



THE UNIVERSITY  
*of* NORTH CAROLINA  
*at* CHAPEL HILL

# 2023 DOCTORAL HOODING CEREMONY

SPRING COMMENCEMENT  
THE GRADUATE SCHOOL

---

## MESSAGE *from the* CHANCELLOR

---

Welcome to your Hooding Ceremony. We are so pleased you are here.

We gather today for this annual tradition marking the academic achievement of advancing from student to scholar and to acknowledge the commitment you — and your loved ones — have made to higher learning. Graduate studies enable us to pursue knowledge, attain excellence, and discover the truth. In the process, we test our limits, challenge our assumptions, and collaborate with our professors and peers. The result of that work is big ideas, ground-breaking innovations, and inspirational beauty.

As we confer your degree today, you join a global network who share our thirst for knowledge and growth. UNC-Chapel Hill is the nation's oldest public university and we are passionately public. We believe that our mission is about service — to our state, the nation, and the world. We live this mission every day because of people like you, who come to our outstanding graduate and professional schools from all over the world and leave with a deep desire to make a difference.

As you move into the next phase of your academic careers, take pride in your achievements. And know that we — your mentors, colleagues, and Tar Heels everywhere — are filled with admiration for all you have accomplished at Carolina. We celebrate you today and we are eager to see what you do next.

Congratulations!



Kevin M. Guskiewicz

---

## MESSAGE *from the* GRADUATE DEAN

---

Dear graduates:

Congratulations! You have completed your graduate studies — a tremendous accomplishment — and we are delighted to celebrate you. Your curiosity, sense of wonder, dedication to our state, and to the University of North Carolina at Chapel Hill are inspiring. A graduate education positions you among the next generation of leaders. During your time at Carolina, we hope you have gained the knowledge, professional skills, and tenacity to contribute to solving grand challenges of our time. As a proudly public University, graduate students are at the intersection of research and impact. The knowledge you gained during your time as a graduate student — while balancing personal and professional obligations — is part of how we envision a thriving future for North Carolina and beyond.

Pursuing graduate education at UNC-Chapel Hill is a rigorous endeavor. Much as we have built community together as a University for all, you can continue to shape our world as a global citizen — beyond the low stone walls of our great University. We are honored to celebrate you and your innumerable accomplishments as you reach this significant milestone.



Beth Mayer-Davis

---

# ALMA MATER

---

The words of “Hark the Sound,” UNC–Chapel Hill’s alma mater, were written in 1897 by William Starr Myers, a graduating senior. The Glee Club director asked Myers to put words to the tune “Amici,” and the song was first performed on June 2, 1897, as part of the Glee Club’s Commencement performance in Gerrard Hall.

Soon the song was almost forgotten. When a University quartet tried a few years later to remember the words, they could recollect only the first verse and the chorus of Myers’ original version. Two members of the quartet, Charles S. Mangum and Charles T. Woollen, added two verses to the one they remembered. Mangum later became a professor in the School of Medicine, and Woollen worked as the University’s business manager and comptroller.

Hark the Sound  
*Hark, the sound of Tar Heel voices  
Ringing clear and true,  
Singing Carolina’s praises,  
Shouting N.C.U.!*

*Hail to the brightest star of all!  
Clear its radiance shine!  
Carolina, priceless gem,  
Receive all praises thine.*

---

## *For Your Information*

The Hooding ceremony will be captioned on video screens.\*

Every effort has been made to ensure the accuracy of this program’s content. Any omissions or errors are unintentional. The graduates’ names listed in this program were submitted prior to administering final examinations. Therefore, the inclusion of degree candidates’ names in this program does not represent certification that candidates have satisfactorily completed degree requirements.

Unless special arrangements have been made by departments, diplomas for all May degrees will be printed after graduation and mailed to graduates. For further information, visit the [Registrar’s website](#).

---

## *Stay Connected with Carolina*



---

# THE OLD WELL

---



At the heart of the campus stands the visual symbol of the University of North Carolina at Chapel Hill. For many years the Old Well served as the sole water supply for Old East and Old West dormitories. In 1897, the well was given its present decorative form at the direction of President Edwin A. Alderman, who described his beautification project as largely derived from the Temple of Love in the Garden of Versailles. In 1954, the well was given added beauty with brick walks, plantings and benches. Legend holds that students can bring good luck with a drink from the Old Well on the first day of classes.

---

# *The* DOCTORAL HOODING PROGRAM

---

- **Academic Procession**

The Official Platform Party

The Deans

The Faculty

The Candidates for the Degree of Doctor of Philosophy, Doctor of Education, Doctor of Nursing Practice,  
and Doctor of Public Health

- **Presiding**

Kevin M. Guskiewicz, *Chancellor, The University of North Carolina at Chapel Hill*

- **National Anthem**

Lena Kantz, *Bachelor of Music*

- **Remarks**

For the Board of Trustees of The University of North Carolina at Chapel Hill

David L. Boliek, *Chair*

- **Introduction of the Commencement Speaker**

Theodore Nollert, *Graduate and Professional Student Government President, 2022-2023*

- **Commencement Address**

Anna Maria Siega-Riz, *Dean and Professor in the School of Public Health and Health Sciences at the  
University of Massachusetts Amherst*

- **Conferring of Doctoral Degrees**

Kevin M. Guskiewicz, *Chancellor*

J. Christopher Clemens, *Provost*

Victoria "Tori" Ekstrand, *Caroline H. and Thomas S. Royster Distinguished Professor for Graduate Education;  
Associate Professor, UNC Hussman School of Journalism and Media*

Beth Mayer-Davis, *Dean of The Graduate School*

- **Presentation of the Faculty Award for Excellence in Doctoral Mentoring**

Beth Mayer-Davis, *Dean of The Graduate School*

- **Chancellor's Charge to the Graduates**

Kevin M. Guskiewicz, *Chancellor*

- **Recessional**

Hark the Sound by Lena Kantz

# KEVIN M. GUSKIEWICZ

*Chancellor*

---



Kevin M. Guskiewicz, a neuroscientist, academic leader, and concussion researcher, is the twelfth chancellor of the University of North Carolina at Chapel Hill.

Prior to his appointment as chancellor, Guskiewicz served as the interim chancellor and as dean of the College of Arts and Sciences. A Kenan Distinguished Professor of Exercise and Sport Science, he has been a member of Carolina's faculty since 1995. He is co-director of the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center. He is a nationally recognized expert on sport-related concussions, and his work has influenced concussion guidelines in the NFL, NCAA, and National Federation of State High School Associations. He has been recognized with numerous awards, including a MacArthur Fellowship.

Guskiewicz earned his Ph.D. in sports medicine from the University of Virginia. He lives with his wife Amy and children Jacob, Nathan, Adam, and Tessa in Chapel Hill.

## **Stay Connected**

Follow [@KevinGuskiewicz](#) on Twitter and [@kevinguskiewicz](#) on Instagram

---

# ELIZABETH “BETH” MAYER-DAVIS

*The Dean of The Graduate School*

---



Elizabeth “Beth” Mayer-Davis became dean of The Graduate School in September 2022. As the Cary C. Boshamer Distinguished Professor of Nutrition and Medicine, she has focused her career on diabetes and nutrition, including the epidemiology, natural history and treatment of Type 1 and Type 2 diabetes in children and adults. Throughout her career, Mayer-Davis has mentored numerous graduate students. She is committed to diversity, equity, and inclusion and ensuring that our graduate students have access to professional development and mental health and well-being tools to support them during their time at Carolina. Formerly the chair of the Department of Nutrition at the UNC Gillings School of Global Public Health, she also co-directs the Nutrition Obesity Research Center.

Mayer-Davis believes that graduate students are capable and prepared to address humanity’s greatest challenges. Under her leadership, The Graduate School supports graduate students and advocates for the support of graduate education in our state.

# ANNA MARIA SIEGA-RIZ

## *The Doctoral Hooding Ceremony Speaker*

---



Anna Maria Siega-Riz '82 (Ph.D. '93) is dean and professor in the School of Public Health and Health Sciences at the University of Massachusetts Amherst. She is committed to enhancing diversity, belonging, and efforts that support the overall health and well-being of faculty, staff, and students in higher education.

Siega-Riz's research focuses on the first 1,000 days of life by understanding the influence of maternal nutritional status (e.g., weight status, dietary patterns, and food/eating behaviors) in the etiology of various pregnancy and early childhood outcomes. Her research interests include examining the determinants and consequences of food insecurity and the implications of food policy on health outcomes. She has been involved in the National Institutes of Health-funded Hispanic Community Health Study/Study of Latinos since 2007.

She currently serves on the National Institutes of Health's Council of Councils, National Academies of Sciences, Engineering, and Medicine's Health and Medicine Division Advisory Committee, its Food and Nutrition Board, and as a board of trustee member for the International Food Information Council. She held the credentials of a registered dietician from 1983 until 2014.

Siega-Riz holds a bachelor's degree and a doctoral degree from the UNC Gillings School of Global Public Health, in addition to a master's degree from the University of North Carolina at Greensboro.



*Board of Trustees*

|   |   |   |  |
|---|---|---|--|
| David L. Boliek Jr.<br><i>Chair</i><br>Fayetteville, N.C. | Teresa Artis Neal<br>Cary, N.C.           | W. M. “Marty” Kotis III<br>Greensboro, N.C. | Lamar G. Richards<br><i>Ex-Officio</i><br>Columbia, S.C. |
| John P. Preyer<br><i>Vice Chair</i><br>Chapel Hill, N.C.  | Robert P. Bryan III<br>Charlotte, N.C.    | Allie Ray McCullen<br>Clinton, N.C.         | Ramsey R. White<br>Washington, D.C.                      |
| Malcolm K. Turner<br><i>Secretary</i><br>Boston, Mass.    | R. Gene Davis Jr.<br>Raleigh, N.C.        | Ralph W. Meekins Sr.<br>Shelby, N.C.        |  |
|   | Perrin W. Jones, M.D.<br>Greenville, N.C. | Vinay B. Patel<br>Charlotte, N.C.           |  |

---

*The Administrative Board of The Graduate School*

|                        |                       |                 |                   |
|------------------------|-----------------------|-----------------|-------------------|
| David Adalsteinsson    | Eric Houck            | Mark Katz       | Ceib Phillips     |
| Melinda Beck           | Carmen Hsu            | Jasleen Kaur    | Bill Rivenbark    |
| Adrienne Cox           | Sandra Hughes-Hassell | Nikhil Kaza     | Michelle Robinson |
| Jennifer D'Auria       | Adam Jacks            | Michael Lambert | Frank Tsui        |
| Kathleen Furtado       | Michael Jarstfer      | Don Nonini      |                   |
| Heidi Hennink-Kaminski | Erica Johnson         | Paige Ouimet    |                   |

---

*The Graduate Education Advancement Board*

|                      |                 |                     |                    |
|----------------------|-----------------|---------------------|--------------------|
| Donald S. Buckley    | Frances S. Hoch | Andrew McMillan Jr. | Charles V. Stewart |
| F. Ivy Carroll       | Paul Hoch       | Felicia E. Mebane   | Judith Thorn       |
| Debashish Chatterjee | Blair H. Kutrow | George Morgan       | Leah Townsend      |
| Lisa Langley Fey     | Pam Lattimore   | Drusilla Lea Scott  | Anne S. York       |
| Harold E. Glass      | Howard N. Lee   | Thomas Sox          |                    |

---

*Graduate and Professional Student Government Officers, 2022–2023*

|  |  |  |  |
|--|--|--|--|
| Theodore Nollert<br><i>President</i>           | Emily Youree<br><i>Chief of Staff</i>  | Kat Goodpaster<br><i>Vice President for<br/>Communications</i>       | Harsh Agarwal<br><i>Vice President for Finance</i> |
| Elena Vidrascu<br><i>Senior Vice President</i> | Samantha Golden<br><i>Vice President for Advocacy<br/>and Government Affairs</i> | Zehra Razai<br><i>Vice President for Diversity<br/>and Inclusion</i> |  |

# CANDIDATES *for* GRADUATE DEGREES

May 2023

*Degree candidates' names are followed by their area of major study, dissertation or project title and the name of their doctoral advisor.*

## The Graduate School

ESTABLISHED 1903

Dean Beth Mayer-Davis

### DOCTOR OF PHILOSOPHY

- Katie Ann Acken**, *Chemistry*, Characterization of the Pseudomonas Virulence Factor Pathway. Professor Bo Li.
- Harry Adynski**, *Nursing*, The Role of Social Adversity on Emotional Regulation Trajectories, School Adjustment, and BMI During Early Childhood. Professors Hudson Santos and Cathi Propper.
- Spencer Brown Andrews**, *Business Administration*, Four Essays in Investments. Professor Adam Reed.
- Russell Arnold**, *Mathematics*, Hamiltonian Shocks and Other Singular Fronts in Hyperbolic Systems of Conservation Laws. Professor Roberto Camassa.
- Nil Aygun**, *Bioinformatics and Computational Biology*, Genetics of Cell-Type-Specific Gene Regulation and Drug-Sensitive Cellular Phenotypes During Human Neurogenesis. Professor Jason Stein.
- Lindsay Ayling**, *History*, Fractured Nationalism and the Crises of French Identity, 1789–1899. Professor Jay Smith.
- Amanda Rose Aziz**, *Political Science*, Could've, Would've, Should've: How Shifting Citizenship Norms Affect Political Participation. Professor Pamela Conover.
- Salma Iqbal Baig**, *School Psychology*, Impact of Parental Belief Systems Regarding Mental Health on the Quality-Of-Life Functioning in American Muslim Adolescents Experiencing Psychological Distress. Professor Steven Knotek.
- Adams Gabriel Bailey**, *Public Policy*, The Distributional Impacts of Economic Development Incentives: Three Essays. Professor Jeremy Moulton.
- Baiquni Baiquni**, *History*, Reforming the Unequal International Order: Three Stages of Indonesian World Making Visions (1873 – 1950). Professor Cemil Aydin.
- Bridget Barrett**, *Mass Communication*, Merchandising Democracy: Inside the Online Industry of Campaign Merchandise. Professor Daniel Kreiss.
- John Bechtold**, *American Studies*, Fallujah in Focus. Professor Timothy Marr.
- Kristin Dana Bedell**, *Education*, Looking for Answers or Engaging in Practices? Exploring Middle School Students' Epistemic Choices With Citizen Science Data. Professor Kihyun Ryoo.
- Jessica Lee Beers**, *Pharmaceutical Sciences*, An in Vitro Investigation of Cannabidiol Metabolism, Pharmacokinetics, and Hepatotoxicity. Professor Klarissa Jackson.
- Casher Belinda**, *Business Administration*, Central Complaint Recipients as Change Agents: a Theory of Complaining, Learning, and Proactive Work Behavior. Professor Shimul Melwani.
- Christopher Bender**, *Computer Science*, Advancing and Leveraging Tractable Likelihood Models. Professor Junier Oliva.
- Nicole Berland**, *English and Comparative Literature*, Watching the Watchers: Contemporary Television, Complex Seriality, and Media Literacy. Professor Gregory Flaxman.
- Caitlin Bissette Biddell**, *Health Policy and Management*, Impact of Financial Barriers to Care on Adverse Healthcare Events Among Cancer Patients and Survivors. Professor Stephanie Wheeler.
- Mary Titchener Biggs**, *Geography*, Playing in a Painful Past: Interpreting Slavery in Leisure Landscapes at Plantation Museums in North Carolina. Professors Banu Gökariksel and Christian Lentz.
- Estonia Black**, *Economics*, Essays on Diversity and Selectivity. Professor Peter Norman.
- R. Jarrett Bliton**, *Biomedical Engineering*, Engineering High-Resolution Experimental and Computational Pipelines to Characterize Human Gastrointestinal Tissues in Health and Disease. Professors Scott Magness and Brian Diekman.
- Tatyana Bodrug**, *Biochemistry and Biophysics*, Time-Resolved Cryo-EM Analysis of Substrate Polyubiquitination by the RING E3 Anaphase-Promoting Complex/Cyclosome (APC/C). Professor Nicholas Brown.
- Alix Judith Nicole Boisson**, *Health Policy and Management*, VaNISH-HBV: Vaccination of Newborns – Innovative Strategies to Hasten Elimination of Hepatitis B Virus in Kinshasa Province, The Democratic Republic of The Congo. Professors Bruce Fried and Peyton Thompson.
- Emily Bonacquisti**, *Pharmaceutical Sciences*, Engineering a Genetically-Encodable Toolkit for Tracking EVs and Their RNA Cargo. Professors Juliane Nguyen and Philip Smith.

- Eric Bontempo**, *English and Comparative Literature*, Reverent Romanticism: Anthologizing Romantic Poetry in Victorian Devotional Literature. Professor Jeanne Moskal.
- Darius Marquis Bost**, *Bioinformatics and Computational Biology*, Burden Analyses Using Predicted Expression With Multimodel Meta-Analysis in Addiction and Alzheimer's Cohorts. Professor Kirk Wilhelmsen.
- Emma G. Bouck**, *Pathology*, Mechanisms of Hormone-Associated Venous Thromboembolism. Professor Alisa Wolberg.
- Martin Braun**, *Economics*, Essays in the Economics of Education. Professors Jane Fruehwirth and Valentin Verdier.
- Honoré White Brewton**, *Psychology*, Astrocytic Interactions Within the Ventral Tegmental Area and Their Involvement in Binge-Like Ethanol Consumption. Professor Todd Thiele.
- Stephanie Bristol**, *Occupational Science*, Understanding Participation in the Community for Autistic Children, Their Families and Their Assistance Dogs. Professor Nancy Bagatell.
- Sarah Brotman**, *Genetics and Molecular Biology*, The Effects of Adipose Tissue Gene Expression, Isoform Usage, and Cell Type Composition on Cardiometabolic Traits. Professors Karen Mohlke and Samir Kelada.
- Eric Brown**, *Business Administration*, How Do Investors Respond to Human Capital Disclosures? Professor Wayne Landsman.
- Evan M. Brudney**, *School Psychology*, Building More Inclusive University Makerspaces for Students With Disabilities. Professors Keith Sawyer and Sandra Evarrs.
- Dylan Bruney**, *Mathematics*, Testing the Boundaries: Analysis, Experimentation, and Simulation of Boundary-Dominated Interactions on Fluid Phenomena. Professors Roberto Camassa and Richard McLaughlin.
- Victoria Lynn Buchanan**, *Epidemiology*, Metabolomic Signatures of Adiposity Traits in the Hispanic Community Health Study/Study of Latinos. Professor Kari North.
- Alexandra Bukowski**, *Epidemiology*, An Investigation of Methylation Biomarkers for Abnormal Cervical Cancer Screening Tests in the United States. Professor Jennifer Smith.
- R. Claire Bunschoten**, *American Studies*, Extracts, Essences, and Political Effects: How Vanilla Shapes American Life. Professor Elizabeth Engelhardt.
- Jocelyn Burney**, *Religious Studies*, "Fragment to Fragment": Building Jewish Communities in the Late Roman Aegean (2nd – 6th Centuries CE). Professor Jodi Magness.
- Margaret Byrne**, *Health Policy and Management*, Gratitude, Warm Glow, and the Role They Play in the Pay-it-Forward Model. Professor Bruce Fried.
- Alyssa Byrnes**, *Computer Science*, Using Formal Frameworks to Reduce Mode Confusion in Cyber-Physical Human-in-the-Loop Systems. Professor Cynthia Sturton.
- Hannah E. Cabre**, *Human Movement Science*, Evaluation of Hormonal Contraception Effects on Strength and Recovery Across the Hormone Cycle. Professor Abbie Smith-Ryan.
- Christine Elizabeth Callahan**, *Human Movement Science*, Associations Among Perceived Stress, Mindfulness, and Concussion-Related Outcomes in Young Adults With Concussion History. Professor Johna Register-Mihalik.
- Katelyn McKensie Campbell**, *American Studies*, Unsettling Womyn's Land: Property, Sovereignty, and the Radical Imagination of Lesbian Feminist Thought. Professor Sharon Holland.
- Brian Mitchell Cartiff**, *Education*, The Effects of a Brief Epistemic Cognition and Metacognition Intervention on the Continued Influence Effect. Professor Jeffrey Greene.
- Devin Case-Ruchala**, *Political Science*, An Old, Novel Idea: The Political Economy of Public Banks in Renewed Historical Perspective. Professor Cameron Ballard Rosa.
- Christina Catavero**, *Neurobiology*, Effects of Short- and Long-Term Alcohol Consumption in the Human Transgenic Tau P301S Mouse Model. Professor Zoe McElligott.
- Hei Yin Kyle Chan**, *Political Science*, Functionalist Political Decentralization in a Postfunctionalist World: Politics and Consequences. Professor Liesbet Hooghe.
- Danielle Leigh Chappell**, *Pharmacology*, KSHV Viral Protein Kinase (vPK) Interacts With USP9X and Modulates the Viral Lifecycle. Professor Blossom Damania.
- Andrew Chi**, *Computer Science*, Verifying the Behavior of Security-Impacting Programs. Professor Michael Reiter.
- Kiara M. Childs**, *Communication Studies*, Black Women's Digital Feminism and Self-Advocacy: A Cross-Platform Analysis of Black Women's Beauty Culture. Professors Renée Alexander Craft and Meredith Clark.
- I-Te Chu**, *Chemistry*, Protein Stability in Cells and Under Crowded Conditions In Vitro. Professor Gary Pielak.
- Jordan Clark**, *Geography*, Wet Bulb Globe Temperature: Identifying Relationships With Morbidity and Determining the Impact of Microclimatic Variability on Estimates and Forecasts. Professor Charles Konrad.
- Stephanie E. Cleland**, *Environmental Sciences and Engineering*, The Human Health Impacts of Short-Term Exposure to Climate Change-Influenced Environmental Hazards. Professors J. West and Ana Rappold.
- Michaela Elaine Copp**, *Biomedical Engineering*, Role of DNA Damage and Cellular Senescence in Osteoarthritis Pathophysiology. Professor Brian Diekman.
- Josh Corbat**, *Education*, Learning in the Makerspace: What can the Makerspace Afford for Inservice Teacher Education? Professor Todd Boyette.
- Henry T. Corbett IV**, *Physics*, The Evryscope Fast Transient Engine: Real-Time Discovery of Rapidly Evolving Transients With Evryscope and the Argus Optical Array. Professor Nicholas Law.

- Kyle Cushman**, *Chemistry*, Development of Conjugated Polymer Based Brush Polymer Networks for Tissue Mimicking Electronics. Professor Wei You.
- Katherine Daftari**, *Mathematics*, Statistical Analysis of Self and Pairwise Interactions in Active Systems. Professor Katherine Newhall.
- Erin Jane Davenport**, *Sociology*, Group Dynamics in a North Carolina Baptist Church. Professor Lisa Pearce.
- Eric Scott Davis**, *Bioinformatics and Computational Biology*, Development and Application of Software to Understand 3D Chromatin Structure and Gene Regulation. Professor Douglas Phanstiel.
- Reed DeAngelis**, *Sociology*, Structural Racism and Black-White Disparities in the United States. Professors Kathleen Harris and Robert Hummer.
- Alexander Monroe Deetz**, *Chemistry*, Fundamental Insights Into Photo-Initiated Halide Oxidation and the Influence of Noncovalent Interactions. Professor Gerald Meyer.
- Jeffrey Frederick DiBerto**, *Pharmacology*, Discovery Campaigns for Pharmacologically Unique Agonists at the Mu-Opioid and 5-Hydroxytryptamine 2A Receptors. Professor Bryan Roth.
- Daniel Isaac Dilliplane**, *Communication Studies*, Collective Embodiment and Communal Feeling: A Critical Somatics Approach to Performance for Social Change. Professor China Medel.
- Dre'von Dobson**, *Pathology*, The Genetic Regulation of Fibrinogen Synthesis. Professor Alisa Wolberg.
- Bryan M. Dougan**, *Anthropology*, Experimental Infrastructure, Global Medical Networks, and the Politics of Collaboration in Tanzanian Psychiatry. Professors Peter Redfield and Jocelyn Chua.
- David Durwood Dry**, *History*, Unnatural Naturalization: The Ottawa Indians and U.S. Citizenship, 1854–1978. Professor Malinda Lowery.
- Emilie Danielle Duchesneau**, *Epidemiology*, Validation of a Medicare Claims-Based Frailty Index for Identifying Longitudinal Changes in Frailty in Older Adults. Professor Jennifer Lund.
- Diamond Ebanks Holloman**, *Ecology*, “I Didn’t Want to Be a Victim”: Grassroots Community-Led Recovery in Post-Disaster Robeson County, North Carolina. Professor Gabriela Valdivia.
- Jonathan Elsworth Eicher**, *Chemistry*, Physical Properties of a Tardigrade Desiccation-Tolerance Protein Gel. Professor Gary Pielak.
- Baggio Angelo Evangelista**, *Cell Biology and Physiology*, TDP-43 Proteinopathy in Amyotrophic Lateral Sclerosis: Model, Mechanism, and Mediation. Professor Todd Cohen.
- Emily Macourt Jenkins Fennell**, *Pharmacology*, Profiling the Multi-Omic Response to Mitochondrial Protease ClpP Activation in Triple-Negative Breast Cancer Cells. Professor Lee Graves.
- Brian Forester**, *Political Science*, Globalization, Hierarchy, and Bureaucracy: Exploring the Politics of Joint Military Exercises. Professor Stephen Gent.
- Sarah M. Frank**, *Nutrition*, The Planetary Health Diet Index: A Novel Dietary Assessment Tool and its Associations With Environmental and Health Measures in the United States. Professor Lindsey Smith Taillie.
- Nikki Freeman**, *Biostatistics*, Precision Medicine for Chronic Limb Threatening Ischemia. Professor Michael Kosorok.
- Daiqi Gao**, *Statistics and Operations Research*, Learning Individualized Treatment Rules With Sequential and Multi-Outcome Data. Professors Yufeng Liu and Donglin Zeng.
- Sandra García Gutiérrez**, *Romance Languages and Literatures*, La Heroína Gótica Española Ante el Miedo: De la Victimización a la Sororidad (1831–2019). Professor Irene Gómez-Castellano.
- Daniel James Gibbs**, *Social Work*, Understanding Foster Youths’ Mental Health Services Access and Pathways to Care. Professor Paul Lanier.
- Craig John Gill**, *History*, Caddying on the Color Line: Race, Labor, and Leisure on the Twentieth-Century Southern Golf Course. Professor W. Fitzhugh Brundage.
- Cherise Ryan Glodowski**, *Pathology*, Identification of Intra-Tumoral Heterogeneity, Drug-Induced Cellular Subpopulation Shifts, and Novel Metabolic Profiles in Triple Negative Breast Cancer Mouse Models. Professors Charles Perou and Scott Williams.
- Melanie Godsey**, *Classics*, The Archaeology of Ptolemaic Garrison Supply in the Early Hellenistic Aegean. Professor Jennifer Gates-Foster.
- Kayla Marie Goforth**, *Biology*, Behavioral Processes and Mechanisms Underlying Magnetic Navigation in Sea Turtles. Professor Kenneth Lohmann.
- Ismael Gomez Martinez**, *Cell Biology and Physiology*, Fatty Acid Handling and Lineage Maturation by the Human Intestinal Epithelium. Professor Scott Magness.
- Britta R. Gorman**, *Physics*, Brillouin Spectroscopy Studies of Polyacrylamide and Fmoc-FF Hydrogels to Determine the Role of Monomer and Solvent Concentrations on Longitudinal Moduli and Relaxation Processes. Professor Laurie McNeil.
- Odessa Jiang Goudy**, *Biochemistry and Biophysics*, Computational Design of Autoinhibitory Domains for a Protease-Activated PD-L1 Inhibitor. Professor Brian Kuhlman.
- Anna Fuller Graham**, *Anthropology*, Natchez Bluffs Cuisine and the Transition to Maize Agriculture (AD 750–1500). Professors Vincas Steponaitis and Clara Scarry.
- Michael Greenberger**, *Political Science*, How Democracy Died: Race, Elections, and the Failure of the First Reconstruction. Professor Jason Roberts.

- Eleanor Griggs**, *English and Comparative Literature*, Subterranean Knowledge in Medieval English Literature. Professor Shayne Legassie.
- Jacob Robert Gunderson**, *Political Science*, Party Brands and Political Change. Professor Gary Marks.
- Yanran Guo**, *Economics*, Essays on Taxation. Professor Lutz Hendricks.
- Yiran Guo**, *Genetics and Molecular Biology*, The Roles of Heterochromatin-Associated Factors in Development and Pathogenesis. Professor Greg Wang.
- Pallavi Gupta**, *Geography*, Visible Cleanliness/Invisible Cleaners: Examining Gender, Caste, Waste, and Space in Railway Stations and Urban Public Infrastructure in India. Professor Sara Smith.
- Lu Han**, *Marine Sciences*, An Observation-Based Study of Shelf-Open Ocean Exchange off Cape Hatteras, NC. Professor Harvey Seim.
- Kristjan Hannesson**, *English and Comparative Literature*, The Unfinished Renaissance: Staging Rupture in Early Modern Literature, Art and Architecture. Professor Jessica Wolfe.
- Natalie Rae Harris**, *Cell Biology and Physiology*, Illuminating Molecular Regulators of Lymphatic Endothelial Cell Signaling and Identity. Professor Kathleen Caron.
- Emily Harrison**, *Chemistry*, Applications of Dynamic Combinatorial Libraries to Imprint-and- Report Differential Sensor Arrays. Professor Marcey Waters.
- Rachel Hartman**, *Psychology*, The Implications of Viewing Political Opponents as Sheeple. Professor Kurt Gray.
- Carissa Harvest**, *Microbiology and Immunology*, An Innate Granuloma is Successful Against an Environmental Pathogen. Professor Edward Miao.
- Kira Lenora Heikes**, *Genetics and Molecular Biology*, Uncovering Molecular Blueprints of the Unique Tardigrade Body. Professor Robert Goldstein.
- Lily Herbert**, *Geography*, Problematizing Hate Crime-Related Data to Examine Systemic Issues in the Reporting, Prosecution, and Conceptualization of Hate Crime. Professors Paul Delamater and Pervin Gökariksel.
- Sean D. Hernández Adkins**, *Education*, Methods for (Un) Knowing Whiteness: A Triptych of Autoethnography, Critical Family History, and Oral History. Professors Sherick Hughes and Tommy Ender.
- Lukas Hoffman**, *German Studies*, Faithful Form: On Religion and Politics in German Modernist Lyric. Professor Gabriel Trop.
- Rosanne Marie Horswill**, *History*, For Life and Longing: How the People of Eastern Anatolia and Transcaucasia Navigated the Interwar, as Witnessed by the 1919 American Military Mission to Armenia. Professor Sarah Shields.
- Soohyun Hwang**, *Health Policy and Management*, Multilevel Determinants of Guideline Adherent Active Surveillance Follow-up Care for Low-Risk Prostate Cancer. Professor Sarah Birken.
- Katherine C. Hysmith**, *American Studies*, #FOODHERSTORY: Food and American Women's Political Resistance From Suffrage to the Digital Age. Professor Elizabeth Engellhardt.
- Jaeho Jang**, *Human Movement Science*, Using Musculoskeletal Modeling and Computer Simulation to Elucidate Ankle Loads and Predict Worsening Effects in Those With Chronic Ankle Instability. Professor Erik Wikstrom.
- Natalie Jasiewicz**, *Pharmaceutical Sciences*, Utilizing Leucine Zippers to Mediate Improved Carrier Accumulation and Retention at the Site of Myocardial Infarction. Professor Juliane Nguyen.
- Maja Jeranko**, *Anthropology*, Building Equitable Futures: Gender and Reconstruction in the Face of Multiple Disasters in Coastal Ecuador. Professor Florence Babb.
- Nevin Edward Johnson**, *Philosophy*, The Role of Purpose in Legal Reasoning. Professor Alex Worsnip.
- Tatum Amelia Jolink**, *Psychology*, Inflammation and Intimate Others: How the Body Contributes to Close Relationships via Inflammation. Professor Sara Algoe.
- Nathan A. Jorgensen**, *Psychology*, Bringing Diverse Experiences Into Development: Considering Race, Ethnicity, and Identity in the Development of Adolescent Social Cognition. Professor Eva Telzer.
- Benjamin Charles Kaiser**, *Physics*, Lithium Pollution of White Dwarfs and Other Secrets of Mordor. Professor James Clemens.
- Dang Dang Delia Kan**, *Education*, Investigating the Mediating Role of Self-Determination Between Individual and School Factors and Autistic High School Students' in School Outcomes. Professor Kara Hume.
- Michele Kelley**, *Physics*, Resolving the Discrepancy Between Theoretically Predicted and Experimentally Measured  $^{129}\text{Xe}$  Nuclear Spin Polarization. Professor Rosa Branca.
- Michael Ross Kelly**, *Bioinformatics and Computational Biology*, The Identification and Characterization of Enhancer Driven Oncogenic Networks in Human Cancer. Professors Hector Franco and Joel Parker.
- Chan Kim**, *Economics*, Essays About Volatility and Liquidity in Cryptocurrency and Foreign Exchange Market. Professor Peter Hansen.
- Younghoon Kim**, *Statistics and Operations Research*, Modeling Multiple-Subject and Discrete-Valued High-Dimensional Time Series. Professor Vladas Pipiras.
- Nicole Kramer**, *Bioinformatics and Computational Biology*, Developing Computational Tools and Datasets to Investigate the Genomic Loci Associated With Disease. Professor Douglas Phanstiel.
- Sehjoon Kwon**, *Psychology*, Neurodevelopmental Changes in Social and Adaptive Risk Taking in Adolescence. Professor Eva Telzer.
- Charity Lackey**, *Nursing*, Black Women's Experiences With Mindfulness, Distress, and Superwoman Schema. Professors Cheryl Woods-Giscombé and Ashley Leak-Bryant.

- Jacob Larson**, *Pharmaceutical Sciences*, Small Molecule and Peptide Discovery for a Vulnerable KRAS Mutant. Professor Kenneth Pearce.
- David Q. Le**, *Biomedical Engineering*, Towards Personalized Decompression Medicine: Applied Deep-Learning for Automated Doppler and Echocardiogram Analysis. Professor Virginie Papadopoulou.
- Alexis Fraser League**, *Psychology*, A Helping Hand: Targeted Cannabinoid Therapeutic Potential Against HIV-1-Associated Neuroinflammation. Professor Sylvia Fitting.
- Alasia Ledford**, *Nursing*, Targeting Determinants and Tailoring Strategies: A Journey to Address Mental Health Disparities Through Perinatal Home Visiting Programs. Professors Jennifer Leeman and Linda Beeber.
- Rhianna Elizabeth Lee**, *Cell Biology and Physiology*, Developing Novel Model Systems and Treatments for Cystic Fibrosis. Professor Scott Randell.
- Ye Lee**, *Pharmacology*, Inhibiting KRAS and the DNA Damage Response in Pancreatic Cancer. Professors Adrienne Cox and Channing Der.
- Zardas Shuk-Man Lee**, *History*, Transnational Anti-Colonialists of British Malaya, 1942–1963. Professors Cemil Aydin and Iqbal Sevea.
- Gage Oliver Leighton**, *Biochemistry and Biophysics*, Probing the Importance of Mbd2 in the Localization and Formation of the Nurd Complex. Professor David Williams.
- Katherine LeMasters**, *Epidemiology*, Mass Probation: Individual and Community Effects of Sentencing Severity on Mental Health Inequities. Professor Brian Pence.
- Adam Lescallete**, *Chemistry*, Elucidating the Biosyntheses of Oxyvinylglycine and Pyrrolizidine Alkaloid Natural Products From *Pseudomonas*. Professor Bo Li.
- Thu-Mai Lewis**, *Information and Library Science*, From Policy to Practice: How Journal-Based Data Policies Encourage Scientists' Adoption of Reproducible Research Practices. Professor Helen Tibbo.
- Shuai Li**, *Education*, Understanding Teacher Turnover: An Agentic Perspective. Professor Thurston Domina.
- Shuo Li**, *Marine Sciences*, The Control of Tropical Sea Surface Temperatures on Tropical Cyclones in the Northern Hemisphere. Professor Wei Mei.
- Yi-En Liao**, *Pharmaceutical Sciences*, Investigation of the Mechanism of Action of Heparan Sulfate to Protect Against Sepsis. Professor Jian Liu.
- Weifang Liu**, *Biostatistics*, Deciphering Association Signals From Genome-Wide Association Studies. Professor Yun Li.
- C. Chad Lloyd**, *Marine Sciences*, Linking the Enzymatic Repertoire of Heterotrophic Bacteria to Community Composition, Carbohydrate Inventories, and Physical Oceanography in the Western North Atlantic. Professor Carol Arnosti.
- Lara Lookabaugh**, *Geography*, Curating the Past, Weaving the Future: Decolonial Feminist Politics of Time and Memory. Professor Sara Smith.
- Yiyao Luo**, *Economics*, Three Essays on Correlation. Professor Peter Hansen.
- Michelle Mac**, *Microbiology and Immunology*, Exploring the Role of SETD2-Mediated H3K36 Trimethylation in Epigenetic Regulation of Human Papillomaviruses Life Cycle. Professor Cary Moody.
- Mac Malone**, *Computer Science*, Improving Student Enjoyment, Time Management, and Performance Using a Secure, Immersive Gamified Learning Platform. Professor Fabian Monroe.
- Tyler Leon Malone**, *Health Policy and Management*, Effects of Affordable Care Act Provisions on Harmful Substance Use Among Young Adults. Professor Marisa Domino.
- Carmen A. Marable**, *Neurobiology*, The Role of the Placenta-Brain Axis in Children's Neurodevelopment: An Interdisciplinary Approach to Understanding Placental Origins of Brain Development Into Adolescence. Professor Rebecca Fry.
- Andre Martin**, *Business Administration*, Impact and Consequences of Firm and Policy Communication in Marketing Strategy. Professors Katrijn Gielens and Tarun Kushwaha.
- Shenee Martin**, *Neurobiology*, The Consequences of Sleep Disruption in Alzheimer's Disease Progression and Treatment. Professor Graham Diering
- Kevin Anthony Mauge-Lewis**, *Toxicology*, An Evaluation of Toxicity in Fluorotelomer-Based Aqueous Film-Forming Foam (AFFF) Exposed Human Liver Cells. Professors Suzanne Fenton and Stephen Ferguson.
- Mitchell R. Maw**, *Chemistry*, Designing Pressure Sensitive Adhesives From Brush-Like Polymer Networks. Professors Sergei Sheiko and Andrey Dobrynin.
- Colleen McAlister**, *Romance Languages and Literatures*, Ruination: An Interdisciplinary Exploration of Spain's Ruins in Nineteenth-Century Literature and Culture. Professor Irene Gómez Castellano.
- Megan McCoy Dowdy**, *Economics*, Essays in the Labor Market Impacts of Workplace Flexibility. Professor Klara Peter.
- Kirsten Nicole McLaughlin**, *Psychology*, Evaluating the Fetal Programming Effects of Prenatal Risk Factors on Newborn Brain Anatomy and Infant Sleep Characteristics. Professor Cathi Propper.
- Lauren Marie McRae**, *Chemistry*, Exploring Electrides as Anion Storage Materials. Professor Scott Warren.
- Kimmery Migel**, *Human Movement Science*, The Impact of Real-World Vibration Gait Retraining on Gait Biomechanics in People With Chronic Ankle Instability. Professor Erik Wikstrom.

- Sonja Mihailovic**, *Genetics and Molecular Biology*, Single-Cell Dynamics of Core Pluripotency Factors in Human Pluripotent Stem Cells. Professors Adriana Beltran and Jeremy Purvis.
- Amrut Mishra**, *Communication Studies*, Weaving Against Empire: Warped Feminism, Aesthetics, and the Archives of Fabric and Textile Art. Professor Kumarini Silva.
- Lucia Mock**, *Curriculum and Instruction*, Haunting Refugee Education Research. Professors Esther Ohito and Sherick Hughes.
- Dorina Mohite**, *Education*, Gender Differences of Internalizing and Externalizing Behaviors in Autistic Children and Adolescents. Professor Rune Simeonsson.
- Benjamin J. Morgan**, *Chemistry*, From Linear to Bottlebrush: Material Property Correlations of Acrylate Elastomers. **Professor Sergei Sheiko.**
- Kaitlyn Morrell**, *Physics*, Toward the Quantum Thermodynamics Computational Engine. Professor Joaquín Drut.
- Amanda Munsch**, *Biomedical Engineering*, Optimizing Knee Joint Loading: Associations Between Quadriceps Contractile Behavior, Knee Joint Biomechanics, and Cartilage Contact Forces. Professor Jason Franz.
- Julie Christine Necarsulmer**, *Cell Biology and Physiology*, Toward Better Models of Neurodegeneration: RNA Binding-Deficient Acetylation-Mimic Tdp-43 Drives Neuronal Dysfunction and Pathology in In Vitro and In Vivo Model Systems. Professor Todd Cohen.
- Kenneth Alarcón Negy**, *History*, The Transmission of Fascism: Spanish Understandings of National Socialism, 1931–1939. Professor Konrad Jarausch.
- Sofia Neira**, *Neurobiology*, Characterizing Mouse Behavioral Adaptations and the Role of Paraventricular Nucleus of the Hypothalamus Corticotropin Releasing Hormone Neurons in Acute Withdrawal From Chronic Alcohol Consumption. Professor Thomas Kash.
- Rebecca Neshkes**, *School Psychology*, Examining the Psychometric Properties of the Dialectical Thinking Scale Adult Version and the Relationship Between Dialectical Thinking and Well-Being in School Mental Health Professionals. Professor Steven Knotek.
- Abigail Newell**, *Sociology*, Battling Body Politics: A Comparative Study of Sex Education Policy and Practice in the U.S. Professor Kenneth Andrews.
- Sydney Nicolla**, *Mass Communication*, Exploring Communication on TikTok as a Sexual Violence Prevention Resource. Professor Allison Lazard.
- Michael Nodzanski**, *Biostatistics*, Methods for Detecting Higher-Order Genetic Interactions in Nuclear-Family-Based Studies. Professor Clarice Weinberg.
- Jessica Laurhen-Aletha Noe**, *Communication Studies*, Baked in — Women’s Role in Curating and Creating Family Memory Through Culinary Performance. Professor Renée Alexander-Craft.
- Boaz Noiman**, *Business Administration*, The Effect of Trade Secrecy on the Design of Loan Syndicates and Contracts. Professor Robert Bushman.
- Nul Loren Oh**, *Health Policy and Management*, Detection and Treatment of Breast Cancer in Dually Enrolled Medicare-Medicaid Beneficiaries in Accountable Care Organizations. Professors Justin Trogdon and Marisa Domino.
- Meryem Tyrrasch Ok**, *Biomedical Engineering*, Real-Time Evaluation of Primary Human Colonic Epithelial Responses to Inflammatory Stimuli: Clostridioides Difficile Toxins and Cytokines. Professor Scott Magness.
- Caitlin O’Loughlin**, *Education*, The Radical Potential of Disappointed Hope: Combating Anti-Queer Necro-Logics in American Education. Professor Jocelyn Glazier.
- Kelly Shea Olsen**, *Microbiology and Immunology*, Shared Minor Histocompatibility Antigen Discovery and Targeting in the Context of Allogeneic Hematopoietic Stem Cell Transplant for Hematologic Malignancies. Professor Benjamin Vincent.
- Kevin Pabst**, *Communication Studies*, Genre in Crisis, Crisis as Genre: Contemporary Disruptions and Constructions in Bodies of Popular Music. Professor Michael Palm.
- Anna L. Parker**, *Biology*, High Temperatures and Hostplant Identity Interact to Affect Success in a Tritrophic System. Professor Joel Kingsolver.
- Achal P. Patel**, *Epidemiology*, Gene-Level Germline Investigation of Breast Cancer Subtypes and Mortality Among Women of European and African Ancestry. Professor Melissa Troester.
- Dhruv Patel**, *Statistics and Operations Research*, Community Dynamic Factor Models: Correlation Networks, Clustering Guarantees and Vector Autoregressions. Professors Vladas Pipiras and Shankar Bhamidi.
- Rahul P. Patel**, *Cell Biology and Physiology*, Development and Applications of Automated Grimace Scales for the Study of Pain Affect in Rodents. Professors Paul Manis and Mark Zylka.
- Kristen Patrow**, *Mass Communication*, Sharpening the Press Clause: Examining why the U.S. Supreme Court says First Amendment Protection of the Press is Valuable to Democracy. Professor Victoria Smith Ekstrand.
- Marcy Pedzwater**, *English and Comparative Literature*, Patriarchal Violence: Patriarchy, Archives, and Violence in Post-Dictatorship Latin American and Latina Women’s Writing. Professor María DeGuzmán.
- Richard Pimentel**, *Biomedical Engineering*, An Energy Audit of Human Gait: Experimental and Computational Assessment of How Structure and Function Shape Walking Economy. Professor Jason Franz.
- Vincent Ash Pistritto**, *Chemistry*, Development and Mechanistic Studies for Site-Selective Functionalization of Unactivated Arenes. Professor David Nicewicz.

- Jacob Robert Powell**, *Human Movement Science*, The Neurophysiological Effects of Blast Exposure and Mild Traumatic Brain Injury in Special Operations Forces Soldiers. Professor Jason Mihalik.
- Julianne Mary Power**, *Health Behavior*, Promoting Engagement in Digital Weight Loss Interventions. Professor Deborah Tate.
- Brandon Price**, *Bioinformatics and Computational Biology*, Improving Genomic Analysis Through Joint Dimension Reduction Data Integration. Professor Joel Parker.
- Yan Qian**, *Economics*, Three Essays on Empirical Finance. Professors Eric Ghysels and Riccardo Colacito.
- Jolene Ranek**, *Bioinformatics and Computational Biology*, Resolving Biological Trajectories in Single-Cell Data Using Feature Selection and Multi-Modal Integration. Professors Jeremy Purvis and Natalie Stanley.
- Sophie Nicole Ravanbakht**, *Health Policy and Management*, The Influence of Intergenerational Acculturation and Stress on Pediatric Obesity in U.S. Latinos: An Exploration Using Decision and Systems Sciences. Professor Leah Frerichs.
- Meredith Katherine Reffner Collins**, *Mass Communication*, Testing the Role of Narratives in Improving Social Support and Meaning Making for Young Adult Cancer Survivors. Professor Allison Lazard.
- Lindsay Rentschler**, *Education*, Efficacy of an Online Caregiver Education Series for Promoting Collaboration With Autistic Adolescents Without Intellectual Disability on Daily Living Skills. Professor Kara Hume.
- Matthew J. Rich**, *Biomedical Engineering*, Device Design and Finite Element Modeling to Better Understand the Response of Articular Cartilage to Cyclical Compressive Loading. Professor Brian Diekman.
- Benjamin A. Rogers**, *Business Administration*, Distressing but Meaningful: The Buffering Effect of Role Meaning Archetypes. Professors Jessica Siegel Christian and Michael Christian.
- Rachael K. Ross**, *Epidemiology*, Missing Data and Measurement Error: Analytic Approaches for Observational Studies With Examples From Pregnancy Outcomes Research. Professor Stephen Cole.
- Peter Neil Rudd**, *Materials Science*, Synthesis, Characterization, and Passivation of Semiconductor Thin Films for Photovoltaic and Solar Fuel Applications. Professors Rene Lopez and Wei You.
- Jack Sanford**, *Genetics and Molecular Biology*, P53 Regulates Metabolism by Both Transcription-Dependent and Transcription-Independent Functions. Professors Yanping Zhang and Albert Baldwin.
- Donald Clifford Santacaterina**, *History*, Making the Paper Come Alive: "Mass" Media and Print Socialism in the People's Republic of China (1949–1966). Professor Michelle King.
- Elaine S. Schnabel**, *Communication Studies*, Communicating Hierarchies of Belonging Through Space and Property: A Critical-Qualitative Organizational Communication Study of Christian Place-Making in the United States. Professor Sarah Dempsey.
- Nisitha Sengottuvel**, *Genetics and Molecular Biology*, Investigation of Mechanisms Underlying Spon1+ Inflammatory Monocyte Driven Lung Cancer. Professor Chad Pecot.
- Siyuan Shan**, *Computer Science*, Leveraging Related Instances for Better Prediction. Professor Junier Oliva.
- Elizabeth Shand**, *English and Comparative Literature*, Defining the Industrial Book: Material Agencies and Print Cultures in Britain, 1814–1855. Professor Kimberly Stern.
- Kaitlin Shartle**, *Sociology*, Social Isolation Across the Adult Life Span: Variations by Gender. Professor Robert Hummer.
- Joshua D. Shelly**, *German Studies*, Writing a Future State: Spatial Imaginaries of German Jewish Literature, 1885–1932. Professor Kata Gellen.
- Anavir Ganesh Shermon**, *Business Administration*, Firm and Entrepreneurial Strategy During the Emergence of new General-Purpose Technologies. Professor Jeffrey Kuhn.
- Kristin Yu Shiue**, *Epidemiology*, Prescription Opioid Use: An Assessment of Social Factors and Birth Cohort Trends. Professor Yvonne Golightly.
- Poojan Shrestha**, *Epidemiology*, Multi-Ancestry Genome-Wide Association Study of Early Childhood Caries and Developmental Defects of Enamel in a Community-Based Sample of Preschool-Age Children. Professor Kari North.
- Ashelyn Elizabeth Sidders**, *Microbiology and Immunology*, Harnessing Membrane-Acting Agents to Enhance Antibiotic Efficacy Against Staphylococcus Aureus. Professor Brian Conlon.
- Samee Nasim Siddiqui**, *History*, A Religious History of Pan-Asianism: South Asia, Japan, and Anticolonial Internationalism. Professor Cemil Aydin.
- Vaia Sigounas**, *Anthropology*, Prosthetic Entanglements: Living With Transnational Prosthetic Limb Design in Uganda and the United States. Professors Peter Redfield and Jocelyn Chua.
- Bhavna Singichetti**, *Epidemiology*, Characteristics of Initial and Repeat Alcohol Driving While Impaired (Alcohol-DWI) License Suspensions and Impacts on Recidivism and Future Crash Events in North Carolina, 2007–2016. Professor Rebecca Naumann.
- Paul Sirma**, *Public Policy*, Three Essays on Schooling, Labor Allocation, and Graduation Out of Poverty: Evidence From a Cash Transfer Program in Malawi. Professor Sudhanshu Handa.
- Richard John Sizelove**, *Biostatistics*, Semiparametric Regression With an Interval-Censored Covariate. Professors Danyu Lin and Donglin Zeng.



- Kasey Skinner**, *Neurobiology*, Improving the Validity of Murine and Human Models of High-Grade Glioma. Professor C. Miller.
- Katherine Slyman**, *Mathematics*, Rate and Noise-Induced Tipping Working in Concert. Professor Christopher Jones.
- Kevin Michael Smith**, *Health Behavior*, Coming out Kinky: A Mixed Methods Study to Inform the Design of a Health Communication Campaign Promoting Disclosure of Kink Identity to Physical Healthcare Providers. Professor Kathryn Muessig.
- Quinton LaKeith Smith**, *Social Work*, Black Cultural Wealth: Exploring the Application and Measurement of a New Construct. Professor Paul Lanier.
- Stephanie Smith**, *Marine Sciences*, Microbial Community Composition and Competitive Dynamics Within Squid Symbioses. Professor Alecia Septer.
- Kelli Dawn Smith-Biwer**, *Musicology*, The Hi-Fi Man: Masculinity, Modularity, and Home Audio Technology in the U.S. Midcentury. Professor Mark Katz.
- Amanda L. Smythers**, *Chemistry*, Unravelling the Protein-Level Regulation of Organisms Under Stress. Professor Leslie Hicks.
- Alexis Sponaule**, *Microbiology and Immunology*, C4D+ T Cell Immunity in Human Immunodeficiency Virus. Professor Nilu Goonetilleke.
- Brooke S. Staley**, *Epidemiology*, Population-Based Study of Plasma Metabolites as Mediators of the Relationship Between Socioeconomic Status and Incident Diabetes: A Social Metabolomic Approach to Health Disparities. Professor Christy Avery.
- Claire J. Stewart**, *Chemistry*, Effects of Polymers on Protein and Protein-Complex Stabilities. Professor Gary Pielak.
- Christian L. L. Strauss**, *Psychology*, Factor Scores in Clustered Data: An Evaluation of Methods to Obtain Level-1 and Level-2 Scores. Professor Patrick Curran.
- Jack Douglas Sundberg**, *Chemistry*, A New Framework for Material Informatics and its Application Toward Electride-Halide Material Systems. Professor Scott Warren.
- Tristan J. Swartz**, *Physics*, Transport and Thermodynamics of Strange Metals: Holographic Models Vs Scaling Phenomenology. Professor Dmitri Khveshchenko.
- Tao Tao**, *Computer Science*, RE-LANG---A Parallel-by-Default Programming Language. Professor David Plaisted.
- Kelsey L. Thompson**, *Speech and Hearing Sciences*, Introducing Complementary Food to Preterm Infants: Integrating Parent Perspectives and Evidence-Based Practices. Professor Karen Erickson.
- Eliza Thulson**, *Genetics and Molecular Biology*, Long Range Gene Regulation in Human Health and Disease. Professor Douglas Phanstiel.
- Emily Toole**, *School Psychology*, The State of Trauma Informed Care in Applied Behavior Analysis: Exploring Barriers and Pathways to Implementation From the Perspective of ABA Practitioners. Professors Steven Knotek and Soraya Kunnavatana.
- Samantha Elizabeth Tulenko**, *Epidemiology*, Evaluating Immunogenicity of a Hepatitis B Birth Dose Vaccine in Democratic Republic of Congo and of Measles Vaccination in the Context of Malaria Infection in Kenya. Professor Emily Gower.
- Breanna Jakardi Bugge Turman**, *Microbiology and Immunology*, The Role of Plasmid-Encoded Virulence Proteins Pgp3 and Pgp4 in Infectivity and Inflammation During Chlamydia Infection. Professor Toni Darville.
- Diana Tursi**, *Education*, "This Is Just Who We Are": A Participatory Case Study on the Implementation of Antibias/Antiracist Pedagogies in Early Childhood Spaces. Professor Cheryl Bolick.
- Ryan Edward Tyler**, *Neurobiology*, Investigation of Predator Odor Stressor on Lasting Changes to Alcohol Interoceptive Sensitivity. Professor Joyce Besheer.
- Rebecca Van Hoeck**, *Biology*, Marine Ecosystems Through the Lens of Soundscape Ecology: How Biological Processes, Landscape Structure, and Anthropogenic Activity Affect Spatiotemporal Soundscape Patterns. Professor F. Joel Fodrie.
- Simon James Varey**, *Philosophy*, Corpus Analysis in Philosophical Semantics. Professor Ram Neta.
- Foad Vashahi**, *Chemistry*, Bottlebrush Hydrogels With Tissue-Mimetic Mechanical and Swelling Properties. Professor Sergei Sheiko.
- Alexander Veatch**, *Chemistry*, Catalytic Carbonylations of Aryl Electrophiles and Alkenes via Thermal and Photochemical Activation. Professor Erik Alexanian.
- Toni Veneri**, *Romance Languages and Literatures*, Conjuring a Sea-State: Maritime Imagination in Renaissance Venice. Professors Shayne Legassie and Maggie Fritz-Morkin.
- Rhyan N. Vereen**, *Mass Communication*, Development and Assessment of Culturally-Informed Sugar-Sweetened Beverage Consumption Reduction Messages for Black Women. Professor Allison Lazard.
- Janelle Ashley Viera**, *Sociology*, "More Puerto Rican than a Coqui": Race, Place, and Generational Perspectives Among Stateside Puerto Ricans. Professor Jacqueline Hagan.
- Tamara Vital**, *Genetics and Molecular Biology*, Biochemical and Molecular Characterization of a Small Molecule Modulator of Chromatin States. Professor Ian Davis.
- Morgan Elizabeth Walker**, *Chemistry*, Structure and Function of Diverse Gut Microbial Enzymes. Professor Matthew Redinbo.
- Austin Reid Ward**, *Information and Library Science*, Immersive Search: Comparing Conventional and Spatially Arranged Search Engine Result Pages in Immersive Virtual Environments. Professor Rob Capra.

- Micah L. Willis**, *Toxicology*, Plasma Extracellular Vesicles Released After Burn Injury Modulate Immune Phenotype. Professor Ilona Jaspers.
- Jerry Jameel Wilson**, *Education*, Faces at the Bottom of the Old Well: Counter-Stories From Black Students at the University of North Carolina at Chapel Hill. Professor Thurston Domina.
- Sarah Clinkscales Wistner**, *Pharmaceutical Sciences*, Characterization of the Role of Hepatoma-Derived Growth Factor-Related Protein 2 in Heterochromatin Biology. Professor Nathaniel Hathaway.
- Eugene Christopher Wong**, *Epidemiology*, Associations Between Non-Chromosomal Birth Defects and Pediatric Cancer. Professor Andrew Olshan.
- Mackenna Wood**, *Physics*, Lithium Depletion Boundary Ages of Young Planet-Hosting Stellar Associations. Professor Andrew Mann.
- Mackenzie Woodburn**, *Psychology*, Time Will Tell: The Contributions of Short and Long Timescales of Brain Network Development to Cognition. Professor Jessica Cohen.
- Rachel Lynn Woodul**, *Geography*, Agent-Based Modeling for Pandemic Preparedness and Response. Professors Paul Delamater and Ashley Ward.
- Justin Zhuo Jun Wu**, *History*, Reviving the May Fourth Spirit: Student Activism, the Diaoyu/Senkaku Islands, and the Geopolitics of Chineseness. Professor Michael Tsin.
- Siqi Xiang**, *Statistics and Operations Research*, Binary Expansion Testing and Gait Force Analysis. Professors Steve Marron and Kai Zhang.
- Kuangyi Xu**, *Biology*, On the Interplay Between Selfing and Population Persistence. Professors Maria Servedio and Todd Vision.
- Mollie Rebecca Yacano**, *Marine Sciences*, The Effects of Non-Native Marsh Grass (*Phragmites Australis*) on Coastal Nitrogen Cycling. Professor Michael Piehler.
- Xiaokang Yan**, *Pharmaceutical Sciences*, Examining the Roles of Histone Methyltransferases in Heterochromatin Formation. Professor Nathaniel Hathaway.
- Jeff Yufeng Yang**, *Epidemiology*, Treat-to-Target Monitoring Colonoscopy in Patients Living With Inflammatory Bowel Disease (IBD): Utilization and Assessment of Methods for Evaluating Effectiveness Among Patients Treated for IBD in the United States. Professor Jennifer Lund.
- Paul Yoo**, *Business Administration*, ESG Investing: A Tale of Two Preferences. Professor Jacob Sagi.
- Aidan Young**, *Mathematics*, Temporo-Spatial Differentiations. Professor Idris Assani.
- Belinda-Rose Young**, *Health Behavior*, State Structural Determinants of Human Trafficking: A Global Study. Professor Kathryn Moracco.
- Isabella Cristina Young**, *Pharmaceutical Sciences*, Long-Acting Technologies for Prevention of HIV and Unplanned Pregnancy. Professor Soumya Benhabbour.
- Huanhuan Yu**, *Mathematics*, Beilinson-Drinfeld Schubert Varieties of Parahoric Group Schemes and Twisted Global Demazure Modules. Professor Jiuzu Yu.
- Adam Jamil Zahara**, *Chemistry*, Dihalomucononitriles as Multifunctional Linchpins for Complex Molecule Synthesis. Professor Jeffrey Johnson.
- Erica E. Zeno**, *Epidemiology*, The Impact of Low-Density and Sub-Patent Plasmodium Falciparum Infections on Transmission and Disease. Professor Emily Gower.
- Haoran Zhang**, *Economics*, Essays on the Economics of Telecommunications. Professors Fei Li and Jonathan Williams.
- Ying Zhang**, *Biostatistics*, Population-Averaged Models With GEE Analysis in CRTs, Focusing on Power Calculation Under Incomplete Design, Count Outcomes, and Computing Tools With Finite Sample Adjustments. Professors John Preisser and Paul Rathouz.
- Deanna Zhu**, *Epidemiology*, Dengue Virus Serotype 2 Envelope-Domain Antibody Responses After Primary Infection in Younger and Older Children. Professors Allison Aiello and Ralph Baric.
- Gabriel Hart Zieff**, *Human Movement Science*, The Effects of a Prior Exercise Bout on the Energetic and Cardiometabolic Responses to Acute Mental Stress. Professor Lee Stoner.

**DOCTOR OF EDUCATION**

**Katherine Blackburn**, *Educational Leadership*, Private Donations to Public Schools and Implications for Equity. Professor Eric Houck.

**Tony Srithai**, *Educational Leadership*, A Descriptive Case Study of a Suburban North Carolina School System's Development and Implementation of Elementary School Science Curriculum. Professor Eric Houck.

**DOCTOR OF NURSING PRACTICE**

**David Chinyeaka Agor**, *Nursing*, Ethnic, Sexual, and Gender Multiple Minority Stress Screening: A Practice Change Quality Improvement Project. Professor Cheryl Woods Giscombe.

**Rekha Aryal**, *Nursing*, Incorporation of an Evidence-Based HIV Risk Assessment Tool to Promote Prep Uptake in a Rural Health Department. Professor Carrie Palmer.

**Elizabeth Jane Baldwin**, *Nursing*, Improving Access to Advance Care Planning: Integration of Nurse-Driven Advance Care Planning Follow-Up for Adult Allogeneic Bone Marrow Transplant Patients. Professor Kimberly Wehner.

**Sydney Christmas Bottorff**, *Nursing*, The De-Adoption of Self-Monitoring of Blood Glucoses for Type 2 Diabetes in the Outpatient Endocrinology Setting. Professor Carrie Palmer.

**Briana Nicole Burrow**, *Nursing*, Improving Campus Health Provider Recommendations Surrounding the Human Papillomavirus (HPV) Vaccine on The University of North Carolina at Chapel Hill College Campus. Professor Audra Rankin.

**Shontay Butler**, *Nursing*, Improving Clinicians' Adherence to Adult Cystitis Guidelines. Professor Elizabeth Miller Walters.

**Gabrielle Yvonne Capps**, *Nursing*, The Weight of Heart Failure: Improving the Utilization of Scales in Heart Failure Management. Professor Leslie Sharpe.

**Lindsey Cornetto Causey**, *Nursing*, Improving Cancer Survivorship Care Plan Delivery With Nurse Navigation. Professor Lorinda Coombs.

**Chelsea Leah Ferguson**, *Nursing*, Standardizing Spacer Education Through Ancillary Staff in a Pediatric Pulmonary Outpatient Setting. Professor Elizabeth Walters.

**John Thomas Fraser**, *Nursing*, Standardizing Depression Screenings in Step-Down Patients With Heart Failure. Professor Tracy Vernon-Platt.

**Christy Rector Georgeson**, *Nursing*, Effective Electronic Health Record Communication of Diagnostic Test Results. Professor Saif Khairat.

**Natalia Goncalves Ghan**, *Nursing*, A Quality Improvement Initiative to Increase Cardiovascular Rehabilitation Referral and Enrollment at a Critical Access Hospital. Professor Tracy Vernon-Platt.

**Melissa Mary McGee**, *Nursing*, Improving Fever Discharge Education in a Pediatric Emergency Department During the Covid Pandemic. Professor Amanda Brinson.

**Ramuel Jack Miro**, *Nursing*, Implementing a Modified Cares Tool for Certified Nursing Assistants Caring for the Dying Resident and Their Families in the Long-Term-Care Setting. Professor Carrie Palmer.

**David Ngugi**, *Nursing*, Implementation of Standardized Screening to Increase the Identification of Co-Existing Substance Use Disorder (SUD) in Patients With Mental Illness. Professor Cheryl Giscombe.

**Sarah Nicol**, *Nursing*, "More Than Before:" A Quality Improvement Project to Increase Physical Activity in Patients With Type 2 Diabetes With a Smartphone App. Professor Leslie Sharpe.

**Tina Nnenna Ohuche**, *Nursing*, Early Psychiatric Intervention for At-Risk Veterans in a Residential Program. Professors Grace Hubbard and Tracy Vernon-Platt.

**Usha T. Pulickal**, *Nursing*, Team Huddle Implementation in the Care in the Community at the Durham Veterans Health Care System Hospital. Professor Ashley Kellish.

**Sarah Rich**, *Nursing*, PROMIS Tool Implementation to Improve Depression Screening: A Quality Improvement Project in a COVID Recovery Clinic. Professor Ashley Kellish.

**Kassiane Saliba Saieed**, *Nursing*, Improving Access to Fertility Preservation Services Among Adults Diagnosed With Cancer. Professor Kimberly Wehner.

**Summer Sanders**, *Nursing*, Post-Obstetrical Event Debriefing: A Quality Improvement Project. Professor Rhonda Lanning.

**Karen Saxer**, *Nursing*, Addressing Access Through Co-Design of an Orientation Video in a Health Literacy Framework. Professor Leslie Sharpe.

**Terence F. Tangoalem**, *Nursing*, Program Outcomes Evaluation for 21st Century North Carolina Veterans Experiencing Reintegration Problems. Professor Grace Hubbard.

**Jamie Alyse Weiner**, *Nursing*, Improving Familial Use of a Patient Information Handbook for the Reduction of Stress and Promotion of Satisfaction in the Pediatric Intensive Care Unit. Professor Ashley Kellish.

**DOCTOR OF PUBLIC HEALTH**

**Jennifer Burns**, *Health Policy and Management*, A Case Study of a Skilled Birth Attendant Training Program in a Rural Hospital: What Are the Barriers and Facilitators to Increasing Skilled Birth Attendants in Haiti? Professor Karl Umble.

**Marc Caruana**, *Health Policy and Management*, Academic Health Centers and Social Determinants of Health: Community Health Improvement. Professor Morris Weinberger.

**Caroline L. Cochran-McClain**, *Health Policy and Management*, Medicaid Strategies to Maintain Access to Maternity Care in Rural America. Professor Rebecca Slifkin.

**Robert M. Cooney**, *Health Policy and Management*, Healthcare Providers and Parents of Patients in the NICU: What are the Barriers and Facilitators to Mobile Device Cleaning? Professor Morris Weinberger.

**Claude A. Jacob**, *Health Policy and Management*, National Public Health Accreditation Readiness: Characteristics of Local Health Departments in Massachusetts. Professor Sandra Greene.

**Michael Jessup Jefferies**, *Health Policy and Management*, The Use of Electronic Health Record Systems in the Identification and Treatment of Substance Use Disorder. Professor Christopher Shea.

**Douangchit Mounghane Kirivong**, *Health Policy and Management*, Utilizing Violence Against Children Surveys for Violence Prevention and HIV Programming: Lessons Learned for Translating Data Into Action. Professor Ciara Zachary.

**David Lewis Pope**, *Health Policy and Management*, Going Upstream: How Community-Based Mental Health Services can Reduce Use of the Emergency Department for Mental Health Crises in Rural North Carolina. Professor Pam Silberman.

**Thea Runyan**, *Health Policy and Management*, Using a Youth Centered Approach to Design an Engaging Digital Health Intervention for the Treatment of Anxiety in Low-Income Hispanic/Latinx Youth. Professor Leah Frerichs.

**Mayra Serrano**, *Health Policy and Management*, Increasing Latino Participation in Cancer Research: Feasibility of the Promotora Model. Professor Susan Helm-Murtagh.

**Kelcey Stricker**, *Health Policy and Management*, Reducing Occupational Carcinogen Exposure in Wildland Firefighters: Developing a Theory-Informed Decontamination Intervention. Professor Angela Stover.

# GRADUATE DEGREES

August 2022

*Graduates' names are followed by their area of major study, dissertation or project title, and the name of their doctoral advisor.*

## The Graduate School

ESTABLISHED 1903

Dean Beth Mayer-Davis

### DOCTOR OF PHILOSOPHY

- Christopher Akiba**, *Health Behavior*, Implementation Strategy Fidelity: Challenges in Research and a Case Study From Malawi. Professor Vivian Go.
- Jumanah A. Almusajin**, *Nursing*, Individual Needs and Psychological Safety of Nurses in Saudi Arabia. Professor Mary Lynn.
- Kaitlin Alper**, *Political Science*, Regional Governance, Authority and Redistribution. Professors John Stephens and Evelyne Huber.
- Jordan Bessette**, *Romance Languages and Literatures*, Novel Masculinities: Making Queer Space in Late Nineteenth-Century French Fiction. Professor Jessica Tanner.
- Hadi Beyhaghi**, *Health Policy and Management*, Advanced Analytics for Predicting Survival and Facilitating Precision Medicine in Checkpoint Immunotherapy. Professor Kristen Hassmiller Lich.
- Rebecca Josephine Bielamowicz**, *Sociology*, Schools, Neighborhoods, and the Reproduction of Inequality Over the Life Course. Professor Ted Mouw.
- Jeffrey Paul Bonin**, *Biochemistry and Biophysics*, Dynamic Allostery in Substrate Binding by Human Thymidylate Synthase. Professor Andrew Lee.
- Sara Brame**, *School Psychology*, Where I'm From: Examining Experiences in the Transition to College for Rural First-Generation College Students and Their Non-Rural Peers. Professor Steven Knotek.
- Jordan Branham**, *City and Regional Planning*, Measuring the Impacts of Federal Subsidy Removal on Coastal Land Use and Development: An Evaluation of the U.S. Coastal Barrier Resources Act. Professor Todd BenDor.
- Danielle Brathwaite**, *Health Policy and Management*, Emergency Department-Based Psychiatric Services for Children and Adolescents: An In-Depth Investigation of Care in North Carolina. Professor Morris Weinberger.
- Brea Hampton Brown**, *Genetics and Molecular Biology*, Genetic Regulation of Immune Homeostasis in the Collaborative Cross. Professors Mark Heise and Martin Ferris.
- Helena Cardenas Diaz**, *City and Regional Planning*, Essays on Pricing and Information in Residential Demand of Piped Water and Electricity. Professor Dale Whittington.
- Rebecca Casazza**, *Microbiology and Immunology*, Pathogenic and Protective Effects of Interferon Signaling During Congenital Infection. Professor Helen Lazear.
- Eunice Chee**, *Biomedical Engineering*, Enhancing Biomimetic Function of Platelet-Like Particles. Professor Ashley Brown.
- Xiaoyang Chen**, *Biomedical Engineering*, Region-Based Landmark Detection and Structure-Preserving Segmentation in Medical Images. Professor Pew-Thian Yap.
- Francisco Chen-Lopez**, *Romance Languages and Literatures*, Mapping the Chinese Diaspora: Chinatowns in Contemporary Latin American Literature (1963–2016). Professor Oswaldo Estrada.
- Devin J. Christensen**, *Political Science*, The SEDS Conceptual Framework for Health Policy Justice. Professor Jeff Spinner-Halev.
- Michael J. Clark**, *English and Comparative Literature*, Deceptive Medicine and (Dis)Trust in Renaissance Drama. Professor Jessica Wolfe.
- James Cobb**, *English and Comparative Literature*, Black Ontology: Contemporary Black Fiction and the Problem of Metaphysics. Professors GerShun Avilez and Heidi Kim.
- Grace Conte**, *Mathematics*, Numerical Analysis of Linear and Nonlinear Schrodinger Equations on Quantum Graphs. Professor Jeremy Marzuola.
- Sara Copic**, *Philosophy*, Ordinary Claims: Success Without Truth. Professors Gillian Russell and Thomas Hofweber.
- Isaura Cruz**, *Anthropology*, International Migration and Health: P'urépecha in the U.S. and México. Professor Amanda Thompson.
- Matthew Choi Cummins**, *Pharmacology*, De Novo Design of Hyper-Stable Proteins That Efficaciously Inhibit Oncogenic G Proteins. Professors Brian Kuhlman and John Sondek.
- Xuezheng Dai**, *Materials Science*, Developing Efficient Perovskite Solar Modules. Professor Jinsong Huang.
- Bailey Marie DeBarmore**, *Epidemiology*, Electronic Health Record Phenotyping in Cardiovascular Epidemiology. Professor Wayne Rosamond.
- Pedro Roberto de Jesús Cruz**, *Chemistry*, Expanding the Synthetic Utility of B-Dicarbonyl Compounds in Stereoconvergent Reactions. Professor Jeffrey Johnson.

- Andrew deJong**, *Economics*, The Effect of Common Ownership on Pricing: Evidence From the Airline Industry. Professors Jonathan Williams and Luca Maini.
- Derek Richard Dewig**, *Human Movement Science*, Effects of Whole Body Vibration on Quadriceps Function, Landing Biomechanics, and Performance in Individuals With ACL Reconstruction. Professor Troy Blackburn.
- Margaret Dillon**, *Speech and Hearing Sciences*, Place-Based Mapping With Electric-Acoustic Stimulation. Professor Emily Buss.
- Lingyun Ding**, *Mathematics*, Scalar Transport and Mixing. Professors Richard McLaughlin and Roberto Camassa.
- Nathan T. Dollar**, *Sociology*, Migration, Worker Empowerment, and the Development of State Agricultural Labor Regimes: An Historical Comparative Case Study of California and North Carolina (1880–2022). Professor Jacqueline Hagan.
- Lauren A. Eaves**, *Environmental Sciences and Engineering*, Metal Mixtures and Preterm Birth: Private Well Water Exposure and the Role of the Placenta. Professor Rebecca Fry.
- Tiffany M. Eden**, *Health Behavior*, Multiply Marginalized: An Intersectional Perspective of Mental Health and Sexual Behavior Across the Life Course Among Sexual Minority Youth of Color. Professor Derrick Matthews.
- Caroline Ruth Efrid**, *Health Behavior*, A Mixed Methods Examination of Black-White Racial Differences in Perceptions of Mental Health in Rural North Carolina. Professor Alexandra Lightfoot.
- Venita Embry**, *Health Behavior*, The Differential Impact of Adverse Childhood Experiences on Trajectories of Depressive Symptomology Throughout the Life Course. Professor Carol Golin.
- Dane Emmerling**, *Health Behavior*, A Participatory Evaluation of the Impacts of Antiracism Training: Towards Methods and Measures of Individual, Organizational, and System Change. Professor Eugenia Eng.
- Annie Maria Francis**, *Social Work*, Maintaining Family and Cultural Connections for Children in the Child Welfare System: Evidence Regarding the Indian Child Welfare Act. Professor William Hall.
- Rebekah Freed**, *Education*, The Effect of a Self-Regulatory Strategy Use Intervention on College Students' Self-Regulated Learning and Conceptual Understanding. Professor Jeff Greene.
- Christiann Hatalya Gaines**, *Neurobiology*, The Impact of Genetic and Environmental Factors on Initial Cocaine Response in Behaviorally Divergent Inbred Mouse Substrains. Professors Lisa Tarantino and Kathryn Reissner.
- Daniel Patrick Gibboney Jr.**, *Education*, More Than a Noah's Ark Full of Animals — Childhood, Control, and the Development of American Psychology. Professor Lynda Stone.
- Manish Goyal**, *Computer Science*, Behavioral Validation in Cyber-Physical Systems: Safety Violations and Beyond. Professor Parasara Sridhar Duggirala.
- Megan K. Rauch Griffard**, *Education*, Principal Leadership as a Moderator of Teacher Turnover Following Natural Hazard Exposure. Professor Lora Cohen-Vogel.
- Wei Gu**, *Statistics and Operations Research*, Three Models for Pricing Decisions in Services or Under Inventory Considerations. Professor Serhan Ziya.
- Yue Guo**, *Computer Science*, Deep Networks for Image-Based Cell Counting. Professors Ashok Krishnamurthy and Marc Niethammer.
- Amber Marie Hall**, *Epidemiology*, The Impact of Prenatal Organophosphate Esters on Attention-Deficit/Hyperactivity Disorder and Executive Function in Preschoolers. Professor Stephanie Engel.
- Mike B. Hawkins**, *Geography*, From Colonial Cargo to Global Containers: An Episodic Historical Geography of Manila's Waterfront. Professor Scott Kirsch.
- John Cody Herron**, *Bioinformatics and Computational Biology*, Computational Analysis and Modeling of Cytoskeletal Organization During Phagocytosis. Professor Shawn Gomez.
- Robert Martin Hinson, Jr.**, *Biomedical Engineering*, Continuous Myoelectric Control: Understanding Decoders and Their Utility. Professor He Huang.
- Simon Hoellerbauer**, *Political Science*, Three Papers on Model-Based Survey Methodology. Professor Graeme Robertson.
- Christine D. Hsu**, *Epidemiology*, Hepatocellular Carcinoma Surveillance Trends in Individuals With Cirrhosis in North Carolina, 2010–2018. Professor Jennifer Lund.
- Xiangxiang Hu**, *Oral and Craniofacial Biomedicine*, Optineurin Regulates NRF2-Mediated Antioxidant Response in Bone. Professor Ching-Chang Ko.
- Wonkyung Jang**, *Education*, Early Childhood Teachers' Characteristics, Complex Talk, and Children's Language and Literacy Development. Professors Harriet Able and Margaret Burchinal.
- Atticus Antonio Jaramillo**, *City and Regional Planning*, Promoting Health Through Federal Housing Programs: Progress and Next Steps. Professor William Rohe.
- Gabrielle Patrice Jenkins**, *Epidemiology*, Associations of Physical Activity and Sedentary Behavior With Anthropometric Measures in Pre-School Age Children. Professor June Stevens.
- Claire Elizabeth Johnson**, *Microbiology and Immunology*, Novel Therapeutic and Prophylactic Approaches to Combat Clinically Relevant Respiratory Viral and Bacterial Pathogens That Cause High Morbidity and Mortality. Professor J. Victor Garcia-Martinez.
- Elyce Johnson**, *Psychology*, The Effect of Multi-Structure Contexts on Pronoun Comprehension. Professor Jennifer Arnold.
- Julie Michelle Kafka**, *Health Behavior*, Intimate Partner Violence as a Precipitating Factor for Suicide: Strengthening Data Systems and Identifying Opportunities for Prevention. Professor Kathryn Moracco.

- Justin Kavlie**, *Mass Communication*, Narrative Structure, Narrative Impact: How the Arrangement of Narrative Events Helps Us Feel, Understand, and Enjoy the Story. Professor Francesca Dillman Carpentier.
- Benjamin Phillip Keepers**, *Pathology*, A Change of Heart: Novel Approaches to Direct Cardiac Reprogramming. Professor Li Qian.
- James Cliff Keller**, *Political Science*, Doing More With Less: Examining the Impact of Tactical Training on Rebel Group Performance. Professor Stephen Gent.
- Thomas Kierski**, *Biomedical Engineering*, Improving Ultrasound Microvascular Imaging With Superharmonic Imaging and Machine Learning. Professor Paul Dayton.
- Hyejeong Kim**, *Microbiology and Immunology*, Enterovirus Recombination as a Target for Viral Attenuation and Antiviral Therapeutics. Professor Craig Cameron.
- Zayna T. King**, *Cell Biology and Physiology*, Mechanistic Contributions of Coronin 1B and Coronin 1C in Actin Dynamics During Cell Migration. Professor James Bear.
- Heather Krapf**, *School Psychology*, Gender Differences in Children and Adolescents With ASD: Parent-Reported and Clinician Observations of Autism Symptoms, Cognitive Performance, Daily Living Skills, Social/Emotional Functioning, and Diagnostic Profile. Professor Sandra Evarrs.
- Alex Kresovich**, *Mass Communication*, The Influence of Celebrity Pop Music Artists who Disclose Mental Health Difficulties on the Depression Support-Seeking Attitudes and Behavioral Intentions of At-Risk U.S. Youth. Professors Seth Noar and Francesca Dillman Carpentier.
- Caroline Marie Lancaster**, *Political Science*, A Multicultural Europe? Sociocultural Conflict in a Globalized Era. Professor Liesbet Hooghe.
- Abigail Jinju Lee**, *English and Comparative Literature*, Site Trouble: Asianness and Blackness in Contemporary Cultural Production. Professors Heidi Kim and GerShun Avilez.
- Emily Elizabeth Lentz**, *Chemistry*, New Methods of Deposition for Atomic Force Microscopy Studies of Biomolecules. Professor Dorothy Erie.
- Sharon Page Levine**, *School Psychology*, Attitudes Toward Trauma-Informed Care Among Specialized Instructional Support Personnel. Professors Alex Tabori and Steven Knotek.
- Chunyan Li**, *Health Behavior*, Developing an mHealth Intervention to Increase Uptake of HIV Pre-Exposure Prophylaxis (PrEP) Among Gay, Bisexual and Other Men who Have Sex With Men in China. Professor Kathryn Muessig.
- Minhan Li**, *Biomedical Engineering*, Learning Based Control Adaptation of Robotic Knee Prostheses. Professor He Huang.
- Yang Li**, *Computer Science*, Generative Modeling of Dependencies for Features, Instances and Distributions. Professor Junier Oliva.
- David K. Lim**, *Biostatistics*, Clustering of Bulk RNA-Seq Data and Missing Data Methods in Deep Learning. Professors Naim Rashid and Joseph Ibrahim.
- Meng-Jung Lin**, *Sociology*, Women, Genes, and Stem: The Effects of Biology and Social Factors on Stem Careers. Professor Guang Guo.
- Deyi Liu**, *Statistics and Operations Research*, Efficient and Provable Algorithms for Convex Optimization Problems Beyond Lipschitz Continuous Gradients. Professor Quoc Tran-Dinh.
- Wei Liu**, *Statistics and Operations Research*, Data-Driven Aircraft Assignment and Stochastic Models for Service Systems. Professors Vinayak Deshpande and Vidyadhar Kulkarni.
- Yutong Liu**, *Biostatistics*, High-Dimensional Data Analysis Problems in Infectious Disease Studies. Professor Quefeng Li.
- Zhiyuan Liu**, *Computer Science*, Geometric and Statistical Models for Multi-Object Shape Analysis. Professors Stephen Pizer and James Marron.
- Raelyn Loiselle**, *Psychology*, Emotion Coregulation and Coercive Processes in Families of Children With Behavior Disorders: The Role of Parental Self-Regulation. Professor Deborah Jones.
- Megan Luedeman**, *Genetics and Molecular Biology*, Mechanisms of DNA Double-Strand Break Repair Pathway Choice. Professor Dale Ramsden.
- Laura Machlin**, *Psychology*, How Early Adversity Becomes Biologically Embedded and Associated Risk for Psychopathology. Professor Margaret Sheridan.
- Gina Mangravite**, *Romance Languages and Literatures*, Naples, Bodies of Disability, and Radical Creativity. Professor Serenella Iovino.
- Irene Mulloy Manning**, *Chemistry*, Ionic Fluorogels for Remediation of Per- and Polyfluorinated Alkyl Substances From Water. Professor Frank Leibfarth.
- Pablo Mino Navarrete**, *Mass Communication*, Nation Branding in Latin America: Global, Regional, and Local Representations Intertwined. Professors Lucinda Austin and Lee McGuigan.
- Tamy Harumy Moraes Tsujimoto**, *Biostatistics*, Statistical Methods for Receiver Operating Characteristic (ROC) Curves in Complex Sampling Surveys. Professor Jianwen Cai.
- Benjamin Murphy**, *English and Comparative Literature*, "Provisional Beings": Crowds, Race, and the Biopolitics of Lynching in American Literature, 1890 – 1915. Professor Matthew Taylor.
- Elizabeth Myer**, *Nursing*, The Relationship Between Pain, Mobility, and Physical Function for Hospitalized Older Veterans. Professor Peggy Wilmoth.
- Dayna Tulsı Neo**, *Epidemiology*, Neighborhood-Level Socioeconomic Position During Early Pregnancy and the Risk of Gastroschisis. Professor Andrew Olshan.
- Vinh Nguyen**, *Toxicology*, Investigating the Role of SWI/SNF Chromatin Remodeling Loss on KEAP1-NRF2 Signaling in Human Cancer. Professor Bernard Weissman.
- Khristopher Mark Nicholas**, *Nutrition*, Spatial and Social Dimensions of Galapagos Food Environments: A Mixed Methods Study of Diet Quality. Professors Margaret Bentley and Amanda Thompson.

- Yixin Nie**, *Computer Science*, Data-Driven Natural Language Inference. Professor Mohit Bansal.
- Sean Thomas Norton**, *Political Science*, Three Papers in Comparative Politics. Professor Graeme Robertson.
- Lindsay Martin Oluyede**, *City and Regional Planning*, Advancing Transportation Justice by Addressing Procedural Inequities in Public Involvement: An Investigation of Design Thinking in Transportation Decision-Making. Professor Noreen McDonald.
- Nathan Michael Otterness**, *Computer Science*, Developing Real-Time GPU-Sharing Platforms for Artificial-Intelligence Applications. Professor James Anderson.
- Sarah Anne Owens**, *Psychology*, Understanding When and why Some Females Attempt Suicide: Testing an Emerging Framework Integrating Menstrual Cycle Fluctuations in Risk. Professors Mitch Prinstein and Tory Eisenlohr-Moul.
- Rachel M. Ozerkevich**, *Art History*, Aestheticizing Sport: Representations of Athletes in France, 1881–1914. Professor Daniel Sherman.
- Cody L. Padgett**, *Chemistry*, Rapid Assembly of Complex Cyclohexanes via Asymmetric, Intermolecular Arene Cyclopropanation. Professor Jeffrey Johnson.
- Yue Pan**, *Biostatistics*, A New Representation for Single Cell RNA-Sequencing Data and COVID-19 Data Analysis. Professors James Stephen Marron and Di Wu.
- Nathaneal Akio Park**, *Chemistry*, Development and Application of On-Line Aerosol Sampling and Analysis Techniques. Professor Gary Glish.
- Carlos Patiño Descovich**, *Cell Biology and Physiology*, Roles of AGS3 in Epithelial Morphogenesis and Oral Carcinogenesis. Professor Scott Williams.
- Jason J. Pearson**, *Mathematics*, Modeling Nasal Tract Infections of SARS-CoV-2 Variants. Professor Greg Forest.
- Sarah F. Pedonti**, *Education*, Associations Between Features of Disability Coordination and Literacy and Language Skills of At-Risk Children From Migrant and Seasonal Head Start Programs. Professors Kathryn Leech and Harriet Able.
- Jonathan Phillips**, *Social Work*, The Impact of Community-Level Factors on Healthcare Access and Utilization Among Individuals With Mental Illness. Professor Amy Blank Wilson.
- Malvika Pillai**, *Health Informatics*, Computational Phenotyping and Drug Repurposing From Electronic Medical Records. Professor Di Wu.
- John Joseph Porter**, *Philosophy*, Democracy and the Problem of Fundamental Security. Professor Luc Bovens.
- Rachel Porter**, *Political Science*, Some Politics are Still Local: Strategic Position Taking in Congress and Elections. Professor Sarah Treul.
- Gabrielle C. Purcell**, *Anthropology*, An Analysis of Cherokee Foodways During European Colonization. Professor C. Margaret Scarry.
- Luis Quintanilla**, *Pharmacology*, Septohippocampal Cholinergic Regulation of Distinct Hippocampal Functions. Professor Juan Song.
- Madhavi Reddi**, *Mass Communication*, Second Generation Media: Examining Progress in South Asian American Media Representation. Professor Daniel Kreiss.
- Elizabeth Reese**, *Psychology*, Dynamic Alterations in Default Mode and Executive Control Network Connectivity During a Distress Tolerance Task Predict Distress Tolerance and Post Treatment Substance Use. Professor Stacey Daughters.
- Trisha Federis Remetir**, *English and Comparative Literature*, Unfamiliar Waters: Representations of Resource Extraction in The Philippines, 1970s to Present. Professors María DeGuzmán and Neel Ahuja.
- Audrey Renson**, *Epidemiology*, Minimum Wages and Racial Inequities in Cardiovascular Disease: Rethinking Difference-In-Differences. Professor Allison Aiello.
- Amy R. Reynolds**, *Linguistics*, Consonant Cluster Simplification Patterns in Refugee English Revisited: Karen English in North Carolina. Professor David Mora-Marín.
- Kamika R. Reynolds**, *Epidemiology*, Weight Change in Older Adults: The Associations Between Weight Loss Intention and Body Composition, CVD, CVD Risk Factors, and Mortality in Adults 70 Years and Older. Professor June Stevens.
- Taylor Marie Rhoads**, *Mathematics*, Almost Global Existence for Systems of Nonlinear Wave Equations in Three Spatial Dimensions. Professor Jason Metcalfe.
- Marc Douglas Rudolph**, *Psychology*, Combining Network Neuroscience and Machine Learning to Discover Neurocognitive Subgroups in Aging Individuals at Risk of or Diagnosed With Alzheimer's Disease. Professor Jessica Cohen.
- Stephanie Samson**, *Materials Science*, Exploring the Robustness of Organic Photovoltaics: Materials, Processing, and Stability. Professors Wei You and Jinsong Huang.
- Chitra Saran**, *Pharmacology*, Bile Acid Transporters and Hepatotoxicity: Novel Mechanisms and in Vitro Models. Professor Kim Brouwer.
- Christoph Schmitz**, *German Studies*, Chaos and Control: Indexicality and the Human Voice in Contemporary German Fiction. Professor Richard Langston.
- Nora Louise Schwaller**, *City and Regional Planning*, Migration Patterns and Household Adaptation Dynamics in Response to Hurricanes and Floods. Professor Todd BenDor.
- Stephanie Nicole Shady**, *Political Science*, Heaven is a Place on Earth: Religion and the Politics of Territorial Identity. Professor Gary Marks.
- Kshitij Parag Sharma**, *Cell Biology and Physiology*, Dissecting the Pathobiology of Mucoepidermoid Carcinoma and Elucidating its Pancancer Implications. Professor Antonio Amelio.
- Zhengyang Shen**, *Computer Science*, Accurate, Fast and Controllable Image and Point Cloud Registration. Professor Marc Niethammer.



- Joshua Bryan Simpson**, *Chemistry*, Refined Multi-Omic Approaches Towards Gut Microbial Metabolism. Professor Matthew Redinbo.
- Amanda Jo Smith**, *Cell Biology and Physiology*, The Role of SPAG1 in the Cytoplasmic Assembly of Axonemal Dynein Arms in Human Airway Epithelia. Professor Lawrence Ostrowski.
- Markia A. Smith**, *Pathology*, Developing Methods to Detect DNA Repair Defects in a Diverse Population. Professors Katherine Hoadley and Melissa Troester.
- Douglas Spielman**, *Communication Studies*, Communication and the Politics of Value: Liberalism, Social Mediation, and the Value-Form. Professor Lawrence Grossberg.
- Jacob Michael Spratt**, *Economics*, U.S. Spatial Patterns and Policy Implications: 1960–2000. Professor Lutz Hendricks.
- Swetha Srinivasan**, *Pharmaceutical Sciences*, Evaluating Use of Biomarker Testing Among Patients With Advanced Non-Small Cell Lung Cancer. Professor Megan Roberts.
- Hannah Starr**, *Chemistry*, A Homogeneous Approach to a Heterogeneous Problem: Investigating the Catalytic Activity of Borylated Silsesquioxanes and Silica Nanoparticles. Professor Michel Gagne.
- Tyler Steelman**, *Political Science*, Political Representation in the United States Congress. Professor Pamela Conover.
- Jennifer Nicole Styles**, *Environmental Sciences and Engineering*, Residential Outdoor Air Microbiome: Exploring its Environmental Predictors, Impacts on Host Microbiome, and Associations With Human Health. Professor Jill Stewart.
- Marina Rose Sweeney**, *Epidemiology*, Indoor and Outdoor Light at Night: Associations With Breast Cancer and Sleep Health. Professor Hazel Nichols.
- Teresa Tackett**, *Mass Communication*, Mad (Wo)Men: How Female Creative Leaders in Advertising Resisted a Male-Dominated Leadership Culture. Professor Lucinda Austin.
- Brianna D. Taylor**, *Sociology*, “It Takes a Toll”: Exploring Race, Gender, and the Emotion Work of Teachers at a Temporary Public Alternative School. Professor Carolyn Tyson.
- Nicholas G. Taylor**, *Chemistry*, Design and Synthesis of Oxygen Sensitive Polymeric 19F MRI Agents. Professor Frank Leibfarth.
- Rhese Thompson**, *Biochemistry and Biophysics*, Tuning the Conformational Dynamics of Diverse RNAs. Professor Qi Zhang.
- Chalmer Edward Tomlinson**, *Biostatistics*, Fusing Novel Statistical Methods and Network Science to Understand Brain Function. Professors Sean Simpson and Hongtu Zhu.
- Nicholas James Venditto**, *Chemistry*, Development of Novel Radical Ion Reactivity Using Organic Photoredox Catalysis. Professor David Nicewicz.
- Melissa Lydia Villodas**, *Social Work*, Examining the Relationship Between Neighborhood Environment, Connectedness, and Mental Health Among Black Youth. Professor Amy Wilson.
- Isaac Raj Waldstein**, *Physics*, Kinetic Decoupling of Dark Matter in the Early Universe and Geodesic Deviation in Curved Spacetime. Professors Adrienne Erickcek and David Brown.
- Christine Elizabeth Walsh**, *Health Behavior*, Assessing the Cumulative Toll of Chronic Stress: Pathways and Disparities in Allostatic Load Across the Life Course. Professors Shelley Golden and Yang Claire Yang.
- Haodong Wang**, *Statistics and Operations Research*, Supervised Learning for Complex Data. Professors Yufeng Liu and Quefeng Li.
- Tiansheng Wang**, *Epidemiology*, Using Machine Learning Techniques to Identify and Assess Heterogeneous Treatment Effects in Adults With Type 2 Diabetes. Professor Til Stürmer.
- Danielle Weber**, *Psychology*, Relationship “Jet Lag” in Long-Distance and Geographically-Close Relationships: The Impact of Relationship Transitions on Couple and Individual Functioning. Professor Donald Baucom.
- Caiping Wei**, *Sociology*, Gender, Genomic Predisposition and Social Stratification. Professor Guang Guo.
- Tamira Jo White**, *Education*, Family Expectations and Concerns Regarding the Transition to Adulthood for Youth With Autism Spectrum Disorder With Intense Support Needs. Professor Harriet Able.
- Elizaveta Tatyana Wick**, *Pharmacology*, Viral Hijacking of Ubiquitin Ligases: Lessons From Human Cytomegalovirus pUL145. Professor Nicholas Brown.
- Rachel E. Wilbur**, *Anthropology*, Individual, Family, and Community Impacts of the Federal Indian Boarding School Era on an Urban American Indian and Alaska Native Population. Professor Amanda Thompson.
- Matthew David Wilson**, *City and Regional Planning*, Essays on Opportunity Zones and Equitable Development. Professor T. Lester.
- Blaide Woodburn**, *Pharmacology*, Characterizing HIV Infection of the Central Nervous System. Professor Ronald Swanson.
- Jiale Xie**, *Mathematics*, Polynomial Representation Ring Versus Cohomology Ring of Flag Varieties for Classical and Exceptional Groups. Professor Shrawan Kumar.
- Hannan Yang**, *Biostatistics*, Statistical Learning Methods for High-Dimensional Classification and Regression. Professors Quefeng Li and Danyu Lin.
- Ai Ye**, *Psychology*, Path and Direction Discovery in Individual Dynamic Models: A Regularized Hybrid Unified Structural Equation Modeling With Latent Variable. Professors Kenneth Bollen and Kathleen Gates.
- Calvin Sierra Yeager**, *Microbiology and Immunology*, Biochemical Characterization of Enteroviral 2C Proteins. Professor Craig Cameron.
- Matthew H. Young**, *Political Science*, Fear, Hope, and Love: Apocalyptic Faith and the Origins of Toleration. Professor Jeff Spinner-Halev.
- Lauren C. Zalla**, *Epidemiology*, Racial Disparities in HIV Care and Mortality in the Modern Treatment Era. Professor Jessie Edwards.

**Henry Zhang**, *Epidemiology*, Using Information on Initiation of Medication Use to Address Unmeasured Frailty in Older Adults. Professor Til Stürmer.

**Jiawei Zhou**, *Pharmaceutical Sciences*, Harness Evolutionary Principles to Understand Tumor Resistance in Colorectal Cancer. Professor Yanguang Cao.

**Laura Yiling Zhou**, *Biostatistics*, Statistical Learning for Immunomics and Genomics. Professors Fei Zou and Wei Sun.

**Ziliang Zhu**, *Biostatistics*, Prediction Methods in Large-Scale Network Analysis for Neuroimaging Data. Professors Hongtu Zhu and Joseph Ibrahim.

**Kanecia Zimmerman**, *Epidemiology*, Initial Dual Compared to Mono Therapy for Sedation and Analgesia in Mechanically-Ventilated, Critically Ill Children. Professor Til Sturmer.

**Meng Zou**, *Genetics and Molecular Biology*, Investigating the Function of PRDM6 in Smooth Muscle. Professor Chris Mack.

#### DOCTOR OF PUBLIC HEALTH

**Gilson D. Honvoh**, *Biostatistics*, Precision Medicine Methods for Right-Censored Survival Outcomes. Professor Michael Kosorok.

**John Strapp**, *Health Policy and Management*, Utilizing Center for Medicare and Medicaid Services Alternative Payment Models to Advance Health Equity. Professor Sandra Greene.

#### DOCTOR OF NURSING PRACTICE

**Sophie M. D. Austin**, *Nursing Practice*, A Commitment to Inclusive Care of Transgender Patients: A Program Evaluation. Professor Leslie Sharpe.

**Cheryl Lynette Hooks**, *Nursing Practice*, Standardized Nurse-to-Nurse Hand-Off of Behavioral Health Patients in a Rural Emergency Department Guided by a Mnemonic Communication Tool: PSYCH. Professors Margaret Carman and Victoria Soltis-Jarrett.

**Velgan Mercedes Rodriguez Kata**, *Nursing Practice*, Veteran Depression Screening: A CIPP Program Evaluation in a Long-Term Community Living Center. Professor Rebecca Kitzmiller.

**Leonora Cousar Tisdale**, *Nursing Practice*, Educate and Advocate: Dental Providers Promote HPV Vaccination as Oropharyngeal Cancer Prevention in Interprofessional Collaboration. Professor Leslie Sharpe.

# GRADUATE DEGREES

December 2022

*Graduates' names are followed by their area of major study, dissertation or project title, and the name of their doctoral advisor.*

## The Graduate School

ESTABLISHED 1903

Dean Beth Mayer-Davis

### DOCTOR OF PHILOSOPHY

- Karthik Adapa**, *Health Informatics*, Unifying Evidence-Based Frameworks to Design, Develop, Implement, and Evaluate Health Information Technology Tools in Radiation Oncology. Professor Lukasz Mazur.
- Lucas Josue Aponte-Collazo**, *Pharmacology*, Exploring the Role of Mitochondrial Protease ClpP in Apoptosis Regulation of Triple Negative Breast Cancer Cells. Professor Lee Graves.
- Mikayla D. Armstrong**, *Environmental Sciences and Engineering*, Effects of Alternative Polymerization and Solvent Activation Post-Modifications on the Properties and Performance of Reverse Osmosis Membranes. Professor Orlando Coronell.
- Olufunmilayo Arogbokun**, *Epidemiology*, Maternal Exposure to Ambient Air Pollution During Pregnancy and Prevalence of Congenital Heart Defects and Congenital Limb Defects: A Focus on Racial Disparities. Professor Andrew Olshan.
- Nicole Arruda**, *Genetics and Molecular Biology*, Roles of Variant Cohesin Complexes in Genome Organization and Gene Expression. Professor Jill Downen.
- Eric Alexander Assaf**, *Chemistry*, Designing Catalytic Motifs to Generate Solar Fuels From the Reduction of Carbon Dioxide. Professors Alexander Miller and Jillian Dempsey.
- Cole J. Batty**, *Pharmaceutical Sciences*, Particle Carriers to Enhance Universal Influenza Vaccine Efficacy. Professor Kristy Ainslie.
- Nathan W. Bean**, *Biostatistics*, Bayesian Multi-Regional Clinical Trials Using Model Averaging. Professors Joseph Ibrahim and Matthew Psioda.
- Philip Bold**, *Philosophy*, Three Essays on Wittgenstein's Philosophy of Mathematics: Reality, Determination, and Infinity. Professor Alan Nelson.
- Quentin Patrice Bouvier**, *Romance Languages and Literatures*, Au-Delà Des Lettres: Pour Une Redéfinition Écologique Systémique Dans Une France Contemporaine. Professor Jessica Tanner.
- Sarah A. Brown**, *Ecology*, Enzymatic Capabilities and Substrate Uptake Mechanisms of Diverse Bacterial Communities in the Atlantic, Indian, and Southern Oceans. Professor Carol Arnosti.
- Jennifer Lauren Buchholz**, *Psychology*, Expectancy Violation During Exposure Therapy: A Randomized Controlled Trial. Professor Jonathan Abramowitz.
- Danielle Berlin Buglak**, *Cell Biology and Physiology*, The Nucleus and Centrosome Regulate Peripheral Endothelial Functions During Vascular Development. Professor Victoria Bautch.
- Shanice Jones Cameron**, *Communication Studies*, Locating the Everyday: Black Women, Well-Being, and Digital Media. Professor Patricia Parker.
- Johnny Victor Castillo Cabrera**, *Pathology*, SGK1 and SGK3 Regulate the Innate Immune Signaling in Response to dsDNA Viral Infection in Macrophages. Professors Albert Baldwin and Robert Hagan.
- Yun Chang**, *Marine Sciences*, Radiatively Driven Convection and Langmuir Turbulence. Professor Alberto Scotti.
- Dazhe Chen**, *Epidemiology*, Exposure to Crude Oil Chemicals and Burning-Related PM2.5 Among Deepwater Horizon Oil Spill Workers and Incident Coronary Heart Disease. Professor Lawrence Engel.
- Meng Cheng**, *Genetics and Molecular Biology*, Advancing Cancer Treatment Using PROTAC Chemicals and Vitamin C. Professors Albert Baldwin and Greg Wang.
- Jeliyah Clark**, *Environmental Sciences and Engineering*, Nutritional Modulation of Fetal Susceptibility to Lower Birth Weight Associated With Prenatal Inorganic Arsenic Exposure. Professor Rebecca Fry.
- Tiffany L. Crawford**, *Chemistry*, Resolving Isomeric Species Using Ion-Molecule Reactions and Ion Mobility Spectrometry Methods. Professors Gary Glish and Mark Schoenfish.
- Kristen D. Downs**, *Environmental Sciences and Engineering*, Modeling Precipitation, Acute Gastrointestinal Illness, and Environmental Factors in North Carolina, USA. Professor Dale Whittington.
- Luke Drake**, *Religious Studies*, Heirs of the Covenant: Textual Transformations of Jews and Jewishness in Late Ancient Christian Manuscripts. Professor Bart Ehrman.
- Phillip Durham**, *Pharmaceutical Sciences*, Applications of Therapeutic Ultrasound and Cavitation Enhancing Agents to Overcome Biological Barriers. Professor Paul Dayton.
- Josée Dussault**, *Epidemiology*, Assessing the Role of Depression-Related Stigma in Depression Care in Malawi. Professor Brian Pence.

- Deborah Lynn Dwyer**, *Mass Communication*, Unpublishing the News: An Assessment of U.S. Public Opinion, Newsroom Accountability, and Journalists' Authority as "The First Draft of History." Professor Victoria Ekstrand.
- Miranda Lee Elston**, *Art History*, Architectural Geographies: Architectural Representation in the Early Tudor Imagination (1509–1547). Professor Tatiana String.
- Alyssa Evans-Pickett**, *Human Movement Science*, Responses to Barriers Preventing the Use of Real-Time Gait Biofeedback in a Clinical Setting. Professor Brian Pietrosimone.
- James Michael Fay**, *Biochemistry and Biophysics*, The Nanoformulation of Brain Derived Neurotrophic Factor and Reformulation With PEG-Free Polymers. Professor Alexander Kabanov.
- Austin S. Ferguson**, *Mathematics*, Multilayer Network Modeling and Analysis, With Applications in Neuroscience and Social Work, With an Emphasis on Community Detection. Professor Peter Mucha.
- Matthew Fleming**, *Pharmaceutical Sciences*, Applying mRNA Display to Discover MAGE-A4 Inhibitors and Structural Basis of Ligand Selectivity. Professor Albert Bowers.
- Caroline Ann Foley**, *Chemistry*, Chemical Tool Development to Enable Target Validation of Methyl-Lysine Reader Proteins. Professors Stephen Frye and Lindsey James.
- Anna Charlotte Fraser**, *Chemistry*, Sulfonated All-Aromatic Polyamides for Water Purification. Professor Theo Dingemans.
- Ethan James Fritch**, *Microbiology and Immunology*, Leveraging Transcriptomics and Proteomics to Identify Novel Coronavirus Genomic Elements and Host Kinase Determinants of Replication. Professor Ralph Baric.
- Sarah F. Furlong**, *Psychology*, A Multi-Study Examination of ADHD, Early Adversity, and Neural Development. Professor Margaret Sheridan.
- Estefany Garcia**, *Pharmaceutical Sciences*, Optimization of Antimicrobial Therapy: The Right Drugs, at the Right Dose, Over the Right Duration, at the Right Time. Professors Gauri Rao and Julie Dumond.
- Catherine Giannetti**, *Chemistry*, Defining Structure in Complex RNAs by Chemical Probing. Professor Kevin Weeks.
- LaShaunta M. Glover**, *Epidemiology*, Methylome-Wide Association Study of Socioeconomic Status, Incident Type 2 Diabetes, and Cardiovascular Disease Events Among African American Adults. Professor Kari North.
- Ugo Goetzl**, *Romance Languages and Literatures*, Rhetorical Aspects of Italian Antisemitism: Unmasking Anti-Jewish Narratives in Post-Risorgimento Fictional and Epistolary Literature. Professors Serenella Iovino and Saskia Ziolkowski.
- Sondrica Goines**, *Chemistry*, Hyperspectral-Assisted Scanning Electrochemical Microscopy for Single Cell Analysis. Professor Jeffrey Dick.
- Victoria Haberman**, *Pharmaceutical Sciences*, Discovery of Protein-Protein Interaction Inhibitors Using mRNA Display. Professor Albert Bowers.
- Jana Haddad**, *Marine Sciences*, Wave Transformation in Coastal Marshes. Professors Rick Luettich and Johanna Rosman.
- Reem Mansoor Ahmed Hakeem**, *Biochemistry and Biophysics*, A Photopolymerizable Hydrogel System to Study Molecular Mechanisms Underlying Distinct Modes of Fibroblast Cell Durotaxis on Multiple Stiffness Gradients. Professor James Bear.
- Ryan Joseph Hegedus**, *Physics*, Investigating Gaseous Debris Disks in Dynamic Circumstellar Environments. Professor J. Christopher Clemens.
- Alexandra Kori Hill**, *Musicology*, Make the Familiar New: New Negro Modernism in the Concertos of Florence B. Price. Professor Mark Katz.
- Emma Rose Hinkle**, *Genetics and Molecular Biology*, Regulation of Alternative Splicing by RNA-Binding Proteins and Mechanical Forces in Skeletal Muscle Cells. Professor Jimena Giudice.
- Kelli M. Holt**, *English and Comparative Literature*, Animal Welfare in Nineteenth-Century British Literature and Law. Professor Jeanne Moskal.
- Olivia Hon**, *Neurobiology*, Neuromodulation in the Extended Amygdala Shapes Conditioned Fear Processes. Professor Thomas Kash.
- Emma Catherine Thompson Howell**, *Romance Languages and Literatures*, Total Encounter: Theorizing Image-Text Collaborations From the Francophone Caribbean. Professors Dominique Fisher and Jessica Tanner.
- Julien Isnard**, *Economics*, Pricing and Welfare Implications of Attribute-Based Regulation: A Study of Cafe Standards With Footprint Considerations. Professors Andrew Yates and Brian McManus.
- Ian Randolph Jacobs**, *Psychology*, HIV-1 Tat1-86 Induced Effects on Extinction and Relapse in Fear Conditioning Learning. Professor Sylvia Fitting.
- Michael Shea Jacobs**, *Chemistry*, Forensics and Design of Polymer Networks and Gels. Professors Andrey Dobrynin and Sergei Sheiko.
- Bhushan Pradip Jain**, *Computer Science*, Economically Protecting Complex, Legacy Operating Systems Using Secure Design Principles. Professor Donald Porter.
- Min-Zhi Jiang**, *Materials Science*, Multi-Omic Dissection of Complex Human Diseases and Traits. Professor Yun Li.
- Amala P. John**, *Biology*, The Role of Clavata Signaling in Auxin-Dependent Inflorescence Meristem Development. Professor Zachary Nimchuk.
- Rachel Anne Johnson**, *Chemistry*, Mechanisms of Action and Resistance for Dithiolopyrrolone Antibiotics Against *Staphylococcus Aureus*. Professor Bo Li.
- Jordan Baer Joiner**, *Pharmaceutical Sciences*, Leveraging Focused Ultrasound, Immunotherapy and Biomaterials as Treatments for Pancreatic Cancer. Professors Paul Dayton and Soumya Benhabbour.

- Brittany Katz**, *Neurobiology*, Neurovascular Coupling in the Dorsal Striatum. Professors Yen-Yu Ian Shih and Donita Robinson.
- Kathleen Elizabeth Knocke**, *Health Policy and Management*, The Impact of Rural Hospital-Based Maternity Unit Closures in North Carolina. Professor Kristin Reiter.
- Daniel Robert Korn**, *Computer Science*, Exploration of Domain-Specific Knowledge Graphs for Testable Hypothesis Generation. Professor Stanley Ahalt.
- Mary Learner**, *English and Comparative Literature*, Patterns, Samples, and Observational Science in Early Modern Literature. Professors Megan Matchinske and Mary Floyd-Wilson.
- Lupeng Li**, *Microbiology and Immunology*, Innate Immunity Successfully Defends Against Environmental Pathogens but Fails Against Host-Adapted Pathogens. Professor Edward Miao.
- Dongbo Lu**, *Pharmaceutical Sciences*, Development and Optimization of Chemical Epigenetic Modifiers. Professor Nathaniel Hathaway.
- Yiyun Luo**, *Statistics and Operations Research*, Online Decision Making in Dynamic Pricing and Assortment Selection. Professor Yufeng Liu.
- Martin John MacKinnon**, *Biomedical Engineering*, T1 Contrast Mechanisms at Ultra-High Magnetic Field. Professor Yen-Yu Ian Shih.
- Kevan McClelland**, *Biology*, Studies in the Genus *Trichostema* Gronov. Professor Alan Weakley.
- Michele Meyer**, *Mass Communication*, Affordances, Audiences, and Audio Memes: LGBTQIA+ TikTokers in Lockdown. Professor Daniel Kreiss.
- Karl (Kai) Crawford Monast**, *City and Regional Planning*, Threats to Public Transportation Performance Measurement: Specific Examples of Performance Measurement Shortcomings. Professor Noreen McDonald.
- Dominique Nicole Munson**, *Pathology*, Evaluating Low- and Normal-Density Neutrophil Profiles and Pathological Mechanisms in Anca Vasculitis. Professor Ronald Falk.
- Jean Marie Niyitegeka Mwiza**, *Pathology*, Determining the Role of Platelets in the Pathogenesis of Venous Thrombosis. Professors Alisa Wolberg and Wolfgang Bergmeier.
- Metika Laya Ngbokoli**, *Psychology*, Examination of Prelimbic Cortex and Nucleus Accumbens Core Signaling Dynamics as a Biomarker for Cocaine Use Disorder in a Preclinical Model. Professor Regina Carelli.
- Meghan C. O'Leary**, *Health Policy and Management*, Pragmatic Evidence-Based Decision-Making: Using Systems Science Tools to Inform Implementation of Colorectal Cancer Screening Interventions. Professor Stephanie Wheeler.
- Kyle Onda**, *City and Regional Planning*, Essays on Measuring Urbanization and Infrastructure Service Levels. Professor Meenu Tewari.
- Mustafa Kemal Ozalp**, *Biology*, Dispersal, Movement Patterns, and Antenna Hydrodynamics of *Artemia* (Anostraca) During Development. Professor Laura Miller.
- Rodney Allen Park**, *Biochemistry and Biophysics*, Design and Application of Substrate Recruitment Domains in Enzymes. Professor Brian Kuhlman.
- Rachel Parry**, *Pharmaceutical Sciences*, Bimanual Pelvic Examinations: Temporal Trends and Imposed Barriers to Self-Administered Hormonal Contraception Use. Professors Casey Tak and Carolyn Thorpe.
- Alexia Nicole Perryman**, *Toxicology*, Examining Biological Effects Associated With Oxysterol Production Following Ozone Exposure. Professor Ilona Jaspers.
- \*Caroline Porter**, *English and Comparative Literature*, Dissertation Title Unavailable. Professors Jennifer Ho and Heidi Kim.
- Sapna Rao**, *Epidemiology*, Prediction of Thromboembolism Risk and Comparative Effectiveness of Warfarin Treatment Strategies in a Hemodialysis Population With Atrial Fibrillation. Professor Charles Poole.
- Joshua Steven Reding**, *Physics*, The Menagerie of "Failed" Type Ia Supernovae. Professor J. Christopher Clemens.
- Yumeng Ren**, *Epidemiology*, Trajectories of Emotional and Functional Well-Being in Breast Cancer Survivors. Professor Marc Emerson.
- Joyce A. Rhoden**, *Epidemiology*, Polycyclic Aromatic Hydrocarbons, Vitamin D, and Breast Cancer: An Effect Measure Modification and Survival Analysis. Professor Andrew Olshan.
- Alexander Rich**, *Health Informatics*, Building and Evaluating Detailed Graphical Financial Conflict of Interest Disclosures in Medical Research. Professor David Gotz.
- Tayliz Marie Rodriguez**, *Chemistry*, Exploring the Utility of Ligand-to-Metal Charge Transfer Excited States for Light-Driven Metal Hydride Formation. Professor Jillian Dempsey.
- Nidia Rodriguez-Ormaza**, *Epidemiology*, Geographic Access to Fertility Specialty Care Among Female Adolescent and Young Adult Cancer Survivors in North Carolina. Professor Hazel Nichols.
- Wendi Rotunda**, *Health Policy and Management*, Impact of High Costs for Oral Anticancer Drugs: Access, Death, and Net Worth. Professor Cleo Samuel-Ryals.
- Susan Ryan**, *Communication Studies*, Politics is a Parallax. Professor Chris Lundberg.
- Christine Anne Schalkoff**, *Health Behavior*, Understanding the Opioid Epidemic in Rural Ohio: A Mixed-Methods Analysis of Moral Values, Stigma, and Medication for Opioid Use Disorder (MOUD). Professor Vivian Go.
- Nancy Sey**, *Genetics and Molecular Biology*, Annotating Genetic Risk Variants to Target Genes Using Hi-C Coupled MAGMA (H-MAGMA). Professor Hyejung Won.

**Anjalee Sharma**, *Social Work*, Assessing Quality of Life Trajectories Among African American Methadone Patients: A Health Equity Perspective. Professor Trenette Clark Goings.

**Abigail Kathleen Shelton**, *Pathology*, Transcriptomic and Proteomic Responses to Targeted Inhibitors in Glioblastoma: In Pursuit of Combination Therapies. Professors Christopher Miller and Cyrus Vaziri.

**Erin Smithberger**, *Pathology*, Kinome-Guided Development of Precision-Targeted Therapeutics for Glioblastoma. Professor C. Miller.

**Kyla J. Stingley**, *Chemistry*, Expansion of Complex Dynamic Combinatorial Chemistry Systems Through the Incorporation of Noncovalent Coiled Coil Interactions. Professor Marcey Waters.

**Hang Su**, *Bioinformatics and Computational Biology*, Collaborative Cross Graphical Genome. Professor Leonard McMillan.

**Jada Suber**, *Microbiology and Immunology*, Inhibition of Effector Cells in Food Allergy. Professors Onyinye Iweala and Wesley Burks.

**Sydney T. Thai**, *Epidemiology*, Frailty Screening and Impairment Patterns in Older Adults With Cancer: A Dissertation Using the Cancer Aging and Resilience Evaluation (CARE) Registry. Professor Jennifer Lund.

**Andrew J. Thieme**, *Pharmaceutical Sciences*, Scentinformatics: Mining of Structure-Odor Relationships and Scent-Related Medical Effects for Mono-Molecular Odorants. Professor Alexander Tropsha.

**Joseph F. Thole**, *Chemistry*, Disordered Proteins in Vitro and in Cells. Professor Dorothy Erie.

**Katherine Thompson**, *Psychology*, Social Comparison, Disordered Eating, and Body Dissatisfaction Among Postpartum Women. Professor Anna Bardone-Cone.

**Eva Vitucci**, *Toxicology*, Investigating Intercellular Signaling Between the Alveolar Epithelium and Microvascular Endothelium With An Organotypic Model of the Alveolar Capillary Region. Professor Shaun McCullough.

**Mengqian Wang**, *Information and Library Science*, A Pathology Report Summarization System to Improve the Information Processing Efficiency of Breast Cancer Oncologists. Professor Javed Mostafa.

**Nathaniel A. Wesley**, *Biochemistry and Biophysics*, Characterization of Chromatin Interactions Using TR-FRET. Professor Robert McGinty.

**Hannah Wiedner**, *Genetics and Molecular Biology*, I Splice it Like That: Regulatory Mechanisms and Functional Implications of Alternative Splicing During Myogenesis. Professors Jimena Giudice and Joan Taylor.

**Hunter Wilkins**, *Chemistry*, Mismatch Matchmaking: Single Molecule Insights Into DNA Mismatch Repair Signaling. Professor Dorothy Erie.

**Alex Steven Woodell**, *Pharmaceutical Sciences*, Using Neural Stem Cells as Drug Delivery Vehicles for Brain Cancer. Professor Shawn Hingtgen.

**Zhenlin Xu**, *Computer Science*, Towards Deep Visual Learning in the Wild: Data-Efficiency, Robustness and Generalization. Professors Marc Niethammer and Colin Raffel.

**Brandon Tyler Yost**, *Physics*, Raman Spectroscopy Studies of Defective Metal-Organic Framework Compounds for Use in Chemical Warfare Agent Decomposition. Professor Laurie McNeil.

**Yitian Zhang**, *Epidemiology*, Malpresentation at Delivery and its Association Between Child Autism Spectrum Disorder and Cognitive Impairment. Professor Julie Daniels.

#### DOCTOR OF NURSING PRACTICE

**Daniel Blandon-Hendrix**, *Nursing*, Standardization and Implementation of a Preceptor Training Program for Advanced Practice Providers. Professor Maureen Baker.

**Jacqueline Smith Davis**, *Nursing*, Improving Provider Documentation of Pediatric Obesity Clinical Guidelines and Smart Goals: A Quality Improvement Project. Professor Maureen Kelly.

**Lauren E. Herlihy**, *Nursing*, Early Peanut Introduction in Infants to Prevent Peanut Allergy: Improving Guideline Adherence Through EMR Standardization. Professor Elizabeth Walters.

**Ramona Irabor**, *Nursing*, Improving Provider Adherence to Low Back Pain Clinical Practice Guidelines in an Outpatient Setting. Professor Jessica Williams.

**Shelley Lynch**, *Nursing*, Social Determinants of Health Impacts Health Outcomes: PRAPARE Tool Implementation in a Community Primary Care Practice. Professor Ashley Kellish.

## *Academic Dress*

The following information, based in part on An Academic Costume Code and Ceremony Guide (published by the American Council on Education), may be helpful in identifying academic attire worn during today's Doctoral Hooding ceremony.

**Degree Candidates' Regalia.** The hooded doctoral gown features three bars across each sleeve. The doctoral gown for Carolina graduates is Carolina blue, with facings and crossbars of dark blue outlined in white piping. The facings bear the shield of the University supported by the torches of learning. The hoods of master's and doctoral degree candidates vary in color according to the field of study (see list below).

**Faculty Regalia.** Faculty wear the regalia of the institution that conferred their highest degree. The doctoral gowns are usually faced with black velvet, although the color of the velvet may vary according to the field of study. Hoods, which differ in length according to the level of the degree held, are lined with official colors of the university or college that conferred the degree, usually with one color forming a chevron pattern over the other. Some colors you will see on faculty and administrators' robes are, for example, the crimson of Harvard, the maroon of Chicago, the orange and black of Princeton, the dark blue of Yale, and the light blue and white of North Carolina. Like the hoods of master's and doctoral degree candidates, faculty hoods are edged and bound with velvet in the color appropriate to the field of study.

The colors in the hoods and gowns of faculty and administrators represent the following fields in which degrees were taken:

|                        |                                     |   |
|------------------------|-------------------------------------|---|
| Apricot: Nursing       | Lemon Yellow: Library Science       | Purple: Law                                   |
| Brown: Fine Arts       | Light Blue: Education               | Sage Green: Physical Education                |
| Citron: Social Work    | Lilac: Dentistry                    | Salmon Pink: Public Health                    |
| Crimson: Journalism    | Olive Green: Pharmacy               | Scarlet: Theology                             |
| Dark Blue: Philosophy  | Orange: Engineering                 | Yellow Brown: Commerce, Business, Accountancy |
| Golden Yellow: Science | Peacock Blue: Public Administration | White: Arts, Letters, Humanities              |
| Green: Medicine        | Pink: Music                         |   |

## *Commencement Committee*

|                                 |                           |                   |                             |
|---------------------------------|---------------------------|-------------------|-----------------------------|
| Ronald P. Strauss, <i>Chair</i> | Douglas S. Dibbert        | Darrell Jeter Sr. | Valerie A. Price            |
| Jay Aikat                       | Lauren M. DiGrazia        | Beth Keith        | Desirée Rieckenberg         |
| Tiffany Bailey                  | Michael (Keith) Ellington | Derek Kemp        | Charles "Charlie" Robinette |
| Brandon W. Bieltz               | Jeffrey W. Fuchs          | S. Katy Lucci     | Samuel Robinson             |
| Brett Botta                     | Elizabeth Hall            | Kelly Miller      | Keisha Solanki              |
| Bonita Brown                    | Amy L. Hertel             | Mark Moon         | James I. Spurling           |
| Juan Castro                     | Stacey Harris Warner      | Jill D. Moore     | Neel Swamy                  |
| Mimi V. Chapman                 | Deborah L. Hawkins        | Tanya Moore       | Julie Thompson              |
| Jenny Cobb                      | Christi Hurt              | Katie Musgrove    | Kartik Tyagi                |
| Jeni Cook                       | Sarah Elizabeth Jacobson  | Theodore Nollert  | Taliajah Vann               |

### **Credits**

Published by The Graduate School, the UNC-Chapel Hill Office of the Registrar and UNC Creative. Photos copyright the University of North Carolina at Chapel Hill.

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL IS A CONSTITUENT INSTITUTION OF THE UNIVERSITY OF NORTH CAROLINA.

Every effort has been made to ensure the accuracy of this program's content. Any omissions or errors are unintentional.



THE UNIVERSITY  
*of* NORTH CAROLINA  
*at* CHAPEL HILL