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# Welcome

Dear students, faculty, and staff,

Welcome to ClarkFEST Fall '24! Each semester, this event provides us the opportunity to celebrate student work, faculty mentorship, and donor support of the university. It reminds us of what makes Clark special: providing students with a liberal arts education in the context of a robust research institution.

This is a pivotal time in Clark's history, and we are looking to the future through several exciting initiatives reflected in ClarkFEST. The new Clark Core affirms our commitment to a well-rounded education and encourages students to build a diverse toolkit of critical skills. The Clark Experience seeks to provide all students with equal access to the best of what we have to offer and ensure that those experiences contribute meaningfully to the development of a personal *and* professional identity. Finally, we introduce the Honors Experience, which embodies the intellectual curiosity and love of learning so present on our campus.

We invite you to visit our exhibition of posters and creative works, interactive media exhibits, and paper presentations spread across Tilton Hall, Grace and Lurie Conference Rooms, and the Center for Media Arts, Computing, and Design. Ask questions, connect with colleagues, and learn from the students, as we continue the Clark tradition of challenging convention and changing our world.

Laurie Ross, Ph.D.

Interim Associate Provost and Dean of the College

Steven Moon, Ph.D.

Director, Undergraduate Research and Fellowships Advising



## General Information

### **Registration**

Presenters can check in at the entrance of Tilton Hall on the second floor of the Higgins University Center, and/or at the entrance to CMACD.

### **Interactive Media Exhibits**

Interactive Media exhibits are located in the lobby of the Center for Media Arts, Computing, and Design. This is a participatory showcase, so stop by and play student-designed games!

### **Poster and Creative Works Exhibition**

Our exhibition is spread across Tilton Hall and CMACD and will be open from 1:30-4:30 PM. Please note that posters and creative works are listed by the student's declared major *or* the major area within which the poster was completed (in the case of classes or groups). Some posters may reflect students' research expertise and experience in other related areas of study.

### **Panels & Roundtables**

Oral presentations will take place in Grace and Lurie conference rooms throughout the afternoon.

## Panels and Individual Presentations

- 1:30 – 2:30  
Grace Political Science Internships – Reflection and Discussion  
**Tanvi Sengupta '26, Madison Dircks '26, Lila Guzowski '26, Zabrina Richards '25, Brooke Langis '25, Grace Foose '26**  
Michael Butler
- 1:30 – 2:00  
Lurie “Skeletons in the Closet: Issues of Labeling Relative to Ethical Collecting and Display of Islamic, West Asian, and North African Art in the Modern American Cultural Institution”  
**Abigail Hart '25**  
Naomi Pitamber  
*Steinbrecher Fellowship, Sara Bickman Music and Arts Summer Internship Award*
- 2:15 – 2:45  
Lurie “Traditional Ecological Knowledge, Restoration, and Soundscapes in Two Communities in Ecuador”  
**Zachary Baranowski '25**  
Rinku Roy Chowdhury  
{Terrasa} Ulm
- 2:45 – 3:45  
Grace Food, Migration and Belonging in Thessaloniki, Greece: Visual Storytelling Projects by Study Abroad Summer Program Students  
**Ashley Gast '27, Brenner Yellis '25, Angela Ruan '25**  
Anita Fábos
- 3:00 – 3:30  
Lurie “‘The power to determine their own destinies’: Black Power in Denver, Colorado.”  
**Kai Moore '26**  
Ousmane Power-Greene
- 3:30 – 4:00  
Lurie “Spectre Quest, From Paper to Screen”  
**Laurel Flowers '25**  
Soren Sorenson  
*Sara Bickman Music and Arts Summer Internship Award*

## Interactive Media Exhibits

Located in CMACD Lobby

“DRIFTED: A Mystery and Horror MFA  
Studio Project”

**Sammi Bosque** '24, '25

**Stella Chincilla** '27

**Lauren Gallagher** '26

**Darby Hartford** '24

**Justin Smith** '27

**Lorelei Thornton** '27

**Ronan Wolf** '27

{Terrasa} Ulm

Scott Niemi

“Menticide”

**Milo Justice** '26 (*LEEP Fellowship*)

**John De-Andrade** '26

**Maxwell Derienze** '27

**Jack Hughes** '25

**Anthony Panasenکو** '26

**Charlie Schmerzler** '26

**Will Titus** '26

**Lucian Terhorst** '27

{Terrasa} Ulm

“Unsent”

**Alexander Supron** '25 (*Tamara Gay Walker '75 Memorial Award*)

**Maya Patten** '27

**Brien Rondeau** '25

{Terrasa} Ulm

## Creative Works

Located in CMACD

Ongoing

“The Embrace Project”

**Wynne Dromey** '25

Kirstin Lamb

*Sara Bickman Music and Arts Summer Internship Award*

2:30

MACD 007

“Cabin in the Woods in the Studio”

**Zeke Fairley** '25

Soren Sorenson

*Steinbrecher Fellowship, Sara Bickman Music and Arts Summer Internship Award*

## Poster Presentations

Located in Tilton Hall

### Biochemistry and Molecular Biology

“Monitoring Structural Changes in the Oncoprotein Gankyrin Targeted by Small Molecule Inhibitors”

**Siobhan Connolly '26**

Donald Spratt

*Penn Research Award*

“Applying Prime Editing CRISPR Technique to Correct G94A Mutation in SOD1 ALS”

**Jacob Eisenberg '25**

Néva Meyer

*Sterling Summer Research Fellowship*

“Simulations of APOE”

**Anthony Furnelli '26**

Noel Lazo

*Beavers Summer Research Fellowship*

“Role of Wnt/Beta-Catenin signaling during neurogenesis in the bilaterian annelid *Capitella teleta*”

**Krishna Gajjar '25**

Néva Meyer

*Beavers Summer Research Fellowship*

“Effects of gut hyperpermeability, early life stress, and ASD fecal microbiota transfer on social behavior in zonulin transgenic mice”

**Krishna Gajjar '25**

Néva Meyer

Marcy Kingsbury (Harvard Medical School)

*Steinbrecher Fellowship*

“Plasmin-Dependent Degradation of ApoE4 in Presence of A $\beta$ (1-42)”

**Riley Garzella '26** (*Beavers Summer Research Fellowship*)

**Karah Grimes '26** (*Penn Research Award*)

Noel Lazo

“Modulation of the Plasmin-dependent Degradation of ApoE by Rosmarinic Acid”

**Karah Grimes '26**

**Riley Garzella '26**

Noel Lazo

“Understanding the Genomic Diversity of Microfungal Species”

**Jovana Jonic '26**

Javier Tabima Restrepo

*Penn Research Award*

“NOS Expression in Diatoms; Who, When, Why, How?”

**Gaia Lenox '26** (*Penn Research Award*)

**Lauren Merrikin '26** (*M. Margret Comer Memorial Award*)

Deborah Robertson

“Optimization of a FRET based kinetic assay to measure E2-E3 transthiolation”

**William Luschen-Miskovsky '25**

Donald Spratt

*Maurine H. Milburn Research Fellowship*

“A Bifunctional Molecule Inhibiting Amyloid-beta Aggregation”

**Ian MacCormack '25**

Arundhati Nag

*Donald J. Nelson Research Fellowship*

“Microbiome abundance and plant growth”

**Ryan Ribeiro Lopes Saboia '26**

Chandra Jack

*Summer Undergraduate Research Experience Award*

“Macrocyclic Peptidomimetic Scaffolds for Sensing of NADH”

**Luke Saia '25**

Arundhati Nag

Samir Das

*Maurine H. Milburn Research Fellowship*

“Investigating Interactions Between Specific Phosphopeptide Motifs Binding to FHA Domains in Double Stranded Break Repair Proteins”

**Marina Sako '26**

Donald Spratt

*James ('39) and Ada Bickman Summer Science Fellowship*

“Generating New Insertions of a PLC-Gamma Transgene in Drosophila”

**Nicole Steele '27**

**Lily Vincent '27**

Justin Thackeray

*Penn Research Award*

## Biology

“Plant community and environmental factors associated with Atlantic White Cedars in restored cranberry bogs”

**Elise Beier '25**

**Otto Gray '24**

**Noah Hunt '25**

**Kalon Shepard '25**

**William Smith '24**

**Camille Sterling '25**

**Evan Sucof '25**

**Saffi Walker-Smith '24**

**Jenna Ward '24**

**Michala Zien '24**

Elizabeth Bone

“The Importance of Zoo Education”

**Hannah Gilvarg '26**

Jacqueline Dresch

“Plant Microbiome and Stress”

**Wiktoria Golemo '26**

Chandra Jack

*Summer Undergraduate Research Experience Award*

“Exploring Horizontal Gene Transfer: Cogrowths of *Basidiobolus* and *Pglo*”

**Carmella Martone '26**

Javier Tabima Restrepo

*Penn Research Award*

“Understanding Manatee Conservation Efforts: A Summer at the Caribbean Manatee Conservation Center”

**Sofia Moncayo '27**

Deborah Robertson

*Barth Internship Award*

“Predator Escape Responses in Red-Backed Salamanders (*Plethodon Cincereus*)”

**Owen Nasi '25**

Philip Bergmann

*Summer Undergraduate Research Experience Award*

“Characterizing the Structure of the UBE3B Extended HECT Domain”

**Anna Tinklenberg '25**

Donald Spratt

*Edwin A. Weiller Summer Science Fellowship*

“Unnatural Amino Acid Incorporation”  
**Antonia Tollkuci ‘25**  
Arundhati Nag  
*Edwin A. Weiller Summer Science Fellowship*

## Chemistry

“The Impact of Physical and Chemical Modifications on Bricks”  
**Ethel Agyepong ‘27**  
Julio D’Arcy  
*Frederik M and Alice Murdock Research Fund*

“Mechanisms of polymerization”  
**Katelynn Humphrey ‘25**  
Julio D’Arcy  
*James (’39) and Ada Bickman Summer Science Fellowship*

“Rust Assisted Vapor Phase Polymerization”  
**Mason Kaufmann ‘25**  
Julio D’Arcy  
*Edwin A. Weiller Summer Science Fellowship*

## Computer Science

“Shortification Project”  
**Torin Anderson ‘27**  
Shuo Niu  
*LEEP Fellowship*

“Pop gen of L tig”  
**Zach Kratz ‘25**  
David Hibbett  
*Summer Undergraduate Research Experience Award*

## Data Science

“Coffee Industry in Italy”  
**Yajaira Bonilla ‘26**  
Jacqueline Geoghegan

“Bertrand Competition Model”  
**Minh Ngo ‘25**  
*Gary (’81) and Susan Labovich Summer Research Fellowship*

## Education

“Choices and Complaints: A Study on the Correlation Between Autonomy and Complaint Behavior”

**Ellie Hanson '25**

Katerine Bielaczyc

## English

How Do Former “At-Risk” Students Narrate Schooling Experiences? What Can Educators Learn From Them?

**Zayda Waters '25**

Jie Park

*Gary ('81) and Susan Labovich Summer Research Fellowship*

## Geography

“Juvenile Tree Survivorship and the Greening the Gateway Cities Program in Chelsea and Holyoke, Massachusetts”

**Aria Cranford '26**

**Juju Kaiser '26**

**Mara Litten '26**

John Rogan

Deborah Martin

*HERO*

“Perceptions of Tree Planting and Tree Stewardship in Holyoke and Chelsea, Massachusetts”

**Espi Garschina-Bobrow '25**

**Jack Keane '25**

**Kalon Shepard '25**

John Rogan

Deborah Martin

*HERO*

“Understanding the relationship between fuel management techniques and forest disturbances in the Sierra Nevada Mountain Range, CA, USA.”

**Louis Rosenberg '26**

Dominik Kulakowski

*Peter J. Condakes Summer Research Fellowship Award*

## Physics

“Resistivity Measurements of Charge Density Wave Compounds”

**Phoenix Beveridge '26**

Michael Boyer

*Erickson Research Award*

“Experimental Condition Analysis on Lumbriculus Variegatus”

**Simon Bissitt '26**

Arshad Kudrolli

*Erickson Research Award*

“Magnetic bacteria: A new way to move”

**Vladisav Kelin '27** (*Erickson Research Award*)

**Nina Radchenko-Hannafin '26**

Alexander Petroff

“Flipping the Switch: Implementing a Thyristor for Pulse Field Triggering”

**Sydney Lyons '26**

Charles Agosta

*Erickson Research Award*

“The Search for Atomic Resolution: Electrochemical Tip Etching for use in Scanning Tunneling Microscopes”

**Muhammad Suhayb Malik '27** (*Erickson Research Award*)

**Alice Egorova '27**

Michael Boyer

“Astrophotography with Clark’s Optical Telescopes and Equipment”

**Rosa Newshore '26**

Charles Agosta

## Psychology

“Study Abroad in Perugia, Italy “

**Shaala Cherenfant '25**

**Mary Trenh '26**

Jacqueline Geoghegan

Mary-Ellen Boyle

“Essentialist Thinking and Education”

**Rachel Lin '25**

Alena Esposito

“May Leir Term: Farm to Table”

**Mary Trenh ‘26**

**Shaala Cherenfant ‘25**

Jacqueline Geoghegan

## Research Awards

Each year, Clark University gives an estimated \$250,000 in funding to undergraduate students for research experiences on campus, across the US, and abroad. Many of these awards are generously funded by alumni and their families, and advance students' co-curricular education through applied and experiential learning.

### **Albert, Norma, and Howard Geller '77 Endowed Research Awards**

*These awards support student-initiated research projects that advance our understanding of natural resource and environmental sustainability and develop practical improvements that can move society towards more sustainable outcomes.*

### **Atupem '82 International Internship Award**

*In memory of Gary S. Poor, supporting internships for student members of the Clark Global Scholars program from Ghana or another African nation.*

### **Barth Internship Award**

*Funded by the Theodore Barth Foundation, providing support for unpaid internships at non-profits.*

### **ClarkCONNECT Summer Internship Program**

*Provides support for students to complete an unpaid or low-paying summer internship with a Clark alum mentor.*

### **Edwin A. Weiller Summer Science Fellowship**

*In memory of Edwin A. Weiller, III, given by Bruce H. Weiller ('81), Shari B.S. Weiller, and family*

### **Erickson Research Award**

*Funds summer research for students majoring in Math or Physics.*

### **Goulandris Summer Internship Award**

*Funds a summer internship in environmental sciences.*

### **Harrison Mackler '07 and Friends Summer Research Award**

*Supports summer research for rising juniors or seniors in biology or biochemistry.*

### **Harrington Fellowship Program**

*Supported by the Francis A. Harrington Public Affairs Fund, established 1963 for politics & policy research.*

### **History Department Internship Program**

*Funds summer internships in public history or history fields beyond the academy.*

### **Human-Environment Regional Observatory (HERO) Program**

*Funds undergraduate-graduate-faculty collaborative research on the human-environment relationship in Massachusetts*

**James ('39) and Ada Bickman Summer Science Research Internship**

*Funds summer research in chemistry.*

**June Patron '65 Endowed Internship Award**

*Funds a summer internship for political science students in Washington, D.C.*

**LEEP Fellows Program**

*Funds projects or research during the summer that engages with the community outside of Clark, with a focus on problem-based inquiry and the application of course materials to real-world experiences.*

**Lois & Robert Green Summer Internship Award**

*Supports a summer internship as an assistant to a city official.*

**Maurine H. Milburn Research Fellowship**

*Established by Janice Culpepper ('77) in honor of Maurine Milburn to support student research in Chemistry, Biology, and Physics*

**Penn Research Award**

*Established by Erica Penn ('84) and Kevin Penn, supporting summer research for women in STEM.*

**Peter J. Condakes '78 Research Fellowship**

*Funds undergraduate summer research in geography and environmental studies and science.*

**Plave Family Research Fellowship**

*Established by Lee Plave ('80) and family to fund research in neuroscience related to Amyotrophic Lateral Sclerosis (ALS)*

**Sara Bickman Music and Arts Summer Internship Award**

*The Sara Bickman Music and Arts Summer Internship Award was established by James Bickman, a member of the class of 1939, and his sons Martin and David Bickman, in memory of his wife and their mother, Sara Bickman. The fund is used to support summer internships for undergraduate students majoring in the visual and performing arts. Awards are made to students in their junior year for projects to be conducted between their junior and senior years.*

**Steinbrecher Fellowship Program**

*Established in memory of David C. Steinbrecher ('81) by family and friends in 2005*

**Tamara Gay Walker '75 Award Memorial Fund**

*Established in memory of Tamara Gay Walker by her husband Dennis Dimitri '75 to fund student study in languages, comparative literatures, and the arts.*

## Thank You

ClarkFEST Fall '24 is sponsored by the Dean of the College Office and organized by the Office of Undergraduate Research & Fellowships Advising.

We thank the student presenters for their imagination, passion, and drive that make ClarkFEST such an exciting event. We thank the faculty and staff mentors who provide careful guidance to all Clark students throughout their educational journey.

Finally, we thank the faculty and staff across the university that have made this event happen:

### **ATS**

Dorothy Erickson

### **Dining Services**

Kim McElroy

### **Provost Office**

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### **Becker School of Design & Technology**

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