

**SUMMER
UNDERGRADUATE
RESEARCH
FORUM**

AUGUST 1, 2025

WELCOME TO THE LSU SUMMER UNDERGRADUATE RESEARCH FORUM 2025

The Summer Undergraduate Research Forum showcases the numerous undergraduate students who have engaged in summer research projects this year at institutions throughout the LSU System.

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11-13	Lightning Talks
14	Keynote Speaker

ABOUT THE COVER PHOTO

Location: Grand Isle, LA

Photographer: Brooke Chouest

Brooke Chouest, born and based in southern Louisiana, is a documentary photographer best known for her work exploring and preserving the unique culture and threatened coastline of the United States' Gulf region. Her work often focuses on the fight of these communities combating environmental and emotional hardships due to economical and climate crises.

Brooke received a Bachelor of Fine Arts in Photography from LSU in 2024, where she was Co-President of Photo Club, a member of the Gulf Scholars Program, a Distinguished Undergraduate Research awardee, and undergraduate Dean's Medal Recipient for the School of Art. You can find more of her work on her website: brookechouest.com.

SCHEDULE OF EVENTS

All locations in Patrick F. Taylor Hall

<u>Time</u>	<u>Event</u>	<u>Location</u>
8:00 a.m. - 9:00 a.m.	Check-in & set-up	Cambre Atrium
9:00 a.m. - 9:10 a.m.	Welcome Remarks	Cambre Atrium
9:10 a.m. - 11:00 a.m.	Poster and Visual Display Session	Cambre Atrium
11:00 a.m. - 11:30 a.m.	Group Photo	Capstone Gallery
11:30 a.m. - 12:30 p.m.	Presenter Lunch Break	Capstone Gallery
12:30 p.m. - 1:30 p.m.	Panel: Pursuing Graduate Education	Room 1100
1:30 p.m. - 2:30 p.m.	Lightning Talks	Room 1100
2:30 p.m. - 3:00 p.m.	Keynote Speech <i>Speaker: Derick Ostrenko</i>	Room 1100
3:00 p.m. - 3:30 p.m.	Poster/display take down	Cambre Atrium

ABOUT THE OFFICE OF UNDERGRADUATE RESEARCH

The LSU Office of Undergraduate Research, which hosts the Summer Undergraduate Research Forum, promotes and supports student participation in faculty mentored research and creative activities. For students looking to become involved in undergraduate research, we offer assistance in finding a mentor, events to learn more about undergraduate research, and opportunities to talk to research students about their experiences in any major. For students who are currently involved in undergraduate research, we offer funding for research and travel, workshops, and the Distinguished Undergraduate Researcher Program.

To learn more about the Office of Undergraduate Research, visit lsu.edu/our

GUEST WIFI

Wi-Fi Name: **lsuguest**
Username: **SURF2025**
Password: **695807**

PROGRAM QR CODE

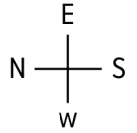
To view abstracts please visit the QR code



SPECIAL THANKS

- Dr. Antonieta Guerrero-Plata's Lab
- CERP Summer Scholars program
- Dr. Daniels-Race's Research Group - Nano Electronic Structures & Technology (NEST)
 - LAMDA Summer Fellowship Program; CISIA REU
 - LBRN Summer Research Program
 - LSU Museum of Art
 - LSU OUR Project Grant Recipients
 - LSU Special Collections
 - McNair Research Scholars
 - MissDelta REU
 - Dr. Nathaniel Gilbert's Lab
 - NSF iPACERS Program
 - Physics and Astronomy REU
 - SMART Polymers
 - Dr. Totaro's Lab
 - Veterinary Research Summer Scholars Program

PATRICK F. TAYLOR HALL FIRST FLOOR



Cambre Atrium
9:10 - 11:00 am Poster/Visual Display session



Auditorium room 1100
12:30 - 1:30 pm Panel
1:30 - 2:30 pm Lightning Talks
2:30 - 3:00 pm Keynote Speech



Capstone Gallery Stairs
11:00 - 11:30 am Group Photo
11:30 am - 12:30 pm Lunch
Presenters & Paid Guests Only

POSTERS AND VISUAL DISPLAYS

Student Presenter, co-authors "Title"

School

Mentor

DR. ANTONIETA GUERRERO-PLATA'S LAB

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|---|--|----------------------------|--------------------------|
| 1 | Melanie Vargas , Ivan Martinez-Espinoza, Pius Babawale & Antonieta Guerreo-Plata "Function of Toll-like Receptor 8 [TLR8] within Respiratory Syncytial Virus [RSV] Infection" | Louisiana State University | Antonieta Guerrero-Plata |
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CERP SUMMER SCHOLARS

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| 2 | A'Maya Freeman , Tamera Jones, Supuni Dhameera Silva & Zakiya S Wilson-Kennedy "Understanding Career Decisions of First Year Experiences of STEM Majors" | Louisiana State University | Zakiya Wilson-Kennedy |
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DR. DANIELS-RACE'S RESEARCH GROUP

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|---|--|----------------------------|--------------------|
| 3 | Alcina Costa & Grant Strohmeyer , Kareem Elseifi, Christopher O'Loughlin & Theda Daniels-Race "Fabrication, Testing, and Proof-Of-Concept for Quasi-Solid-State Zeolite Proton Battery Phenomena" | Louisiana State University | Theda Daniels-Race |
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LOUISIANA BIOMEDICAL RESEARCH NETWORK - REU

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|----|---|--|---------------------------|
| 4 | Sheldon Brown & Christopher Bolden "Targeting SorLA to Inhibit Glioblastoma Invasion and Enhance Therapeutic Efficacy" | Xavier University of Louisiana | Christopher Bolden |
| 5 | Taylor Burket & Srinivas Garlapati "Role of Histone Modifications in Antigenic Variation in <i>Giardia lamblia</i> " | University of Louisiana at Monroe | Srinivas Garlapati |
| 6 | Nya Burks & Pradip Panta "Understanding the Role of the PHB/Polyp Channel in Colistin-Induced Calcium Mediated Bacterial Competence" | Southeastern Louisiana University | Pradip Panta |
| 7 | Ahmed Ghazawneh & Henry Nkabyo "Synthesis, Characterization, and Biological Evaluation of Substituted Acylthiourea and Their Transition Metal Complexes" | Louisiana State University, Shreveport | Henry Nkabyo |
| 8 | Brooke Horridge & Rui Lu "SID-1, a Key Protein Involved in Systemic RNAi, Functions as a Pro-viral Factor in <i>C. elegans</i> " | University of New Orleans | Rui Lu |
| 9 | Nasrine Ningbinnin , Sarah Bergeron, Chris Bonvillain & John Doucet "Genomics of Crawfish Species Native to Louisiana River Basins" | Nicholls State University | John Doucet |
| 10 | Damjan Pavlovic , Ahana Sil, Udaysinh Rathod, Devesh Sarda, Christian Quinones, Deepak Kumbhare, Stanley Hoang & Subhajt Chakrabarty "Real-Time Tracking of Patients in Bed: Challenges of Occlusion and Temporal Metrics" | Louisiana Tech University | Subhajt Chakrabarty |
| 11 | Christen Woods & Jean-Christopher Chamcheu "Assessment of Antitumor Potentials of Novel β -Lactam-Carboxamide Scaffolds through Oncolytic Virus-Based Screening" | Southern University and A&M College | Jean-Christopher Chamcheu |
| 12 | Ella Yerger , Juan D. Otero, Camila M. Lamy, Hector A. Mujica & Allyn Schoeffler "Mutagenesis of Erythromycin Resistance Methyltransferase E [Erme] to Determine Erythromycin Resistance Specificity" | Loyola University New Orleans | Allyn Schoeffler |

POSTERS AND VISUAL DISPLAYS

LOUISIANA MATERIALS DESIGN ALLIANCE

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|----|--|----------------------------|--------------------|
| 13 | William Burgess , Quinton Moore, Angelina Jorgenson, Vipal Jain & Christopher Marvel "A Survey of Densification Rolling on Nanocrystalline Cu-Ta Alloys Synthesized via High-Energy Ball Milling" | Louisiana State University | Christopher Marvel |
| 15 | Samantha Murillo , Vipul Jain & Christopher Marvel "Development of Durable Coating Materials and Systems" | Louisiana State University | Christopher Marvel |

LSU OUR PROJECT GRANT RECIPIENTS

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|----|---|----------------------------|---------------------|
| 16 | Fahmina Ali , Tharindu T.D. Durage & Ezgi Ozcan "The Effects of Dietary Lipids on Gut Microbiome and Neuroinflammation" | Louisiana State University | Ezgi Ozcan |
| 17 | Jennifer Cagnolatti & Naohiro Kato "Optimization of Fucoxanthinol Production Using Michaelis-Menten Kinetics" | Louisiana State University | Naohiro Kato |
| 18 | Anna Hardgrove , Ignatius Semmes, Jorge A. Belgodere & Todd Monroe "3D Bioprinting a fGelMA Scaffold to Model Triple-Negative Breast Cancer" | Louisiana State University | Todd Monroe |
| 19 | Lilia Lopez Medina , Udyogi N. K. Conthagamage & Victor García-López "Synthesis of Compact Rotaxane Photoswitches to Study the Effect of Non-covalent Interactions on Photophysical Properties" | Louisiana State University | Victor García-López |
| 20 | Ally Miller & Willem van Boxtel "Detecting the Presence and Severity of Narrative Language Production Deficits in Aphasia Using EEG Recording during Spontaneous Speech" | Louisiana State University | Willem van Boxtel |
| 21 | Anh-Tu Nguyen , Emily Courtney & Naohiro Kato "Optimizing the Purification of Fucoxanthinol and Investigating Its Degradation" | Louisiana State University | Naohiro Kato |
| 22 | Gabriel Pacheco-Ethridge & Hunter Gilbert "Fusing Face, Voice, and Text: A Pipeline for Multimodal Dementia and Emotion Recognition" | Louisiana State University | Hunter Gilbert |
| 23 | Dylan Roussele , Todd Monroe, Jorge A. Belgodere & Ignatius Semmes "Design and Fabrication of 3D Printed Fully Enclosed Micro-Fluidic Devices Implementing a 'Stop-Tape-Go' Method for Organ-On-A-Chip Applications" | Louisiana State University | Todd Monroe |
| 24 | April Wang & Shaomian Yao "Isolation and Investigation of Extracellular Vesicles from Human Induced Pluripotent Stem Cells (hiPSCs) " | Louisiana State University | Shaomian Yao |

LSU MUSEUM OF ART SUMMER INTERN

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| 25 | Venecia Lee "The Trade and Research of Ivory Pieces for the LSU Museum of Art" | Louisiana State University | Michelle Schulte |
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POSTERS AND VISUAL DISPLAYS

RONALD E. MCNAIR RESEARCH SCHOLARS PROGRAM

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|----|--|----------------------------|---------------------|
| 26 | Leah Charles , Leo Barzi & Christopher M. Hill "Cortical Movement Preparation during Visuomotor Skill Learning and Retention in Anxiety Disorders" | Louisiana State University | Christopher M. Hill |
| 27 | Destiny Dugas , Ashley Zollicoffer, Aubree Corporandy & Alex S. Cohen "Engagement and Synchrony in Psychotherapy: The Impact of Racial/Ethnic and Gender Matching" | Louisiana State University | Alex Cohen |
| 28 | Yasmin Khan , Maia Brombart, Brianna Lilly, Grace Reynolds, Skyler Landry, Christopher Morrison & Paul Soto "Preference under Pressure: Differential Sex-Based Behavioral & Psychological Effects of Dietary Protein Restriction in Mice" | Louisiana State University | Paul Soto |
| 29 | Marleigh Morman , Carsyn Travis, TaoTao Ling & Fatima Rivas "Studies of the Natural Product Bakuchiol against Solid Tumor" | Louisiana State University | Fatima Rivas |
| 30 | Eseoghene Mukoro & Danielle J. Thomas "Social Impact Design for Self-Determination and Belonging in Adolescent Girls at the Gardere Initiative" | Louisiana State University | Danielle Thomas |
| 31 | Senora Rodgers , Ally Tindell, Kayla Diaz, George Griffin, Niya Mogheeth & Teairra Evans, "Breaking the Silence: How Sociocultural Factors Influence Family Conversations around Reproductive Health in College Aged Women" | Louisiana State University | Teairra Evans |
| 32 | Tymir Smith-Hartzog , & Teairra Z. Evans "Socioeconomic Status and Campus Engagement: Exploring Student Organization Involvement among Black Undergraduates" | Louisiana State University | Teairra Evans |
| 33 | Ramiyah Williams , Tom Tomshe, Raevan Hanan & Melissa Beck "From Practice to Performance: Can Prior Experience in Visual-Physical Disciplines Improve Spatial Reasoning?" | Louisiana State University | Melissa Beck |

MISSDELTA REU

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|----|---|-------------------------------------|-----------------|
| 34 | Elizabeth Blankenship , Kaitlyn R. Gooch, Madelyn T. Kurtz, Amaya A. Wanniarachchi & Carol Wilson "Analyzing Sedimentological Differences between Saline and Freshwater Marsh Platforms in Louisiana" | Louisiana State University | Carol Wilson |
| 35 | Lila Duarte , Cullen Cheramie, Omid Boushehri, Mackendy Ceragene, Reilly Corkran, Shabnam Mirheidarian & Traci Birch "State Problems, Local Solutions: Small Scale Restoration Projects in Plaquemines Parish" | Tulane University | Traci Birch |
| 36 | Cyra Ford & Xiaochen Zhao "Salinity Intrusion in the Lower Mississippi River Delta: Trends and Connections to River Flow and Drought Conditions" | Southern University and A&M College | Xiaochen Zhao |
| 37 | Wesley Rawlins & Guilio Mariotti "Same Flow, Less Mud? Exploring Hysteresis in the Lower Mississippi River" | University of Southern Mississippi | Guilio Mariotti |
| 38 | Alba Romero Martín , Emily Wei, Faith Walton, Sam Bentley, Jameson Woodall & D'metrie King "Spatial Variability in Marine Sediment Deposition during the Spring Flood Season on the Mississippi River Delta Front" | Universidad de Cádiz | Emily Wei |

NATHANIEL GILBERT'S LAB

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| 39 | Aryan Patel & Nathaniel Gilbert "Purification of M. Tross & O. Min Lipoxigenases" | Louisiana State University | Nathaniel Gilbert |
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POSTERS AND VISUAL DISPLAYS

NSF IPACERS PROGRAM

- 40 **Cooper King**, Alexander Lee, Nestor Alvarez & Kevin Hoffseth "3D Modeling Soybean Roots" Louisiana State University Kevin Hoffseth
- 41 **Thomas Knight**, Sandeep Gouli, Emmanuel Lacuerva, Francella Arce & Jong Hyun Ham "Effect of Drought Stress on Soybean Plant Development, Field Soil Chemistry, and Microbiome Structures under Greenhouse Conditions" Louisiana State University Jong Ham
- 42 **Michael Micinski**, Hayley Laidlaw, Tail Moon, JaeWook Chung, Kevin Brown & Changyoon Jeong "Comparative Analysis of Soybean Growing Practices on Soil Health and Crop Yield under Agricultural Management" Centenary College of Louisiana Changyoon Jeong

PHYSICS & ASTRONOMY - REU

- 43 **Autumn Baldridge**, Anthony Grant & Shane Stadler "Studying Properties of MnNi_{1-x}Ti_xGe" Episcopal High School Shane Stadler
- 44 **Rishabh Gala**, Darin C. Mumma & Alexis Mercenne "Lower Bounding the Ground State Energy of Carbon-12 via Dual VQE" Baton Rouge Magnet High School Alexis Mercenne
- 45 **Evelyn Bristol**, Ian Baum, Rahul Devarakonda, Chenglong You & Omar Magaña-Loaiza "Induced Coherence without Induced Emission Using Digital Micromirror Devices" American University Omar Magaña-Loaiza
- 46 **Andrew Imai** & Parampreet Singh "Qualitative Dynamics of the Loitering Bounce in Loop Quantum Cosmology" University of Notre Dame Parampreet Singh
- 47 **Garrett Latiolais**, & Jorge Otero Santos & Michela Negro "Deciphering Gamma-Ray Blazars' Duty Cycle to Inform Polarization Studies with the Future NASA Mission COSI" Louisiana State University Michela Negro
- 48 **Angelina Madonna**, Mari Strong & Gabriela González "Machine Learning Applied to Control Loop Systems for Advanced LIGO" Lycoming College Gabriela González
- 49 **Jace Pincombe** & Peter Diener "Toward BHNS Initial Data for the Numerical Relativity Code SPHINCS_BSSN" Weber State University Peter Diener
- 50 **Omari Price**, Erin M. Bernthold, Marz L. Newman, Alison L. Crisp & Matthew T. Penny "The Search for White Dwarf Stars Using the Multiband Imaging Survey for High Alpha Planets [MISHAPS]" Southern University and A&M College Matthew T. Penny
- 51 **Jack Rogers**, Catherine M. Deibel & Jeffrey C. Blackmon "Upgrades to the PIDC and SECAR Ionization Chamber Detectors" Ohio University Catherine M. Deibel
- 52 **Rebekah Slocum**, Tabata Ferreira & Gabriela González "Investigating the Origins of Transient Noise in LIGO Detectors" Louisiana State University Gabriela González
- 53 **Elliot Steffen**, Noah Thompson & Alexis Mercenne "Capturing Near-Exact Symmetries in Nuclear Physics Using Neural Networks" University of Indianapolis Mercenne
- 54 **Althaf Hussain Salavudeen**, Connor Klebrowski, Tejas Tyagi & Joyoni Dey "Predicting Diagnostic Transitions in Alzheimer's Using Tau PET Features and Machine Learning, with an Analysis of Age Related Effectiveness" North Carolina State University Joyoni Dey
- 55 **Aadi Singh, Ziang Zhuang**, Chenglong You & Omar Magana Loaza "Thermalization Gaps in Quantum Plasmonic Metacrystals" Baton Rouge Magnet High School Chenglong You
- 56 **Daniel Waters** & Thomas Kutter "Model Discrimination of Supernova Neutrino Emission by Neutrino Detection" East Tennessee State University Thomas Kutter
- 57 **David Yu**, Debasmitta Nandi & Gabriela González "On Shaky Grounds: A Study of the Effect of Winter Microseisms on Glitch Rates in LIGO's Third and Fourth Observing Runs" Louisiana Tech University Gabriela González

POSTERS AND VISUAL DISPLAYS

SMART POLYMER COMPOSITE MATERIALS AND STRUCTURES REU

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| 58 | Isaac Bare , Hannah Heinz & David Spivak "Exploring Depolymerization through Encap Molecules Added through Sonication" | Louisiana State University | David Spivak |
| 59 | Hunter Brown , Dominic Adrewie & John A. Pojman "Novel Persulfate Initiators and Preparatory Methods Thereof for Industrially Viable Frontal Polymerization" | Berea College | John Pojman |
| 60 | Ryan Coudurier , Anuja Thapa & Donghui Zhang "Synthesis, Characterization and Kinetic Studies of Tetra-Arm Polysarcosine for Drug Delivery" | Florida State University | Donghui Zhang |
| 61 | Peter Gingerich , Alejandro Ramirez, Titilayo Oluwole, Michael Dearman & Jimmy Lawrence "Structure/Property Relationships of Glass Transition Temperature in Bottlebrush Polymers" | Iowa State University | Jimmy Lawrence |
| 62 | Haley Harris , Jonathan Johnson & Genevieve Palardy "Thermal and Mechanical Characterization of VARI-Fabricated Glass Fiber-Reinforced TSMPs" | Louisiana State University | Genevieve Palardy |
| 63 | Lucas Magliaro Aburaya , Sulochana Ekanayaka Mudiyansele & Amy Xu "Characterizing the Effect of Cationic, Anionic and Non-Ionic Surfactants on the Conformation and Phase Behavior of Mixed Surfactant Micelles to Determine the Spreading Behavior of Micelle-Polymer Complexes" | University of Florida | Amy Xu |
| 64 | Kira Phillips , Siddarth Sriram, Ethan Blackwell & Kshitiz Upadhyay "Post-Curing Effects on the Structural and Mechanical Behavior of 3D-Printed Shape Memory Polymers" | Loyola University of New Orleans | Kshitiz Upadhyay |
| 65 | Havan Pleasant , Taibiao Zhoa & Amir Taimouri "Leveraging Large Language Models for Zero-Shot Time Series Forecasting of 2W-SMPs" | Louisiana State University | Mingxuan Sun |
| 66 | Jillian Porter , Stefanie Klisch, Tonmoy Debnath, Bruno Jakobi & Gerald J. Schneider "Detection of Nanoplastic Particles in Local Drinking Water Sources Using Dynamic Light Scattering" | The University of Southern Mississippi | Gerald J. Schneider |
| 67 | Brandon Roberts , Amir Teimouri & Guoqiang Li "3D Printing of Magnetic Particle Reinforced Smart Polymer Composite" | Rice University | Guoqiang Li |

TOTARO LAB

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| 68 | Abigail Savoy , Matthew Morgan, Todd Monroe & Nicholas Totaro "Will it Tear? Creating a Collegiate Athlete Cutting Mechanics Grading Process" | Louisiana State University | Nicholas Totaro |
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VETERINARY RESEARCH SUMMER SCHOLARS PROGRAM

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| 69 | Veronica Arbona-Walsh & Neoklis Apostolopoulos "Artificial Intelligence Model to Diagnose Ear Diseases in Companion Animals" | Louisiana State University | Neoklis Apostolopoulos |
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LIGHTNING TALKS

CERP SUMMER SCHOLARS

Whitney James, Tamera Jones, Supuni Dhameera Silva & Zakiya S Wilson-Kennedy "Building Community and Identity for First-Year Majors through a First Year Seminar" Louisiana State University Zakiya Wilson-Kennedy

DR. DANIELS-RACE'S RESEARCH GROUP

Alcina Costa, Grant Strohmeier, Kareem Elseifi, Christopher O'Loughlin & Theda Daniels-Race "Fabrication, Testing, and Proof-Of-Concept for Quasi-Solid-State Zeolite Proton Battery Phenomena" Louisiana State University Theda Daniels-Race

LOUISIANA MATERIALS DESIGN ALLIANCE

William Burgess, Quinton Moore, Angelina Jorgenson, Vipal Jain & Christopher Marvel "A Survey of Densification Rolling on Nanocrystalline Cu-Ta Alloys Synthesized via High-Energy Ball Milling" Louisiana State University Christopher Marvel

Samantha Murillo, Vipul Jain & Christopher Marvel "Development of Durable Coating Materials and Systems" Louisiana State University Christopher Marvel

LOUISIANA BIOMEDICAL RESEARCH NETWORK - REU

Sheldon Brown & Christopher Bolden "Targeting SorLA to Inhibit Glioblastoma Invasion and Enhance Therapeutic Efficacy" Xavier University of Louisiana Christopher Bolden

Taylor Burket & Srinivas Garlapati "Role of Histone Modifications in Antigenic Variation in *Giardia lamblia*" University of Louisiana at Monroe Srinivas Garlapati

Nya Burks & Pradip Panta "Understanding the Role of the PHB/ Polyp Channel in Colistin-Induced Calcium Mediated Bacterial Competence" Southeastern Louisiana University Pradip Panta

Christen Woods & Jean-Christopher Chamcheu "Assessment of Antitumor Potentials of Novel β -Lactam-Carboxamide Scaffolds through Oncolytic Virus-Based Screening" Southern University and A&M College Jean-Christopher Chamcheu

LSU OUR PROJECT GRANT RECIPIENTS

Fahmina Ali, Tharindu T.D. Durage & Ezgi Ozcan "The Effects of Dietary Lipids on Gut Microbiome and Neuroinflammation" Louisiana State University Ezgi Ozcan

Madelyn Baumbouree & Agostino Buono "Assessing the Short-Term Impact of Gonadectomy on Canine Gut Microbiota: A Longitudinal Evaluation of the Metabolic and Microbial Adaptations" Louisiana State University Agostino Buono

Corey Keller "La Pentecôte: Maurice Denis's Response to a Fractured France in the Église du Saint-Esprit" Louisiana State University Darius Spieth

Chloe Trevino & Anas Mahmoud "She's Nice... But" Louisiana State University Anas Mahmoud

LIGHTNING TALKS

LSU SPECIAL COLLECTIONS SUMMER PROJECTS

Ella Blandino & Zachary Tompkins "LSU and the Artworld"	Louisiana State University	Zachary Tompkins
Emily Bracher & Zachary Tompkins "Voices: Student Journalism and Free Expression at LSU Over 100 Years "	Louisiana State University	Zachary Tompkins
Nsreen Saleh "Reimagining Education: Oral History, Identity, and Resistance in Louisiana"	Louisiana State University	Jennifer Cramer

RONALD E. MCNAIR RESEARCH SCHOLARS PROGRAM

Gabriela Juarez & Nicole Bauer "Gender Influencers: Understanding Social Media's Impact on the Spread of Traditional Social Role Ideologies"	Louisiana State University	Nicole Bauer
Talyn Thomas , Tom Tomshe, Raevan Hanan & Melissa Beck "Visual Complexity and Attention in Mental Rotation Performance"	Louisiana State University	Melissa Beck

MISSDELTA REU

Cyra Ford & Xiaochen Zhao "Salinity Intrusion in the Lower Mississippi River Delta: Trends and Connections to River Flow and Drought Conditions"	Southern University and A&M College	Xiaochen Zhao
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NSF IPACERS PROGRAM

Thomas Knight , Sandeep Gouli, Emmanuel Lacuerva, Francella Arce & Jong Hyun Ham "Effect of Drought Stress on Soybean Plant Development, Field Soil Chemistry, and Microbiome Structures under Greenhouse Conditions"	Louisiana State University	Jong Ham
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PHYSICS & ASTRONOMY - REU

Autumn Baldrige , Anthony Grant & Shane Stadler "Studying Properties of MnNi _{1-x} Ti _x Ge"	Episcopal High School	Shane Stadler
Rishabh Gala , Darin C. Mumma & Alexis Mercenne "Lower Bounding the Ground State Energy of Carbon-12 via Dual VQE"	Baton Rouge Magnet High School	Alexis Mercenne
Jace Pincombe & Peter Diener "Toward BHNS Initial Data for the Numerical Relativity Code SPHINCS_BSSN"	Weber State University	Peter Diener
Althaf Hussain Salavudeen , Connor Klebrowski, Tejas Tyagi & Joyoni Dey "Predicting Diagnostic Transitions in Alzheimer's Using Tau PET Features and Machine Learning, with an Analysis of Age Related Effectiveness"	North Carolina State University	Joyoni Dey
Aadi Singh, Ziang Zhuang , Chenglong You & Omar Magana Loaza "Thermalization Gaps in Quantum Plasmonic Metacrystals"	Baton Rouge Magnet High School	Chenglong You

LIGHTNING TALKS

SMART POLYMER COMPOSITE MATERIALS AND STRUCTURES REU

Hunter Brown, Dominic Adrewie & John A. Pojman "Novel Persulfate Initiators and Preparatory Methods Thereof for Industrially Viable Frontal Polymerization"

Berea College

John Pojman

Ryan Coudurier, Anuja Thapa & Donghui Zhang "Synthesis, Characterization and Kinetic Studies of Tetra-Arm Polysarcosine for Drug Delivery"

Florida State University

Donghui Zhang

VETERINARY RESEARCH SUMMER SCHOLARS PROGRAM

Veronica Arbona-Walsh & Neoklis Apostolopoulos "Artificial Intelligence Model to Diagnose Ear Diseases in Companion Animals"

Louisiana State University

Neoklis
Apostolopoulos

KEYNOTE SPEAKER

Derick Ostrenko

Join us at 2:30 p.m. in Room 1100, Patrick F. Taylor Hall to hear Professor Ostrenko's keynote speech.



About Derick Ostrenko

Frederick “Derick” Ostrenko is a media artist, researcher, and educator whose work explores the intersections of art, technology, and culture. He serves as an Associate Professor at Louisiana State University, holding a joint appointment in the Digital Art concentration at the School of Art and the Cultural Computing research group at the Center for Computation and Technology [CCT]. As the current area head for Digital Art, Derick teaches courses in animation, creative coding, 3D graphics, interactive art, and video production, guiding students through innovative, interdisciplinary workflows that bridge physical and virtual systems.

His artistic practice spans custom hardware and software, integrating interfaces such as mobile applications, brain waves, generative visualizations, video processing, game design, and virtual production to uncover hidden networks between people and technology. Derick’s research pushes the boundaries of immersive media, digital twins, and real-time systems, fostering new forms of expression and discovery. His work has been exhibited at venues including the International Symposium of Electronic Art, New York University, Buffalo Media Resources, the Archie Bray Foundation, the Polk Museum of Art, NWEAMO, and the Currents New Media Festival. A longtime active member of SIGGRAPH, Derick served for several years on the SIGGRAPH Digital Arts Community Committee, where he helped organize talks, panels, exhibitions, and year-long programming that connects global communities of artists and technologists. He has worked on successful grants from NASA, the National Science Foundation [NSF], and Louisiana Economic Development [LED], produced large-scale interactive art commissions, and curated exhibitions on digital art, including a sonic art exhibition for the New Interfaces for Musical Expression [NIME] conference. He holds an MFA in Digital+Media from the Rhode Island School of Design.

NOTES

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