SAMPLE OF SCHOLARS’ RESEARCH TOPICS

**YAJIE “JULIE” AN**  
Northeast Ohio Medical Univ.  
**Topic:** Does a Negative Prostate mpMRI Rule-Out Clinically Significant Cancer?  
**Mentor:** Bradford J. Wood, M.D., Director, Center for Interventional Oncology; Chief, Interventional Radiology, NIH Clinical Center

**BRIAN CALIO**  
Sidney Kimmel Medical Col. at Thomas Jefferson Univ.  
**Topic:** Utility of Multiparametric MRI and Fusion Biopsy on Patient Selection for Focal Therapy in Intermediate Risk Prostate Cancer Patients;  
**Mentor:** Peter A. Pinto, M.D., Head, Prostate Cancer Section, Urologic Oncology Branch, NCI

**ASHLEY E. CHORATH**  
Sidney Kimmel Medical Col. at Thomas Jefferson Univ.  
**Topic:** Coronary CT Angiography and Carotid MRI Improve Phenotyping of Disease Extent Compared to ACC/AHA Risk Score Alone;  
**Mentor:** David A. Bluemke, M.D., Ph.D., Director, Radiology and Imaging Sciences, NIBIB

**DANIEL KUHR**  
Jacobs Sch. of Medicine and Biomedical Sciences, Univ. at Buffalo  
**Topic:** Vitamin D and the Bioavailability of Androgens;  
**Mentor:** Enrique F. Schisterman, Ph.D., Chief, Epidemiology, Division of Intramural Population Health Research, NICHD

**SACHIN NAIR**  
Univ. of Missouri-Kansas City Sch. of Medicine  
**Topic:** The Effect of Periaqueductal Gray (PAG) Lesions on Pain Processing and Cardiovascular Regulation in Rhesus Macaques;  
**Mentor:** Bruno Averbeck, Ph.D., Chief, Section on Learning and Decision Making, Laboratory of Neuropsychology

**VARUN PADMANABAN**  
Drexel Univ. Col. of Medicine  
**Topic:** Investigation of Single-Session Deep Brain Stimulation to Increase Adult Hippocampal Neurogenesis and Improve Stress Resiliency;  
**Mentor:** Heather Cameron, Ph.D., Chief, Section of Neuroplasticity, NIMH

**CHANDANA PAPUDESU**  
Medical Col. of Georgia at Augusta Univ.  
**Topic:** Association of Mortality with Ocular Diseases in the Age-Related Eye Disease Study 2 (AREDS2);  
**Mentor:** Emily Chew, M.D., Deputy Clinical Director, NEI; Deputy Director, Division of Epidemiology and Clinical Applications, NEI

**JACQUELINE M. PIRES**  
Univ. of Massachusetts Medical Sch.  
**Topic:** Endogenous Tagging of POLG2 Via Split GFP Fluorescence: Using CRISPR Mediated Gene Editing to Study Mitochondrial DNA Replication;  
**Mentor:** Richard J. Youle, Ph.D., Biochemistry Section, Surgical Neurology Branch, NINDS

**RICHARD M. SMITH**  
Drexel Univ. Col. of Medicine  
**Topic:** The Contributions of Pathological Volume and Kinematics to the Etiology of Adolescent Patellofemoral Pain Syndrome;  
**Mentor:** Frances T. Sheehan Gavelli, Ph.D., Functional & Applied Biomechanics Section, Rehabilitation Medicine Department, CC

**GIACOMO C. WALLER**  
Emory Univ. Sch. of Medicine  
**Topic:** Development of an Optimized Toolkit for High-Efficiency Lentiviral Genetic Modification of Human Natural Killer Cells;  
**Mentor:** Richard Childs, M.D., Sr. Investigator, Lab. of Transplantation Immunology, Hematology Branch; Clinical Director, Division of Intramural Research, NHLBI

**SUZANNE C. WARD**  
Univ. of Cincinnati Col. of Medicine  
**Topic:** Beyond the Triad: Correlating Mucocutaneous Phenotype, Inheritance Patterns, and Survival in Dyskeratosis Congenita;  
**Mentor:** Edward Cowen, M.D., Senior Clinician and Head, Dermatology Consultation Service, Dermatology Branch, NCI