

Indianapolis Project STEM 2015

Student/Project

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Effects of Rapamycin mediated autophagy on H9c2 cardiac myoblast cell proliferation in the presence of TNF alpha, a known contributor to end stage right heart failure

Gayatri Balasubramanian

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Mimicking canine disease detection in the lab: Optimizing analysis of human biosamples by gas chromatography mass spectrometry

Ashwin Biju

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Development of a new gene expression system in yeast Saccharomyces cerevisiae

Andrew Brown

Avon High School '16

Characterization of Neurons using Computer Modeling

Supriya Chittajallu

Pike High School '17

Delayed Effects of Acute Radiation Exposure (DEARE) in a Murine Model of the Hematopoietic Acute Radiation Syndrome: Multiple-Organ Injury Consequent to Total Body Irradiation

Bailey Coleman

Hamilton Southeastern High School '16

Comparison of CGRP & PACAP Mediated Dynamic Mass Redistribution Responses in Human Peripheral iPS Neuron, Neuroepithelioma (SK-N-MC), and Recombinant Cell Lines

Aditya Datar

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Flow Cytometry Data Analysis in Cells

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Cardiovascular Effects of Orthotopically Implanted Pancreatic Cancer Cachexia

Richard Du

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Role of the basolateral amygdala in social familiarity-induced anxiety

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Role of Dynamin in oxidative stress induced apoptosis in osteocytes

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Investigation of post transcriptional regulatory associations of lncRNAs across 16 human tissues

Nicholas Gehring

Park Tudor High School '16

The Effects of Musical Enrichment on Rabbits

Daniel Gimeno

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Web Application for Lilly Endocrine/Diabetes Drug Development

Aryaman Gupta

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Assessing the intra-specimen variance of mechanical properties of bone beams.

Kamna Gupta

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Therapeutic Evaluation of Griseofulvin in a Mouse Model of Choroidal Neovascularization

Andrew Gutierrez

Greenfield-Central High School '15

Low-impact multi-directional loading using a fine-wire climbing substrate enhances the mechanical properties of the mouse femur

Asif Hossain

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Properties of a Hydrogel in Scaffolds for Accelerated Bone Regrowth

Mara Kennedy

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Efficacy of anti-MuSK agonist antibody in mouse model of ALS

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ADMA and DDAH expression alterations after Acute Kidney Injury

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Using Pharmacogenetics to Determine the Role of the Orexin System in Panic-Associated Behavior and Physiology

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Identification of a biomarker for diagnosis of bronchiolitis obliterans syndrome

Meena Moorthy

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The Effects of Fucosylation in Improving the Homing Capabilities of CD34⁺ Cells in Diabetic Retinopathy

Leanne Morical

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Regulation of transcription by ubiquitylation and rescue pathways

Natalie Murdock

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Understanding the compactibility and compressibility behavior of various pharmaceutical excipients

Swetha Nakshatri

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CDK 4/6 inhibitor Palbociclib shows different time-dependent cell proliferation and senescence inhibition potency in breast and lung cancer cell lines

Sai Nimmagadda

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Investigation of frequently mutated genes and associated biological networks in Glioblastoma patients

Tierra Nolan

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Endoscopic diode laser cyclophotocoagulation (ECP) Treatment in aphakic and pseudophakic children

Anish Patel

Carmel High School '16

Measurement of emotional affinity of mice using a spatial discrimination assay

Meera Patel

Fishers High School '16

Combined Sewer Overflows (CSOs): Environmental Contamination and Public Health Implications

Grace Perkins

Eastern Hancock High School '15

Modulation of EGF Receptor Signaling in Pancreatic Cancer by microRNA-10b

Andrei Petrache

North Central High School '16

Molecular dynamics simulation of anisotropic systems

Masumi Prasad

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Lentiviral DNA Myc-CRY2-OCRL Construction for Optogenetic Regulation of Intraocular Pressure

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Role of K_v1 channels in the regulation of coronary blood flow

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Development of drug candidates for treatment of bone diseases

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IT data processing, integration and visualization for Cardiometabolic Diseases

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Using sulfur isotopes to track sulfur bacteria activity in anoxic Fayetteville Green Lake

Tianqi Sun

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Application of Schrödinger's Equation in a PT Medium

Shivani Suravarjjala

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Bacterial adhesion on oral epithelial cells and correlation to periodontitis

Anis Tai

Ben Davis High School '16

Development of drug candidates for treatment of bone diseases

Anish Thyagarajan

Park Tudor High School '16

Use of Camera Augmented Mobile C-arm Functionality for Shrapnel Removal

Jakub Walerstein

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Calcium imaging revealed epileptogenesis in cortical slices following layer V transcortical lesion (undercut) injury

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Application of Schrödinger's Equation in a PT Medium

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