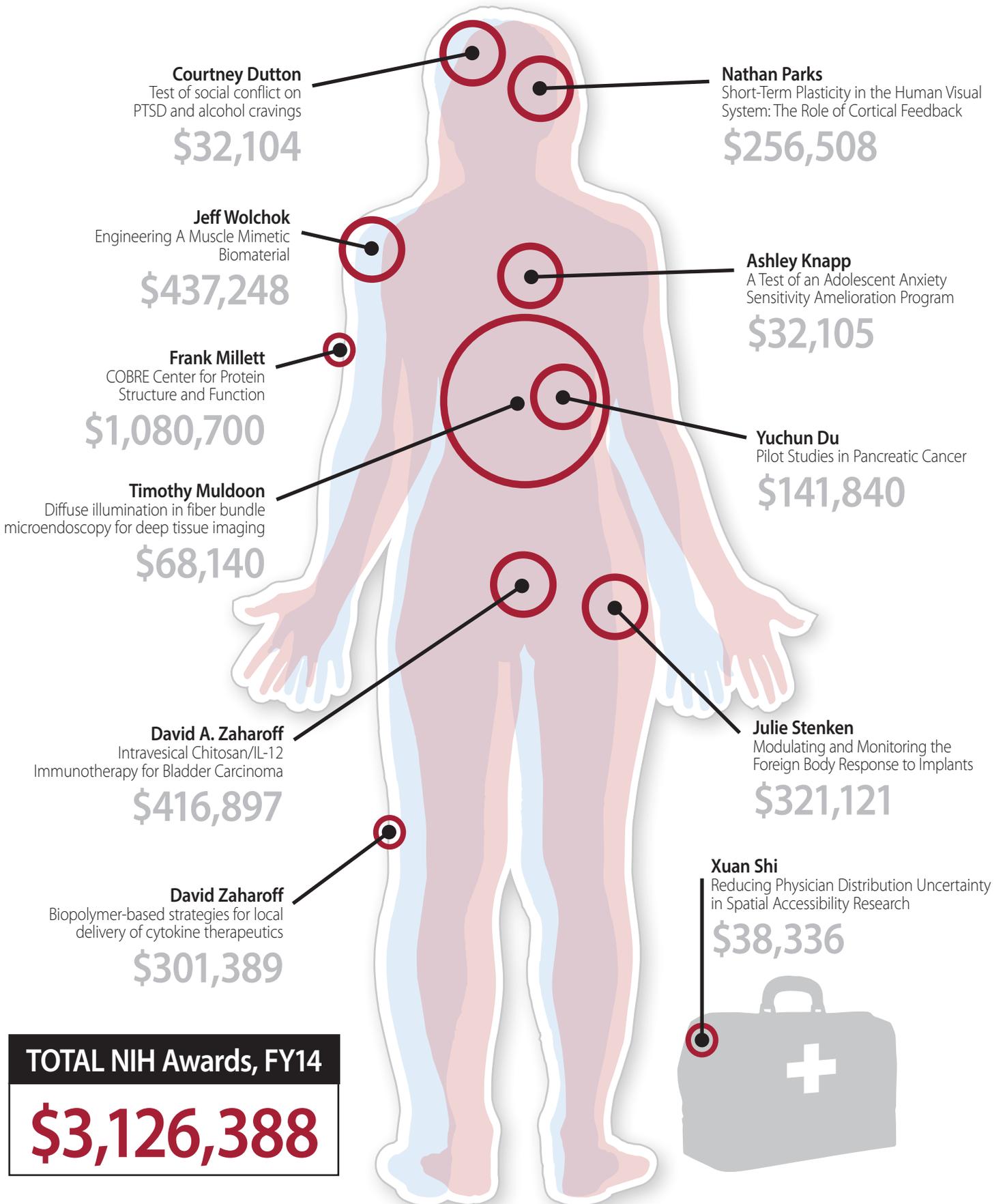


TOTAL NIH Awards, FY14



National Institutes of Health (NIH) Awards, FY14

Yuchun Du

Biological Sciences
Pilot Studies in Pancreatic Cancer

The objective of this project is to use a genetically defined isogenic cell model and a novel quantitative proteomic method to identify the proteins that may confer radioresistance in pancreatic cancer cells, and then use molecular/cell biology methods to validate the functions of the identified proteins. The results from the proposed work are expected to contribute to designing new strategies to improve the cure rate of pancreatic cancer. - http://bit.ly/Yuchun_Du

\$141,840

Courtney Dutton

Psychological Science – doctoral student
Test of social conflict on PTSD and alcohol cravings

This study is designed to understand the effects of social conflict on posttraumatic stress symptoms and biases toward approaching alcohol. The associated training plan is designed to advance my expertise in clinical science to prepare me for a career aimed at improving treatments for this population. - http://bit.ly/Courtney_Dutton

\$32,104

Ashley Knapp

Psychological Science – doctoral student
A Test of an Adolescent Anxiety Sensitivity Amelioration Program

This study aims to address an important gap by conducting an experimental test, among adolescents, of the impact of a brief intervention to reduce a cognitive vulnerability factor shown to impact the development of panic and other anxiety psychopathology in adult research. - http://bit.ly/Ashley_Knapp

\$32,105

Frank Millett

Chemistry & Biochemistry
COBRE Center for Protein Structure and Function

The research projects supported by our COBRE Center or Protein Structure and Function are directed toward obtaining a detailed molecular-level understanding of the structure and function of proteins that could lead to improved treatments for human disease. - http://bit.ly/Frank_Millett

\$1,080,700

Timothy Muldoon

Biomedical Engineering
Diffuse illumination in fiber bundle microendoscopy for deep tissue imaging

Microendoscopy is a promising imaging technique capable of presenting high-resolution images of tissue at the point-of-care; to help clinicians better target surgical biopsies to improve the early detection of cancer in suspicious lesions. This project aims to develop a microendoscope based on diffuse reflectance imaging, which can detect absorption in tissue at greater depths, and take advantage of emerging molecular-specific functionalized gold nanoparticle-based exogenous contrast agents. - http://bit.ly/Timothy_Muldoon

\$68,140

Nathan Parks

Psychological Science
Short-Term Plasticity in the Human Visual System: The Role of Cortical Feedback

This project will investigate neural mechanisms of short-term visual adaptations in the human visual system following a loss of patterned visual input from the retina. - http://bit.ly/Nathan_Parks

\$256,508

Xuan Shi

Geosciences
Reducing Physician Distribution Uncertainty in Spatial Accessibility Research

In the wake of landmark health reform, there is widespread concern about the adequacy and distribution of our nation's health workforce. The goal of this project is to explore potential solutions to reduce the uncertainty and understand the probable patterns of physician distribution. - http://bit.ly/Xuan_Shi

\$38,336

Julie Stenken

Chemistry & Biochemistry
Modulating and Monitoring the Foreign Body Response to Implants

All implanted materials elicit an immune response that leads to the foreign body reaction and measuring the complex chemical signals produced during wound healing will provide important information for reducing the immune response to any implant. - http://bit.ly/Julie_Stenken

\$321,121

Jeff Wolchok

Biomedical Engineering
Engineering A Muscle Mimetic Biomaterial

A recognized risk factor for tendon re-rupture following rotator cuff surgery is shoulder muscle atrophy. We suggest that a readily available "off the shelf" biomaterial that provides the appropriate regenerative cues by mimicking the properties of native skeletal muscle extracellular matrix could be used to regenerate damaged muscle tissue. - http://bit.ly/Jeff_Wolchok

\$437,248

David Zaharoff

Biomedical Engineering
Intravesical Chitosan/IL-12 Immunotherapy for Bladder Carcinoma

Bladder cancer, the sixth most common non-skin cancer diagnosis in the U.S., is a highly recurrent disease that would benefit from a new therapy capable of inducing durable tumor regression. A novel immune-based therapy, comprised of a mixture of chitosan, a polysaccharide, with interleukin-12, an immune stimulating cytokine, is under development. - http://bit.ly/David_Zaharoff

\$416,897

David Zaharoff

Biomedical Engineering
Biopolymer-based strategies for local delivery of cytokine therapeutics

The administration of pro-inflammatory cytokines has demonstrated remarkable antitumor activity in numerous preclinical studies. Unfortunately, these cytokines have not been widely effective in humans due to the lack of effective delivery strategies which maximize appropriate cytokine levels in tumors while minimizing toxicities associated with their systemic spread. This project will overcome these limitations by developing and evaluating a novel delivery strategy, based on linking cytokines with the biodegradable polysaccharide chitosan for the local, sustained delivery of pro-inflammatory and T cell activating cytokines to the tumor microenvironment. - http://bit.ly/D_Zaharoff

\$301,389