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 Espat, 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, PhD; 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. Roggoway, 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. Kutter, 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
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 Loefelholz, 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 Trenor 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 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
Sodium Coupled Glucose Transporter (SGLT) Expression in the Human Diabetic Kidney
Luke Norton, PhD, mentor
Kristen Plastino, MD, councilor

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
Lynh-Duck Nah, DMD, PhD, mentor
Jon B. Morris, 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
Sandia Clark, MD, mentor
Amelia Drake, MD, councilor

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 Boisaubin, MD, councilor

Catherine Pearson
Virginia Commonwealth University School of Medicine
Can Serotonin-Induced Hyperexcitability of Nociceptor Axons Produce Behavioral Effects Related to Chronic Pain?
Edgar T. Walters, PhD, mentor
Eugene Boisaubin, 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

The Pharos/Spring 2011
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 Anjelie 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

Madeleine Duvic, MD, mentor  
Kristin Anjelie Kassaw, 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 TGFβs**  
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 β-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

Sumeet Vaikutunth  
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, FACCP, 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