Food Science Graduate Seminar Series Fall 2020

Tuesdays from 4:10 – 5:00 PM
7-week course, session 1
Stocking Hall
Cornell University

Seminar Chair: Dr. Abigail Snyder

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Respect Statement

Diversity in the field of food science – in race, gender, sex, religion, language, ability, veteran status, place of origin, academic specialization, etc. – is an asset to our learning experience. As a result, we hope to provide an inclusive and welcoming space for our speakers to share their expertise. We want to reaffirm our commitment to speaking respectfully and mindfully to members of our Cornell community as well as our guests and note that individuals identifying with historically minoritized groups should not be expected to describe or provide perspective on these groups unless they themselves volunteer to relate their experiences. We value the scholarship of each of our speakers, and we invite our speakers in order to hear their unique contributions to the field.

Date	Speaker	Seminar Title
Sep 8	**Shannon Coleman**, PhD Assistant Professor and State Extension Specialist, Department of Food Science & Human Nutrition, Iowa State University	"Development, Dissemination, and Evaluation of Two Food Safety Training for Exempt Home Food Operations and Home Bakeries in Iowa."
Sep 15	**Tim Kurt,** PhD Scientific Program Director, Foundation for Food and Agriculture Research	"Key Considerations for Agricultural and Food Systems Research in the Pandemic Era."
Sep 22	**Bryson Bolton,** M.S. Manager of Sensory and Sample Collections, Synergy Flavors, Inc.	"Leveraging The Power Of Your Network."
Sep 29	**Kimberly Jackson**, PhD Chair and Associate Professor, Chemistry and Biochemistry, Food Studies Director, Spelman College	"Food Studies as a Transdisciplinary Academic Movement at Spelman College."
Oct 6	**Sharon Davies**, J.D. Provost and Vice President of Academic Affairs, Spellman College	"On Windstorms and Higher Education in the 21st Century"
Oct 13	**Deepti Salvi**, PhD Assistant Professor, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina University	"Applications of Cold Atmospheric Pressure Plasma in Food and Agriculture."
Oct 20	**Wondwossen Gebreyes**, PhD Hazel C. Youngberg Distinguished Professor, Molecular and Epidemiology Executive Diretor, Global One Health initiative (GOHi)	TBD

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Shannon Coleman

Dr. Shannon Coleman currently serves as an Assistant Professor and State Extension Specialist in the Department of Food Science and Human Nutrition at Iowa State University. Coleman's Extension and Outreach work include the development and dissemination of food safety curriculum and resources for emerging, very small, and small food manufacturers in Iowa. Her research focuses on evaluating food manufacturers' attitudes, intentions, and behaviors towards following food safety practices using various evaluation theories. Coleman has expanded her outreach and research from farm-to-table to focus on filling gaps in improving food safety along with the local food system, which includes development curriculum and resources for gardeners, 4-H youth & judges. In today's presentation, Dr. Coleman is going to present her findings from two food safety training her team developed for home-based food operators, cottage food producers, in Iowa.

Development, Dissemination, and Evaluation of Two Food Safety Trainings for Exempt Home Food Operations and Home Bakeries in Iowa

Understanding safe food practice is essential for home-based food operators to prevent foodborne illness. The objective of the in-person study is to assess participants' attitudes and behaviors towards food safety practices using seven constructs from the Theory of Planned Behavior. The objective of the online study was to evaluate the effectiveness of one online food safety education module for home-based food operators in Iowa through learning assessments. Two pilot training both in-person and online was developed and addressed topics including Iowa laws, food safety basics, and application to the home kitchen, production, and at the point-of-sale. Participants of the in-person study were assessed on areas of attitude, behavior, intention, perceived behavioral control, and willingness to conform to social pressures related to food safety. The assessment was disseminated via a pre-test, post-test, and follow-up evaluation. Results of the in-person evaluation show that participants (n=51) had positive feelings (5.00 or ≥) for six constructs except for a slightly lower rating for attitude (4.00 or ≥). Significant differences were observed between pre-test and post-test times within behavior towards preparation environment and perceived behavioral control constructs. Participants (n=21) of the online study were assessed on the effectiveness of the online module by examining the first-attempt average scores on learning assessments, the number of attempts required to achieve 100%, and the first-attempt performance by question type. The three learning assessment tools from the online study resulted in first-attempt averages of approximately 86%, 90%, and 83%, surpassing our standard of the effectiveness of 75%. The results from these studies will provide researchers and educators with the guidance of areas within food safety training for home food producers.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Tim Kurt

Dr. Kurt is the scientific program director for the Foundation for Food & Agriculture Research's (FFAR) Advanced Animal Systems Challenge Area, a position he has held since October 2016. At FFAR, Dr. Kurt builds multi-stakeholder collaborative initiatives to address significant challenges. His portfolio includes the International Consortium for Antimicrobial Stewardship in Agriculture (ICASA), a suite of technology development programs for improved animal welfare and productivity (SMART Broiler; Egg-Tech Prize), projects on prevention and control of emerging infectious diseases (ROAR) and the FFAR Vet Fellows student research program. His primary goal at FFAR is to leverage innovation for impact. Dr. Kurt studied veterinary medicine at Colorado State University, where in addition to a Doctor of Veterinary Medicine degree, he completed a PhD on the determinants of susceptibility to cross-species and zoonotic prion infection. Afterwards, he worked as a research scientist at the University of California San Diego, designing new transgenic animal models, evaluating small molecule protein-misfolding inhibitors and presenting research findings to scientific and medical audiences. He is a recipient of awards from the National Institutes of Health, the Morris Animal Foundation and the American Veterinary Medical Association. His work and commentary has been featured in Science, the Journal of Virology and media outlets such as the Washington Post, Agri-pulse and RFD-TV.

Key Considerations for Agricultural and Food Systems Research in the Pandemic Era

The COVID-19 pandemic has affected every aspect of our society and has caused massive disruption to food systems across the world. In the U.S., there have been anticipated shortages of certain food products, leading to substantial consumer "stocking" behavior, which caused scarcities and price fluctuations. At the same time, farmers have been forced to dump or plow-under raw materials due to the lack of demand associated with closure of entire industries. These events were followed by actual shortages in meat products, due to high rates of COVID-19 infection in the processing sector, which caused significant reductions in capacity. Here, it is important to recognize that COVID-19 has disproportionately affected the wellbeing of communities of color and essential workers including those in meat industry. Processing plant closures nationwide were predicted to result in the wholesale slaughter of several million animals – an outcome which has largely been avoided. However, many questions remain, including: (1) How do we balance human and animal wellbeing while ensuring food availability and minimizing food loss during crises? (2) What is the role of science and technology in preventing these types of events and mitigating future shocks to the food system? (3) Where do plant-based "meat" products fit into the broader picture of food security? In this Baumann Lecture, I will provide an overview of these topics and welcome an interactive discussion regarding the Foundation for Food and Agriculture Research's priorities and funding opportunities during the pandemic era.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Bryson Bolton

Bryson C. Bolton manages a team that integrates sensory understanding into the flavor and application design process by ensuring that methods are aligned with objectives to provide sensory insights at Synergy Flavors, Inc. He also leads a team that selects and sends flavors and applications to domestic and international customers.

Before joining Synergy, Bryson was the Sensory & Consumer Research Manager at Product Dynamics. There he provided leadership, guidance, and insight on sensory and consumer research activities. He was also a primary customer contact and served as a key client advisor and resource to many food, beverage, and ingredient companies. Bryson has also worked as a Sensory Scientist at Kraft Foods and the Kellogg Company (Intern).

Bryson is a former IFT Board of Director and active volunteer. He is a former Adjunct Sensory Evaluation Instructor at Dominican University, an active member in the American Society for Testing Materials, E-18, and the Society of Sensory Professionals; and he is currently serving on Cornell's Food Science Advisory Council.

Bryson holds a BS in Food Science with a minor in Chemistry from Alabama A&M University, and an MS in Food Science with a concentration in Sensory Science and a minor in Enology from Cornell University. Bryson has a passion for food, culture, sensory, and travel; and he resides in the Chicago area with his wife Khara.

Leveraging The Power Of Your Network

A strong network will play a vital part throughout your career by giving you access to private information, a diverse skill set, and power via brokers. This talk will provide you with tips on building, evaluating, and leveraging your network's power. Join Bryson C. Bolton, MS 09, Sensory Scientist, and learn how he leveraged his network before, during, and after Cornell.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Kimberly Jackson

Dr. Kimberly M. Jackson is Chair and Associate Professor of Chemistry and Biochemistry and director of the Food Studies program at Spelman College in Atlanta, Georgia. A Fulbright Scholar and now a 2020-21 Fulbright Scholar Alumni Ambassador, her robust and active research programs focus on novel therapeutic agents (natural products) for advanced prostate cancer and the role of minority-serving institutions and women of color in diversifying the STEM pipeline. Her research programs have garnered a host of publications, presentations, and funding from multiple agencies. For her commitment to STEM excellence, Dr. Jackson has been recognized as a Governor's Teaching Fellow and awarded the Spelman Presidential Awards for Excellence in Research, Teaching, and Mentoring. She has held a visiting faculty appointment at Harvard Medical School in Boston, MA, in the Systems Biology department. Dr. Jackson serves on the advisory board for the American Society of Biochemistry and Molecular Biology Public Affairs Committee, COACh for Women Scientists and Engineers, and the American Chemical Society (ACS) Committee on Project SEED. She has most recently served a ten-year term on the ACS Committee on Minority Affairs to help implement policies that promote best practices for the recruitment, retention, career development, and evaluation of programs to advance minority scientists.

Food Studies as a Transdisciplinary Academic Movement at Spelman College

Spelman College, a black women's liberal arts institution and global powerhouse, is known for being at the forefront of transformative interdisciplinary projects in higher education. Founded in 1881, Spelman has preserved documents from the late nineteenth century of the College's agricultural history. Recent faculty and student engagement in campus food "activities" has sparked interest in how food is used to examine political and socio-historical questions on the causes and consequences of black women's labor (productive and unrecognized), food access, federal policies, land ownership and theft, healthcare, and food security. Spelman College is the first and only historically black college/university (HBCU) to have a Food studies program, although other HBCUs offer programs in agricultural sciences. Our curricular thrust is to create a sustained Food Studies program that guides students in questioning the very foundations of what we consider "food" to be, challenging them to consider how food - its naming, production, distribution, and consumption - is historically contingent and, is simultaneously a site of pleasure and power dynamics. This talk will examine the transdisciplinary academic movement that has taken place to establish an interdisciplinary food studies program with an African diasporic lens; create community-engaged projects and global opportunities for students in food studies; and establish an annual food studies event exploring the intersections of race, gender, and class in food justice work.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Sharon Davies

Sharon Davies is the provost and vice president of academic affairs at Spelman College. Davies' career experiences span both academic and non-academic fields. She joins Spelman from The Ohio State University where she was vice provost for Diversity and Inclusion and chief diversity officer. Davies was also a member of OSU's Moritz College of Law faculty for 22 years, serving as the Gregory H. Williams Chair in Civil Rights and Civil Liberties. In addition, Davies directed the university's Kirwan Institute for the Study of Race & Ethnicity, an interdisciplinary engaged research institute known nationally for its work in social justice, equity and inclusion. Before moving to Atlanta, she also held an appointment to the Ohio Advisory Committee to the United States Commission on Civil Rights.

Professor Davies was a Harlan Fiske Stone Scholar and a Notes and Comments Editor of the Columbia Law Review while in law school at Columbia University. After graduation she worked for Steptoe and Johnson in Washington, D.C., Lord, Day & Lord Barrett Smith in New York City, and served for five years as an Assistant United States Attorney in the U.S. Attorney's Office in the Southern District of New York. Professor Davies teaches Civil Rights, Criminal Law, Criminal Procedure, Race and Law, and Evidence.

Davies was the recipient of a 2015 YWCA Woman of Achievement award from the YWCA Columbus chapter, the Robert M. Duncan Award by the Columbus Chapter of the American Constitution Society (April 2014) in recognition of her contributions to democracy, fostering legal education, ensuring access to justice, and preserving individual rights and the rule of law, and the Liberty Bell Award from the Columbus Bar Association (June 2013).

Professor Davies' articles and other writings have been published in some of the nation's leading law journals including the Duke Law Journal, the Southern California Law Review, the Columbia Law Review, the Michigan Law Review, and Law and Contemporary Problems.

In 2010, Oxford University Press published Davies's narrative nonfiction account of a 1921 murder trial in Birmingham, Alabama, titled Rising Road, A True Tale of Love, Race and Religion in America, for which the Mayor of Birmingham presented her with a "Key to the City."

On Windstorms and Higher Education in the 21st Century

How must higher education respond to recent demands for greater compositional diversity and inclusion of underrepresented populations? The speaker will provide some concrete ideas for leadership.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Deepti Salvi

Dr. Deepti Salvi is an assistant professor at the Department of Food, Bioprocess and Nutritional Sciences at North Carolina State University. Dr. Salvi received her Ph.D. in Agricultural and Biological Engineering from Louisiana State University, M.S. in Food Engineering and Bioprocess Technology from Asian Institute of Technology, Thailand and B. Tech. in Agricultural Engineering from Konkan Agricultural University, India. Her professional experience includes working as an assistant research professor at Rutgers, the State University of New Jersey and post-doctoral researcher at the Audubon Sugar Research Institute, Louisiana State University.

Her research program focuses on thermal and non-thermal food processing (such as cold atmospheric pressure plasma, high-pressure processing, microwave processing, extrusion, ultraviolet processing), nutrient absorption in the human gastrointestinal tract, and numerical modeling of transport phenomena. Her lab currently receives research funding from the U.S. Department of Agriculture's National Institute of Food and Agriculture and from Center for Advanced Processing and Packaging Studies, a National Science Foundation IUCRC Founded Center.

Applications of Cold Atmospheric Pressure Plasma in Food and Agriculture

Cold atmospheric pressure plasma (CAPP) is a novel non-thermal technology that has gained attention in food and agricultural applications. Plasma, the fourth state of matter, is a partially ionized gas consisting of charged species, excited atoms, molecules, and ions, along with quanta of electromagnetic radiation (UV photons and visible light). Waterless CAPP offers a good alternative to conventional disinfection methods due to the generation of a mixture of reactive species that are effective in the destruction of microorganisms.

Plasma-activated water (PAW) is generated by exposing water to plasma in the presence of air at atmospheric pressure. The reactive oxygen and nitrogen species (RONS) in PAW have been shown to inactivate microbes as well as influence plant growth.

This talk will cover various applications of CAPP and PAW in the domain of food and agriculture including plant growth and sanitation of food and food contact surfaces. The current status, challenges, and future of the technology will also be covered.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

Wondwossen Gebreyes

Dr. Gebreyes is a Hazel C. Youngberg Distinguished Professor of molecular epidemiology and Executive Director of Global One Health initiative (GOHi) at The Ohio State University. He completed his Doctor of Veterinary Medicine (DVM) at Addis Ababa University and his PhD in Population Medicine at North Carolina State University. Dr. Gebreyes is the principal investigator of several research and training programs sponsored by the National Institute of Health (NIH) Fogarty International Center, Centers for Disease Control and Prevention (CDC) and others. He is engaged in food safety research activities mainly focused on antimicrobial resistance. Dr. Gebreyes co-founded the International Congress on Pathogens at the Human Animal Interface (ICOPHAI) (http://icophai.org) and currently serves as the Chairperson. He is a recipient of several awards including the Universitas 21 international award; Michael P. Malone International Leadership Award by APLU; Battelle Endowment for Technology and Human Affairs (BETHA); Pfizer Award for Veterinary Research Excellence; Andrew Heiskell Award (honorable mention) by the Institute of International Education (IIE) and Emerging International Engagement award. In 2019, GOHi was presented a NIH Gold Medallion in recognition of its collaboration in building global capacity to address complex health issues. Dr. Gebreyes was selected as an American Council on Education (ACE) Fellow for 2020-2022.

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)

Cornell CALS

College of Agriculture and Life Sciences

Food Science

Food Science Graduate Seminar Series
Fall 2020

For questions contact: Erin Atkins | ea56@cornell.edu | 607-255-2539 (office)