



DISCOVER DAY [2021]



LSU's Undergraduate
Research & Creativity Symposium

APRIL 15-16, 2021

WELCOME TO LSU DISCOVER DAY 2021!

LSU Discover Day is a university-wide undergraduate symposium that provides a platform for students from all disciplines to share their research and creative projects. This event allows the LSU community a chance to publicize and reflect on undergraduate student success in discovery, creativity, and research.

ABOUT LSU DISCOVER

LSU Discover, a program under the LSU Office of Academic Affairs, promotes and supports undergraduate research and creative opportunities to students from all disciplines at LSU. With a focus on information literacy, original ideas, research methods, research ethics, and communication, the LSU Discover program strives to provide a supportive environment where all undergraduate students can engage in mentored research and creative endeavors.

To learn more about LSU Discover, visit lsu.edu/discover

LSU DISCOVER STAFF

Dr. Matt Lee, *Interim Director*

Sarah Ferstel, *Associate Director*

Victoria Burges, *Office Coordinator*

Lauren Verrett, *Graduate Assistant*

Darian McGehee, *Graduate Assistant*

Brittany Williams, *Student Worker*

Margaret DeLaney, *Student Worker*

DISCOVER DAY 2021

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| 17 | Art Presentations |
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| 18 | Brown Bag Lunch Panel |
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SCHEDULE OF EVENTS

All events are held virtually via Zoom.

THURSDAY, APRIL 15TH

| <u>Time</u> | <u>Event</u> |
|-----------------------|--|
| 5:00 p.m. - 6:00 p.m. | Welcome Remarks from Provost Stacia Haynie & Keynote Speech by LSU Associate Professor of English, Dr. Chris Barrett |
| 6:00 p.m. - 7:00 p.m. | Research & Scholarship Information Fair |

FRIDAY, APRIL 16TH

| <u>Time</u> | <u>Event</u> | <u>Session</u> | <u>Topics</u> |
|-------------------------|-------------------------|----------------|--|
| 9:00 a.m. - 11:00 a.m. | Poster Presentation | Morning | Science, Technology, Engineering, and Mathematics |
| 9:00 a.m. - 11:00 a.m. | Oral Presentations | Morning | Humanities, Education, Mass Comm, Business, and Social Sciences |
| 11:30 a.m. - 12:30 a.m. | Brown Bag Lunch Panel | | Pursuing a Career in Research: a panel discussion with faculty & researchers |
| 1:00 p.m. - 3:00 p.m. | Poster Presentations | Afternoon | Humanities, Education, Mass Comm, Business, and Social Sciences |
| 1:00 p.m. - 3:00 p.m. | Oral Presentations | Afternoon | Science, Technology, Engineering, and Mathematics |
| 3:00 p.m. - 5:00 p.m. | Arts Presentations | Late Afternoon | Visual and Performing Arts, Poetry Readings, and Film |
| 3:00 p.m. - 5:00 p.m. | Religious Studies Panel | Late Afternoon | Moderator: Dr.Kenny Smith |

POSTERS

KEY

A | University of Alabama

B | Baton Rouge Magnet High School

BC | Baton Rouge Community College

C | Cornell University

CL | Centenary College of Louisiana

D | Dillard University

M | Massachusetts Institute of Technology

P | Portland State University

S | Sam Houston State University

SL | Southeastern Louisiana University

T | The University of Texas at Austin

UA | University of Central Arkansas

UM | University of Maryland

UT | University of Tennessee

LM | University of Louisiana at Monroe

M | University of Mississippi

V | Virginia Tech

MORNING SESSION | 9 AM – 11 AM

AGRICULTURE

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|---|--|-----------------|
| Abigail Mechatto | The Relationship Between Deterrence and Toxicity of Plant Secondary Metabolites Against Fall Armyworms | Michael Stout |
| Peyton Mercola, Alexis Theriot, and Natalia Urrutia-Alvarez | An Analysis of Pandemic Panic Buying Motivators among College Students using Mind Genomics Cognitive Science | Erin McKinley |
| Michael Constans | Salinity Tolerances of Eastern Oysters, <i>Crassostrea virginica</i> , Bred from Native Louisiana Broodstock | Jerome La Peyre |
| Alexis Nguyen | A Unique Recombinase System for Improved Vaccine Production | Richard Cooper |
| Sydney Wiegand | Identifying College Students' Attitudes Towards Vegetables Using Mind Genomics | Louise Wicker |

COAST & ENVIRONMENT

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------|--|----------------------|
| Allison Benelli | Decomposition Rates of <i>Spartina alterniflora</i> (Smooth Cordgrass) in Natural and Created Marshes in Coastal Louisiana | Michael Polito |
| Victoria Rittell | Composition of Fish Gut Microbiomes along Coastal Louisiana | Jennifer Brum |
| Jeremy Thompson | Determining the effect of soil relative elevation, fertility, and hydroperiod on the aboveground biomass of black mangroves (<i>Avicennia germinans</i>) in Port Fourchon, LA. | Victor Rivera-Monroy |
| Vy Truong | Crisis in Colfax: a Qualitative Media Analysis of Resilience Themes in Rural Louisiana | Margaret Reams |

POSTERS

MORNING SESSION | 9 AM – 11 AM

ENGINEERING

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|--------------------|--|-------------------|
| Fidan Abdullayeva | Patient Resource Tracking | Laura Ikuma |
| Adam Bao | Mechanical properties of injectable scaffolds for enhanced wound healing | Philip Jung |
| Eli Barbin | On the Design of Buildings for Surviving Hurricanes: ASCE 7-16 Standard Provisions and Advanced Large-Scale Open-Jet Testing | Aly-Mousaad Aly |
| Alexis Booe | Biophysical Analysis of Algal Decision-making During Phototaxis in a Microfluidic Maze | Adam Melvin |
| Lizabeth Breaux | Multifactorial Optimization and Optogenetic Stimulation to Promote Schwann Cell Proliferation to Accelerate Axonal Repair | Philip Jung |
| Ryan Clancy | Large-scale Aerodynamic Testing for Low-rise Buildings | Aly-Mousaad Aly |
| Morgan Doyle | Mimicking Tumor Matrix Composition and Fiber Alignment in Vitro | Elizabeth Martin |
| Alejandra Ham | Characterization & Fiber Alignment of Subtype Specific Breast Cancer | Elizabeth Martin |
| Kara Liimatta | Effect of Inflammatory Cytokines on Endocrine Response in Estrogen Receptor Positive Breast Cancer | Elizabeth Martin |
| Ella Sheets | <i>In Situ</i> Generation of Hydroxyl Radicals using UV Light and TiO ₂ Photocatalysts on Quartz Felt | Kevin McPeak |
| Hongjie Zhu | Large-Scale Aerodynamic Testing for the Design of Glass and Cladding of High-Rise Buildings to Survive Hurricanes | Aly-Mousaad Aly |
| Jennafer Zimmerman | Lean Implementation in an Aquatic Cryopreservation Laboratory | Isabelina Nahmens |

HUMAN SCIENCES & EDUCATION

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------|---|---------------|
| Michelle Veillon | Cognitive-Motor Integration Deficits in Young Adults with Concussion History from Adolescence: Issues with Task Novelty or Ongoing Task Demand? | Marc Dalecki |

POSTERS

MORNING SESSION | 9 AM – 11 AM

SCIENCE

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------------------------|--|---------------------|
| Danial Abbas | Study of Yeast Alcohol Dehydrogenase Substrate Preference | Johnna Roose |
| Lizmari Alcantara Jimenez | Inhibition Studies of Pyrazole Derivates in <i>Drosophila Melanogaster</i> Alcohol Dehydrogenase | Johnna Roose |
| Jasmine Bledsoe | Revealing an Open Conformation of Human 5-Lipoxygenase | Marcia Newcomer |
| Chet Brazile | Comparison of Short- and Medium-Length Chain Alcohol Dehydrogenase Enzymes | Johnna Roose |
| Mallory Brignac | Product Inhibition of Alcohol Dehydrogenase Isolated From <i>Drosophila melanogaster</i> and Yeast | Johnna Roose |
| Emily Brown | Investigating the Origins of Facultative Heterotrophy in Cyanobacteria | David Vinyard |
| Brittany Collins | Synthesis and Characterization of a Nevirapine-Methyl Pheophorbide Conjugate | Graca Vicente |
| Kaitlin Couvillion | Developing a Map of Predator Call Perception in the Songbird Brain | Christine Lattin |
| Thomas Curry | Reversing the Regioselectivity of Indole Addition to Cyclic Unsymmetrical Oxyallyl Cations: Construction of Diaryl Quaternary Centers | Rendy Kartika |
| Kylie Domangue and Cassie Ohlmeyer | Nucleotides Vs. Amino Acids in Phylogenetics | Jeremy Brown |
| Evan Dore | Visual and Chemosensory Stimuli Escalate Agressive Male-Male Interactions in the African Cichild Fish, <i>Astatotilapia burtoni</i> | Karen Maruska |
| Jaimie Gallagher | White Blood Cell Proportions in Peripheral Blood and Organs of House Sparrows (<i>Passer domesticus</i>) During Experimental Malaria Inoculation | Christine Lattin |
| Megan Guilbeau | The Effect of $[Ca^{2+}]$ on Reducing the Impacts of Salt Stress in Plant Growth Using a Stress Sensitive Model, <i>Arabidopsis thaliana</i> and a Stress Adapted Model, <i>Schrenkiella parvula</i> | Maheshi Dassanayake |

POSTERS

MORNING SESSION | 9 AM – 11 AM

SCIENCE

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|--|---|------------------|
| Hiba Hasan and Emily O'Quin | Mixotrophic and Autotrophic Growth Suggest Varying Growth of <i>Fistulifera solaris</i> | Mindy McCallum |
| Alison Hecht | Development of GUMBOS Sensors for Detection and Discrimination of Biologically Relevant Small Molecules | Isiah Warner |
| Aaryana Jones | Potential Anticancer Therapeutic Agents Consisting of Abietane Natural Product Derivatives | Fatima Rivas |
| Dara Khosravi | Construction of E. coli Strain with the Deletion of the N-terminal Domain of Biotin Carboxyl Carrier Protein | Grover Waldrop |
| Lukas Kim | Development of a Table-read Three-body Potential in LAMMPS: Applications to Graphene-Oxide [GO] | Revati Kumar |
| Kenedi Lynch | Leucocytozoon Infection in Wild Turkeys (<i>Meleagris gallopavo</i>): a Cause for Population Decline in Louisiana? | Christine Lattin |
| Jack Menard | Efficient Synthesis of Fluorescent Polycyclic Alkaloid-like Natural Products | Fatima Rivas |
| Zoe Patton | Evaluation of Healing Properties of Magnetic Ionic Liquids, Poly [Ethylene-Co-Vinyl Acetate] Composites for Potential Use in Aerospace Applications | Isiah Warner |
| Alexander Paul-Torres | Calibration of the Super FGD Prototype with Cosmic Ray Muons | Martin Tzanov |
| Daniel Sentilles | Strategies towards Identification and Validation of Natural Products against Drug Resistant Leukemia | Fatima Rivas |
| Candance Smith | The Better Inhibitor | Johnna Roose |
| Zahra Vafaei Naeini | Different Light Intensities Significantly Affect the Growth and Fucoxanthin Concentration of the Diatom <i>Fistulifera solaris</i> | Carrie Barker |
| Ariel Viator and Elsa Arroyo BC | Identifying Freshwater Sponges Along with Creating a New Database | Mary Miller |
| Kendran Young UA | An Improved Estimation for the Binomial Probability Under Restricted Parameter Space with Major League Baseball Data Application | Yeil Kwon |
| Xinyue Yu | Numerical Simulation of Cholesteric Liquid Crystals Using a Landau-deGennes Model | Shawn Walker |

POSTERS

MORNING SESSION | 9 AM – 11 AM

VETERINARY MEDICINE

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|--------------------|---|-----------------------|
| Iyana Charles | Hoof Shoe Effects on Distal Phalanx Displacement in Normal vs. Laminitic Hooves | Mandi Lopez |
| Kassandra Crissman | Kisspeptin/Receptor Dysregulation During Early Gestation in the BPH/5 Mouse, a Model of Preeclampsia | Jennifer Sones |
| Juliet Flanagan | Attenuation of Adipose Tissue Pro-Inflammatory Cytokine Expression in the Female Offspring of Calorie Restricted BPH/5 Preeclamptic-like Mice | Jennifer Sones |
| Samantha Jindia | JUUL 5% Virginia Tobacco Aerosol Extracts Exhibit Higher Toxicity than JUUL 3% and 5% Menthol Aerosol Extracts | Alexandra Noel |
| Pilar Ruiz | Lung Mesenchymal Stem Cell-based Intervention in Pneumonia Caused by the Superbug Carbapenem Resistant <i>Klebsiella pneumoniae</i> | Samithamby Jeyaseelan |
| Hunter Stewart | Molecular Responses to 6-Month of Exposure to Cinnamon-Flavored E-Cigarette Aerosol in Lungs of Female Mice | Alexandra Noel |

POSTERS

AFTERNOON SESSION | 1 PM – 3 PM

HUMANITIES & SOCIAL SCIENCES

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|-------------------------------|---|----------------------|
| Amber Alford | Examining the Effects of Acute Anxiety on Memory Strategies | Heather Lucas |
| Kiersten Barnette | Court Stenographer Inaccuracies in African American Vernacular English and Southern U.S. English in Louisiana Court Systems | Rafael Orozco |
| Samantha Beekman | Evolution of Media and Perceptions: The Issue of Migration | Leonard Ray |
| Marina Bianchi | Masculine Gender Characteristics Effects on Political Engagement | Jeong Kim |
| Piper Bordes | Age, Emotion Regulation, and Well-Being after the 2016 Flood | Katie Cherry |
| Angelina Cantelli | Flood Stressors Impact Well-Being and Resilience after the 2016 Flood | Katie Cherry |
| Jordyn Courville | Examining Associations between Working Memory and Executive Functioning on Learning and Memory in Older Adults | Mathew Calamia |
| Mackenzie Davis V | COVID from a University Perspective: A Nationwide HotSpot Analysis | Scott Geller |
| Drew Duncan | Using Game-Based Decisions to Measure Personality: a systematic test to minimize careless responding | Jason Harman |
| Kathryn Fletcher UM | Effects of Race and Mind States on Lineup Procedures | Tracy Tomlinson |
| Eve Gautreaux | Food Deprivation as a Discriminative Stimulus in Mice | Paul Soto |
| Mia Goodson | The Effects of Olanzapine Treatment on Sucrose Demand in Mice | Paul Soto |
| Alexandra Graninger UM | Bystanders' Perception of Conflict | Tracy Tomlinson |
| Taylor Hale | Review of Adult Fluency Techniques Provided in Speech-Language Pathology Textbooks | Geoffrey Coalson |
| Tiffany Huynh | The Impact of Work Experiences on the Non-Work Domain | Rachel Smith |
| Margaret Lee UT | TVA as a Public Corporation? Increasingly Neoliberal Governance and Declining Citizen Participation | Paul Gellert |
| Shayon Tayebi | The Impact of Mindfulness Training on Post-Event Processing Among Individuals with Clinically Elevated Social Anxiety | Julia Buckner |
| Frankey Leggio | The Identification of Burned Human Teeth in Forensic Anthropology | Teresa Wilson |

POSTERS

AFTERNOON SESSION | 1 PM – 3 PM

HUMANITIES & SOCIAL SCIENCES

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------------|--|-----------------|
| Kayla Spearman | Children's Receptive Vocabulary as Measured by the PPVT: Effects of Race and Caregiver Education | Janna Oetting |
| Kiara Warren | Language and Paranoia in Outpatients with Serious Mental Illness: Moderating Effects of Race and Sex | Alex Cohen |
| Leah Wilck UM | The Impact of the Cross Race Effect on Eyewitness Descriptions | Tracy Tomlinson |
| Matthew Willis | Psychological Reactions among Preschoolers and their Parents to the 2020 Pandemic Home Stay | Katie Cherry |

BUSINESS

| <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|--|----------------|
| Rion Askin | Managing at the Intersection: Uncovering the Strengths of Black Women in Senior Leadership Positions | Andrew Loignon |
| Jared Cyprian | Performance of Various Hedge Fund Strategies During Crisis and Non-Crisis Periods | Kurtay Ognuc |

ORAL PRESENTATIONS

MORNING CONCURRENT SESSIONS | 9 AM – 11 AM

ZOOM ROOM #1

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------|---------------------------|--|--------------------|
| 9:00 - 9:15 AM | Paulette Kourouma | An Assessment of Health Promotion and Disease Prevention Initiatives among Large Trucking Companies in Louisiana | Bailey Houghtaling |
| 9:15 - 9:30 AM | Laura Bianchi S | Defining the “Organism”: Development of a Pluralism and Conceptual Space Hybridized Methodology | Maria Botero |
| 9:30 - 9:45 AM | Sarah Reviel | The DELV-ST: Is It Really Culturally and Linguistically Appropriate For All Children? | Janna Oetting |
| 9:45 - 10:00 AM | Michael Hollman LM | An Investigation of the Relationship Between Loan-to-Assets Ratios and Returns on Assets Across Louisiana Geographic Regions | Eugenie Ardoin |
| 10:00 - 10:15 AM | Evan Leonhard | Transcending the Artist: A Neo-Thomistic Inquiry into the Ethics and Origin of Art | Carmela Mattza |
| 10:15 - 10:30 AM | Jackson Bittick S | Forgiveness, Insecurity, and Self-Respect: How the Process of Forgiveness Reaffirms Our Moral Worth | Zachary Bachman |

ZOOM ROOM #2

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------|--|---|-----------------|
| 9:00 - 9:15 AM | Joseph Bemis | Accessibility of Byzantine Greek Texts for Intermediate and Beginner Students | Wilfred Major |
| 9:15 - 9:30 AM | Maggie Creekmore M | Romanticism and Disenchantment: Nationalism and Chaos during the time of John F. Kennedy | Tammy Kirkland |
| 9:30 - 9:45 AM | Callie Fedd and Sarah Thompson CL | Relics of the South: The Fugitives and Agrarianism | Steve Shelburne |
| 9:45 - 10:00 AM | Angelina Cantelli | African American Vernacular and Southern English Features in Hispanic English Speech | Irina Shport |
| 10:00 - 10:15 AM | Paola Colmenares | Analyzing and Interpreting the Themes of Death and Tragedy in Various Works of Hispanic Authors | Carmela Mattza |
| 10:15 - 10:30 AM | Marie Plunkett | Menander's Arbitration: Making Ancient Greek Accessible | Wilfred Major |

ORAL PRESENTATIONS

MORNING CONCURRENT SESSIONS | 9 AM – 11 AM

ZOOM ROOM #3

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------|--|---|------------------|
| 9:00 - 9:15 AM | Lexie Duhon | Social Comparisons in Those with Borderline Personality Disorder Traits: Merging Social Comparison Theory and Social Cognition in Borderline Personality Disorder | Mathew Calamia |
| 9:15 - 9:30 AM | Maggie Duplantier | Measuring College Students' Dependency on E-Cigarettes and Perceptions Using Behavioral Economics Model | Amy Copeland |
| 9:30 - 9:45 AM | Madison Gilbert | Long-term Effects of Second-Generation Antipsychotics on Sucrose Consumption and Preference | Paul Soto |
| 9:45 - 10:00 AM | Ann-Elise Mitcham, Hannah Sutton, Malasia Kennedy, and Ashlan Derouen | The Effect of Masks on Facial Emotion Recognition | Janet McDonald |
| 10:00 - 10:15 AM | Horatio Traylor | Black Women Supervisor's Experiences Navigating and Coping with Turnover Intentions | Rachel Smith |
| 10:15 - 10:30 AM | Landon Benoit, Emma Guillot, Christa Brown, and Micah Brown SL | The Effects of Social and Cultural Influences on Body Satisfaction | William Chernoff |

ZOOM ROOM #4

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|------------------|-------------------------|---|-------------------|
| 9:00 - 9:15 AM | Tyler Scott | Assessing Spatial Inequality and Cultural Capital in East Baton Rouge Parish, Louisiana | Heather O'Connell |
| 9:15 - 9:30 AM | Aidan Haughey P | Molecular Social Reality, The Cultural Helix & Sequencing Social DNA | Melissa Thompson |
| 9:30 - 9:45 AM | Tierney Parker D | Food Environment Food Swamps and Food Deserts Policy Brief | Casey Schrieber |
| 9:45 - 10:00 AM | David Spicer M | Excellence Gaps in Louisiana: Racial Inequity in Advanced Placement Courses | Andrea Campbell |
| 10:00 - 10:15 AM | Samantha Beekman | The Effect of Physical Distancing and Isolation and Quarantine Policy Strategies on the Prevention of COVID-19 Transmission and Death: Scandinavia and the American South | Leonard Ray |
| 10:15 - 10:30 AM | Bailey Chauvin | The Path of Least Resistance?: Women Government Attorneys' Success at the Supreme Court | Elizabeth Lane |
| 10:30 - 10:45 AM | Sarah Procopio | Defusing Polarization: The Politics of Medicaid Expansion in Louisiana | Michael Henderson |

ORAL PRESENTATIONS

AFTERNOON CONCURRENT SESSIONS | 1 PM – 3 PM

ZOOM ROOM #1

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|--|---|-----------------------|
| 1:00 - 1:15 PM | Katie Mestayer | Evaluation of Chaff Lining and Other Weed Management Tactics on Reducing Weed Populations | Lauren Lazaro |
| 1:15 - 1:30 PM | Madison Hasenkampf | Reduction of Phosphorus from Offsite Leachate from Horticulture Crops Using Aluminum Silicate | Ed Bush |
| 1:30 - 1:45 PM | Cristina Boone BC | Inducing Spicule Malformations Within Freshwater Sponges by Relocation | Mary Miller |
| 1:45 - 2:00 PM | Chau Vuong and Matthew Heyer BC | Defining Louisiana Freshwater Sponge Diversity with COX1-R1, COX1-D2 Barcoding: a Database Development Study for Classroom Curriculum | Mary Miller |
| 2:00 - 2:15 PM | Andrea Bourque | GL[1 1] Graph Connections | Anton Zeitlin |
| 2:15 - 2:30 PM | Julio Mora | Predicting Duration of Microlensing Events | Matthew Penny |
| 2:30 - 2:45 PM | Ashley Patron | Providing Statistics for the Effects of Earthquakes on LIGO Detectors | Gabriela Gonzalez |
| 2:45 - 3:00 PM | Aliza Siddiqui | Quantifying the Performance of Bidirectional Quantum Teleportation | Mark Wilde |
| 3:00 - 3:15 PM | Han-Hsuan Wu | Quantum Materials Spin Texture Probing by Magneto-Optical Kerr Effect | Mohammad Saghayezhian |

ZOOM ROOM #2

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|------------------------------------|--|------------------|
| 1:00 - 1:15 PM | Layni LeBlance | Parasite Prevalence in Marsh Rice Rats (<i>Oryzomys palustris</i>) on Sites Affected by the 2010 Deepwater Horizon Oil Spill | Sabrina Taylor |
| 1:15 - 1:30 PM | Ty Price | Effects of Road Traffic Noise on Anuran Activity and Call Characteristics in Rural and Urban Environments | Ashley Long |
| 1:30 - 1:45 PM | Jacob Cheng | Can Newly Created Engineered Marshes Help Improve Water Quality in Barataria Bay? | John White |
| 1:45 - 2:00 PM | Parker Lawrence | Investigating the Unique Viral Communities Within Diverse Oxygen Minimum Zones | Jennifer Brum |
| 2:00 - 2:15 PM | Elise Peyroux and Catherine Obyrne | Examining Viral Replication Modes Using Louisiana Bacterial Isolates | Jennifer Brum |
| 2:15 - 2:30 PM | Lauren Lewellen | Survival and Toxicity of Overwintering Cyanobacteria in Lake Pontchartrain, Louisiana | Sibel Bargu Ates |
| 2:30 - 2:45 PM | Danielle Soileau | The Effect of Pulsed and Chronic Salinity on the Plant Community Dynamics of an Intermediate Marsh | Tracy Quirk |

ORAL PRESENTATIONS

AFTERNOON CONCURRENT SESSIONS | 1 PM – 3 PM

ZOOM ROOM #3

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|------------------|---|-------------------|
| 1:00 - 1:15 PM | Chelbye Turner | Synthesis of Biopolymer Composites for Potential Topical Applications as Wound Dressing Patches | Isiah Warner |
| 1:15 - 1:30 PM | Peter Howard | Producing Tag-Free <i>Chlamydia trachomatis</i> Scc4 for Structural Analysis Using HRV Cleavage Recognition Sequences | Megan Macnaughtan |
| 1:30 - 1:45 PM | Juliette Lincoln | Chain-selective Labeling of the <i>Chlamydia trachomatis</i> Complex, Scc4:Scc1, for NMR Structure Determination | Megan Macnaughtan |
| 1:45 - 2:00 PM | Calli Nguyen | Identification of Compounds Against Glucocorticoid Resistant Leukemia Cell Models | Fatima Rivas |
| 2:00 - 2:15 PM | Anne D'Armond | Exploring Protein-Small Molecule Interactions of the Chlamydial Protein, Scc4 | Megan Macnaughtan |

ZOOM ROOM #4

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|----------------------------|--|-----------------------|
| 1:00 - 1:15 PM | Haley Jeneske | The Effect of Dietary Supplemented Tea Extract on Muscle Regeneration Capacity and Development of White Striping in Chicken Breast | Kenneth McMillin |
| 1:15 - 1:30 PM | Sydney Talbot | Effect of Oocyte in Vitro Maturation Time on Porcine Polyspermy and Embryo Development | Kenneth Bondioli |
| 1:30 - 1:45 PM | Nathan Le | Exploration by Smell: The Impact of Orco Gene on Tunneling Behavior in Termites | Qian Sun |
| 1:45 - 2:00 PM | Emily Munch | Bat Species Composition and Relative Activity Across a Rural-to-Urban Gradient in Baton Rouge, Louisiana | Ashley Long |
| 2:00 - 2:15 PM | Ashlyn Sak | Nest Box Preference and Nest Temperature Effects on Breeding Success and Nestling Growth Rate in Prothonotary Warblers in Louisiana | Philip Stouffer |
| 2:15 - 2:30 PM | Alexander Landry | Oleoyl CoA Inhibition of Complex II-Dependent Respiration in Embryos of <i>Artemia franciscana</i> : Possible Contributor to Metabolic Arrest during Diapause | Steven Hand |
| 2:30 - 2:45 PM | Samuel Vielee A | Juvenile Exposure to Commercially Formulated Spectracide® Induces Toxic Effects, Such as Developmental Delays and Movement Deficits, in <i>Drosophila melanogaster</i> : A Mechanistic Approach Using <i>in vivo</i> and <i>in vitro</i> Experimentation | Anathbandhu Chaudhuri |
| 2:45 - 3:00 PM | Alanis Villanueva C | Effect of Mitochondrial DNA Mutation on Reproductive Success | Avery August |
| 3:00 - 3:15 PM | Sanaa Alam | Acute Oxidative Stress Induces Tubular Lysosome Formation and Extends Lifespan in <i>C. elegans</i> | Alyssa Johnson |
| 3:15 - 3:30 PM | Cara Ramos | Tubular Lysosomes Display Developmental and Sex-Specific Differences in <i>Caenorhabditis elegans</i> | Alyssa Johnson |

ORAL PRESENTATIONS

AFTERNOON CONCURRENT SESSIONS | 1 PM – 3 PM

ZOOM ROOM #5

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|------------------------------|---|----------------|
| 1:00 - 1:15 PM | Morgan Alston | Comparison of Pharmacological and Dietary Interventions to Improve Obesity-Associated Outcomes in Preeclamptic-like, BPH/5 Female Mice | Jenny Sones |
| 1:15 - 1:30 PM | Brianna Rogers | Attenuation of Inflammation in BPH/5 Female Mouse Reproductive White Adipose Tissue | Jennifer Sones |
| 1:30 - 1:45 PM | Ngan Tran | Alcohol Amplifies Neuroinflammatory STAT3 Pathway Signaling in the Prefrontal Cortex | Scott Edwards |
| 1:45 - 2:00 PM | Sandy Bakheet T | Discovering New Inhibitors of Papain-like Protease (PLpro) Structure of SARS-CoV-2 Using High-Throughput Virtual Screening | Josh Beckman |
| 2:00 - 2:15 PM | Isabella LaBruzzo | Creation of Transgenic Animals for Puratrophin-1-like, a RhoGEF Protein Critical for Tubular Organ Formation in Drosophila | Seyeon Chung |
| 2:15 - 2:30 PM | Hannah Guidry | Antidiuretic Hormone Inhibits Osteogenic Differentiation of Stem Cells via G-protein Coupled Receptors | Henrique Cheng |
| 2:30 - 2:45 PM | Abhirami Jeyaseelan B | Improvement of Cell Loading and Cellulose Nanofiber/Alginate Bioinks to Increase Cell Viability for 3D Bioprinting | Sheomian Yao |
| 2:45 - 3:00 PM | Emily Halphen | The Effects of Mechanical Rotational Motion on Transdifferentiating Feline Adipose Multipotent Stromal Cells into Functioning Pancreatic b -cell like Islets | Mandi Lopez |
| 3:00 - 3:15 PM | Maia Williams | Effects of Cryopreservation, Immunophenotype and Sex on Multipotentiality, Cell Proliferation and Gene Expression in Feline Adipose-Derived Stromal Cells | Mandi Lopez |

ZOOM ROOM #6

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|--|---|----------------|
| 1:00 - 1:15 PM | Dina Dinh | Chemical Modifications of 3-D Printed Molds for Microfluidic Devices | Todd Monroe |
| 1:15 - 1:30 PM | Ignatius Semmes | Development of a 3-D Printed Low-Cost Sperm Counting Chamber | Todd Monroe |
| 1:30 - 1:45 PM | Chau Vuong and Matthew Heyer BC | Defining Louisiana Freshwater Sponge Diversity with COX1-R1, COX1-D2 Barcoding: a Database Development Study for Classroom Curriculum | Mary Miller |
| 1:45 - 2:00 PM | Emmaline Miller | A Circulating Co-Culture Microfluidic Device for the Dynamic Sampling of Paracrine Factors | Adam Melvin |
| 2:00 - 2:15 PM | Siarra Gremillion | Engineering a User-Friendly LSU Course Offering App | Nash Mahmoud |
| 2:15 - 2:30 PM | Brianna Robertson | Development of a Thermoelectric-based Temperature Control Module for a Portable Optical System | Jin-Woo Choi |
| 2:30 - 2:45 PM | Patrick Herke | Using Granular Jamming to Provide a Rapidly Deployable Custom-Fitted Cervical Collar | Hunter Gilbert |
| 2:45 - 3:00 PM | Baylee Kearse and Jacqueline Gonda | Drainage Area Determination | Jyotsna Sharma |

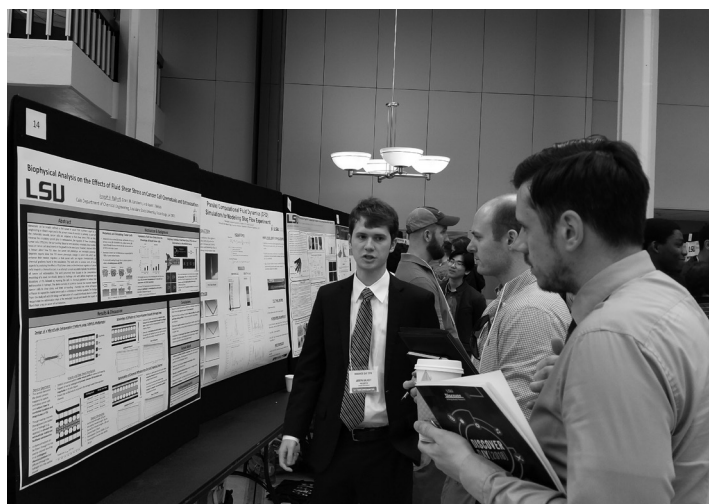
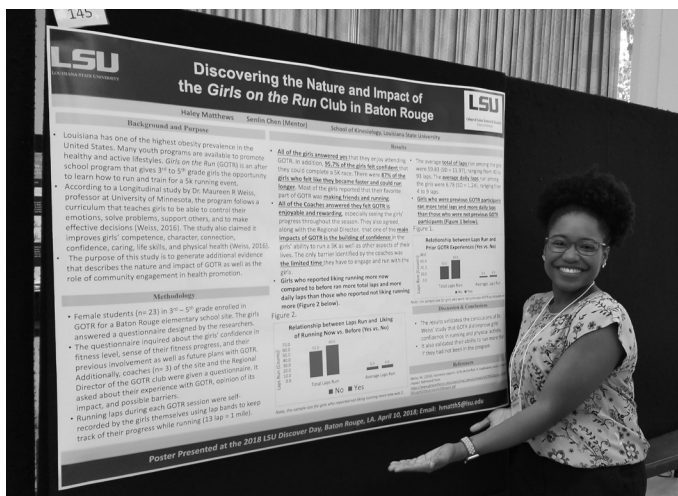
ART PRESENTATIONS

LATE AFTERNOON SESSIONS | 3 PM – 5 PM

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|---|--|------------------|
| 3:00 - 3:15 PM | Tanner Theisen | Designing and Fabricating Facade Panels with Additive Manufacturing | Niloufar Emami |
| 3:15 - 3:30 PM | Dylan Roth | Abandonment to Education: Decentralizing Education Through Adapt and Reuse | Marwan Ghandour |
| 3:30 - 3:45 PM | Chloe Smith | The Battle of Humans and Nature | Leslie Koptcho |
| 3:45 - 4:00 PM | Collin DeVillier | Using Animatronics to Encourage Meaningful Community Engagement | Corina Barbalata |
| 4:15 - 4:30 PM | Frances McCann | The Eroding Mental Health of the Modern Day Black Girl | Laura Mullen |
| 4:30 - 4:45 PM | Kalvin Morris | Black Therapy | Fahima Ife |
| 4:45 - 5:00 PM | Priya Singleton, Sophia Greeson, and Bryce Ball | You Love Me, Right? | Patricia Suchy |

RELIGIOUS PANEL

| <u>Time</u> | <u>Student</u> | <u>Title</u> | <u>Mentor</u> |
|----------------|--------------------|---|-----------------|
| 3:00 - 3:15 PM | Lauren Copeland | My Encounter with Salem the Black Cat, Cognitive Psychology, and Jason Slone's Theory of Luck Beliefs | Jerome La Peyre |
| 3:15 - 3:30 PM | Corrine Hutchinson | Madness in Magic: Frazier's Theory and Mental Illness | Kenneth Smith |
| 3:30 - 3:45 PM | Paige Long | Joel Osteen and Magical Thinking in a Pandemic World | Kenneth Smith |



LSU Discover Day 2018

BROWN BAG LUNCH PANEL

The LSU Discover Research Ambassadors are hosting a virtual panel from 11:30 a.m. to 12:30 p.m. on April 16th during Discover Day 2021 to discuss pursuing research as a career with LSU faculty from a variety of academic disciplines.

Moderator

Megan Guilbeau

Biochemistry Major, Senior

Faculty Panelists

Mike Benton

Bernard S. Pressburg Professor of Chemical Engineering

Ruth Moon Mari

Assistant Professor, Manship School of Mass Communication

Linda Hooper-Bui

Professor, College of the Coast & Environment

Justin Ragains

Associate Professor, College of Science

Wenqing Xu

Assistant Professor, College of Agriculture

Arend Van Gemmert

Associate Dean for Research & Graduate Studies, College of Human Sciences & Education

Lake Douglas

Associate Dean of Research & Development, College of Art & Design



Mike Benton



Ruth Moon Mari



Justin Ragains



Wenqing Xu



Arend Van Gemmert



Linda Harper-Bui



Lake Douglas

KEYNOTE SPEAKER

Dr. Chris Barrett

Join us virtually at 5:00 p.m. on Thursday, April 15th to hear Dr. Barrett's keynote speech.



Chris Barrett is Associate Professor of English at Louisiana State University, where she joined the faculty in 2012 after completing her doctoral degree in English at Harvard University. Her research and teaching interests include early modern English literature, especially Spenser and Milton; lyric and epic poetry; critical animal studies; ecocriticism, ecomaterialism, and object oriented ontologies; and geocritical approaches to literature.

Her published works, recognized by a Rainmaker Award in 2018, include the book *Early Modern English Literature and the Poetics of Cartographic Anxiety* (Oxford University Press, 2018), as well as articles and essays on Shakespeare, Spenser, Milton, butterflies, fire, compasses, and the twinned history of ether and laughter. She is currently at work on a book project about early modern trees.

Her research has been supported by the Council on Research, the Newberry Library, the Folger Library, and Dumbarton Oaks Museum and Collection.

Since 2013, Dr. Barrett has been the faculty adviser to Spectrum, LSU's largest LGBTQIA+ student organization. She is also an affiliate faculty member to the Program in Women's and Gender Studies, which awarded her the Outstanding Feminist Activist Award in 2017, and affiliate faculty member to the Program in Screen Arts.

Additionally, Barrett has been the recipient of several teaching awards, including the inaugural Outstanding Professor Award from the LSU Student Government [2018], the Tiger Athletic Foundation President's Award [2017], the Tiger Athletic Foundation Undergraduate Teaching Award [2014], and the English Graduate Student Association Graduate Faculty Award [2014].

SPECIAL THANKS

LSU Discover would like to give special thanks to all of the individuals and groups who contributed to the success of LSU Discover Day 2021. Special gratitude is extended to the LSU Discover Advisory Board, and our moderators and judges. We would also like to thank the LSU Research Ambassadors, LSU Discover Staff, keynote speaker Dr. Chris Barrett, and all of the volunteers for their help with the coordination of this event.

Warm thanks to faculty mentors for their hard work, dedication to students, and efforts to inspire the next great generation of researchers and creative thinkers.

THANK YOU

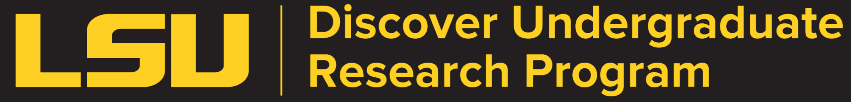
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LSU Discover Day is also open to participants from other colleges.
Thank you to the following colleges & schools for participating:

Baton Rouge Magnet High School
Baton Rouge Community College
Cornell University
Centenary College of Louisiana
Dillard University
Massachusetts Institute of Technology
Portland State University
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Southeastern Louisiana University

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