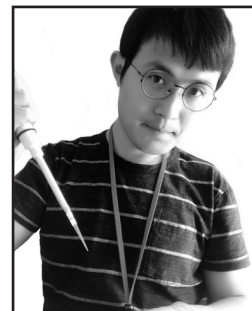


STUDENT RESEARCH CONFERENCE SPEAKER BIOGRAPHIES

Xiangkun (Elvis) Cao
Oral Presentation by a Graduate Researcher
November 11, 3:40–4:00 p.m.

Xiangkun (Elvis) Cao (<http://elviscao.com>) is currently a PhD student working with Professor David Erickson at Cornell University in Ithaca, New York. His research at Cornell focuses on two concentrations: (1) FeverPhone, a smartphone based molecular diagnostics platform for differential diagnosis of six common causes of acute febrile illness; (2) HI-Light, a solar thermal chemical reactor technology for converting CO₂ to hydrocarbons. Elvis has recently published work in *ISIJ International*, and *Metallurgical and Materials Transactions B*, and is participating in a team that has won the \$20K Grand Prize in NASA Tech Briefs “Create the Future” Design Contest. For his research on FeverPhone, Elvis received several recognitions: Graduate Division winner at 2017 Sigma Xi’s Student Research Showcase; First Place in Student Research Presentation at 2017 Biotechnology Symposium; Best Poster Award in ACLS International Summer School organized by Tokyo Tech. Prior to joining Cornell, Elvis was a visiting graduate student at MIT and received his master’s degree from McGill.



Emily Cross
Oral Presentation by a High School Researcher
November 11, 3:00–3:20 p.m.

Emily Cross is an internationally recognized youth researcher, science mentor, and public speaker whose research focus is geoscience. She has been recognized for her research stone tool patinas, and development of ironstone removal techniques for fossils and opals. She has competed nationally (Canada-Wide Science Fair) and internationally (Intel International Science and Engineering Fair). Emily’s public speaking focuses on empowerment of girls and youth in science, technology, engineering, and math (STEM). In November, she will be speaking at the Canadian Science Policy Conference about the need for action to help women and girls in science in northern and remote communities. Emily is a national youth science mentor for the Youth Research Network, providing training, research advice, and support to youth scientists across Canada, and is also a regional director (Thunder Bay) of Sustainable Youth Canada. Emily is a talented researcher, a dedicated youth leader in her community, and a strong voice for youth science and women’s STEM empowerment on the national and international stage.



STUDENT RESEARCH CONFERENCE SPEAKER BIOGRAPHIES

Greg Fishel

Climate Change, My Journey from Ideology to Science

November 11, Keynote Address during the banquet from 7:00–9:00 p.m.

Greg Fishel is a Sigma Xi member and the chief meteorologist for Capitol Broadcasting Co. His duties include three television weathercasts daily for WRAL-TV and five radio weathercasts daily for MIX 101.5 WRAL-FM. He is a Fellow of the American Meteorological Society and received its Seal of Approval for television and radio. He is also chair of the Advisory Board for the North Carolina State Climate Office. Greg was the first certified broadcast meteorologist in the United States and has received an Emmy from Midsouth Region of the National Academy of Television Arts & Sciences.



Eman Ghanem

From Exploration to Publication

November 11, 1:30–2:45 p.m.

Eman Ghanem is the director of membership, chapters, and programs at Sigma Xi, The Scientific Research Honor Society. Prior to Sigma Xi, she was the co-director of Student and External Relations for the Freshman Research Initiative (FRI) program at The University of Texas at Austin, where she also served as the research educator for the Supramolecular Sensors Stream. Eman holds a PhD in biochemistry from Texas A&M University, where she worked on developing enzymes for bioremediation of chemical warfare agents. She obtained an MS in chemistry from Eastern Illinois University and a BS in biochemistry from Ain Shams University, Cairo, Egypt. Her research with FRI focused on designing peptide-based sensing arrays for differentiating complex mixtures. Prior to joining FRI, she was a postdoctoral researcher at the Institute for Cellular and Molecular Biology at The University of Texas at Austin.



Aaron Huertas

Communicating Research in a Rapidly Shifting Landscape

November 11, during lunch from 12:00–1:30 p.m.

Organizing an Effective Visit with a Policymaker

November 11, 1:30–2:45 p.m.

Aaron Huertas is the founder and principal of Science Communication Media, a consulting firm in Washington, DC. For more than 10 years, he's helped scientists convey their research to the public and policymakers, from delivering Congressional testimony to appearing on *The Colbert Report*. He is the author of a Union of Concerned Scientists report on cable news representations of climate science and he has written for the Poynter Institute, MIT's Undark.org and Sigma Xi's *Keyed In* blog.



STUDENT RESEARCH CONFERENCE SPEAKER BIOGRAPHIES

Jen Kernan

Communicating Research in a Rapidly Shifting Landscape
November 11, during lunch from 12:00–1:30 p.m.

Jen Kernan is a pharmacology PhD graduate student at the University of North Carolina at Chapel Hill. Her research examines post-translational modifications regulating protein stability during cell proliferation. She received her BA in biology from Saint Anselm College, Manchester, New Hampshire. In addition to her research, she is the vice president of External Affairs for Science Policy Advocacy Group (SPAG) and serves as a liaison between students and regional and national policy leaders whom she invites to speak on campus. Last year, she participated in a Congressional Visit Day sponsored through the National Science Policy Group (NSPG) where she advocated for sustained science funding with North Carolina senators and representatives. A recipient of a conference travel award granted through the UNC Training Initiatives in Biomedical & Biological Science (TIBBS) Science Policy Series, she attended the AAAS Forum on Science & Technology the same spring.



Fenella Saunders

Social Media for Scientists
November 11, 1:30–2:45 p.m.

Fenella Saunders is the director of science communication and publications for Sigma Xi, The Scientific Research Honor Society and the editor-in-chief of Sigma Xi's magazine, *American Scientist*. She oversees production of this bi-monthly publication that features the work of the world's leading researchers and their perspectives on today's issues in science and technology. Additionally, she is the secretary of Sigma Xi's Research Triangle Park Chapter. Fenella was previously a science writer and editor for *Discover* magazine, *Popular Science*, *Popular Mechanics*, *NYU Physician*, Scholastic, The Learning Channel, and The Discovery Channel. She received an AB degree in computer science from Duke University and a master's degree in psychology and animal behavior from Hunter College of the City University of New York.



Matt Shipman

Communicating Research in a Rapidly Shifting Landscape
November 11, during lunch from noon–1:30 p.m.

Matt Shipman is the research communications lead at North Carolina State University. Matt is the author of *The Handbook for Science Public Information Officers* (2015, University of Chicago Press) and a contributing author to *Science Blogging: The Essential Guide* (2016, Yale University Press). He is a regular contributor to HealthNewsReview.org. He serves on the board of the National Association of Science Writers and is a regular speaker on issues related to effective research communication. Earlier this year, he served on expert panels at the "Responsible Communication of Basic Biomedical Research" workshop, co-organized by Federation of American Societies for Experimental Biology and the National Institute of General Medical Sciences.



STUDENT RESEARCH CONFERENCE SPEAKER BIOGRAPHIES

Jory Weintraub

Communicating Research in a Rapidly Shifting Landscape

November 11, during lunch from noon-1:30 p.m.

Jory Weintraub is the science communication program director and a senior lecturing fellow with the Duke Initiative for Science & Society. In this position, he teaches undergraduate and graduate courses in science communication and runs science communication workshops for Duke faculty and postdocs. He is also the director of the Duke Broader Impacts Resource Center, which he established to support the Duke University research community in its efforts to develop, implement, assess and disseminate broader impacts activities and initiatives. Prior to this, he served for over 10 years as the assistant director of education and outreach at The National Evolutionary Synthesis Center, where he developed and ran programs in evolution education and outreach for K-12 students and teachers, undergraduates, and the general public. Jory received his BS in biochemistry and cell biology from The University of California at San Diego, and his PhD in immunology from The University of North Carolina at Chapel Hill.



Program Update

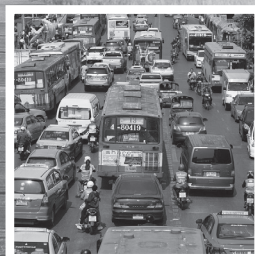
Symposium on Atmospheric Chemistry, Climate, and Health

November 10, 2017

Student Research Conference

November 11, 2017

Updated Schedules • Additional Speaker Biographies • Additional Research
Abstracts • Full Index of Student Presenters • Map of Poster Presentations



Raleigh Convention Center • Raleigh, North Carolina • #SigmaXimtg



SIGMA XI

THE SCIENTIFIC RESEARCH HONOR SOCIETY

STUDENT RESEARCH CONFERENCE SPEAKER BIOGRAPHY

Kevin K. Takashita-Bynum
Oral Presentation by an Undergraduate Researcher
November 11, 3:20-3:40 p.m.

Kevin K. Takashita-Bynum is an undergraduate geoscience major at Appalachian State University in Boone, North Carolina. His primary academic interests include the overall geology of the East African Rift System from the Oligocene to the Pleistocene, and the clay mineralogy of ceramics during the early Classical Antiquity period. His current work is based in northwestern Kenya, where he uses a multi-proxy approach to reconstruct the paleolandscape of our primate ancestors. He also works on an independent clay provenance project at the Harvard Semitic Museum, where he is attempting to reconstruct ancient trade routes via analyses of pottery sherds from a prominent Canaanite settlement. Kevin aims to earn a terminal degree within the field of geology and to someday work at a research institution.

