Northwestern Undergrad Research & Arts Exposition May 31, 2017
Guide to 2017
Undergraduate Research and Arts Exposition

Wednesday May 31, 2017

10:00-11:30 AM Northwestern University Poster Session One
Louis Room – Norris second floor

11:00-12:30 AM Northwestern University Oral Presentation Session One
Lake Room, Arch Room, Rock Room, Armadillo Room
– Norris second floor

1:00-2:30 PM Art Theory and Practice Thesis Exhibition
Dittmar Gallery – Norris first floor

1:00-2:30 PM Northwestern University Oral Presentation Session Two
Lake Room, Arch Room, Rock Room, Armadillo Room
– Norris second floor

2:30-4:00 PM Northwestern University Poster Session Two
Louis Room – Norris second floor

8:00-9:30 PM Creative Arts Festival
Mussetter-Struble Theater – Wirtz Center for the Performing Arts

9:30-10:30 PM Post-Show Reception
Lobby – Wirtz Center for the Performing Arts
Poster Session One
10:00-11:30, Louis Room (205)

Humanities, Social Sciences, & Journalism

1. Katherine Bae, “Positive Emotions and Marital Satisfaction: A Laboratory-Based Study of Genuine and Non-genuine Smiles in Married Couples”
2. Vilte Balutaviciute, “Awareness of and Attitudes Toward Anti-Weight Stigma Movements”
3. Steven Bennett, “Against Jeremy Bentham: Human Rights Will Not Cause Anarchy; or Pandora’s Box Closed”
4. Patsy Castro, “Personality Correlates of Health Factors”
5. Karishma Daftary, “Perceived Parent Instrumental Support and Child Asthma Health”
6. Tiffany Fang, “Child personality moderates associations between parenting strategies and psychopathology”
7. Julian Gerez, “Civil resistance; armed insurgencies; and government dependence on nontax revenue”
8. Ayla Goktan, “Do Personality Traits Predict Mental Health Care Utilization? Longitudinal Findings from the MIDUS”
9. Gideon Goldberg, “A Case For Secession”
10. David Huang, “Positive Emotions in Response to an Affiliation Film Clip: Associations with Well-Being”
11. Megan Imundo, “College Students’ Imagined Lives: Gender Differences in Emphasis on Life Domains”
12. Tyler Kramlich, “The survival; transmission and adaptation of Lan Na music in Northern Thailand; in spite of surrounding cultural shifts.”
14. Eric Mercadante, “Social Dominance and the 5-Factor Model: Do different measures lead to different results?”
15. Samantha Oberman, “Teacher Quality Assessment Across the Academic Year”
16. Jaclyn Pachicano, “Associations between Relational Pronouns during Marital Conflict and Marital Satisfaction”
18. Eva Rios, “Rethinking the Categorization of Prison Gangs: the Primeiro Comando da Capital; Numbers Gang; and the Mexican Mafia”
19. Oma Seddiq, Shagca Naqvi, and Ifath Arwah Sayed, “Trust in news media and media credibility as predictors of news consumption behaviors in six Arab countries”
Poster Session One, continued

Natural Sciences & Engineering

24. **Lauren Barmore,** “Determining the grain size of polycrystalline diamond for high energy density experiments”
25. **Lucia Brunel,** “Glass Transition Temperature Broadening of Syrene/n-Butyl Acrylate Copolymer and Polyphenylene Oxide Blends”
26. **Megan Burton,** “A New Assay for Profiling Endogenous Phosphatase Activity”
28. **Chen Chen,** “Evaluating cardiomyocytes metabolic and maturation effect on hiPSC-CM drug response modeling”
29. **Tuofei Chen,** “RGB-D SLAM for MAV Autonomous Navigation”
30. **Raymond Dai,** “Self-Assembled Monolayer Arrays for the Discovery of Novel Cell Adhesion Ligands”
31. **Yue Deng,** “Characterizing Metalloenzyme Interactions in Biological Methane Oxidation”
32. **Adam Farsheed,** “3D Printing High-Resolution Biodegradable Vascular Stents”
33. **Rebecca Fudge,** “Investigation of Notch Ligand-Receptor Interactions in Ovarian Granulosa Cells”
34. **Isabella Gau,** “The Roles of Hrd1 and Smad7 and Hrd1 and Parp1 Interactions in Immunosuppression”
35. **William Grubbe,** “High-yield E. Coli Cell-Free Protein Synthesis and Site-Specific Labeling in Human Tyrosine Kinases”
36. **Sun Ha,** “A study of solution conformation of chiral tertiary amines”
37. **Jordan Harrison,** “CRISPR Capsules: Engineering pathways for incorporating functional Cas9 protein into outer membrane vesicles”
38. **Celia Hauw and Nonye Ogbuefi,** “Neural correlates of the link between language and thought in young infants.”
39. **Justine Hung,** “Differences in Substrate Cleavage Efficiency by Ancient versus Modern Yersinia pestis”
40. **Stephen Hynes,** “Quantitative Network Analysis of Seventeenth and Eighteenth Century Diplomatic Networks”
41. **Mable Je and Olivia Shay,** “Negative Emotions during Martial Conflict and Child Problem Behaviors”
42. **Jo Machesky,** “Alteration of membrane compositional asymmetry by LiCoO2 nanosheets”
43. **Bomani McClendon and Sameer Srivastava,** “Scaffolding Research Training and Skill-Development in Design-Based Undergraduate Research with Computer-based Guidance Systems”
44. **Gregory Mulderink,** “Nitrogen Doping of Few-Layer Black Phosphorus Flakes”
45. **Katelyn Noronha,** “Melanopsin expression is dynamically regulated during retinal development”
47. **Bryan Quandt,** “Reducing waste in maker spaces”
48. **Juliet Roll,** “An Enzymatic Microfluidic Reactor System”
49. **Emily Roney,** “Enabling Ribosome Evolution for Sequence-defined Polymerization: Optimization of bMet-tRNA Synthesis”
Poster Session One, continued

50. Tiffany Teng, “Deorphanizing olfactory receptors in vivo”
51. Shon Thomas, “Effect of CD1b and CD1c on Atherosclerotic Plaque Formation”
52. Kotaro Tsutsumi, “R-SNARE Protein Ykt6 Restores Lysosomal Function in Parkinson’s Disease Cell Model”
53. Jonathan Young, “Temperature Dependence of Porous Structure in a Freeze-casted Titanium Oxide and Water System”

Oral Presentation Session One

11:00-12:30

Advancements in Science and Engineering Lake Room (203)
Moderator: Axford Yarrow, Earth and Planetary Science Department

Karalyn Berman, “A Paleoclimate Record from Lake Sediments of Southwest Greenland”
Jing Gao, “Regulation of Cyclic Diguanylate during Vibrio Fischeri Biofilm Formation”
Brennan Jackson, “The Effect of Real-time Knee Adduction Moment Feedback on Knee Loading during Walking”
Lauren Kearney, “Thermal and Microstructural Characterization of Ceramic Slurries for Freeze-Casting”
Kelly Powderly, “Discovery of a New High-Pressure NiBi Phase in a Diamond Anvil Cell”

Engagements with the Humanities Arch Room (206)
Moderator: Carl Petry, History Department

Sarah Bruyere, “Every Sin in the Decalogue: Richard Francis Burton’s Literary Career”
Phillip Davis, “Junctures in American Religion: The Confluence of Charismatic and Traditional Practice in Evangelicalism”
Julia Popham, “Exploring the Pages of a Book”
Community Influence/ Influencing Communities Rock Room (207)
Moderator: Kevin Boyle, History Department

Gustavo Berrizbeitia, “Deliberative Direct Action: The Case of Black Lives Matter”
Udita Persaud, “Increasing Access to Local Health Information and Resources through Health Desks at Public Libraries: a Novel Approach for Community-Based Collaboration and Asset-Based Development”
Isabel Robertson, “Abuse to Acceptance: Cleveland’s Italian Community from 1880-1920”
Jacob Rosenblum, “Predicting Chicago Veterans’ Returns to Homelessness after Housing Placement”

Global Challenges and Connections Armadillo Room (208)
Moderator: Jason Seawright, Political Science Department

Shakeeb Asrar, “Sensationalism in Pakistani News Channels: The Downside of Media Deregulation”
Amy Eisenstein, “Hollywood is Like a Durian: American Cinema in Interwar Singapore”
Angela Lin, “Quantitative Analysis of Palestinian-Jordanian Identity and Opinions toward Refugees”
Jake Rothstein, “The Viability of Comedic Performance as Sociopolitical Speech: an Ethnographic Study at the Edinburgh Fringe Festival”
Heiwon Shin, “How Couchsurfing in Iran Transforms the Private into Public Space and Connects an International Community in a ‘Land of Contradictions?’”

Oral Presentation Session Two
1:00-2:30

At the Forefront of Science and Engineering Lake Room (203)
Moderator: Joseph Schofer, Civil and Environmental Engineering Department

Emily Bold, “Determining the Effect of Corallite Integration on Coral Bleaching Susceptibility”
Rebecca Diesing, “Radio Observation of the Supermassive Black Hole at the Galactic Center and its Orbiting Magnetar”
Esteban Doyle, “Evaluating Light Rail Transit in the United States”
Jake Heggestad, “Characterizing Cell-Free Metabolism for Rapid Pathway Prototyping”
Tazim Merchant, “Assessing Heart Wall Function Using Strain Imaging”
Anna Preston, “Cobalt(III) Schiff Base Complexes for Inhibition of Metal-Mediated Amyloid-Beta Toxicity”
The Power of Narrative  Arch Room (206)
Moderator: Anthony Chen, Sociology Department

Katie Branch, “Framing Effects on Social Perception”
Meredith Ford, “Gendered Advertising to Children: An Analysis of Differences in Male- and Female-Targeted Television Commercials”
Tess Levin, “Political Possibilities of the Social Media Discourse about Sexual Assault: A Case Study at Northwestern University”
Ryan Martin, “American Mythology”
Arielle Zimmerman, “Digitized Consciousness: The Impact of Digital Self-Tracking Devices for Health/Fitness on the Attitudes, Body Image, and Health Behavior of Male and Female College Students”

How We Learn  Rock Room (207)
Moderator: David Figlio, School of Education and Social Policy Dean

William Brennan Antone, “Building Extreme Teams: Simulating Team Dynamics Over Time”
Ross Chu, “The Effects of Home-Country Crises on the Educational Performance of Immigrants”
Garrett Goehring, “The Relationship Between Teaching Methods and Student Entrepreneurial Success”
Rita Hirami, “Parental Perceptions of School Quality: Case Study in Chicago”
Jemina Legaspi, “Different Perceptions of Audiences, Organizers, and Scientists in Public Science Majlis Forum in Qatar”

Informed Support and its Policy Implications  Armadillo Room (208)
Moderator: Peter Locke, Global Health Studies Program

Emily Blim, “Effects of Social Support Order on Liking and Emotional Improvement”
Meredith Greene, “Civil Rights Policy in Practice: Variation in the Provision of Language Assistance Services in Health Care”
Benjamin Levey, “The Inward Turn of Chicago Drill Rap”
Katie Rim, “Associations Between Cognitive Reappraisal and Anxiety: Socioeconomic Status as a Moderator”
De’Sean Weber, “Trauma-Informed Care at Heartland Alliance”
Poster Session Two
2:30-4:00, Louis Room (205)

Humanities, Social Sciences, & Journalism

1. **Urooj Azmi**, “Bedari: The awakening of Pakistani patriotism through melodramatic cinema”
2. **Blair Batky**, “Personality Accounts for Associations Between Problem Behaviors and Academic Performance”
3. **Kristen Campbell**, “Bohemian Masks: Identity and Belonging in Towertown; 1917-1933”
4. **Yasemin Dogruol**, “Ego Depletion Replication Study”
5. **Maria Fantozzi**, “Bienvenidos a St. Francis of Assisi: Making Chicago’s Mexican-American Community; 1945-1961”
6. **Jeffrey Frankel**, “Resistance and Sensitivity of the Nonhuman Primate Gut Microbiome to a Captive Environment”
7. **Caroline Gold**, “An Ethnographic Review of Excel Academy”
8. **Jennifer Halpern**, “‘It is Who I am’ -- Dancers & The Formation of Identity”
9. **Tanner Howard**, “Sustainability in Freetown Christiania”
15. **Ashley Radee**, “Asian Americans and Stereotypes of Femininity”
16. **Alexandra Robertson**, “George Washington Gómez and the Political Consequences of Bilingualism”
17. **Paul Salamanca**, “‘No chocolate, no rice’—An Investigation of Racial/Ethnic Homophily on Grindr”
18. **Muhammad Shakir**, “The Emergence of Alternative Media in Yemen”
19. **Shoshana Shapiro**, “Facilitation in Informal Makerspaces”

Natural Sciences & Engineering

23. **Imogene Asa**, “A biogeographical analysis of the lichenized fungus Pseudocyphellaria glabra”
24. **Sarah Benton**, “A Spectroscopic Analysis of Barium- and Zinc-Containing Ceramic Glazes”
27. Samantha Crowe, “Developing a Modular; Two-Pot Cell-Free System for Expression of Metabolic Pathways and Natural Product Discovery”
28. Amy Eckland, “Antimicrobial resistance in the dust microbiome”
30. Margaret Grasse, “Improved Nightclub Experiences with CALASC (Crowd And Load Aware SmartClub)”
31. Jeremy Green, “Serotonin Receptor Regulation of Eosinophil Transendothelial Migration During the Allergic Response”
32. Nicholas Griffiths, “dachsous restricts brain cell density during regeneration in the planarian Schmidtea mediterranea”
33. Yue Hu, “Fluid Approximations and Limit Theorems for Polling Systems with Non-Zero Switch-Over Time”
34. Alexandra Huffman, “The influence of SLCO1B1 functional variants on the uptake of simvastatin”
35. Finote Kelemu, “Lifetime Fitness Analysis of Threatened Cirsium pitcheri in Larinus planus Infected Environments”
36. Amanda Leung, “Visual acuity of GABAergic retinal ganglion cells”
37. Rachel Lin, “Data Analytics in a Marathon Setting: Medical Volunteer Recruitment and Corral Assignment”
38. Patrick Liu, “Nuclear blebbing solely as a function of chromatin compaction state”
40. Rachael Sarette, “Neotropical edge effects: a study of Phoridae and Atta cephalotes interactions”
41. Andrea Shepard, “Developing a Method to Increase Farnesyl Pyrophosphate in E. coli via Induction”
42. Allison Sun and Jennie Werner, “Collective Experiences API”
43. Stacy Tsai, “Regulation of Hypoxic Response in CRISPR-generated Mouse Myotubes”
44. Yixian Wang, “Observations; Research; and Thoughts about Networks in Gitter.im”
45. Yilan Wang, “A High-copy Suppressor Screen for Mitochondrial Inheritance Mechanisms in Budding Yeast”
Creative Arts Festival

8:00-10:00pm, Mussetter-Struble Theater

Master of Ceremonies – Grace Dowling

Onyinyechi Ogwumike - Nne M Mary: Reconfiguring Fertility (sculpture)

Mahalia Sobhani - Eudemus Proteus (poetry reading)

Samuel Garcia - 阳关三叠 Three Tunes of Yang Guan (singing)
   with Jason Carlson on piano

Rachel Hughes and Caroline Spikner – Zipadeegong (dance film)
   Performers: Flux Dance Project, Sean van Dril and other jazz musicians

Tara Sennott – LaxBro (short film)
   Starring Robert Drewke as LaxBro and Brother. Cinematography by Troy Lewis

Katy Murphy - H- (staged reading)

Diana Fu - Monologue from Tears at the Margins (acting/writing)

Noah Perkins - The Temple on High (staged reading)

Alana Rosenbloom and Eliana Sanchez - Pretty Thing (documentary film)
   Special thanks: Laura Kofoid

Alex Herz - A Normal Life (narrative feature film excerpt)

Poppy Shen - Aftermath of Rio2016 Olympics on Favela Vila Autódromo (multimedia)

Landon Hegedus - National Parks Suite (original music)
   Performers: Sam Wolsk, trumpet; Louis Danowsky, alto saxophone; Landon Hegedus, tenor saxophone;
   Sean van Dril, piano; Brett Frey, upright bass; Jared Decker, drumset

Stage Manager - Sophia Barron