



WAYNE STATE
Undergraduate Research
Opportunities Program

WARRIOR SCHOLARS

The Wayne State University Conference for
Undergraduate Research and Creative Work
March 28, 2025



About the Warrior Scholars Conference

The Warrior Scholars Conference is an annual event that brings together undergraduate students from all majors and programs at Wayne State University to showcase their research and creative projects. It provides an opportunity for students to hone their presentation skills, connect with faculty and peers, share research findings and ideas, and receive feedback.

The conference is organized by Wayne State University's **Undergraduate Research Opportunities Program (UROP)**, which supports students in pursuing deeper exploration of a topic of interest within their field of study. Through mentorship from faculty members, students gain hands-on experience in conducting research or creative projects. These transformative learning experiences expand skillsets and foster academic, personal, and professional growth.

Academy of Scholars

The WSU Academy of Scholars was founded in 1979 to promote and recognize sustained excellence in scholarship and creative achievement. The academy provides support to promising young scholars and periodically hosts special programming for the campus community. Election to the Academy of Scholars is the highest recognition that may be bestowed upon a Wayne State University faculty member by his or her colleagues. Membership in the academy is for life.

UROP thanks the Academy of Scholars for their annual participation in the Warrior Scholars Conference. In addition to judging the presentations they also provide numerous awards for those they deem the best.

Program

Friday, March 28, 2025

Student Center Building, 2nd Floor

8:00 A.M.

Registration

Outside of the Ballroom

9:00 A.M. – 10:15 A.M.

Poster Presentation Session

Ballroom

10:30 A.M. – 11:45 A.M.

Oral Presentation Session

Hilberry Rooms A, B, and C

12:00 P.M. – 1:30 P.M.

Luncheon and Awards Ceremony

Ballroom

Special Guests

Dr. Christine Jackson

Vice Provost for Partnerships & Workforce

Dr. Laurie Lauzon Clabo

Provost & Executive Vice President of Academic Affairs

Paul Bracke

Dean of the Library System

Academy of Scholars Judges

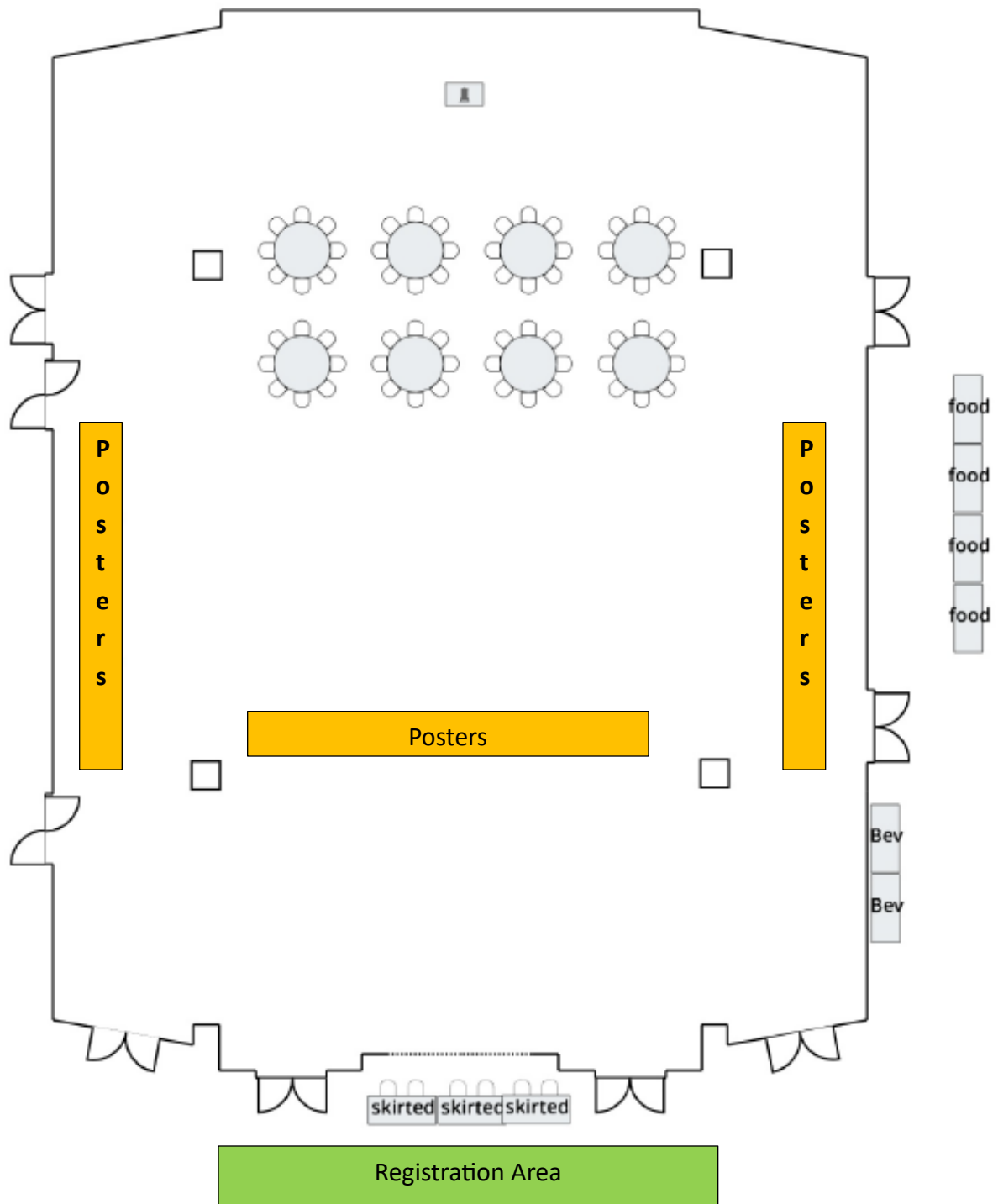
Dr. Feng Lin, Engineering

Dr. Mark Luborsky, Anthropology & The Institute of Gerontology

Dr. Mary Rodgers, Chemistry

Dr. Brad Roth, Law and Political Science

Ballroom Layout for Poster Presentations



Poster #	Poster Presentations BEHAVIORAL AND SOCIAL SCIENCES
1	Fareeha Chaudhry Academic overcommitment among first-year college students: Associations with loneliness and burnout
2	Sumer Chaudhry Maternal health and climate change through the lens of infrastructural violence
3	Minha Gil Simple uni-manual responding and information flow in the brain: Granger causality applications in healthy youth and youth with obsessive compulsive disorder
4	Lily Herron Effects of opioid use disorder (OUD) diagnosis, anxiety medication, and drug-use temptation on heroin use among persons in outpatient treatment for OUD
5	Khadijah Hussain Neighborhood stress as a predictor of caregiver-child conflict
6	Nabila Inan Investigating the relationship between SWS/REM Sleep Ratio in the First Half of the Night and Susceptibility to False Memories
7	Ahmad Jaber A multi-perspective approach for personality assessment: Leveraging Open AI's GPT models to score open-ended personality assessments
8	Aishah Mahmood The feasibility of eHealth interventions for Type 1 diabetes management in emerging adults
9	T'Emi Oshin Stimulus-response uncertainty and cross-cerebral connectivity in obsessive compulsive disorder youth with comorbid anxiety
10	Michelle Szewczuk Successful translation of traditional fear conditioning paradigms into interactive virtual reality reveals dysregulated fear learning in those with fear-related disorders
11	Kaji Uddin and Nadija Basic Development of an overdose prevention program led by youth ambassadors
12	Lily Vera-Luna Childhood trauma, impulsivity in adolescence, and adult depression

- 13 Sarah Wells**
Behavioral health interventions & positive youth development in low-income African American youth at BGCA

**Poster # Poster Presentations
ENGINEERING**

- 14 Ihfaz Islam**
RISC-V processors: Prospects for the best low-cost, low-power, and energy efficient processor
- 15 Yash Patel**
Tuning coacervate stability: The role of Hofmeister series salts and solvent effects
- 16 Emma Velasco**
Analysis of interactions of antibiotics and pathogens using Raman spectroscopy

**Poster # Poster Presentations
LIFE SCIENCES**

- 17 Dunni Adeyemi and Rachel Marken**
Safer at home: Opioid overdose prevention for parents and caregivers
- 18 Nour Ahmad**
Pipeline for single-cell RNA sequencing data: Prospects for investigating ion channels in the pain circuit (relevance of a chronic pain mouse model to MS)
- 19 Alqased Aula**
Evaluating diagnostic and treatment timelines for ALK-Positive NSCLC patients: Results from a global registry
- 20 George Ayanleke**
LncRNA regulation in vascular cells under cancer therapy-induced stress
- 21 Morgan Brown**
Evolution taking flight: The transition of theropods to modern avians
- 22 Jasmine Ewing**
Examining potential differences in relative adiposity between sexual minority women and heterosexual women

- 23 Jason Fahmy**
Using fluorescent tools to detect the regulation of sugar cycling enzymes in cellular cancer models
- 24 Sergio Guerra**
Effects of extracellular calcium on levels of glutathione in extracellular media of cultured hepatocytes
- 25 Natasha Islam**
Improved detection of fecal contamination in the field using qLAMP amplification of fecal DNA markers
- 26 Mya Ismail**
Inter-scanner harmonization of MRI-derived cerebral morphometrics
- 27 Dania Jabbar**
The link between a cellular energy demand and inositol synthesis
- 28 Arun Kumar**
The role of Nr2e3 in retinal regeneration in zebrafish: Implications for therapeutic strategies in retinal degenerative diseases
- 29 Savannah Lane**
Tracking Inflammation in the gastrointestinal tract of IL10^{-/-} mice
- 30 Madison Martinez**
Identifying neuronal ensembles for acute and chronic exposure to cocaine in rats using a FosTRAP method.
- 31 Mary Merheb**
Role of M1BP and insulation in fly dosage compensation
- 32 Mathew Moua**
Comparing the chronic and acute withdrawal effects of 3,4-methylenedioxymethamphetamine in male and female rodent models
- 33 Olawale Osinowo**
The search for small molecules inhibitors of Dengue RdRP
- 34 David Patrascu**
Longitudinal analysis of kidney damage in a mouse model of Type-1 diabetes
- 35 Thea Patrascu**
Characterization of a cell line expressing renin and pro-renin
- 36 Maddy Powers**
Synthesizing Anabaenopeptins for characterization using homophenylalanine to increase access for health and environmental monitoring
- 37 Eshal Sameer**
Role of the lncRNA CASC15 in vascular senescence and disease

- 38 Shantala Uzategui**
Examining potential differences in body dissatisfaction between heterosexual women and sexual minority women
- 39 Kashvi Vasudeva**
Methionine uptake via Mup1 regulates lipid droplet formation and growth in yeast
- 40 Gabriel Zeldes**
Pterostilbene pre-treatment does not ameliorate MDMA-induced serotonin depletion in Dorsal Hippocampus in rats

Poster #	Poster Presentations
PHYSICAL SCIENCES	
41	Valerie Akrawi Protein based lanthanide capture from coal fly ash
42	Arensa Fejzulla Catalytic approach to high surface area porous aromatic frameworks
43	Kelley Graham Kinematic distributions of dark photons and their decay to muon pairs in simulations of dark sector models for the CMS experiment
44	Devavarth Sureshkumar Culturing primary hepatocytes in glycosaminoglycan-based capsules: Using differences in urea and albumin production to explore changes in hepatic function
45	Singh Veer Synthesis of Anabaenopeptins using a scalable method: Applications of organic chemistry
46	Andrew Yaldo Experimental determination of pKa values of canonical and analogue nucleosides

Oral Paper Presentations – Hilberry A

ARTS & HUMANITIES

Jakira Ahmed

Beyond the binary: Gender and space in the art of Helen McNicoll (1879-1915)

Rayne Morales

Performing as the man: Body politics and gender performativity in medieval French romances

Amanda Stockton

History by the bottle: Prohibition-era beverage bottles from the gass saloon, Hamtramck, Michigan

Oral Paper Presentations – Hilberry B

BEHAVIORAL & SOCIAL SCIENCES

Shawzub Raza

Swipe right or left: Physical and informational attractiveness in online dating

Noah Crawford

Navigating parental involvement: How demographics have reshaped educational engagement

Oral Paper Presentations – Hilberry C

ENGINEERING, LIFE SCIENCES, AND PHYSICAL SCIENCES

Rune Isherwood

Creation of a hydrogel with similar biomechanical properties as human brain

Inji Ismaeil

Early detection of Type 1 Diabetes (T1D): The T1Detect Pilot Screening Program at Wayne Pediatrics

Mathew Maliskey

New materials for the thermally controlled decomposition of nitric oxide releasing molecules

Archana Matheswaran

Characterization and optimization of disulfiram as an antifungal agent

Notes

**Thank you to all the presenters for sharing your projects
with the Wayne State community, and to the faculty
mentors for their guidance and support!**

To learn more about UROP and award opportunities, please contact:

Lauren Bonilla

Program Manager, Undergraduate Research & High Impact Learning

urop@wayne.edu

www.urop.wayne.edu



WAYNE STATE
Undergraduate Research
Opportunities Program