

**Jennifer Kuzma, Ph.D.**

Goodnight-NC GSK Foundation Distinguished Professor  
School of Public and International Affairs,  
North Carolina State University  
Campus Box 7565  
Raleigh, NC 27695-7565

651-247-6435

[jenniferkuzma0@gmail.com](mailto:jenniferkuzma0@gmail.com); [jkuzma@ncsu.edu](mailto:jkuzma@ncsu.edu)

**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**, School of Public and International Affairs, College of Humanities and Social Sciences, NC State University
- 2013-present **Co-Founder & Co-Director, Genetic Engineering and Society Center**, NC State University
- 2013-present, **Genetic Engineering and Society Ph.D. Minor Executive Committee**, NSF-IGERT and GES minor, NC State
- 2017-present, **NC State Faculty Senator**, Faculty Senate Executive Committee (2019-2020)
- 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:**

- Alumni Association Outstanding Research Faculty Award-NC State (2020)
- Research Leadership Academy (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-present)
- Canada Fulbright Research Chair in Science and Society, 2017-2018 (U of Ottawa)
- AAAS-UNESCO Consultative Group on Responsible Research and Innovation (2020-present)
- Elected Officer of AAAS Section X Societal Implications of Science and Eng (2018-present)
- 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)

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## PUBLICATIONS<sup>1</sup>

### Journal Articles & Peer-reviewed/Edited Book Chapters

- 1) **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*  
<https://doi.org/10.3389/fpos.2021.677003>.
- 2) 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.
- 3) 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*)
- 4) **Kuzma J.** and K. Grieger. (2020). Community-led governance for gene-edited crops. *Science* 370(6519): 916-918.
- 5) 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.
- 6) **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.
- 7) **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](https://link.springer.com/chapter/10.1007/978-3-030-53183-6_17) (peer reviewed and edited)
- 8) **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>.
- 9) **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>
- 10) 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>
- 11) **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).
- 12) **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.

- 13) 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
- 14) 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
- 15) 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.
- 16) 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.
- 17) **Kuzma J.** (2019). Governance of genetically engineered animals in the wild: A need for procedurally-robust risk analysis. *Regulation and Governance* DOI:10.1111/rego.12245
- 18) 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.
- 19) **Kuzma J.** (2018). Regulating Gene Edited Crops. *Issues in Science & Technology* 35(1): 80-85.
- 20) **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.
- 21) 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
- 22) Linkov, I., Trump BD, Anklam E, Berube D, Boisseau 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>.
- 23) **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.
- 24) 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.
- 25) 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.
- 26) 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.
- 27) 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.
- 28) 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.
- 29) **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.
- 30) **Kuzma, J.** (2017). Trails and Trials in Biotechnology Policy. Pp 85-95 In *Women in Sustainable Agriculture and Food Biotechnology* Ed. L. Privalle. Springer.



- 31) **Kuzma J.** (2017). “Risk, Environmental Governance, and Emerging Biotechnology” In *Environmental Governance Reconsidered: Challenges, Choices, and Opportunities*, 2<sup>nd</sup> edition. Eds. R. Durant, DJ Fiorino, and R O’Leary. MIT Press <https://mitpress.mit.edu/books/environmental-governance-reconsidered-0>
- 32) **Kuzma J.** (2017). Forum: Biosecurity Governance for a Realistic New World. *Issues in Science and Technology* 33: (2).
- 33) 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.
- 34) **Kuzma J.** (2016). A Missed Opportunity for Biotech Regulation. *Science* 353: 1211-1213.
- 35) **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.
- 36) **Kuzma, J.** (2016). Rebooting the Debate about Genetic Engineering. *Nature* 531: 165-167.
- 37) **Kuzma, J.** and J.P. Roberts. (2016) Is Adaptation or Transformation Needed ? : Active Nanomaterials and Risk Analysis. *Journal of Nanoparticle Research* 18(7), 215-
- 38) **Kuzma J.,** A. Kokotovich, and A. Kuzhabekova. (2016). Attitudes Towards Governance of Gene Editing. *Asian Biotechnology Development Review* 18(1): 69-92.
- 39) **Kuzma J.** (2015) Technology Governance Alternatives. *Issues in Science and Technology* 32(1): 10-11
- 40) 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.
- 41) Brown, J, Fatehi, L, and **J. Kuzma.** (2015) Altruism and Skepticism in public attitudes toward food nanotechnology. *Journal of Nanoparticle Research* 17:122-140.
- 42) **Kuzma, J.** (2015) Translational Governance Research for Synthetic Biology. *Journal of Responsible Innovation* 2(1): 109-112.
- 43) 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
- 44) 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.
- 45) Weiss Evans, S. ....**Kuzma J.** (one of 20 co-authors) Synthetic Biology: Missing the Point. *Nature* 510: 218 (2014)
- 46) **Kuzma, J.** (2014) “Properly Paced or Problematic?: Examining Governance of GMOs” in *Innovative Governance Models for Emerging Technologies* Editors Gary Marchant, Kenneth Abbott and Braden Allenby. Edward Elgar (editorial peer review)
- 47) Kuzhabekova, A. and **J. Kuzma** (2014) Mapping the Emerging Field of Genome Editing. *Technology Analysis and Strategic Management* 26(3): 321-352.
- 48) Gilna, B., **Kuzma J.,** and Showalter, S. (2014) “Governance for Genetic Biocontrol Technologies for Invasive Species.” *Biological Invasions* 16(6): 1299-1332.
- 49) Haase, R., J. Bielicki, and **J. Kuzma.** (2013) Innovation in Emerging Energy Technologies: A case study analysis to inform the path forward for algal biofuels. *Energy Policy*, 61:1595–1607
- 50) Brown, J., and **J. Kuzma.** (2013) “Hungry for Information: Public Attitudes toward Food Nanotechnology and Labeling” *Review of Policy Research* 30: 512-548.
- 51) Korslund, K., Stephenson, S., Victor, A., Laird, A., and **J. Kuzma.** (2013) Consumer Knowledge of Genetically Engineered Organisms (GEOs). *Journal of Science Policy and Governance* 3(1): 1-39.
- 52) **Kuzma, J.** (2013). “Envisioning Future Governance of the Bioeconomy” *The Environmental Forum* 30(3): 49. (edited)

- 53) **Kuzma, J.** Should Citizens Have a Say About Emerging Technologies? (2013) Scholar's Strategy Network, Policy Brief. Available at <http://www.scholarsstrategynetwork.org/>. (peer-reviewed & edited)
- 54) **L. Fatehi** and **Kuzma, J.** (2012) "Policy Innovation in Synthetic Biology Governance" *21st Century Borders/Synthetic Biology: Focus on Responsibility & Governance*, Institute on Science for Global Policy (ISGP). (peer-reviewed)
- 55) **Kuzma, J.** and **Kuzhabekova, A.** (2011) "Corporate Social Responsibility for Nanotechnology Oversight" *Medicine, Health Care, and Philosophy* 14(4): 407-419.
- 56) **Kuzma, J.,** and **Kokotovich, A.** (2011). "Renegotiating GM Crop Regulation" *EMBO Reports* 12: 883 – 888.
- 57) **Fatehi, L.**, Wolf, S., Ramachandran, G. and **J. Kuzma.** (2011). "Designing Nanobiotechnology Oversight". *Journal of Nanoparticle Research* 13(4): 1341-1343.
- 58) Ramachandran, G. Wolf, S. Paradise, J., **Kuzma, J.,** Hall, R., and **L. Fatehi.** (2011) "Dynamic Oversight for Nanobiotechnology" *Journal of Nanoparticle Research* 13(4): 1345-1371.
- 59) **Kuzma, J.** and **Kuzhabekova, A.** (2011) Nanotech oversight, voluntary data submission, and corporate social performance: Does company size matter?" *Journal of Nanoparticle Research* 13(4): 1499-1512.
- 60) **Kuzma J.** (2011) "Fritz Allhoff, Patrick Lin, and Daniel Moore. What is Nanotechnology and Why Does it Matter?: From Science to Ethics". *Journal of Bioethical Inquiry* 8: 209-211.
- 61) Meghani, Z. and **J. Kuzma.** (2011). The "Revolving Door" between Regulatory Agencies and Industry: A Problem That Requires Reconceptualizing Objectivity" *Journal of Agricultural and Environmental Ethics*: 24 (6) 575-599.
- 62) **Kuzma, J.** "Nanotechnology Governance and Publics: Making Connections in Policy" in *Nanotechnology and the Public Sphere*. Ed Susanna Priest. Taylor & Francis (2011).
- 63) **Kuzma, J.** and S. Priest. "Nanotechnology, Risk and Oversight: Learning Lessons from Related Emerging Technologies," *Risk Analysis* 30(11): 1688-1698 (2010).
- 64) **Kuzma, J., Kuzhabekova, A.,** Priest, S., and **L. Yerhot.** "Expert Opinion of Emerging Technologies Oversight: Lessons for Nanotechnology from Biotechnology" p. 133-156 *Understanding Nanotechnology: Philosophy, Policy, and Publics*. Ed. Fieldeler, et al. IOS Press: Amsterdam (2010) (peer-reviewed volume)
- 65) **Yawson, R.** and **J. Kuzma.** "Systems mapping of consumer acceptance of agrifood nanotechnology" *Journal of Consumer Policy* 33 (4): 299- 322 (2010).
- 66) **Kuzma, J.** and **R. L. Johnson.** "Nanotechnology: Environmental Benefits," *Encyclopedia of Nanoscience and Society* Ed. David Guston, SAGE Publications (2010) (edited volume)
- 67) **Kuzma, J.** and **T. Tanji,** "Unpacking Synthetic Biology for Oversight Policy" *Regulation & Governance* 4: 92-112 (2010).
- 68) **Kuzma, J.** "Multi-criteria decision making for studying nanotechnology & society," *Encyclopedia of Nanoscience and Society* Ed. David Guston, SAGE Publications (2010) (edited volume)
- 69) **Kuzma, J.** "Nanotechnology in Animal Production: Upstream Assessment of Applications". *Livestock Science* 130: 14-24 (2010).
- 70) **Kuzma, J.** "Nanotechnology: Piecing Together the Puzzle of Risk". *Current Controversies in Science and Technology*, Volume III; Eds. D. Kleinman et al (2010).
- 71) **Kuzma, J.** "Nanotechnology Regulation and Oversight" In *Encyclopedia of Science and Technology Communication*. Ed. Susanna Priest. SAGE Publications (2010) (edited volume)
- 72) **Kuzma J.** and Z. Meghani . "A possible change in the U.S. risk -based decision making for emerging technological products: Compromised or enhanced objectivity?" *EMBO Reports* 10: 1-6 (2009).
- 73) **Kuzma, J.** and **Kuzhabekova, A., Wilder, K.** "Improving Oversight of Genetically Engineered Organisms" *Policy & Society* 28: 279-299 (2009).
- 74) Paradise, J., S.M.Wolf, **J. Kuzma,** G. Ramachandran, and E. Kokkoli. "Introduction: The Challenge of Developing Oversight Approaches to Nanobiotechnology," *Journal of Law Medicine and Ethics* 37(4): 543-545 (2009).

- 75) Paradise, J., Wolf, S., **Kuzma, J.**, Kuzhabekova, A., Wedekind, A., Kokkoli, E., and G. Ramachandran. "Developing Oversight Strategies for Nanobiotechnology: Learning from Past Oversight Experiences." *Journal of Law, Medicine, and Ethics* 37 (4): 688-705 (2009)
- 76) **Kuzma, J.** Larson, J. and P. Najmaie. "Evaluating Oversight Systems for Emerging Technologies: A Case Study of Genetically Engineered Organisms," *Journal of Law Medicine and Ethics* 37 (4): 546-586 (2009).
- 77) **Kuzma, J.** "Biotechnology: Technology and Future, Prosperity and Risks", pp. 523-531. in *A Companion to the Philosophy of Technology*, Ed. Berg, Oslen, Pedersen, and Hendricks. Wiley-Blackwell Publishing 2009 (peer-reviewed, edited volume)
- 78) **Kuzma, J.** "Global Challenges: Technology and Future, Prosperity and Risks", pp. 538-545, in *A Companion to the Philosophy of Technology*, Ed. Berg, Oslen, Pedersen, and Hendricks. Wiley-Blackwell Publishing. 2009 (peer reviewed, edited volume).
- 79) **Kuzma, J.**, Paradise, J., Kim, J., Kokotovich, A., G. Ramachandran, and Wolf, S.. "Integrated Oversight Assessment: A Historical Case Study and Multicriteria Approach" *Risk Analysis* 28(5): 1179-1195 (2008).
- 80) **Kuzma, J.** and J.C. Besley. "Ethics of Risk Analysis and Regulatory Review: From Bio- to Nanotechnology," *Nanoethics* 2(2): 149-162 (2008).
- 81) **Kuzma, J.** Romancheck, J. and A. Kokotovich "Upstream Oversight Assessment for Agrifood Nanotechnology." *Risk Analysis* 28(4): 1081-1098 (2008).
- 82) Talukder, K. and **J. Kuzma.** "A multi-perspective analysis for regulatory policy for Bt cotton in India as a case study". *Science and Public Policy* 35(2): 121-138.(2008).
- 83) Paradise, J., Wolf, S., Ramachandran, G., Kokkoli, E., Hall, R., and **J. Kuzma.** "Developing Oversight Frameworks for Nanobiotechnology," *MN Journal of Law, Science, and Technology* 9 (1): 399-416 (2008).
- 84) **Kuzma, J.** "Nanotechnology, Ethics and the Environment" in *Encyclopedia of Environmental Ethics and Philosophy*. pp. 80-83. Eds. J. Baird Callicott and Robert Frodeman. Macmillian Publishers. (2008). (peer reviewed, edited volume)
- 85) **Kuzma, J.** "FDA, the Environment and Ethics" in *Encyclopedia of Environmental Ethics and Philosophy*. pp. 359-360. Eds. J. Baird Callicott and Robert Frodeman. Macmillian Publishers. (2008). (peer reviewed, edited volume)
- 86) **Kuzma, J.** "Moving Forward Responsibly: Oversight for the Nanotechnology-Biology Interface," *Journal of Nanoparticle Research*, 9:165-182 (2007).
- 87) **Kuzma, J.** "Moving Forward Responsibly: Oversight for the Nanotechnology-Biology Interface," in *Nanotechnology and Occupational Health*, A. pp. 165-182. Maynard & D. Pui Eds. Dordrecht, Netherlands: Springer. 2007. (reprint of Journal of Nanoparticle article)
- 88) **Kuzma, J.** "Nanotechnology Oversight: Just do it" *Environmental Law Reporter* 36:10913-10920 (2006).
- 89) **Kuzma, J.** and A. Ahl. "Living with Bovine Spongiform Encephalopathy." *Risk Analysis* 26:585-588 (2006).
- 90) Moon, HW, Baer, C.K, Ascher, M. Cook, R.J, Franz, D., Hoy, M, Husnik, D.F., Jensen, H.H., Keller, K.H., Lederberg, J., Madden, L.V., Powers, L.S., Steinberg, A.D., Strating, A., Smith, R.E., **Kuzma, J.**, Grossblatt, N., Holliday, L., Sweatt, D., and S. Strongin. "U.S. agriculture is vulnerable to bioterrorism." *Journal of Veterinary Medicine Education* 30(2): 96-104 (2003).
- 91) **Kuzma, J.** "Report of the Lignin Modification Group." In *Criteria for Field Testing Plants with Engineered Regulatory, Metabolic and Signaling Pathways*. Pp. Wolfenbarger, L. ed. Information Systems for Biotechnology. 2002.
- 92) Ahl, A. and **J. Kuzma.** "Microbes, Food Safety and the Environment: Issues in Risk Analysis." *Technology* 6: 363-369 (1999).
- 93) Meekhof, R., **Kuzma, J.**, Mauriello, D., Osborn, T., Powell, M., Rice, C., and S. Shafer. (1998). "Adaptive Risk Analysis for Resource Conservation Programs." *Proceedings of Risk Based*

- Decision Making in Water Resources VII*: 172-186, Editors, Yacov Y. Haimes David A. Moser (Editor), Eugene Z. Stakhiv. American Society of Civil Engineering.
- 94) Wu, Y., **Kuzma, J.**, Marechal, E., Graeff, R., Lee, H.C. and Chua, N-H. "Abscisic Acid Signaling Through Cyclic ADP-Ribose in Plants" *Science* 278: 2126-2130. (1997).
- 95) **Kuzma, J.**, Nemecek-Marshall, M., Pollock, W., and R. Fall. "Bacteria Produce the Volatile Hydrocarbon Isoprene" *Current Microbiology* 30: 97 (1995).
- 96) Nemecek-Marshall, M., Wojciechowski, C., **Kuzma, J.**, Silver, G., and R. Fall. "Marine Vibrio Species Produce the Volatile Organic Compound Acetone" *Applied and Environmental Microbiology* 61: 44 (1995).
- 97) **Kuzma, J.** and R. Fall. "Leaf Isoprene Emission Rate Is Dependent on Leaf Development and the Level of Isoprene Synthase" *Plant Physiology* 101: 435 (1993)

**Journal articles/reports in review or under revision**

- 98) **Kuzma J.** (2021). Deficits of Public Deliberation in U.S. Oversight for Gene-Edited Organisms *The Hastings Center Report* (under review).
- 99) Williams, T. and **J.Kuzma** (2021). Cultural Narratives: Narrative Strategies, Policy Stance, and Uptake in Canadian Governance of GM Salmon. *Public Policy & Administration* (under review)
- 100) **Kuzma J.** (2021). Governance of Gene-Edited Plants: Insights from the History of Biotechnology Oversight and Policy Process Theory. *Science, Technology and Human Values* (under review).
- 101) Kokotovich, A., **Kuzma J.**, Cummings, C., and K. Grieger. (2021). Definitions, practices, and motivations for responsible innovation for nanotechnology applications in food and agriculture. *Science & Engineering Ethics* (under review)
- 102) 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. (2021). 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 (peer-reviewed book chapter, in review)
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- 105) Ruzante JM, E Shumaker, S Holtl, S Mayer, A Kokotovich, M Cuchiara, **J Kuzma**, CL. Cummings, A. Binder, K Grieger. Eliciting Stakeholder Perceptions using a Novel Online Engagement and Elicitation Platform: A case study on Nano-Agrifoods. *RTI Press* (under review).

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<sup>3</sup> Contribution as study director to this NRC report was equivalent to being an editor of a published, peer-reviewed, scholarly book and contributor of chapters. The NRC has a very rigorous peer review process for its books. Its sister organization IOM does list study directors as editors.

<sup>4</sup> Contribution as co-study director to this NRC publications was equivalent to being a co-author of chapters for a published, peer-reviewed, scholarly book.

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- 1) Merck, A., Grieger K, and **J. Kuzma**. "What Role for Regulation in Responsible Innovation of Nano-Agrifoods? Views from Stakeholders" to the 2021 Society for Risk Analysis Annual Conference on December 5-9, 2021. (refereed, submitted).
- 2) **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)
- 3) **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)
  - 4) 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)
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  - 7) **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.
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  - 10) 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)
  - 11) **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).
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  - 13) 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)
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  - 15) **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.
  - 16) **Kuzma J.** High Risk Scenarios of Gene Drives in Ecosystems. Society for Risk Analysis Annual Meeting. Dec 10-13, 2017. Arlington, VA. (abstract accepted)
  - 17) 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).
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- 31) 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
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- 41) **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).
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- 51) **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
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- 53) **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.
- 54) **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.**
- 55) **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
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- 57) 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.
- 58) **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.
- 59) 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
- 60) **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
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- 62) **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
- 63) **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
- 64) **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
- 65) **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
- 66) **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
- 67) 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
- 68) 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
- 69) 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
  - 70) **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 Transduction in Plants Conference Proceedings, Madrid, Spain, October, 1996. refereed
  - 71) **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.** Biotechnology Stakeholders: Attitudes towards Responsible Innovation, Barriers, and Potential Practices. Genetics & Genomics Initiative Seminar, NC State, October 18, 2021.
- 2) **Kuzma J.** Social Implications of Emerging Technologies in Agriculture. USDA-NIFA & MSU Workshop. September 20, 2021.
- 3) **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.
- 4) **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.
- 5) **Kuzma J.** Panelist on "Junior Faculty Mentoring Panel: Time Management - Research, Teaching, Service and Life", College of Textiles, NC State. April 14, 2021.
- 6) **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).
- 7) **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.
- 8) **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.
- 9) **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.
- 10) **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.
- 11) **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.
- 12) **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.
- 13) **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.



- 14) **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.
- 15) **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.
- 16) **Kuzma J.** Societal implications of novel biotech products. DOD-DARPA-Advanced Plant Technologies Program meeting. April 20, 2020.
- 17) **Kuzma, J.** Genetic Engineering and Responsible Innovation. Osher Life-long Learning Institute. January 31, 2020.
- 18) **Kuzma J.** An Evening with Margaret Atwood. Emcee, introductory remarks and co-host. Co chair of program committee. November 15, 2019.
- 19) **Kuzma J.** “From Small to Big: Societal Governance of Microbiome Engineering”. Duke Symposium on Food Systems, Nutrition, and the Microbiome. Duke University. November 12, 2019.
- 20) **Kuzma J.** “U.S. Bioengineered Foods Labeling: A complicated story.” NC Cooperative Extension State Conference. October 30, 2019.
- 21) **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.
- 22) **Kuzma J.** Interagency Funding for Synthetic Biology. National Science and Technology Council. Washington, DC. October 16-17, 2019.
- 23) **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.
- 24) **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.
- 25) **Kuzma J.** Responsible Research and Innovation. NSF AgBioFEWs Introductory Field Course Workshop. July 29, 2019.
- 26) **Kuzma J.** Integrating Science and Values in Risk Assessment and Decision Making for Biotechnology. Biotechnology Institute’s Regional Development Workshop. NCSU. July 24, 2019.
- 27) **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.
- 28) **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.
- 29) **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.
- 30) **Kuzma J.** Defense Advanced Research Projects Administration (DARPA) panel for Ethical, Legal, and Societal Implications for the Insect Allies funding program. May 14, 2019.
- 31) **Kuzma J.** Societal Context for Agricultural Biotechnology Communication. U.S.-China Agricultural Biotechnology Safety Administration Cooperation Communication Workshop. April 24-25, 2019. Beijing, China.
- 32) **Kuzma J.** Emerging Biotechnologies in Agriculture: Governance of Gene Editing. Triangle British-American Business Council. Raleigh, NC. April 2, 2019.
- 33) **Kuzma J.** Ethics and Governance of Gene Editing. Ethical Humanist Society of the Triangle. Chapel Hill. March 24, 2019.
- 34) **Kuzma, J.** Regulating Gene Edited Crops: What have we learned? GES colloquium. NC State. February 6, 2019.

- 35) **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.
- 36) **Kuzma J.** Learning from 1<sup>st</sup> generation plant biotechnology: Have we? NCSU Plant Pathology Seminar. November 28, 2018.
- 37) **Kuzma, J.** Consumers and GM Food Oversight—A Place for Values? Choose Food Symposium. John Hopkins University. Baltimore, MD. November 8, 2018.
- 38) **Kuzma, J.** U.S. Oversight of GMOs: Features, Flaws, and Future. Biotechnology and Communication workshop for Chinese visitors. NC State. October 24, 2018.
- 39) **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.
- 40) **Kuzma, J.** Synthetic Biology—applications and governance. National Socio-Environmental Synthesis Center (SESYNC) Advisory Board meeting. Annapolis, MD. October 9, 2018.
- 41) **Kuzma J.** Gene editing: Process, applications, and societal aspects. Nicholas Institute for Environmental Policy, Duke University, Advisory Board. October 4, 2018.
- 42) **Kuzma J.** Oversight, Regulation and Governance of GMOs. Osher Life-Long Learning Institute. NCSU. October 2, 2018.
- 43) **Kuzma, J.** Oversight of GMOs: What have we learned for the 2<sup>nd</sup> Generation? NCSU Horticulture Seminar. October 1, 2018.
- 44) **Kuzma, J.** Systems Thinking for Governance of Biotechnologies. Arizona State University-School of Future of Innovation in Society Seminar. August 30, 2018.
- 45) **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
- 46) Williams, T. and **Kuzma J.** @Risk: Case study of Genetically Engineered Animal Food. May 16, 2018. @Risk Workshop, U of Ottawa. Ottawa, ON.
- 47) **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.
- 48) **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.
- 49) **Kuzma J.** Gene drives and responsible innovation. AAAS Sciline Gene Drives media briefing for journalists. April 25, 2018. Sciline.org
- 50) **Kuzma, J.** “Anticipatory Governance for GMOs”. Invited presentation for Environment and Health Canada managers and staff. April 13, 2018. Ottawa, ON Canada.
- 51) **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.
- 52) **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
- 53) **Kuzma J.** Food Biotech 2.0: Learning from GMOs. Engineering Biology for Solutions in Health, Food and the Environment. Canada SynBio 2018 Conference. Toronto, ON Canada. (invited speaker/panelist/rapporteur). March 6-7, 2018.
- 54) **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)
- 55) **Kuzma J.** CRISPR technologies and society. Invited speaker. International Conference on CRISPR Technologies. Raleigh, NC. Dec 4-6, 2017.

- 56) **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.
- 57) **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.
- 58) **Kuzma J.** Chasing Ghosts of the Future: Upstream of Emerging SYn Bio (and GE) Products". EPA Biotech Community of Practice Seminar. November 16, 2017.
- 59) **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
- 60) **Kuzma, J.** Values and Science in Governance of GEOs. Invited Lecture for Chinese visitors Communications Workshop. Oct 3, 2017.
- 61) **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.
- 62) **Kuzma J.** Genetic Engineering and Society. Kenan Institute on Engineering, Technology and Society. Visiting K-12 Teacher Fellows Program. July 13, 2017.
- 63) **Kuzma J.** International Governance of Gene Drives. Invited plenary talk. ASU Governance on Emerging Technologies, 5<sup>th</sup> Annual Conference, May 17-19, 2017.
- 64) **Kuzma, J.** The Societal Dimensions of Gene Editing. Invited Plenary Talk. University-Industry Consortium. Baltimore, MD. April 27, 2017.
- 65) **Kuzma J.** “Proofreading Gene Edited Animals: Risk Governance Systems.” Editing Nature Summit. Yale University. Plenary talk invited. April 20-21, 2017
- 66) **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).
- 67) **Kuzma, J.** “CRISPR, Gene drives, Governance and Ethics” Center for Genomics, UNC-Chapel Hill. March 9, 2017.
- 68) **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)
- 69) **Kuzma, J.** Oversight of Genetic Engineering: Evaluating the past to inform the future. Duke University Rethinking Regulation Seminar. January 26, 2017.
- 70) **Kuzma, J.** Panel presentation for 2016 CPANC Crop Protection School, Dec. 6 2016.
- 71) **Kuzma J.** Seminar for UNC-CH Center for Genomics and Society investigators and trainees, Gene Drives, Governance and Ethics, March 3, 2017..
- 72) **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
- 73) **Kuzma, J.** GMOs and Pesticides in a Governance Policy Context. 68<sup>th</sup> Crop Protection School Annual Meeting of NC Crop Protection Association. December 6, 2017.
- 74) **Kuzma, J.** Governance of Genetically Engineered Organisms: A Social Science Perspective. Agbiome seminar, Raleigh, NC, November 28, 2016.
- 75) **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.
- 76) **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.
- 77) **Kuzma, J.** Genetic Engineering and Society. CALS Global Leadership Academy presentation for Turkish stakeholders. September 23, 2016.

- 78) **Kuzma, J.** “ Gene Editing and Emerging Issues”, Agree Initiative, Meridian Institute, DC. October 10, 2016.
- 79) **Kuzma, J.** “Innovation in Governance. ”North Carolina Agricultural Biotechnology Summit, September 27, 2016.
- 80) **Kuzma, J.** Panel, Values in Impact Assessment, NSF funded project, Hastings Center. May 2016.
- 81) **Kuzma, J.**, “Bt and social resistance”, Living with Resistance, Social and Environmental Synthesis Center, NSF-funded workshop, Annapolis, MD. April 25-29, 2016.
- 82) **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.
- 83) **Kuzma J.** Presentation for Honors College Bioethics class, March 31, 2016.
- 84) **Kuzma, J.** Genetic Engineering and Society. Jefferson Scholars Program presentation. February 8, 2016.
- 85) **Kuzma J.** Panelist for Science Policy Advocacy Group (SPAG) University of North Carolina, Chapel Hill, on “Advocacy 101”; February 1, 2016.
- 86) **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.
- 87) **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.
- 88) **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 10<sup>th</sup> Anniversary Forum. October 22, 2015.
- 89) **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
- 90) **Kuzma J.** Genetic Engineering: A New Phase of Policy and Perception. Population Medicine Seminar, Vet School, NCSU/UNC/Duke. October 5, 2015.
- 91) **Kuzma J.** Panel for National Science Foundation Nanoscale Science and Engineering meeting on “Social Science”, December 10, 2015
- 92) **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)
- 93) **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)
- 94) **Kuzma, J.** Intergenerational Equity, Gene Drives, and Conceptions of Nature. May 26-28, 2015 for Governance of Emerging Technologies 3<sup>rd</sup> Annual Conference. Arizona State University. (invited plenary)
- 95) **Kuzma J.** Gene Editing and Governance. 1<sup>st</sup> Annual Workshop on GE@NC State. NCSU. April 28, 2015.
- 96) **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)
- 97) **Kuzma, J.** Anticipatory Governance for Synthetic Biology: A Delphi Study. GES colloquium, NCSU, March 24, 2015.
- 98) **Kuzma J.** Gene Drives: Who’s behind the wheel? Yale Bioethics Seminar. March 3, 2015. (invited presentation)
- 99) **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
- 100) **Kuzma J.** Ethics and genetically engineered organisms. Duke Science and Society seminar, Feb. 25, 2015. (invited presentation)



- 101) **Kuzma** J. Presentation on GM Food Safety. Women's Conference of National Farm Bureau, March 28, 2015.
- 102) **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)
- 103) **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)
- 104) **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)
- 105) **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)
- 106) **Kuzma**, J. GMOs: Safety, Public, and Labeling. MN State Legislature briefing. September 25, 2014. (invited presentation)
- 107) **Kuzma**, J. Genetic Engineering and Society. Presentation for CHASS Advisory Board, November 2014.
- 108) **Kuzma**, J. Genetic Engineering and Society. University Scholars Program (2 lectures for 300 students each), November 10, 2014.
- 109) **Kuzma**, J. Expert panelist for discussion at Chef's Collaborative (national conference for over 300 chefs). September 29, 2014.
- 110) **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)
- 111) **Kuzma**, J. Regulation in a Rapidly Evolving Environment: Balancing Risk and Innovation. 2<sup>nd</sup> International Workshop for the Regulation of Animal Biotechnology. Invited for plenary by U.S. Dept. Agriculture. Brasilia, Brazil. August 21, 2014. (invited presentation)
- 112) **Kuzma**, J. Governance of New Biotechnologies. International Maize and Wheat Improvement Center. CIMMYT, Mexico City, Mexico. July 24, 2014. (invited presentation)
- 113) **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)
- 114) **Kuzma**, J. Presentation at NC Biotechnology Center kick-off event for Biotechnology Professionals, April 16, 2014.
- 115) **Kuzma** J. Presentation on NCSU Park Scholars program panel, GM foods, April 2, 2014
- 116) **Kuzma**, J. Bioengineering as Second Nature. Chancellor's Faculty Excellence Program symposium. April 25, 2014. (outreach presentation)
- 117) **Kuzma**, J. Emerging Technologies and Food: What Matters to Most? Center for Environmental and Natural Resource Economics & Policy, NCSU, April 11, 2014. (invited presentation)
- 118) **Kuzma**, J. Genome Editing: On a Collision Course. UNC-Chapel Hill Public Policy seminar, March 21, 2014. (invited presentation)
- 119) **Kuzma**, J. Chancellor's Reception for Policy Makers 2/26/14 UNC vs. NCSU game.
- 120) **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)
- 121) **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.
- 122) **Kuzma**, J. Utopian Views on Risk governance of Emerging Technologies. International Symposium on Risk Governance of Science and Technology University of Tokyo, Tokyo Japan. December 17, 2013 (plenary presentation) (invited presentation)

- 123) **Kuzma, J.** Panelist for “Genetic Roulette” UMN Public Health week, April 1, 2013.
- 124) **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)
- 125) **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
- 126) **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.
- 127) **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)
- 128) **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)
- 129) **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)
- 130) **Kuzma, J.** Integrated approaches to studying oversight for Genetically Modified Organisms. Genetics and Society seminar. NCSU. February 3, 2012. (invited speaker)
- 131) **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)
- 132) **Kuzma, J.** and D. Fitzpatrick. Women in S&T Policy. Presentation for Humphrey Advisory Council. April 2012.
- 133) **Kuzma J.** Ethics of S&T funding. Broader Impacts Seminar. University of Minnesota. April 2012.
- 134) **Kuzma, J.** Panel respondent for Energy and Environmental Law and Governance Workshop. May 4, 2012.
- 135) **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)
- 136) **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)
- 137) **Kuzma, J.** Emerging Technologies: Progress or Poor Paradigms? Hennebach Visiting Professor Lecture, March 23, 2011, Colorado School of Mines. (invited speaker)
- 138) **Kuzma, J.** Emerging Technologies: Oversight under uncertainty. Policy@Tech Seminar Series. Georgia Tech. February 23, 2011. (invited speaker)
- 139) **Kuzma, J.** U of MN Graduate Program in Neuroscience Career Forum. Speaker. April 11, 2011.
- 140) **Kuzma J.** Panelist. Science Museum of Minnesota Science Café for NanoNight 2011. National Nanodays. Black Dog Café St. Paul, MN. March 29, 2011.
- 141) **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.
- 142) **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)

- 143) **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)
- 144) **Kuzma, J.** International Symposium on Genetic Biocontrol Of Invasive Fish, USDA/FWS/SeaGrant, Minneapolis, MN June 21-24, 2010. (invited speaker)
- 145) **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)
- 146) **Kuzma, J.** IGERT symposium, "Right Risks: Ethics and Ecological Risk Analysis", University of MN, April 30, 2010 (invited plenary speaker)
- 147) **Kuzma J.** “Dynamic Oversight for Emerging Technologies” Governing Nanobiotechnology: Reinventing Oversight in the 21<sup>st</sup> Century. Mpls, MN April 15, 2010 (plenary speaker, moderator, and conference co-organizer)
- 148) **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).
- 149) **Kuzma J.** Briefing speaker for Senator Al Franken’s staff on nanotechnology Senate bills going through Congress. March 31, 2010
- 150) **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)
- 151) **Kuzma, J.** Invited participant in National Academy of Sciences-National Research Council workshop on Agrifood Nanotechnology, August 22, 2009, in Washington DC.
- 152) **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.
- 153) **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).
- 154) **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)
- 155) **Kuzma, J.** “GMOs and Environmental Risk Policy” for Conservation Biology Seminar Series, U of M, November 30, 2009.
- 156) **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.
- 157) **Kuzma, J.** “No Small Matter: Nanotechnology and Social Issues”, Microscopy Camp! For grades 7-12 Metro High School Science Teachers. July 28, 2009.
- 158) **Kuzma, J.** “Nanotechnology: The Science of the Small” St. Francis Xavier Middle School, Buffalo, MN, April 20, 2009.
- 159) **Kuzma, J.** “Where Science Meets Policy: Oversight for Genetic Engineering” College of St. Catherine’s, St. Paul, MN. April 7, 2009. (invited speaker)
- 160) **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.
- 161) **Kuzma, J.** Panel on Emerging Technology Enterprises, Gordon Conference on S&T Policy, Big Sky, MT, August 2008.
- 162) **Kuzma, J.** “Nanotechnology, Oversight Policy”. Hennepin Country Bar Association, April 2008. (invited speaker)

- 163) **Kuzma** J. with area faculty and staff. "STEP Vision 2020", Humphrey Institute Vision 2020, April 2008.
- 164) **Kuzma**, J. Nanotechnology, Animal Production and the Future. World Conference on Animal Production, Capetown, South Africa. November 25-27, 2008 (invited speaker)
- 165) **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)
- 166) **Kuzma**, J. Global Policy Forum, University of MN, "Does U.S. S&T Policy need a Paradigm Shift?" Sept. 16, 2008.
- 167) **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 Nanomaterial Risk Management." Sept 10-11, 2008 (invited panelist)
- 168) **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 21<sup>st</sup> Century. North Carolina State University, NSF workshop, August 28-29, 2008 (invited speaker).
- 169) **Kuzma**, J. Facilitator for IREE Algae and Biofuels Summit, October 16, 2008, Minneapolis, MN.
- 170) **Kuzma**, J." Emerging Technologies, S&T Policy, and the (Your) Future." University of St. Thomas. October 3, 2008 (invited speaker)
- 171) **Kuzma**, J. "A Path to Renewal of America's Global Role in Health Science Policy," Innovation 2008, Sept. 2008. University of MN.
- 172) **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).
- 173) **Kuzma**, J., Monson, M., and Warner, E. "Introduction to System Dynamics," HHH Graduate Faculty Meeting, March 2008.
- 174) 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)
- 175) **Kuzma**, J. "Nanotechnology and Society: no Small Matter" MN Society of Professional Engineers, Feb 19, 2008. (invited speaker)
- 176) **Kuzma**, J. "Nanotechnology: What's new, what isn't and why it matters?" Mindstretch keynote speaker. October 31, 2007. (invited speaker)
- 177) **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)
- 178) **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)
- 179) 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.
- 180) **Kuzma**, J. "Risk and Regulation for Emerging Technologies", Northeastern University Nanotechnology Regulation Workshop May1-2, 2007, Boston, MA. (invited speaker)
- 181) **Kuzma**, Romanchek, Kokotovich "Agrifood Nanotechnology: Applications and Oversight," Michigan State University, What is agrifood nanotechnology? NSF Workshop, April 2-3, 2007. (invited speaker)
- 182) **Kuzma**, J. "Nano and health: an Ethical Perspective," Exploratorium, San Francisco, Nanoforum keynote presentation. June 6, 2007. (invited speaker)
- 183) **Kuzma**, J. "Nano and health: an Ethical Perspective," Science Museum of Minnesota, Nanoforum keynote presentation. April, 26, 2007. (invited speaker)



- 184) **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)
- 185) **Kuzma, Romanchek, Kokotovich** “Oversight for Agrifood Nanotechnology: No Small Matter” Alberta Agricultural Research Institute, Nano-Agriculture workshop, March 1-2, 2007. (invited speaker)
- 186) **Kuzma, J.** MN Pollution Control Agency, “Grand Challenges for Nanotechnology Policy and the Environment,” February 2007. (invited speaker)
- 187) **Kuzma, J.** Café Scientifique, Bell Museum of Natural History, “GEOs: An Intersection Between Science and Society.” November 2006. (invited speaker)
- 188) **Kuzma, J.** 3M company’s Technology Forum. “Nano-policy: No small matter” November 2006. (invited speaker)
- 189) Invited keynote speaker for Science Museum of Minnesota’s Nanoforum. “The Brave New World of Nano Policy” August 2006.
- 190) 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)
- 191) Invited Participant for National Nanotechnology Coordinating Office Workshop on Public Participation in Nanotechnology, May 2006. Washington, DC.
- 192) Invited Participant for Environmental Law Institute’s workshop on Nanotechnology Governance, May 2006. Nashville, TN.
- 193) **Kuzma,** “Emerging Technologies: Challenges for Institutions and Oversight” National Association of Schools of Public Administration and Affairs meeting. October 19, 2006. (invited panelist)
- 194) 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>
- 195) **Kuzma** and VerHage “Nanotechnology and Food” National Food Processors Association Meeting, Sept. 18, 2006. Washington DC (invited speaker)
- 196) **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)
- 197) **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)
- 198) **Kuzma, J.** Freeman Center International Trade Consortium. University of MN. “Genetic Engineering: Science, Uncertainty and International Trade”. January 2004.
- 199) MN Biofiber Consortium Meeting, Initiative for Renewable Energy and the Environment: Bioenergy and Bioproducts, October 2004.
- 200) Initiative for Renewable Energy and the Environment Advisory Committee meeting. Policy, Economic and Ecosystem Issues. May 2004.
- 201) **Kuzma, J.** The Genomic Future: A Town Hall Meeting. Gene(sis) Exhibit Weisman Art Museum. Who Owns DNA? Panel Discussion. February 2004. (invited panelist)
- 202) **Kuzma, J.** MN Seed Coalition and Bioindustrial Consortium. Renewable Energy: A New Initiative at the University of Minnesota. November and December 2003. (invited speaker)
- 203) Interviewed for Fox Cable TV News on agricultural bioterrorism. September 2002.
- 204) **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.
- 205) Invited panelist for Meridian International Visitors’ Program on Genetically Modified Organisms for UK scientists and regulators, May 2001.

- 206) Invited panelist for State Department's Visitors' Program on Risk Management for Belgian risk managers, March 2001.
- 207) Invited panelist for State Department and American Farm Bureau International Visitors' Program on Genetically Modified Organisms for UK regulators and stakeholders, July 2000.
- 208) Invited presentations for USDA's Advisory Committee on Agricultural Biotechnology meetings-- July and November 2000, and August 2001.
- 209) Presentation for Zambian delegation of government officials and scientists to discuss genetically engineered foods. Washington DC. September 2002.
- 210) 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.
- 211) 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.
- 212) Invited presentation on animal biotechnology issues for the Animal Biotechnology Stewardship Technical Committee of the Animal Commodity Organizations Group, November 2001.
- 213) Invited speaker for USDA's International Fellow Program for Yugoslavian scientists and regulators, Agricultural Biotechnology and Communication, July 2001.
- 214) Invited presentation for Southeast Asian Journalists interested in Agricultural Biotechnology, National Academy of Sciences Office of News and Public Information, July 2000.
- 215) Invited panelist for Meridian International's Biotechnology and Food Safety Program, Greek Grocers and Journalists. May 2000.
- 216) Invited panelist for Meridian International's Biotechnology and Food Safety Program. Italian Grocers and Journalists. March 2000.
- 217) Invited speaker for National Press Foundation. Agendas 2000: Biological Engineering of Food. January 2000.
- 218) **Kuzma, J.** "Biotechnology, Food and Agriculture: Understanding the spectrum of opportunities, challenges, and perspectives," Keynote Speaker for National Academies Presidents' Circle Meeting, September 1999.

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## PRESS INTERVIEWS and APPEARANCES

- 1) Quoted in "A Sterile Solution: How Crispr Could Protect Wild Salmon"  
<https://undark.org/2021/07/21/crispr-protect-wild-salmon/>. July 21, 2021.
- 2) Interviewed live on GM foods KCBS All News Radio 106.9 FM and 740 AM. July 21, 2021.
- 3) Quoted and research featured in NY Times article "Learning to Love GMOs"  
<https://www.nytimes.com/2021/07/20/magazine/gmos.html>. July 20, 2021.
- 4) Featured interview in BBC radio story The Food Chain: What's the Appetite for Gene Edited Food? <https://www.bbc.co.uk/sounds/play/w3ct1rfm>. May 20, 2021.
- 5) Quoted in Time magazine. Genetically Modified Mosquitoes Have Come to the U.S. Will They Work? <https://time.com/6047051/genetically-modified-mosquitoes/>. May 9, 2021.
- 6) Quoted in Vice news. A Billion Lab-Grown Mosquitos Are Being Released and People Are Freaking Out. April 30, 2021. <https://www.vice.com/en/article/pkbd8v/genetically-modified-oxitec-mosquitos-florida-texas>
- 7) Quoted in Futurism "Residents Furious at Release of 500 Million Gene-Hacked Mosquitoes"  
<https://futurism.com/furious-gene-hacked-mosquitoes>. April 26, 2021.
- 8) Quoted in article in Grist "First GMO mosquitoes to be released in the Florida Keys"  
<https://grist.org/science/first-gmo-mosquitoes-to-be-released-in-the-florida-keys/>. April 17, 2021.

- 9) Quoted in article in Bulletin of Atomic Scientists Paradise altered: EPA approves first release of genetically modified mosquitoes in Florida Keys. <https://thebulletin.org/2021/04/paradise-altered-epa-approves-first-release-of-genetically-modified-mosquitoes-in-florida-keys/>. April 19, 2021.
- 10) Quoted in article in Singularity Hub. First GMO Mosquitoes to Be Released in the Florida Keys. [https://singularityhub.com/2021/04/15/first-gmo-mosquitoes-to-be-released-in-the-florida-keys/#.YH18M6x\\_zws.linkedin](https://singularityhub.com/2021/04/15/first-gmo-mosquitoes-to-be-released-in-the-florida-keys/#.YH18M6x_zws.linkedin). April 15, 2021.
- 11) Quoted in article Science Wire. In the US, Imminent Release of Genetically Modified Mosquitoes To Fight Dengue. <https://science.thewire.in/the-sciences/in-the-us-imminent-release-of-genetically-modified-mosquitoes-to-fight-dengue/> April 13, 2021
- 12) Quoted in and articles mentioned in Undark magazine story, “First GMO Mosquitoes to Be Released In the Florida Keys” <https://undark.org/2021/04/12/gmo-mosquitoes-to-be-released-florida-keys/>. April 12, 2021.
- 13) Quoted in Keys Weekly, VILLAGE HEARS FROM EXPERTS AS GENETIC-MOSQUITO RELEASE EXPERIMENT NEARS. <https://keysweekly.com/42/41016/>. March 26, 2021.
- 14) Quoted/interviewed and research article featured in Western Producer Magazine. Researchers want GMO transparency. <https://www.producer.com/news/researchers-want-gmo-transparency/>. February 25, 2021.
- 15) Quoted in Genetic Literacy Project article. Viewpoint: Gene-edited crop developers need to win public trust. Transparency is how they can do it. March 2, 2021. <https://geneticliteracyproject.org/2021/03/02/viewpoint-gene-edited-crop-developers-need-to-win-public-trust-transparency-is-how-they-can-do-it/>.
- 16) Quoted in Progressive Farmer, Gene Revolution Turns 25 – 1: Gene-Altered Attitudes, <https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/02/19/gene-altered-attitudes>. February 19, 2021.
- 17) Quoted in Future Human magazine. Gene edited bacon could be coming to your plate soon. <https://futurehuman.medium.com/gene-edited-bacon-could-be-coming-to-your-plate-soon-e74fd7115c>. January 26, 2021.
- 18) Quoted in Food Dive Magazine <https://www.fooddive.com/news/5-trends-fueling-food-and-beverage-innovation-in-2021/592588/>. 5 trends fueling food and beverage innovation in 2021. January 4, 2021.
- 19) Work featured in SciTechDaily. Scientists set a path for field trials of gene drive organisms. <https://scitechdaily.com/genetically-engineered-organisms-path-set-for-field-trials-of-gene-drive-organisms/> December 17, 2020.
- 20) Work featured in Eureka Alert AAAS. Scientists set a path for field trials of gene drive organisms [https://eurekaalert.org/pub\\_releases/2020-12/uoc--ssa121620.php](https://eurekaalert.org/pub_releases/2020-12/uoc--ssa121620.php). December 17, 2020.
- 21) Quoted and article featured in WRAL Tech Wire Gene-editing of crops requires greater transparency, NCSU researchers say. <https://www.wraltechwire.com/2020/11/23/gene-editing-of-crops-requires-greater-transparency-ncsu-researchers-say/>
- 22) Quoted and work featured in Seed World <https://seedworld.com/researchers-recommend-more-transparency-for-gene-edited-crops/> November 20, 2020.
- 23) Quoted and work featured in <https://www.labmanager.com/news/researchers-recommend-more-transparency-for-gene-edited-crops-24441>. November 23, 2020.
- 24) Quoted and article featured in Laboratory Equipment magazine. November 30, 2020. <https://www.laboratoryequipment.com/570686-Researchers-More-Transparency-Needed-for-Gen-edited-Crops/>
- 25) Quoted and article featured in Genetic Literacy Project article “USDA's 'lax' gene-editing regulations could hurt consumer acceptance of CRISPR crops” <https://geneticliteracyproject.org/2020/11/23/viewpoint-usdas-lax-gene-editing-regulations-could-hurt-consumer-acceptance-of-crispr-crops/>
- 26) Quoted and article featured in Eureka Alert AAAS. [https://www.eurekaalert.org/pub\\_releases/2020-11/ncsu-rrm111820.php](https://www.eurekaalert.org/pub_releases/2020-11/ncsu-rrm111820.php)

- 27) Quoted and work featured in Science Daily news. Researchers recommend more transparency for gene-edited crops. <https://www.sciencedaily.com/releases/2020/11/201119141714.htm>
- 28) Quoted and article featured in NC State News. More Transparency Recommended for Gene-Edited Crops. November 19, 2020. <https://news.ncsu.edu/2020/11/gene-editing-transparency/>
- 29) Quoted in *Undark* Biotechnology Could Change the Cattle Industry. Will it Succeed? Dylan Furness. <https://undark.org/2020/08/05/biotechnology-cattle-industry/>
- 30) Quoted in *Digital Trends*, “Gene-edited mosquitoes are ready for the U.S. — but is the U.S. ready for them?” Jenny McGrath, June 27, 2020. <https://www.digitaltrends.com/features/genetically-modified-mosquitos-oxitec-florida/>
- 31) Work featured in *The Associated Press*, Genetically modified mosquitoes could be released in Florida this summer. Jun 29, 2020. <https://www.wfla.com/news/florida/mutant-mosquitoes-could-be-released-in-florida-this-summer/>
- 32) Work featured on *Kaiser Family Foundation* news site “Opinion Pieces Discuss Genetically Modified Mosquitoes” 22 June 2020 <https://www.kff.org/news-summary/opinion-pieces-discuss-various-aspects-of-global-health-genetically-modified-mosquitoes-advancing-equity-across-development-sector-dfid-merger-u-s-withdrawal-from-who/>
- 33) Op-Ed appeared in *The Boston Globe* June 26, 2020; portions of the Op-Ed featured on *Genetic Literacy Project* Disease-fighting GMO mosquitoes are coming. Was EPA too quick to approve them? <https://geneticliteracyproject.org/2020/06/25/disease-fighting-gmo-mosquitoes-are-coming-was-epa-too-quick-to-approve-them/>
- 34) Interviewed for *CBS 17 News* Study uses satellite imagery, internet searches to track COVID-19, how reliable is it? <https://www.cbs17.com/community/health/coronavirus/study-uses-satellite-imagery-internet-searches-to-track-covid-19-how-reliable-is-it/>. Aired 11 June 2020.
- 35) Work featured in *Slate*, What Should We Worry About When It Comes to Genetically Modified Mosquitoes? 8 June 2020. <https://slate.com/technology/2020/06/genetically-modified-mosquitoes-disease-florida-texas.html>
- 36) Work featured in *Yahoo News*. Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? <https://news.yahoo.com/genetically-modified-mosquitoes-could-released-121609848.html> June 4, 2020.
- 37) Work featured in the *Daily Beast*, Genetically Modified Mosquitoes Are Coming to the U.S. Jumping the Gun? <https://www.thedailybeast.com/genetically-modified-mosquitoes-could-be-released-in-florida-and-texas-this-summer> 5 June, 2020.
- 38) Work featured in *The Telegraph*, Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? 4, June 2020. <https://www.thetelegraph.com/news/article/Genetically-modified-mosquitoes-could-be-released-15313385.php>
- 39) Work featured in *The Houston Chronicle* Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? June 4, 2020. <https://www.houstonchronicle.com/news/article/Genetically-modified-mosquitoes-could-be-released-15313385.php>
- 40) Work featured in *Raw Story*. Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? June 4, 2020. <https://www.rawstory.com/2020/06/genetically-modified-mosquitoes-could-be-released-in-florida-and-texas-beginning-this-summer-silver-bullet-or-jumping-the-gun/>
- 41) Work featured in *Medical Express* Genetically modified mosquitoes could be released in Florida and Texas – silver bullet or jumping the gun? June 3, 2020 <https://medicalxpress.com/news/2020-06-genetically-mosquitoes-florida-texas-silver.html>
- 42) Work featured in *Shelton Herald*. Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? June 4, 2020



- <https://www.sheltonherald.com/news/article/Genetically-modified-mosquitoes-could-be-released-15313385.php>
- 43) Work featured in *San Antonio Express News*. Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? June 4, 2020 <https://www.mysanantonio.com/news/article/Genetically-modified-mosquitoes-could-be-released-15313385.php>
- 44) Work featured *The New Haven Register*. Genetically modified mosquitoes could be released in Florida and Texas beginning this summer – silver bullet or jumping the gun? June 4, 2020 <https://www.nhregister.com/news/article/Genetically-modified-mosquitoes-could-be-released-15313385.php>
- 45) Work featured and cited in “Can CRISPR Save Tufty Fluffytail?” in JSTOR Daily January 24, 2020. <https://daily.jstor.org/can-crispr-save-tufty-fluffytail/>
- 46) Quoted in and featured in Canadian Broadcasting Company (CBC) documentary. “Gene editing could revolutionize the food industry, but it'll have to fight the PR war GMO foods lost” January 12, 2020. <https://www.cbc.ca/amp/1.5416827>
- 47) Work featured and cited in “Tempering Tech with Collective Wisdom” December 21, 2019. <https://www.earthisland.org/journal/index.php/magazine/entry/tempering-tech-with-collective-wisdom/>
- 48) Quoted in NC State News “Fusing Disciplines, Transforming Graduate Education” January 2, 2020.
- 49) Quoted in Vice News “The Man Bringing Morality to Gene Editing”. November 18, 2019.
- 50) Quoted in The Technician “Margaret Atwood discusses her 'prophetic' novel, effects of new science developments on society” November 17, 2019.
- 51) Quoted in The National Review “The world's banana crops are under threat from a deadly fungus. Is gene editing the answer?” November 6, 2019. <https://nationalpost.com/life/food/the-worlds-banana-crops-are-under-threat-from-a-deadly-fungus-is-gene-editing-the-answer>
- 52) Quoted in The Singularity article “CRISPR Just Created a Hornless Bull, and It's a Step Forward for Gene-Edited Food” Oct. 22, 2019.
- 53) Featured in “The Yogurt Industry Has Been Using CRISPR for a Decade”, The Atlantic, October 14, 2019. <https://www.theatlantic.com/science/archive/2019/10/how-yogurt-science-accidentally-revolutionized-gene-editing/599767/>
- 54) Featured in podcast *Gastropod* “What is CRISPR doing in our Food?” Oct 7, 2019. <https://gastropod.com/whats-crispr-doing-in-our-food/>
- 55) Work featured in Earth Island Journal, Kofler N, Tempering Tech with Collective Wisdom. September 24, 2019. <http://www.earthisland.org/journal/index.php/magazine/entry/tempering-tech-with-collective-wisdom/>
- 56) Work featured and quoted in Common Dreams article on USDA to Biotech: Call Your Own Compliance, July 31, 2019. <https://www.commondreams.org/views/2019/07/31/usda-biotech-call-your-own-compliance>
- 57) Quoted in Nature magazine “CRISPR conundrum: Strict European court ruling leaves food-testing labs without a plan” July 23, 2019. <https://www.nature.com/articles/d41586-019-02162-x>
- 58) Quoted in Sciline story on “Hacking Photosynthesis” <https://scienceline.org/2019/07/hacking-photosynthesis-to-feed-the-future/>. July 20, 2019.
- 59) Quoted in and research article featured in *The Guardian*, “Crispr gene-editing will change the way Americans eat – here's what's coming”. May 28, 2019. <https://www.theguardian.com/us-news/2019/may/30/crispr-gene-edited-food-technology-us-produce>
- 60) Quoted in *Bioscience* Gene Editing in the Wild: Who Decides—and How? Nicki Wilson. April 2019. <https://doi.org/10.1093/biosci/biz009>
- 61) Quoted in and article featured in “The agritech industry is editing plant genomes to feed a growing population, expand the produce aisle, and make tastier, more convenient food products” A. Taylor, *The Scientist*. February 1, 2019.

- 62) Quoted extensively in OKAY, LET'S SETTLE THIS—ARE GMOS BAD FOR YOU OR NOT? <https://www.wellandgood.com/good-food/are-gmos-bad-for-you/> January 30, 2019.
- 63) Quoted in Johnson, Carolyn. Gene-edited farm animals are coming. Will we eat them? Cutting-edge lab techniques could improve animal breeding, but society may not be ready. Washington Post. December 17, 2018. <https://www.washingtonpost.com/news/national/wp/2018/12/17/feature/gene-edited-farm-animals-are-coming-will-we-eat-them/>
- 64) Quoted in O'Callaghan, Jonathan. Science is racing to stop another CRISPR baby from being born. WIRED. <https://www.wired.co.uk/article/future-crispr-babies-gene-editing>. December 18, 2018.
- 65) Interview contributed to and quoted in Leaps Magazine What's the Right Way to Regulate Gene-Edited Crops? FEATURE STORY Kenneth Miller November 16, 2018. <https://leapsmag.com/whats-the-right-way-to-regulate-gene-edited-crops/>
- 66) Quoted in Gene-Editing Finding its Way to the Farm by Clinton Griffiths *Dairy Herd Management* <https://www.dairyherd.com/article/gene-editing-finding-its-way-farm>. November 19, 2018.
- 67) Quoted and interviewed for Next generation of biotech food heading for grocery stores. Associated Press radio, TV, and print story (Lauren Neergard). November 14, 2018. Appeared in many local and regional radio and TV and print news stories nationwide. <https://www.apnews.com/584754eadd0a43a1ab5bf93af54845af>
- 68) Interviewed as focus of podcast *Science for the Rest of Us* [www.scienceforus.org](http://www.scienceforus.org). October 1, 2018. Regulation of Genetically Engineered Organisms.
- 69) Quoted in *Wired* magazine, September 24, 2018. Here's the Plan <https://www.dairyherd.com/article/gene-editing-finding-its-way-farm> <https://www.dairyherd.com/article/gene-editing-finding-its-way-farm> to End Malaria With Crispr-Edited Mosquitoes.
- 70) Quoted in *Sarasota Herald Tribune*, August 28, 2018. Processed Food: Genetically modified or gene-edited: Is there a difference?
- 71) Quoted in *Washington Post*, The Future of Food. August 11, 2018. (Duluth Tribune, Australian Financial Times, SF Gate)
- 72) Quoted in *New York Times*, What is a Genetically Modified Crop? European Court Ruling Sows Confusion. July 28, 2018 page B5. (reprinted in Minneapolis Star Tribune, etc.)
- 73) Quoted in Bloomberg News, "Rewriting the genetic code of life". July 19, 2018.
- 74) Quoted in "GMO grass is creeping across Oregon", *High Country News*. June 25, 2018.
- 75) Quoted in Trump's plan to reshuffle government strikes familiar notes. *Science* magazine. June 21, 2018.
- 76) Quoted in *Scientific American*, Weeds Are Winning in the War against Herbicide Resistance. June 18, 2018.
- 77) Quoted in "Pesticide resistance study aims to broaden conversation about pest evolution". *The Technician*. Alicia Thomas, Jun 11, 2018
- 78) Quoted in Wall Street Journal. Is This Tomato Engineered? Inside the Coming Battle Over Gene-Edited Food. April 15, 2018. (also Podcast on WSJ site to accompany article).
- 79) Briefing for journalists on gene drives hosted by AAAS. April 25, 2018. Sciline.org
- 80) Interviewed for "Talking Biotech" Podcast. "How do we decide whether to use gene drives? April 9, 2018. Talking Biotech: How do we decide whether to use gene drives? <https://geneticliteracyproject.org/2018/04/09/talking-biotech-how-do-we-decide-whether-to-use-gene-drives/>
- 81) Mentioned in *Science* magazine article on AAAS Elections results. Vol. 359: 406, January 26, 2018.
- 82) Interview aired for Emerging Issues podcast. [Emergingissues.org](http://Emergingissues.org) December 12, 2017
- 83) Quoted in Genetic Literacy Project article, USDA scraps overhaul of GMO and gene edited crop regulations that biotech advocates viewed as 'unscientific'. November 7, 2017.

- 84) Quoted in Science magazine article, Trump's agriculture department reverses course on biotech rules. November 6, 2017.
- 85) Work mentioned in Scientific American, Could Genetic Engineering Save the Galápagos? November 1, 2017.
- 86) Quoted in Scientific American. "Message Control" October 2017.
- 87) Interviewed by HBO Vice News August 10, 2017
- 88) Interviewed by Wall Street Journal, August 11, 2017
- 89) Quoted in Audubon Magazine. How Genetically Modified Mice Could One Day Save Island Birds. Summer 2017 (July 7, 2017)..
- 90) Quoted in Slate magazine story on The U.S. Regulations for Biotechnology Are Woefully Out of Date. April 21, 2017.
- 91) Interviewed for the CBC (Canadian Broadcast Corporation) radio story on Are we prepared for our gene altered future? March 25, 2017.
- 92) Research featured in PLoS Blog <http://blogs.plos.org/synbio/2017/03/27/can-a-new-model-help-governance-keep-up-with-synthetic-biology/> Can a new model help governance keep up with synthetic biology?
- 93) Quoted in MIT Tech Review, Rewriting Life, 5 Biotech Products U.S. Regulators Aren't Ready For, March 18, 2017
- 94) Interviewed on Australian Broadcasting Company (ABC) Call for open discussion on governance of gene editing technologies. The Science Show, February 25, 2017.
- 95) National Press Briefing on Gene Editing, AAAS Annual Meeting, February 16, 2017.
- 96) Quoted in Nature magazine, "Gene-edited animals face US regulatory crackdown" January 19, 2017.
- 97) Research highlighted in NCSU press release, Bioscience Technology, Phys.org, Science Daily, etc. New tool can help policymakers prioritize information needs for synthetic biology tech. January 17, 2017.
- 98) Interviewed and quoted in NBC News , 11 Surprising Predictions for 2017 From Some of The Biggest Names In Science, December 29, 2016
- 99) Mentioned in New York Times article "National Biotechnology Panel Faces New Conflict of Interest Questions" December 27, 2016.
- 100) Quoted in Wine Enthusiast magazine on "Can Science Save our Favorite Wines?" Decemberr 8, 2016.
- 101) Quoted in Associated Press Story on "Risk experts: Candidates not focusing on biggest threats" November 2, 2016.
- 102) Quoted in WUNC story "Scientists develop a hornless Holstein using 'gene editing.' Are you ready to eat it?" Oct 20, 2016.
- 103) Guest on Science Friday (Public Radio International, Airs on NPR) with Ira Flatow, October 14, 2016. <http://www.sciencefriday.com/segments/scientists-develop-a-hornless-cow-through-gene-editing/>
- 104) Interviewed on Future Biotech Policy, WCOM 103.5 FM, Chapel Hill and Carrboro Radio In Vivo <https://radioinvoivo.org/2016/09/21/future-biotech-policy/>. September 21, 2016.
- 105) Quoted in Wired magazine article "Genes Might Be Helping the Tasmanian Devil Fight Off Face Cancer" August 30, 2016.
- 106) Quoted and research cited in The Boston Globe "Staying Ahead of Technology's Curves" August 21, 2016
- 107) Quoted in PBS Nova Next Now "Editing Out Pesticides", August 3, 2016.
- 108) Quoted in Science magazine, "U.S. Academies gives cautious go-ahead to gene drive" June 8, 2016
- 109) Quoted in Science magazine, "U.S. looking to expert panel to predict future GM products." April 19, 2016.
- 110) Quoted in Scientific American, "Editing the Mushroom", March 1 2016.

- 111) Quoted in Washington Post January 4, 2016, “Around the country, organic farmers are pushing for ‘GE-free’ zones”
- 112) Quoted in Nature Biotech article December 9, 2015 “A face lift for biotechnology rules begins”
- 113) Quoted in The Scientist magazine, “Unregulation of Biotech Crops”, November 26, 2015.
- 114) Quoted in Chem Engineering and News. On funding of synthetic biology and ethics and risk. Oct. 19, 2015
- 115) Quoted and story contributor to “Hopes and Fears: Life and Culture through a Global Lens” on ethics of engineering intelligence in humans. September 22, 2015. Available at hopesandfears.com.
- 116) Quoted in E.W. Scripps article “22 years of science since original 'Jurassic Park' movie” covered in In NBC & ABC news (Denver, Tulsa, Tampa Bay, Naples, Knoxville, etc. ), Independent Mail, June 12, 2015.
- 117) Quoted in Nature magazine, CRISPR the Disruptor, June 4, 2015.
- 118) Research covered in article in Food Safety Magazine, March 16, 2015.
- 119) Interviewed for and quoted in National Journal article on GM apple, February 19, 2015
- 120) Interviewed and quoted for National Public Radio on synthetic proteins., January 21, 2015. <http://www.npr.org/blogs/health/2015/01/21/378820888/scientists-give-genetically-modified-organisms-a-safety-switch>
- 121) Quoted in NY Times on gene editing January 2, 2015
- 122) Research featured and Quoted on All Things Considered WUNC Public Radio, GM and nanofoods 12/6/14 Catherine Brand.
- 123) Quoted in news reports on research on in Food Safety News, Physics.org, Medical News December 3, 2014.
- 124) Chemical and Engineering News on GM modified potato Chemical & Engineering News, 92(46), November 17, 2014 [
- 125) Quoted in Chemical and Engineering News on Convention on Biological Diversity and Synthetic Biology, November 10, 2014 <http://cen.acs.org/articles/92/i45/Oversight-Synthetic-Biology.html>
- 126) Story on GM mosquitos and GMOs. Appearance on UNC-TV August 12, 2014.
- 127) Appeared on WUNC-TV episode on GM Crops, New Fields for Food, January 30, 2014
- 128) Quoted in story on NSF’s Science 360 Breaking News about study on nanofoods, October 29, 2013.
- 129) Quoted in Triangle Business Journal about study on nanofoods. October 28, 2013
- 130) Quoted in Nature magazine GENE EDITING. Nature 500, 389–390 (22 August 2013)
- 131) Interviewed for Chicago Public Radio on GM foods. Aired July 2013
- 132) Quoted in LA Times. March 23, 2013. Genetic modification strains old food and drug laws
- 133) Quoted in Los Angeles Times, GM Foods: Who has to tell? Feb 23, 2013.
- 134) Appearance on Fox 9 News (TV), January 20, 2013. GMO Labeling.
- 135) Interview with Richard Chin, St. Paul Pioneer Press, December 6, 2012; Article on page A1 12/20/12.
- 136) Science Museum of Minnesota, Scientist “expert” for Beaker and Brush discussion, August 14, 2012.
- 137) Interview with Chicago Tribune on nano sunscreens. June 13, 2012
- 138) Talk at Smithsonian Institution covered in Panama News, May [http://www.thepanamanews.com/pn/v\\_18/issue\\_04/nature\\_special\\_01.html](http://www.thepanamanews.com/pn/v_18/issue_04/nature_special_01.html)
- 139) 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](http://www.foodquality.com/details/article/2038937/Proposed_FDA_Guidance_on_Nanomaterials_Seen_As_Flawed.html?tzcheck=1)
- 140) Interviewed Food Retail Leader Magazine, Nanofood guidance of FDA, April 2012.
- 141) Quoted in Nature news “The ‘most important questions’ in science policy shortlisted” March 9, 2012.
- 142) Quoted in Nature Biotech feature news “Tiptoeing around transgenics” March 2012.
- 143) Nano-Link Conference. **Kuzma, J.** Should we sweat the small stuff: Nanotechnology & Society. October 11, 2011.



- 144) Interviewed and quoted in *Newhaven Independent* October 11, 2011; story published, November 9, 2011
- 145) Interview with Ann Meyer, Reporter for Retailer Leader national magazine. August 31, 2011.
- 146) Quoted and featured in 14 December 2010. *Newhaven Independent* A Biotech Road Map?
- 147) Quoted in Technology Leadership Institute Fall 2010/2011 newsletter. November 16, 2010.
- 148) Quoted in *Winona Daily News* "Nanotechnology Takes Hold in SE Minnesota" April 25, 2010.
- 149) Work featured in March 2010, All About Feed magazine.
- 150) Quoted in AOL News. A. Schneider. "Why Nanotech Hasn't (Yet) Triggered 'the Yuck Factor'?". March 24, 2010..
- 151) 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.
- 152) Interviewed and quoted in The Bloomington Alternative, S Higgs, June 28, 2009. "Nanotechnology : Revolution and Pollution"
- 153) 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.
- 154) Quoted in AAAS news release reporting on research "Experts Explore the Dilemma of Regulating Nanotech and Other New Technologies" Lane, E. May 18, 2009.
- 155) Interview for Earth&Sky Radio, syndicate for over 1900 outlets. March 16, 2009. Aired April 2009.
- 156) Interviewed and quoted for Functional Ingredients magazine, Nanotechnology and food. March 2009.
- 157) Interviewed for "The Perils of Nanotechnology", by Steven Higgs, *Counterpunch* May 1-15, 2009.
- 158) Quoted in Chemistry Times "Patent for renewable alternative to petroleum-derived isoprene granted to researcher" (10/18/2008)
- 159) Interview with Finance and Commerce Magazine, August 13<sup>th</sup>, 2008, story in print August 15, 2008.
- 160) Story in AzoNanotechnology news on recent published paper "Nanotechnology Providing Great Benefit Along with Potential Risk" , August 13, 2008.
- 161) Story in NanoWerk News on recent published papers, August 13, 2008.
- 162) Interview with Minnesota Public Radio, Green Chemistry, 5-23-08, Aired 5-28-08 on MPR news.
- 163) Interview with Western Producer newspaper in Saskatoon, Canada on agrifood nanotechnology. March 2008.
- 164) 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](http://www.glrc.org/story.php3?story_id=3481)
- 165) Invited Guest. MPR Midmorning with Kerry Miller, "Genetically Engineered Foods," November 2006.
- 166) Interviewed for and quoted in New York Times "Engineering Food Additives at a Molecular Level" Page C1. October 10, 2008.
- 167) ISB News Report on published work. Jones, P.C. "A nanotechnology revolution in the food and agricultural industry," Food HAACP Newsletter, Issue 214, 2006.
- 168) Rapporteur for "Standards for Nanotechnologies: A Workshop." MSU, Sept. 11-12, 2006.
- 169) Article on research in Nanowerk News, "New report on nanotechnology in agriculture and food looks at potential applications, benefits, and risks," September 7, 2006
- 170) Quoted/Interviewed in LiveScience article and FoxNews.com story, "Scientists Worry About Potential Risks of Nanotechnology in Food" Choi, C.Q, September 7, 2006..
- 171) 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.
- 172) Story on recently published work "Report Urges Coordinated And Integrated Oversight Of Nanotechnology" **ScienceDaily** (Feb. 17, 2006)

**RESEARCH SUPPORT****Current**

- I. Kuzma J coPI** **USDA-NIFA (2020-2021)** **\$25,000**  
*Informing a Risk Assessment Research Strategy for Gene Drive Agricultural Applications through Interdisciplinary Dialogue and Exchange (Biotech Risk Assessment Grant)*  
 T. Kuiken (PI), coPIs K.Grieger, J. Delborne, C. Cummings
- II. 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)
- III. 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)
- IV. 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
- V. Kuzma J. coPI** **NSF NRT (2018-2023)** **\$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)
- VI. Kuzma J. coPI** **NCSU NSRP (2020-2021)** **\$17,000**  
*Archive of Agricultural Genetic Engineering and Society (AGES)*  
 M. Booker PI, F. Gould coPI.
- VII. Kuzma J. PI (NC State)** **NSF-DRMS (2020-2023)** **\$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)
- VIII. Kuzma J. coPI** **Society for Risk Analysis (2019-2021)** **\$20,000**  
*Society for Risk Analysis Strategic Initiative*  
 K. Grieger PI.
- IX. 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

**Past Support**

- 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

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|--------|---|---|------------------|
| XI.    | <b>Kuzma J. PI</b>  | <b>NCSU (2019)</b>                      | <b>\$15,000</b>  |
|        | <i>Literature to Explore Our Genetic Engineering Futures: A Visit with Margaret Atwood.</i><br>CHASS Lightning Rod Event Series. K. Harwood & M. Booker CoPIs.                            |   |                  |
| XII.   | <b>Kuzma J. PI</b>  | <b>NSF 2016-2018</b>                    | <b>\$350,000</b> |
|        | <i>Facilitating Learning about Meanings of Responsible Innovation in Bioengineering</i><br>F. Gould, D. Berube, E. Banks, and J. Herkert co-PIs   |   |                  |
| XIII.  | <b>Kuzma, J. PI</b>   | <b>NSF 2015-2017</b>                    | <b>\$50,000</b>  |
|        | <i>Gene Drives: A Deliberative Workshop to Develop Frameworks for Research and Governance</i><br>Fred Gould co-PI   |   |                  |
| XIV.   | <b>Kuzma, J. PI</b>   | <b>NSF 2014</b>                         | <b>\$50,000</b>  |
|        | <i>Systems Approaches to Research and Practice</i><br>Gordon Research Conference on S&T Policy  |   |                  |
| XV.    | <b>Kuzma, J. PI</b>   | <b>USDA 2013-2014</b>                   | <b>\$39,384</b>  |
|        | <i>Comparing Public Attitudes Towards Genetically-Modified and Nanotechnology-Based Foods and Labeling</i> USDA Food Policy Research Center<br>C. Yue, co-PI                              |   |                  |
| XVI.   | <b>Kuzma co PI</b>  | <b>USDA</b>                             | <b>\$30,676</b>  |
|        | <i>USDA Stakeholder Workshop on Coexistence of Genetically Engineered and Conventional Crops</i><br>F. Gould PI, J. Delbrone coPI   |   |                  |
| XVII.  | <b>Kuzma, J. co-PI</b>  | <b>NSF 2012-2015</b>                    | <b>\$420,000</b> |
|        | <i>Women in S&amp;T Policy</i><br>K. Husbands-Fealing (PI), D. Fitzpatrick, S. Cozzens, L. Doerr (Boston U) coPIs<br><i>Note: dropped off as co-PI in April 2014 due to move to NCSU.</i> |   |                  |
| XVIII. | <b>Kuzma J., PI</b>   | <b>Sloan 2013-2015</b>                  | <b>\$173,703</b> |
|        | <i>Looking Forward to Synthetic Biology Governance: Convergent Research Cases to Promote Policy-Making and Dialogue</i><br>C. Cummings (coPI)   |   |                  |
| IV.    | <b>Kuzma J. PI</b>  | <b>U of MI Risk Science Center 2015</b> | <b>\$5000</b>    |
|        | <i>Support for NCSU-IGEM team for International Competition</i><br>Berube co-mentor   |   |                  |
| XIX.   | <b>Kuzma, J. PI</b>   | <b>NSF-NNIN 2012-2013</b>               | <b>\$20,000</b>  |
|        | <b>How Small is Small Enough?: A Cross-Disciplinary Approach to Defining “Nano” for Research, Society, and Regulation</b><br>L. Fatehi, co-PI.  |   |                  |
| XX.    | <b>Kuzma, J. co-investigator, steering committee</b>  | <b>USDA-NIFA 2012-2015</b>              | <b>\$960,000</b> |
|        | <b>Food Policy Research Center</b><br>Hueston, W. PI, Lindsey, Buhr, Rutherford, Virnig (coPIs). Foley, Story, Murtaugh, Kurzer (co-Is)   |   |                  |
| XXI.   | <b>Kuzma, J. co-project leader</b>  | <b>Consortium 2012-2013</b>             | <b>\$25,848</b>  |

**Ethical Expectations for Social Robots: A Cross-Sector Exploration**

Fatehi PI, Kelley co-project leader

- XXII. **Kuzma, J. PI** **GIA 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.**
- XXIII. **Kuzma, J. Institute on the Environment** **IonE 2009-2012 \$60,000**  
**Resident Fellow: Collaborative Systems Modeling.**
- XXIV. **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.
- XXV. **Kuzma, J. co-PI,** **NSF 2009-2013 \$3,364,997**  
**TRPGR: Precise Engineering of Plant Genomes using Zinc Finger Nucleases.**  
 D Voytas (PI)
- XXVI. **Kuzma, J. PI. Quick K. co-PI** **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.
- XXVII. **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)
- XXVIII. **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)
- XXIX. **Kuzma, J. Co-I, Minnesota Office of Education,** **MOE 2009-2010, \$58,669**  
**Nanotechnology 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)
- XXX. **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.
- XXXI. **Kuzma PI Consortium on Law and Values (UMN) 2005-2006 \$11,612**  
**Agrifood nanotechnology database and oversight**



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XXXII.	Kuzma PI	Consortium on Law and Values (UMN)	2005-2005	\$21,000
	<i>Nanotechnology-Biotechnology Interface: Exploring Models for Oversight on Law and Values in Health, Environment, and the Life Sciences</i>			
	Keller, Pui, and Talukder coPIs			
XXXIII.	Kuzma PI	Pew Initiative Emerging Nanotechnologies	2005-2006	\$7864
	<i>The Nano-Bio Interface: Applications in Food and Agriculture—An Exploration of Projects, Potential Risk and Benefit Issues, and Governance Models.</i>			
XXXIV.	Kuzma, J., PI,	BBAM	2008-2009	\$10,000
	<i>Systems Modeling Initiative</i>			
	Steve Kelley (co-PI)			
XXXV.	Kuzma, J., coPI	IREE	2004-2005	\$38,506
	<i>Full Cost Accounting of Renewable Energy Systems.</i>			
	Tilman, D., and N. Zetouni.			

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**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)
- 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.**<sup>6</sup>

**Training**

- 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 22<sup>nd</sup>. 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.

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<sup>6</sup> 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://beh.cbd.int/database/record.shtml?documentid=103869>.

Courses

NC State

- 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
  - 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-present), 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-present) Ph.D. Entomology/Genetic Engineering and Society (member)
9. Jabeen Ahmad (2020-present) PhD. Plant-Microbial Biology/AgBioFEWs (member)
10. Andrew Hardwick (2019-present), MPA/Ph.D. in Public Administration NC State (chair)

**Duke University Masters of Science and Society (MA)**

11. Ashlyn Saunders—(2015, MA graduate)
12. 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**

13. 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)**
14. Kevin Marquart (MS 2013), Life cycle analysis and Nanomedicine.
15. Amanda Kabage (MS 2013) Genetics research and public participation
16. Joseph Dammel (MS-JD 2013), Space policy and public values mapping.
17. Kelsi Anderson (MS 2013), E-participation and effectiveness.
18. Whitney Place (MS 2013), Water quality and agricultural inputs.
19. Christopher Jones (MPP 2013), Systems view of health, green space, and poverty.
20. Megan Roberts (MS-STEP, 2012, academic advisor, Plan A paper adviser) Child labor on farms.
21. Jonathan Brown (MS, 2012, Plan A, paper advisor) Public attitudes towards nanofoods
22. Sarah Goodspeed (MS 2012, Plan B, paper advisor). Sustainable agriculture.
23. 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)**
24. Mary Kemp (MS 2012, Plan B, paper advisor). Sustainable sourcing of palm oil.
25. Eric Barnett (MPP 2012, Professional paper, paper advisor). State counter-bioterrorism planning
26. Kenzie Consoer (MS 2012, Plan B, paper advisor). Risk governance and participation.
27. Christopher Jones (MPP 2012, Professional paper, paper advisor). Technology and health.
28. Brad Hagemeyer (MPP 2012, professional paper, paper advisor). State conservation programs.

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

#### **Academic Advisor or Committee Member**

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

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

**Research Assistants Supervised & Supported\* with Grants**

**NCSU**

1. Mason Rizzo (2013)\* MS
2. Sheron King (2013-2017)\* Ph.D.
3. Tina Ndoh (2013-2015)\* Ph.D
4. J. Patrick Roberts (2014-2020)\* Ph.D.
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. Christopher Cummings Ph.D. (2013-2014)\*, (2020-present)
37. Adam Kokotovich, Ph.D. (2019-present)\*
38. Khara Grieger, Ph.D. (2019-2020)\*
39. Todd Kuiken, Ph.D. (2018-present)\*

**SERVICE**

- National Academy of Science, Engineering and Medicine (NASEM) National Academy of Medicine Working Group of Committee on Emerging Science, Technology and Innovation (2021-present)
- School of Public and International Affairs Executive Committee (2020-present)
- NC State Nomination Review Committee for Goodnight Distinguished Professorship in Coastal Resilience and Sustainability (2021)
- NC State Research Leadership Academy, advises Office of VC for Research (2020-present)
- AAAS-UNESCO Consultative Group on Responsible Research and Innovation (2020-present)
- Co-hosted and content advisor for the Keystone Policy Center October 13-15<sup>th</sup> 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.geneconveni.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-present)
- Interdisciplinary RPT Committee for NC State (2019)
- AAAS Section on Societal Implications of Science and Technology (X) Electorate Nominating Committee (2018-present)
- Center for Science in the Public Interest, Advisory Board (2015-present)
- Hastings Center NSF project on “Gene Editing in the Wild” Advisory Group. (2018-present)

- 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-present)
- NCSU Governance and Personnel Policy Committee (2018-present)(chair from 2019-2020)
- NCSU Faculty Senate Executive Committee (2019-2020)
- NCSU Honorary Degree Committee (2018-present)
- 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 Technologies: 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 April 5, 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-present)
- 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-present)
- 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 present)
- U of M, Affiliate Faculty and Advisory Board, NorthStar Initiative for Sustainable Enterprise at the Institute on the Environment (2009-present)
- 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-present)
- U of 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-present)
- 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)

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#### 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)
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**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-present)
  - AAAS-ABA National Council for Scientists and Lawyers. (2019-present)
  - AAAS-UNESCO Consultative Group on Responsible Research and Innovation (2020-present)
  - American Association for the Advancement of Science (AAAS) Section X Committee liaison, Societal Implications of Science and Engineering. (2015- ); Officer on Electorate Nomination Committee (2018-present)
  - 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 1<sup>st</sup> , 2<sup>nd</sup> , 3<sup>rd</sup> 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)
  - Association for Public Policy Analysis and Management (member 2008-2009)
  - System Dynamics Society (member 2007-2008)
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**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; Acquisition 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<sub>12</sub> 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

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#### 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)

## Kuzma CV

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- 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.