2019 IUPUI Student Research and Engagement Day

Schedule

CE Theater Level (Lower Level)

9:30 am - 11:00 am  Welcome
Simon Atkinson, Vice Chancellor for Research
Nasser Paydar, IUPUI Chancellor
Keynote Address
Danny Brassell, California State University
The Power and Importance of Engaged Learning
Award-Winning Master Thesis Presentation
Miji Um

2:00 pm - 4:00pm  JagStart Idea Pitch Competition

CE 1st Floor

10:30 am - 2:30pm  Live Music
IUPUI Electronic Music Artists
German Student Brass Quintet: BRAWÜSSimo

11:00 am - 2:30pm  IUPUI Student Clubs and Chapters Fair

CE 4th Floor

11:00 am - 1:30pm  Posters: Student Research, Study Abroad - 450AB *
Scavenger Hunts - 450AB

11:00 am - 2:00pm  International Photo Booth - 450C

11:00 am - 2:00pm  Creative Activities – 405*

3:00 pm - 5:00pm  Life and Health Sciences Internship Program - 450ABC

* Individual student presenters are listed on the following pages
# IUPUI Student Research and Engagement Day

## Student Presentation Schedule

**Session I  11:00 am – Noon**

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Sefcsik, Victoria - Issues in Tissue Processing and Identification for Genomic Sequencing in Riley Hospital for Children Pediatric Sarcoma Patients

Shields, Priya - hPSC-derived RGCs Display Target Specificity Towards dLGN Explants

Tariq, Dua - Design, Build, and Test Nanoparticle Delivery Systems in Head and Neck Cancers

Thomas, Jared - Sexual Dimorphism in Skeletal Abnormalities in Down Syndrome Mice

Valdez, Sinai - Short-term pharmacologic inhibition of RAGE suppresses bone

Weiss, Justina - Accuracy of Attenuation Correction in SPECT/CT, Myocardial Perfusion Imaging

Winter, Christian - The Crosstalk Between Neurons and Osteocytes for Mutual Growth

Wolfe, Mackenzie - Cerebellar tDCS improves performance of a timing-based video game more than M1 tDCS or practice alone

Audu, Aishat - Clinician Perspective-Taking in Ethics Consultation

Jackson, Rachel - Sleeping Less and Eating More: Is Insomnia Associated with Increased Attention to Food Cues?

Williams, Jamani - Perceptions of volunteering as a means of career advancement

Strzeszkowski, Sasha - Mental Accounting in the Gig Economy

Cunningham, Ronald - When Nice White Ladies Attack: The White Female Neoliberal Assault on Black Male K-12 Educators

Ewing, Payten - How Paper and Digital Children’s Books Support Student Understanding

Evans, Renita - Active Gaming: It’s Not Just for Young People

Lance, Howard - Examining the Effectiveness of a Community Lecture on Black Racial Identity

Bingham, Jerome - 1890’s Dystopian Fiction versus 1960’s Utopian Heroes: A Study of the Time Machine and Doctor Who

Bidwell, Elzbieta - Unforgetting Poland’s Forgotten Survivors: Critical Reflection on Survivor Narratives

Dubrovensky, Toni - Uplifting and Oppressive: Black Women’s Religious Identities in Corporate America

Hurley, Jennifer - Unraveling the Tapestries

Meschi, Maria - Engaging with Urban Congregations: People-Centered Design, Health Equity, and the Healthy Indiana Plan

Alvarez, Aliyah - The Art of Mexico’s Muralism and The Artists’ Who Painted Them

Smith, Jaden - Comparative Analysis of the Educational Systems of the United States and Costa Rica

Hargrove-Wiley, Ebony - Role of Rhox10 in Ovarian Cancer

Osborn, Emily - Sabanero Culture and Farming in Guanacaste, Costa Rica

Pollard, Lily - Social Welfare in Costa Rica: Exploring the Healthcare and Education Systems

Engineering and Technology
Physical Sciences
Health and Life Sciences
Social and Behavioral Sciences
Business
Education
Arts and Humanities
Study Abroad
Research, Room CE 450 AB

Session II  12:30 – 1:30 pm

P 1  Bansode, Swapnil - Multibody dynamics modeling in Formula SAE handling analysis
P 2  Collier, Christian - Mixed Reality For CNC Machine Training
P 3  Dhamare, Harshal - Creep Simulation of 3D Printed Inconel718
P 4  Dhulipalla, Anvesh - Modeling of Electron Beam Physical Vapor Deposition Process for Fabricating Thermal Barrier Coating
P 5  Dube, Tejesh - Metal Organic Framework and Zeolite Conformal Coatings for Emission Control
P 7  Muzquiz Garcia, Maria - Parametrizing Low Frequency Alternating Current Nerve Block
P 8  Nisi, Timothy - Design, 3D-Print, and Test Modular Mouthpiece for Effective Radiation Therapy
P 9  Ochoa Medina, Celia - UV-NBS Photocrosslinking of Antibodies Utilizing Various Light Intensities
P 10  Parker, Evan - Localization of Magnetic Nanoparticles in Ophthalmologic Surgery
P 11  Skaggs, Cayla - The Effects ofRaloxifene-Analog on Murine Bone Architecture and Fracture Toughness
P 12  Sikder, Orithi - Room Temperature Quantum Memory Array
P 13  Whitaker, Taylor - Photobiomodulation of Fibroblasts
P 14  Zhang, Jian - Removal and Repair Methods for Damaged Thermal Barrier Coatings
P 15  Adebowale, Iyuanne - LC-MS/MS Detects Urobilinoids from Feces in Fly Guts
P 16  Dawodu, Olabode - Exploring Small Molecule Interactions with APE1
P 17  Asher, Travis - Maximal results with minimal effort: blow flies as vertebrate resource indicators
P 18  Gordon, Heather - Analysis of Common Adulterants of Cocaine Using Gas Chromatography-Vacuum Ultraviolet Spectroscopy
P 19  Nealy, Cameron - Hydroclimate Trends in the Midwest During the Transition from the Late Glacial Period to the Modern Holocene Era Revealed Through Analysis of Lacustrine Sediments
P 20  Powell, Lindsey - A New Cretaceous-Paleogene Impact Spherule Locality from the Hell Creek Formation in South Western North Dakota, USA
P 21  Simpson, Jonathon - Site-Directed Mutagenesis of a Fatty Acid Elongase Condensing Enzyme
P 22  Stinnett, Maggie - Development of Aminoxy Reagents for Analysis of Carbonyl-Containing AHAS and ALS Biosynthetic Products
P 23  West, Payton - Analysis of Trace Explosives Using Gas Chromatography/Vacuum Ultraviolet Spectroscopy
P 24  Wood, Jacob - Identification of amino acids essential to the structure/catalytic properties of ELOs though site directed mutagenesis
P 25  Echegaray, Amanda - LiftMe-A Motivational Application to Support Underrepresented Students in Informatics
P 26  Fischer, Payton - Modeling Suitable Habitat for the Common Mudpuppy (Necturus maculosus maculosus) in Indiana, USA Utilizing Regional Data and Environmental DNA
P 27  Lee, Jeongwon - Quantitative Analysis of Stereocilia Lengthening in Mice During Development
P 28  Aidoo, Opebea - Perinatalatal Expression of DYRK1A in Male and Female Down Syndrome Mice
P 29  Allman, Elysabeth - Establishment of the Role of Aberrant Tau Oligomer Interactors on Toxicity In Vivo
P 30  Allsop, Anna - Influence of Astrocytes on Retinal Ganglion Cell Maturation and Disease When Derived From Human Pluripotent Stem Cells
P 31  Blackwell, Matthew - Identifying Influential Trisomic Genes in Addition to Dyrk1a that Contribute to Skeletal Phenotypes Found in Down Syndrome
P 32  Borden, Anne - Psychological Factors in Exercise Goal Attainment
P 33  Cadle, Rachel - Preparation of Bioinks and Cells for 3D Bioprinting
P 34  Dent, Shaquitta - The effect of music on virtual reality induced postural sway
P 35  Devanathan, Nirupama - Using Lipidomics to Identify Biomarkers for Hyperglycemic Onset Breast Cancer
P 36  Fagnon, Mahussi - Comparing Thromboelastography (TEG) and Turbidity Measurements to Monitor Clot Formation of Native and FITC-Tagged Fibrinogen
P 37  Gallardo, Edgar - Differential Effects of Varying Doses of Dietary Nitrate on Muscle Function and Blood Pressure in Older Subjects
P 38  Patton, Shelby - Evaluating Online Information on Dysmenorrhea
P 39  Goss, Dante - Skeletal Muscle Fatigue Curve Analysis Using MATLAB
P 40  Gritt, Jonathan - Determining the Role of Amot130 NTD-ACCH Association in Regulating Membrane Association
P 41  Hartman, Clarissa - An Optimized Method of DNA Extraction from FTA™ Classic Card for Downstream Sequence Analysis
Johnson, Crystal - Spinophilin Protein-Protein Interactions in the Striatum Subsequent to Psychostimulant Administration and Healthy Younger Adults

Jones, Jia - The Effects of Transcranial Direct Current Stimulation on Conditioned Pain Modulation in Healthy Older Adults and Healthy Younger Adults

Lentsch, Kelly - Genome Engineering Human Stem Cells for In Vitro Modeling of Neurodegenerative Diseases

Lindsay, Allison - Assessment of TLR-2 Expression in Salivary Epithelial Cells for Early Identification of Periodontitis

Martin, Christina - The Genomics of Development Rate Variation in Chrysomya rufifacies and Phormia regina

Powlen, Kristina - Potential Role of Sire Age Affecting Birth Weight of Offspring in Down Syndrome Mice

Ramos Solis, Nicole - TLR3 deficiency exacerbates the loss of epithelial barrier function during genital tract Chlamydia muridarum infection

Roberts, TyLynn - Determining accurate DYRK1A Levels in Down Syndrome Mice

Sears, Seth - Determining the Residues that Mediate Angiomotin Coiled-Coil Homology Domain Vesicle Fusion Activity

Swafford, Katie - Analysis of Osteoporosis Research

Ulrich, Carter - Effect of Nicotine on Fusobacterium nucleatum Biofilm Formation on Titanium Surfaces

Velchek, Madison - Optimizing Aerosolized Intranasal Drug Delivery at the Preclinical Level Using Multifunctional Nanocarriers and Advanced Neuroimaging

Thomas-Morris, Stasha - Decreasing infant mortality and Increasing Prenatal Care

Scriven, Kristin - From Summer Orientation to Spring Finals: Tracking First-Year IUPUI Students as they Transition into College to Monitor their Utilization of Resources, Level of Involvement and Engagement, and Overall Success

Chavan, Swapnali - Older Women and Discrimination at Work

Anderson, Madison - Dockless Scooter-Sharing in Indianapolis

Sheehan, Clare - Revisioning the Rococo through the Art of Maurice Quinten De La Tour

Beliles, Kerby - Women in STEM Receive More Backlash After Delivering Negative Feedback

Bogan, Brittany - Differences in Effects on Behavior of Silencing the Medial Amygdala-Lateral Septum Projection in Male and Female Wistar Rats

Bullard, Ciara - The Science of Black Hair

Kline, Gabrielle - Transferrable skills gained from experience as a peer-leader in a PLTL program: Development of a quantitative

Kriech, Amber - The Association Between Bullying, Weapon Carrying, and Mental Health – Results from a Nationally Representative Survey of High School Students

Di Martino, Daniel - Inflationary and Output Effects of Price and Currency Exchange Controls in Venezuela

Revilla, Rebecca - Reliability and Validity of The Behavioral Indicator of Resiliency to Distress Task in Community Adolescents

Engineering and Technology
Physical Sciences
Health and Life Sciences
Arts and Humanities
Social and Behavioral Sciences
Creative Activities, Room CE 405

Session 1  11:00 am – Noon

Musical Performances

Asher, Galileo - Performance of “Weird Breakfast” (2019) for Electronics
Chaubey, Harry - Standalone Binary
Lamb, Michael - Creating a Modular, Interactive Music Experience Using Environmental Sensors and Machine Automation
McConnell, Shannon - The Circle (musical performance on live technology-based instruments)
Parker, Ben - 84 (musical performance on live technology-based instruments)
Sridharan, Srikrishnan - Electro-Organic Live Performance
Turley, Chris - The Sight of Sound

Session 2  12:15 pm – 2:00 pm

2D- and 3D- Art, Immersive Interactions, Posters

Akre, Gabriel - Expression Observed
Chase, Kionna and Knauber, April - Casting in Metal
David, Arun and Edwin, Berty - Gesture based Controller for Real-time Audio Processing
Elliot, Jacob - Timbre Corrective Brass Instrument Mute
Jandernoa, Andrea - Sugar Works: an artistic exploration of diabetes
Knauber, April - Multiple Sensory Sculptures
Koontz, Madysen L - Found Materials Assemblage
Mendoza, Abigail L - Sino (Who?)
Schulte, Christine - The Islands of Langerhans – A Serious Game/Simulation
Stille, Joelle A - Modern Alchemy: Transmuting Complex Difficult Emotions into Social Gold
Vice, Matthew C - Controlling Analog Synthesizers Over Local and Wide Area Networks
Wang, Xiaochang - A Pedagogical Approach to Undergraduate Level Sound Design
Williams, Paul - Utilizing Digital Fabrication in my Process
Williams, Stephanie R - A Changed Landscape
Wright, Samantha - Portal