MARCH 1, 2023 VOL. 02

THE RESEARCH REVIEW

School of Medicine Quarterly Newsletter

NEW NIH AWARDS

Biotype-specific evolution

PI: *Dr. Jeffrey Withey - Department of BMI*

Award Number: 1R21AI17072-01A1

Vibrio cholerae is a major human pathogen in many developing countries, with an estimated 3-5,000,000 new cases and 100,000 deaths each year each year. The goal of this proposal is to characterize how V. cholerae has evolved to better survive in the aquatic environment, leading to cholera outbreaks. Achieving this new level of understanding will enable future research to identify new therapeutic targets and/or targets for environmental remediation.

Does obesity influence protein quality control in endometrial cancer?

PI: *Dr. Michael R Wilson - Department of Oncology*

Award Number: 4R00CA252152-03

Endometrial cancer incidence is increasing 1.3% year over year in the United States as a consequence of the obesity pandemic. This proposal addresses the goals of the NCI Strategic Plan to identify and characterize risk factors for cancer, to study how cellular stress responses contribute to cancer development and progression and to develop and test new approaches for cancer prevention through studies that will determine if recurrent phosphoinositide 3-kinase (PI3K) pathway mutations reshape protein quality control mechanisms in obese women at-risk for endometrial cancer.

IN THIS ISSUE

Regulation of NKCC2 and renal NaCl transport by protein-protein interactions

PI: *Dr. Pablo Ortiz- Department of Physiology*

Award Number: 1R01DK13114-01A1

We found 2 proteins (ALMS1 and ACTN4), that cause human diseases associated with kidney damage, high blood pressure and abnormal renal physiology, that interact with NKCC2. We will study the biological mechanisms by which ALMS1 and ACTN4 maintain normal renal function and NaCl transport, and how dysfunction occurs when they are absent.

OTHER NEW AWARDS

Children's Foundation Award

PI: *Dr. Christina Shanti- Department of Surgery*

Award Number: R1-2023-58/PR-22-669

The requested grant will allow the pediatric surgery division to continue its research mission in 2023. Our research program helps us not only study and report on our clinical work but allows us to enhance our knowledge and understanding of clinical problems and treatment outcomes. The research directions for 2023 are divided in five general areas of interest: 1. Burn Research Program (BRP) 2. Trauma Research Program (TRP) 3. Children's Hospital Intestinal Rehabilitation Program (CHIRP) 4. Surgery & Critical (SCC) 5. Educational Research

NEW IN RESEARCH NEWS

Notice of Fiscal Policies in Effect for FY 2023

This Notice provides guidance about the NIH Fiscal Operations for Fiscal Year 2023 and implements the Consolidated Appropriations Act, 2023 (Public Law 117-328), signed into law on December 29, 2022.

Sponsored Program Administration Proposal Submission Deadline Policy Effective 1/9/23

All proposals in final form, including all necessary components/documents and necessary approvals, should be submitted via Cayuse to SPA at least three (3) full business days prior to the funding agency's submission deadline to receive comprehensive and proper review. For proposals containing terms and conditions binding upon award, as much lead time as possible should be provided with a minimum of an additional two (2) business days required to ensure proper review.

For more info on NIH updates and things relevant to your research check out the Research Administration Services (RAS) blog here.

OTHER NEW AWARDS

Training Program in the Biology of Cancer

PI: *Dr. Hayley Thompson - Department of Oncology*

Award Number: 25V71

The grant supports the WSU Center for Health Equity and Community Knowledge in Urban Populations (CHECK-UP). Ultimately, CHECK-UP should shift health indicators in a positive direction by substantially reducing risk factors for disease (specifically cancer, cardiovascular disease, and mental health disorders) as well as strengthen protective factors.

Mesothelin-Chimeric Antigen Receptor NK-92 Therapy with TGF-beta Inhibition for Efficient Killing of Pancreatic Cancer Cells

PI: *Dr. Ramesh Batchu- Department of Surgery*

Award Number:25V84

Chimeric antigen receptor(CAR) cell therapy has had limited success in pancreatic cancer(PC) due to tumor microenvironment (TME) consisting of immune inhibitory Tregs and their secretary molecules such as TGF-β in malignant ascites. Signaling of TGF-β via Smad proteins results in the gene expression of additional immune inhibitory molecules such as IL-10 Unraveling of the TGF-β signaling via Tregs depletion and Smad protein phosphorylation will bring clinical success to the therapy.

UPDATES IN LEADERSHIP - NEW CHAIRS

1. Dr. David Bryant - OB/GYN
2. Dr. Joseph Uberti - Oncology
3. Dr. Rahul Vaidya - Orthopaedic Surgery
4. Dr. Rafic Beydoun - Pathology
5. Dr. Joseph Dunbar - Physiology
6. Dr. Jinping Xu - Family Med & PHS