



The University of Arizona  
Health Sciences

# **2016 Career Development Award Research Symposium**

**Wednesday, June 8, 2016**

Lecture Room 325  
Skaggs Pharmaceutical Sciences Center  
College of Pharmacy





# UAHS Career Development Award

The Office of the Senior Vice President for Health Sciences at the University of Arizona established the University of Arizona Health Sciences (UAHS) Career Development Award (CDA) program in 2014, following NIH KL2 guidelines, to provide research training and funding opportunities for junior faculty members in the health sciences to foster an academic career in clinical and translational research.

This award represents a key initial step for UAHS to establish and provide well-organized infrastructure and a nurturing environment for training, developing and advancing our next generation of physician-scientists and other health-scientists.

The award provides funding to support physicians, physician-scientists and health-scientists from other disciplines to develop a research project in an established investigator's laboratory/program to generate preliminary data for a future competitive grant application. The award allows promising UA health-scientists protected time to conduct clinical and translational research under the direction of a well-funded and highly productive UA research mentor.

UAHS-CDA scholars receive salary support of \$75,000 per year for two years or funds to cover 75% assigned effort of the current total base salary (if it is less than \$75,000), plus fringe benefits. As much as \$5,000 per year is available to defray costs associated with the scholar's research-related activities, including lab supplies, tuition and fees, among other items. In addition, the UAHS-CDA also provides \$1,500 per year for the scholar to travel to academic conferences. The scholars are selected by an UAHS-CDA Advisory Committee, composed of established investigators. The mentor of awarded scholars also receives \$5,000/year to contribute toward his/her research program.

Almost all of our UAHS-CDA awardees have submitted grant applications to federal and non-federal funding agencies, and many have obtained extramural funding from the NIH (e.g., R01, K23) and foundations (e.g., Foundation for Anesthesia Education and Research).

# 2016 UAHS Career Development Award Research Symposium

**8:30-8:45 am**      **Sign-in and Coffee**

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## Welcome Remarks

**8:45-9:00 am**      **Joe G.N. “Skip” Garcia, MD**  
*Senior Vice President for Health Sciences, University of Arizona Health Sciences, and Dr. Merlin DuVal  
Professor of Medicine*

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## CDA Overview and Symposium Introduction

**9:00-9:15 am**      **Jason X.-J. Yuan, MD, PhD**  
*Associate Vice President for Translational Health Sciences, University of Arizona Health Sciences, and  
Professor of Medicine*

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## Session I: Disease-focused Cell and Molecular Science Research

**Chairs: Charles B. Cairns, MD and Stephen M. Black, PhD**

**9:15-9:35 am**      **May Khanna, PhD**  
Designer drugs for chronic pain: indirect modulation of Nav1.7

**9:40-10:00 am**      **Megan J. Smithey, PhD**  
Defining immune control of human cytomegalovirus over the lifespan

**10:05-10:25 am**      **Olga Rafikova, MD, PhD**  
Understanding the gender-specific phenotypes of pulmonary arterial hypertension:  
another approach for precision medicine

**10:30-10:50 am**      **Amol M. Patwardhan, MD, PhD** *(Presented by Mohab Ibrahim, MD, PhD)*  
Intraoperative hypothermia and novel therapeutic approaches

**10:50-11:00 am**      **Short Break**

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## Session II: Translational and Clinical Research

**Chairs: Monica Kraft, MD and Leigh A. Neumayer, MD**

**11:00-11:20 am**      **Ankit A. Desai, MD, FAHA, FACC**  
IL-18 mediates sickle cell cardiomyopathy and inducible ventricular tachycardia

**11:25-11:45 am**      **Cristine E. Berry, MD, MHS**  
A distinct low lung function trajectory from childhood to the fourth decade of life

**11:50-12:10 pm**      **Katri V. Typpo, MD**  
Early parenteral nutrition does not worsen intestinal barrier function or microbiome diversity

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## Break

**12:15-12:55 pm**      **Lunch on own** – light refreshments will be served near Skaggs 325

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## Session III: Population Health Sciences and Clinical Research

**Chairs: Jefferey L. Burgess, MD, and Yves A. Lussier, MD**

- 1:00-1:20 pm**      **Archita P. Desai, MD**  
Hospital admissions and readmissions in patients with cirrhosis:  
The role of co-morbid conditions
- 1:25-1:45 pm**      **Jarrold M. Mosier, MD**  
Development of novel methods of respiratory support for acute lung injury
- 1:50-2:10 pm**      **Eyal Oren, PhD, MS** (*Presented by Cristine E. Berry, MD, MHS*)  
Chronic stress and asthma among children and adolescents
- 2:15-2:35 pm**      **Pavani Chalasani, MD, MPH**  
Development of predictive biomarkers for AI-induced MSK side effects in patients with breast cancer

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## Session IV: Health Disparities & Community Research

**Chairs: Akinlolu O. Ojo, MD, PhD and Mindy J. Fain, MD**

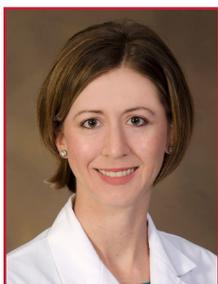
- 2:40-3:00 pm**      **Francine C. Gachupin, PhD, MPH, CIP** (*Presented by Michelle Kahn-John, PhD, RN*)  
Leveraging cultural capital in diabetes prevention for youth: The medical wellness model
- 3:05-3:25 pm**      **Michelle Kahn-John, PhD, RN**  
Depression in Diné (Navajo) adults who participate in the Diné Hóchxó'íjí (Navajo Evil Way) Ceremony
- 3:30-3:50 pm**      **Christian Bime, MD, MSc**  
SELPLG as a candidate gene in acute respiratory distress syndrome
- 3:55-4:15 pm**      **Wei-Hsuan Jenny Lo-Ciganic, PhD, MS, MSPharm** (*Presented by Daniel Malone, RPh, PhD*)  
Applying novel statistical methods in pharmaceutical outcome research

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## Symposium Summary

- 4:20-4:30 pm**      **Jason X.-J. Yuan, MD, PhD**  
*Associate Vice President for Translational Health Sciences, University of Arizona Health Sciences, and Professor of Medicine*
- Monica Kraft, MD**  
*Professor and Robert and Irene Flinn Endowed Chair of Medicine, Department of Medicine, College of Medicine – Tucson*

# 2014 CDA Recipients



## **Cristine E. Berry, MD, MHS**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** *Fernando Martinez, MD, Regents Professor, Department of Pediatric, College of Medicine – Tucson, Director, Asthma/Airway Disease Research Center*

Cristine received her undergraduate education from the University of Arizona and then obtained her medical degree from Johns Hopkins University, where she also completed her internal medical residency and pulmonary/critical care fellowship. During her fellowship, she earned a master's degree in clinical investigation from the Johns Hopkins Bloomberg School of Public Health. She returned to the University of Arizona in 2013 to work with Dr. Fernando Martinez and other investigators at the Arizona Respiratory Center, focusing her research on the natural history of lung function and its impact on the diagnosis and management of obstructive lung diseases across the lifespan. In addition to receiving the UAHS career development award, she was also awarded an early stage investigator grant from the American Lung Association in 2014 to support her research investigating the impact of early life exposures on lung function trajectory into adulthood in the Tucson Children's Respiratory Study. Beyond her primary research focus, she also conducts clinical trials in COPD and asthma with Dr. Lynn Gerald and the American Lung Association Airway Clinical Research Centers, and she collaborates with investigators at the Arizona Center on Aging to examine the impact of frailty and sarcopenia on COPD outcomes.



## **Christian Bime, MD, MSc**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** *Sairam Parthasarathy, MD, Professor, Department of Medicine, College of Medicine – Tucson*

Dr. Christian Bime joined the Division of Pulmonary, Allergy, Critical Care, and Sleep Medicine/Arizona Respiratory Center in 2013, after completing his Pulmonary and Critical Care Medicine Fellowship training at the Johns Hopkins University School of Medicine. His research interests include: genetic and non-genetic factors that contribute to health disparities in Acute Respiratory Distress Syndrome (ARDS) risk and mortality, clinical application of genomics for the clinical care of patients with ARDS, and the link between asthma, exercise, and obesity. He hopes to identify patient-specific genetic risk factors that would ultimately lead to the application of genomic medicine in clinical care of patients with ARDS. Dr. Bime joined the research laboratory of his mentor – Dr. Joe G.N. "Skip" Garcia in 2014 to develop skills in molecular biology, genetics, genomics, and translational science that will ultimately help him transition into independence and become a leader in translational ARDS research. The current funding from the University of Arizona Health Sciences - Career Development Award (UAHS-CDA), sponsored by Dr. Sairam Parthasarathy has provided Dr. Bime with protected time to generate important preliminary data and to publish relevant manuscripts in the area of ARDS genetics that will strengthen future grant applications.



## **Pavani Chalasani, MD, MPH**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** *Mark "Marty" Pagel, PhD, Associate Professor, Department of Medical Imaging, College of Medicine – Tucson, Vice Chair of Research and Program Development, Director of Cancer Imaging*

Dr. Chalasani completed her medical school at Gandhi Medical College in India and completed her Internship, Residency and Fellowship in Hematology-Oncology at the University of Arizona. She is an Assistant Professor on staff at the University of Arizona Cancer Center. As a faculty member in the breast medical oncology section at the University of Arizona cancer center, she works with a dedicated team of individuals who strive to advance the care of breast cancer patients. Her goal is to initiate and complete important clinical trials that will ultimately lead to a better understanding of breast cancer biology and lead to improved therapies and care for patients with breast cancer. She has developed research collaborations with translational laboratories focused on biomarker detection. Dr. Chalasani is active in the translational and clinical trials research at UACC. She is the Principal Investigator on several industry sponsored, and co-operative group protocols, and Principal Investigator for several newly started investigator initiated trials.

Dr. Chalasani's key research interest is to develop biomarkers (or markers in breast cancer) which can predict response – that way patients can be treated with therapies which work and avoid therapies (and unnecessary toxicities) which do not. In addition to research, she has an active clinical practice. She sees patients with breast cancer for treatment decisions regarding hormonal therapy (anti-estrogen therapy), chemotherapy, and second opinions.



### **Ankit A. Desai, MD**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** Joe G.N. “Skip” Garcia, MD, Senior Vice President for Health Sciences, University of Arizona Health Sciences, Merlin K. DuVal Endowed Professor of Medicine

Dr. Desai is a physician-scientist whose background is genomics, genetics, and molecular biology. His lab focus has been on two projects. The first is related to pathogenic mechanisms involving the ubiquitination pathway in pulmonary vascular disease. Specifically, utilizing genome-wide expression profiling, his lab has prioritized the study of UCHL1, an established deubiquitinase, in the development of pulmonary vascular disease via site-specific deubiquitination of Akt1. Ongoing work is testing novel small molecular inhibitors in pre-clinical models of pulmonary hypertension as well as leveraging one of the largest GWAS datasets in PAH to further investigate variation with UCHL1 and related signaling cascade mediators to determine functional SNPs that may contribute to individualized responses to disease development and drug response in pulmonary arterial hypertension. The second project is focused on the role of heme-induced inflammasome pathways that converge to mediate the development sickle cell disease-associated cardiomyopathy including myocardial fibrosis, prolongation of QTc, diastolic dysfunction as well as susceptibility to ventricular tachycardia. Utilizing both genome-wide gene expression profiles and genetic variation, his lab is currently investigating both related signaling cascades as well as novel SNPs that may risk stratify patients at risk for premature and sudden death. His lab is actively testing novel therapies in humanized animal models of sickle cell disease that may have the potential to translate to the bedside.



### **May Khanna, PhD**

*Assistant Professor, Department of Pharmacology, College of Medicine – Tucson*

**Mentor:** Todd W. Vanderah, PhD, Professor and Chair, Department of Pharmacology, College of Medicine – Tucson

Dr. Khanna has a broad background in Chemistry, Structural biology and Biochemistry. There are currently two main projects in her laboratory. In the first project, they are developing small molecule inhibitors of protein-protein interactions using structure-based computational studies as well as high throughput screens. Work in her laboratory seeks to identify novel small molecule inhibitors of a protein-protein interaction with the goal of selective control of Nav1.7, a key protein involved in pain. Their additional expertise in NMR and X-ray Crystallography allows them to characterize the nature of inhibitions identified in their screen and allows for the development of her research program within the rich pain environment in the Department of Pharmacology at the University of Arizona.

Additionally, she has worked in the areas of RNA and RNA-protein interactions. She was trained as RNA biochemist to probe RNA structures to define the effects of RNA modifications on RNA in addition to structural biology of RNA and RNA-protein interactions using NMR. The second project in her laboratory seeks to determine the effect of protein modifications in the RNA exosome that lead to pontocerebellar hypoplasia. The long-term goal of this project is to study the link of mutations of EXOSC3 and RNA binding to congenital neurodegenerative diseases. A better understanding of these mutations and how they are linked to maldevelopment will lead to possible novel target for therapies.



### **Amol Patwardhan, MD, PhD**

*Assistant Professor, Department of Anesthesiology and Pharmacology, College of Medicine – Tucson*

**Mentor:** Franck Porreca, PhD, Professor, Department of Pharmacology, College of Medicine – Tucson

Dr. Patwardhan is a clinician-scientist who has years of training in pain pharmacology as well as clinical pain management. Dr. Patwardhan is working on a translational project focused on the use of transient receptor potential vanilloid-1 (TRPV1) antagonists in the perioperative period. TRPV1 is a receptor expressed on nociceptors (specialized pain sensing neurons) that plays a role in hyperalgesia and thermoregulation. The antagonists of TRPV1 failed clinical trials because they caused hyperthermia. As an anesthesiologist, Dr. Patwardhan saw potential use of this ‘side effect’ because hypothermia is a major problem when patients undergo general anesthesia for various surgeries.

Dr. Patwardhan hypothesized that a single drug, TRPV1 antagonist, given during anesthesia would not only maintain normothermia but also will have analgesic effect in post-surgical pain. Indeed, the data generated in Dr. Patwardhan’s laboratory has demonstrated that various TRPV1 antagonists reverse anesthesia-induced hypothermia along with reduction of post-surgical pain. UAHS-CDA helped Dr. Patwardhan to compete nationally for external funding and the Foundation of Anesthesia Education and Research (FAER) awarded him a career development grant. He is one of the four people nationally to get this grant. Moreover, he, along with his co-investigators, filed a patent application based upon this discovery. They are currently in talks with various pharmaceutical companies to license this patent. Dr. Patwardhan is also a PI on two clinical studies funded by Boston Scientific and is currently working on an NIH K award focused on novel intrathecal agents to treat cancer pain.



### **Katri V. Typpo, MD, MPH**

*Assistant Professor, Department of Pediatrics, College of Medicine – Tucson.*

**Mentor:** *Fayez Ghishan, MD, Professor and Chair, Department of Pediatrics, College of Medicine – Tucson*

Dr. Typpo has a broad background in large database analysis and epidemiology. Early in her career she examined the epidemiology of multiple organ dysfunction syndrome (MODS) during pediatric critical illness in large clinical databases. She completed a health services research fellowship at the Houston VA HSR&D Center of Excellence in Houston, TX while pursuing her Master of Public Health (MPH) degree at UT Houston, and was an investigator in the division of Health Policy and Quality. She was an assistant professor of pediatrics at Baylor College of Medicine and faculty in the pediatric intensive care unit at Texas Children's Hospital before moving to Arizona in 2009. She has transitioned to a career in clinical and translational research under the mentorship of Dr Fayez Ghishan. Her current research as a scholar in the Pediatric Critical Care and Trauma Scientist Development Program (PCCTSDP) and supported trainee on the Arizona Health Sciences Center Career Development Award examines non-nutritive benefits of enteral and parenteral nutrition on intestinal epithelial barrier function and microbiome diversity in two populations of critically ill children: children who require mechanical ventilation and infants with congenital heart disease. Modulation of intestinal epithelial barrier function and microbiome diversity are two novel therapeutic targets with the potential to reduce organ dysfunction and hospital acquired infection rates during pediatric critical illness. In addition to her own program of research, Dr. Typpo acts as a site investigator for several multi-centered clinical trials funded by the NIH, recruiting patients here at Diamond Children's Medical Center.



### **Francine C. Gachupin, PhD, MPH, CIP**

*Assistant Professor, Department of Family and Community Medicine, College of Medicine – Tucson*

**Mentor:** *Scott Going, PhD, Professor and Chair, Department of Nutritional Sciences, College of Agriculture & Life Sciences*

Dr. Gachupin is a tribal member of the Pueblo of Jemez in New Mexico. She received her Doctor of Philosophy from the University of New Mexico and her Master of Public Health in Epidemiology from the University of Washington. She studies primarily chronic diseases and related behavioral risk factors. She has worked at four separate tribal based epidemiology centers – Portland Area, Aberdeen Area, Albuquerque Area and Navajo Area – and served as Native American Research Centers for Health I, III, IV, V Principal Investigator. At UA, her goals are to conduct research studies to develop, implement and evaluate behavioral interventions in American Indian tribal settings to promote healthy lifestyles. As Assistant Professor, Department of Family and Community Medicine, College of Medicine, University of Arizona, Dr. Gachupin is responsible for building a translational research program within the areas of public, social and behavioral health focused on American Indian youth. She has a background in bioethics, epidemiology, public health practice research with specific training and expertise in working with American Indian communities, including directing several tribal-based epidemiology centers and the research projects undertaken by these centers. She is director of a summer medical wellness camp and is designing community- and family-based behavioral interventions involving tribal youth, parents, and technology. She has a demonstrated record of productive research projects in areas of high relevance and her experience has prepared her to contribute to improving American Indian health disparities.

# 2015 CDA Recipients



## **Archita P. Desai, MD**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** *Elizabeth Calhoun, PhD, MEd, Associate Vice President for Population Health Sciences, University of Arizona Health Sciences; and Thomas Boyer, MD, Professor, Department of Medicine, College of Medicine – Tucson*

Dr. Desai's long-term goals are focused on health services research in hepatology with the broad aims of eliminating health care disparities while improving the quality of medical care for patients with chronic liver disease. Inspired by observations during her training, Dr. Desai undertook several studies evaluating the quality of care for patients with CLD. As she transitioned to faculty, the support of the 2015 Arizona Health Sciences Career Development Award provides the protected research time essential to cultivate her research skills through both formal training and hands-on experience. Combined with the expertise of her mentors, Dr. Thomas Boyer, the Director of the Liver Research Institute and Dr. Elizabeth Calhoun, the Director of the Center for Population Science and Discovery at the University of Arizona, the Award will support her efforts to undertake research that will inform us of the current gaps in care for patients with liver disease and subsequently, guide the development of programs aimed at improving quality and eliminating disparity. She is incredibly grateful to the Senior Vice President for Health Sciences Office for giving her this opportunity as she starts her career.



## **Michelle Kahn-John, PhD, RN, PMHNP-BC, GNP**

*Assistant Professor, Community and Systems Health Science, College of Nursing*

**Mentor:** *Terry Badger, PhD, RN, Professor and Community and Systems Health Sciences Director, College of Nursing.*

Dr. Michelle Kahn-John, a member of the Diné (Navajo) Nation is an assistant professor with the University of Arizona, College of Nursing. Dr. Kahn-John is also a Psychiatric Nurse Practitioner and Geriatric Nurse practitioner and has nearly 20 years of experience working with the Indian Health Services on the Navajo Nation and with Alaska Natives in Sitka, Alaska. Dr. Kahn-John is developing her program of research on American Indian resilience, protective factors, culture, and spirituality as they relate to physical and mental health. Dr. Kahn-John, in partnership with the Navajo Nation is presently conducting two studies: one study is exploring intergenerational American Indian cultural wisdom and the second study is exploring relationships between American Indian ceremonial healing interventions, resilience, and physical and mental health outcomes. Dr. Kahn-John will develop culturally relevant, strength based models, interventions, and instruments to measure and enhance American Indian health.



## **Wei-Hsuan Jenny Lo-Ciganic, PhD, MSCP, MS**

*Assistant Professor, Department of Pharmacy, Practice and Science, College of Pharmacy*

**Mentor:** *C. Kent Kwok, MD, Director, UA Arthritis Center, The Charles A.L. and Suzanne M. Stephens Chair of Rheumatology, Chief, Division of Rheumatology, Professor, Medicine and Medical Imaging; and Daniel Malone, RPh, PhD, Professor, Pharmacy Practice @ Science, College of Pharmacy*

She is a pharmcoepidemiologist with interests in medication adherence to essential chronic medications, drug safety, cancer prevention, pain management, quality and value of prescribing, and diffusion of new drugs especially among vulnerable populations. She is a recipient of two awards, the 2015 University of Arizona Faculty Seed Grant and the University of Arizona Health Science Career Development Award, to use machine learning to predict prescription opioid misuse among patients with lower back pain and osteoarthritis. She is also a recipient of the 2016 American Association of College of Pharmacy New Investigator Award to examine longitudinal adherence trajectories of new hepatitis C therapies in a large Medicaid Program. Since 2015, She has been a member of two Pharmacy Quality Alliance's (PQA) workgroups to develop quality measures on: 1) concurrent use of opioids, benzodiazepines and muscle relaxants, and 2) adherence measures of a new hepatitis C therapy. She also serves on the National Committee for Quality Assurance (NCQA) Opioid and Pain Management Expert Panel.



### **Jarrod M. Mosier, MD**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** *Charles B. Cairns, MD, Dean, College of Medicine – Tucson and Professor, Department of Emergency Medicine*

Dr. Mosier has a broad clinical experience, caring for acutely ill and injured patients in both the emergency department and intensive care units. His research focuses around a common theme seen in his clinical practice, which is how to best oxygenate patients with hypoxemic respiratory failure and acute lung injury? To answer this question, Dr. Mosier has two complementary projects in development currently. The first project seeks to utilize a perfluorocarbon emulsion delivered intravenously to both prevent the development and treat acute lung injury in a mouse model of acute lung injury. The second project is a developing a clinical trial evaluating the role of high-flow nasal oxygen delivery compared to non-invasive positive pressure ventilation in patients presenting to the emergency department with hypoxemic respiratory failure. This trial seeks to compare the methods of respiratory support and their association with failure requiring intubation, mortality, and the development of acute lung injury. Both studies will lead to a better understanding, and novel therapeutic strategies, for this high risk patient population.



### **Eyal Oren, PhD**

*Assistant Professor, Department of Epidemiology @ Biostatistics, Mel @ Enid Zuckerman College of Public Health*

**Mentor:** *Lynn Gerald, PhD, MSPH, Canyon Ranch Endowed Chair and Professor, Department of Health Promotion Sciences, Mel @ Enid Zuckerman College of Public Health*

Dr. Oren has a research background in respiratory and social epidemiology, with a focus on health disparities. His CDA award is centered on the role of chronic stress on asthma control among children and adolescents. The award consists of two main components: 1) utilizing the existing Children's Respiratory Study, a non-selected cohort of healthy newborns followed for over 30 years in Tucson, to examine the association between life events during adolescence and asthma morbidity and; 2) determining to what degree variations in asthma control and morbidity are associated with chronic school stressors, utilizing both survey and biomarker measures. The long-term goal of this project is to evaluate school-based stress management interventions that can avert poor asthma outcomes and disparities. In addition to this work, Dr. Oren has worked in tuberculosis control for the last decade in local, national and international contexts and for the past two years has been working more broadly in lung health, including Valley Fever and ARDS. He has significant experience in both academic public health and public health practice, with a focus on at-risk populations in urban areas, as well as effective adoption of interventions in the community.



### **Megan J. Smithey, PhD**

*Research Assistant Professor, Department of Immunology, College of Medicine – Tucson*

**Mentor:** *Janko Nikolich-Zugich, MD, PhD, Bowman Professor and Chair, Department of Immunobiology, College of Medicine – Tucson, Co-director, UA Center on Aging*

Megan Smithey received her doctoral degree from Oregon Health & Science University in 2005, and joined the Nikolich-Zugich research group in 2008. Her research is primarily focused on understanding how persistent viral infections impact the aging immune system in both model organisms and human translational research. Megan Smithey's longstanding career interests have centered on understanding protective immunity to infectious microbes. As a Research Assistant Professor within the Department of Immunobiology, she is now focused on determining how aging negatively influences immune function, and how lifelong persistent viral infections might further impact immunity in late life.



### **Olga Rafikova, MD, PhD**

*Assistant Professor, Department of Medicine, College of Medicine – Tucson*

**Mentor:** *Stephen M. Black, PhD, Professor, Department of Medicine, College of Medicine – Tucson*

Dr. Rafikova has an extensive research experience in the area of cardiovascular diseases with a specific focus on mechanisms involved in vascular pathology. In particular, she is interested in redox biology and protein post-translational modifications that compromise the function of critical cell enzymes and lead to the development or exacerbation of vascular disease. Dr. Rafikova utilizes multi-functional in vitro and in vivo approach to understand, in depth, the particular molecular mechanisms contributing to the disease and their pathophysiological consequences. Besides, she is focused on developing and testing the therapeutic strategies aimed to selectively target the uncovered pathological mechanisms. Dr. Rafikova has also a long-standing interest in studying gender difference and revealing the signaling pathways leading to manifestation of sexual dimorphism in vascular pathology. Finally, upon joining the Division of Translational and Regenerative Medicine at UA, she has focused her efforts on translational studies based on the data acquired from patient-oriented research.

# Grant Opportunity

## UAHS Career Development Award – Application Deadline Approaching

Interested in applying for the UAHS Career Development Award (UAHS CDA)? The Senior Vice President for Health Science's office will continue to support the program in 2016.

This award represents a key step for UAHS to establish and provide well-organized infrastructure and a nurturing environment for training, developing and advancing the next generation of physician-scientists and other health-scientists.

The award provides funding to support physicians, physician-scientists and health-scientists across disciplines to develop a research project in an established investigator's laboratory/program to generate preliminary data for a future competitive grant application (for example, NIH K-series award, such as K08, K23; and the NIH-R01 grant). The award allows promising UA health scientists protected time to conduct clinical and translational research under the direction of a well-funded and highly productive UA research mentor.

UAHS CDA scholars will receive salary support of \$75,000 per year for two years or funds to cover about 75 percent assigned effort of the current total base salary (if it is less than \$75,000), plus fringe benefits (ERE). As much as \$5,000 per year will be available to defray costs associated with the scholar's research-related activities, including lab supplies, tuition and fees, among other items. In addition, the UAHS CDA will provide \$1,500 per year for the scholar to travel to one or more academic conferences. The scholars will be selected by a UAHS CDA Advisory Committee, composed of established investigators. The mentor of awarded scholars also receives \$5,000/year to contribute toward his/her research program.

**For information on how to apply** for this important funding opportunity, please go to: <http://azicats.uahs.arizona.edu/funding-opppportunity/uahs-career-development-award>

**Deadline:** Applications need to be submitted by **Wednesday, June 15, 2016**

**Online Application:** <http://grant.azahec.org/KL2form>

**Questions:** Please contact:

**Jason X.-J. Yuan, MD, PhD**

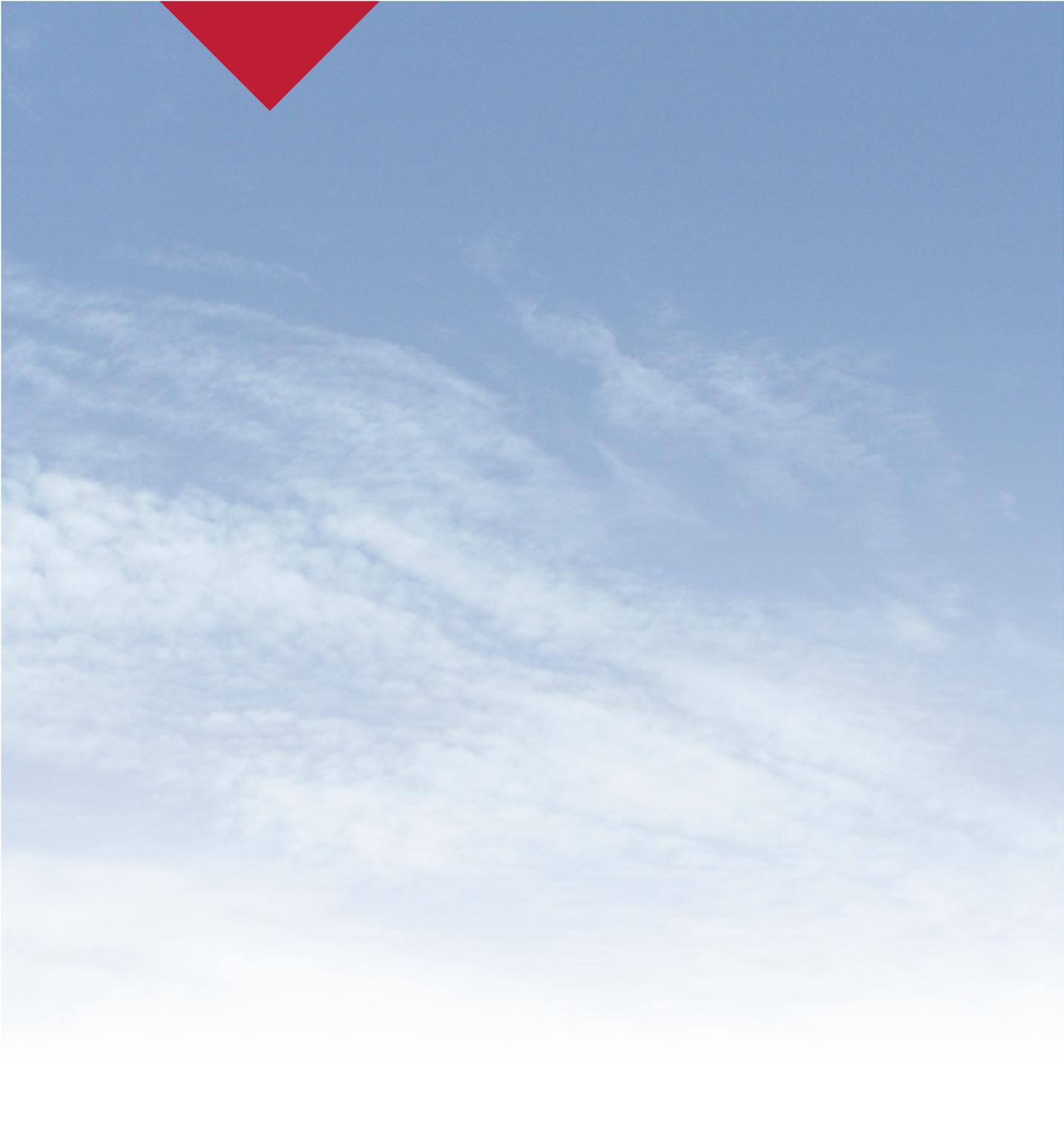
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The University of Arizona  
Health Sciences

