould , Z Brown , J Collins , J Delborne , E Frow , K Esvelt , D Guston, C Leitschuh, K Oye , & S Stauffer (2018) A roadmap for gene drives: using institutional analysis and development to frame research needs and governance in a systems context. *Journal of Responsible Innovation* 5 (S1):13-39.

56) Meghani, Z. and **J. Kuzma** (2018). Regulating animals with gene drive systems: lessons from the regulatory assessment of a genetically engineered mosquito. *Journal of Responsible Innovation* 5(S1): 203-222.

57) Delborne J., **Kuzma, J.**,, Gould, F., Frow, E., Leitschuh, C., and J. Sudweeks. (2018) "Mapping Research and Governance Needs for Gene Drives". *Journal of Responsible Innovation* 5(S1): 4-12.

58) Trump B., Cummings C, **Kuzma, J**. and I. Linkov (2018). A Decision Analytic Model to Guide Early-Stage Government Regulatory Action: Applications for Synthetic Biology. *Regulation and Governance* 12: 88-100.

59) Jordan, N., K.M. Dorn, K.E. Wolf, P.M. Ewing, A.L. Fernandez, B.C. Runck, A. Williams, Y. Lu and, **J. Kuzma**. (2017). A Cooperative Governance Network for Crops Produced by Genome Editing. *EMBO Journal,* 18(10): 1683-1687.

60) Herkert J., **Kuzma, J.** Roberts, P., Banks, E (2017). Ethics and responsible innovation in biotechnology communities: A pedagogy of engaged scholarship. *Proceedings of the American Society of Engineering Education* 18015: 1-20.

61) **Kuzma, J.** (2017). "Society and Policy Makers' Responsibilities" In *Consumer Perception of Product Risks and Benefits* Eds: G. Emilien, R. Weitkunat and F. Luedicke. Springer: Dordrecht.

62) **Kuzma, J.** (2017). Trails and Trials in Biotechnology Policy. Pp 85-95 In *Women in Sustainable Agriculture and Food Biotechnology* Ed. L. Privalle. Springer.

63) **Kuzma J.** *(*2017). "Risk, Environmental Governance, and Emerging Biotechnology" In *Environmental Governance Reconsidered: Challenges, Choices, and Opportunities, 2nd edition.* Eds. R. Durant, DJ Fiorino, and R O'Leary. MIT Press https://mitpress.mit.edu/books/environmental-governance-reconsidered-0

64) **Kuzma J.** (2017). Forum: Biosecurity Governance for a Realistic New World. *Issues in Science and Technology* 33: (2).

65) Cummings C. and **J. Kuzma** (2017) Societal Risk Evaluation Scheme (SRES): Scenario-based Multi-criteria Evaluation of Synthetic Biology Applications. *PLoS ONE* 12(1): e0168564.doi:10.1371/journal. pone.0168564.

66) **Kuzma J.** (2016). A Missed Opportunity for Biotech Regulation. *Science* 353: 1211-1213.

67) **Kuzma J.** and L. Rawls. (2016) Engineering the Wild: Gene Drives and Intergenerational Equity. *Jurimetrics: The Journal of Law, Science and Technology* 56 (3): 279-296.

68) **Kuzma, J.** (2016). Rebooting the Debate about Genetic Engineering. *Nature* 531: 165-167.

69) **Kuzma, J.** and J.P. Roberts. (2016) Is Adaptation or Transformation Needed ? : Active Nanomaterials and Risk Analysis. *Journal of Nanoparticle Research* 18(7), 215-

70) **Kuzma J.,** A. Kokotovich, and A. Kuzhabekova. (2016). Attitudes Towards Governance of Gene Editing. *Asian Biotechnology Development Review* 18(1): 69-92.

71) **Kuzma J.** (2015) Technology Governance Alternatives. *Issues in Science and Technology* 32(1): 10-11

72) Yue, C. Shuoli, Z, Cummings, C. **and J. Kuzma**. (2015) Investigating Factors Influencing Consumer Willingness to Buy GM Food and Nano-food: An Application of Structural Equation Modeling. *Journal of Nanoparticle Research* 17:283-302.

73) Brown, J, Fatehi, L, and **J. Kuzma**. (2015) Altruism and Skepticism in public attitudes toward food nanotechnology. *Journal of Nanoparticle Research* 17:122-140.

74) **Kuzma, J**. (2015) Translational Governance Research for Synthetic Biology. *Journal of Responsible Innovation* 2(1): 109-112.

75) Yue, C. Shuoli, Z, and **J. Kuzma**. (2015) Heterogeneous Consumer *Preferences* for Nanotechnology and Genetic-Modification Technology in Food Products. *Journal of Agricultural Economics,* 66(2), 308-328

76) Kokotovich, A. and J. **Kuzma J** (2014). Anticipatory governance and contested futures: Insights from the next generation of genetic engineering. *Bulletin of Science, Technology and Society* 34(4): 108-120.

77) Weiss Evans, S. ….**Kuzma J. (**one of 20 co-authors) Synthetic Biology: Missing the Point. *Nature* 510: 218 (2014)

78) **Kuzma, J**. (2014) "Properly Paced or Problematic?: Examing Governance of GMOs" in *Innovative Governance Models for Emerging Technologies* Editors Gary Marchant, Kenneth Abbott and Braden Allenby. Edward Elgar (editorial peer review)

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10) Grieger, K., C. Cummings, A. Merck, **J. Kuzma.** "Stakeholder Perceptions of Nanotechnology in Food and Agriculture and Adherence to Responsible Innovation" to the 2021 Society for Risk Analysis Annual Conference on December 5-9, 2021. (refereed, accepted).
11) Borsuk, M. Brune, M., Cherry, T., Felgenhauer, T., Grieger, K, **Kuzma, J.** et al. "Implications of solar geoengineering for strategic behavior and climate governance" to the 2021 Society for Risk Analysis Annual Conference on December 5-9, 2021. (refereed, accepted).
12) **Kuzma J.,** C. Cummings, and A. Hardwick. Who you are, where you sit, or what you value? Diagnosing attitudes towards responsible innovation in agricultural biotechnology. 8th Annual Conference on Governance of Emerging Technologies. Arizona State University, October 29-30, 2021 (refereed, accepted—meeting postponed due to COVID)
13) **Kuzma J.** Relational approaches for the regulation and assessment of gene technology. Society for the Social Studies of Science (4S) Annual Conference. October 6-9, 2021. (refereed, accepted)
14) Hardwick, A. and **J. Kuzma**. "Stakeholder Perceptions of Responsible Innovation for GMOs and the Role of Anticipating Risks" Society for Risk Analysis Annual Meeting, December 2020. (refereed, accepted)
15) Kokotovich, A., M. Cuchiara, A. Binder, **J Kuzma**, and K. Grieger. Unpacking environmental and human health safety: insights from interviews with nanotechnology researchers on responsible innovation. Society for Risk Analysis Annual Meeting. December 2020. Washington DC. (refereed, accepted).
16) Grieger, K, A. Kokotovich, C. Cummings, and **J Kuzma.** Updating Best Practices for Responsible Innovation of Nanotechnology in Food and Agriculture. Society for Risk Analysis Annual Meeting. December 2020. Washington DC. (refereed, accepted).
17) **Kuzma J. "**Unpacking and Evaluating Regulatory Policy Pathways for Gene-edited Agricultural Products"**.** Gene Editing in Agriculture: Social Concerns, Public Engagement, and Governance." Iowa State USDA-workshop, National Press Club, Washington DC. October 20-21, 2020.
18) Grieger K and **J. Kuzma.** Responsible Innovation for Nanotechnology in Food and Agriculture. Baltimore, MD. Society for Risk Analysis Annual Meeting. Dec 8-11, 2019. (refereed, accepted)
19) **Kuzma, J.** and T. Williams. Risk Perception and the Interpretation of Uncertainty in Regulatory Assessments for Genetically Engineered Animals. Society for Risk Analysis Annual Meeting. New Orleans, Dec 2-5, 2018. (refereed, accepted)
20) Gattinger M, Bratt D, Driedger M, **Kuzma J,** Lachapelle E, Nicholls S, O'Doherty K, Larkin P; @Risk - Strengthening Canada's Ability to Manage Risk. Society for Risk Analysis Annual Meeting. New Orleans, Dec 2-5, 2018. (refereed, accepted)
21) **J. Kuzma** and P. Roberts**.** Value Systems and Responsible Innovation for Biotechnology and Pest Control. A Changing World: Biotechnology and the Future of Pest Control. Entomology Society of America & CAnada symposium. Vancouver Canada. November 11-14, 2018. (accepted, refereed).
22) Gutzman, N. and **J. Kuzma**. Responsible innovation in genetic engineering research: What does it mean for researchers? A Changing World: Biotechnology and the Future of Pest

Control. Entomology Society of America & CAnada symposium. Vancouver Canada. November 11-14, 2018. (accepted, refereed).

23) Williams, T. and **J. Kuzma. "**Who has voice in decision making about emerging technologies? Examining influence in the regulatory review process." 2018 Meeting of the Society for the Social Studies of Science (4S). Sidney, Australia. August 29-Sept. 1 2018. (accepted)
24) Roberts, P. and **J. Kuzma. "**Stakeholder Attitudes Towards Theoretical Visions of Responsible Innovation: Implications For Policy Design And Implementation." 2018 Meeting of the Society for the Social Studies of Science (4S). Sidney, Australia. August 29-Sept. 1 2018 (accepted)
25) **Kuzma J. "**Risk Assessment and Governance of Synthetic Biology: State of Practice in the US." Speaker for panel on Synthetic Biology: From Technology Development to Risk Governance. AAAS Annual Meeting. Austin, TX. February 15-19, 2018.
26) **Kuzma J.** High Risk Scenarios of Gene Drives in Ecosystems. Society for Risk Analysis Annual Meeting. Dec 10-13, 2017. Arlington, VA. (abstract accepted)
27) Meghani, Z, & **J. Kuzma**. Genetically engineered animals, risks and regulations. 2017 Meeting of the Society for the Social Studies of Science (4S); Boston, Massachusetts, USA, August 30-Sept 2, 2017 (abstract accepted).
28) Herkert J., Roberts, P., Banks, E. and **J. Kuzma.** Ethics and responsible innovation in biotechnology communities: A pedagogy of engaged scholarship. American Society of Engineering Education. Annual Meeting. June 25 - 28, 2017, Columbus, Ohio.
29) **Kuzma J.** Lessons for Hyperloop One from the Biotechnology World. ASU Governance on Emerging Technologies, 5th Annual Conference, May 17-19, 2017.
30) **Kuzma, J.** Governance for Genetic Engineering to Control Disease Vectors in the Wild. American Association for the Advancement of Science Annual Meeting. Boston, MA. February 17, 2017.
31) **Kuzma J.** Systems thinking for risk governance of gene drives: A deliberative workshop. Society for Risk Analysis annual conference, December 12-14, 2016.
32) Elsensohn JE*, Burrack HJ, Brown ZS, **Kuzma J.** Comparative risk analysis for agricultural genetic pest management technologies. Society for Risk Analysis annual conference, December 12-14, 2016. (accepted)
33) **Kuzma, J.** Anticipatory governance of gene drives. International Congress of Entomology. September 26,
2016. Orlando, FL.
34) Roberts P. & **J. Kuzma.** Consumers' Willingness to Purchase GM and Nano Foods. Governance of Emerging Technologies. Arizona State University. May 24-26, 2016.
35) Valdez R.,, Pitts E. & **J. Kuzma.** Rejecting Revival? Media Content Analysis of De-extinction. Governance of Emerging Technologies. Arizona State University. May 24-26, 2016.
36) **Kuzma, J.** Mental models & systems mapping for risk analysis of gene drives. Society for Risk Analysis Annual Meeting, Dec 7-10, 2015. Washington, DC.
37) **Kuzma, J**. A Delphi Study: Risk Data and Governance Needs for Environmental Applications of Synthetic Biology. World Congress on Risk 2015. July 19-22 Singapore**.**
38) Cummings, C. and **J. Kuzma**. Multidimensional risk profiling: A scenario-based evaluation of synthetic biology **applications** from a multidisciplinary expert Delphi study. Society for Risk Analysis Annual Meeting, December 2014.
39) King, S. Cummings, C., Ndoh, C., Stauffer, S., and **J. Kuzma.** Synthetic Biology Policy Delphi: When Expert Opinion Meets Public Engagement. Poster for NSF-funded Workshop on the Research Agendas of the Societal Implications of Synthetic Biology. Arizona State University. November 4-6, 2014.
40) Ndoh, T., **Kuzma, J.,** Cummings, C., Stauffer, S., and S. King. Regulatory Case-Study Analysis of a Synthetic Biology Application: Nitrogen fixation in rice crops through symbiosis with Mesorhizobium loti. Gordon Research Conference on Science and Technology Policy. Poster. August 10-15, 2014.

41) Yue, C., Shuoli, Z, and **J. Kuzma**. Heterogeneous Consumer Preferences for Nanotechnology and Genetic-Modification Technology in Food Products. Poster prepared for presentation at the Agricultural & Applied Economics Association's 2014 AAEA Annual Meeting, Minneapolis, Minnesota, July 27-29, 2014
42) Cummings, C., King, S., Ndoh, T., Stauffer, S., and **J. Kuzma**. Synthetic Biology and Risk Governance. Conference on 2nd Annual Governance of Emerging Technologies: Policy, Law and Ethics. Arizona State University, May 28, 2014.
43) **Kuzma, J.** Global Risk Governance of Genome Editing: On a collision course**.** Society for Risk Analysis, Baltimore, MD Dec 11, 2013.
44) Leili Fatehi,; **Jennifer Kuzma,**; Pouya Najmaie, Delphi Approach to Finding a Cross-Disciplinary Definition of "Nano" for Research, Society, and Regulation. Society for Nanoscience and Society (S.Net) Annual Meeting, Boston, MA October 28-30, 2013.
45) **Kuzma, J**. and A. Kuzhabekova. "Exploring Genome Editing: Actors, Arenas, and Attitudes towards Governance". 1st Annual Conference on Emerging Technologies Governance, May 20-21,2013.
46) **Kuzma, J. "**A Middle Ground in Risk Governance: Strong Objectivity, Post-Normal Science, and Critical Realism Applied to the Case of Genetically Engineered Mosquitos." Society for Risk Analysis Annual Meeting, San Francisco, CA, December 6-10, 2012.
47) **Kuzma, J.** "Application of Risk-Analytical Methods in Governance Contexts: Cases in Synthetic Biology for Agriculture and the Environment" Society for Risk Analysis Annual Meeting, San Francisco, CA, December 6-10, 2012.
48) **Kuzma, J.,** Kokotovich, A, and Kuzhabekova, A. History Repeats Itself? Governance of New Methods for Targeted Genetic Modification in the U.S. Society for the Study of Nanoscience in Society (S.NET) Annual Conference, University of Twente, the Netherlands, on October 22-25, 2012.
49) Kokotovich, A., and **J. Kuzma**. Anticipatory governance and conflicting futures: Insights from the next generation of genetic engineering. Society for the Study of Nanoscience in Society (S.NET) Annual Conference University of Twente, the Netherlands, October 22-25, 2012.
50) **Kuzma, J.** "Governance Strategies for Genetic Pest Management: Options and Impacts" for Symposium on Genetic Pest Management: Global Strategies, Hurdles, and Future Directions (Brian Rector) at American Entomological Association Meeting, Knoxville, TN November 11-14, 2012 (accepted).
51) **Kuzma J.,** Brown, J. and L. Fatehi. Skepticism and altruism in public attitudes towards food nanotechnology. Gordon Research Conference, Waterville, NH, August 5-10, 2012 (abstract accepted).
52) Hollenkamp, L. and **J. Kuzma.** Risk Governance of Nano-geoengineering. Society for Risk Analysis Annual Meeting. Charleston, SC. Dec 4-6, 2011. (abstract accepted)
53) Kokotovich, A. and **J. Kuzma**. Examining the potential futures of plant targeted genetic modification, Society for Risk Analysis Annual Meeting. Charleston, SC. Dec 4-6, 2011. (referred)
54) **Kuzma, J** and A. Kuzhabekova. Room for Good Will? Examining Voluntary Programs for Nano-Oversight in the Context of Corporate Social Responsibility. Society for the Study of Nanoscience in Society (S.NET) Annual Conference. Tempe, AZ November 4-6, 2011. Refereed.
55) Brown, J., **Kuzma, J.,** and A. Merrill. Hungry for Information: Exploring the Public's Perception of Nanotechnology in Food using Conversational Settings. Society for the Study of Nanoscience in Society (S.NET) Annual Conference. Tempe, AZ November 4-6, 2011. Refereed paper
56) **Kuzma, J.** and A. Kuzhabekova. A Window into the Field of Biotechnology Risk Analysis: A Bibliometric Approach. The Atlanta Conference on Science and Innovation Policy. Atlanta, GA Sept 15-17, 2011. Referred, paper.

57) Meghani, Z. and **J. Kuzma.** Reconfiguring the Regulatory System to Meet the Nanofood Regulation Challenge. Society for Philosophy of Science in Practice bi-annual meeting in Exeter, UK. June 22-24, 2011
58) **Kuzma, J. "**Dynamic Risk Governance for Converging Technologies" Symposium chair "Emerging Technologies: Dealing with Uncertainty in Risk Policy" Society for Risk Analysis Annual Meeting, December 2010.
59) Yawson, R. and **J. Kuzma.** Evidence review and experts' opinion on consumer acceptance of agrifood nanotechnology International Conference on Food and Agricultural Applications of Nanotechnologies, Sao Carlos, Brazil, in June 20-25, 2010
60) Meghani, Z and **J. Kuzma**. The significance of the acknowledgement of the normativity of Risk assessment of food biotechnologies" 10th World Congress of Bioethics, Singapore, 28 – 31 July 2010
61) Wolf, K. and **J. Kuzma**. Rulemaking, Public Comments and Participation: A Case Study of Genetically Engineered Organisms . Graduate Student Conference sponsored by The American Association for the Advancement of Science (AAAS) and The National Academies (NAS). April 9-11, 2010
62) Kokotovich, A., **Kuzma, J.** and D. Voytas. Novel technologies, recurring challenges: Engaging the next generation of plant genetic modification. Graduate Student Conference sponsored by The American Association for the Advancement of Science (AAAS) and The National Academies (NAS). April 9-11, 2010.
63) **Kuzma, J.** and R. Johnson. "Emerging nanomaterials and environmental risk: What can systems modeling approaches offer risk analysis?" Submitted Society for Risk Analysis Annual Meeting, Baltimore, MD, Dec. 2009. Symposium chair, "System Dynamics Meets Risk Analysis – Integrating Approaches to Improve Health and Environmental Decisions" Refereed abstract.
64) **Kuzma, J**. Paradise, J., Ramachandran, G, and Kuzhabekova, A. "Comparative and Integrated Oversight Assessment for Emerging Technologies" Association of Public Policy Analysis and Management, 2009 Annual Fall Research Conference, 5-7 November, Washington, DC. Refereed, paper. **Invited to submit for Comparative Policy Analysis Best Paper Award.**
65) **Kuzma, J.,** Paradise, J., and A. Kuzhabekova. "Cross Case-Comparison of Genetically Engineered Organisms, New Human Drugs, and Medical Devices Oversight: Lessons for Oversight of Nanotechnology Applied to Biological Systems." Society for the Study of Nanoscience and Emerging Technologies, First Annual Conference; Seattle, Washington; September 8-11, 2009. Refereed
66) **Kuzma,** J. and T. Tanji, "Unpackaging Synthetic Biology: Identification of Policy Problems and Options" (2009). APSA 2009 Toronto Meeting Paper. Abstract available at SSRN: http://ssrn.com/abstract=1451425 (paper reviewed at conference).
67) Meghani, Z. and **J. Kuzma. "** Democratization of Risk Assessment of Converging Technologies." Society for the Philosophy of Science in Practice, University of MN, June 18-20, 2009. Refereed. Paper.
68) **Kuzma, J. and P. Thompson. "Ethical and Policy Analysis of Linkages between Public Perception** and Oversight of Emerging Technologies," Society for Risk Analysis Annual Meeting, Boston, MA Dec. 2008. Refereed.
69) Monson, M. and **J. Kuzma** "Minnesota biofuels policy: analysis of the impacts of a renewable fuels standard versus a low carbon fuels standard on greenhouse gas emissions" System Dynamics Society Annual Meeting, Athens, Greece. July 2008. Refereed
70) **Kuzma, J.** Multi-criteria approach to evaluating oversight: Genetically Engineered Organisms to Nanotechnology. American Political Science Association Annual Meeting Proceedings. Boston, August 28-31, 2008 refereed, paper
71) **Kuzma, J**. Larson, J. and P. Najmaie. "Evaluating Oversight for Genetically Engineered Organisms in Food and Agriculture: An Integrated Approach," Gordon Conference on New Frontiers in S&T Policy, August 17-22, 2008, Big Sky, MT, peer-reviewed

72) **Kuzma, J**., Paradise, J., Kim, J., Kokotovich, A., G. Ramachandran, and Wolf, S. "An Integrated Approach to Oversight for Emerging Technologies," Gordon Conference on New Frontiers in S&T Policy, August 17-22, 2008, Big Sky, MT. peer-reviewed
73) **Kuzma, J.** and J. Paradise. "Upstream and Integrated Oversight Assessment for Nanotechnology: A bidirectional approach to anticipatory risk analysis". Society for Risk Analysis meeting, Dec. 2007, San Antonio, TX. refereed
74) **Kuzma J** "Food Biotechnology in Ethical Perspective: A Book Review," American Philosophical Association. International Society for Environmental Ethics and by the Society for the Philosophy of Technology, Chicago, April 15-16, 2007. refereed
75) **Kuzma, J.** Romanchek, J. and Kokotovich A. "Upstream Oversight Assessment for Agrifood Nanotechnology" American Association for the Advancement of Science (AAAS) meeting. , February 2007. refereed
76) **Kuzma, J,** Chairperson. "Pathway Analysis to Assess the Farm-to-Table Risks of E. coli 0157:H7 in Hamburger." Symposium for the Society for Risk Analysis Meeting, Phoenix, AZ. December 1998. refereed
77) Roberts, T., and **J. Kuzma**. "The Contribution of Probabilistic Risk Assessment to Economic Analysis: E. coli 0157:H7 in Ground Beef." American Agricultural Economics Association Annual Meeting, Salt Lake City, UT, August, 1998. Abstract published in Journal of the American Agricultural Economics Association, Volume 5, p. 1210. refereed
78) Ferenc, S., McElvaine, M.,Miller, M. and **J. Kuzma.** "Risk Assessment and Cost-Benefit Issues Associated with Antimicrobial Use in Food Animal Production." Proceedings of the Symposium on The Role of Veterinary Therapeutics in Bacterial Resistance Development: Animal and Public Health Perspectives, January 1998, pp. 89-93. refereed
79) Roberts, T., **Kuzma, J.,** and D. Hancock. "Fault-tree analysis and E. coli 0157:H7—US Human Illness, Food Sources, and Slaughter and Farm-Level Risk Factors." Society for Risk Analysis Annual Meeting, December 7-10, 1997. refereed
80) **Kuzma, J.,** Marechal, E., Graeff, R., Lee, H.C., and N-H. Chua. "Identification of Cyclic ADP-Ribose in Plants and Its Role in ABA-Mediated Signal Transduction" ABA Signal Tranduction in Plants Conference Proceedings, Madrid, Spain, October, 1996. refereed
81) **Kuzma, J.,** and R. Fall. "Bacterial Production of Isoprene" Proceedings from the International Symposium on the Genetics of Industrial Microorganisms, Montreal, Quebec. June 1994. refereed

INVITED SCHOLARLY PRESENTATIONS, PANELS, AND LECTURES

1) **Kuzma J.** & K. Landreville. Built Environment and Microbial Exposures: Balancing Innovation, Ethics, and Responsibility. Microbiome & Social Equity Summit. University of Maine. July 8, 2025.
2) **Kuzma J**. Responsible Development of Microbiome Engineering. Symposium on Societal and Ethical Implications of Microbiome Engineering. NSF ERC workshop. NC State Univeristy. May 13, 2025.
3) **Kuzma J.** and Landreville K. Societal and Ethical Implications of Microbiome Engineering for the Built Environment. Industry Partners Advisory Board. Duke University. February 24, 2025.
4) **Kuzma J.** Societal and Ethical Dimensions of Microbiome Engineering. National Science Foundation ERC Site Visit. May 30, 2024.
5) **Kuzma, J.** Science-Values Nexus in Governance of Heritable Genome Modifications in Animals. Nataional Academies of Science, Engineering and Medicine Workshop for Committee on Heritable Genetic Modifications in Food Animals. Washington, DC. (invited speaker) February 27, 2024.

6) **Kuzma J.** Societal and Governance Aspects of Resurrection Biology. National Academies of Science, Engineering, and Medicine Board on Life Sciences Meeting. October 31, 2023. Washington DC. (invited speaker)
7) **Kuzma J.** Practices for Societal Engagement and Implications in Precision Microbiome Engineering. Genetic Engineering and Society Colloquium. NC State. October 24, 2023.
8) **Kuzma J.** Societal and Ethical Implications of Precision Microbiome Engineering**.** NSF Scientific Advisory Board. Precision Microbiome Engineering. October 23, 2023 Duke University.
9) **Kuzma J.** Practices for Societal Engagement and Impact. Societal Engagement and Impact Collaborative, National Science Foundation. September 11, 2023.
10) **Kuzma J.** Societal and Governance Dimensions of GMOs. Workshop on Outlining Foundational Studies to Address Key Uncertainties for Genome-Edited Microbes. Center for Excellence in Regulatory Science and Agriculture. June 5, 2023. Raleigh, NC.
11) **Kuzma J.** Genetic Engineering and Society: The Future. NC State Cluster Gala. April 14, 2023.
12) **Kuzma J. (keynote speaker).** Responsible Innovation for Transmissible Vaccines. Transmissible Vaccine Workshop. U of Idaho/NSF. March 28 2023.
13) **Kuzma, J.** Panelist**.** Future of Food: Near-Future Genetically Engineered Foods: Prospects and Controversies. NC State Libraries & Longview Project. March 2, 2023. YouTube Video https://www.youtube.com/watch?v=jyE867YB4aE.
14) **Kuzma, J.,** Pioneers of Genomic Biology Invited Lecture Series. "Macrodynamics of The Macro-Dynamics of the History of U.S. Oversight for Biotechnology in Agriculture and the Environment: What have we learned" Carl R. Woese Institute for Genomic Biology. University of Illinois. February 22, 2023.
15) **Kuzma J.** Transgenic Animals and Humans. Long View Project: Conversations on the Future, Near and Far. Video presentation/interview (with Fred Gould and Zack Brown). https://ncsu-longview.pubpub.org/. February 13, 2023.
16) **Kuzma J.** "Precision Microbiome Engineering: Societal and Ethical Implications" Genomics and Genetics Academy Retreat. NC State University. October 28, 2022
17) **Kuzma J**. "Bi-directional learning for risk governance of solar geoengineering and gene drives. Solar Geoengineering Governance Workshop. NSF Workshop for Collaborative Research: Implications of Solar Radiation Management for Strategic Behavior and Climate Governance. Jackson Hole, WY. Oct 7-10, 2022.
18) **Kuzma J.** "Societal Dimensions of Emerging Biotechnologies". Cochran Program Colombian Delegation meeting. Raleigh, NC. September 22, 2022.
19) **Kuzma J. "**Exploring the Nexus of Science and Values in Oversight of Emerging Biotechnologies" Genetics and Genomics Academy Annual Retreat. NC State. August 26, 2022.
20) **Kuzma J. "**Regulatory Aspects of Gene Edited Crops in Latin America." InterAmerican Development Bank-GES meeting. August 24, 2022.
21) **Kuzma J. "**Risk Governance: Social and Ethical Dimensions of DURC policies**"** NIH Stakeholder Engagement Meeting. U.S. Biosecurity Policies Governing Dual Use Research of Concern (DURC). June 29, 2022.
22) **Kuzma J**. "Ensuring the environmental sustainability of gene drives´ Ensuring the sustainability of emerging technology. International Risk Governance Council (IRGC) Expert workshop. , Lausanne, Switzerland. June 27, 2022.
23) **Kuzma J.** Implementing Responsible Research and Innovation within Biotechnology Oversight Systems. Workshop on "Global Governance of Emerging Technologies" Institute for Global Public Policy, Fudan University. June 24, 2022.
24) **Kuzma J.** "Societal Dimensions of Governance for Microbiome Engineering". Regulation of Microbiome-based Products. NC Microbiome Consortium Workshop. NC Biotech Center, May 25, 2022**.**

25) **Kuzma J**. "Governance of Genetically Engineered Organisms: Regulation to Societal Aspects", Technology, Transparency, and Consumer Acceptance of Genetically Engineered Yeast. Craft Brewers Conference, Mpls, MN, May 4, 2022.
26) **Kuzma J.** "Public Inclusion & Engagement in Emerging Technologies Governance" Workshop on Creating a Framework for Emerging Science, Technology, and Innovation in Health and Medicine, National Academy of Medicine (NAM) Committee on Emerging Science, Technology, and Innovation (CESTI), Washington DC. April 14-15, 2022.
27) **Kuzma J.** Discussant. The Time is Ripe: Computational & Engineering Approaches to Plant Biology. Innovation Endeavors. March 31, 2022
28) **Kuzma, J.** "Science in the Public Interest" Molecular Biotechnology Trainee Fellows Program, NC State. March 11, 2022.
29) **Kuzma J.** "Interdisciplinary Research: Experiences and Frameworks" University Honors College, Research as a Profession. NC State. February 25, 2022.
30) **Kuzma, J.** "Societal and Public Engagement", The Future of Microbial Biotechnology. USDA-Innovative Genomics Institute Workshop. February 2-3, 2022.
31) **Kuzma J.** "Ethics of non-Human Genomic Editing" GES colloquium. January 18, 2022.
32) **Kuzma J.** "Societal Implications of Microbiome Engineering". NSF ERC Site Visit. January 11, 2022.
33) **Kuzma J.** Genome Editing: Regional Regulatory Overview. InterAmerican Development Bank-NC State GES Workshop. December 2, 2021.
34) **Kuzma J.** Panelist and Invitee "Governance of Emerging Biotechnologies: Upstream Assessment Methods" for IRGC Workshop on Ensuring the Environmental Sustainability of Emerging Technology. International Risk Governance Council, Swiss Re, Switzerland. October 27-28, 2021.
35) **Kuzma J.** Biotechnology Stakeholders: Attitudes towards Responsible Innovation, Barriers, and Potential Practices. Genetics & Genomics Initiative Seminar, NC State, October 18, 2021.
36) **Kuzma J.** Social Implications of Emerging Technologies in Agriculture. USDA-NIFA & MSU Workshop. September 20, 2021.
37) **Kuzma J.** Cultural Beliefs and Stakeholder Attitudes Towards Responsible Innovation for Emerging Biotechnologies. Frontiers in Political Science Gene Editing Workshop, September 9, 2021.
38) **Kuzma J.** Kick off speaker "Gene-editing for Agriculture and the Environment: the Societal Context." Genome Writer's Guild 5th Annual Conference. University of MN. July 28th – 30th, 2021.
39) **Kuzma J. "**ÓSTP and Role in Biotechnology Oversight Policy" Science and Technology Policy in the New Administration and Implications for Biotechnology and the Bioeconomy. GES Colloquium speaker/panelist. April 13, 2021.
40) **Kuzma J.** Panelist on "Junior Faculty Mentoring Panel: Time Management - Research, Teaching, Service and Life", College of Textiles, NC State. April 14, 2021.
41) **Kuzma J.** Considerations for the Release of Genetically Modified Mosquitos for Pest Control and Disease Suppression. Islamorada Town Council Meeting. March 18, 2021. (speaker and coordinated panel to provide independent scientific input to local decision making about OX5304).
42) **Kuzma J.** Moderator and Co-organizer. Prospects, Opportunities, and Challenges with Foundation Grants for Research and Scholarship. NC State Research Leadership Academy Lunch and Learn. March 10, 2021.
43) **Kuzma J.** Policy Dynamics of GMOs and Implications for Plant-based gene-editing. 2020 Corteva PBGB Symposium, Genome Editing to Advance Plant Breeding, Michigan State University, December 10-11, 2020.
44) **Kuzma J.** Promoting transparency in the development, testing, and use of gene drive organisms: Exploring the possible value of a global gene drive project registry. UCSD-DARPA Invited Workshop, December 8-9, 2020.

45) **Kuzma J.** "Gene Drives: Biosafety, Risk, and Social Values". Presenter/panelist at National Institutes of Health (NIH) Novel and Exceptional Technology and Research Advisory Committee (NExTRAC) . November 9-10, 2020.
46) **Kuzma J.** "Unpacking and Evaluating Regulatory Policy Pathways for Gene-edited Agricultural Products." Gene Editing in Agriculture and Food: Social Concerns Public Engagement & Governance Conference. USDA-NIFA & Iowa State. October 20-22, 2020.
47) **Kuzma J.** Moderator/Panelist. Risk governance in gene editing and food: Intersections of safety and equity at CRISPRcon: Conversations on Science, Society, and the Future of Gene Editing, Keystone Center, October 13, 2020.
48) **Kuzma J.** Evolving USDA Oversight for Genetically Modified Plants. Workshop on *Regulating Breeding: Merging technology and technocrats.* National Association of Plant Breeders. July 27. 2020.
49) **Kuzma J.** Deficits of Public Deliberation During U.S. Regulatory Decision Making for Gene Edited Organisms. NSF grant workshop "Public Deliberation on Gene Editing in the Wild," Hastings Center, Garrison NY. June 3-5, 2020.
50) **Kuzma J**. USDA's Regulation: Past to Present. GES Center Event "Perspectives on the New USDA Regulation for Biotech Crops". NC State. June 5, 2020.
51) **Kuzma J**. Societal implications of novel biotech products. DOD-DARPA-Advanced Plant Technologies Program meeting. April 20, 2020.
52) **Kuzma, J.** Genetic Engineering and Responsible Innovation. Osher Life-long Learning Institute. January 31, 2020.
53) **Kuzma J.** An Evening with Margaret Atwood. Emcee, introductory remarks and co-host. Co chair of program committee. November 15, 2019.
54) **Kuzma J.** "From Small to Big: Societal Governance of Microbiome Engineerinng" . Duke Symposium on Food Systems, Nutrition, and the Microbiome. Duke University. November 12, 2019.
55) **Kuzma J. "**U.S. Bioengineered Foods Labeling: A complicated story." NC Cooperative Extension State Conference. October 30, 2019.
56) **Kuzma J.** Female sperm, ethics, and feminism. Symposium: Art's Work in the Age of Biotechnology: Shaping Our Genetic Futures. Gregg Museum of Art. Raleigh, NC. October 18, 2019.
57) **Kuzma J.** Interagency Funding for Synthetic Biology. National Science and Technology Council. Washington, DC. October 16-17, 2019.
58) **Kuzma J.** Governance of Emerging Technologies. Environmental Defense Fund, Science Day, "Understanding the Risks and Benefits of Redesigning Nature". New York, NY. October 3, 2019.
59) **Kuzma, J.** The Public Face of Gene Editing Governance. American Association of Veterinary Medicine Colleges/American Public Land Grant Universities Summit on Gene Editing. Washington, DC. September 24-25, 2019.
60) **Kuzma J.** Responsible Research and Innovation. NSF AgBioFEWs Introductory Field Course Workshop. July 29, 2019.
61) **Kuzma J.** Integrating Science and Values in Risk Assessment and Decision Making for Biotechnology. Biotechnology Institute's Regional Development Workshop. NCSU. July 24, 2019.
62) **Kuzma J.** Public failures: What does the history of GMOs present for transgenic insect release? University of IL-Chicago, iSEE Critical Conversations 2019: Genetically Modified Mosquitos. Chicago, IL. May 24, 2019.
63) **Kuzma J.** and T. Williams. Exploring Values and Strategies in Narratives about GE Animals in Food. @Risk Workshop: Strengthening Canada's Ability to Manage Risk. U of Ottawa, May 23, 2019.

64) **Kuzma J.** Integrating Science and Values in Risk Governance and Regulatory Review of Gene Drives. UC-San Diego, Institute for Practical Ethics. Ethics and Social Implications of Gene Drives. May 10,2019.
65) **Kuzma J.** Defense Advanced Research Projects Administration (DARPA) panel for Ethical, Legal, and Societal Implications for the Insect Allies funding program. May 14, 2019.
66) **Kuzma J.** Societal Context for Agricultural Biotechnology Communication. U.S.-China Agricultural Biotechnology Safety Administration Cooperation Communication Workshop. April 24-25, 2019. Beijing, China.
67) **Kuzma J.** Emerging Biotechnologies in Agriculture: Governance of Gene Editing. Triangle British-American Business Council. Raleigh, NC. April 2, 2019.
68) **Kuzma J.** Ethics and Governance of Gene Editing. Ethical Humanist Society of the Triangle. Chapel Hill. March 24, 2019.
69) **Kuzma, J.** Regulating Gene Edited Crops: What have we learned? GES colloquium. NC State. February 6, 2019.
70) **Kuzma, J.** Genetic Engineering Governance: Ethics in Food and Environmental Applications. National Institute of Environmental Health and Safety. "Ethics Day". Raleigh, NC. December 7, 2018.
71) **Kuzma J.** Learning from 1st generation plant biotechnology: Have we? NCSU Plant Pathology Seminar. November 28, 2018.
72) **Kuzma, J.** Consumers and GM Food Oversight—A Place for Values? Choose Food Symposium. John Hopkins University. Baltimore, MD. November 8, 2018.
73) **Kuzma, J.** U.S. Oversight of GMOs: Features, Flaws, and Future. Biotechnology and Communication workshop for Chinese visitors. NC State. October 24, 2018.
74) **Kuzma, J.** Oxitec's Mosquito and Future Gene Drives: Challenges with Risk Analysis and Governance. Duke University Civil & Environmental Engineering Seminar Series. October 22, 2018.
75) **Kuzma, J.** Synthetic Biology—applications and governance. National Socio-Environmental Synthesis Center (SESYNC) Advisory Board meeting. Annapolis, MD. October 9, 2018.
76) **Kuzma J.** Gene editing: Process, applications, and societal aspects. Nicholas Institute for Environmental Policy, Duke University, Advisory Board. October 4, 2018.
77) **Kuzma J.** Oversight, Regulation and Governance of GMOs. Osher Life-Long Learning Institute. NCSU. October 2, 2018.
78) **Kuzma, J.** Oversight of GMOs: What have we learned for the 2nd Generation? NCSU Horticulture Seminar. October 1, 2018.
79) **Kuzma, J.** Systems Thinking for Governance of Biotechnologies. Arizona State University-School of Future of Innovation in Society Seminar. August 30, 2018.
80) **Kuzma J.** Micro, Meso, and Macro-level Conditions for Integrated & Interdisciplinary Expertise. Forging Integrated Expertise in Graduate Education, NCSU, June 4 – 5, 2018 | Raleigh, North Carolina
81) Williams, T. and **Kuzma J..** @Risk: Case study of Genetically Engineered Animal Food. May 16, 2018. @Risk Workshop, U of Ottawa. Ottawa, ON.
82) **Kuzma, J.** Values and Science in Risk Analysis and Governance: Case of GMOs. Managing Risk: Should the Public be Engaged based on Values, not Risks? - May 2018 ISSP Public Panel @Risk Project, May 15, 2018, University of Ottawa, Ottawa, ON.
83) **Kuzma J.,** Challenges of national and global risk governance of gene drives. Invited talk for Public Health Agency of Canada, Center for Biosecurity. May 10, 2018. Ottawa, ON, Canada.
84) **Kuzma J.** Gene drives and responsible innovation. AAAS Sciline Gene Drives media briefing for journalists. April 25, 2018. Sciline.org
85) **Kuzma, J. "**Anticipatory Governance for GMOs". Invited presentation for Environment and Health Canada managers and staff. April 13, 2018. Ottawa, ON Canada.

86) **Kuzma J.** Moderator for "New Technologies for a Shared Future". Fulbright Regional Enhancement Seminar: Securing our Future: Innovation, Action, and Entrepreneurship. March 20, 2018. Ottawa, Canada.
87) **Kuzma, J.,** J. Herkert, E. Banks, P. Roberts, S. Stauffer. Responsible innovation in communities of biotechnology. Presentation for NSF funded Workshop Engaged Scholarship for Ethics and Responsible Innovation in STEM Fields. Workshop: March 14-15, 2018 James B. Hunt, Jr. Library, NC State University, Raleigh, NC
88) **Kuzma J.** Food Biotech 2.0: Learning from GMOs. Engineering Biology for Solutions in Health, Food and the Enviornment. Canada SynBio 2018 Conference. Toronto, ON Canada. (invited speaker/panelist/rapporteur). March 6-7, 2018.
89) **Kuzma J.** Institute for Science, Society and Policy and Royal Canadian Institute for Science Lecture Series: Intersection of Science, Society and Policy: The Promise and Perils of Gene Editing. Ottawa, ON Canada. February 26, 2018. (invited panelist)
90) **Kuzma J**. CRISPR technologies and society. Invited speaker. International Conference on CRISPR Technologies. Raleigh, NC. Dec 4-6, 2017.
91) **Kuzma J.** Innovations in Science and Medicine; The Opportunities and Challenges. Invited Plenary Panelist. The Canada 150 Conference on Innovation and Globalization: Domestic and International Challenges for the Coming Decade. Ottawa, Canada. November 29-Dec. 1, 2017.
92) **Kuzma J.** Discussant for Workshop on "Managing Environmental Risks: Markets, Regulation, and Adaptive Learning", Property and Environment Research Center (PERC), Rethinking Regulation program at Kenan Institute for Ethics (RR@KIE), Duke University, Durham, NC. November 17-18, 2017.
93) **Kuzma J.** Chasing Ghosts of the Future: Upstream of Emerging SYn Bio (and GE) Products". EPA Biotech Community of Practice Seminar. November 16, 2017.
94) **Kuzma, J.** Future of Food; Gene editing and beyond. James Beard Foundation Food Summit 2017. New York, NY. Invited plenary speaker. October 23-24, 2017
95) **Kuzma, J.** Values and Science in Governance of GEOs. Invited Lecture for Chinese visitors Communications Workshop. Oct 3, 2017.
96) **Kuzma, J.** CRISPRcon: Science, Society, and the Future of Gene Editing. UC Berkeley. Invited panel on "Who Determines the Future for Gene Editing?" August 16-17, 2017.
97) **Kuzma J.** Genetic Engineering and Society. Kenan Institute on Engineering, Technology and Society. Visiting K-12 Teacher Fellows Program. July 13, 2017.
98) **Kuzma J.** International Governance of Gene Drives. Invited plenary talk. ASU Governance on Emerging Technologies, 5th Annual Conference, May 17-19, 2017.
99) **Kuzma**, J. The Societal Dimensions of Gene Editing. Invited Plenary Talk. University-Industry Consortium. Baltimore, MD. April 27, 2017.
100) **Kuzma** J. "Proofreading Gene Edited Animals: Risk Governance Systems." Editing Nature Summit. Yale University. Plenary talk invited. April 20-21, 2017
101) **Kuzma** J. "The Social and Policy Systems Surrounding Emerging Biotechnologies, Microbes and the Environment" MEDx-IBIEM Joint Symposium: Frontiers in Microbiome Dynamics and Engineering, Duke University, March 10, 2017 (plenary).
102) **Kuzma**, J. "CRISPR, Gene drives, Governance and Ethics" Center for Genomics, UNC-Chapel Hill. March 9, 2017.
103) **Kuzma** J. From Genetic Engineering to Gene Editing: U.S. Governance Perspective. University of Tokyo & Kyoto University. February 3, 2017 (plenary, delivered remotely, translation by Dr. Makiko Matsuo)
104) **Kuzma**, J. Oversight of Genetic Engineering: Evaluating the past to inform the future. Duke University Rethinking Regulation Seminar. January 26, 2017.
105) **Kuzma**, J. Panel presentation for 2016 CPANC Crop Protection School, Dec. 6 2016.
106) **Kuzma** J. Seminar for UNC-CH Center for Genomics and Society investigators and trainees, Gene Drives, Governance and Ethics, March 3, 2017..

107) **Kuzma**, J. Roundtable participant. Emerging Gene Editing Technologies in Agriculture. Agree Transforming Food and Ag Policy, Convening Series, Meridian Institute., Washington DC October 14 2016
108) **Kuzma**, J. GMOs and Pesticides in a Governance Policy Context. 68th Crop Protection School Annual Meeting of NC Crop Protection Association. December 6, 2017.
109) **Kuzma**, J. Governance of Genetically Engineered Organisms: A Social Science Perspective. Agbiome seminar, Raleigh, NC, November 28, 2016.
110) **Kuzma** J. "Hubris or Humility in the Regulatory Assessment of Gene Drives?" Gene Editing: Life and Law Beyond the Human, SUNY-Buffalo, NSF-funded workshop, Oct. 21-22, 2016.
111) **Kuzma**, J. "Governance for Engineered Pests in Historical and Systems Contexts" Keynote for OECD Workshop on Environmental Release of Engineered Pests: Building an International Governance Framework, Raleigh, NC October 6, 2016.
112) **Kuzma**, J. Genetic Engineering and Society. CALS Global Leadership Academy presentation for Turkish stakeholders. September 23, 2016.
113) **Kuzma**, J. " Gene Editing and Emerging Issues", Agree Initiative, Meridian Institute, DC. October 10, 2016.
114) **Kuzma**, J. "Innovation in Governance. "North Carolina Agricultural Biotechnology Summit, September 27, 2016.
115) **Kuzma**, J. Panel, Values in Impact Assessment, NSF funded project, Hastings Center. May 2016.
116) **Kuzma**, J., "Bt and social resistance", Living with Resistance, Social and Environmental Synthesis Center, NSF-funded workshop, Annapolis, MD. April 25-29, 2016.
117) **Kuzma** J., "Gene drives: Who's Behind the Wheel?", The Three I's & Biosecurity, FBI, MSMR, and NCABR Conference, Chapel Hill, NC. Plenary presentation. April 14, 2016.
118) **Kuzma** J. Presentation for Honors College Bioethics class, March 31, 2016.
119) **Kuzma**, J. Genetic Engineering and Society. Jefferson Scholars Program presentation. February 8, 2016.
120) **Kuzma** J. Panelist for Science Policy Advocacy Group (SPAG) University of North Carolina, Chapel Hill, on "Advocacy 101"; February 1, 2016.
121) **Kuzma** , J. "GMOs and the Future of the Global Food Supply and Medical Innovations" CATO Institute debate with Robert Fraley CTO and VP of Monsanto. January 22, 2016.
122) **Kuzma**, J. "Is regulatory harmonization desirable for gene edited animals?" National Academy of Sciences, A Workshop of the Roundtable on Science and Welfare in Laboratory Animal Use Gene Editing to Modify Animal Genomes for Research - Scientific and Ethical Considerations. Washington, DC. December 7-8, 2015.
123) **Kuzma**, J. "Designing a Regulatory System that Adapts to Emerging Risks, Technologies" Leadership in a Time of Rapid Change: Envisioning Solutions to Environmental Challenges. Duke University Nicholas School 10th Anniversary Forum. October 22, 2015.
124) **Kuzma J.** and JP Roberts. Transformation or Adaptation: Active Nanomaterials and Risk Governance. Workshop paper for "Next Generation Nano Governance" American Chemical Society, CNS-ASU, and Notre Dame NSF funded workshop. Washington DC October 9, 2015
125) **Kuzma** J. Genetic Engineering: A New Phase of Policy and Perception. Population Medicine Seminar, Vet School, NCSU/UNC/Duke. October 5, 2015.
126) **Kuzma** J. Panel for National Science Foundation Nanoscale Science and Engineering meeting on "Social Science", December 10, 2015
127) **Kuzma**, J., No Hands at the Wheel? Gene Drives, Genetic Engineering, and Society. Duke University, Periodic Tables, Durham's Science Café, June 25, 2015 (invited public presentation)
128) **Kuzma**, J. Risk and Media. Biotechnology Literacy Project Boot camp. Academics Review, U of FL, and Genetic Literacy Project workshop. University of CA-Davis. Many 31-June 3, 2015. (plenary panel)

129) **Kuzma**, J. Intergenerational Equity, Gene Drives, and Conceptions of Nature. May 26-28, 2015 for Governance of Emerging Technologies 3rd Annual Conference. Arizona State University. (invited plenary)
130) **Kuzma** J. Gene Editing and Governance. 1st Annual Workshop on GE@NC State. NCSU. April 28, 2015.
131) **Kuzma** J. Ethical, Legal, and Regulatory Considerations. New Genomic Solutions for Conservation Problems Workshop. Long Now Foundation. Sausalito, CA. April 6-9 2015 (invited plenary panel)
132) **Kuzma**, J. Anticipatory Governance for Synthetic Biology: A Delphi Study. GES colloquium, NCSU, March 24, 2015.
133) **Kuzma** J. Gene Drives: Who's behind the wheel? Yale Bioethics Seminar. March 3, 2015. (invited presentation)
134) **Kuzma** J. Panelist for Ethics Education and Training in Science and Engineering roundtable. The Rolf Buchdahl Symposium on Science, Technology, & Human Values. April 10, 2015. NCSU
135) **Kuzma** J. Ethics and genetically engineered organisms. Duke Science and Society seminar, Feb. 25, 2015. (invited presentation)
136) **Kuzma** J. Presentation on GM Food Safety. Women's Conference of National Farm Bureau, March 28, 2015.
137) **Kuzma** J. GE Food Safety and Public Perception. For "Finding Common Ground: The GM Food Labeling Paradox", University of MN, January 16, 2015. (invited presentation)
138) **Kuzma**, J. Responsible Development, Responsible Innovation: Global Governance of New Technologies. NSF sponsored Conference for Democratizing Technologies: Assessing the Roles of NGOs in Shaping Technological Futures. University of California, Santa Barbara. November 13-15, 2014. (invited presentation)
139) **Kuzma**, J. Anticipating Implications of Synthetic Biology. NSF Workshop on the Research Agendas in the Societal Implications of Synthetic Biology. ASU. November 4-6, 2014. (invited presentation)
140) **Kuzma** J. Anticipation and its Relation to Responsibility, Wilson Center Roundtable on Responsible Innovation in Synthetic Biology. Washington, DC. October 29, 2014 (invited presentation/participant)
141) **Kuzma**, J. GMOs: Safety, Public, and Labeling. MN State Legistlature briefing. September 25, 2014. (invited presentation)
142) **Kuzma**, J. Genetic Engineering and Society. Presentation for CHASS Advisory Board, November 2014.
143) **Kuzma**, J. Genetic Engineering and Society. University Scholars Program (2 lectures for 300 students each), November 10, 2014.
144) **Kuzma**, J. Expert panelist for discussion at Chef's Collaborative (national conference for over 300 chefs). September 29, 2014.
145) **Kuzma** J. Policy Sciences and GE crops: Data and Information Needs. Invited speaker for National Academy of Sciences National Research Council Study on GM Crops. Washington DC September 16, 2014. (invited presentation)
146) **Kuzma**, J. Regulation in a Rapidly Evolving Environment: Balancing Risk and Innovation. 2nd International Workshop for the Regulation of Animal Biotechnology. Invited for plenary by U.S. Dept. Agriculture. Brasilia, Brazil. August 21, 2014. (invited presentation)
147) **Kuzma**, J. Governance of New Biotechnologies. International Maize and Wheat Improvement Center. CIMMYT, Mexico City, Mexico. July 24, 2014. (invited presentation)
148) **Kuzma** J. Consumer Perceptions of Emerging Technologies in Food. International Conference on One Medicine One Science. University of Minnesota, Mpls, MN (plenary session speaker). April 29, 2014. (invited presentation)
149) **Kuzma**, J. Presentation at NC Biotechnology Center kick-off event for Biotechnology Professionals, April 16, 2014.

150) **Kuzma** J. Presentation on NCSU Park Scholars program panel, GM foods, April 2, 2014
151) **Kuzma**, J. Bioengineering as Second Nature. Chancellor's Faculty Excellence Program symposium. April 25, 2014. (outreach presentation)
152) **Kuzma**, J. Emerging Technologies and Food: What Matters to Most? Center for Environmental and Natural Resource Economics & Policy, NCSU, April 11, 2014. (invited presentation)
153) **Kuzma**, J. Genome Editing: On a Collision Course. UNC-Chapel Hill Public Policy seminar, March 21, 2014. (invited presentation)
154) **Kuzma**, J. Chancellor's Reception for Policy Makers 2/26/14 UNC vs. NCSU game.
155) **Kuzma**, J. Beyond Old Debates: New Systems Risk Analysis (NESRA) in An Action-oriented Approach, National Academy of Sciences, Gordon and Betty Moore Foundation, Palo Alto, CA . March 13, 2014. (invited presentation)
156) **Kuzma** J. Woodrow Wilson Center Invited workshop on "Creating a Research Agenda for the Ecological Implications of Synthetic Biology. (funded by NSF) January 8, 2014.
157) **Kuzma**, J. Utopian Views on Risk governance of Emerging Technologies. International Symposium on Risk Governance of Science and Technology University of Tokyo , Toyko Japan. December 17, 2013 (plenary presentation) (invited presentation)
158) **Kuzma**, J. Panelist for "Genetic Roulette" UMN Public Health week, April 1, 2013.
159) **Kuzma** J. Emerging Technologies and U.S. Food Governance Systems. International Symposium on Risk Governance of Science and Technology University of Tokyo , Toyko Japan. December 15, 2013 (Closed workshop presentation)
160) **Kuzma** J. Hungry for Information: Nanofood labeling. "Food Labeling: Nice to Know or Need to Know?" June 6, 2013. Finding Common Ground Forum Series, St. Paul, MN
161) **Kuzma**, J. Invited roundtable participant. "Managing the Risks of Synthetic Biology: Assessing the U.S. Regulatory System" (DOE-funded study that is being conducted by Sarah Carter and Robert Friedman at the J. Craig Venter Institute in collaboration with Michael Rodemeyer of the University of Virginia and Michele Garfinkel at the European Molecular Biology Organization), Washington DC, August 27-28, 2012.
162) **Kuzma**, J. Principles, Perspectives and Policy Studies for Transgenic Organisms in the Environment "Mosquitos Transgénicos: ¿Dónde estamos en Panamá? Forum on Transgenic Mosquitos. Smithsonian Tropical Resarch Institute, Gorgas, and University of Panama. Panama City, Panama. May 16, 2012. (invited speaker)
163) **Kuzma**, J., Properly paced or problematic: Learning from the Coordinated Framework for Biotech. Pacing Governance with Science and Technology. NSF-sponsored workshop. Arizona State University, March 5-6, 2012. (invited speaker)
164) **Kuzma**, J. Panel Discussant, IGERT seminar, Re-examining US GMO Governance: Continuing Tensions and Contemporary Conflicts", Friday, April 27, 2012. University of Minnesota. (invited panel speaker)
165) **Kuzma**, J. Integrated approaches to studying oversight for Genetically Modified Organisms. Genetics and Society seminar. NCSU. February 3, 2012. (invited speaker)
166) **Kuzma**, J. Panelist for Emerging Risks of Synthetic Biology. February 28, 2012. The George Washington University Law School, Environmental Law Program, Woodrow Wilson International Center for Scholars, Society for Risk Analysis, Washington DC (invited speaker)
167) **Kuzma**, J. and D. Fitzpatrick. Women in S&T Policy. Presentation for Humphrey Advisory Council. April 2012.
168) **Kuzma** J. Ethics of S&T funding. Broader Impacts Seminar. University of Minnesota. April 2012.
169) **Kuzma**, J. Panel respondent for Energy and Environmental Law and Governance Workshop. May 4, 2012.
170) **Kuzma**, J. Invited Panelist for session on "Pacing Law with Emerging Technologies". Society for the Study of Nanoscience in Society (S.NET) Annual Conference. Tempe, AZ November 4-6, 2011. (invited panelist)

171) **Kuzma**, J. Nanotechnology and the Environment: Policy from local to national. Invited pre-presentation for Dr. Paul Bertsch's Ninth Annual William E. Larson and Raymond R. Allmaras Lecture on Emerging Issues in Soil and Water, Program, Wednesday 13 April 2011, University of Minnesota. (invited speaker)
172) **Kuzma**, J. Emerging Technologies: Progress or Poor Paradigms? Hennebach Visiting Professor Lecture, March 23, 2011, Colorado School of Mines. (invited speaker)
173) **Kuzma**, J. Emerging Technologies: Oversight under uncertainty. Policy@Tech Seminar Series. Georgia Tech. February 23, 2011. (invited speaker)
174) **Kuzma**, J. U of MN Graduate Program in Neuroscience Career Forum. Speaker. April 11, 2011.
175) **Kuzma** J. Panelist. Science Museum of Minnesota Science Café for NanoNight 2011. National Nanodays. Black Dog Café St. Paul, MN. March 29, 2011.
176) **Kuzma**, J. "Bio and Nanotechnology: Policy and potential social and environmental implications". North American Hazardous Materials Management Association. Mpls, MN Invited plenary speaker. May 24, 2010.
177) **Kuzma**, J. "Emerging Technologies and the Environment: The Right Pushmi-Pullyu?" Frontiers on the Environment lecture series. University of Minnesota. November 10, 2010. (invited speaker)
178) **Kuzma**, J. "Teenage Identity or Midlife Crisis: The Tangled Web of Science and Technology Policy Education" Gordon Conference on Science and Technology Policy. August 2010. (invited plenary speaker)
179) **Kuzma**, J. International Symposium on Genetic Biocontrol Of Invasive Fish, USDA/FWS/ SeaGrant, Minneapolis, MN June 21-24, 2010. (invited speaker)
180) **Kuzma**, J. "Governance of Agrifood Nanotechnology: Research and Policy Implications" International Conference on Food and Agricultural Applications of Nanotechnologies, Sao Carlos, Brazil, in June 20-25, 2010 (invited speaker)
181) **Kuzma**, J. IGERT symposium, "Right Risks: Ethics and Ecological Risk Analysis", University of MN, April 30, 2010 (invited plenary speaker)
182) **Kuzma** J. "Dynamic Oversight for Emerging Technologies" Governing Nanobiotechnology: Reinventing Oversight in the 21st Century. Mpls, MN April 15, 2010 (plenary speaker, moderator, and conference co-organizer)
183) **Kuzma**, J. National Nanotechnology Initiative (NNI) workshop, "Capstone Meeting: Risk Management Methods and Ethical, Legal and Societal Implications of Nanotechnology." March 30-31, 2010, Washington DC. (invited expert roundtable participant).
184) **Kuzma** J. Briefing speaker for Senator Al Franken's staff on nanotechnology Senate bills going through Congress. March 31, 2010
185) **Kuzma**, J. "Systems Approaches to Environmental Risk of Nanomaterials" Midwestern States Risk Assessment Symposium on Nov 3, 2009 at the Hyatt Regency Hotel in Indianapolis. (invited speaker)
186) **Kuzma**, J. Invited participant in National Academy of Sciences-National Research Council workshop on Agrifood Nanotechnology, August 22, 2009, in Washington DC.
187) **Kuzma**, J. Invited plenary panelist. "Current State and Direction of Science in Guiding Decision Making on the Safe Use of Nanotechnology" EPA and the University of Massachusetts Amherst International Conference on the Environmental Implications and Applications of Nanotechnology, June 9-11, 2009, in Amherst, Massachusetts.
188) **Kuzma**, J. "Preparing for the Future of Emerging Technologies Oversight: Upstream and Integrated Oversight Assessment" Assoc. for the Advancement of Science (AAAS) Science Policy meeting, April 30-May 1, 2009. Washington, DC. (invited panel presentation).
189) **Kuzma**, J. Examining Emerging Technologies: What's Next in Science Oversight? New Strategies & Accountability? What's Next in Law, Health & the Life Sciences? Debating Openness, Access & Accountabilit. 10th Anniversary of the Consortium on Law and Values in Health, Environment & the Life Sciences and Joint Degree Program in Law, Health & the Life Sciences, March 6, 2009, University of Minnesota (invited speaker)

190) **Kuzma**, J. "GMOs and Environmental Risk Policy" for Conservation Biology Seminar Series, U of M, November 30, 2009.
191) **Kuzma**, J. Guest lecture on emerging technologies and FDA policy "Food and Drug Safety: Whom Can You Trust?" Undergraduate Honors Program course, U of M, November 10, 2009.
192) **Kuzma**, J. "No Small Matter: Nanotechnology and Social Issues", Microscopy Camp! For grades 7-12 Metro High School Science Teachers. July 28, 2009.
193) **Kuzma**, J." Nanotechnology: The Science of the Small" St. Francis Xavier Middle School, Buffalo, MN, April 20, 2009.
194) **Kuzma**, J. "Where Science Meets Policy: Oversight for Genetic Engineering" College of St. Catherine's, St. Paul, MN. April 7, 2009. (invited speaker)
195) **Kuzma**, J. Invited participant for USC workshop on forming a society for Nanotechnology and Society (one of 30 invitees from around nation and world). May 19, 2008.
196) **Kuzma**, J. Panel on Emerging Technology Enterprises, Gordon Conference on S&T Policy, Big Sky, MT, August 2008.
197) **Kuzma**, J. "Nanotechnology, Oversight Policy". Hennepin Country Bar Association, April 2008. (invited speaker)
198) **Kuzma** J. with area faculty and staff. "STEP Vision 2020", Humphrey Institute Vision 2020, April 2008.
199) **Kuzma**, J. Nanotechnology, Animal Production and the Future. World Conference on Animal Production, Capetown, South Africa. November 25-27, 2008 (invited speaker)
200) **Kuzma**, J. Oversight and Regulatory Challenges for Energy and Environmental Applications of Nanotechnology. Midwest E3 2008 conference. University of MN, November 18, 2008 (invited speaker)
201) **Kuzma**, J. Global Policy Forum, University of MN, "Does U.S. S&T Policy need a Paradigm Shift?" Sept. 16, 2008.
202) **Kuzma**, J. "A Public Policy View on Risk Management for Nanomaterials,", Washington DC, Society for risk Analysis Workshop on "Risk Analysis: Advancing the Science for Naonmaterial Risk Management." Sept 10-11, 2008 (invited panelist)
203) **Kuzma**, J. "Risk Communication Challenges for Nanomaterials: A Taxonomy (Typology) within the Framework of Risk Analysis," Communicating Health and Safety Risks on Emerging Technologies in the 21st Century. North Carolina State University, NSF workshop, August 28-29, 2008 (invited speaker).
204) **Kuzma**, J. Facilitator for IREE Algae and Biofuels Summit, October 16, 2008, Minneapolis, MN.
205) **Kuzma**, J." Emerging Technologies, S&T Policy, and the (Your) Future." University of St. Thomas. October 3, 2008 (invited speaker)
206) **Kuzma**, J. "A Path to Renewal of America's Global Role in Health Science Policy," Innovation 2008, Sept. 2008. University of MN.
207) **Kuzma**, J. "Innovation for Green Chemistry: Policy Options and Challenges," Green Chemistry in Minnesota: Opportunities and Challenges for Leadership, May 28, 2008, University of Minnesota. (moderator and introductory panel speaker).
208) **Kuzma**, J., Monson, M., and Warner, E. "Introduction to System Dynamics," HHH Graduate Faculty Meeting, March 2008.
209) Monson, M., Kelley, S. (**Kuzma**, J*) State Legislative Testimony for Biosciences and Emerging Technology Committee, February 27, 2008. (*Monson, **Kuzma**'s RA, presented their work)
210) **Kuzma**, J. "Nanotechnology and Society: no Small Matter" MN Society of Professional Engineers, Feb 19, 2008. (invited speaker)
211) **Kuzma**, J. "Nanotechnology: What's new, what isn't and why it matters?" Mindstretch keynote speaker. October 31, 2007. (invited speaker)
212) **Kuzma**, J. "Agricultural Nanotechnology: From Science to Society" National Academy of Sciences, National Research Council, Board on Agriculture and Natural Resources Meeting, May 13, 2008. (invited speaker)

213) **Kuzma**, J. , "Agricultural Nanotechnology: Risk and Oversight Policy" USDA, Office of the Secretary, Office of the Chief Economist, ORACBA Risk Forum, Washington, DC, May 13, 2008. (invited speaker)
214) Wolf, S. Kokkoli, E. **Kuzma**, J., Paradise J., Ramachandran, G. Evaluating Oversight Mechanisms for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context. 2007 NSF Nanoscale Science and Engineering Grantees Conference. December 3-6, 2007, NSF - Arlington, VA.
215) **Kuzma**, J. "Risk and Regulation for Emerging Technologies", Northeastern University Nanotechnology Regulation Workshop May1-2, 2007, Boston, MA. (invited speaker)
216) **Kuzma**, Romanchek, Kokotovich "Agrifood Nanotechnology: Applications and Oversight," Michigan State University, What is agrifood nanotechnology? NSF Workshop, April 2-3, 2007. (invited speaker)
217) **Kuzma**, J. "Nano and health: an Ethical Perspective," Exploratorium, San Franciso, Nanoforum keynote presentation. June 6, 2007. (invited speaker)
218) **Kuzma**, J. "Nano and health: an Ethical Perspective," Science Museum of Minnesota, Nanoforum keynote presentation. April, 26, 2007. (invited speaker)
219) **Kuzma** "Future Research Needs for the ELSI-Nano community" National Science Foundation (NSF) PI meeting for ELSI nanotechnology investigators. March 15-16, 2007. (invited speaker)
220) **Kuzma**, Romanchek, Kokotovich "Oversight for Agrifood Nanotechnology: No Small Matter" Alberta Agricultural Research Institute, Nano-Agriculture workshop, March 1-2, 2007. (invited speaker)
221) **Kuzma**, J. MN Pollution Control Agency, "Grand Challenges for Nanotechnology Policy and the Environment," February 2007. (invited speaker)
222) **Kuzma**, J. Café Scientifique, Bell Museum of Natural History, "GEOs: An Intersection Between Science and Society." November 2006. (invited speaker)
223) **Kuzma**, J. 3M company's Technology Forum. "Nano-policy: No small matter" November 2006. (invited speaker)
224) Invited keynote speaker for Science Museum of Minnesota's Nanoforum. "The Brave New World of Nano Policy" August 2006.
225) Invited reviewer for Science Museum of Minnesota's Nanoscale Informal Science Education Network's Exhibits and Programs Workshop. July 2006**Kuzma**, J. MN Attorney General's CLE workshop, "Emerging Technologies, Policy, and Law: Getting It Right." June 2006. (invited speaker)
226) Invited Participant for National Nanotechnology Coordinating Office Workshop on Public Participation in Nanotechnology, May 2006. Washington, DC.
227) Invited Participant for Environmental Law Institute's workshop on Nanotechnology Governance, May 2006. Nashville, TN.
228) **Kuzma**, "Emerging Technologies: Challenges for Institutions and Oversight" National Association of Schools of Public Administration and Affairs meeting. October 19, 2006. (invited panelist)
229) Key speaker at press conference on Analysis of Early Stage R&D for Agrifood Nanotechnology. March 2006, Washington DC, Project on Emerging Nanotechnologies. http://www.nanotechproject.org/index.php?id=50
230) **Kuzma** and VerHage "Nanotechnology and Food" National Food Processors Association Meeting, Sept. 18, 2006. Washington DC (invited speaker)
231) **Kuzma** "Active Nano Governance" International Risk Governance Council, The Risk Governance of Nanotechnology: Recommendations for Managing a Global Issue. July 2006, Zurich, Switzerland. (invited speaker)
232) **Kuzma**, J. "Regulation and non-food GM crops and cross-overs between White, Green and Red Biotechnology " one of 30 invited participant for EU-US Conference on Emerging biotechnology applications: EU, US and global regulatory perspectives. Hosted by the European Policy Center, December 4-6, 2005. Lille, France. (invited speaker and moderator)

233) **Kuzma**, J. Freeman Center International Trade Consortium. University of MN. "Genetic Engineering: Science, Uncertainty and International Trade". January 2004.
234) MN Biofiber Consortium Meeting, Initiative for Renewable Energy and the Environment: Bioenergy and Bioproducts, October 2004.
235) Initiative for Renewable Energy and the Environment Advisory Committee meeting. Policy, Economic and Ecosystem Issues. May 2004.
236) **Kuzma**, J. The Genomic Future: A Town Hall Meeting. Gene(sis) Exhibit Weisman Art Museum. Who Owns DNA? Panel Discussion. February 2004. (invited panelist)
237) **Kuzma**, J. MN Seed Coalition and Bioindustrial Consortium. Renewable Energy: A New Initiative at the University of Minnesota. November and December 2003. (invited speaker)
238) Interviewed for Fox Cable TV News on agricultural bioterrorism. September 2002.
239) **Kuzma**, J. "Genetically Modified Organisms in Food" Invited presentation for and participant in the Private and Public Scientific Academic and Consumer Food Policy Group (PAPSAC), Harvard Business School, November 2000.
240) Invited panelist for Meridian International Visitors' Program on Genetically Modified Organisms for UK scientists and regulators, May 2001.
241) Invited panelist for State Department's Visitors' Program on Risk Management for Belgian risk managers, March 2001.
242) Invited panelist for State Department and American Farm Bureau International Visitors' Program on Genetically Modified Organisms for UK regulators and stakeholders, July 2000.
243) Invited presentations for USDA's Advisory Committee on Agricultural Biotechnology meetings--July and November 2000, and August 2001.
244) Presentation for Zambian delegation of government officials and scientists to discuss genetically engineered foods. Washington DC. September 2002.
245) Group leader and facilitator for the USDA Workshop on Criteria for Field Testing of Plants with Engineered Regulatory, Metabolic and Signaling Pathways. Washington DC June 2002.
246) Invited presentation for Pew Initiative on Food and Biotechnology's Stakeholder Forum. Crossroads of Science and Regulation for Genetically Engineered Organisms in Agriculture: The Role of the National Academies. March 2002.
247) Invited presentation on animal biotechnology issues for the Animal Biotechnology Stewardship Technical Committee of the Animal Commodity Organizations Group, November 2001.
248) Invited speaker for USDA's International Fellow Program for Yugoslavian scientists and regulators, Agricultural Biotechnology and Communication, July 2001.
249) Invited presentation for Southeast Asian Journalists interested in Agricultural Biotechnology, National Academy of Sciences Office of News and Public Information, July 2000.
250) Invited panelist for Meridian International's Biotechnology and Food Safety Program, Greek Grocers and Journalists. May 2000.
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252) Invited speaker for National Press Foundation. Agendas 2000: Biological Engineering of Food. January 2000.
253) **Kuzma**, J. "Biotechnology, Food and Agriculture: Understanding the spectrum of opportunities, challenges, and perspectives," Keynote Speaker for National Academies Presidents' Circle Meeting, September 1999.

PRESS INTERVIEWS and APPEARANCES

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2) Appeared on Undark Entanglements Podcast "Should we unleash GMO mosquitoes" Dec 16, 2024. https://undark.org/2024/12/16/podcast-should-we-unleash-gmo-mosquitoes/

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8) Interviewed and comments featured for "Best Food Facts" articles, Center for Food Integrity. Susan Wallace https://www.bestfoodfacts.org/is-gene-edited-food-safe-to-eat/.

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10) Featured in Future Bites podcast and article. "Can we keep CRISPR responsible?" https://www.brucemccabe.com/futurebites/can-we-keep-crispr-responsible. February 21, 2023.

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149) Quoted in Nature magazine GENE EDITING. Nature 500, 389–390 (22 August 2013)
150) Interviewed for Chicago Public Radio on GM foods. Aired July 2013

151) Quoted in LA Times. March 23, 2013. Genetic modification strains old food and drug laws
152) Quoted in Los Angeles Times, GM Foods: Who has to tell? Feb 23, 2013.
153) Appearance on Fox 9 News (TV), January 20, 2013. GMO Labeling.
154) Interview with Richard Chin, St. Paul Pioneer Press, December 6, 2012; Article on page A1 12/20/12.
155) Science Museum of Minnesota, Scientist "expert" for Beaker and Brush discussion, August 14, 2012.
156) Interview with Chicago Tribune on nano sunscreens. June 13, 2012
157) Talk at Smithsonian Institution covered in Panama News, May http://www.thepanamanews.com/pn/v_18/issue_04/nature_special_01.html
158) Quoted in Food Quality magazine, FDA and nanomaterials, May 8, 2012. http://www.foodquality.com/details/article/2038937/Proposed_FDA_Guidance_on_Nanomaterials_Seen_As_Flawed.html?tzcheck=1
159) Interviewed Food Retail Leader Magazine, Nanofood guidance of FDA, April 2012.
160) Quoted in Nature news "The 'most important questions' in science policy shortlisted" March 9, 2012.
161) Quoted in Nature Biotech feature news "Tiptoeing around transgenics" March 2012.
162) Nano-Link Conference. **Kuzma**, J. Should we sweat the small stuff: Nanotechnology & Society. October 11, 2011.
163) Interviewed and quoted in *Newhaven* Independent October 11, 2011; story published, November 9, 2011
164) Interview with Ann Meyer, Reporter for Retailer Leader national magazine. August 31, 2011.
165) Quoted and featured in 14 December 2010. *Newhaven Independent* A Biotech Road Map?
166) Quoted in Technology Leadership Institute Fall 2010/2011 newsletter. November 16, 2010.
167) Quoted in *Winona Daily News* "Nanotechnology Takes Hold in SE Minnesota" April 25, 2010.
168) Work featured in March 2010, All About Feed magazine.
169) Quoted in AOL News. A. Schneider. "Why Nanotech Hasn't (Yet) Triggered 'the Yuck Factor'?". March 24, 2010..
170) Interview used for "Take a Nanooze Break," a long-term exhibit at the Walt Disney World Resort in Lake Buena Vista, FL, at Epcot Center. Premiered Feb 2010.
171) Interviewed and quoted in The Bloomington Alternative, S Higgs, June 28, 2009. "Nanotechnology : Revolution and Pollution"
172) Interviewed for and quoted in MinnPost Article, "As nanotechnology hits the marketplace, safety is a growing issue," May 14, 2009. Dawson, J. Also posted on Inside Science News Service.
173) Quoted in AAAS news release reporting on research "Experts Explore the Dilemma of Regulating Nanotech and Other New Technologies" Lane, E. May 18, 2009.
174) Interview for Earth&Sky Radio, syndicate for over 1900 outlets. March 16, 2009. Aired April 2009.
175) Interviewed and quoted for Functional Ingredients magazine, Nanotechnology and food. March 2009.
176) Interviewed for "The Perils of Nanotechnology", by Steven Higgs, *Counterpunch* May 1-15, 2009.
177) Quoted in Chemistry Times "Patent for renewable alternative to petroleum-derived isoprene granted to researcher" (10/18/2008)
178) Interview with Finance and Commerce Magazine, August 13th, 2008, story in print August 15, 2008.
179) Story in AzoNanotechnology news on recent published paper "Nanotechnology Providing Great Benefit Along with Potential Risk" , August 13, 2008.
180) Story in NanoWerk News on recent published papers, August 13, 2008.
181) Interview with Minnesota Public Radio, Green Chemistry, 5-23-08, Aired 5-28-08 on MPR news.
182) Interview with Western Producer newspaper in Saskatewan, Canada on agrifood nanotechnology. March 2008.

183) Great Lakes Radio Consortium (06/20/07) , Nanotech Nervousness, J. **Kuzma** discusses multiple nanoproducts being sold today. Environment Report. http://www.glrc.org/story.php3?story_id=3481
184) Invited Guest. MPR Midmorning with Kerry Miller, "Genetically Engineered Foods," November 2006.
185) Interviewed for and quoted in New York Times "Engineering Food Additives at a Molecular Level" Page C1. October 10, 2008.
186) ISB News Report on published work. Jones, P.C. "A nanotechnology revolution in the food and agricultural industry,"Food HAACP Newsletter, Issue 214, 2006.
187) Rapporteur for "Standards for Nanotechnologies: A Workshop." MSU, Sept. 11-12, 2006.
188) Article on research in Nanowerk News, "New report on nanotechnology in agriculture and food looks at potential applications, benefits, and risks," September 7, 2006
189) Quoted/Interviewed in LiveScience article and FoxNews.com story, "Scientists Worry About Potential Risks of Nanotechnology in Food" Choi, C.Q, September 7, 2006..
190) Article and interview. Chemical and Engineering News. "Nanotechnology in Food and Agriculture: Database finds diverse themes and predominantly basic research in federally funded R&D", April 17,2006.
191) Story on recently published work "Report Urges Coordinated And Integrated Oversight Of Nanotechnology" **ScienceDaily (Feb. 17, 2006)**

RESEARCH SUPPORT

Current

I. **Kuzma J. CoPI (PI NC State) NSF-ERC (2022-2027) $26,000,000**
Precision Microbiome Engineering Center EEC-2133504
C. Gunsch (Duke), A. Fodor (UNC-Charlotte), J. Stewart (UNC-CH), Joseph Graves Jr. (NC A&T)
$4M to NC State, $2M to GES Center

II. **Kuzma J coPI USDA-NIFA (2022-2026) $650,000**
Interdisciplinary Approaches to Evaluate Societal Implications and Foster Sustainability of Genetic Engineering and Nanotechnology in Food and Agriculture (Grant #2022-67023-36730)
K. Grieger (PI)

Past Support

I. **Kuzma J. coPI NSF NRT (2018-2024) $2,997,350**
Agricultural Biotechnology in Our Evolving Food, Energy & Water Systems (AgBioFEWS), National Science Foundation, National Research Traineeships Program ($3M).
F. Gould PI, Z. Brown, J. Delborne, J. **Kuzma**, and H. Sederoff coPI(funds at NC State)

II. **Kuzma J coPI USDA-NIFA (2020-2022) $25,000**
Informing a Risk Assessment Research Strategy for Gene Drive Agricultural Applications through Interdisciplinary Dialogue and Exchange (Biotech Risk Assessment Grant)
K. Barnhill-Dilling (PI), coPIs K.Grieger, J. Delborne, C. Cummings

III. **Kuzma, J. coPI InterAmerican Development Bank (2020-2022) $450,000**
Assessment of the Regulatory and Institutional Framework for Gene-editing via CRISPR-based Technologies in Latin America and the Caribbean

T. Kuiken (PI), M. Jones, Z. Brown coPIs. (majority funds to NC State)

IV. **Kuzma J. coPI** **NCSU NSRP (2020-2022)** **$17,000**
Archive of Agricultural Genetic Engineering and Society (AAGES)
M. Booker PI, F. Gould coPI.

V. **Kuzma J. PI (NC State)** **NSF-DRMS (2020-2024)** **$559,381**
Implications of Solar Radiation Management for Strategic Behavior and Climate Governance
M. Borsuk, (PI Duke), Pizer, Wiener (coPI Duke) K. Grieger coPI (NCSU) ($68,748 to NCSU)

VI. **Kuzma J. coI** **GRIP-4PSI Initiative (2020-2023)** **$ 556,250**
Improving Crop Productivity and Value Through Heterogeneous Data Integration, Analytics, and Decision Support Platforms
C. Williams (PI), Khara Grieger coPI

VII. **Kuzma J coPI** **USDA-NIFA (2019-2021)** **$495,000**
Social Implications and Best Practices for Responsible Innovation of Nanotechnology in Food and Agriculture,
Khara Grieger, PI (majority funds at NC State-GES)

VIII. **Kuzma, J. coPI** **Walton Foundation (2019-2021)** **$199,641**
Piloting Cooperative Governance of Applications of Crop Gene Editing to Cover Crops and Cash Cover Crops.
N. Jordan (PI), Tim Smith (coPI); note: funds are based at U of MN

IX. **Kuzma J. coPI** **Society for Risk Analysis (2019-2021)** **$20,000**
Society for Risk Analysis Strategic Initiative
K. Grieger PI.

X. **Kuzma J, coI** **SSHRC Canada (2017-2019)** **$195, 166**
@Risk: Strengthening Canada's Ability to Manage Risk
M. Gattinger PI (U of Ottawa); $12,000 to NCSU

XI. **Kuzma J. PI** **NCSU (2019)** **$15,000**
Literature to Explore Our Genetic Engineering Futures: A Visit with Margaret Atwood.
CHASS Lightening Rod Event Series. K. Harwood & M. Booker CoPIs.

XII. **Kuzma J. PI** **NSF 2016-2018** **$350,000**
Facilitating Learning about Meanings of Responsible Innovation in Bioengineering
F. Gould, D. Berube, E. Banks, and J. Herkert co-PIs

XIII. **Kuzma, J. PI** **NSF 2015-2017** **$50,000**
Gene Drives: A Deliberative Workshop to Develop Frameworks for Research and Governance
Fred Gould co-PI

XIV. **Kuzma, J. PI** **NSF 2014** **$50,000**
S*ystems Approaches to Research and Practice*
Gordon Research Conference on S&T Policy

XV. **Kuzma, J. PI** **USDA 2013-2014** **$39,384**

Comparing Public Attitudes Towards Genetically-Modified and Nanotechnology-Based Foods and Labeling USDA Food Policy Research Center
C. Yue, co-PI

XVI. **Kuzma co PI** **USDA** **$30.676**
USDA Stakeholder Workshop on Coexistence of Genetically Engineered and Conventional Crops
F. Gould PI, J. Delbrone coPI

XVII. **Kuzma, J. co-PI** **NSF** **2012-2015** **$420,000**
Women in S&T Policy
K. Husbands-Fealing (PI), D. Fitzpatrick, S. Cozzens, L. Doerr (Boston U) coPIs
Note: dropped off as co-PI in April 2014 due to move to NCSU.

XVIII. **Kuzma J., PI** **Sloan Foundation** **2013-2015** **$173,703**
Looking Forward to Synthetic Biology Governance: Convergent Research Cases to Promote Policy-Making and Dialogue
C. Cummings (coPI)

XIX. **Kuzma J. PI** **U of MI Risk Science Center** **2015** **$5000**
Support for NCSU-IGEM team for International Competition
Berube co-mentor

XX. **Kuzma, J. PI** **NSF-NNIN** **2012-2013** **$20,000**
How Small is Small Enough?: A Cross-Disciplinary Approach to Defining "Nano" for Research, Society, and Regulation
L. Fatehi, co-PI.

XXI. **Kuzma, J. co-investigator, steering committee** **USDA-NIFA** **2012-2015** **$960,000**
Food Policy Research Center
Hueston, W. PI, Lindsey, Buhr, Rutherford, Virnig (coPIs). Foley, Story, Murtaugh, Kurzer (co-Is)

XXII. **Kuzma, J. co-project leader** **ConsortiumUMN** **2012-2013** **$25,848**
Ethical Expectations for Social Robots: A Cross-Sector Exploration
Fatehi PI, Kelley co-project leader

XXIII. **Kuzma, J. PI** **UMN Grant in Aid** **2011-2012** **$35,357**
What Constitutes Risk Assessment for Emerging Technologies?
A Science of Science Policy Approach.
Kuzma (PI) Grant-in-Aid, University of Minnesota.

XXIV. **Kuzma, J. Institute on the Environment UMN** **2009-2012** **$60,000**
Resident Fellow: Collaborative Systems Modeling.

XXV. **Kuzma, J. Co-PI** **NSF** **2007-2013** **$3,086,497**
Risk Analysis for Introduced Species and Genotypes, Interdisciplinary Graduate Education and Research Training Grant (IGERT);
R Newman, S Galatowitsch, A Kapuscinski (co-PI until 2009), Jennifer **Kuzma** (co-PI since May 2009, co-Investigator from 2007-2009)), D Andow, and R Shaw.

XXVI. **Kuzma, J. co-PI,** **NSF** **2009-2013** **$3,364,997**

TRPGR: Precise Engineering of Plant Genomes using Zinc Finger Nucleases.
D Voytas (PI)

XXVII. **Kuzma, J. PI. Quick K. co-PI UMN Consortium 2011-2012 $27,500**
Public/Expert Boundary Work in Environmental Risk Management: The Emerald Ash Borer
Consortium on Law and Values in the Health, Environmental, and Life Sciences.

XXVIII. **Kuzma, J. Co-PI, NSF 2007-2011 $1,399,258**
Intuitive Toxicology and Public Engagement NSF NIRT Award SES-0709056
David Berube, North Carolina State University (PI), Dietram Scheufele, U of WI, Kevin Elliott, Univ. of South Carolina, Patrick Gehrke University of South Carolina , and Jennifer **Kuzma** (coPIs) (one graduate RA 25% time, 50% summer for 2 years, 2009-2011, and 4 weeks summer salary for 2 years)

XXIX. **Kuzma, J. Co-PI,. NSF 2006-2010 $1,181,720**
Assessing Oversight Mechanisms for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Social Context. NSF NIRT Award SES-0608791
Susan Wolf (PI) , Jennifer **Kuzma**, Jordan Paradise, Effie Kokkoli, Gurumurthy Ramachandran (co-PIs). (one graduate RA 25% time, 50% summer for 4 years, and 4 weeks summer salary for 4 years to HHH)

XXX. **Kuzma, J. Co-I, Minnesota Office of Education, MOE 2009-2010, $58,669**
Nanotechnology Education. (MN Office of Education)
Leslie Flynn (PI), Lee Penn, Frank Joseph, John Nelson, Baskar Dahal, Brandy Toner, Jeffrey Long, Chun Wang, Wei Zhang, Sashank Varma, Keisha Varma, Andreas Stein, Christy Haynes, Jennifer **Kuzma** (co-Investigators) (1% salary for one year)

XXXI. **Kuzma, J., Co-PI, IREE 2005-2008 $673,998**
Full cost accounting of Renewable Energy Systems.
Tilman, Polasky, Kulacki, Eidman, Tiffany (co-PIs) Large Grant.

XXXII. **Kuzma PI Consortium on Law and Values (UMN) 2005-2006 $11,612**
Agrifood nanotechology database and oversight

XXXIII. **Kuzma PI Consortium on Law and Values (UMN) 2005-2005 $21,000**
Nanotechnology-Biotechnology Interface: Exploring Models fo r Oversight. on Law and Values in Health, Environment, and the Life Sciences
Keller, Pui, and Talukder coPIs

XXXIV. **Kuzma PI Pew Initiative Emerging Nanotechnologies 2005-2006 $7864**
The Nano-Bio Interface: Applications in Food and Agriculture—An Exploration of Projects, Potential Risk and Benefit Issues, and Governance Models.

XXXV. **Kuzma, J., PI, BBAM 2008-2009 $10,000**
Systems Modeling Initiative (BioBusiness Alliance of Minnesota)
Steve Kelley (co-PI)

XXXVI. **Kuzma, J., coPI IREE 2004-2005 $38,506**
Full Cost Accounting of Renewable Energy Systems. (Initiative for Renewable Energy Systems)
Tilman, D., and N. Zetouni.

TEACHING, TRAINING , and ADVISING:

Team Advising

- Mentor for 8 PhD students from NSF-NRT AgBIOFEWs program on open source database project for crop diversity and genetic engineering. (2021) leading to peer-reviewed publication https://doi.org/10.3389/fbioe.2022.886765.
- Mentor for team of 9 Ph.D. students to participate in the policy and practices International Genetic Engineering Machines (iGEM) competition (2014) **Winner of Best Project in Policy and Practices.**
- Lead instructor and mentor for UMN-IGERT graduate student project (6 students), looking at a cross-national comparison of regulatory policy for GMOs. This project led to an **official publication of the United Nation's Convention on Biological Diversity.**[6]

Training

- MBTP Faculty Mentors: NIH Molecular Biotechnology Training Program (developed session on Responsible Innovation and Public Interest Technology) Spring 2021.
- Developed Social and Ethical Implications (SEI) training course for graduate students working with nanomaterials at the U of MN National Nanotechnology Infrastructure Network (NNIN) (2010-2013)
- Summer 2009, MRSEC-REU, Materials Research Science & Engineering Center, National Science Foundation, Research Experience for Undergraduates, Instructor for Ethics Session, June 22nd. Social Responsibility in Nanotechnology: Issues Raised by Advances in Nanotechnology
- Developed 4 day Training Course in "Responsible Innovation for Bioengineering". Taught May 2016 and May 2017 for interdisciplinary graduate students in GES-GPM-IGERT and Initiative for Maximizing Student Diversity. NSF CCE program.

Teaching grants

- **Kuzma**, J. European Studies Consortium UMN. $3000 Award to add European content to science and technology policy courses. Summer 2010.

Courses

NC State

- Spring 2025 and Fall 2024. PA 899 Dissertation Prep 2 students.
- Spring 2024 GES 591-004 *Special Topics in GES--Interdisciplinary Research Capstone*—3 cr
- Spring 2024 PA 552 *Science and Technology Policy* -3cr
- Fall 2023 GES 591-003 *Socioecological Systems and Modeling*-3 cr
- Fall 2022 PA 510 *Public Administration: Institutions and Values*—3cr
- Fall 2022 GES 591 *Genetic Engineering for Sustainable Crop Production*. Module on Risk Assessment and Regulation—0.5 cr (1/6th of 3 credit class).
- Fall 2022 NCSU 1st year Undergraduate Course, *Wicked Problems, Wicked Solutions: Future of Food* (one session)
- Fall 2021 GES 591-003 *Socioecological Systems and Modeling*-3 cr
- Spring 2021 PA 510 *Public Administration: Institutions and Values*-3 cr
- Spring 2021 GES 591--004 *Special Topics in GES--Interdisciplinary Research Capstone*—3 cr

[6] Shelby Flint, Thelma Heidel, Scott Loss, Jacob Osborne, Kristina Prescott, David Smith. Jennifer **Kuzma** and Dave Andow, faculty advisers. *Convention on Biological Diversity (CBD) Biosafety Technical Series 02: Summary and Comparative Analysis of Nine National Approaches to Ecological Risk Assessment of Living Modified Organisms in the Context of the Cartagena Protocol on Biosafety, Annex III.* (2012) http://bch.cbd.int/database/record.shtml?documentid=103869.

  - Co-advisor with Dr. Zachary Brown for NSF-NRT Agricultural Biotechnology in Food, Energy, and Water Systems student cohort interdisciplinary project.,
- Spring 2021 PA 780-001 *Independent Study*—3 cr, 1 student
- Fall 2020 GES 591-003 *Socioecological Systems and Modeling*-3 cr
- Spring 2020 PA 895 *Dissertation Research* 2 students
- Fall 2019 PA 510- *Public Administration: Institutions and Values*-3 cr
- Fall 2019 PA 895 *Dissertation Research*, 1 student
- Fall 2019 *GES Colloquium;* guest instructor 2 sessions
- Spring 2019, PA 895 *Dissertation Research*, 2 students
- Spring 2019, PA 899 *Dissertation Preparation*, 1 student
- Spring 2019, PA 835 *Readings and Research*, 1 student
- Fall 2018, PA 895 *Dissertation Research*, 3 students
- Fall 2016 to Spring 2017, PA 835 *Readings and Research*, 3 students
- Spring 2017, *Science and Technology Policy* PA 598/798 -3 cr
- Fall 2017 *Research Methods and Design,* PA 798 guest instructor
- Spring 2015, PA 507, *Public Policy Process Theory* 3 credits
- Spring 2016 PA 507, *Public Policy Process Theory* 3 credits
- Fall 2015, GES 591 , *Governance and Systems Modeling Approaches* 3 credits
- Spring 2014, GES 591 , *Governance and Systems Modeling Approaches* 3 credits
- Fall 2014 GES 591 , *Governance and Systems Modeling Approaches* 3 credits
- Fall 2014 PA 895 *Doctoral Dissertation Research*,
- Summer 2014, GES 591, *Pest Issues and Genetic Pest Management in Mexico* (3 credits)
- Spring 2014, PA 598/798, *Science and Technology Policy,* 3 credits
- Summer 2013, GES 591, *Rodents and Islands: Endangered Island Species*, guest instructor.

U of MN

- Spring 2013. PA 5731 *Emerging Technologies and Society*, 3 credits
- Spring 2007, 2008 PA 5711, *Science and Technology Policy*, 3 crs
- Fall 2008, 2009, 2010, 2011, 2012 PA 5711, *Science and Technology Policy,* 3 crs
- Spring 2008, 2009, 2010, 2012, 2013 PA 8082, *Technology Policy Research: Working Group*, 3 cr
- Spring 2012. PA 5741 *Risk Analysis and Public Policy*, 3 credits
- Spring 2012. PA 5490 *Gender and Public Policy,* (2 sessions of 3 credit class)
- Fall 2010, 2011 ST 8511 Master of Security Technologies *Public Policy*, 1 cr
- Fall & Spring 2004-2012, PA 8991, *Independent Study*, 3 credits (over 15 students)
- Fall 2008, 2009, 2010 PA 8790/Law 6037/BHTX 8000 *Nanotechnology Law, & Society,* 3 credits
- Summer 2010, 2011, 2012. ST 8330, *Critical Infrastructure Protection* (co-Instruct with 4 others)
- Fall 2009, ISG 8021, *Problem Solving Practicum in Risk Analysis*, 3 credits.
- Fall 2008, 2009 ISG 5010, *Risk Analysis for Introduced Species and Genotypes*, 3 credits
- Fall 2006, 2007 PA 8790, Topics*: Risk Analysis for Science and Technology Policy*, 3 credits.
- Spring 2006, PA 5711*, Science, Technology, and International Affairs,* 3 credits.
- Fall 2003, PA 5790, Topics in Science and Technology Policy: Genetic Engineering , 2 credits.
- Spring 2005, 2006, 2008, 2009, PA 8002, *Transforming Public Policy--"Science and Technology's Contributions to Public Policy*" (repeat Guest instructor)

NCSU Past and Current Advisees

NCSU Ph.D /MPA

1. Tina Ndoh (2013-2015), graduated spring 2015. Ph.D. Public Administration NCSU, (chair)

2. Teshanee Williams (2016-2019), graduated spring 2019. PhD Public Administration, NCSU (co-chair)
3. Jayce Sudweeks (2015-2019), graduated spring 2019. Ph.D. Public Administration, GPM-IGERT, NCSU (chair).
4. Sheron King (2014-2025), Ph.D. Public Administration, GPM-IGERT, NCSU, (co-chair)
5. Patricia Roberts (2016-2020) PhD. Candidate, graduated with MPA Public Administration (chair)
6. Katie Barnhill (2015-2018, graduated), Ph.D. Natural Resources, GPM-IGERT (member)
7. Rene Valdez (2015-2017, graduated) Ph.D. Natural Resources, GPM IGERT (member)
8. Nicole Gutzman (2015-2020) Ph.D. Entomology/Genetic Engineering and Society (member)
9. Jabeen Ahmad (2020-2024) PhD. Plant-Microbial Biology/AgBioFEWs (member)
10. Arden Hecate (formerly Andrew Hardwick) (2019-present), MPA/Ph.D. in Public Administration NC State (chair)
11. Christopher Gillespie (2022-2024), PhD in Soil Biology, GES minor, NC State (member)
12. Nick Loschin (2023-present), PhD in Applied Ecology, GES minor, NC State (member)
13. Liz Kreick (2024-present), PhD in Horticultural Sciences, NC State (member)

Duke University Masters of Science and Society (MA)

14. Ashlyn Saunders—(2015, MA graduate)
15. Navneet Sandhu—(2015, MA graduate)

U of MN Students

Ph.D. Committees

1. Aliya Kuzhabekova (Ph.D. Education Policy, committee member), graduated 2011.
2. Genya Dana (Ph.D., Conservation Biology, IGERT minor, committee member), graduated 2010.
3. Ron Millen, (Ph.D. Conservation Biology, committee member), graduated 2011.
4. Cortes, Rodrigo (Ph.D. Public Policy, Georgia Tech), graduated 2012.
5. Melissa Maurer-Jones (Ph.D. Chemistry, committee member) graduated 2012.
6. Ester McGinnis (Ph.D., Plant Biology, committee member), graduated 2012.
7. Adam Kokotovich (Ph.D. Natural Resources, IGERT minor, committee member), graduate 2014

Master's Paper Advisor & Chair

16. Courtney Blankenheim (MS 2013, paper & academic advisor), Clean Air Act and MN attainment. **Winner of the 2013 Lloyd B. Short Award for best professional or plan B paper)**
17. Kevin Marquart (MS 2013), Life cycle analysis and Nanomedicine.
18. Amanda Kabage (MS 2013) Genetics research and public participation
19. Joseph Dammel (MS-JD 2013), Space policy and public values mapping.
20. Kelsi Anderson (MS 2013), E-participation and effectiveness.
21. Whitney Place (MS 2013), Water quality and agricultural inputs.
22. Christopher Jones (MPP 2013), Systems view of health, green space, and poverty.
23. Megan Roberts (MS-STEP, 2012, academic advisor, Plan A paper adviser) Child labor on farms.
24. Jonathan Brown (MS, 2012, Plan A, paper advisor) Public attitudes towards nanofoods
25. Sarah Goodspeed (MS 2012, Plan B, paper advisor). Sustainable agriculture.
26. Rachel Haase (MS 2012, Plan B, paper advisor). Algal Biofuels and innovation systems **Winner of the U of MN New Directions in Environmental and Energy Law, Policy, and Geography Conference Student Paper Award)**
27. Mary Kemp (MS 2012, Plan B, paper advisor). Sustainable sourcing of palm oil.
28. Eric Barnett (MPP 2012,Professional paper, paper advisor). State counter-bioterrorism planning
29. Kenzie Consoer (MS 2012, Plan B, paper advisor). Risk governance and participation.
30. Christopher Jones (MPP 2012, Professional paper, paper advisor). Technology and health.
31. Brad Hagemeier (MPP 2012, professional paper, paper advisor). State conservation programs.

32. Anushke Guenerthe (MS 2012, plan B, paper advisor in working group). IT and reconciliation.
33. Scott Haugen (MS 2012, professional paper, paper advisor in working group). Asian Carp
34. Rylee Main & Brandon Helm (MS-MPP 2012 paper advisor in working group). Water governance.
35. Katie Wolf (MS 2011 Plan A, academic advisor), Comment and rulemaking for GM Crops
36. Maryam Valapour (MPP, 2011, academic and paper advisor), Organ allocation policy
37. Luke Hollenkamp (MS 2010, paper & academic advisor), Nanogeoengineering **Winner of the 2010 Lloyd B. Short Award for best professional or plan B paper)**
38. Aaron Cromwell (MS 2010, paper & academic advisor), Climate Action Planning
39. Youngbok Ryu (MS 2010, paper & academic advisor), State technological competitiveness
40. Roxanne Johnson (MS 2010, paper & academic advisor), Systems mapping nanoremediation
41. Todd Tanji (MS,2009 paper advisor, Plan A) Synthetic biology: policy problems
42. Robert Yawson (MS, 2009 paper advisor, Plan A) Nanotechnology and food: consumer issues
43. Dane McFarlane (MS 2009, paper advisor, Plan A) System dynamics for cap and trade programs.
44. Ethan Warner (MS 2009, paper advisor, Plan A) Life cycle analysis in a low carbon fuel standard.
45. Theresa Woods (MPA, 2009, independent study paper advisor) Conservation & decision making.
46. Joseph Goldman (MPA, 2009, independent study paper advisor) City waste policy and law.
47. Dave Walter (MPP-STEP, 2008, paper advisor, Plan B), Conservation, economics, and biology.
48. Adam Kokotovich, (MS 2008, paper advisor, Plan A), Public participation in nanotechnology.
49. Mahri Monson (MS 2008, paper advisor, Plan A). System dynamics and biofuels policy.
50. Bjorn Gangeness (MS 2008, paper advisor, Plan B). Cellulosic bioenergy.
51. Daniel Enderson (MS-2008, paper advisor, Plan B), Methylmercury exposure in the Hmong community. **Winner of the 2008 Lloyd B. Short Award for best professional or plan B papers**
52. Ben Coler (MS-JD 2008, paper advisor, Plan B), Intellectual property and DNA sequences.
53. Lesli Rawles, (MS-JD 2006, paper advisor, Plan B), Pre-implantation genetic diagnostics.
54. Darrell Gerber (MS 2006, paper advisor, Plan B), Full cost accounting of renewable energy
55. Kerri Elizabeth Sawyer (MS 2006, paper advisor, Plan B), Health disparities affecting children.
56. Margaret Jacot, (MS-JD 2006, paper advisor, Plan B), Medical technology and gender.
57. Peter Verhage (MS 2006, paper advisor, Plan B), Framework for nanotechnology governance.
58. Kana Talukder, (MS 2006, paper advisor, Plan B), Biosafety in India versus the U. S.
59. Joshua Paul Schenck, (MS 2005, paper advisor, Plan A), Methyl mercury health costs.
60. Genya Dana, (MS 2005, paper advisor, Plan B), Trade policy and GEOS.
61. Sara Bertelson (MS 2004, paper advisor, Plan B), Waste management policy.
62. Katie Theisen (MS 2004, paper advisor, Plan B), Waste management policy.
63. Anna Blitz (MS 2004, paper advisor, Plan B), Water resource management policy.

Academic Advisor or Committee Member

64. Kelsi Anderson (MS, 2011 academic advisor)
65. Clayton Parker (MPA, 2010 academic advisor)
66. Kelly Morgan-Wilder (MS 2011, academic advisor)
67. Melissa Books (MPA 2011, academic advisor)
68. Steven Schultz (MPA 2011, academic advisor)
69. William Bushey (MS 2011, academic advisor)
70. Daniel Lynch (MS 2011 academic advisor)
71. Laura Yerhot (MPP-STEP, 2010 academic advisor), Women in STEP.
72. Matthew Pham (MS, academic adviso & committee member 2010), biofuel economics
73. Melissa Constantine, (MS 2010 plan B), health policy
74. Stacey Miller (MS 2009, Plan B) , Solar energy potential and spot market pricing.
75. Sara Johnson Phillips (MS-JD 2009, Plan B), Carbon dioxide and the Clean Air Act.
76. Joel Larson (MPP-STEP,2009, Prof. Paper),State climate policy.
77. Andrew Gibbons (JD-MS, 2008 Plan B), Energy policy.

78. Melissa Pollak (MS 2008, Plan B) Carbon capture and sequestration.
79. Brenda M. Diethelm-Okita (MPA 2008).
80. Craig Nelson (MS 2007, Plan B) Renewable energy policies.
81. James Romanchek (MS 2007, Plan B) Chicago Climate Exchange.
82. Joe Plummer (MS 2007, Plan B), Demand-side energy management.
83. Laura Silver (MS 2007, Plan B), Chicago Climate Exchange.
84. Rane Gunderson (MS 2007, Plan B), Climate change and LDCs.
85. Rong Wu (MS 2006, Plan B), China and C-sequestration.
86. Tim Patronski, (MS 2005, Plan A), International regulatory frameworks for GE fish.
87. Lydia Dobrovolny, (MS 2005, Plan B), An analysis of Minnesota's E85 pilot project.
88. Michael Michaud (MS 2005, Plan A). Wind energy and its potential.
89. Kathryn Jones, (MS 2005, Plan B), Municipal water conservation.
90. Melanie Kleiss, (MS-JD 2004, Plan B) Environmental aspects of hybrid vehicles.
91. Todd Reubold (MS 2004, Plan B) MN Energy policy.

Research Assistants Supervised & Supported* with Grants

NCSU

1. Sheron King (2013-2017)* Ph.D.
2. Tina Ndoh (2013-2015)* Ph.D
3. J. Patrick Roberts (2014-2020)* Ph.D.
4. Mason Rizzo (2013)* MS
5. Lindsey Rawls (2015) MPA
6. Jack Ahern (2016) MPA
7. Betty Wiley (2017) MPA
8. Teshanee Williams (2017-2019)* PhD
9. Andrew Hardwick (2019-present)* MPA
10. Andrew Sowers (2020) MPA

U of MN

11. Karen Korslund MS (2013)*
12. Sarah Stephenson MS (2013)*
13. Anders Victor MS (2013)*
14. Megan Roberts MPP (2012-2013)
15. Patti Ross MPP (2012)*
16. Rachel Haase MS (2010-2012)*
17. Adam Kokotovich MS (2010-2012)*
18. Katie Wolf MS (2009-2011)*
19. Daniel Lynch MS (2009-2010)
20. Jonathan Brown MS (2009-2011)*
21. Roxanne Johnson MS (2009-2010)*
22. Robert Yawson MS (2009-2010)*
23. Laura Yerhot MPP-STEP (2008-2009)
24. Kelly Morgan MS (2008-2009)*
25. Aliya Kuzhabekova, Ph.D. Education Policy (2008-present)*
26. Mahri Monson MS (2006-2008)*
27. Joel Larson MPP-STEP (2007-2008)
28. Pouya Najmaie MS (2007-2008)*
29. Adam Kokotovich MS(2005-2007)*
30. James Romanchek MS (2006-2007)*
31. Peter VerHage MS (2005-2006)*
32. Darrell Gerber MS (2004-2006)*

33. Kana Talukder MS(2004-2005)*
34. Lydia Dobrovolny MS (2004-2005)*

Post-docs and Scholars supported/hosted

U of MN

33. Aliya Kuzhabekova, Ph.D. (2011- 2013)*
34. Leili Fatehi, J.D. (2011-2013)*
35. Jonathan Brown, MS (2012-2013)*

NCSU

36. Nourou Barry, PhD. (2025-present)
37. Kristen Landreville PhD. (2024-present)
38. Christopher Cummings Ph.D. (2013-2014)*, (2020-present)
39. Adam Kokotovich, Ph.D. (2019-2022)*
40. Khara Grieger, Ph.D. (2019-2020)*
41. Todd Kuiken, Ph.D. (2018-2021)*
42. Katie Barnhill-Dilling, Ph.D. (2021-present)*

SERVICE

- Council of Canadian Academies (CCA) Expert Member of Committee on Regulatory Framework for Gene Edited Organisms for Pest Control (2022-2024)
- United Nations Food and Agricultural Organization (UN FAO) Expert Committee on Gene Editing for Agrifood Systems (2022-2024)
- AAAS Advisory Committee for Path to Public Interest Technology - Building Institutional Infrastructure Initiative, AAAS Scientific Responsibility, Human Rights and Law Program (2022-present)
- International Risk Governance Council: Ensuring the environmental sustainability of emerging technologies (ESET) Case Study Author Committee (2022-2023)
- Societal Impacts and Engagement Committee for Engineering Research Centers (2023-present). National Science Foundation.
- NC State Public Administration Post-Tenure Review Committee (2024-2025)
- NC State Public Administration Search Committee Mattocks Professorship (2024)
- NC State Public Administration Post-Tenure Review Committee (2023-2024)
- NC State Public Administration PhD Admissions Committee (2021-2023)
- NC State Faculty Senate & Executive Committee (2021-2022)
- NC State Faculty Co-Chair of Personnel Policy Committee (2021-2022)
- National Academy of Science, Engineering and Medicine (NASEM) National Academy of Medicine Working Group of Committee on Emerging Science, Technology and Innovation (2021-2022)
- School of Public and International Affairs Executive Committee (2020-2021)
- NC State Research Leadership Academy, advises Office of VC for Research (2020-present)
- AAAS-UNESCO Consultative Group on Responsible Research and Innovation (2020-2021)
- Co-hosted and content advisor for the Keystone Policy Center October 13-15th CRISPRCon: Conversations on Science, Society, and the Future of Gene Editing—Risk Governance & Intersections of Safety and Equity. October 13-15, 2020.
- Advisory Board for NIH Center for Genomics and Society UNC-Chapel Hill grant on "Incidental Enhancements: Addressing a Neglected Policy Issue in Human Genome Editing" (2020-present)
- Content Advisor for the NIH-Gates Foundation GeneConvene Virtual Institute https://www.geneconvenevi.org/wp-login.php (2020-present)

- Member of the National Science Foundation (NSF) funded Research Coordination Network, Engage-in Innovations at the Nexus of Food, Energy, and Water Systems (INFEWs), University of Idaho. (2020-present)
- Review Editor: Ethical, Legal and Societal Implications for *Frontiers* Journals. (2020- present)
- NC State Advisory Board seats for our Center of Excellence for Regulatory Science in Agriculture (CERSA) (2020-present)
- NC State Strengthening University-Wide Interdisciplinary Strategic Planning Task Force, 2020.
- NC State Public Administration, post-tenure RPT committee (2017-present)
- Host and Co-Chair. An Evening with Margaret Atwood. Hosted event of 1100 people and VIP event of 100+, Student session of 90+ with world renowned author Margaret Atwood. November 15, 2019.
- AAAS-ABA National Council for Lawyers and Scientists (2019-2022)
- Interdisciplinary RPT Committee for NC State (2019)
- AAAS Section on Societal Implications of Science and Technology (X) Electorate Nominating Committee (2018-2022)
- Center for Science in the Public Interest, Advisory Board (2015-present)
- Hastings Center NSF project on "Gene Editing in the Wild" Advisory Group. (2018-2021)
- NCSU NSF-NRT Agricultural Biotechnology in Food, Energy, and Water Systems PhD minor executive committee, Curriculum Committee, Mentoring and Retention Committee (2018-present)
- NCSU University Faculty Senate (2016-2018, 2018-2022
- NCSU Governance and Personnel Policy Committee (2018-present)(chair from 2019-2020)
- NCSU Faculty Senate Executive Committee (2019-2020, 2021-2022)
- NCSU Honorary Degree Committee (2018-2022)
- NCSU CHASS T. Kretzer Distinguished Professor Search Committee (2019)
- U.S. National Academies NAS Committee on Future Biotechnology Products (2016-2017)
- World Economic Forum Global Futures Council on Technology, Values, and Policy (2016-2018)
- NCSU University Watauga Medal Selection Committee (2017-2018)
- Review panel for Genome Canada's Life Sciences Research Projects (2016)
- NSF proposal review for Science in Society program, March-April 2016.
- Hosted and organized international workshop on "Roadmap to Gene Drives" Feb 24-26, 2016. NCSU.
- NCSU Plant Sciences Initiative Workgroup on Education and Society (2016-2017)
- Office of Faculty Development, NCSU. Panelist for Faculty Development Training, Professor's community. "Talking to the Media" (January 14, 2016)
- Council for Agricultural Science and Technology (CAST) Taskforce on Gene Editing and Report Author (2015-2017)
- NCSU Chancellor's Budget Advisory Committee (2015-2017)
- American Association for the Advancement of Science (AAAS) Section X Committee, Societal Implications of Science and Engineering. (2015-present)
- Organized and Hosted International Workshop on Synthetic Biology Governance June 2014.
- Activity Development Team Activity Development Team. NSF Multi-site Public Engagement with Science-Synthetic Biology (MSPES). (2014-2017)
- Secretary and Council Member of Society for Risk Analysis (2014-2017)
- Program Committee, Annual Conference on Governance of Emerging Techologies: Policy, Ethics and Law, Arizona State University, 2013, 2014, 2015, 2016, 2017.
- National Academy of Sciences Committee on Future Biotechnology Products (2016-2017)
- World SRA Congress on Risk in Singapore International Program Committee 2015
- World Fair Expo 2015 USA Pavilion American Food 2.0 Advisory Board

- NCSU National Science Foundation IGERT Genetic Pest Management Faculty Executive Committee 2013- present
- NCSU CHASS Review of Promotion and Tenure Committee (2014-2016)
- NCSU SPIA S&T Policy Advisory Group 2013-2015
- NCSU CHASS Research Committee, 2013-2014.
- NCSU GES Center Executive Committee (2013-present)
- NCSU GPM-IGERT Executive Committee (2013-present)
- Co-organizer. Chancellor's Faculty Excellence Program Humans and Environment Panel. April 25, 2014 Event.
- Review Panel: Hemholtz Programme on "Technology, Innovation and Society" Karlsruhe, Germany, Feb 2014.
- U of MN Workshop host/organizer: Social Robotics and Governance April5, 2013.
- U of MN Workshop host/organizer: Targeted Genetic Modification and governance. June 7, 2013.
- NSF site review team for SYNBERC (synthetic biology engineering research center), March 2013.
- Consortium on Law and Values in the Health, Environment, and Life Sciences Director Search Committee, Spring 2013.
- Faculty Steering Committee, U of MN Food Policy Research Center (2012-2013).
- FDA Blood Products Advisory Committee (2011 to 2014)
- Society for Risk Analysis, 2012 Annual Meeting Program Committee and Chair of Risk Policy and Law Subgroup.
- Reviewer for FDA risk assessment of BSE (May 2012)
- Humphrey School Ph.D. Committee (Fall 2011-2012)
- Denny Search Committee Humphrey School (2011-2012)
- Humphrey School Ad Hoc Working Group for Faculty Seminar Series (2012)
- Admissions Committee Humphrey School (2011-2013)
- Reviewer of National Academies/National Research Council report on Research for Environmental Implications of Nanomaterials (2011)
- U of MN General Research Advisory Committee, GIA proposal review (2011-present)
- Reviewer IFPRI Policy Brief (2011)
- Advisor to the Nanoscale Informal Science Education Network (NISE Net), Science Museum of Minnesota (2011-present)
- International Society for the Study of Nanoscience and Emerging Technologies Annual Meeting Program Committee (2011)
- ASU-NSF Project "Pacing Law & Ethics with Science & Technology" Adviser & Workshop Planning Team (2011-2015)
- Minnesota Department of Health's (MDH) Communication, Outreach, and Education Task Group for the Drinking Water Contaminants of Emerging Concern (CEC) (2010-present)
- Center for Nanotechnology in Society at Arizona State University, Board of Visitors (2010-2015)
- U of M, Committee for Preparation of Nanotechnology Report for State Legislature (2010-2011)
- U of M, Humphrey Institute, Senior Fellows Merit Review Committee (2009-2010)
- Reviewer for National Science Foundation (NSF) Science and Society Grants (Spring 2010, Fall 2010, Spring 2011)
- Advisory Board of USDA "Sustainable Pathways to Achieving Biofuel Policy Goals" Project (S. Suh, PI; award number: 2009-10001-05108) (2010-2012)
- Secretary and Treasurer, Risk Policy and Law Subgroup, Society for Risk Analysis, (2009-2010)
- Member Expert Group for European Commission Science, Economy and Society Directorate, 2011 Work Programme (2009)
- Board Member, Social and Ethical Issues (SEI) Advisory Board of the National Nanotechnology Infrastructure Network (NNIN) (2009 to 2011)
- U of M, Affiliate Faculty and Advisory Board, NorthStar Initiative for Sustainable Enterprise at the Institute on the Environment (2009-2011)
- U of M, Humphrey Institute, Lloyd B. Short Award Committee (2009)

- U of M, Social and Ethical Implications Point Person for U of M National Nanotechnology Infrastructure Network (2008-2012)
- Uof MN, Area Chair, Science, Technology, Environmental Policy, Humphrey Institute (2007-2009)
- MS degree program head, Humphrey Institute (2006-2009)
- U of M, Search Committee, Associate Director of the Initiative for Renewable Energy and the Environment (2008)
- U of M Interdisciplinary Graduate Education and Training (NSF-IGERT), Risk Analysis for Introduced Species and Genotypes, Curriculum Committee (2007-2009), Admissions Committee (2009-2010), Chair of Travel Committee (2010-2011), and Executive Council (2009-2013)
- U of M Institute on the Environment's Discovery Grants for Biofuels Review Panel (2007)
- Science Museum of Minnesota. Nanoforum Advisory Committee (March 2007-2008)
- U of M Humphrey Curriculum Committee, Humphrey Institute (2004-2009).
- U of M Humphrey Ph.D. exploratory committee (2007-2008)
- U of M Humphrey Institute Executive Council (2007-2008)
- U of M Humphrey Denny Search Committee (2006-2007, 2007-2008)
- U of M Initiative on Renewable Energy and the Environment (IREE) Working Group, University of MN (2003-2008)
- U of M Consortium on Law and Values in the Health, Life, and Environmental Sciences, University of MN (2005-2007), Member and Executive Committee (2005-2006)
- BioBusiness Alliance of MN—Board of Directors, Secretary, and Chairperson of the Legislative Group (2005-2008)
- U of M Steering Committee of the Ecosystem Science and Sustainability Initiative—U of M (2005-2006)
- Agricultural Funding Consortium of Canada, nanotechnology grants review panel, January 2007
- U of M Faculty Steering Committee for the President's Initiative on the Environment and Renewable Energy (2005-2006)
- U of M Chicago Climate Change Membership Exploratory Committee (2004)
- U of M Humphrey Institute Search Committee for STEP faculty (2003-2004, 2004-2005)
- U of M Conservation Biology Forest Resource Policy Search Committee (2004-2005)
- Governor's (MN) Biosciences Advisory Committee (2003-2005)
- Upper Midwest Hydrogen Initiative Planning Group (2003-2005)
- FBI Scientific Working Group on Microbial Genomics and Forensics (2002)
- Private and Public Scientific Academic and Consumer Food Policy Group (PAPSAC), Harvard Business School (2000)
- Member of the AAAS Fellowship Selection Committee: March 1999, 2000, and 2001. Reviewed applications for the AAAS Risk Assessment Science Policy Fellowship; interviewed and help rank the nominees.
- Invited panelist for USDA Biotechnology Special Grants: April 2000. Reviewed research grants related to agricultural biotechnology.
- Escherichia coli 0157:H7 Risk Assessment Team (1998-2000)
- Society for Risk Analysis Food and Water Specialty Group (1997-1999)
- National Food Safety Research Conference, organizing committee (1998)
- Interagency Food Risk Assessment Group, chairperson (1997-1998)

SELECT JOURNAL SERVICE

- Editorial Board of *ELSI in Science and Genetics* as Review Editor for *Frontiers in Genetics, Frontiers in Bioengineering and Biotechnology, Frontiers in Pharmacology* and *Frontiers in Sociology (2020-present)*
- *Reviewer for BMC Medicine (2020)*
- Reviewer for *Research Policy* (2019, 2020)

- Reviewer for *Science* (2019)
- *Reviewer for Regulation and Governance (2019)*
- *Reviewer for Environment International (2019)*
- Reviewer for *Pathogens and Global Health* (2018)
- Reviewer for *International Journal of Food Science and Technology* (2015)
- Reviewer for *Food Policy* (2015)
- Reviewer for *Journal of Responsible Innovation (*2014, 2019)
- Reviewer for *Futures* (2014)
- Editorial Board, *International Journal for Green Nanotechnology* (2008-2012)
- Faculty Editorial Board *Minnesota Journal of Law, Science, and Technology* (2008-2013)
- Reviewer for *Technological Forecasting and Social Change* (2012, 2013)
- Reviewer for *Environmental Science & Technology* (2011)
- Reviewer for *Journal of Innovation and Regional Development* (2010)
- Reviewer for *Emerging Health Threats Journal* (2010)
- Reviewer for *Trends in Biotechnology* (2010)
- Reviewer for *Science* (2010)
- Reviewer for *Studies in Ethics, Law, and Technology* (2010)
- Reviewer for *Science Communication* (2009, 2010)
- Reviewer for *Risk Analysis* (2008, 2009, 2010, 2011, 2012, 2013, 2014)
- Reviewer for *Journal of Nanoparticle Research* (2007, 2008, 2010, 2012, 2013, 2016)
- Reviewer for *Environmental Biosafety Research* (2007)
- Reviewer for *Review of Policy Research* (2008)
- Reviewer for *Science and Public Policy* (2008, 2010)
- Reviewer for *The Handbook of Technology Management* (2008)
- Reviewer for *Regulation and Governance* (2008, 2012)
- Reviewer for *Public Understanding of Science* (2008)
- Reviewer for *Nanoethics* (2008, 2009, 2010)
- Reviewer for *CABI Reviews* (2009)
- Reviewer for *World Patent Information* (2010)
- Reviewer for *African Journal of Agricultural Research* (2012)
- Reviewer for *PLOSOne* (2013)

SOCIETY MEMBERSHIP & LEADERSHIP:

- National Academy of Science, Engineering and Medicine (NASEM) National Academy of Medicine Working Group of Committee on Emerging Science, Technology and Innovation (2021-2022)
- AAAS-ABA National Council for Scientists and Lawyers. (2019-2021)
- AAAS-UNESCO Consultative Group on Responsible Research and Innovation (2020-2021)
- American Association for the Advancement of Science (AAAS) Section X Committee liaison, Societal Implications of Science and Engineering. (2015-2018); Officer on Electorate Nomination Committee (2018-2022)
- Council on Agricultural Science and Technology, Task Force Member and Author for Gene Drives (2015-2017)
- Secretary and Council Member of Society for Risk Analysis (2014-2017)
- World SRA Congress on Risk in Singapore International Program Committee 2015
- Planning Committee of the 1st , 2nd , 3rd Annual Conference on Governance of Emerging Technologies (2013, 2014, 2015, 2016, 2017), Arizona State University.

- Gordon Research Conference on Science and Technology Policy (Vice-Chair 2010-2012, chair 2012-2014)
- Society for the Study of Nanoscience and Emerging Technologies (S-NET) (Executive Committee 2008-2010)
- American Association for the Advancement of Science (member)
- Society for Risk Analysis (member, member of Decision Analysis and Risk, Law and Policy, and Emerging Nanoscience subgroups; Secretary-Treasurer of Risk Law and Policy subgroup 2009-2010, chair elect 2010-2011, chair 2011-2012).
- American Political Science Association, Associate Member (Science, Technology and Environmental Politics Section) (2008-2010)
- Association for Public Policy Analysis and Management (member 2008-2009)
- System Dynamics Society (member 2007-2008)
- Society for the Social Studies of Science, (member 2019-present)

PROFESSIONAL EXPERIENCE:

1999-2003 **--Study Director, Program Director, and Senior Program Officer, National Academy of Sciences, National Research Council, Washington, DC**

--served as study director for the NRC reports on Genetically Modified Pest-Protected Plants: Science and Regulation (2000), Countering Agricultural Bioterrorism (2002), and Indicators for Waterborne Pathogens (2004).

--served as Senior Program Officer on several NRC projects in biotechnology and bioterrorism, including Making the Nation Safer: the Role of Science and Technology in Countering Terrorism (2002) and Ecological Monitoring for Genetically Modified Crops (2001).

--served as 1) Program Director for the standing Committee on Agricultural Biotechnology, Health and the Environment, which oversaw several projects focusing on scientific and science policy issues associated with transgenic organisms used in agriculture and in food and fiber production, 2) Study Director for Indicators for Waterborne Pathogens, and 3) Senior Program Officer for Research Standards to Prevent the Dangerous Misuse of Biotechnology; Acquistion of Medical Countermeasures for Bioterrorism; Process to Identify and Assess the Unintended Health Effects of Genetically Engineered Foods; and Bioconfinement of Genetically Engineered Organisms.

--Managed a portfolio of projects with over $1 million budget. Responsible for all phases and aspects: outreach and communication with stakeholders from government, industry, academe and the NGO communities; proposal development; fund-raising; budgeting; keeping abreast of the latest technical developments; science-policy research; report writing and editing; study dissemination; workshop planning; guiding committee members through the consensus process; contact with project sponsors; and oversight of project staff.

10/99-12/99 **--Consultant for the Risk Science Institute of the International Life Sciences Institute, Washington, DC**

--helped revise and redraft microbial risk assessment framework for waterborne pathogens

9/98-12/98 **--Program Specialist in Plant and Animal Systems at the Cooperative State Research, Education and Extension Service of the USDA. Washington, DC**

--coordination & review of food safety and other special research grants
--organization of national food safety conference
--participation on drafting team for interagency report on food safety

9/97-9/98 **--AAAS Risk Assessment Science Policy Fellowship at the USDA, Washington, DC**

--microbial risk assessment and the role of risk assessment in policy and decision-making
--coordination of interagency risk assessment working group for E. coli 0157:H7 in beef and hamburger
--coordination of USDA Bovine Spongiform Encephalopathy (BSE) activities
--participation in several risk analysis training activities

10/95-8/97 -- **Research Fellow: plant molecular biology, The Rockefeller University, New York City.**

--Dr. Nam Hai-Chua, mentor
--identification of signal transduction intermediates during plant responses to cold, drought and salinity

6/91-8/95 -- **Ph.D. thesis: environmental biochemistry, University of Colorado.**

--Dr. Ray Fall, mentor
--purification of novel plant enzyme
--discovery of bacterial isoprene emission
-- regulation of novel enzymes/genes

9/93-12/94 **--Teaching activities at University of Colorado, Boulder**

--instructor for general chemistry lab and lecture
--tutor and guest lecturer for biochemistry course

8/90-5/91 **--Research assistant projects at University of Colorado, Boulder**

--microbial degradation of pentachlorophenol
--enzymology of DNA polymerase/primase
--regulation of bacterial ice nucleation proteins

6/89-1/90 **--Undergraduate research projects, St. Paul, MN**

--role of ras p21 during liver cell regeneration
--NSF project: isolation of B_{12} biosynthetic genes from bacteria

5/88-9/88 **--Field biology researcher for Metropolitan Mosquito Control, Mpls., MN**

--correlation of mosquito stage of development to water and vegetation

5/87-9/87 **--Technical aide at 3M Company in St. Paul, MN**

--chemical analysis of magnetic media

SELECTED PROFESSIONAL COURSEWORK & TRAINING

- Faculty LEAD (leadership training) program (2020-2021)
- Diversity, Equity and Inclusion Certificate NCSU 2020
- Using R (for statistics) NCSU 2019.
- Supervisory Training NCSU 2013.
- Mid-Career Women's Faculty Group, Center for Teaching and Learning, U of MN, 2011-2012
- Vantage Point (scientometric analysis software) Training, Atlanta, GA, Sept. 2011.
- Adolf Leopold Leadership Training, Institute on the Environment, August 2010.
- System Dynamics Workshop: George Richardson, hosted by Center for Science, Technology, and Public Policy and Biobusiness Alliance of MN. April (2008).
- System Dynamics Workshop Courses: Getting started with Ven Sim, Dynamic Experiments for a First Course, and Lessons for a First Course. System Dynamics Society workshop (2007)
- Center for Teaching and Learning: Active Lectures, Powerpoint Reconsidered, and Course Design (2007)
- Early Career Teaching Program, U of M (Fall 2007)
- Responsible Conduct of Research, U of M (2007)
- Supervisory Training, National Academies Staff Development, October 2002.
- Quantitative Risk Assessment Modeling, USDA Graduate School, April 1998.
- BSE Risk Communication Training, Focus Group, Inc., Washington DC, March/April 1998.
- Microbial Risks from Food: Quantification and Characterization, Society for Risk Analysis, December 1997.
- Introduction to Risk Assessment, USDA/FDA Graduate School Course, October 1997.