



SMU

Interdisciplinary Institute
DEDMAN COLLEGE OF HUMANITIES & SCIENCES

Hamilton Undergraduate Research Scholars for the 2014-2015

SUMMER

DIVISION II

Miles Fisher

Autonomic Adjustments to Psychosocial stress: Markers of Psychological and Physical Health Risk?

Mentor: Thomas Ritz, Psychology

Courtney Cox

SMU CARE Project

Mentor: Chrystyna Kouros, Psychology

Daniel Trujillo

SMU CARE Project

Mentor: Chrystyna Kouros, Psychology

Katie Bridges

Victim and Perpetrator Status and Perceived Blame for Rape

Mentor: Lorelei Simpson Rowe, Psychology)

DIVISION III

Adam Gannon

The Role of Peroxiredoxins in Alleviating Alzheimer's Pathology

Mentor Svetlana Radjuk, Biological Sciences

Collette Marchesseault

Drug Discover for Failed Cancer Chemotherapies.

Mentor: John Wise, Biological Sciences

Mindy McClean

Assembly and Application of Phospholipid Nanodiscs for the Study of P-glycoprotein

Mentor: Pia Vogel, Biological Sciences

Camille Biard

Computational Study of 1,2-dioxetane Chemiluminescent Molecules

Mentor: Peng Tao, Department of Chemistry

Rachel Crusius

Classifying Signs of Regulator Interactions in Gene Networks

Mentor: Brandilyn Stigler, Mathematics

Jessica Otah

Classifying Signs of Regulator Interactions in Gene Networks

Mentor: Brandilyn Stigler, Mathematics

ACADEMIC YEAR 2014-2015

DIVISION II

Psychology

Courtney Cox

SMU CARE Project

Mentor: Chrystyna Kouros

Daniel Trujillo

SMU CARE Project

Mentor: Chrystyna Kouros

Julia Pylant

College Student Beliefs about Response to Sexual Violence

Mentor: Lorelei Simpson Rowe

Kate Bridges

Victim and perpetrator Status and Perceived Blame for Rape

Mentor: Lorelei Simpson Rowe

Political Science

Steven Evans

Non-Governmental Organization Decision-Making in Kenya.

Mentor: Karisa Cloward

Anika Reza

U.S. Counter-terrorist Measures Before and After 9/11 and the Iraq War

Mentor: Hiroki Takeuchi

Sociology

Brandon Roselius

Women's Roles in Communist Legislatures in Eastern Europe, 1945-1989

Mentor: Sheri Kunovich

Kate Restino

Women's Roles in Communist Legislatures in Eastern Europe, 1945-1989

Mentor: Sheri Kunovich

DIVISION III

Biology

Benjamin Dupree

The role of the pentose phosphate pathway in longevity regulation by the p53 tumor suppressor

Mentor: Johannes Bauer

Rebecca Brady

Functional and Transitive Similarities between the Human T-cell Leukemia Virus Type-1 (HTLV-1) p30II and Human Papillomavirus (HPV) E6 Oncoproteins

Mentor: Robert Harrod

Rachel Gardner

Molecular Mechanisms of Oncogene-Activation by HTLV-1 p30II and HPV E6 Oncoproteins

Mentor: Robert Harrod

Collette Marchesseault

Drug Discovery for Failed Cancer Chemotherapies –Modeling Mammalian P-Glycoproteins in Bacteria

Mentor: John Wise

Ketetha Olengue

Computational Optimization of P-Glycoprotein Inhibitors to Help Failed Cancer Chemotherapies

Mentor: John Wise

Mindy McClean

Assembly and Application of Phospholipid Nanodiscs for the Study of P-Glycoprotein

Mentor: Pia Vogel

Tyrell Russell

Sensitization of Triple Negative Breast Cancer to Chemotherapies

Mentor: Pia Vogel

Zainab Fatima

The Assembly of a Membrane-bound Enzyme: Respiratory Complex I

Mentor: Steve Vik

Kristina Lackey

DNA Clones to make Transgenic Drosophila Lines

Mentor: Rick Jones

Chemistry

Kaley El-Arab: “*Novel LOV Domains Integrating Light and oxidative Stress*” (Mentor: Brian Zoltowski) (For Spring 2015)

Gretchen Hook: “*Novel Methods for the Synthesis of Carboline Scaffolds*” (Mentor: Ed Biehl)

Physics

Matthew Bruemmer

A Study of Environmental Factors Affecting Material Storage for Next Generation Dark Matter Experiments

Mentors: Jodi Cooley and Stephen Sekula

Daniel Gum

Cross Discipline Study in Robotic Telescope Mechanics and Gamma-ray Burst Astrophysics

Mentor: Robert Kehoe

Ashleigh Miller

Multi-wire Chamber and Multi-strip Gas Chamber Detectors in High Energy Physics Experiments

Mentor: Jingbo Ye