

THE OHIO STATE UNIVERSITY **EDWARD F. HAYES GRADUATE RESEARCH FORUM**

FRIDAY, FEBRUARY 21, 2014 • OHIO UNION

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WELCOMING REMARKS

Dear Guests,

Welcome to the 28th annual Edward F. Hayes Graduate Research Forum at The Ohio State University. This unique collaboration between the Council of Graduate Students, the Graduate School, and the Office of Research enables Ohio State graduate students not only to present their cutting edge research, but also to develop as professionals.

I am pleased that you have joined us to celebrate the graduate research that takes place at this great university. Hayes fosters academic and professional development for our attendees while showcasing the work of nearly 150 Ohio State graduate students. We will be recognizing our top graduate students across multiple disciplines by awarding nearly \$14,000 in cash prizes to support their research and long term professional development.

The Hayes Forum Committee is extremely grateful to Mrs. Ann Hayes and her family for their continued support of Ohio State graduate student research endeavors. We also thank our faculty members who unsparingly gave their valuable time to support OSU graduate students by judging over 360 abstracts and the nearly 150 presentations that will be presented today. Three years ago, the Hayes Forum celebrated its 25th anniversary. It was a marked milestone in not only the event but in the continued excellence of our graduate students, faculty, and staff. Now in its 28th year, this is the premier event for graduate student research at Ohio State, organized by students for students that would not be possible without the generous support of Mrs. Hayes, our judges, and our volunteers. On behalf of the Council of Graduate Students, I thank you for your unwavering and continued support.

I would like to thank a few people in particular: Last year's Hayes Forum Chair, Allison Sturm for her experience and insights, the Hayes Forum Vice Chair, Alfred Yates for his technological and logistical expertize, Kerry Hodak for her knowledge and advice, and Katie Krajny, Rachel Conners, and Megan Znidarsic for their administrative assistance. I would also like to thank our panelists for sharing the benefits of their experiences with graduate students. Finally, a special thank you to Dean Patrick Osmer and Assistant Dean Kathleen Wallace from the Graduate School for their support of graduate students, Vice President Caroline Whitacre from the Office of Research for supporting graduate student research, and Vice President Javaune Adams-Gaston from the Office of Student Life for her support of the Council of Graduate Students.

The abstracts and presentations this year speak to a vibrant and diverse research community that seeks to address some of today's most important issues. The caliber and range of scholarly work is truly inspiring and a privilege to learn from. Irrespective of your role today, I hope that what we have planned will provide you with a memorable experience.

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Sincerely,

Jamie Crowsley Vice President, Council of Graduate Students Chair, Hayes Graduate Research Forum

WELCOMING REMARKS

Dear Colleagues,

On behalf of the Graduate School, I would like to welcome you to the 28th annual Edward F. Hayes Graduate Research Forum.

I am often asked what distinguishes graduate education. The three hallmarks that I always mention are creativity, solving problems, and making new knowledge. These qualities are in evidence throughout today's Hayes Forum, which is one of the highlights of the year for graduate students, for Ohio State, and for me as dean of the Graduate School.

The Hayes Forum showcases graduate student research from the full span of graduate programs at Ohio State. One of the unique aspects about this research meeting is the way it compels researchers to present their findings in ways that are meaningful to an interested but non-specialist audience. This is an extremely useful skill for any graduate student to practice. It applies to any career path and is critical for engaging the public and other stakeholders in the work we do.

Take advantage of this opportunity to talk with your colleagues from across the University. You may be surprised by the unexpected and fruitful connections and collaborations that may result.

Sincerely,

Patrick S. Osmer Vice Provost for Graduate Studies and Dean of the Graduate School

WELCOMING REMARKS

Dear Guests,

Welcome to the Hayes Graduate Research Forum. This event represents the 28th year for a very successful collaboration between the Council of Graduate Students, the Graduate School and the Office of Research. We come together to celebrate your research accomplishments, provide a forum in which to present the findings of your research to the broader research community, and facilitate research collaboration between areas across campus.

It is always inspiring for me to attend the Hayes Graduate Research Forum and to hear the excellent oral presentations and to see the outstanding posters. The presentations just get better and better each year! I know how hard it is for the judges to pick winners from such a talented group of individuals. Congratulations to all of the presenters as you have worked exceptionally hard to make your research presentations well organized and understandable by a broad audience.

It is a very exciting time to be engaged in research on the Ohio State campus. The University is embarking on a bold faculty hiring initiative which you will begin to see in your time at OSU. This initiative, termed the DiscoveryThemes, is about solving big global problems in the areas of Energy and the Environment, Health and Wellness, and Food Production and Security. More than \$400 million will be invested in bringing new faculty and their programs to Ohio State over the next 10 years. Each year, a theme will be announced which will serve as the focus for proposals for faculty hires. You hopefully are aware that Data Analytics is the theme for this first year's focus in the Discovery Theme hiring program. So what does this mean for graduate students? As these new faculty come to campus over the next and subsequent years, there will be new opportunities for graduate student training. There will not only be new mentors and new collaborative opportunities for those graduate students directly working with the new faculty, but also more opportunities for all graduate students to learn about the field of data analytics, which touches nearly all areas of graduate study. The key feature of the DiscoveryThemes is its interdisciplinary and multidisciplinary focus, which means that graduate students in all disciplines will be positively impacted by this broad University initiative.

I wish you the very best in the presentation of your research as part of the Hayes Graduate Research Forum.

Sincerely,

Caroline C. Whitacre Vice President, Office of Research

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REMEMBERING DR. EDWARD F. HAYES

THIS ANNUAL FORUM IS IN HONOR OF DR. EDWARD F. HAYES (1941-1998)



Dr. Hayes was an internationally-distinguished scientist whose particular research interest was in molecular electronic structure theory, molecular scattering theory, and parallel computing methods. Dr. Hayes created the Undergraduate Research Forum, strongly supported the Graduate Research Forum and spearheaded the launching of the Science and Technology Campus (formerly Research Park). He served in several prominent administrative roles for the National Science Foundation and the Office of Management and Budget. In addition, he served on several advisory committees and chaired the National Science Foundation Task Force on the Future of the Supercomputer Centers Program.

Dr Hayes served in leadership roles in scientific societies, including extensive work for the American

Chemical Society, the American Physical Society, and as a Fellow of the American Association for the Advancement of Science. Dr. Hayes also gave exemplary service to several local and statewide advisory boards, including the Ohio Science and Technology Council, The Edward Orton Jr. Ceramic Foundation, and the Ohio Aerospace Institute.

Dr. Hayes was highly-respected for the principled, intelligent, thoughtful and positive manner in which he approached all matters before him; he was frequently sought out for his wise counsel; and he extended grace, kindness, and appreciation to all who interacted with him. Dr. Hayes set a high standard in both his professional and personal life that will continue to be a model for us all. He continues to be sadly missed by this university community and by those who were privileged to know him as a colleague and a friend.

(Photo Courtesy of University Photo Archives)

(Biography Courtesy of OSU Board of Trustees Resolution No. 98-134)

HAYES GRADUATE RESEARCH FORUM COMMITTEE

The entire Edward F. Hayes Graduate Research Forum Committee is organized by the Council of Graduate Students. This Forum is organized by students, for students. Financial support comes from the Graduate School, the Office of Research, the Hayes Endowment, and the Council of Graduate Students.

Jamie Crowsley, Chair Alfred Yates, Vice Chair Sayoni Bose Jing Chen Shuai Dong Kristin Garvin Kristyn Gumpper Christian Harding Kathryn Halleck Lauren Himmel Carla Jagger Pooja Joshi Candace Joswick

Molly Krygowski Kristy McCray Megan Muccigrosso Diana Norden Hussam Salhi Estevan Santana Janet Schroeder Kaitlin Snider Allison Sturm Anupama Sukhu Ashley Weber Tingting Zhang

HAYES FORUM JUDGES

On behalf of the CGS, thank you to the tremendously busy Ohio State faculty who gave their time to judge abstracts and presentations for Hayes this year:

Joni Acuff Yazan Alsmadi Anika Anthony Kimberly Arcoleo **Richard Arnold** Gergana Atanassova David Barker Suiit Basu Vincent Billock Joshua Blakeslee Dennis Bong Alexandra Borstad Elisebeth Bover William Brantley John Brion Sergey Brodsky **Kristine Browning** Craig Burd Marcello Canova Lisa Christian Graham Cochran **Bill Coombs Briggs Cormier Gregory Davis** Johanna Devaney Jo Dowell Jennifer Eisenhauer Kelly Farguhason Xin Feng Danielle Fosler-Lussier Michael Freitas Andrew Gaudet Jonathan Godbout John Grav Howard Gu Christopher Hadad Patrice Hamel Tae-Im Han John Harper Curt Hartsfield Andrew Hartwick Curtis Hauatvedt Kristina Haworth

James Hopper Lawrence Inks Ludmila Isurin Brian Janssen Joel Johnson Reed Johnson Lisa Jordan Roy Joshua Eloise Kaizar Claire Kamp Dush Savita Khanna Kyoung Tae Kim Hwewon Kim Seung Hyun Kim Samantha King Marianna Klochko Sebastian Kurtek Jessie Labov Tzu-Juna Lin En-Ju Lin Jialin Lin Jessica Logan Robert Lount Stuart Ludsin Sandra Macpherson Thomas Magliery Helen Malone Paul Martini Brooke Mcmichael Brian Mcspadden Gardener David Neal Miller Carla Miller Scott Mullins Sunny Munn Manoj Nair Alex Oliszewski Susan Olivo-Marston Michael Parke Linda Parsons Shayne Piasta **Keeley Pratt** Jessica Prinz Raghunath Raja Chandrasekar James Rathman Ranajoy Ray-Chaudhuri Amy Rettig Laurie Rinehart-Thompson Brian Roe Mark Rudoff Mark Ruegsegger George Rush Scott Scheer Sarah Schoppe-Sullivan Matt Sheridan Soheil Soghrati Latonia Stiner-Jones Shilarna Stokes **Jenna** Taque Sherine Tambyraja Margaret Teaford Donald Terndrup David Tovev Asuman Turkmen Rao Unnava Tatiana Vashchilko Murugesan Velayutham Giuseppe Vercellotti Yael Vodovotz Jeffrev Walline Elizabeth Weiser Noah Weisleder Jay Wellman Dale White Juliet White-Smith Bryan Whitson Traci Wilgus Jen Wona David Wood Jack Yalowich Donald Yau Ryan Yoder Ulises Zevallos-Aquilar Ouliana Ziouzenkova Li Zuo

HAYES FORUM SCHEDULE

7:15 – 7:50 a.m.	Registration Great Hall Lobby, Ground Floor Breakfast and informal conversations
7:50 – 8:20 a.m.	Welcome Addresses and Opening Session U.S. Bank Conference Theater, Ground Floor Jamie Crowsley, Vice President of the Council of Graduate Students Caroline Whitacre, Vice President of the Office of Research Patrick S. Osmer, Dean of the Graduate School
8:30 – 10:30 a.m.	First Round of Oral Presentations – Guests are welcome Arts – Ohio Staters, Inc. Founders Room Biological Sciences – Lower Level Meeting Room Business – Multicultural Center Meeting Room Education & Human Ecology – Rosa M. Ailabouni Room Engineering – Barbie Tootle Room Food, Agricultural & Environmental Sciences – Maudine Cow Room Humanities – Ohio Staters, Inc. Traditions Room Mathematics & Physical Sciences – Tanya R. Rutner Room Professional Biological Sciences – Suzanne M. Scharer Room Social & Behaviorial Sciences – Student Alumni Council Room
9:00 a.m. – Noon	Poster Session Opens – Poster Judging Great Hall Meeting Room, Ground Floor Arts, Humanities & Social Sciences Biological Sciences, Engineering, Mathematics & Physical Sciences
10:30 – 10:40 a.m.	Break
10:40 a.m. – Noon	Second Round of Oral Presentations – Guests are welcome Same locations as First Round
Noon – 12:10 p.m.	Break Please Make your way to the U.S. Bank Conference Theater on the ground floor for the Career Panel Discussion
Noon – 12:30 p.m.	Judges' Deliberations – Deliberations are closed to the public
12:10 – 12:50 p.m.	Career Panel Discussion US Bank Conference Theater, Ground Floor
1:00 – 2:45 p.m.	Awards Luncheon Performance Hall, Ground Floor

PRESENTATION LOCATIONS BY SUBJECT AREA

ORAL PRESENTATIONS

THE ARTS

BIOLOGICAL SCIENCES

BUSINESS

EDUCATION AND HUMAN ECOLOGY

ENGINEERING

FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

HUMANITIES

MATHEMATICS AND PHYSICAL SCIENCES

PROFESSIONAL BIOLOGICAL SCIENCES

SOCIAL AND BEHAVIORAL SCIENCES

Ohio Staters, Inc. Founders Room 2nd Floor

Lower Level Meeting Room, Lower Level

Multicultural Center Meeting Room, Ground Floor

Rosa M. Ailabouni Room, 3rd Floor

Barbie Tootle Room, 3rd Floor

Maudine Cow Room, Lower Level

Ohio Staters, Inc. Traditions Room, 2nd Floor

Tanya R. Rutner Room, 3rd Floor

Suzanne M. Scharer Room, 3rd Floor

Student-Alumni Council Room, 2nd Floor

POSTER PRESENTATIONS ARTS, HUMANITIES, SOCIAL SCIENCES

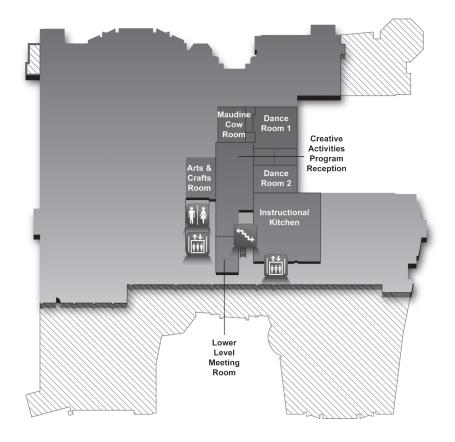
BIOLOGICAL SCIENCES

ENGINEERING, MATHEMATICS, PHYSICAL SCIENCES Great Hall Meeting Room, Ground Floor

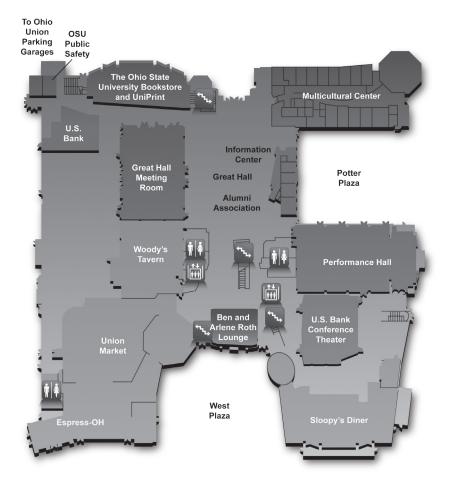
Great Hall Meeting Room, Ground Floor

Great Hall Meeting Room, Ground Floor

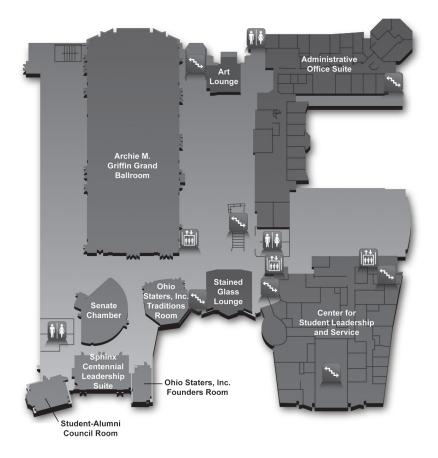
OHIO UNION LOWER LEVEL



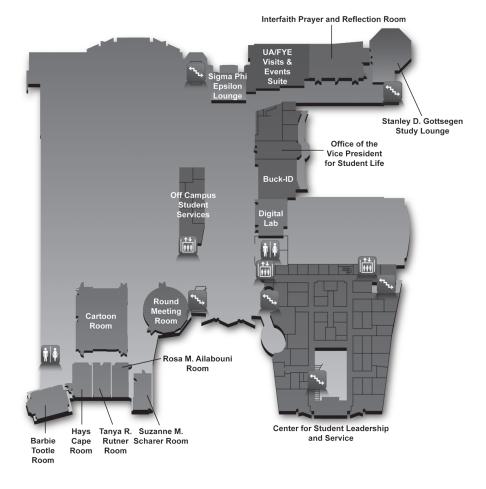
OHIO UNION GROUND FLOOR



OHIO UNION SECOND FLOOR



OHIO UNION THIRD FLOOR



THE ARTS

Ohio Staters, Inc. Founders Room, 2nd Floor

8:30 a.m.	Orlay Alonso - Music The Illuminated Scores Abstract: The Architectural Design of Musical Form
8:50 a.m.	Elizabeth Beggrow -Teaching & Learning Context In Learning and Assessment: Do Biological Anthropology Students Have An Edge Over Biology Students in Reasoning About Human Evolution?
9:10 a.m.	Hui-Chun Hsiao - Food Science and Techonology Improving Anthocyanin Color and Stability During Storage by using Catechins as Copigment
9:30 a.m.	Mao Huang - Horticulture and Crop Science Correlations of seed traits with tofu texture in 48 soybean cultivars and breeding lines
9:50 a.m.	Anna Newman - Molecular, Cellular, and Developmental Biology Investigating the role of RanGAP in Arabidopsis development: should we solely be minding the GAP, or is the story more complex?
10:10 a.m.	Sujata Ponappa - Human Development and Family Science Differentiation in the Family System, Sibling warmth and Depressive symptoms among Young Adults
10:30 a.m.	Break
10:40 a.m.	Geoffrey Wilson - Theatre History, Literature, and Criticism War Bugs: Street Art as Performed Discourse in Bogotá
11:00 a.m.	Yanfei Yin - History of Art Survival and Revival of China's Traditionalist Painting
11:20 a.m.	Tingting Zhang - Hospitality Management Health Promotion by Hospitality Firms and its Influence on Employees Attitudes and Behaviors: An Exploratory Study
11:40 a.m.	End of Presentations: Judging Deliberations Commence

BIOLOGICAL SCIENCES

Lower Level Meeting Room, Lower Level

8:30 a.m.	Zachary VanGundy - Comparative and Veterinary Medicine The Generation of mature tolerogenic myeloid cells with retinoic acid
8:50 a.m.	SungWon Song - Molecular Cellular Developmental Biology ALS astrocytes adopt natural killer properties to induce motor neuron death
9:10 a.m.	Scott Prajzner - Entomology Impacts of an adjuvant and an herbicide on the colony success and foraging behaviors of the native bumble bee Bombus impatiens.
9:30 a.m.	Chrstie McCracken - Biomedical Sciences Minimal In Vitro Toxicity of Food-Relevant Nanoparticles in an Intestinal Epithelial Model
9:50 a.m.	Cindy Lee - Molecular, Cellular, & Developmental Biology MYCBP: a novel genetic explanation for the loss of DNA repair in breast cancer
10:10 a.m.	Apama Lakshmanan - Molecular Cellular and Developmental Biology Radioiodine accumulation is significantly enhanced in thyroid cells by the plant-derived flavonoid, Apigenin in combination with functional inhibition of the Protein Kinase Akt
10:30 a.m.	Break
10:40 a.m.	Zoe Hesp - Neuroscience Graduate Studies Program Oligodendrogenesis and remyelination occur chronically after spinal cord injury in mice and rats
11:00 a.m.	Julia Harris - Biomedical Sciences Interactions of the BLM helicase with topoisomerase IIa are regulated by BLM phosphorylation
11:20 a.m.	Timothy Frey - Plant Pathology Changes in amino acid homoeostasis negatively affect development of a plant parasitic nematode.
11:40 a.m.	Reshma Davidson - Molecular, Cellular and Developmental Biology <i>Art1: Arrestin in cytokinesis</i>
12:00 p.m.	End of Presentations: Judging Deliberations Commence

BUSINESS Multicultural Center Meeting Room, Ground Floor

8:30 a.m.	Anastasia Bailey - Management & Human Resources The Impact of Prior Expatriate Experience on Coss-Border Knowledge Sharing and Performance
8:50 a.m.	Jonathan Jensen - Sport Management Second Screen, Second Place? Investigating the Implications of Second Screen Use on Brand Awareness
9:10 a.m.	Hyojin Lee - Fisher Collage of Business Monotonous Forest and ColorfulTrees: The Effects of Color vs. Black-and-White on Information Processing
9:30 a.m.	Jamie Levine Daniel - Public Policy and Management Mission-Based Objectives, Market-Based Funding: The Effects of Nonprofit Enterprise on Service Delivery
9:50 a.m.	Chris Summers - Business Administration Persuasion Mindset: The Effect of Persuasion on the Persuader
10:10 a.m.	End of Presentations: Judging Deliberations Commence

EDUCATION & HUMAN ECOLOGY

Rosa M. Ailabouni Room, 3rd Floor

8:30 a.m.	Ruilan Zhao - Foreign, Second and Multilingual Language Education Exploring Reading and Writing Connections in Synthesis Writing of Second Language Learners
8:50 a.m.	Qiong Wu - Human Development and Family Science A Naturalistic Observation of Parental Socialization of Child Negative Emotions in Relation to Maternal Depression
9:10 a.m.	Megan Sanders - Educational Psychology and Philosophy A Comparison of Four Factor Analytical Methods Used with Ordinal Data
9:30 a.m.	Narmada Paul - Educational Psychology Reactivegenerative self-efficacy in learners: A concern for educators in the Internet age?
9:50 a.m.	Travis Mountain - Family Resource Management How Impactful are Financial Disclosure Forms?
10:10 a.m.	Leah Morgan - Educational Studies The Effects of a Student Success Course on College Students' Academic Outcomes
10:30 a.m.	Break
10:40 a.m.	Carolyn Kaplan - Foreign and Second Language Education Foreign Language Teachers' Cognitions and Practices Related to Student Assessment
11:00 a.m.	Emma Hooper - Human Development and Family Science Maternal Emotion and Depressive Symptoms in Relation to Child Outcomes: A Person-Centered Approach
11:20 a.m.	Melinda Hill - Kinesiology Activity Trait to Predict Strenuous Resistance Exercise
11:40 a.m.	Jessica Bennett - Special Education Effects of Computer-Assisted, Culturally Relevant, Repeated Reading Intervention on Oral Reading Fluency of Students At-Risk for Reading Failure
12:00 p.m.	End of Presentations: Judging Deliberations Commence

ENGINEERING

Barbie Tootle Room, 3rd Floor

8:30 a.m.	Mark Calhoun - Biomedical Engineering Development of a 3D in vitro Model of the Glioblastoma Microenvironment
8:50 a.m.	Elena Caruthers - Mechanical Engineering Individual Muscle Forces during a Sit to Stand Transfer
9:10 a.m.	Benjamin Goldberg - Mechanical and Aerospace Engineering Measurement of Rapid Electric Field Development with Sub-Nanosecond Precision
9:30 a.m.	Peng He - Industrial and Systems Engineering Precision Glass Molding of Freeform Lens Using Machined Silicon Mold
9:50 a.m.	Likai Li - Industrial and Systems Engineering Investigation of Manufacturing of Affordable Freeform Polymer Lenses for Vision Applications
10:10 a.m.	Ria Mazumder - Electrical and Computer Engineering Waveguide Magnetic Resonance Elastography of the Heart
10:30 a.m.	Break
10:40 a.m.	Tyler Nelson - Biomedical Engineering Development of Chemotactic and High-Throughput Drug Screening Assays for Personalized Treatments of Metastatic Cancers
11:00 a.m.	Mark Scott - Electrical and Computer Engineering Efficient, Economical Solar Power Conversion via Wide Bandgap based Power Electronics
11:20 a.m.	Xu Zhang - Biomedical Engineering A Microdevice for Studying Intercellular Electromechanical Transduction in Adult Cardiac Myocytes
12:00 p.m.	End of Presentations: Judging Deliberations Commence

FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES Maudine Cow Room, Lower Level

8:30 a.m.	Feng Zhang - Environmental Science The effects of zebra mussels on cyanobacterial communities and microcystin level in United States lakes
8:50 a.m.	Zongsu Wei - Food Science and Nutrition Evaluating Acoustic Technology for In-Situ Remediation of Contaminated Sediment: A Laboratory and Computational Study
9:10 a.m.	Matthew Teegarden - Educational Psychology and Philosophy Determination of Biologically Relevant Vitamin D Metabolites in a Mouse Model of Non Melanoma Skin Cancer
9:30 a.m.	Pranay Ranjan - PhD Environment & Natural Resources Assessment of Sustainability literacy and engagement in pro-environmental behaviors among domestic and international students at The Ohio State University
9:50 a.m.	Dominic Petrella - Turfgrass Science Variation in Anthocyanin Production among Accessions and Cultivars of Poa trivialis L.
10:10 a.m.	Jessica Pempek - Animal Sciences Housing System May Affect Performance and Behavior of Jersey Heifer Calves
10:30 a.m.	Break
10:40 a.m.	Fabiola Gutierrez Orozco - Interdisciplinary Nutrition Dietary a-Mangostin, an Abundant Xanthone Compound in Mangosteen Fruit, Exacerbates Colitis and Adversely Alters the Gut Microbiota
44.00	
11:00 a.m.	John Grayson - Environment and Natural Resources Saving the Friday fish fry: Improving yellow perch culture through live food enrichment
11:00 a.m. 11:20 a.m.	Saving the Friday fish fry: Improving yellow perch culture
	Saving the Friday fish fry: Improving yellow perch culture through live food enrichment Jessica Cooperstone - Food Science and Technology Increased lycopene bioavailability from a unique,

HUMANITIES Ohio Staters, Inc. Traditions Room, 2nd Floor

8:30 a.m.	Jennifer Barajas - Hispanic Linguistics A Sociophonetic Approach to Vowel Raising: Social Networks in Rural Michoacán, Mexico
8:50 a.m.	David Bond - Near Eastern Languages and Cultures Mission impossible? "Seeing sympathetically" in colonial Tunisia 1937-1950
9:10 a.m.	Matthew Gillespie - Psychology Joyce's Hippocampus: Association, Neuroplasticity, and the Biological Memory of Ulysses
9:30 a.m.	Delano Lopez - History What Price Postmodernism? A Case Study in the Funding of Intellectual Movements
9:50 a.m.	Andrew Skabelund - History The Grain of Sand that Moved the Sea: Africans, EurAfricans, France, and the Formation of Franco-Habitant Identity in the Senegambia (1700-1865)
10:10 a.m.	Yu-Chen Tai - Women's, Gender and Sexuality Studies The Porous and Permeable Body as a (W)holistic Feminist Ontology: Theorizing the Body in Gloria Anzaldúa's Work
10:30 a.m.	Break
10:40 a.m.	Blake Wilder - English Segregated Worlds: Race, Reading, and the Shaping of Reality
11:00 a.m.	Adrienne Winans - History The Invisibility of Race Mixed-race Chinese Americans during the Exclusion Era
11:20 a.m.	Marion Wolfe - English: Rhetoric, Composition, and Literacy A Woman's Place in the World: Literacy and Gender Education in Women's Foreign Missionary Societies
11:40 a.m.	Qiong Yang - Chinese literature Old Rivals in a New Age: Science in Chinese Fiction and Films, 1960s–1990s
12:00 p.m.	End of Presentations: Judging Deliberations Commence

MATHEMATICS & PHYSICAL SCIENCES Tanya R. Rutner Room, 3rd Floor

8:30 a.m.	Meng Zhang - Biophysics Dynamic determination of the functional state in photolyase
8:50 a.m.	Melissa Wrzesien - Earth Sciences Validation of Snow Cover Fraction for Regional Climate Simulations in the Sierra Nevada
9:10 a.m.	Alycia Palmer - Inorganic Chemistry Dirhodium Complexes as Potential Photo-chemotherapy Drugs
9:30 a.m.	Rachel Mauk - Atmospheric Sciences Prediction of Intensity Changes Subsequent to Concentric Eyewall Events
9:50 a.m.	Jeremy Lucy - Condensed Matter Physics Strain-dependent, Extraordinary Magnetocrystalline Anisotropy in Sr2CrReO6 Epitaxial Films
10:10 a.m.	Biao Huang - Physics Large Spin Magnetic Condensate
10:30 a.m.	Break
10:40 a.m.	Samantha Brown-Xu - Chemistry Investigating Mo2 Paddlewheel Complexes as Photosensitizers
11:00 a.m.	Archana Anandakrishnan - Physics Physics at the High Energy Colliders
11:20 a.m.	Bryan Albani - Chemistry Photoinduced ligand exchange in ruthenium(II) complexes as potential photochemotherapeutic agents
11:40 a.m.	End of Presentations: Judging Deliberations Commence

PROFESSIONAL BIOLOGICAL SCIENCES Suzanne M. Scharer Room, 3rd Floor

8:30 a.m.	Elizabeth Barrie - Biomedical Sciences Genetic Variants in Dopamine Beta Hydroxylase Decrease Gene Expression and Serve as Biomarkers for Protection from Cardiovascular Disease
8:50 a.m.	Heather Carey - Biomedical Sciences PU.1, MITF and EOMES Control the Transcription Factor Regulatory Network Governing Osteoclast Differentiation
9:10 a.m.	Ashley Fenn - Neuroscience Methylene Blue Infusion for Treatment of Traumatic Brain Injury-associated Neuroinflammation and Functional Deficits
9:30 a.m.	Ashley Frakes - Biomedical Sciences Microglia induce motor neuron death via the classical NF-?B pathway in amyotrophic lateral sclerosis
9:50 a.m.	Madelyn Gerber - Biomedical Sciences Uncovering Colorectal Cancer Susceptibility Genes Using Mouse and Human Models
10:10 a.m.	Shibi Likhite - Molecular, Cellular & Developmental Biology Therapeutic AAV9-mediated SOD1 downregulation extends survival in mouse models of Amyotrophic Lateral Sclerosis
10:30 a.m.	Break
10:40 a.m.	Rajeswaran Mani - Comparative and Veterinary Medicine Tumor Antigen ROR1 Targeted Delivery of FTY720 Derivative OSU-2S Prolongs Survival In ROR1 Engineered Mouse Model of Chronic Lymphocytic Leukemia
11:00 a.m.	Nima Milani-Nejad - Biomedical Sciences Regulation of cross-bridge cycling rate in health and heart failure: studies from animal models and humans using a novel approach
11:20 a.m.	Mary Severin - Biomedical Sciences The Effect of microRNAs on Regulatory T Cells in Multiple Sclerosis
11:40 a.m.	Mia Tazi - Biomedical Sciences Effect of the MiR-17~92a Cluster On The Autophagy Response To Burkholderia cenocepacia In Cystic Fibrosis
12:00 p.m.	End of Presentations: Judging Deliberations Commence

SOCIAL & BEHAVIORAL SCIENCES Student Alumni Council Room, 2nd Floor

8:30 a.m.	Jill Yavorsky - Social and Behavioral Sciences "Doing Fear": The Influence of Hetero-Femininity on (Trans) Women's Fears of Victimization
8:50 a.m.	Dimitry Mezhvinsky - Economics Boycotting and Buycotting:Third Party Punishment and Reward in Groups
9:10 a.m.	Adam Kolatorowicz - Anthropology Basicranial Angle as an Indicator of Ancestry in Modern Humans: A Novel Method for Identifying Unknown Skeletal Remains in Death Investigations
9:30 a.m.	Dixie Hu - Psychology A Meta-analysis of Sex Differences in Heart Rate Variability
9:50 a.m.	James Goodenberger - Agricultural, Environmental, and Development Economics Evading Invasives: How Water-Milfoil Impacts New Lakefront Development
10:10 a.m.	Morgan Ellithorpe - Communication Die, foul creature! How the supernatural genre affects attitudes toward outgroups
10:30 a.m.	Break
10:40 a.m.	Geoffrey Durso - Psychology Over-the-Counter Relief from Pains and Pleasures Alike: Acetaminophen Attenuates Evaluation Extremity toward Both Negative and Positive Stimuli
11:00 a.m.	Kelly Dillon - Communication Distraction of cyber-bystanders in cyber-bullying contexts
11:20 a.m.	Phokeng Dailey - Communication Communication, Somali culture and decision-making about the human papillomavirus (HPV) Vaccine
11:40 a.m.	Jennifer Belding - Social Psychology Using high-level construal and perceptions of changeability to promote self-change over self-protection motives in response to negative feedback
12:00 p.m.	End of Presentations: Judging Deliberations Commence

ARTS, HUMANITIES, AND SOCIAL SCIENCES POSTER DIVISION Great Hall Meeting Room, Ground Floor

Poster	Presenter & Poster Title
1	Amanda Baker - Educational Psychology Using Values for College to Predict Student Achievement and Expectancies for Success
2	Jennifer Bauman - Nursing Analysis of Psychosocial Influences on Glycemic Control Among Adults with T2DM and Depression
3	Laura Berger - Human Nutrition Validation of a 10-Item Fruit and Vegetable Behavior Questionnaire in Low-Income 9-11 year-old Children, a Pilot Study
4	Jing Chen - Educational Psychology Observing Children's Engagement in Small-group Discussions as a Function of Individual- and Group-level Centrality Status
5	Maria DiFranco - Art The Female Experience of Cancer SeenThrough Art, Deconstructing the "Fight Against Cancer" Metaphor
6	Kimberly Frier - Nursing Association of Qualitative Content Codes for Decision-making and Psychosocial Distress in Predicting Diabetes Related Distress among Adults with T2DM and Depressive Symptoms
7	Brandon Gillie - Psychology Individual Differences in Resting Heart Rate Variability Moderate Thought Suppression Success
8	Devin Grammon - Hispanic Linguistics When grammar meets politics: Uses of stigmatized language on a political talk show
9	Jennifer Harmon - Human Sciences Obesity Bias in Undergraduate Personal Service Majors
10	Seulki Ku - Human Development & Family Science Preschool Children's Lying: Effects of Gender, Temperament, and Parenting
11	Leroy Long III - Education How Feelings of Connectedness Affect Student Involvement in Courses that Use Technology
12	Amy Pratt - Speech and Hearing Science Parent-Implemented Intervention for Spanish-speaking Preschoolers with Language Impairment
13	Victoria Schenker - Developmental Psychology Household Chaos and Reading and Mathematics Skills: A Longitudinal Study
14	Tricia Shalka - Higher Education & Student Affairs Examining Leadership Development Among International Undergraduate Students in the United States
15	Xuan Zhang - Electrical Engineering A Gallium Nitride Device based 90 W AC/DC Power Adapter for Portable Electronics

BIOLOGICAL SCIENCES Great Hall Meeting Room, Ground Floor

POSTER	PRESENTER & POSTER TITLE
1	Colleen Shockling Dent - Veterinary Medicine Prevalence of Zoonotic Ascarid Ova (Toxocara canis, Toxocara cati, and Baylisascaris procyonis) in Columbus City Parks
2	Hussam Salhi - Biomedical Sciences Phosphorylation of cardiac Troponin I at Tyrosine 26 decreases thin filament calcium sensitivity
3	Sara Sabihi - Psychology-Behavioral Neuroscience Oxytocin in the medial prefrontal cortex of postpartum females modulates anxiety, maternal care, and maternal aggression
4	Jamie Richmond - Neuroscience Graduate Studies Program Deficient TLR4 signaling differentially influences intraspinal and peripheral mRNA expression of iron regulatory proteins after spinal cord injury
5	Janani Ravi - Molecular, Cellular & Developmental Biology Anti-tumorigenic effects of the endocannabinoid system through downregulation of EGFR signaling in NSCLC
6	Jason Pitarresi - Biochemistry Ets-2 acts as a Novel Oncogene in Cancer Associated Fibroblasts and Promotes PancreaticTumor Initiation and Development
7	Michelle Pershing - Psychology Prenatal Kynurenic Acid Elevation Alters Cortical Development And Prefrontal Glutamate Release, Corresponding To Cognitive Inflexibility In Adults
8	Daniel Morgan - Biomedical Informatics Genomic Algorithm Identifies Chinese Herbals as Potential treatment in Bladder Cancer
9	Daniel McKim - Neuroscience Inflammatory Cytokine Signaling Promotes Impaired Hippocampal Neurogenesis Following Prolonged Psychological Stress
10	Sarah Hopp - Neuroscience The role of calcium dysregulation in neuroinflammation- and age-associated memory deficits
11	Suman Govindaraju - Biochemistry HuR mRNA isoform expression in hypoxic kidney
12	Evan Goldstein - Neuroscience Novel Targets for TLR4-Mediated Oligodendrocyte Progenitor Cell Proliferation
13	Emily Durham - Food, Agricultural, and Biological Engineering Moderate Electric Field (MEF) Treatment Increases Enzymatic Hydrolysis of Cellulose Filter Paper
14	Grace Cooper - Biochemistry Could methylation prevent Alzheimer's disease?
15	Kyle Caution - Integrated Biomedical Sciences Regulation Of Actin Dynamics During Legionella pneumophila Infection: A Novel Bactericidal Function Of Naip5

ENGINEERING, MATHEMATICS & PHYSICAL SCIENCES Great Hall Meeting Room, Ground Floor

Poster	PRESENTER & POSTER TITLE
1	Francisco Chaparro - Engineering Suture Retention Strength Evaluation of Electrospun Tubular Scaffolds
2	Luke DeBruin - Mechanical and Aerospace Engineering Modeling & Optimal Control Design for Advanced Automotive Thermal Management Systems
3	Qirui Fan - Chemical and Biomolecular Engineering Photo-switchable quantum dots based on reversible FRET
4	Matthew Gerber - Mechanical Engineering Biomimetic Anode Designs to Improve Power Output in Continuous Flow Microbial Fuel Cells
5	Arijit Ghosh - Chemistry and Biochemistry Probing pH-triggered self-assembling peptide based tumor imaging agents in blood serum
6	Sara Grieshop - Materials Science and Engineering Comparison of the Corrosion Behavior of AA7075 and AA2099 Aluminum Alloys after Exposure to B117 Environment
7	Bohyun Hwang - Geodetic Science Water-Rock Interaction in the Coso Geothermal System
8	Jibin Liu - Environmental Engineering Heteroaggregation of Silver Nanoparticles with Clay Minerals in Aqueous System
9	Birce Onal - Biomedical Engineering BetalV-spectrin controls sinoatrial node cell membrane excitability and cardiac pacemaking.
10	Joshua Pritchard - Mechanical Engineering Fabrication and Analysis of Thermally Invariant Smart Composites via Ultrasonic Additive Manufacturing
11	Aruna Ravi - Electrical & Computer Engineering Electromagnetic wave interaction with individual wavelength-scale particles in the IR range: Spectral challenges and novel techniques
12	James Reinhardt - Biomedical Engineering ECM Remodeling and Cell Migration are Emergent Behaviors in Agent-Based Models
13	Aaron Short - Biomedical Engineering Accessing Hyaluronic Acid Receptor Expression on Electrospun Fibers
14	Ying-Chin Wang - Agricultural Engineering Effect of various catholytes on performance of blood-based microbial fuel cells
15	Kang Wei - Biomedical Engineering An In-line Fluidic Pump Driven by Magnetic Stir Bars



LAUREN KLEINMAN

Lauren Kleinman, MA, MENR is an Outreach Specialist for the Healthier Hospitals Initiative (HHI), a free, three year initiative designed to accelerate the widespread use of proven sustainability practices throughout the health care sector for improved health of patients, staff, and the community. Prior to joining HHI, Lauren worked for The Ohio State University Wexner Medical Center as an Administrative Manager, incorporating her passion for health, wellness, and sustainability at every opportunity. While she worked

at OSUWMC, she completed her dual Masters degrees in Environment and Natural Resources and Public Policy. Her Masters project compared energy model predictions with actual energy performance of three LEED buildings on campus, resulting in LEED building follow-up audits one year post-occupancy. In addition to the opportunities she sought at work and through school, she was a student leader in groups such as Net Impact and the Sustainability and Environmental Responsibility Committee (SERC) for the Council of Graduate Students. SERC joined student sustainability initiatives together to leverage their numbers for a larger impact, and published a student sustainability resolution that successfully encouraged OSU administration to define a sustainability plan for the university.

By combining her graduate degrees, work experience, and student leadership opportunities, Lauren was able to land her version of a "dream job." She also writes grants for a local watershed advocacy nonprofit and is a board member at Green Columbus, a nonprofit that organizes local Earth Day activities and focuses on sustainability within the community.



CONNIE DEJONG, PhD

Dr. DeJong is an entrepreneur, arts administrator, community educator, international Fair Trade retailer and researcher, and a non profit management specialist.

Her career spans numerous social justice and arts and culture projects, including reviving Columbus' Global Gallery from near failure in the early 2000s to now a premier FairTrade retail location with extensive educational and outreach programming. As Executive Director of Global Gallery, Dr.

DeJong not only financially stabilized the organization, but broadened its scope and influence through an increased focus on education, programmatic special events planning, expansion to multiple locations, strong community collaboration, and investment in new international partnerships.

A longterm key project for Global Gallery that Dr. DeJong developed was the Bolivian Orphanage project, a fundraising and collaborative endeavor with Foundation Anyi that has worked to build a sustainable, multi-phase orphanage for children in need in Cochabamba, Bolivia. As Executive Director, Dr. DeJong has secured numerous grants for Global Gallery over the years, including funding from the National Endowment for the Arts, the Ohio Arts Council, and the Greater Columbus Arts Council, to name a few. She also worked as the Program Director for OSU Arts Scholars during this time, and led multiple study abroad trips throughout South America.

Locally, Dr. DeJong's many outreach efforts have resulted in vital community partnerships across the area, including acting as Retail Operations Manager for Celebrate Local at Easton Towne Centre, dedicated to growing and promoting Ohio based businesses, or as a founding member of Women Crafting Change, a collaborative effort to engage low income women with professional development via hand crafted trades. Numerous other collaborations have also been cultivated by Dr. DeJong, among them work with the Short North Alliance, many of the local arts and cultural festivals city and statewide, farmers markets, musicians, artists, and as a mentor for many future arts administrators, artists, students, and likeminded social entrepreneurs.

Dr. DeJong's expertise in nonprofit management and Fair Trade issues led her to start her own social enterprise with World Peaces, a Fair trade importing business that sends her across the globe throughout the year, with specialization in the key areas of Africa, Asia, and South America. Increasing the amount of Fair Trade merchandise imported into the U.S. creates a dramatic change in the lives of those artisans who craft the goods, and she has significantly increased the knowledge locally of the power of this change via her many entrepreneurial and educational efforts. Along this line, she also has cofounded The Ethical Arts Collective in Franklinton, a place for socially minded artists, entrepreneurs and visionaries to come together to share ideas and resources–and ultimately, to join forces to make the world a better place.

JONATHAN TOOT

Jonathan Toot, MS, PhD, DABT is a Senior Toxicologist (Study Director) and head of Drug Abuse Liability Testing at WIL Research Laboratories located in Ashland, Ohio. WIL Research is contract research lab that conducts scientific studies for various US and international government agencies, including the EPA and FDA. WIL Research is a scientific research company with facilities located in Europe, Japan, and throughout the US.

Jonathan received his MS from Akron University in Physiology, and his PhD from Kent State University in Biomedical Physiology. For the past 6+ years, Jonathan has been conducting research studies for WIL Research in the departments of Developmental and Reproductive Toxicology, Juvenile Toxicology, and Neuroscience. In addition to mentoring graduate students, collaborating with scientists, and volunteering, Jonathan is also adjunct faculty at Ashland University and has taught courses in Applied Toxicology and Human Biology. While at WIL Research Jonathan has published original research, coauthored a book chapter, and presented research findings at scientific meetings (across the US and abroad) in topics ranging from drug abuse liability to neurodegenerative diseases to pregnancy induced models of pathology. Although working at WIL Research as a Study Director is focused on scientific research, his job also requires experience in marketing, business development, legal contracts, general drug development consulting, analytical/ bioanalytical chemistry, accounting, equipment/software validation, and research oriented scientific method development.

JILL SMITH

Jill Smith, Ph.D., is the English-Language Arts Curriculum Coordinator for Westerville City Schools and an adjunct lecturer at The Ohio State University in the School of Teaching and Learning. Before that she worked as the Program Manager for Middle Childhood M.Ed. program at OSU and was a full-time English teacher at Westerville Central High School. She completed her M.Ed. and doctorate at O.S.U. In her 16 years of as a high school English-Language Arts teacher she developed curriculum for Cultural Studies and American Literature classes and was actively involved on many committees such as Curriculum Council and Site Council in the Westerville School district. She also acted as advisor to her school's Gay-Straight Alliance and initiated anti-bullying policies in her school. She is a co-author and editor of Acting Out!: Combating Homophobia and Heterosexism in Schools, recognized in 2010 as an "Outstanding AcademicTitle" by the American Library Association and winner of the National Association of Multicultural Education Philip C. Chinn book award. Jill was awarded "Teacher of the Year" by Westerville City Schools in May of 2011 and was awarded the Holloways Human and

Civil Rights Award by the Ohio Department of Education, also in spring of 2011. She currently resides in Columbus, Ohio with her partner, Kyle, and their two sons.

Jill's activism in her work and school communities and her academic publications led her to seeking out a position where she could have a strong voice in shaping equitable, more inclusive school spaces and can develop and support authentic professional development for teachers. She is currently working on a follow-up book to Acting Out! that will explore ways teachers can better support LGBTQ students and families. She also continues to present her work at local and national educational conferences such as OCTELA, NCTE, and AERA and will be teaching at Ataturk University inTurkey this May.

AWARDS LUNCHEON

Performance Hall, Ground Floor

WELCOME ADDRESS

Jamie Crowsley: Vice President, Council of Graduate Students

LUNCH MENU

Appetizer

Traditional Blend Salad - Mixed greens with RomaTomatoes, cucumbers, carrots, and croutons with Ranch and Italian Dressings

Entrees

Lemon Garlic Chicken - Roasted chicken leg and thigh quarter with lemon, garlic, and herbs served with roasted Roma tomatoes and mashed potatoes

Vegetarian Lasagna - Layers of fresh garden vegetables, pasta, and cheese in a white cream sauce

Dessert

New York Style Cheesecake with Macerated Fresh Strawberries

REFLECTIONS

Patrick S. Osmer, Dean of the Graduate School Javaune Adams-Gaston, Vice President for Student Life

AWARD PRESENTATIONS

Awards will be announced by Jamie Crowsley Certificates will be presented by Dean Osmer, assisted by Alfred Yates



2013 HAYES GRADUATE FORUM RECIPIENTS

CONGRATULATIONS TO THE WINNERS FROM THE 2013 HAYES FORUM!

2013 ORAL PRESENTATION WINNERS

THE ARTS

1st Place: Kellen Maicher 2nd Place: Andrew Barry 3rd Place: Joyelle Fobbs

BIOLOGICAL SCIENCES

1st Place: Jeffrey Wojton 2nd Place: Rosanna Wotowicz

BUSINESS

1st Place: Karthikeya Easwar 2nd Place: Matthew Wynter 3rd Place: Beth Polin

EDUCATION AND HUMAN ECOLOGY

1st Place: Christin Carotta 2nd Place: Elizabeth Beggrow 3rd Place: Chad Campbell

ENGINEERING

1st Place: Mikael Hudoba 2nd Place: Santino Carnevale 3rd Place: JulieThompson

FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

1st Place: Erin DiCaprio 2nd Place: Wenfei Wang 3rd Place: En Huang

HUMANITIES

1st Place: Austin Dean 2nd Place: Chelsea Phillips 3rd Place: Meagan Horn

MATHEMATICS AND PHYSICAL SCIENCES

1st Place: Lindsay Morrison 2nd Place: Michael Severance 3rd Place: Andrew Krygier

PROFESSIONAL BIOLOGICAL SCIENCES

1st Place: Ashley Frakes 2nd Place: Erin Burns 3rd Place: Matthew Mason

SOCIAL AND BEHAVIORAL SCIENCES

1st Place: Laren Conklin 2nd Place: Eric Wohleb 3rd Place: Jayeon Lee

2013 HAYES GRADUATE FORUM RECIPIENTS (CONTINUED)

2013 POSTER PRESENTATION WINNERS

POSTER: ARTS, HUMANITIES & SOCIAL SCIENCES

1st Place: Ben Kerrick 2nd Place: Ciara Stigen 3rd Place: Zachariah Hubbell

POSTER: BIOLOGICAL SCIENCES

1st Place: Priscilla Lee 2nd Place: Nirav Shah 3rd Place: Christopher Hansen

POSTER: ENGINEERING, MATHEMATICS, AND PHYSICAL SCIENCES

1st Place: Eric Coleman 2nd Place: Steven Hansen 3rd Place: Aaron Short

THE COUNCIL OF GRADUATE STUDENTS

The Council of Graduate Students (CGS) is the student government for graduate students at The Ohio State University. Since 1955, the Council has represented the views of graduate students to university, federal, state, and local officials. CGS also provides a forum for graduate students to discuss and act upon issues. The CGS promotes and provides academic, administrative, and social programs for graduate students and the greater university community. Up to 135 graduate students serve as delegates from the 133 graduate programs at Ohio State. These delegates are charged with representing over 10,000 graduate students.

The purpose of the Council of Graduate Students is to effectively advocate and program to ensure the OSU graduate experience is the best it can be.

EXTERNAL ADVOCACY

To ensure that the graduate views are reaching the appropriate audiences, CGS appoints over 125 graduate students to serve on the university-wide and senate committees. CGS also appoints 10 graduate students to the University Senate, the official representative body for faculty, administration, and students, chaired by the University president.

In addition to the Hayes Forum, the CGS has a number of other programs that it oversees:

THE RAY TRAVEL AWARD

The Edward J. Ray Travel Award for Scholarship and Service (Ray Award) encourages and enables graduate students across the University to participate in professional conferences, both in their respective fields and in the broader academic community, by reimbursing or partially reimbursing the expenses incurred by graduate students during travel to conferences and meetings to present original research.

THE CAREER DEVELOPMENT GRANT

The Career Development Grant program encourages graduate students to prepare for placement into their chosen field. Students will submit their Career Development Grant Application to the Council of Graduate Students (CGS) for an opportunity to receive an award to defray costs associated with the development of their careers.

THE GLOBAL GATEWAY RESEARCH ABROAD GRANT

The Global Gateway Graduate Student Research Abroad Grant encourages and promotes the professional and academic development of graduate researchers at The Ohio State University by providing financial support that allows students to undertake research abroad. Also, students will be able to assist the University pursue its strategic international goals by creating and bolstering relations with universities and other institutions across the world.

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Office of Research Graduate School Council of Graduate Students