

# Competitive Poster Session

Online, Saturday, October 23, 1-3p ET

We have **119 abstracts** being presented by talented undergraduate and graduate students that are from **59 colleges and universities across the world including the Philippines, Micronesia, Palau, Guam, and Hawaii.**

The students have recorded their poster presentation to showcase the outcomes of their hands-on research and learning under the mentorship of faculty members in Science, Technology, Engineering, and Mathematics (STEM) and related disciplines at their institutions.

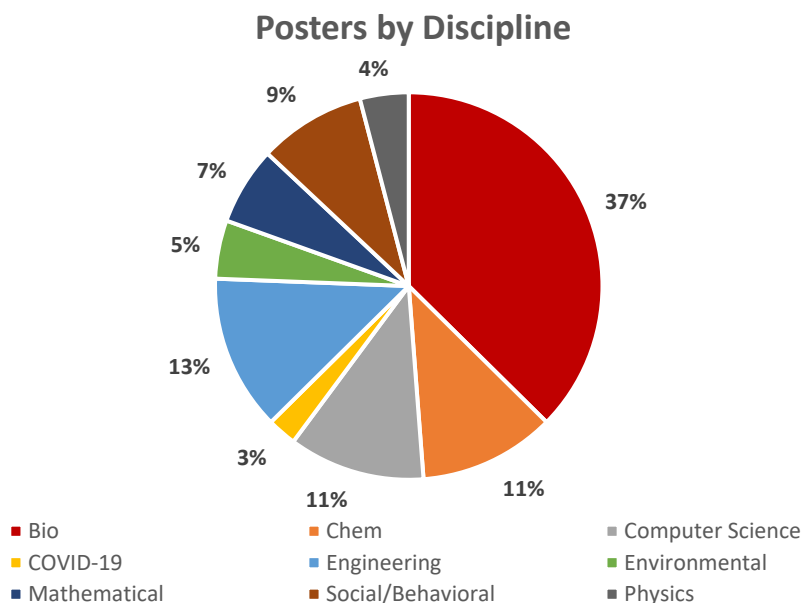
One of LSMRCE's goals for the conference is to highlight the value of student research and to provide underrepresented minority students the opportunity to showcase their scholarly accomplishments and personal commitment to disciplinary learning. The poster session offers (even in this virtual world) a unique opportunity for students to learn from each other, network, engage with faculty and administrators in career development opportunities, and to experience the essence of disciplinary professionalization.

## Participate in the Discussion!

All registered conference attendees are invited to participate in the poster session discussions.

- 1) Create your Symposium account (use same email address you used to register).  
<https://symposium.foragerone.com/lsmrce-2021-annual-conference/signup>  
Browse the posters on Symposium.
- 2) Post your questions or words of encouragement in the 'comments' section.

LSMRCE Posters on Symposium: <https://symposium.foragerone.com/lsmrce-2021-annual-conference>



<b>Presenter</b>	<b>Grade Level</b>	<b>Abstract Title</b>	<b>Oral Group</b>
<b>Aguilar-Medina, Michelle Concordia University Chicago</b>	Sophomore/ Second Year	Annotation of the Insulin Signaling foxo Gene in Drosophila sechellia	
<b>Akpan, Carol Prairie View A&amp;M University</b>	Junior	Flexible Graphene Interdigitated Strain Sensor for Early Diagnosis of Deep Vein Thrombosis	Group 4
<b>AL-Robae, Hasan Indiana University South Bend</b>	Junior	Projecting changes in the societal burdens of cancer with the obesity epidemic	
<b>Alemayehu, Edom Ball State University</b>	Sophomore/ Second Year	CRISPER Genome Editing with Candida Albicans DNA Sequencing Regions	
<b>Ali, Maslah Augsburg University</b>	Senior	Tracking Your Every Move.	
<b>Alvarez, Victor Elmhurst University</b>	Junior	A DFT Study on the Formation Energetics of Carbon Dioxide and Formaldehyde from Acetylene Ozonolysis.	Group 3
<b>Andrade, Mercedes Indiana University Northwest</b>	Senior	Understanding the role of the gut microbiota on Alzheimer's disease pathogenesis	
<b>Armanious, Abanoub Rutgers University - New Brunswick</b>	Junior	Binge-like Eating Promotes Behaviors Reminiscent of 'Food Addiction' in Obese Female Rats	Group 5
<b>Artiglio, Giovanni Arizona State University</b>	Senior	The Emergence of League and Sub-League Structure in Large Scale Multiplayer Resource Allocation Games	
<b>Avila, Andres Elmhurst University</b>	Senior	Opuntia humifusa Not Immediately Affected by Shade Competition	
<b>Banks, Destiny Columbus State University</b>	Senior	Effects of Drug Treatment on Lung Cancer Cell Proliferation Rates	Group 1
<b>Barberena, Eduardo Laredo College</b>	Freshman/ First Year	Password security: How Different Password Policies Differ Between Government Employees and Company Employees	
<b>Barrera, Emily Indiana University South Bend</b>	Sophomore/ Second Year	Electroanalytical Performance of Antimony Modified Glassy Carbon Electrode in Detecting Lead and Cadmium	
<b>Benson, Diamond Indianapolis University Purdue University Indianapolis</b>	Senior	Development of a Reference DNA Database for Identification	
<b>Blevins, Kadia Ball State University</b>	Junior	Do Microplastics Impair Dominance Interactions in Fish? A Test of the Vector Hypothesis	
<b>Boakye, Barry University of Dayton and Sinclair Community College</b>	Sophomore/ Second Year	Influence of Process Parameters on Mechanical Properties of Desktop 3D-Printed NinjaTek CheetaH Elastomer	
<b>Boateng, Samuel Lewis University</b>	Senior	Using Earth to Build Structures on Earth	Group 4
<b>Bornkamp, Allison Ball State University</b>	Junior	Paleoecology of Benthic Foraminifera from the Claiborne and Lower Jackson Groups (Eocene; Lutetian and Bartonian) of Little Stave Creek, Clarke County, Alabama	
<b>Brown, Yovonda Valdosta State University</b>	Senior	COVID-19 Effects on The Academic Performance of students in higher education	
<b>Bujan, Reynaldo R Arizona State University</b>	Senior	Identification of Pseudomonas stutzeri that Aid in the Colonization and Biodegradation of Environmental Microplastics	
<b>Callejas Soriano, Itzel North Central College</b>	Senior	Oxycodone Self-Administration leads to an Increase in Neural Activity in the Prelimbic Prefrontal Cortex	Group 5
<b>Campos-Chavez, Harvey Lewis University</b>	Sophomore/ Second Year	Predictive Modeling for Hockey Analytics Utilizing Markov Chains	

<b>Carnero, Warner Montclair State University</b>	Senior	Using Spectroscopy to Investigate Photoprotection Mechanism between MTHF and FAD in DNA Photolyase	
<b>Chepkwony, Dan Ball State University</b>	Junior	Identifying Particle Species in Heavy Ion Collisions	
<b>Choay, Muturwan University of Guam</b>	Senior	STEM Journeys of Pacific Islander Students Across the Islands of Opportunity Alliance (IOA)	Group 5
<b>Chung, Halin University of Iowa</b>	Ph.D. Student	STEM Interest and Civic Engagement Among Community College Students	
<b>Coghiel, David Syracuse University</b>	Senior	Real-time Streamflow Monitoring of Skaneateles Lake Creeks	
<b>Concepcion, Julie North central College</b>	Sophomore/ Second Year	The Effect of Manganese on the Root Colonization by Arbuscular Mycorrhizal Fungi of Big Bluestem	Group 2
<b>Cosillo, Morgan College of DuPage</b>	Junior	Freshmen Navigation App Using Cordova Software	
<b>Costa, Isabela Augustana College</b>	Senior	The Effects of Diosmetin and Primuletin on MDA-MB-231 Breast Cancer Cells	
<b>Crawford, Isabella Indiana University - Purdue University Indianapolis</b>	Senior	Differences in sex and developmental time are important for the involvement in Dyrk1a related skeletal deficits associated with Down syndrome	
<b>Dabson, Feona Ball State University</b>	Junior	Monosubstituted Malononitriles: Improving Yield and Efficiency of the One-Pot Reductive Alkylation of Aromatic Aldehydes	
<b>De La Cruz Sanchez, Kevin The Ohio State University</b>	Sophomore/ Second Year	Targeting CD74 in Mantle Cell Lymphoma	
<b>DePriest, Essex Lincoln University (MO)</b>	Junior	Glass Advanced Manufacturing	Group 3
<b>Derisse, Samantha IUPUI</b>	Sophomore/ Second Year	Assessment of compulsive drinking in C57BL/6J head-fixed mice with a drinking history in comparison to those without one.	
<b>Dunn, Simeon Indiana University-Purdue University Indianapolis</b>	Junior	Comprehensive Health Record Collection based on Blockchain	Group 3
<b>Easton, Aurora Indiana University South Bend</b>	Senior	Projecting Changes in Societal Burden of Diabetes Mellitus and Cardiovascular Disease with Rising Obesity Rates	
<b>Echeumuna, Kelechi Indiana University - Purdue University Indianapolis</b>	Junior	Alcohol and Water Drinking Patterns in Mice	Group 1
<b>Egbuna, Arinzechukwu Benedictine University</b>	Junior	Deletion of an rgg gene in Lactobacillus acidophilus	
<b>Egermeier, Mason Oklahoma State University</b>	Junior	Microplastic Extraction from Sediments with a Continuous Flow Elutriation Process	Group 4
<b>Elmacioglu, Park-Kaufmann, Okandan, Ceyhun, Hannah, Melin Lafayette College, Barnard College, Bilkent University</b>	Sophomore/ Second Year	Minimal Presentation Sizes of Numerical Semigroups	
<b>Esguerra, Marion Agatha University of Santo Tomas, Philippines</b>	Senior	Association between ABO Blood Groups and Type 2 Diabetes Mellitus: A Meta-analysis	Group 1
<b>Eshak, John Indiana University Northwest</b>	Junior	In Silico CRISPR-induced Point Mutation me31B Gene Editing in Drosophila	

<b>Estrada, Angel</b> Saint Xavier University	Junior	Virtual reality and education	
<b>Evans, Daevon</b> IUPUI	Senior	A novice users' assessment of facial segmentation automation	
<b>Eze, Ngozi</b> Ball state University	Senior	Analyzing the Effects of G-quadruplex helicase, G4R1 on Cognitive/ Motor Function and Brain Morphology in Adult Mice.	
<b>Figuroa, Natalie</b> Benedictine University	Senior	Characterization of modulatory quorum sensing molecules in Streptococcus pyogenes	
<b>Fionah, Abelline</b> University of Kentucky	Ph.D. Student	Functionalization of Poly-ether ether ketone for Improved Membrane Performance in Water Treatment	
<b>Gallegos, Nathaniel</b> University of Arizona	Ph.D. Student	Gray Matter Volumetric Differences in Healthy Older Adults at Risk for Alzheimer's Disease	
<b>Gamboa, Emily</b> The University of Chiago	Junior	Direct Double-Stranded Break (DSB) Detection Can Differentiate DNA Repair and Signalling in Cancer Cells	Group 1
<b>Gongora, Sara</b> College of Dupage	Sophomore/ Second Year	Virtual Reality for STEM Education	
<b>Granda Acaro, Jonathan</b> County College of Morris	Junior	Studying Electric Field's Effect on Reducing PM2.5 Pollution	Group 4
<b>Grass, Diana</b> Rutgers University Newark	Senior	Blood-Based Biomarkers for Alzheimer's Disease May Be Associated with Poorer Cognitive Performance in Older African Americans	
<b>Greene, Nina</b> University of Cincinnati	Sophomore/ Second Year	Improving Adherence to Pap Screening Among At-Risk Women: Formative Research in Cervical Cancer Prevention	Group 5
<b>Guerrier, Kahleel</b> Valdosta State University	Junior	Using Sonogashira Carbon-Carbon Bond Coupling Towards Further Modification of the Polyoxotungstate Anion, a-[PW12O39(NC6H4-I)]3-	
<b>Hernandez, Angelica</b> Indiana University - Purdue University Indianapolis	Junior	Dynamic Tuning of Hydrogels: Elasticity and Viscoelasticity	
<b>Hinojosa, Isabella</b> Oklahoma State University	Junior	Sulfur Protecting Groups and Oxidative Cyclization	
<b>Ililau, Adrian</b> Palau Community College	Junior	Effects of Heat Stress on Coral Bleaching	
<b>Inchauregui, Rose</b> Indiana University South Bend	Junior	Changes in Canopy and Understory Asimina triloba (Paw paw) Abundance in an Old Growth Indiana Forest	
<b>Ishimwe, Melyse</b> IUSB	Junior	Structure-Based Design of PhuZ Mutants for Polymerization Analysis.	
<b>Jimenez Carrillo, Victor</b> Dominican University	Senior	Graphene: Synthesis and Application in Lithium-ion Batteries	
<b>Johnson, Alexandria</b> University of South Florida	Senior	Comparing Prostate Specific Antigen Dynamics Between Black Patients and White Patients	
<b>Johnson, Nathan</b> Lewis University	Sophomore/ Second Year	The Effects of Beta Alanine and Copper on Alzheimer's Disease	
<b>Jones, Brendan</b> Ball State University	Senior	Determining the Role of Hypoxia and SOX17 in Coronary Vessel Development	Group 1
<b>Jones, Gabrielle</b> Oklahoma State University	Senior	A GWAS Study of Color and Texture on Natto Soybeans	
<b>Kapadia, Ashni</b> Rutgers University	Sophomore/ Second Year	Computational Modeling and Intracellular Drug Metabolism	

<b>Lujan, Frank</b> University of Guam	Post-Bachelor's	The Impact of Climate Change on Economic and Health of Coral Reefs throughout Micronesia	Doctoral
<b>Maestas, Jade</b> Benedictine University	Senior	Probiotics May Play a Role in Alleviating Bile Acid Malabsorption-Associated Diarrhea	Group 1
<b>Manuel, Brian</b> Dominican University	Junior	Mathematical Model of Invasive Asian Carp	
<b>Manzanares, Maricela</b> University of Cincinnati	Junior	Experiences of Women of Color in Engineering	
<b>Marangon, Andressa</b> New Jersey Institute of Technology	Junior	Engineering the Carrier Dynamics of III-Nitride Blue Light-Emitting Diodes	
<b>Martinez, Roberto</b> Arizona State University	Senior	Investigating Failure Modes in Flexible Batteries for Wearable Applications	
<b>McCoy, Daeshe'</b> Valdosta State University	Senior	"Extraction and Purification of phytochemicals from Tropical Plants"	
<b>McMichael, Kelia</b> Wright State University	Sophomore/ Second Year	ENaC is a Zn <sup>2+</sup> Sensitive Renal Na <sup>+</sup> reabsorption pathway that Mediates ZnD-induced Hypertension.	Group 4
<b>Medrano, Israel</b> Western Michigan University	Senior	Advanced Adhesive Classification and Application to Enhance Wood Structures' Resilience	
<b>Mendoza, George</b>			
<b>Mendoza Hermosillo, Daniel</b> Hawaii Pacific University	Senior	Nemo: An Underwater Rover Attachment for Controlled Plankton Collection	
<b>Miao, Bernadette</b> University of Chicago	Junior	Staining and Imaging Protocols to Investigate Mitochondrial Dynamics upon Bioelectronic Stimulation	Group 3
<b>Mince, Bowen</b> Grinnell College	Senior	Machine Learning in the Courtroom: Evaluating the Effectiveness of Algorithms to Predict Likelihood of Recidivism	Group 5
<b>Morales, Britney</b> Saint Xavier University	Junior	The Effects of DNA damaging agents on Alternate Splicing of BRCA2 mRNA	
<b>Mustafaoglu, Zelal</b> University of Illinois Springfield	Senior	Convolutional Neural Network Model for Malicious Data Flow Detection	
<b>Mustafaoglu, Zelal</b> University of Illinois Springfield	Senior	Application of Text Analysis to Company Financial Statements	
<b>Nshuti, Adeline</b> Sinclair Community College	Sophomore/ Second Year	Recovery of Planarian's Chemotactic Ability Post Amputation	
<b>Ordóñez, Andrea</b> Indiana University-Purdue University-Indianapolis (IUPUI)	Junior	Effects of Tagged FITC-Human Fibrinogen on Whole Blood Clotting Dynamics	
<b>Owens, Austin</b> IUPUI	Junior	Effect of Infill Patterns on the Mechanical Properties of 3D Printed Parts by Fused Deposition Modeling	
<b>Paddock, Kayleigh</b> University of Arizona	Junior	Noise-induced sleep disruption reduces orexin, orexin 1 receptor, and heme-regulated inhibitor mRNA in female rats	Group 2
<b>Pais, Danielle</b> Arizona State University	Senior	New online accommodations are not enough: Mismatch between student needs and support for students with disabilities during COVID-19	Group 2
<b>Perez, Arturo</b> Augustana College	Junior	Using a Quartz Crystal Microbalance to Measure the Formation of a Self Assembled Monolayer	
<b>Portillo, Marla</b> College of DuPage	Sophomore/ Second Year	Comparison of Graphwave Network Embeddings to Link Analysis Techniques for Role Discovery in Networks.	Group 3

<b>Ramadan, Bassil</b> <b>University of Arizona</b>	Post-Bachelor's	VISTATM: Visual Impairment Subtle Touch Aid™	
<b>Ramirez, Giannina</b> <b>Indiana University Purdue University Indianapolis (IUPUI)</b>	Senior	Reconstructing the History of Anoxia and Climate Change in Laguna Encantada in Chetumal, Q.R., Mexico	Group 2
<b>Ramirez, Ruby</b> <b>Arizona State University</b>	Senior	Exploration of Truncation to Improve Image Restoration Methods	
<b>Randal, Matthew</b> <b>The University of Texas at Austin</b>	Ph.D. Student	The Effects of COVID-19 on Auditory Function	
<b>Rawal, Unsh</b> <b>HCCS</b>	Sophomore/Second Year	Solar Powered Urban Farming	
<b>Rivas, Mirsa</b> <b>Dominican University</b>	Senior	Alkyl Hydroperoxide Reductase in <i>Vibrio fischeri</i>	
<b>Rivera, Tiffany</b> <b>Chaminade University of Honolulu</b>	Senior	Heart Disease Cardiac Resource Availability by the Counties in the State of Hawai'i	
<b>Robles-Magallanes, Daisy</b> <b>IU Bloomington</b>	Junior	Heterochromatin Modifications Effects on Neurogenesis	Group 5
<b>Ryder, Staci</b> <b>Phoenix College</b>	Junior	Researching propagation and germination techniques for a native Sonoran Desert Pollinator Garden	
<b>Sanchez, Xitlali</b> <b>Benedictine University</b>	Sophomore/Second Year	Carrier-lifetime in Dye-Sensitized Solar Cells with Blackberry and Raspberry Dyes	
<b>Segura, Joshua</b> <b>Lewis University</b>	Senior	Measuring Odonate Biodiversity: A Comparative Study between Larval and Adult Life Stages	Group 2
<b>Shelton, Brendon</b> <b>Indiana University-Purdue University-Indianapolis</b>	Junior	Effect of the infill pattern in the mechanical properties of 3D printed parts	
<b>Shelton, Mya</b> <b>Ball State University</b>	Sophomore/Second Year	Variable Star Research	
<b>Shroyer, Rochelle</b> <b>College of DuPage</b>	Junior	Web Logs: The Biggest Target	
<b>Smith, Alphonzo</b> <b>Indiana University Northwest</b>	Junior	A Comparative Study of Supervised Learning Algorithms: Dose Deep Learning Really Improve Customer Churn Analysis?	
<b>Spahr, Brock</b> <b>Ball State University</b>	Junior	Behavioral and Morphological Analysis of the Carry Over Effects of Embryonic Learning in Adult Fathead Minnow	
<b>Takahashi, Yuki</b> <b>Grinnell College</b>	Senior	Lifting methods in mass partition problems	
<b>Torlop, Noah</b> <b>University of Cincinnati</b>	Sophomore/Second Year	How does service-learning affect students	
<b>Truong, David</b> <b>Valdosta State University</b>	Senior	Fault Containment Algorithms in Distributed System	
<b>Vaka, Michael</b> <b>Brigham Young University</b>	Junior	Magnetic Domain Properties of Co/Pt Multilayer Thin Films	
<b>Valencia, Paul</b> <b>College of Micronesia-FSM</b>	Junior	Several Reasons Why I Choose Conservation Society of Pohnpei (CSP) to Study Conservation as an Intern.	
<b>Verges, Ariana</b> <b>IUPUI</b>	Senior	Multi-Level classification of Traumatic Brain Injury	
<b>Vester, Eric</b> <b>Ball State University</b>	Senior	Experimenting with Automated Unit Testing of a VisTrails Module Using Jenkins and Ptest	

<b>Villalobos, Vanessa IUPUI</b>	Junior	Gametocyte Densities in Asymptomatic Infections of Plasmodium falciparum in the Highlands of Kenya with unstable transmission	
<b>Washington, Davion Lincoln University</b>	Junior	Flexible Optical Filters for Health Monitoring Devices Using Pulse Oximetry and Fluorescence Spectroscopy	Group 4
<b>Watts, Ryan Ball State University</b>	Senior	Solvent and Ionic atmosphere effect on halogen bonding	
<b>White, Alexandria Columbus State University</b>	Senior	ALS cells and the effects of the TDP-43 Protein	
<b>Winters, Aaliyah Ball State University</b>	Senior	Optimization and mechanistic insights of the allylation of phenols with allyloxypyridinium triflate	
<b>Woo, Kyung University of Texas at Tyler</b>	Junior	Kirigami-inspired Net-like Graphene Strain Sensor for Motion Detection	Group 4
<b>Zarate, Maria North Central College</b>	Senior	Neural activation of the infralimbic prefrontal cortex increases after oxycodone self-administration and forced abstinence	Group 5
<b>Zhang, Xuechao Northern Illinois University</b>	Senior	SwissDock as an Educational Tool for Drug Discovery	

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## Thank you to our Judges!

Dr. Tuncay Aktosun, University of Texas at Arlington  
Dr. Edison Amah, Intel Corporation  
Prof. Jean Andino, Arizona State University  
Prof. Jamillah Boyd, University of Missouri St. Louis  
Dr. Rafael Bahamonde, IUPUI  
Dr. Asha Brunings, FL-C LSRCE  
Dr. George Bruschi, Oklahoma State University  
Dr. Kasey Clear, Indiana University South Bend  
Dr. Bryan Dosono, iSchool Inclusion Institute  
Dr. Jim Fackenthal, Benedictine University  
Ms. Gwendolynn Fine, IISPIRE LSAMP ALU Committee; Johnson & Johnson  
Dr. Natividad Fuentes, MD Anderson Cancer Center  
Mr. John Fynn, Polk State College Winter Haven Florida  
Dr. Chhavi Goenka, Massachusetts General Hospital Wellman Center  
Mrs. Dominique Graham, Rutgers University Newark  
Dr. Danielle Harper, Wellman Center for Photomedicine  
Dr. Marie Kelly-Worden, Ball State University  
Miss Stephanie Leon Quinonez, Cleveland Clinic/ Case Western Reserve University  
Dr. Kristy Mardis, Chicago State University  
Dr. Grace Muna, Indiana University South Bend  
Prof. SUBIR NAGDAS, Fayetteville State University  
Dr. Tiara Perez Morales, Benedictine University  
Ms. Cristina Preston, Cornell University  
Dr. Jayashree Sarathy, Benedictine University  
Dr. Justin Seffernick, Sinclair college  
Dr. Bikram Sharma, Ball State University  
Dr. Shrestha Sinha Ray, Research Institute at Nationwide Children's Hospital  
Dr. Lee Ann Smith, Benedictine University  
Mrs. Gabriela Solis-Cavazos, Laredo College  
Dr. Ron Stamper, Mott Community College  
Ms. Jeffey Stear, Houston Community College  
Prof. Shawana Tabassum, The University of Texas at Tyler  
Dr. Ranya Taqieddin, Saint Charles Community College  
Dr. Kerri Shelton Taylor, Columbus State University  
Dr. U Sunday TIM, Iowa State University  
Dr. Hongwei Wang, Texas A&M International University  
Dr. Kristen Williams, LS-PAC MODELS Center