Henry J. Donahue, Ph.D.

Alice T. and William H. Goodwin, Jr. Professor, Department of Biomedical Engineering; BS, San Diego State University; Ph.D. UC Santa Barbara at VCU College of Engineering
Richmond, VA, US

Bone, mechanobiology, regenerative medicine, effects of space travel on bone and muscle, gap junctions, osteoblast, osteocyte, osteoclast

Biography

Dr. Donahue is Eminent Scholar and Alice T. and William H. Goodwin, Jr. Endowed Professor and Chair, Department of Biomedical Engineering at Virginia Commonwealth University. He received his Ph.D. in Biology from the University of California, Santa Barbara and completed a post-doctoral fellowship at the Mayo Clinic. He has nearly 30 years of experience studying musculoskeletal biology, using both in vitro and in vivo models. His research focuses on understanding the mechanism by which bone and muscle adapt to their mechanical environment; examining the effects of space flight on musculoskeletal tissues and exploiting biophysical signals, including shear stress and nanotopography, to develop innovative strategies to regenerate musculoskeletal tissue lost to disease, injury or ageing. His research has been continually funded by the National Institutes of Health for over 30 years and he has also had funding from the Department of Defense, NASA/National Space Biology Research Institute, private foundations and industry. In 2017 he received the Orthopaedic Research Society Outstanding Achievement in Mentoring Award. Dr. Donahue is a fellow of the American Institute for Medical and Biological Engineering, the American Association for the Advancement of Science, the American Society for Bone and Mineral Research and the Orthopaedic Research Society.

Industry Expertise

Research, Education/Learning

Areas of Expertise

Regenerative Medicine and Tissue Engineering, Musculoskeletal Mechanobiology, Space Biology and Bioengineering

Education

Mayo Graduate School of Medicine
Postdoctoral Fellowship Endocrinology

University of California Santa Barbara
Ph.D. Biology

University of California Santa Barbara
M.A. Biology

San Diego State University
B.S. Zoology

Accomplishments

Fellow, American Institute of Mechanical and Biological Engineering
2016

Fellow, American Association for the Advancement of Science (AAAS)
2018

Fellow, American Society for Bone and Mineral Research (ASBMR)
2019

Fellow, Orthopaedic Research Society (ORS)
2020
