

SUMMARY

New Appointments to Endowed Chairs, Professorships, or Fellowships (2)

August 31, 2021

College of Engineering (2)

Robin Queen

Kevin P. Granata Faculty Fellowship

John "Jake" Socha

Samuel Herrick Professorship

ENDOWED FELLOWSHIP
Kevin P. Granata Faculty Fellowship

The Kevin P. Granata Faculty Fellowship in the College of Engineering was established by generous donations from members of the Virginia Tech community. The creation of this professorship enables Virginia Tech to promote our most talented faculty. Dean Ross has nominated Dr. Robin Queen as the Kevin P. Granata Faculty Fellow, based on the recommendations of the department head of Biomedical Engineering and Mechanics (BEAM) and the BEAM Honorifics Committee.

Dr. Queen's research, scholarly, and educational platforms focus on addressing basic and applied questions in musculoskeletal biomechanics that take an interdisciplinary approach to bridge gaps between foundational engineering, patient care, and the development of novel tools. She works to quantify normal and abnormal movement mechanics for the purpose of improving patient outcomes following injury and surgical procedures. Through therapeutic interventions, her research identifies movement and load asymmetries for the prevention of overuse and degenerative injuries of the lower extremity.

Dr. Queen has authored or coauthored three book chapters and 143 journal publications. In addition, she has advised five Ph.D. and three M.S. students, and currently mentors nine Ph.D./M.S. students, four medical students, and eight undergraduate students. She plays significant leadership roles in her field in leading committees for the Orthopaedic Research Society, the American Society of Biomechanics, the American College of Sports Medicine, the Biomedical Engineering Society, and the American Academy of Orthopaedic Surgeons.

Dr. Queen, through her scholarship in the biomechanics of human movement and in the field of Biomedical Engineering, has made outstanding contributions to Virginia Tech, to the Commonwealth of Virginia, and to the nation by her innovative research methods, her service and outreach to the community, and through her publications.

RECOMMENDATION:

That Dr. Robin Queen be appointed to the Kevin P. Granata Faculty Fellowship in Engineering for a renewable period of five years, effective August 10, 2021, with a salary supplement and operating budget as provided by the endowment and the eminent scholar match, if available.

August 31, 2021

ENDOWED PROFESSORSHIP
Samuel Herrick Professorship

The Samuel Herrick Professorship in the College of Engineering was established by a generous gift from Betulia Herrick, wife of Samuel Herrick, to honor her late husband who advanced the field of space exploration. The creation of this professorship enables Virginia Tech to retain our most talented faculty. Dean Ross has nominated Dr. John (Jake) Socha as the Samuel Herrick Professor, based on the recommendations of the department head of Biomedical Engineering and Mechanics (BEAM) and the BEAM Honorifics Committee.

Dr. Socha's research, scholarly, and educational platforms have placed him as a world leader in two areas – understanding of flying snakes and internal synchrotron imaging of insects. His work aims to uncover fundamental principles of how animals function from a mechanical perspective and apply those principles to new engineering design. From experimental and theoretical analyses, his research team uncovered that the undulation movement of flying snakes is for a fundamentally different mechanical function – dynamic stability – than other undulating life forms for terrestrial and aquatic movement. Studies of fluid flows in the circulatory, respiratory, and feeding systems of insects are important for the insects' role in ecology and medically in understanding disease transmission.

Dr. Socha has authored or coauthored two book chapters and 54 refereed journal publications. The most prominent publications are in high profile journals including *Science*, *Nature*, *Nature Physics*, *PNAS*, and *Scientific Reports*. His research has been featured worldwide in more than 150 news media pieces including the *New York Times*, the *Washington Post*, *National Geographic* magazine, *CNN*, and *NPR*. Over his career, he has received \$7.8M in total research funding, with \$4.3M as his personal share. In these efforts, Dr. Socha has advised eight Ph.D. and six M.S. students to completion of their degrees. He currently advises five Ph.D. students. Dr. Socha, through his scholarship in comparative biomechanics and bio-inspired engineering, and in the field of Biomedical Engineering, has made outstanding contributions to Virginia Tech, to the Commonwealth of Virginia, and to the nation by his innovative research methods, his service and outreach to the community, and through his publications.

RECOMMENDATION:

That Dr. Socha be appointed to the Samuel Herrick Professorship in Engineering for a renewable period of five years, effective August 10, 2021, with a salary supplement and operating budget as provided by the endowment and the eminent scholar match, if available.

August 31, 2021