### Guide to 2018
**Undergraduate Research and Arts Exposition**

**Wednesday May 30, 2018**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-11:30 AM</td>
<td><strong>Northwestern University Poster Session One</strong></td>
<td>Louis Room – Norris second floor</td>
</tr>
<tr>
<td>11:00-12:30 AM</td>
<td><strong>Northwestern University Oral Presentation Session One</strong></td>
<td>Lake Room, Arch Room, Rock Room, Armadillo Room – Norris second floor</td>
</tr>
<tr>
<td>1:00-2:30 PM</td>
<td><strong>Northwestern University Oral Presentation Session Two</strong></td>
<td>Lake Room, Arch Room, Rock Room, Armadillo Room – Norris second floor</td>
</tr>
<tr>
<td>2:30-4:00 PM</td>
<td><strong>Northwestern University Poster Session Two</strong></td>
<td>Louis Room – Norris second floor</td>
</tr>
<tr>
<td>8:00-9:30 PM</td>
<td><strong>Creative Arts Festival</strong></td>
<td>Black Box Theater (201) – Wirtz Center for the Performing Arts</td>
</tr>
<tr>
<td>9:30-10:30 PM</td>
<td><strong>Post-Show Reception</strong></td>
<td>Lobby – Wirtz Center for the Performing Arts</td>
</tr>
</tbody>
</table>
Poster Session One
10:00-11:30, Louis Room (205)

Humanities, Social Sciences, & Journalism

1. Ifath Arwah & Jeun Choi, “Marginalized in Malaysia: The Refugee Child’s Struggle for Survival”
2. Keyla Carvalho & Augusta Saraiva, “Intercultural exchange in Portuguese: the importance of linguistic background for meaning negotiation of language learners”
3. Stephanie Marin, “Between the Quechua and Spanish in Poetry Language of the Soul”
4. Anna Tolley, “A Salty Survival: An Exploration of Resilience and the Maya Marketplace”
5. Jacob Hoeflich, “The Impact of Shale-Based Energy Development on Local Politics”
7. In Jung (Lizzy) Jang, “Associations between Physiological Linkage and Relationship Adjustment: Effects on Marital Satisfaction and Emotional Experience”
8. Theresa Juliano, “Does race modify the relationship between mental health disorders and opioid prescription among patients with pain?”
10. Jacqueline Maloney, “Psychological Characteristics of Problematic Internet Use”
12. Christine Schlaug, “Children's Word Learning At Different Ages”
13. Olivia Shay, “Psychological Well-Being and Cognitive Functioning in Mid- to Late Life: Findings from a National Sample”
16. Rebecca Sinard, “Effects of Chronic Family Relationship, Friendship, and Home Life Stress on Childhood Asthma”
17. Victoria Steigerwald, “Investigating Self-Compassion and Empathy in the Context of an Internet-Delivered Mindfulness-Based Exposure Intervention”
18. Angelina Strohbach, “Reproducing Inequality: Disparities in Mobile Technology and Pregnancy Care for Low-Income Women in Chicago”
22. Mariani Weinstein, “Metaphors Across Languages: Conventional and Novel Metaphors among Monolingual and Bilingual Speakers of Spanish and English”
23. **Emma Zblewski**, “Safe Enough? Constructing Accessible, Inclusive Spaces at the Intersection of Queer Identity and Trauma”

**Natural Sciences & Engineering**

24. **Tasfia Azim**, “Lost in Translation: Mapping the Ribosomal Active Site”
26. **Adina Cianciotto**, “Does Retinal or Perceived Space Affect Eye Movements?”
27. **Rachel Dubner**, “In Vitro Production of Conjugate Vaccines Directed Against Diverse Pathogenic Bacteria”
28. **Claire Hilburger**, “Hybrid Membrane Interactions with Fatty Acids”
29. **Suwei Liu**, “Engineering Bioinspired Underwater Adhesives based on Mussel Foot Protein-5”
31. **Christina Shehata**, “Comparing Bioinformatic Methods to Detect Selection in the Brighamia Genome”
32. **Angela (Sarah) Walema**, “Understanding the Role of Flowers in Climate-Vegetation Feedbacks: A Case Study with a Subalpine Sunflower”
34. **Yufan Yang**, “Modifying Nanoparticle Morphology and Surface Charge to enhance APC Targeting”
35. **Alberta Yoo**, “Development of Reclamation and Reuse System in Agricultural Areas through the Use of IoT Communication and Drones”

**Oral Presentation Session One**

11:00-12:30

**Pushing the Boundaries of Art**

Lake Room (203)

**Moderator: Ryan Dohoney**, Bienen School of Music

- **Cody Boukather**, “Queercore and Expansions in Technology”
- **Matthew Griffin**, “The Man of Many Phases: Modern Myth in Marvel's Moon Knight”
- **Anzish Mirza**, “Activism through Street Artists: A Look at Banksy”
- **Grace Pechianu**, “Thomas Mann's *Doktor Faustus* and the Post-War Concerto”
- **Caroline Spikner and George Estey**, “Jazz and Dance Improvisation in the Nutcracker Suite”
Advancements in Science and Engineering I
Arch Room (206)

Moderator: Magdalena Osburn, Earth and Planetary Science Department

Sahil Akolawala, “Making Polymer Nanostructures Permanent for the Technology Industry”
Hannah Dion-Kirschner, “Calibrating Proxies and Reconstructing Climate in a Small Arctic Watershed”
Alyssa Larios, “Dopamine-Dependent Reinforcement Learning in D1 and D2 Striatal MSN Populations during Virtual Navigation”
Hadley C. Pfalzgraf, “Enhancing Memory with Oscillating Sounds”
Yilan Wang, “Exploration of Backup Mechanisms for Mitochondrial Inheritance in S. cerevisiae”

Understanding the Legacies that Shape Us
Rock Room (207)

Moderator: Axel Mueller, Philosophy Department

Adina Goldman, “In the Courtyard of Death: Lively Encounters in the Talmudic Cemetery”
Emily Kuttner, “The Negotiation of National Identity through Public Murals”
Jiayi Lu, “Island Effect on Both Argument and Adjunct Extraction Wh-Questions in Mandarin Chinese”
Vinay Patel, “The Ethics of Anti-Colonial Violence”

Processing Politics and Media Influence
Armadillo Room (208)

Moderator: David Rapp, Psychology Department and the School of Education and Social Policy

Rebecca Adler, “Misinformation Across the Aisle: The Effects of Political Affiliation on the Reproduction of Inaccurate Ideas”
Jueun Choi, “Support for Internet Content Regulation among Citizens of Five MENA Countries: Lebanon, Qatar, Saudi Arabia, Tunisia, and the UAE”
Megan Imundo, “Experiences with ‘Fair and Balanced’ Discourse Can Mischaracterize and Misinform”
Sumaia Masoom, “‘Poised for Power’: Anti-Muslim Rhetoric, Identity, and the 2016 U.S. Election Cycle”
Logan S. Peretz, “How Hillary May Have Lost the White House: The Electoral Effects of Presidential Campaign Visits in 2016”

Oral Presentation Session Two
1:00-2:30
Identity/Activism
Lake Room (203)

Moderator: Anthony Chen, Sociology Department

Habibah Abass, “Beyond the Crisis: Integration of Rohingya Refugees in Malaysian Society”
Paul Salamanca, “‘Yellow Fever’ and ‘Sticky Rice’ A Mixed Method Investigation of Queer Asian Heterophily in Chicago”
Shira Zilberstein, “Space Making as Artistic Practice: The Relationship between Grassroots Art Organizations and the Political Economy of Urban Development”
Liz Quinn, “The Blame Game: The Role of Disgust in Hate Crimes against Gay Men”

Advancements in Science and Engineering II
Arch Room (206)

Moderator: Karen Smilowitz, Industrial Engineering and Management Sciences Department

Dipayan Banerjee, “Optimizing Public School Transportation Systems by Modifying School Start Times”
Katherine Braun, “Quantifying the Annual Carbon Budget from a Rapidly Eroding Coastal Freshwater Wetland using Field and Model Data”
Teddy Broeren, “Mathematical Model of the Formation of Saturn's Rings”
Amy Lieberman, “Voice-Pitch Perturbation in Non-Clinical Psychosis Population”
Christine Junhui Liu, “How Does Preschool Music Experience Influence the Developing Brain?”
Engaging Conflict
Rock Room (207)

Moderator: Richard Joseph, Political Science Department

Emma Danbury, “Organizational Discourse and its Effects on Modern Slavery”
Grant Everly, “The Security Mindset and the Limits of Rehabilitation in Prison”
Jordyn Ricard, “Emotional Behavior during Conflict and Marital Satisfaction: A Laboratory-Based Study of Married Couples”

Developing Challenges/ Challenges to Development
Armadillo Room (208)

Moderator: Lilah Shapiro, School of Education and Social Policy

Emily Harriott, “Examining How Parents Language Abilities Relate to Toddler Language Abilities and Growth after a Pilot App-Based Language Intervention”
Imani Wilson, “Black Teachers Matter: The Decline of Black Teachers in the Educator Workforce, Why it Matters, and What Can Be Done”
Anne Zola, “These Boots Weren't Made for Walking: Clothing Choices as a Form of Self-Objectification”
Victoria Wee, “Trust in College Administration and Student Well-Being”
Jamilah Silver, “The Role of Home Environment, Temperament, Family Warmth & Attachment: Moderators and Predictors between Exposure to Violence and Depressive Symptoms in Low-Income Preschoolers”

Poster Session Two
2:30-4:00, Louis Room (205)

Humanities, Social Sciences, & Journalism

1. Maria Feiler, “Variation of Sexual Dimorphism Due to Climatic Stress”
7. Gabriel Cohen, “First Year Fraternity Membership: Tracking Attitude Change”
9. Emily Fraser, “Individualized Cognitive Behavioral Therapy and Changes in Couple Functioning”
10. Erin Hesch, “Nevertheless, She Persisted: A Study of Perceived Progress and Motivated Self-Regulation”
11. Anna Holubecki, “Defining the Neuropsychological Profile of Individuals with Autism Spectrum Disorder and Their Parents”
12. Joanna Hong, “The effects of state and trait anxiety on implicit reactions to ambiguous emotional faces”
13. Caylin Kaunas, “All My Best Friends are Online: The Effects of MMO’s on the Development of Social Skills in Adolescents”
15. Keishel Lee, “The role of iconic gesture in facilitating memory and recall of lyrics”
16. Xinyi Liu, “College Major Choice under Financial Constraint: How do low income students choose majors compared to the representative student body at Northwestern?”
17. Maria Loi, “Creating Leaders of Learning Organizations”
18. Aimee Moses, “The Impact of STEM Curriculum on Student Perceptions of Computational Thinking”
20. Hannah Savitz, “Obscuring the self by choosing a partner: The challenge of identity denial for bisexuals in romantic relationships”
22. Zachary Schroeder, “Lovingkindness Meditation and Racial Prejudice: Maybe love really IS all you need”
23. Kenneth Xu, “The Role of Exposure to Biased Nonverbal Signals in Acquisition of Implicit Social Bias”

Natural Sciences & Engineering

26. Zer Chia, “Development of Near Zero Background MRI Contrast Agents”
28. **Anam Furrukh**, “Investigation the influence of Heparin on Kinetic Parameters of DNA Endonuclease Cas9”
29. **Michelle Guo**, “Vasculogenic collagen/elastin scaffold for islets enhanced engraftment and function in an extrahepatic site”
30. **Yuxi Han**, “Polygons, Companion Shapes, and the Construction of Polyhedra”
31. **Alex Huffman**, “Mapping of Neuronal Activity Following Seizures in a Mouse Model of Dravet Syndrome”
32. **Sophia Jenz**, “Modeling Posttraumatic Stress Disorder and Transcription Factor Levels”
33. **Evan Kaspi**, “Thermosensory Effects on Drosophila Circadian Rhythms”
34. **Meghna Katta**, “Coronary Vasculature and Conduction System Development in Settings of Ventricular Noncompaction”
35. **Seongsik (Joseph) Kim**, “Hint Engine”
36. **Elina Kim**, “Nuclear pore-dependent transcriptional memory and transcriptional activation in budding yeast”
37. **Vasil Kukushliev**, “Oxygen consumption of hematopoietic stem progenitor cells differentiating into megakaryocytes in culture”
38. **Daniella Lewittes**, “ Hindered Rotation in Tertiary Aromatic Amines Due to Intramolecular Hydrogen Bonding”
40. **David Park**, “Quantification of Antibiotic Resistance Gene mdtK Expression in Dust-cultivated Pseudomonas monteili”
41. **Grace Park**, “Identifying Genetic Determinants of Avermectin Resistance in Caenorhabditis elegans”
42. **Abigail Schroeter**, “Kinetics Studies of Cu (II), Zn (II), and ethylenediamine tetraacetate (EDTA) and Cu (II), Ca (II), and EDTA for the development of a greener calibration technique for Rapid Freeze Quench for Electron Paramagnetic Resonance Spectroscopy”
43. **Priya Shankarappa**, “Structural and Physicochemical Characteristics of CYP2D6 Substrates and a Case Study of Aminopyridazine Compounds”
44. **Evan Sitar**, “Effects of practice on Lukacs’ (2016) countermeasures (CMs) to the P300-based Complex Trial Protocol (CTP) for detection of concealed episodic information from a mock crime”
45. **Akshar Thakkar & Katlyn McGrattan**, “Optimal Nipples for Efficient Barium Expression During the Videofluoroscopic Swallow Exam”
46. **Brandon Vilarello**, “Neurophysiology in HIV+ individuals suggests a central auditory processing deficit”
47. **Fiona Worsfold**, “Expansion and Analysis of new coral bleaching data for the 2016 Bleaching Response Index”
48. **Chelsea Ye & Manon Petit**, “Growth and Characterization of Gallium Oxide and Fabrication of Transistors”
Creative Arts Festival

8:00-9:30 Wirtz Black Box (201)

Master of Ceremonies – Maria Valencia

Visual Art Showcase

Elizabeth Cameron - Invisible Men: A visual response to Ralph Ellison's *Invisible Man* (painting)

Kimani Isaac - *Seeing Red*: A Synesthetic Experience (painting)

Valerie Gruest - The Cute One and "Peaceful Reflections" (painting)

Performances (in scheduled order of appearance)

Caroline Spikner and Jacquelyn Tepper - Choreographing the Camera in the National Parks (Dance/Film)

Dominique Teoh, Amanda Hermans, Caroline Olsen - *Out of Shadows* (Short Documentary)

Alana Rosenbloom - *At Last* (Dance)

Dancers: Jacquelyn Tepper, Caroline Spikner, Katie Ippolito, Calvin Ticknor-Swanson, and Noah LaPook

Zaki Hussain and Nouf Al-Sulaiti - *Terima Kasih* (Film)

Yadid Licht and Dasha Gorin - *YUP*: Episode 1 “The Binge” (Web Series)

Shara Feit - *Ties* (Staged Reading)

Max Kliman and Jake Daniels - *Seventy-One* (Virtual Reality 360-Degree Short Film)

Katherine Ippolito and Calvin Ticknor-Swanson - *Station* (Dance)

Neha Hashid and Ammar Younas - *Kila* (Short Documentary)

Stage Manager – Liza Alrutz