NREF Announces Recipients of 2022-23 Research Fellowship Grants and Young Clinician Investigator Awards

August 23, 2022 (Rolling Meadows, Ill.) – The Neurosurgery Research & Education Foundation (NREF) is pleased to announce this year’s recipients of the Foundation’s Research Fellowship Grants and Young Clinician Investigator Awards.

“Year after year, the NREF receives applications from some of the most promising researchers in the country. The decisions were extraordinarily difficult this year. The exceptional quality of the proposals submitted by the awardees makes us optimistic for the future of neurosurgery. We are grateful for the generosity of the donors, industry partners, sections, and affiliated organizations who make these awards possible.” stated Gregory J. Zipfel, MD, FAANS, NREF Research Committee Chair.

As the premier funder of neurosurgical studies, the NREF provides funding for studies in basic, translational and patient-oriented clinical research for investigators in North America.

Open to residents only, the NREF Research Fellowship Grant provides training for neurosurgeons who are preparing for academic careers as clinician investigators. Applicants must be physicians who have been accepted into, or who are currently in approved residency training programs in neurological surgery in North America.

The NREF Young Clinician Investigator Award supports junior faculty who are pursuing careers as clinical investigators. Applicants must be neurosurgeons, no more than two years from the end of their clinical training, who are full-time faculty in North American teaching institutions.

The 2022-23 Research Fellowship Grant and Young Clinician Investigator Award recipients are:

Nitin Agarwal, MD, Washington University School of Medicine
- **Award:** NREF & Academy of Neurological Surgeons Young Clinician Investigator Award
- **Project Title:** Predicting Spinal Cord Injury Prognosis Using a Novel Non-Invasive Biomarker
- **Sponsor:** Wilson Z. Ray MD, FAANS

Diane Aum, MD, Washington University in St. Louis
- **Award:** NREF & Henry G. Schwartz Research Fellowship Grant
- **Project Title:** Determinants of Cognitive Outcome through Functional Resting State and White Matter Connectivity in Pediatric Patients with Posterior Fossa Tumors
- **Sponsor:** Eric Leuthardt, MD, FAANS

Gabriel Friedman, MD, Massachusetts Institute of Technology
• **Award:** NREF & Academy of Neurological Surgeons Research Fellowship Grant
  • **Project Title:** Recapitulating proprioceptive function via biological actuation in a neural prosthetic model
  • **Sponsor:** Hugh Herr, PhD

Christopher S. Graffeo, MD, *University of Oklahoma*
• **Award:** NREF & Albert L. Rhoton Young Clinician Investigator Award
  • **Project Title:** Skull Basics: Novel Tools for Simulation & Education in Complex Cranial Surgery
  • **Sponsor:** Ian F. Dunn, MD, FAANS

Trevor Hardigan, MD, PhD, *Mount Sinai Health System*
• **Award:** Academy of Neurological Surgeons Research Fellowship Grant
  • **Project Title:** The role of IL-3 in the regulation of post-stroke inflammation
  • **Sponsor:** Filip K. Swirski, PhD

Peter J. Madsen, MD, *Children’s Hospital of Philadelphia*
• **Award:** NREF & AANS/CNS Section on Pediatric Neurosurgery Young Clinician Investigator Award
  • **Project Title:** Development of CAR-T cells against claudin-6 in atypical teratoid/rhabdoid tumor
  • **Sponsor:** Adam C. Resnick, PhD

Angela M. Richardson, MD, PhD, *Indiana University*
• **Award:** NREF & AANS/CNS Section on Tumors Young Clinician Investigator Award
  • **Project Title:** Tumor selective retroviral replicating vectors for the treatment of leptomeningeal medulloblastoma
  • **Sponsor:** Karen E. Pollok, PhD

Ashish Shah, MD, *University of Miami*
• **Award:** NREF & Andrew T. Parsa Young Clinician Investigator Award
  • **Project Title:** Epigenetic potentiation of immune checkpoint inhibition through endogenous retroviral immune responses
  • **Sponsor:** Maria Figueroa

Genaro R. Villa, MD, PhD, *Brigham and Women’s Hospital*
• **Award:** NREF & StacheStrong Research Fellowship Grant on behalf of the AANS/CNS Section on Tumors
  • **Project Title:** Assessing Tumor-Associated Macrophage Plasticity Regulation by HNRNPH1 to Augment Adaptive Antitumor Responses in Glioblastoma
  • **Sponsor:** E. Antonio Chiocca, MD PhD FAANS

Mark William Youngblood, MD, *Northwestern University*
• **Award:** 2022-23 NREF & Southeastern Brain Tumor Foundation (SBTF) Research Fellowship Grant on behalf of the AANS/CNS Section on Tumors
  • **Project Title:** Molecular Markers of Meningioma Growth Arrest after HDAC Inhibition
- **Sponsor:** Craig Horbinski, MD, PhD

John K. Yue, MD, University of California, San Francisco
- **Award:** NREF & Bagan Family Foundation Research Fellowship Grant
- **Project Title:** Improving Traumatic Brain Injury Stratification and Prognosis through Big Data Harmonization and Machine Learning
- **Sponsor:** Geoffrey T. Manley, MD, PhD, FAANS

The application for the 2023-24 NREF Research Fellowship Grants and Young Clinician Investigator Awards will open September 1, 2022 through the NREF Online Grant Portal.

For more information about the NREF Research Fellowship Grants and Young Clinician Investigator Awards or other grant and fellowship programs, please contact NREF at (847) 378-0500 or info@nref.org.

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**About the NREF**

The Neurosurgery Research & Education Foundation (NREF) is a not-for-profit 501(c)(3) organization created in 1980 by the American Association of Neurological Surgeons (AANS) to support research and education efforts that enhance and confirm the critical role neurosurgeons play in improving lives.

The NREF is dedicated to providing education to neurosurgeons at all stages of their careers, as well as funding research into new and existing neurosurgical treatments, in order to identify links between best practices and improved outcomes in patient care. Through voluntary public donations, corporate support, and donations from allied groups, the NREF supports endeavors that impact the lives of those suffering from epilepsy, stroke, brain tumors, spinal disorders, sports-related head injuries, lower back pain and Parkinson’s disease.

For more information about NREF, please visit www.nref.org.