

2011 Carolyn L. Kuckein Student Research Fellowships

In 1982, the board of directors of Alpha Omega Alpha established five student research fellowship awards to encourage and support student research. Since then, the awards have grown in number and dollar amount. As many as fifty \$5000 awards are made, and \$1000 is available for travel to a national meeting to present the research results. In 2004, the name of the fellowship program was changed to the Alpha Omega Alpha Carolyn L. Kuckein Student Research Fellowship awards in honor of Carolyn L. Kuckein, AΩA's longtime administrator, who died in January 2004.

Evaluations of the fellowship proposals were made by reviewers: C. Bruce Alexander, MD; Thomas T. Andersen, PhD; Robert G. Atnip, MD; Jeremiah Barondess, MD; Syamal K. Bhattacharya, PhD, CLD; John M. Boltri, MD; John C.M. Brust, MD; Paul A. Bunn, Jr., MD; Joseph A. Califano III, MD; Randy Q. Cron, MD, PhD; Gerald V. Denis, PhD; N. Joseph Espot, MD; Ruth-Marie Fincher, MD; Daniel Foster, MD; James G. Gamble, MD; Mary A. Gerend, PhD; Richard B. Gunderman, MD, PhD; Suzanne Leonard Harrison, MD; Joseph A. Hill, MD, PhD; Marc G. Jeschke, MD, PhD, FACS; Rae-Ellen W. Kavey, MD; Anne T. Mancino, MD; Mirjana Maletic-Savatic, MD, PhD; James H. Millonig, PhD; Thoru Pederson, PhD; Suzann Pershing, MD; Sheryl Pfeil, MD; Don W. Powell, MD; Robert Rifkin, MD, FACP; William A. Robinson, MD, PhD; Sarah M. Roddy, MD; William M. Rogoway, MD; Shashi K. Salgar, PhD; David Shibata, MD, FACS; John Tooker, MD, MBA, FACP; Gerald Weissmann, MD.

Makeda Agonafer

Morehouse School of Medicine
Physiological and histological effects of Bmal1 overexpression on mammalian skeletal muscle and potential implications for sleep regulation
Ketema Nnamdi Paul, PhD, mentor
Frances J. Dunston, MD, MPH, councilor

Humera Ahmed

New York Medical College
Renal Sympathetic Denervation for the Management of Chronic Hypertension (RELIEF) (A prospective, single-center, blinded, sham-procedure placebo-controlled, randomized trial)
Vivek Reddy, MD, mentor
William H. Frishman, MD, councilor

Stefanie Ames

Southern Illinois University School of Medicine
Fatigue and Inflammation in Breast and Endometrial Cancer Survivors Compared with Healthy Controls
Laura Q. Rogers, MD, MPH, mentor
Andrew J. Varney, MD, councilor

William Ares

University of Vermont College of Medicine
Contribution of Kv channels, matrix metalloprotease activity and EGF receptor tyrosine kinase activity to enhanced parenchymal arteriole constriction following subarachnoid hemorrhage
George C. Wellman, PhD, mentor
Jeffrey Klein, MD, councilor

Bennett Battle

University of Arkansas for Medical Sciences College of Medicine
Validation of Trauma Center Activation Criteria for Intubated Pediatric Trauma Patients
Robert Todd Maxson, MD, mentor
C. James Graham, MD, councilor

Andrew Birkeland

Weill Cornell Medical College
Radiosensitivity in Fanconi Anemia Patients with Head and Neck Cancers
David I. Kutler, MD, mentor
O. Wayne Isom, MD, councilor

Cindy Cai

Columbia University College of Physicians and Surgeons
Comparison of the Transition Zone between Healthy and Abnormal Retina in Patients with Different Mutations of Retinitis Pigmentosa
Donald C. Hood, PhD, mentor
John C. M. Brust, MD, councilor

Kathy Jo Carstarphen

University of Alabama School of Medicine
Effects of Patient Education on HIV Knowledge and Safe Sexual Practices in Lima, Peru
Juan Echeverria, MD, and Michael J. Mugavero, MD, MHSc, mentors
Stephanie D. Reilly, MD, councilor

Saydi Chahla

University of Minnesota Medical School
A Cross Sectional Study of the Influence of Daily Activity on Osteocalcin Level
Lynda E. Polgreen, MD, MS, mentor
Charles Billington, MD, councilor

Jason Chan

The Warren Alpert Medical School of Brown University
Rapid detection of sequence-specific DNA markers using solid-state nanopores
Derek Stein, PhD, mentor
Charlotte M. Boney, MD, councilor

David Chen

Northwestern University, The Feinberg School of Medicine
A Novel Approach Using Transdermal Delivery of Nanoparticles for Gene Suppression to Treat Primary and Metastatic Melanoma
Amy S. Paller, MD, mentor
John P. Flaherty, MD, councilor

Linda Chen

Duke University School of Medicine
Slit-Robo and Brain Tumor Stem Cell Migration
Alfredo Quiñones-Hinojosa, MD, mentor
Salvatore Pizzo, MD, PhD, councilor

David Cook

Uniformed Services University of the Health Sciences F. Edward Hébert School of Medicine
Clinical and immunological effects of desensitization on polysensitized mice

Edward Mitre, MD, mentor
Robert E. Goldstein, MD, councilor

Claire Detweiler

University of Texas Medical Branch School of Medicine
Are bacterial agents of community-acquired gastroenteritis under-diagnosed? Impact of stool antigen tests for Campylobacter and Enterohemorrhagic E. coli

Mike Loeffelholz, PhD, ABMM, mentor
Lisa R. Farmer, MD, councilor

Hayley Fischer

The Brody School of Medicine at East Carolina University
The Impact of Hydroxyurea Treatment on School Absenteeism in Children with Sickle Cell Disease

Beng Fuh, MD, PhD, mentor
Thomas G. Irons, MD, councilor

Frederick Flo

University of Rochester School of Medicine and Dentistry
An Investigation of spirituality and functionality in patients with Amyotrophic Lateral Sclerosis (ALS)

Paul T. Twydell, DO, mentor
Heidi B. Schwarz, MD, councilor

Mark Fox

University of Iowa Roy J. and Lucille A. Carver College of Medicine
Evaluation of results of the Brazilian Ponseti National Program

Jose A. Morcuende, MD, PhD, mentor
Christopher Cooper, MD, councilor

Neil Issar

Vanderbilt University School of Medicine
Comparison of Ventral Intermediate Nucleus and Caudal Zona Incerta as Targets for the Treatment of Tremor with Deep Brain Stimulation

Joseph S. Neimat, MD, MS, mentor
John A. Zic, MD

Vasili Karas

Rush Medical College of Rush University Medical Center
Preparation of chondral defects in cartilage repair procedures: Surgeon ability to remove or preserve the calcified cartilage layer (CCL)

Vincent M. Wang, PhD, and Brian J. Cole, MD, MBA, mentors
Richard I. Abrams, MD, councilor

Elizabeth Keating

Mayo Medical School
Thiamine Deficiency in Sick Infants in Cambodia

Philip R. Fischer, MD, mentor
Carola Arndt, MD, and Judith Kaur, MD, association chairs

Parth Khade

Texas A&M Health Science Center College of Medicine
Predictors of recurrence in chronic subdural hematoma: Do nutritional status, hepatic synthetic function, serum osmolality, or other factors matter?

Leonide Gerard Toussaint III, MD, mentor
Mark L. Montgomery, MD, councilor

Catherine Kim

University of Texas Southwestern Medical Center at Dallas
Southwestern Medical School

Mechanisms of Intradialytic Hypertension and the Potential Role of Dialysate Sodium

Jula K. Inrig, MD, MHS, mentor
Kevin Klein, MD, councilor

Andrew Lin

University of Michigan Medical School
Effect of cyclosporine and ustekinumab on extracellular trap formation in psoriasis

Allen T. Bruce, MD, PhD, mentor
Cyril M. Grum, MD, councilor

Robert Lopez

State University of New York Downstate Medical Center College of Medicine
Dissect the immunomodulatory roles of VPAC₁ receptor in experimental autoimmune encephalomyelitis (EAE), a mouse model for multiple sclerosis

James A. Waschek, PhD, mentor
Arthur H. Wolintz, MD, councilor

Sarah McCurdy

The University of Texas School of Medicine at San Antonio
Sodium Coupled Glucose Transporter (SGLT) Expression in the Human Diabetic Kidney

Luke Norton, PhD, mentor
Kristen Plastino, MD, councilor

Jennifer McGrath

University of Pennsylvania School of Medicine
Temporally Controlled Delivery of Multiple Growth Factors in the Preparation of a Vascularized Bony Construct

Hyun-Duck Nah, DMD, PhD, mentor
Jon B. Morris, MD, councilor

Kathryn McKenney

University of North Carolina at Chapel Hill School of Medicine
Evaluating and Alleviating Depression in Mexican Women: The MESA Project

Sandra Clark, MD, mentor
Amelia Drake, MD, councilor

Lauren Orenstein

Emory University School of Medicine
Cost-effectiveness and potential impact of maternal influenza immunization in Mali

Myron M. Levine, MD, DTPH, mentor
Thomas C. Pearson, MD, DPhil, councilor

Priyanka Parekh

University of Texas Medical School at Houston
Can Serotonin-Induced Hyperexcitability of Nociceptor Axons Produce Behavioral Effects Related to Chronic Pain?

Edgar T. Walters, PhD, mentor
Eugene Boisabuin, MD, councilor

Catherine Pearson

Virginia Commonwealth University School of Medicine
Healthcare in Two Rural Honduran Communities: A Comparison of Healthcare Access and an Assessment of Medical Care Quality Delivered by the VCU Honduras Outreach Medical Brigade Relief Effort (HOMBRE)

Gonzalo Bearman, MD, MPH, and Michael Stevens, MD, mentors
Gordon L. Archer, MD, councilor

Justin Peterson

Mercer University School of Medicine
Validation of an assessment instrument to detect at-risk alcohol use

J. Aaron Johnson, PhD, mentor
Richard J. Ackermann, MD, councilor

Sophia Rangwala

Baylor College of Medicine
HDAC inhibitors in cutaneous T-cell lymphomas: biomarkers of response and resistance and potential combination therapies
Madeleine Duvic, MD, mentor
Kristin Angelie Kassaw, MD, councilor

Barbara Reichert

The Ohio State University College of Medicine
Estrogen and Retinoic Acid Interactions in the Regulation of Adipose Triglyceride Lipase
Univ. -Prof. Dr. Rudolf Zechner, mentor
Sheryl Pfeil, MD, councilor

Whitney Ross

East Tennessee State University James H. Quillen College of Medicine
Embryonic calcium nutrition: testing a model for developmental calcium deprivation
Tom W. Ecay, PhD, mentor
Martin Eason, MD, JD, councilor

Jacob Ruzevick

Johns Hopkins University School of Medicine
Modulating phosphorylated Signal Transducer and Activator of Transcription 3 (pSTAT-3) and phosphorylated-Akt (pAKT) expression to improve immunogenicity of GBM with Low Dose Radiation
Michael Lim, MD, mentor
Peter E. Dans, MD, councilor

Timothy Savage

Mount Sinai School of Medicine
How does the dengue virus evade the immune system and establish an infection? Identification of host factors in human primary monocytes and monocyte-derived dendritic cells that enhance or suppress dengue virus infection
Ana Fernandez-Sesma, PhD, mentor
Lisa Coplit, MD, councilor

Anish Shah

University of Illinois College of Medicine
Alternative Cardiac Sodium Channel Splicing in circulating White Blood Cells of Heart Failure Patients
Samuel C. Dudley, Jr., MD, PhD, mentor
Charles A. Owens, MD, Christopher M. Miles, MD, and Gary Rifkin, MD, councilors

Meera Shah

George Washington University School of Medicine and Health Sciences
Reproductive Health Needs of Adolescents with Sickle Cell Disease
Lisa Tuchman, MD, mentor
Alan G. Wasserman, MD, councilor

Sameer Shakir

University of Pittsburgh School of Medicine
Treatment of Critical Size Calvarial Defects using Inkjet-Based Biopatterning of TGFβ1
Gregory M. Cooper, PhD, mentor
Carl R. Fuhrman, MD, councilor

Chad Teven

University of Chicago Division of the Biological Sciences The Pritzker School of Medicine
The Use of a Novel, Three-Dimensional Biocompatible Scaffold to Deliver Osteoprogenitor Cells to a Critical-Sized Calvarial Defect
Russell R. Reid, MD, PhD, mentor
Adam Cifu, MD, councilor

Yana Thaker

Medical College of Wisconsin
CXCR4 desensitization and cell-adhesion in colonic carcinoma cells occurs through a B-arrestin-independent signaling pathway
Michael Dwinell, PhD, mentor
James L. Sebastian, MD, councilor

Catherine Tomasulo

University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School
Changes in Heart Failure Markers After Myocardial Gene Transfer Using Cardiac Surgery
Charles R. Bridges, MD, ScD, mentor
Geza Kiss, MD, and Michael E. Goldberg, MD, councilors

Catherine Tsai

University of California, San Francisco, School of Medicine
Maternal/Fetal Immune Responses in Preterm Labor
Tippi MacKenzie, MD, mentor
Sue Carlisle, MD, councilor

Edmund Tsui

Dartmouth Medical School
Retinal blood flow in response to an intravitreal injection of ranibizumab for central retinal vein occlusion
Chris Hudson, PhD, mentor
Susan Harper, MD, councilor

Sumeet Vaikunth

University of Tennessee Health Science Center College of Medicine
Mitochondria-targeted cardioprotection in isoproterenol-induced acute hyperadrenergic state
Syamal K. Bhattacharya, PhD, CLD, mentor
Owen Phillips, MD, councilor

Ingrid Wahjudi

Loma Linda University School of Medicine
Do Antiandrogens Protect Against Pneumoperitoneum-Induced Renal Ischemia during Laparoscopic Surgery?
D. Duane Baldwin, MD, mentor
Sarah M. Roddy, MD, councilor

Claribel Wee

Chicago Medical School at Rosalind Franklin University of Medicine & Science
Identification of novel regulators of SMN2 exon 7 splicing in spinal muscular atrophy
Michelle L. Hastings, PhD, mentor
Cathy J. Lazarus, MD, FACP, councilor

Luke Wiggins

University of South Alabama College of Medicine
Role of Matrix Metalloproteinases in Coronary Collateral Growth
Petra Rocic, PhD, mentor
T. J. Hundley, MD, FACP, councilor

Edward Wu

University of California, Irvine, School of Medicine
pH-dependent Mechanisms of Electromechanical Cartilage Reshaping
Brian J. F. Wong, MD, PhD, FACS, mentor
Michael L. Berman, MD, and Ranjan Gupta, MD, councilors

Andrew Zhang

Case Western Reserve University School of Medicine
Developing a new class of cancer chemotherapeutics
Chris Dealwis, PhD, mentor
Jeffrey L. Ponsky, MD, councilor