

Exciting Research Opportunities For Undergraduate Honors Students At The University of Toledo College of Medicine and Life Sciences!!!

Please see the list of faculty and research interests below for exciting opportunities to conduct human health science related research on the Health Science Campus in the College of Medicine and Life Sciences.

Please contact course directors Dr. David Kennedy (david.kennedy@utoledo.edu) and Dr. Steven Haller (steven.haller@utoledo.edu) for course information and assistance with registration.

Instructor: Dayanidhi Raman, Ph.D.

Laboratory Location: Block Health Science Bldg. Room 465

Contact Information: Phone: 419-383-4616/e-mail: Dayanidhi.Raman@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/cancer-biology/faculty/Raman.html>

Course Information: Undergraduate Research Honors

Fall: CRN 51728/BIOL 4910/Section 101

Spring: CRN 22374/BIOL 4910/Section 132

Research Interests:

The role of chemokine G-protein coupled receptors CXCR2 and CXCR4 acting through their adaptor protein LASP1 in metastatic breast cancer. Students receive hands-on-training on a variety of molecular biology and protein biochemistry techniques as applied to breast cancer.

Instructor: Steven T. Haller, Ph.D.

Laboratory Location: Health Education Bldg. Room 205

Contact Information: Phone: 419-383-6859/e-mail: steven.haller@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/medicine/cardiology/pubs/haller.html>

Course Information: Undergraduate Research Honors

Fall: CRN 51731/BIOL 4910/Section 102

Spring: CRN 21682/BIOL 4910/Section 120

Research Interests:

The Haller laboratory investigates the pro-inflammatory and pro-fibrotic effects of the TNF-receptor superfamily costimulatory molecule CD40 in the development of cardiovascular and renal disease. In addition, our research focuses on the potentially harmful effects of cyanotoxins released from harmful algal blooms in pre-existing disease states.

Instructor: David J. Kennedy, Ph.D.

Laboratory Location: Health Education Bldg. Room 205

Contact Information: Phone: 419-383-6822/e-mail: david.kennedy@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/medicine/cardiology/pubs/kennedy.html>

Course Information: Undergraduate Research Honors

Fall: CRN 51734/BIOL 4910/Section 103

Spring: CRN 21683/BIOL 4910/Section 121

Research Interests:

The Kennedy laboratory studies adaptive and maladaptive counter-regulatory mechanisms involved in organ inflammation and fibrosis resulting from various insults (including environmental stressors such as cyanotoxins and physiologic stressors such as natriuretic hormones) in at-risk patient populations with heart, kidney or liver disease.

The lab is also focused on identifying novel molecular targets which can be used for diagnostic, therapeutic and preventative strategies to improve outcomes in these vulnerable patient populations.

Instructor: Xin Wang, Ph.D.

Laboratory Location: Block Health Science Bldg. Room 006

Contact Information: Phone: 419-383-4452/e-mail: Xin.Wang2@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/neurosciences/xin.html>

Course Information: Undergraduate Research Honors

Fall: CRN 51737/BIOL 4910/Section 104

Spring: CRN 21684/BIOL 4910/Section 122

Research Interests:

The neuroimaging research program of acute trauma provides a unique opportunity for undergraduate students to be involved in patient-oriented clinical research. They will work in clinical environments and interact directly with medical professionals and patients. The student will be trained to acquire and analyze data from medical records, patient survey, or diagnostic imaging such as MRI scans of brain.

Instructor: Nikolai Modyanov, Ph.D., D.SC.

Laboratory Location: Block Health Science Bldg. Room 263

Contact Information: Phone: 419-383-4065/e-mail: Nikolai.Modyanov@UToledo.edu

Website: <http://www.utoledo.edu/med/depts/physpharm/faculty/modyanov.html>

Course Information: Undergraduate Research Honors

Fall: CRN 51740/BIOL 4910/Section 105

Spring: CRN 21685/BIOL 4910/Section 123

Research Interests:

Evolutionary origin of obesity and ion transporting ATPase targets for cardiac active steroids and proton pump inhibitors.

Instructor: Terry Hinds, Ph.D.

Laboratory Location: Block Health Science Bldg. Room 147

Contact Information: Phone: 419-383-4465/e-mail: Terry.Hinds@Utoledo.edu

Website: <http://www.utoledo.edu/med/depts/physpharm/faculty/Hinds.html>

Course Information: Undergraduate Research Honors

Fall: CRN 51743/BIOL 4910/Section 106

Spring: CRN 21686/BIOL 4910/Section 124

Research Interests:

Drug targeting of nuclear receptors in obesity and cancer.

Instructor: Patrick William Frank, BA, BS, D.C.

Laboratory Location: Block Health Science Bldg. Room 182

Contact Information: Phone: 419-383-4506/e-mail: Patrick.Frank@Utoledo.edu

Website: <http://www.utoledo.edu/med/depts/neurosciences/frank.html>

Course Information: Undergraduate Research Honors

Fall: CRN 52158/BIOL 4910/Section 118

Spring: CRN 21689/BIOL 4910/Section 125

Research Interests:

Gross anatomical studies (including plastination, 3-D printing, etc.) with emphasis on characterization and clinical correlates (including MRI, CT, etc.) of specific anatomical anomalies through student-led cadaveric dissection. The research projects are student-centered and focused on individual student interests in conditions of the human body.

Instructor: Jiang Tian, Ph.D.

Laboratory Location: Health Education Bldg. Room 202

Contact Information: Phone: 419-383-3510/e-mail: jiang.tian@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/medicine/cardiology/pubs/tian.html>

Course Information: Undergraduate Research Honors

Fall: CRN 52161/BIOL 4910/Section 119

Spring: CRN 21692/BIOL 4910/Section 126

Research Interests:

The focus of the Tian Laboratory includes the following areas: 1.) Molecular mechanisms of cardiovascular disease, with special emphasis on uremic cardiomyopathy. 2.) Cardiac stem/progenitor cell activation and its role in cardiac repair and regeneration. 3.) Epigenetic regulation of genes that related with uremic cardiomyopathy.

Instructor: Saurabh Chattopadhyay, Ph.D.

Laboratory Location: Health Education Bldg. Room 231

Contact Information: Phone: 419-383-6442/e-mail: Saurabh.Chattopadhyay@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/micro/faculty/Chattopadhyay.html>

Course Information: Undergraduate Research Honors

Fall: CRN 52164/BIOL 4910/Section 120

Spring: CRN 21695/BIOL 4910/Section 127

Research Interests:

My laboratory is investigating antiviral drugs and their effects on viral replication and cell death. We infect cells with different types of viruses and use the drugs as antiviral therapies to attempt to diminish the viral load. We are currently investigating FDA approved drugs with the goal of discovering new antiviral therapies.

Instructor: Jason Huntley, Ph.D.

Laboratory Location: Health Education Bldg. Room 200D

Contact Information: Phone: 419-383-5456/e-mail: Jason.Huntley@utoledo.edu

Website: http://www.utoledo.edu/med/depts/micro/faculty/Jason_Huntley.html

Course Information: Undergraduate Research Honors

Fall: CRN 52167/BIOL 4910/Section 121

Spring: CRN 21698/BIOL 4910/Section 128

Research Interests:

The Huntley lab conducts studies to investigate how pathogenic bacteria infect mammals and cause pneumonia. Students will receive hands-on training for a variety of techniques, including microbiology, genetics, biochemistry, molecular biology, animal handling, and pathology.

Instructor: A. Champa Jayasuriya, Ph.D.

Laboratory Location: Health Education Bldg. Room 213

Contact Information: Phone: 419-383-6557/e-mail: a.jayasuriya@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/ortho/research/Champa%20Jayasuriya.html>

Course Information: Undergraduate Research Honors

Fall: CRN 52173/BIOL 4910/Section 123

Spring: CRN 21704/BIOL 4910/Section 130

Research Interests:

The Jayasuriya laboratory works on bone tissue regeneration research. We fabricate different types of scaffolds using polymers, ceramics, and polymer-ceramic composites. We characterize these scaffolds using different techniques such as mechanical, chemical, and biological testing.

Instructor: Jennifer Hill, Ph.D.

Laboratory Location: Block Health Science Bldg. Room 246

Contact Information: Phone: 419-383-6137/e-mail: JenniferW.Hill@utoledo.edu

Website: <http://www.utoledo.edu/med/depts/physpharm/faculty/hill.html>

Course Information: Undergraduate Research Honors

Fall: CRN 52554/BIOL 4910/Section 124

Spring: CRN 22035/BIOL 4910/Section 131

Research Interests:

Basic drives for survival are encoded by neurons in the brain. We study how neurons control feeding and reproduction, and how failure in those circuits can impair health.