# IUPUI Student Research Day – Program 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</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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<td>10:05-10:45 am</td>
<td><strong>Short Undergraduate and Graduate Student Presentations:</strong></td>
<td>Hine Hall Auditorium</td>
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<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>Lunch Break</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  Dhamade, 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
Aremu, Azeez - Identification of Genes Important for the Pathogenesis of Lyme disease

Audu, Aishat - Expression of Progesterone Receptors in Ovarian Cancer Cell Line

Balasubramani, Deepali - Investigating the role of plasma uric acid levels in Ugandan children with severe malaria

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

Blackwell, Matthew - Identifying influential Trisomic Genes in Addition to Dyrk1a that Contribute to Skeletal Phenotypes found in Down Syndrome

Boone, Joseph - Investigation of the efficacy of p65 (NF-kB, RelA) gene knockdown via siRNA and treatment with DCA to increase pancreatic cancer radiation sensitivity

Bustamante, David - Experimental and Computational Study of Cell Spheroids Used for Scaffold-Free 3D Bioprinting

Chang, Eric - CaMKK2 as a Dual Strategy to Alleviate Metastatic Tumor Burden and Treatment-Induced Bone Loss in Advanced Prostate Cancer Patients

Davis, Symphony - Researching a Pharmaceutical Treatment For Hydrocephalus

Devanathan, Nirupama - Systematic Survey of the Role of IGF in the Link between Diabetes and Cancer

Evans, Eric - Measuring the Effect of Active Video Games on Aerobic Outcomes and Enjoyment in Young Healthy

Gorman, Rebecca - Climate Change Vulnerability Index for Marion County, IN

Hernandez, Maribel - GABRA2 Expression in Selectively Bred Mouse Lines for High and Low Alcohol Drinking

LaCombe, Jonathan - Rapid Degradation of EGCG Impairs Targeted Inhibition of Dyrk1a

Lee, Joonyong - Induction of Ascl1 in Maternal Liver Ensures a Healthy Pregnancy

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

Mahajan, Shivansh - Active-site Mutants of Benzoylformate Decarboxylase Provide a Variety of Implications for the Roles of the Active-site Residues, His70 and His281

McGrew, Courtney - Effect of Nicotine on Streptococcus mutans Binding to Collagen

Messenger, Evan - Gender Differences in Intracerebral Hemorrhage Risk Factors and Severity

Mpofu, Philani - A Pseudo-likelihood Method For Estimating Misclassification Probabilities When Outcome Data are Partially Observed.

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

Roy, Josh - Quantifying Soft Tissue Manipulation

Sanchez, Juan - Adrenergic Effects on PDE10A Expression

Shields, Priya - Influence of Various Extrinsic Environment Composition Factors on Glaucomatous Retinal Ganglion Cell Axonal Outgrowth

Stevens, Skylar - The Effect of Listening to Music on Posture in a Dynamic Virtual Environment

Wagenknecht, Dawn - Nicotine Increases Streptococcus mutans Biofilm and Arginine Negates the Effect

Wind, Brandon - Cathodal Transcranial Direct Current Stimulation of Cerebellum Reduces Temporal Summation of Pain in Healthy Young Adults

Wolfe, Mackenzie - Performance of a Timing-Based, Dexterous Task of the Hand Improves with M1 tDCS

Zdanowicz, Nina - The Use of tDCS to Enhance Learning of a Dart Throwing Task

Turner, Sean - Contrasting Bone Phenotypes in the Different Mouse Models of Down Syndrome Suggests Trisomic Dyrk1a Does Not Act Alone

Behrouzi, Adib - Analysis of the RD29A Cold-Regulated Promoter in Soybean and Arabidopsis.

Hudson, Theresa - Whichaway are the algae?

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 LiNiPO4/Graphene as cathode material for Lithium ion batteries
P 11 Frye, Michael - Applying Custom Loading Waveforms to Emulate Natural Conditions
P 12 Golub, Michael - Characterization Of Tensile And Hardness Properties And Microstructure Of 3d Printed Bronze Metal Clay
P 13 Hickey, James - Synthesis and 3D Printing of Zircon Ceramic Slurry
P 14 Hudson, Britney - Hypoxia-Inducible Hydrogels via Enzyme-Immobilization
P 15 Darkey, Moses - Characterization of a Sulfate Transporter, a Putative Substrate of the Calcium Dependent Protein Kinase 3 (CDPK3) in Toxoplasma gondii
P 16 Alman, 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 Bogan, Brittany - Comorbidity of Stress and Voluntary Alcohol Consumption in Male and Female Wistar Rats
P 19 Light, Apeksha - Opportunistic Indoor tracking
P 20 Ye, Chuanwei - Hypoxia-Inducible Hydrogels via Enzyme-Immobilization
P 21 Lopez, Peter - Hypoxia-Inducible Hydrogels via Enzyme-Immobilization
P 22 Hackett, Jason - Subjective Sleep Quality and Pain Catastrophizing are associated with Chronic Post-Traumatic Headache in Mild Traumatic Brain Injury Patients
P 23 Phillips, Tyler - An Accurate and Cancellable Facial Authentication Scheme
P 24 Mitchell, Morgan - Simulation and Apparatus Design for Dielectrophoresis to Remediate Brownfields
P 25 Harrah, Adam - Analysis of 16-Week-Old Dp1Tyb Mice Femurs Suggests Sex Dependent Skeletal Effects of Down Syndrome
P 26 Yeeun, Adam - 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