2018
IUPUI Student Research Day
Friday | April 6 | 10–2 p.m.
Hine Hall and University Tower

PROGRAM

ABSTRACT BOOKLET QR CODE

IUPUI CENTER FOR RESEARCH AND LEARNING
Division of Undergraduate Education
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<tr>
<th>Time</th>
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<tr>
<td>9:00-10:00 am</td>
<td>Registration</td>
<td>Hine Hall Auditorium</td>
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<tr>
<td>10:00-10:05 am</td>
<td>Welcome – Dominique M Galli, CRL Executive Director</td>
<td>Hine Hall Auditorium</td>
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<tr>
<td>10:05-10:45 am</td>
<td>Short Undergraduate and Graduate Student Presentations:</td>
<td>Hine Hall Auditorium</td>
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<tr>
<td></td>
<td>Micah Faidley (2017/18 UROP Awardee) - <em>The Experience of Racism on Health Outcomes: the Moderating Impact of Mindfulness</em></td>
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<td>Rizwana Biviji-Sharma - <em>Evaluating the Quality of Mobile Health Apps for Maternal and Child Health</em></td>
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<td>Bidisha Mitra - <em>After All This Time, We Found You Ms. “Sneaky” P</em></td>
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<td>Alex Brinker (2017/18 BJR Awardee) - <em>Bone Healing in Spaceflight</em></td>
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<tr>
<td>11:00-12:00 pm</td>
<td>High School Student Welcome Session I</td>
<td>Hine Hall Auditorium</td>
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<tr>
<td>11:00-12:00 pm</td>
<td><strong>Poster Session I</strong> *</td>
<td>University Tower-Ballroom</td>
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<tr>
<td>12:00-12:45 am</td>
<td><strong>Lunch Break</strong></td>
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<tr>
<td>12:45-1:45 pm</td>
<td>High School Student Welcome Session II</td>
<td>Hine Hall Auditorium</td>
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<tr>
<td>12:45-1:45 pm</td>
<td><strong>Poster Session II</strong> *</td>
<td>University Tower-Ballroom</td>
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<tr>
<td>1:45-2:00 pm</td>
<td>Drawing: Scavenger Hunt Winners Announcement of Best Undergraduate Poster Awardees</td>
<td>University Tower-Ballroom</td>
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* concurrent judging of all undergraduate student individual and team posters
Poster Presentations

Session I  11:00 am – Noon

P 1  Anderson III, Richard - Perceptions of Innovation at IUPUI
P 2  Cook, Gage - The Changing War Experience of WW1 as per Erich Maria Remarque
P 3  Francis, Delaney - How Autonomy & Agency Influence Self-Advocacy
P 4  Woodworth, Kassie - 3D Printing of Large Scale Ceramic Components
P 5  Stuckey, Jacey - Private Equity and Its Effects on Retailers
P 7  Dyson-Drake, Jasmine - What Should Massage Education do More of, Different, Start, and, Stop? Massage Education Stakeholder Views from the 2017 Alliance for Massage Therapy
P 8  Lakmala, Prathima - Transferrable skills gained from experience as a peer-leader in a PLTL program: reflections, applications, and long-term impact on professional lives
P 9  Piekarzewska, Agnieszka - International Students Adaptation Process in Midwestern Urban School of Engineering and Technology
P 10  Kinsey, Daniel - Determining the Relationship Between Empathy and Burnout in Medical Students
P 11  Carroll, Peyton - The relationship between parental abandonment and depression diagnosis in girls that are victims of commercial sexual exploitation
P 12  Hoernschemeyer, Haley - Ryan White: A Geospatial Analysis of his Correspondence
P 13  Kirby, Allison - Anxiety and Alcohol Use in E-Cigarette Users: The Mediating Role of Positive Alcohol Expectancies
P 14  Capulong, Jiva - Identifying Key Challenges and Opportunities in Food Support Through Observation and Interviews
P 15  Meyers , Elisabeth - mHBS powered by DHIS2: Neonatal Device Prototyping and Educational App Development to Support Targeted Neonatal Training Initiatives among Healthcare Workers in Low and Middle-Income Countries
P 16  Bansode, Swapnil - Redesign of snowmobile to reduce emissions and noise levels
P 17  Cardona-Serrano - Carolina - Recycled and Household Plastic Suitability for Reuse via 3D Printing
P 18  Chowdhury, Nahida Sultana - TRR: Trust-based Mobile apps selection and ordering over traditional feedback mechanism
P 19  Dhamaed, Harshal - Design of 3D printer component for extrusion of stainless steel-based slurry
P 20  Diwate, Abolee - A Residential Energy Management Unit
P 21  Dube, Tejesh - Study of dimensional accuracy and printing parameters in 3D printed PLA
P 22  Grove, John - Assessment of Mixed Reality Virtual Environment for STEM Learning
P 23  Hawaldar, Nishant - 3D printing of molecular sieve zeolites 13X, 5A, 4A and 3A monoliths
P 24  Huang, Xiang - Nanoscale Transfer Printing of Plasmonic Structures
P 25  Pai Raikar, Piyush - 3d Printing of Ceramics: Zircon
P 26  Pandey, Saurabh - W-CDASH: A Service-based Decentralized Prediction System of Social Harm Events
P 27  Pawar, Rohit - Distributed Cyberbullying Detection System
P 28  Shetty, Vighnesh - Creep Modeling of 3D Printed Metals
P 29  Yang, Xuehui - Additive manufacturing of polymer derived ceramics
P 30  Zhang, Yi - Prediction of grain structure of laser powder fused metal using combined CFD and CA approach
P 31  Watson, Brandon - Polymer Composite Materials for Flexible Electronics
P 32  Soruco, Joseph - Fabrication and Characterization of Nano-Scale Magnetic Materials
P 33  Canner, Samuel - Are Vitamin E and PUFA Driven Together By Cholesterol? Computer Simulation Studies
P 34  Davis, Kymeri - Detection and Monitoring of Compounds used in Drug Facilitated Sexual Assaults
P 35  Kennedy, Tori - Mapping Blue Ice Moraine Surface Morphology to Understand Antarctic Climate and Ice Sheet History
P 36  Kukoyi, Kiyomi - Electrochemical Detection of Chlorate Using Paper-based Devices for Crime Scene Investigation
P 37  Martin, Christina - Towards Developing Lipid Profiles from Biological Samples During DNA Typing
P 38  Rael, Ashur - Micropacked Capillary Gas-Solid Chromatography with 3 and 7.5 µm Particles for Ignitable Liquid Separations using Headspace Sampling
P 39  Ruchti, Jacqueline - Determination of the Partition Coefficient of TNT in Chloroform/Water
P 40  Cook, Renee - PUFA-Induced Domain-ation of Lipid Rafts
P 41  Pulliam, Alexis - The effects of raloxifene analog on bone quality
P 42  Alhijji, Saleh - The Effects of Epigallocatechin-gallate on Dental Adhesives and MMP Inhibition
P 43  Aqeel, Dania - A qualitative analysis to understanding participation in physical activity and sedentary behaviors in veterans with fibromyalgia
P 44 Aremu, Azeez - Identification of Genes Important for the Pathogenesis of Lyme disease
P 45 Audu, Aishat - Expression of Progesterone Receptors in Ovarian Cancer Cell Line
P 46 Balasubramani, Deepali - Investigating the role of plasma uric acid levels in Ugandan children with severe malaria
P 47 Black, Emma - “How did they not mention that?” - A Systematic Review of Adolescent and Young Adult Cancer Survivors’ Experiences of Fertility, Sexuality, and Romantic Relationships
P 48 Blackwell, Matthew - Identifying influential Trisomic Genes in Addition to Dyrk1a that Contribute to Skeletal Phenotypes found in Down Syndrome
P 49 Boone, Joseph - Investigation of the efficacy of p65 (NF-κB, RelA) gene knockdown via siRNA and treatment with DCA to increase pancreatic cancer radiation sensitivity
P 50 Bustamante, David - Experimental and Computational Study of Cell Spheroids Used for Scaffold-Free 3D Bioprinting
P 51 Chang, Eric - CaMKK2 as a Dual Strategy to Alleviate Metastatic Tumor Burden and Treatment-Induced Bone Loss in Advanced Prostate Cancer Patients
P 52 Davis, Symphony - Researching a Pharmaceutical Treatment For Hydrocephalus
P 53 Devanathan, Nirupama - Systematic Survey of the Role of IGF in the Link between Diabetes and Cancer
P 54 Evans, Eric - Measuring the Effect of Active Video Games on Aerobic Outcomes and Enjoyment in Young Healthy
P 55 Gorman, Rebecca - Climate Change Vulnerability Index for Marion County, IN
P 56 Hernandez, Maribel - GABRA2 Expression in Selectively Bred Mouse Lines for High and Low Alcohol Drinking
P 57 LaCombe, Jonathan - Rapid Degradation of EGCG Impairs Targeted Inhibition of Dyrk1a
P 58 Lee, Joonyong - Induction of Ascl1 in Maternal Liver Ensures a Healthy Pregnancy
P 59 Lindsay, Alison - Assessment of TLR-2 Expression in Salivary Epithelial Cells for Early Identification of Periodontitis
P 60 Mahajan, Shivansh - Active-site Mutants of Benzoylformate Decarboxylase Provide a Variety of Implications for the Roles of the Active-site Residues, His70 and His281
P 61 McGrew, Courtney - Effect of Nicotine on Streptococcus mutans Binding to Collagen
P 62 Messenger, Evan - Gender Differences in Intracerebral Hemorrhage Risk Factors and Severity
P 63 Mpofu, Philani - A Pseudo-likelihood Method For Estimating Misclassification Probabilities When Outcome Data are Partially Observed.
P 64 Ramirez, Michelle - Lihawu Male Mentoring Camp: Understanding the Long Term Impacts on Attitudes and Perceptions Relating to Male Circumcision, HIV/STI Knowledge, Gender Inequalities and Masculinities in Swaziland
P 65 Roy, Josh - Quantifying Soft Tissue Manipulation
P 66 Sanchez, Juan - Adrenergic Effects on PDE10A Expression
P 67 Shields, Priya - Influence of Various Extrinsic Environment Composition Factors on Glaucomatous Retinal Ganglion Cell Axonal Outgrowth
P 68 Stevens, Skylar - The Effect of Listening to Music on Posture in a Dynamic Virtual Environment
P 69 Wagenknecht, Dawn - Nicotine Increases Streptococcus mutans Biofilm and Arginine Negates the Effect
P 70 Wind, Brandon - Cathodal Transcranial Direct Current Stimulation of Cerebellum Reduces Temporal Summation of Pain in Healthy Young Adults
P 71 Wolfe, Mackenzie - Performance of a Timing-Based, Dexterous Task of the Hand Improves with M1 tDCS
P 72 Zdanowicz, Nina - The Use of tDCS to Enhance Learning of a Dart Throwing Task
P 73 Turner, Sean - Contrasting Bone Phenotypes in the Different Mouse Models of Down Syndrome Suggests Trisomic Dyrk1a Does Not Act Alone
P 74 Behrouzi, Adib - Analysis of the RD29A Cold-Regulated Promoter in Soybean and Arabidopsis.
P 75 Hudson, Theresa - Whichaway are the algae?
P 76 Chapin, Cecelia - Creation of a CRISPR Initiated Mutation in the Dehydrin ERD10
Session II  12:45 – 1:45 pm

P 1  Fierst, Adam - Vergangenheitsbewältigung in Post-World War II German Cinema
P 2  Harrah, Peter - Mapping the Oratory of Frederick Douglass
P 3  Huff, Andrea - Structural Racism and the Impact of Deconcentration of Impoverished Peoples
P 4  McCrae Jr., Don - Are The BRICS Countries On The Decline?
P 5  Mooar, Joseph - Educational System in Germany Versus America’s
P 6  Ayeni, Oyedotun - 3D Printing of Metal Infused Filament
P 7  Bartlett, Mia - Landscape Analysis and Evaluation of Utility for Wearable and Wireless Sensors to Monitor Infant Vital Signs in a Wearable Biomedical Device
P 8  Esperanca, Alvaro - A Framework for Social Media Sensing of Population Health
P 9  Francois, Bri - Inferring Trisomic Interactions in Down Syndrome Skeletal Phenotype using Dp9Tyb Mice
P 10  Meng, Lingbin - DFT study of anisotropic mechanical properties of LixCoO2
P 11  Mitchell, Morgan - Simulation and Apparatus Design for Dielectrophoresis to Remediate Brownfields
P 12  Morales, Laura - Quantifying the Physical Properties of Bronze Metal
P 13  Padmanabhan, Anudeep - Fatigue characterization of 3-D printed 15-5 stainless steel
P 14  Sherman, Jesse - FTIR Characterization of Media via Metal Hole Array
P 15  Whitaker, Taylor - The Influence of Reflow Profile on the Thermal Fatigue Behaviors of BGA Solder Joint
P 16  Alam, Tanjimul - Recycled and Household Plastic Suitability for Reuse via 3D Printing
P 17  Daniel, Ebin - High specific energy LiNiPO4/Graphene as cathode material for Lithium ion batteries
P 18  Frye, Michael - Applying Custom Loading Waveforms to Emulate Natural Conditions
P 19  Golub, Michael - Characterization Of Tensile And Hardness Properties And Microstructure Of 3d Printed Bronze Metal Clay
P 20  Hickey, James - Synthesis and 3D Printing of Zircon Ceramic Slurry
P 21  Hudson, Britney - Hypoxia-Inducible Hydrogels via Enzyme-Immobilization
P 22  Jangam Rajshekar, Apeksha - Opportunistic Indoor tracking
P 23  Phillips, Tyler - An Accurate and Cancellable Facial Authentication Scheme
P 24  Lai, Patrick - Integrating Disparate Electronic Data Sources to Identify and Analyze Spatial Chlamydia Health Disparities
P 25  Ye, Chuanwei - Matrix stiffness affects metabolic signaling and proliferation in breast cancer cells
P 26  Bogan, Brittany - Comorbidity of Stress and Voluntary Alcohol Consumption in Male and Female Wistar Rats
P 27  Darkey, Moses - Characterization of a Sulfate Transporter, a Putative Substrate of the Calcium Dependent Protein Kinase 3 (CDPK3) in Toxoplasma gondii
P 28  Hackett, Jason - Subjective Sleep Quality and Pain Catastrophizing are associated with Chronic Post-Traumatic Headache in Mild Traumatic Brain Injury Patients
P 29  Holland, Robert - The Effect of High Bone Mass on Orthodontic Tooth Movement
P 30  Hopf, Brett - Determining the Role of Rpn4 in the Formation of a4 HMWCs
P 31  Knox, Adam - Analysis of 16-Week-Old Dp1Tyb Mice Femurs Suggests Sex Dependent Skeletal Effects of Down Syndrome
P 32  Lahiri, Niloy - Suppression of Neuroinflammation in Alzheimer’s disease by Unique Glucocorticoid-induced leucine zipper (GLZ) analog
P 33  McKinney, Reed - Effects of N-Demethylation Nicotine Metabolites on Streptococcus mutans Biofilm Formation
P 34  Nambiar, Shashank - Maternal Liver Turnover and Adaptations during Pregnancy
P 35  Ochoa, Celia - UV Nucleotide Binding Site Photocrosslinking of Antibodies at Various Light Intensities
P 36  Rone, Victoria - Interpreting Developing Results of the Human Connectome Project
P 37  Sears, Seth - No Title Provided
P 38  Thomas, Jared - Skeletal Abnormalities Exhibit Sexual Dimorphism in Down Syndrome Mice
P 39  Valdez, Sinai - The Effects of RAGE inhibition in Mice and Bone Resorption
P 40  Ainoosah, Sultan - Managing Esthetic Complications with Digitally Fabricated Complete Dentures
P 41  Dent, Shaquitta - Effectiveness of Yoga and Stress Relaxation Elective Courses on Stress and Anxiety in College Students
P 42  Dodevska, Jovana - Low Magnitude Mechanical Signals Suppress Expression of Osteolytic Genes in C4-2B Human Prostate Cancer Cells
P 43  Greenwell, Davin - M1 tDCS Does Not Influence Performance of a Fine-Motor Skill Tweezer Task
P 44  Ho, Christina - 1H NMR Spectroscopy of Norepinephrine Binding to Lipid Vesicles
P 45  Long, Rachel - Survey Quantifying Epigallocatechin-3-gallate (EGCG) Usage in Individuals with Down Syndrome
P 46  McDonald, Hannah - Factors in Compliance to Developmental Follow-Up of NICU Graduates at 2 years of age
P 47  Park, Yeeun - Genetic Variation of Anti-aging Gene FGF23 is Associated with Larger Cortical Thickness in Alzheimer’s Disease
P 48 Parker, Abigail - Developmental and Sex-Specific Differences in Trisomic Dyrk1a Expression in Brain Regions of Ts65Dn Down Syndrome Mice

P 49 Talman, Zoe - Combined Alcohol and Methamphetamine Abuse: A Link to Parkinson’s Disease?

P 50 Zakeresfahani, Arash - Trigger Point Self-Care for Chronic Neck Pain: Pilot Study Results

P 51 Barajas, Josh - The effects of peer led teaching on pre and post-examination scores and openness to food nutritional exploration.

P 52 Whiteside, Jake - Preclinical Treatment of Neurobehavioral and Brain Structural Deficits in the Ts65Dn Down Syndrome Mouse Model with a Novel Dyrk1a Inhibitor

P 53 Ogiego, Briana - Investigating Climate and Society Linkages in the Midcontinental United States using High-Resolution Lake Sediment Archives

P 54 Cochran, Zachary - Passive PT-Symmetric Electronics With Memristors

P 55 Walbridge, George - An efficient synthesis of acetylenic natural product through a biorenewable precursor

P 56 Huls, Elisabeth - Investigating Climate and Society Linkages in the Mid-Continental United States using High Resolution Lake Sediment Archives

P 57 Skaggs, Christine - LC-MS/MS Detects Urobilinoids from Feces in Fly Guts

P 58 Nafiseh, Amira - Improving Interventions Designed for Pediatric Patients Diagnosed with ADHD and Anxiety

P 59 Hunton, Taylor - Physical and sexual abuse as risk factors for violent crime: Important points of intervention to reduce recidivism

P 60 Kosary, Kaitlyn - Full Moon and Suicides

P 61 Kriech, Amber - The Role of School Connectedness in Adolescents’ Romantic Relationships and Condom Use Self-efficacy

P 62 Zervos, Andrew - Neighborhood Context and Adolescent Men’s Daily Behaviors

P 63 Studebaker, Amanda - The relationship between family history of alcohol use and problematic alcohol use in electronic cigarette users: The mechanistic role of positive alcohol expectancies

P 64 Artis, Jabari - Intrinsic vs Extrinsic Motives for Volunteering: Impact on Corporate Social Responsibility

P 65 Echegaray, Amanda – LiFT Me-Lift Me – A motivational Application to Support Underrepresented Students in STEM