

Donald R. Peterson is an Associate Professor of Medicine and the Director of the Biodynamics Laboratory in the School of Medicine at the University of Connecticut (UConn). He serves jointly as the Director of the Biomedical Engineering Undergraduate Program in the School of Engineering and recently served as the Director of the graduate program and as the BME Program Chair. He obtained a Ph.D. in Biomedical Engineering and a M.S. in Mechanical Engineering from UConn, and a B.S. in Aerospace Engineering and a B.S. in Biomechanical Engineering from Worcester Polytechnic Institute. Dr. Peterson has 16 years of experience in biomedical engineering education and offers graduate-level and undergraduate-level courses in BME in the areas of biomechanics, biodynamics, biofluid mechanics, and ergonomics, and teaches in Medicine in the subjects of gross anatomy, occupational biomechanics, and occupational exposure and response. Dr. Peterson's scholarly activities include over 50 published journal articles, 3 textbook chapters, and 12 textbooks, including his new appointment as co-Editor-in-Chief for The Biomedical Engineering Handbook by CRC Press.

Dr. Peterson has over 21 years of experience in biomedical engineering research and has been recently focused on measuring and modeling human, organ, and/or cell performance, including exposures to various physical stimuli and the subsequent biological responses. This work also involves the investigation of human-device interaction and has led to applications on the design and development of tools and various medical devices. Dr. Peterson is faculty within the Occupational and Environmental Medicine group at the UConn Health Center, where his work has been directed towards the objective analysis of the anatomic and physiological processes involved in the onset of musculoskeletal and neuromuscular diseases, including strategies of disease mitigation. Recent applications of his research include human interactions with existing and developmental devices such as powered and non-powered tools, spacesuits and space tools for NASA, surgical and dental instruments, musical instruments, sports equipment, and computer input devices. Other overlapping research initiatives focus on cell mechanics and cellular responses to fluid shear stress, the acoustics of hearing protection and communication, human exposure and response to vibration, and the development of computational models of biomechanical performance.

Dr. Peterson is also the Co-Executive Director of the Biomedical Engineering Alliance and Consortium (BEACON; www.beaconalliance.org), which is a non-profit entity dedicated to the promotion of collaborative research, translation, and partnership among academic, medical, and industry professionals in the field of biomedical engineering to develop new medical technologies and devices.

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