

THE OFFICE OF UNDERGRADUATE RESEARCH PRESENTS
**The First Annual Celebration
of Undergraduate Research**

April 28, 1:30–5:00 p.m.

PERFORMANCE AND PLATFORM SCHEDULE

Performance and Drama Session

Person Hall, 1:30-3:00pm
Moderator: Prof. Allen Anderson, Music

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
Johnathan Kregor	Music for String Quartet and Tenor	Allen Anderson	Music
Scott Routenberg	Improvisational Compositions: The Scott Routenberg Trio CD Project	Allen Anderson	Music
Michael "Beau" Tidwell	Into the Woods (with Kate Middleton)	Jeffrey Cornell	Dramatic Art
Joseph Kwon	Martini Duo (with Ginger Neff)	Brent Wissick	Music
Adam Gerds	Rehearsing Beckett: "Waiting for Godot"	Julie Fishell	Dramatic Art

Platform Session I

Alumni Hall, Room 404, 1:30-3:00pm
Moderator: Prof. Thomas Tweed, Religious Studies

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
John Knoch	NAFTA and the United States Hosiery Industry: Is NAFTA Knocking the Socks Off U.S. Producers or is it Low Wages?	Rachel Willis	Economics
Maria Fitzpatrick	The Economic and Socioeconomic Effects of Structural Adjustment Lending by the World Bank from 1980 to 1994	Patrick Conway	Economics
Heather Marinello	All the Difference: The Impact of England on Robert Frost's Poetry	William Harmon	English
Christine Mallinson	A Sociology Study of Assimilation: German Americans as an Ethnic Minority in Rowan County, NC, from the Late 1700s to the 1990s	John Reed	Sociology
Marc Sanders	The Word of God to the People of God: The Theology of Stephen Elliot	Laurie Maffly-Kipp	Religious Studies
Allison Marchant	An Assessment of the Influence of Folk Literature in the Works of Nikolai Gogol	Chris Putney	Slavic Languages

Platform Session II

Howell Hall, Room 203, 1:30-3:00 pm
Moderator: Prof. Laurie McNeil, Physics and Astronomy

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
Peter Everett Boyd	Development of a Lysozyme Activity Assay	Marshall Edgell	Biology
Brett Summey	Tissue Transglutaminase Localization and Activity Regulation in the Extracellular Matrix of Articular Cartilage	Walter Bollenbacher	Biology
Carolina Molina	Visualizing Individual Collagen and Fibronectin Fibrils in Cartilage with Light Microscopy	Greta Lee	Biology
Peter Bernhel	Absorption of a Polyanion onto a Charged Surface	Michael Rubinstein	Physics and Astronomy
Jennifer Stancil	3D Reconstruction and Quantitative Analysis of the Gerbil Ear Using Magnetic Resonance Microscopy	O.W. Henson, Jr.	Biology
Rachel Rosen	Application of Carbon Nanotubes as Electrodes in Gas Discharge Tubes	Otto Zhou	Physics and Astronomy

Platform Session III

The JCUE in Graham Memorial, Room 38 1:30 - 3:00 pm
Moderator: Prof. Bernadette Gray-Little, Psychology

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
Stephen Lenhart	An Actualist Theory of Worlds	Jan Bovill	Philosophy
Anne Schaap	Anticoagulation by Heparin Cofactor II	Frank Church	Biology
Melissa Jane McClure	Personalities and Perceptions Predisposing Young Women to Eating Disorders	Michael Waltman	Communication Studies
Harry Halpin	The Detection and Segmentation of Topics in Natural Text: An Interdisciplinary Account of Psycholinguistic Theories and Computational Algorithms	Peter Gordon	Computer Science
Maneesha Agarwal	29 X 15: Student Perspectives on Multimedia Documentaries	Todd Taylor	English
John Paul Vavalle	The Identification and Characterization of Two Novel Syntaxin-Binding Proteins	Lian Li	Chemistry

Special Session

Alumni Hall, Room 404 3:10 - 3:20 pm
Prof. Timothy Bralower and Kevin Stewart, Geological Sciences
Engaging Undergraduates in Research in the Earth Sciences

Platform Session IV

Alumni Hall, Room 203 3:30 - 5:00 pm
Moderator: Prof. Douglas Crawford-Brown, Carolina Environmental Program

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
Robert Ian McDonald	Increased Dominance by Acer rubrum and the Decline of the Quercus-Carya Climax in the N.C. Piedmont	Robert Peet	Biology
Aaron Levine	Gene Expression During Arabidopsis Disease Resistance	Jeff Dangel	Biology
Ryan Hill	Carbon and Nitrogen Isotopic Analysis of Compounds from the Hydroid Tridentata marginata	Christopher Martens	Chemistry
Julia Bryan	The In Vitro Effects of Estradiol and Parathyroid Hormone on IGF-1 Gene Expression in Osteoblastic Cells	Michael Thomas	Biology
Lindsay Whitfield	Going Beyond Transition Models: Explaining the Outcomes of Privatization in Russia's Post-Communist Economic Transformation	Barbara Hicks	Political Science
Sharran Yvette Nicole Burney	Modulation of Sickle Cell Adhesion to Laminin	Leslie Parise	Sociology

Platform Session V

The JCUE in Graham Memorial Hall, Room 38 3:30 - 5:00 pm
Moderator: Prof. Risa L. Palmi, Dean of the College of Arts and Sciences

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
Edith Dietz	Domestic Violence in Kenya: Local Perspectives and Global Insights	Robert Daniels	Anthropology
Joanna Jordan	Adapt or Leave: White Emigration as Apartheid Crumbles	Sandy Darity	Economics
Tamara Margaret Johnson	Exploring Ideal Ecotourism: Analyzing Experiences in Community-Based Conservation in Kenya and Belize	Altha Gravey	Geography
Ann Cooper	State Violence in Burkina Faso: Theory and History	Roberta Ann Dunbar	International Studies
Phillip Demske	International Conflict and Domestic Audience Costs	Mark Crescenzi	Political Science
Erica Lee	Border Life: Policy, Politics and People	Julia Cardona-Mack	Public Policy

Platform Session VI

Alumni Hall, Room 404 3:30 - 5:00 pm
Moderator: Prof. Timothy Bralower, Geological Sciences

STUDENT	TOPIC	FACULTY ADVISOR	MAJOR
Anne Newell	Territoriality and Site-dependent Dominance in the Northern Cardinal	R. Haven Wiley	Biology
Jeremiah Boles	The Choroid Plexus and the AIDS Dementia Complex	Rick Meeker	Biology
Amy Pattishall	Analysis of the Expression of IAA8 in Zinnia and Arabidopsis	Alan Jones	Biology
Derek Chiang	Roles of Pleckstrin Homology Domains in Dhl Proteins	Sharon Campbell	Chemistry
Thomas Michell	Effect of Training in Exercise Sandals on 2-D Exercise and Rearfoot Motion in Postural Sway in Abnormal Pronators	Chris Hirth	Sport Science
Steven Broglio	The Cumulative Effects of Soccer Heading Manifested in Postural Stability and Cognitive Function	Kevin Guskiewicz	Exercise and Sport Science

POSTER SCHEDULE

Poster Session I: 1:30-2:15 pm — Odd Numbered Posters

Poster Session II: 3:30-4:15 pm — Even Numbered Posters

The Johnston Center for Undergraduate Excellence in Graham Memorial Room 39

STUDENT	TITLE	FACULTY ADVISOR	MAJOR
1 Sahah Sumo	Potential Use of GIS in Health Management in Africa: A Case Study of Tuberculosis in Ghana	Roberta Ann Dunbar	African & African-American Studies
2 David Fernandez	Preliminary Archival Research of Historic Hillsborough	Steve Davis	Anthropology
3 Thai Doan	Electron Generator	Steve Shafroth	Applied Sciences
4 Emily Clarke-Pearson	Landscape and Map: Addressing the Way We Relate to Our Surroundings	Beth Grabowski	Art
5 Amanda Mack	Map Based Cloning of LSD4 in Arabidopsis thaliana	Jeff Dangel	Biology
6 Amit Bakri	The Role of Vitamin E in Prostate Cancer Prevention	Alan Jones	Biology
7 Julie Thibodeaux	Elucidating the Role of Kar9p: A Protein which Facilitates Nuclear Migration in S. cerevisiae	Kerry Bloom	Biology
8 Andrea Thames	The Effects of Cytosine Arabinoside on Cells With or Without Ku Protein	Barry Goz	Biology
9 Kathryn Eaker	The Effect of the egg Mutant Gene on Diverse Transgenes in Arabidopsis	Sarah Grant	Biology
10 Melanie Pribisko	Heavy Metal: Manipulation of Hydrogen Bonding in Square Planar Diphosphine Platinum(II) Diphenoxy Complexes to Form Self-assembled Platinum Aggregates	Michel Gagne	Chemistry
11 Janarthanan Jayawickramarajah	Viscosity effects on guanine oxidation by Tris(bipyridine)ruthenium(III)	Holden Thorp	Chemistry
12 Sophia Papadeas	Regional Variations in GABA-A Receptor Subunit Expression in Selected Subcortical Regions of the Brain	Leslie A. Morrow	Chemistry
13 Erin Lynn Stuelke	Monitoring the evolution of 3TC resistance in HIV-1	Ronald Swanson	Chemistry
15 Brian Loomis	Sulfide Oxidations and Silica Gel: A Mechanism Study	Paul Kropp	Chemistry
16 Alicia Hill	Speaking Rate and Velopharyngeal Function in Children with Cleft Palate	David J. Zajac	Communication Studies
18 C. Hawkins	Historical clothing, yesterday's news, today's basis for costumes	Bobbi Owen	Dramatic Art
19 Lynne Fogarty	Environmentally Responsible Investment: Value Driver?	Michael Salemi	Economics
20 Chris Tierney	Modeling NOx Emissions from Mobile Sources in the Triangle Area, NC	Douglas Crawford-Brown	Environmental Science & Studies
21 Matthew Smith and Katie Glazer	Teleworking and Its Role in Ozone Abatement	Douglas Crawford-Brown	Environmental Science & Studies
22 Claire Horn	Soviet Environmental Policy and Densification of the Aral Sea	Joel Schwartz	Russian & East European Area Studies
23 Brad Hendrickson	Development of a Lead 204-207 Double Spike and its Application Towards the Analysis of Drinking Water at The University of North Carolina at Chapel Hill	Brent V. Miller	Environmental Sciences & Engineering
24 Katie Glaser	Colonization and Land Use in Ecuadorian Amazonia	Richard Bilshorow	Environmental Science & Studies
25 Megan Roberts	A Predictive Model to Evaluate Haloacetic Acids in US Drinking Water	Philip Singer	Environmental Sciences & Engineering
26 Alexandra Rao	The Composition of Aircraft Startup Plumes in Cold Environments	David Leith	Environmental Sciences & Engineering
27 Nicole A. Feldl	Survey of gravity anomaly across low-density sediment filled basin near Lone Pine, California	Allen Glazner	Geology
28 Kurt Frankel	Characteristic Fault Scarp Morphology of Late Quaternary (Holocene) Scarps Along the Central Death Valley Fault Zone, Death Valley, CA	Allen Glazner	Geology
29 Rachel Via	tha	Tim Bralower	Geology
30 Jennifer Bryson	Where, oh where, do the bristlecones grow? Geologic and Topographic Controls on the Distribution of Bristlecone Pine Trees, White Mountains, California	Allen Glazner	Geology
31 John Templeton	Contact Relations of two thin Interpluton Screens in the Eastern Sierra Nevada, California	Allen Glazner	Geology
32 Stephanie Briggs	Structural Study of Sierra Nevada Range-bounding Faults	Allen Glazner	Geology
33 April Oh	The Effectiveness of UNC Medical School in Teaching and Cultural Competency for Latino Patients	Deborah Bender	Health Policy Administration
34 Hannah Fortune-Greeley	For the Future: Recent Latina Immigrants' Perceptions of English Language Education and Family Health	Deborah Bender	Latin American Studies
35 David McClendon	A Study of Dynamics of a Family of Quadratic Rational Maps and its Corresponding Parameter Space	Jane M. Hawkins	Mathematics
36 Anne Lawrence	Effect of Amorphous Silicon Composition on Photovoltaic Performance	Daxing Han	Physics & Astronomy
37 David Trotter	Investigation of a Crystal X-Ray Generator	Stephen Shafroth	Physics & Astronomy
38 Rebecca Erwin	A Developmental Study of Conditioned Response Timing in Eyeblink Conditioning	Mark Stanton	Psychology
39 Ryan Scott Trim	An Analysis of Gender Differences in Alcohol Use: The Role of Drinking Motivations and Locations in a College Population	Andrea Hussong	Psychology
40 Joshua Hatcher Marin	Strategy Use and Age Differences on the Self-Ordered Pointing Task	Marilyn Hartman	Psychology
41 Stacie Craft	Race and Gender Impact on Preference and Affiliation Choices	Beth Kurtz-Costes	Psychology
42 Shauna Cooper	Parental Socialization and Peer Factors of Academic Disidentification in African-American Students	Stephanie Rowley	Psychology
43 Jennifer Manning	Commitment in Interpersonal Relationships	Donald Baucom	Psychology
44 Laura Pendergrass	tha	Beth Kivel	Recreation & Leisure Studies

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