



Madeleine Ash
Booker T. Washington HSPVA

Host: Bruce Beutler, M.D.

Genotyping to Confirm Mendelian Inheritance of Engineered Mutations



Azim Dharani
Hebron High School

Host: Diana Tomchick, Ph.D.

Buffer Optimization of Unsuccessfully Screened Spirochete Proteins



Lauren Baron
Greenhill School

Host: Khuloud Jaqaman, Ph.D.

Quantitative Analysis of VEGFR2 and CD36 Colocalization in Endothelial Cells



Martin Donjuan
Irving High School

Host: Helmut Kramer, Ph.D.

Testing the Role of Phagocytosis in Oxidative and UV Stress



Lane Cordy
Science and Engineering Magnet School (SEM)

Host: Fan Gao, Ph.D.

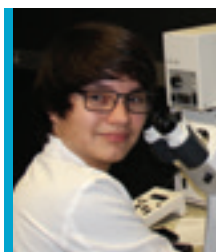
Simulating Body-Powered Upper-Limb Prosthesis Operation Robotically



Erika Galindo
Duncanville High School

Host: Carole Mendelson, Ph.D.

Role of miR-199a in the Regulation of Surfactant Protein-A (SP-A) Gene Expression in Human Fetal Lung



Enrique De Alba
Science and Engineering Magnet School (SEM)

Host: Genevieve Konopka, Ph.D.

Investigating the Role of Foxp1 in Motor Coordination and Vocal Behavior



Eskedar Girmash
Wylie High School

Host: Adrian Rothenfluh, Ph.D.

Effect of 5HT_{2A} Specific Serotonin Agonist and Antagonist on Drosophila Melanogaster Feeding Behavior



Mark De Los Santos
Nolan Catholic High School

Host: Qing Zhong, M.D., Ph.D.

OFD1 Overexpression in Retinal Pigment Epithelium Cells: Cell Line Building



Kevin Gonzalez
Greenhill School

Host: Mike Buszczak, Ph.D.

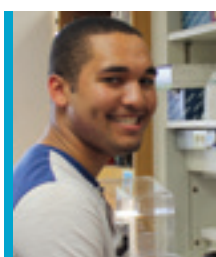
Reverse Genetic Screen of Uncharacterized Genes Highly Expressed in the Drosophila Female Germlines



Josh Kurian
Plano West Senior High School

Host: Vitaly Margulis, M.D.

Effect of CycloRGD Peptide on E-cadherin Depletion in Renal Carcinoma Cells



Sean Howard
Jesuit College Preparatory School of Dallas

Host: Dwight German, Ph.D.

Creating a Blood Biomarker Panel for Autism Using Peptoids and Proteins



Stu Mair
Lovejoy High School

Host: Ram Mani, Ph.D.

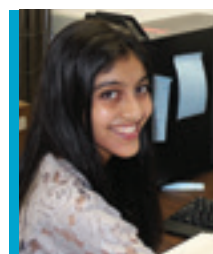
Engineering Cancer-associated Genomic Rearrangements Using the CRISPR-Cas9 System



Catherine Jiang
The Hockaday School

Host: Kim Orth, Ph.D.

Identifying the Chaperone for Vibrio parahaemolyticus T3SS1 Effector VopR



Sujal Manohar
North Hills Preparatory School

Host: Matt Petroll, Ph.D.

Fibronectin as a Regulator of Corneal Fibroblasts in D Fibrin Matrices



Mahesh Krishna
John Paul II High School

Host: Xiankai Sun, Ph.D.

Glutathione Coated Gold-copper Alloy Nanoparticles as Scaffolds for Active Targeting of Non-small Cell Lung Cancer



Jordan McCoy
Lake Dallas High School

Host: Ryan Hibbs, Ph.D.

Removing Glycosylation Sites to Aid the Crystallization of the $\alpha 3\beta 4$ Nicotinic Acetylcholine Receptor



Kartik Kulkarni
Independence High School

Host: Nikhil Munshi, M.D., Ph.D.

Controlling Gene Expression for Cardiac Reprogramming



Maria Mendoza

Irma Rangel Young Women's Leadership School

Host: Guosheng Liang, Ph.D.

Functional Determination of ChREBP- α and ChREBP- β Isoforms in Chrebp Knockout Mice



Diana Olmos

Uplift Williams Preparatory

Host: Ganesh Raj, M.D., Ph.D.

Effect of Progesterone on Prostate Cancer Cell Proliferation

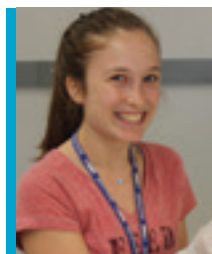


Rosa Mendoza

Irma Rangel Young Women's Leadership School

Host: Jennifer Kohler, Ph.D.

Expression and Purification of Human Polypeptide GalNAc Transferase 1 from *Pichia pastoris* for High-throughput Screening



Molly Paley

Booker T. Washington HSPVA

Host: Linda Baker, M.D.

Scoring Phenotypic Severity in Prune Belly Syndrome Patients



Hailey Modi

Texas Academy of Math & Science

Host: Benjamin Chen, Ph.D.

DNA-PKcs Regulates AMPK Activation in Response to Oxidative Stress



Sanjana Ravi

Plano East High School

Host: Deepak Nijhawan, M.D., Ph.D.

Generation of a RBM39 Nanoluciferase Reporter Assay



Yesibel Molina

Harmony School of Nature

Host: Rajiv Chopra, Ph.D.

Quantification of Doxorubicin Release from Thermosensitive Liposomes by Fluorometric Spectroscopy



Alejandro Rey Hipolito

Jesuit College Preparatory School of Dallas

Host: Peter Tsai, M.D., Ph.D.

Expression Patterns and Therapeutic Efficacy in Cerebellar Mouse Models of Autism

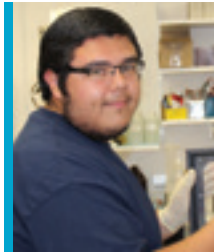


Jasmine Rodriguez

School of Health Professions at Townview

Host: Dawen Zhao, M.D., Ph.D.

Phosphatidylserine-rich Liposomes Facilitate the Recognition and Phagocytosis by Macrophage Cells



Jonathan Rodriguez

Lamar High School

Host: Dominika Borek, Ph.D.

Mitochondrial Copy Number in Healthy and Diseased Hearts



Javier Sigala

Irving High School

Host: Hasan Zaki, Ph.D.

The Role of NOD2 in TLR Signaling in Macrophages



Aliya Somani

Talented and Gifted Magnet High School (TAG)

Host: Chalermchai Khemtong, Ph.D.

Preparation and Characterization of Gadolinium-loaded Liposomes for Pulmonary Tumor Imaging



Lily Sumrow

The Hockaday School

Host: Rajiv Chopra, Ph.D.

Quantification of Released Doxorubicin Concentration Via Spectral Fluorometry



Samantha Taussig

The Hockaday School

Host: Kirsten Tulchin-Francis, Ph.D.

Plantar Pressure Indications of Longitudinal Medial Arch Development in Children without Foot Pathology



Mera Tegene

Talented and Gifted Magnet High School (TAG)

Host: Ann Stowe, Ph.D.

Non-nuclear Estrogen Receptor Activation Correlates With a Larger Magnitude of Stroke Recovery

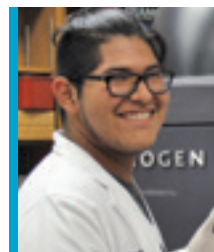


Lorena Tirado

Irving High School

Host: Jon Graff, M.D., Ph.D.

Establishing the Relationship Between Circulating Carbohydrates and Eating Behaviors in *Drosophila melanogaster*



Luis Vasquez

Sunset High School

Host: Li Liu, Ph.D.

Assessing Potential Differential Efficacy of Vascular Disrupting Agents on Diverse Tumor Lines



Aaron Vengalil

Jesuit College Preparatory School

Host: Ming-Chang Hu, M.D., Ph.D.

High Phosphate Inhibits the Outgrowth from Aortic Rings Ex Vivo



Annie Vu

Highland Park High School

Host: Sandeep Burma, Ph.D.

Characterization of Silicon-induced Tumors in a Mouse Model of Glioma



Ashley Watson

Woodrow Wilson High School

Host: Shin Yamazaki, Ph.D.

The Effects of Restricted Voluntary Exercise on Eating Behavior in High Fat Diet Fed Mice



Heather Xiao

The Hockaday School

Host: Sherwood Brown, M.D., Ph.D.

Pilot Study of Icaritin in Bipolar Disorder and Alcohol Use Disorder