



**COLLEGE OF MEDICINE
AND LIFE SCIENCES**

THE UNIVERSITY OF TOLEDO

2012 Summer Undergraduate Research Fellowship

EXPERIENCE A CAREER IN BIOMEDICAL RESEARCH!

June 4 THRU AUG 10, 2012

Basic and Translational Research Opportunities are available in four Tracks:

Cancer Biology

**Cardiovascular Sciences
& Metabolic Diseases**

**Infection, Immunity
& Transplantation**

**Neurosciences &
Neurological Disorders**



Submit applications by March 9, 2012 online (<http://www.utoledo.edu/med/grad/surf.html>) for a limited number of competitive fellowships. Acceptance notifications no later than March 30, 2012. Students receive \$3,500 for 10-weeks of full-time research. Visit <http://www.utoledo.edu/med/grad/surf.html> for more information. Transcript & Two Recommendation letters should also be sent to: SURF, Attn: Marianne Pohlman, Univ. of Toledo, 3000 Arlington Ave, Mailstop 1010, Toledo, OH 43614-5805 by the deadline. Questions? email: SURF@UToledo.Edu phone (419) 383-4117.

2012 Summer Undergraduate Research Fellowship



Cancer

Basic Processes

- Cancer Stem Cells, Protein Trafficking
- Cell Cycle, Proliferation & Apoptosis
- Cell Signaling & Signal Transduction
- Chemoprevention, Toxicology
- Chromatin Structure & Epigenetic Mechanisms
- DNA Damage, Mutation Hot Spots & DNA Repair
- Drug Delivery, Viral Vectors & Gene Therapy
- Genomics, Gene Activation & Gene Regulation
- Molecular Mechanisms of Hormone Action
- Role of Inherited Mutations in Cancer
- Tumor Promotion, Yeast Biology

Related Diseases

- Cancer of Brain, Breast, Colon, Liver, Lung, Ovary & Prostate,
- Leukemia, Melanoma, Meningioma,
- Neuroblastoma & Neuroendocrine Tumors

Infection, Immunity & Transplantation

Basic Processes

- Bioinformatics, Gene Regulation,
- Vaccine Development,
- Microbe Biology &
- Pathogenesis, Viral Evolution,
- Host Response to Infection
- Molecular Genetics, Immune Regulation
- Innate & Adaptive Immunity, Signaling,
- Cytokines, Antigen Presentation

Related Diseases

- Autoimmune, Allergic Diseases
- Viral & Infectious Diseases,
- Graft Rejection

Basic and Translational Research Opportunities available in four Tracks:

Cardiovascular Sciences & Metabolic Diseases

Basic Processes

- Adiposity, Aerobic Running Capacity & Cardiac Performance, Cardiovascular Physiology & Protection
- Cell Growth, Development, Exercise Physiology
- Genetics of Complex Cardiovascular Traits
- Genomics & Proteomics, Ion Transporter
- Metabolism, Biochemistry & Whole Animal Physiology, Nutrition, Signaling

Related Diseases

- Atherosclerosis, Cystic Fibrosis
- Diabetes, Obesity, Fatty Liver Disease
- Heart Failure, Cardiac Hypertrophy & Ischemic Heart Disease, Hypertension
- Infertility & Reproduction
- Renal Failure & Uremic Cardiopathy
- Stress-related Disorders

Neurosciences & Neurological

Basic Processes

- Cell Signaling & Secretion
- Ion Channel Regulation
- Mechanisms of Neurological Disease
- Molecular Development & Stem Cell Biology, Nervous System Plasticity Pain Mechanisms, Regeneration & Repair, Somatosensory System Function
- Transcriptional Regulation

Related Diseases

- Substance Abuse Disorders
- Alzheimer's & Parkinson's Disease, Epilepsy, Headache & Hearing Disorders,
- Neuroblastoma & Neuroendocrine Tumors, Neurodevelopmental Disorders,
- Stroke & Stroke Prevention