

Graduate Student Highlights

July 2021 – September 2021

Graduate School News

Study Finds that Professional Development Opportunities Do Not Delay Doctorate Training or Publications



Doctoral students who participated in professional development opportunities during their degree programs did not experience differences in time to degree or manuscript output from their peers who did not participate in such opportunities, a new paper finds. The Graduate School's Susi Varvayanis, executive director of Careers Beyond Academia, is an author of the study.

[Read the full story](#)

Future Professors Prepare to Improve Academia for All



The 2021 Future Professors Institute prepared future faculty through panels and discussions focused on supporting students with disabilities in academia, exploring institutional fit and faculty and leadership pathways at minority-serving institutions, and establishing scholarship and research agendas as new faculty members. Half of this year's panelists were Graduate School alumni.

[Read the full story](#)

Graduate Students Targeted by Phishing Scams, Suffer Financial Losses



Individuals responsible for phishing scams are becoming craftier, luring students to provide personal information and funds through the use of email addresses that mimic those of the Cornell community, a sense of urgency, and references to students' online presences. To better prepare students to handle phishing attempts, the Graduate School compiled information that will provide clarity into these scams.

[Read the full story](#)

Doctoral Candidate and Advisor Receive HHMI Gilliam Fellowships



Biomedical and biological sciences doctoral candidate Karla García-Martínez and Professor of Immunology Cindy Leifer were selected as recipients of the 2021 Howard Hughes Medical Institute (HHMI) Gilliam Graduate Fellowships for Advanced Study. With the funding from the fellowship, García-Martínez will not only be supported in her research, but also in endeavors to improve the mental health of graduate students whose communities were affected by COVID-19.

[Read the full story](#)

Windchief Offers Tips for Reaching Potential in Graduate School and Beyond



Sweeney Windchief, Ed.D., associate professor of adult and higher education at Montana State University, offered advice to students for reaching their potential in degree programs and beyond during the seventh annual Summer Success Symposium opening plenary session. His talk focused on the integration of community, agency, and navigation in graduate school as a roadmap to guide students in their successful progression through their degrees.

[Read the full story](#)

Six Postdocs Honored with Achievement Awards



Six postdoctoral scholars have been honored with achievement awards as part of Cornell's celebration of National Postdoc Appreciation Week. The awards and recipients are: Annika Huber, Ph.D. '19, and Javier Jaimes, Ph.D. '19, for excellence in community engagement; Frank Castelli '05, M.S. '14, Ph.D. '17, and Mathura Umachandran for excellence in leadership; and Melisa Medina-Rivera and Sophia Ziemian, Ph.D. '20, for excellence in mentoring.

[Read the full story](#)

Graduate Student Spotlights

Reika Tei | *Chemistry and Chemical Biology*



Chemistry and chemical biology doctoral candidate Reika Tei researches the ways in which membrane lipids regulate cellular processes with a focus on how phosphatidic acid can have different functions in cells. Understanding cellular processes and systems and their dysregulations can lead to the development and discovery of new therapeutic solutions for human diseases.

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Rachel Allison | *Food Science and Technology*



Rachel Allison, a doctoral candidate in food science and technology, studies the development of sulfurous off-aromas in wines during storage. In her research, she focuses on understanding the formation of these off-aromas and their precursors as well as on developing convenient approaches for their quantification. This work can provide winemakers with tools to ensure their wine quality.

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Julius Judd | *Biochemistry, Molecular and Cell Biology*



Biochemistry, molecular and cell biology doctoral candidate Julius Judd researches the molecular mechanisms that regulate transcription in a variety of eukaryotic organisms and how changes in this regulation drive evolution. A better ability to predict the functional consequences of DNA sequences is critical for advancements in precision medicine.

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Lingzi Zhuang | *Linguistics*



Lingzi Zhuang, a doctoral candidate in linguistics, researches semantics and pragmatics with a focus on how natural language users do and do not use systems of linguistic symbols to convey meaning. Zhuang is a recipient of the 2021 Hsien and Daisy Yen Wu Scholarship, which enabled him to pursue a community-based project in which he is developing novel language teaching resources for Tibetan.

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Ekaterina Landgren | *Applied Mathematics*



Applied mathematics doctoral candidate Ekaterina Landgren's research falls in the intersection of applied math and atmospheric sciences. Through her research, she seeks to explain and explore the underlying mechanisms of atmospheric dynamics. Landgren was awarded the 2021 Amelia Earhart Fellowship, which will provide her with additional resources to explore her project.

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Anthonia Carter | *Information Science*



Anthonia Carter, a doctoral student in information science, researches the ethical, societal, and computational implications of online recommenders underlying ranking systems to address position bias in ranking systems. Outside of her research, she launched a startup that aims to close the opportunity gap between early-stage, BIPOC-led startups and venture capital.

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Hannah Cole | *Comparative Literature*



Comparative literature doctoral candidate Hannah Cole studies representations of plants in 20th-century Caribbean literature. Working with texts in English, Spanish, and French, she focuses on the relationships between people and weeds at the end of monoculture farms to understand the ways in which people created relationships with nonhuman life outside of the plantation.

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Anthony Sangiuliano | *Philosophy*



Philosophy doctoral candidate Anthony Sangiuliano is working to develop a philosophical interpretation of anti-discrimination law by examining the relationship between the morality and the law of anti-discrimination. With his Graduate School Research Travel Grant, he was able to meet with a world-leading expert on the philosophy of anti-discrimination law, which was important to his degree progress.

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Lyrienne González | *History*



Lyrienne González, a doctoral student in history, researches the generational and racial legacies of U.S. agricultural guestworker programs through both archived records regarding the regulation of guestworker groups and oral histories from guestworkers and their descendants. Through her work, she hopes these narratives will require recognition of guestworkers' struggles to overcome a structure designed to prevent social mobility.

[Graduate School spotlight](#)

Samantha Wesner | *History*



History doctoral candidate Samantha Wesner researches the ways in which “electric” political metaphors developed in the late eighteenth century by studying the political affordances that electricity brought to revolutionary politics, as well as how the political meaning of electricity influenced the development of electrical science in the early nineteenth century. Through this work, she uses a new angle to study the intersection of science and politics.

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Ngoc Truong | *Geological Sciences*



Ngoc Truong, a doctoral candidate in geological sciences, studies the geophysical evolution of planetary bodies in the solar system and beyond with a focus on the conditions that make them habitable or inhabitable. Through studying other planets and their moons, he hopes to provide more insight into our own planet and the origin of life. Research from a paper he co-authored on volcanic activity on Venus gained the attention of numerous media outlets.

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Karla García-Martínez | *Biomedical and Biological Sciences*



Biomedical and biological sciences doctoral candidate Karla García-Martínez studies how the human immune system detects and responds to infection, focusing specifically on the role of macrophages. By understanding how macrophages alert the body to infection, scientists will be able to improve vaccines and develop new ways to treat infectious diseases. García-Martínez was selected as a 2021 HHMI Gilliam Fellow.

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Alex Ogbonna | *Plant Breeding*



Alex Ogbonna, a doctoral candidate in plant breeding, studies the tropical starchy root crop cassava with an interest in improving crop adaptation. Through his research, he seeks to understand the impact of modern breeding practices on the evolution of phenotypes. By improving the diversity of cassava, he aims to help tackle the worldwide concern of food insecurity. Ogbonna was selected as a 2021 National Association of Plant Breeders Borlaug Scholar.

[Graduate School spotlight](#)

Additional Graduate Students of Note

Student, Field	Achievement/Story Feature
Patrick Kastner , systems engineering, and Khaled Hashad , mechanical engineering	Doctoral students Patrick Kastner and Khaled Hashad contributed to the development of a new indoor module that provides professional-level airflow and a microclimate simulator to help improve ventilation. Learn more...
Ngoc Truong , geological sciences	Doctoral candidate Ngoc Truong is an author of a study about the gas phosphine found in trace amounts in Venus' upper atmosphere and how it may be evidence of explosive volcanoes. Learn more...

Cole Miles , physics, and Ruihan Wu , computer science	Doctoral student Cole Miles is lead author of a paper on a machine learning tool that parses quantum matter and makes distinctions in the data, to which doctoral student Ruihan Wu contributed as a co-author. Learn more...
Zhiheng Zhao , chemistry and chemical biology	Doctoral student Zhiheng Zhao is a contributing author on a paper about the interactions between ligands and the surface of nanoparticles. Learn more...
Jenniffer Bustillos , mechanical engineering, and Jesus Martinez-Gomez , plant biology	Graduate students Jenniffer Bustillos and Jesus Martinez-Gomez share their takeaways from attending the 2021 Future Professors Institute. Learn more...
Camille Portier , sociology	Doctoral student Camille Portier is a co-author of a paper on how spouses consolidate resources in families. Learn more...
Jung-un Park , chemistry and chemical biology	Doctoral student Jung-un Park is first author of a paper on how using an advanced microscopy technique revealed protein structures and steps of a CRISPR-Cas system. Learn more...
Swati Mishra , information science	Swati Mishra, a doctoral candidate in information science, is lead author of a paper on helping nonexperts use machine-learning algorithms, which received a Best Paper Award at a May conference. Learn more...
Songyun Tao , HyunChul Lim , Mose Sakashita , and Ruidong Zhang , information science	Graduate students Songyun Tao, HyunChul Lim, Mose Sakashita, and Ruidong Zhang contributed to a paper on a new necklace-type wearable sensing technology. Learn more...
Natalie Friedman , information science	Cornell Tech doctoral student Natalie Friedman is co-lead author of a paper that explores dressing robots in ways that help them serve their functions. Learn more...
Hao Zhou , microbiology	Doctoral student Hao Zhou is a co-author of a paper that examines differences in gut microbiome compositions and the health impact of those differences. Learn more...
Yawen Fang , physics	Doctoral student Yawen Fang is a co-author of a paper confirming that electrons have a

	limit of chaos established by the laws of quantum mechanics. Learn more...
Jacob Toth and George Stack , plant breeding	Doctoral student Jacob Toth is lead author of a study that finds no evidence that stress on hemp plants increases THC concentrations, to which doctoral student George Stack contributed as a co-author. Learn more...
Sara Naiman , natural resources	Sarah Naiman, a doctoral student in natural resources, contributed to a study finding that family values are a much stronger predictor of climate opinions and policy support than political views for U.S. Latinos. Learn more...
Marianne Aubin Le Quere , information science	Information sciences doctoral student Marianne Aubin Le Quere is a co-author on a paper on a dataset of U.S. media experiments and its significance. Learn more...
Mariangela Mihai , anthropology	Research by Mariangela Mihai was quoted in an article examining the history of state border disputes in India. Learn more...
Lisa Watkins , biological and environmental engineering	Doctoral candidate Lisa Watkins studies the dispersion of plastic in freshwater. Learn more...
Donald Long Jr. , genetics, genomics, and development, Trevor Foote , astronomy and space sciences, and Emily Moser , astronomy and space sciences	Graduate students Donald Long Jr., Trevor Foote, and Emily Moser helped support the experience of military veterans who participated in the Warrior-Scholar Project by giving lectures and creating projects. Learn more...
Eugene Bagdasaryan , computer science	Doctoral candidate Eugene Bagdasaryan is lead author of a paper on a new type of online attack. Learn more...
Yanyi Liu , computer science	Computer science doctoral student Yanyi Liu contributed to a paper which won the Best Paper award at CRYPTO '21. Learn more...
Zeki Hayran , electrical and computer engineering, and Aobo Chen , M.S. '19, electrical and computer engineering	Doctoral candidates Zeki Hayran and Aobo Chen are authors on a paper proposing a way to modulate qualities of metamaterials in real time. Learn more...
Karla García-Martínez , biomedical and biological sciences	Biomedical and biological sciences doctoral candidate Karla García-Martínez and her advisor, Professor of Immunology Cindy Leifer, were selected as recipients of the

	2021 HHMI Gilliam Graduate Fellowships for Advanced Study. Learn more...
Alex Ogbonna , plant breeding	Doctoral candidate Alex Ogbonna received a 2021 Borlaug Scholar Award from the National Association of Plant Breeders. Learn more...
Zijin Gu , electrical and computer engineering	Doctoral student Zijin Gu is first author of a paper suggesting that alignment of the brain's wiring with patterns of activity can vary with sex and age and may be genetic. Learn more...
Yiwei Xu , communication	Doctoral student Yiwei Xu is a co-author of a paper exploring the use of a narrative approach to increase public support for policies and programs related to early childhood education. Learn more...
Ziqiao Sun , animal science	Graduate student Ziqiao Sun is a co-author of a study on a bioprocess that efficiently converted plant matter into high-value bioproducts. Learn more...
Josh Umansky-Castro , aerospace engineering	Doctoral candidate Josh Umansky-Castro is part of the SmallSat Mission Design School team, who seek to provide researchers with hands-on experience in developing innovative small spacecraft missions. Learn more...
Arianna Bartlett , genetics, genomics, and development	Doctoral candidate Arianna Bartlett studies feline mammary cancer with a focus on the role of microRNAs. Learn more...
Yang Yang , systems engineering	Doctoral student Yang Yang is lead author of a study finding that long commutes and household crowding are predictors of COVID transmission in metropolitan settings. Learn more...
Patryk Ziobro and Nicole Pranic , psychology	Graduate students Patryk Ziobro and Nicole Pranic are first authors of a study finding that female mice exhibit a strong drive to socialize with other females after periods of isolation. Learn more...
Farshid Salimijazi , biological and environmental engineering	Doctoral student Farshid Salimijazi is a co-author of a paper on using bacteria to store energy and make biofuels. Learn more...

Nick Cebry , electrical and computer engineering, and Andrea Robinson , biomedical and biological sciences	Graduate students Nick Cebry and Andrea Robinson worked as part of a team to facilitate Cornell Engineering's annual CURIE Academy. Learn more...
Heather Jin-Hee Kim , design and environmental analysis	Heather Jin-Hee Kim, a doctoral student in design and environmental analysis, is first author on a paper on KnitDermis, a knitted on-skin device that gives the wearer tactile feedback. Learn more...
Xiang Zhao , systems engineering	Doctoral student Xiang Zhao is a co-author of a paper detailing a framework for high-density polyethylene plastic waste chemical recycling. Learn more...
Di Chen, Yiwei Bai, Sebastian Ament, and Wenting Zhao , computer science	Doctoral candidate Di Chen is first author of a paper on a new artificial-intelligence framework, to which doctoral students Yiwei Bai, Sebastian Ament, and Wenting Zhao contributed. Learn more...
Yiqing Hua , computer science	Cornell Tech doctoral candidate Yiqing Hua is first author of a paper addressing the challenge of enabling privacy-preserving client-side warnings of potential abuse in encrypted communication. Learn more...
Hongyi Wen , information science	Cornell Tech doctoral candidate Hongyi Wen is a co-author of a paper that shows how Spotify could be more effective if it incorporated both likes and dislikes in its recommendation algorithm. Learn more...
Julius Lagodny , government	Doctoral candidate Julius Lagodny provided commentary on Germany's political system, referencing his research on the subject. Learn more...
Valts Blukis , computer science	Computer science doctoral candidate Valts Blukis is a member of a team that won first place in the ALFRED Challenge at the 2021 EAI@CVPR. Learn more...
Dean Keithly , aerospace engineering	Graduate student Dean Keithly contributed to research that found that next-generation telescopes used to see exoplanets could confuse Earth-like planets with other types of planets in the same solar system. Learn more...

Akshay Ajagekar , systems engineering	Doctoral student Akshay Ajagekar is a co-author of a paper on how quantum computing-based hybrid deep learning could be used to quickly decipher and solve an electric grid's problems. Learn more...
Marvi Ahmed and David Balgley , development sociology	Doctoral students Marvi Ahmed and David Balgley are co-organizers of a Global Development series examining historical injustices of international development. Learn more...
Katerina Roth , food science and technology	Doctoral student Katerina Roth is first author of a paper on three new species of bacteria, one of which impacts the flavor of apple juice. Learn more...