Stanford

John B. Brunski

Senior Research Engineer, Surgery - Plastic and Reconstructive Surgery

Bio

BIO

John B. Brunski is currently Senior Research Engineer in the Division of Plastic and Reconstructive Surgery, Department of Surgery, School of Medicine, Stanford University, Stanford, CA. From 1977 to December 2009, he was Professor in the Department of Biomedical Engineering at Rensselaer Polytechnic Institute in Troy, NY. He received his B.S. degree at the University of Pennsylvania, his M.S. degree at Stanford University, and his Ph.D. at the University of Pennsylvania, all in Metallurgy and Materials Science. Dr. Brunski's 1977 Ph.D. thesis identified factors responsible for development of fibrous tissue vs. bone at the oral implant interface, and it was the first doctorate degree to be granted for dental implant research at an engineering school in the US.

Dr. Brunski's research has largely focused on bioengineering aspects of dental and orthopaedic implant design, bone-implant interactions, and the biomechanics of bone healing. Dr. Brunski is one of the Principal Investigators of an ongoing R01 research grant from NIH to Stanford University and the University of Montreal entitled "Mechanobiology at healing bone-implant interfaces." Dr. Brunski has authored over 30 textbook chapters on oral implants, bone, and related topics, plus 125 papers and extended abstracts. He has also delivered over 160 public presentations on these and related topics at national and international meetings, including many keynote lectures. Over his career, Dr. Brunski has been the Principal Investigator or co-investigator on over 20 research grants.

For more than 10 years Dr. Brunski was a Consultant to the Dental Devices Panel of the FDA. From 2009-2012 he was a member of the Musculoskeletal Tissue Engineering (MTE) Study Section of the NIH. Dr. Brunski has also professionally consulted for over 20 legal firms and corporations on topics ranging from patent infringement to product design and product liability. Dr. Brunski serves as Section Editor for Biomechanics and Biomaterials for the International Journal of Oral and Maxillofacial Implants. He has also served on the editorial boards of Clinical Oral Implant Research, J Dent Research, J Biomechanics, and other journals, and has served as a reviewer for many other journals including Bone, J Orthopaedic Research, and J Biomechanical Engineering.

Dr. Brunski has received a number of awards for innovation and excellence in teaching and engineering education, including being a member of a 10-person Rensselaer team that won the first Boeing Outstanding Educator Award in 1995. Also, he was part of a Rensselaer faculty team that won the Premier Award for Excellence in Engineering Education Courseware, Dec. 2000, sponsored by NEEDS and John Wiley and Sons, as well as the 2001 American Society of Mechanical Engineers (ASME) Curriculum Innovation Award.

For his research, Dr. Brunski received the Isaiah Lew Memorial Research Award from the American Academy of Implant Dentistry Research Foundation in 2001, being only the third engineer to receive this award. In 2006, Dr. Brunski was appointed as the first William R. Laney Visiting Professor at the Division of Prosthodontics at the Mayo Foundation in Rochester, NY, and also received the Jerome M. and Dorothy Schweitzer Research Award from the Greater New York Academy of Prosthodontics, New York City, NY. In 2007 Dr. Brunski was the recipient of the Anders Tjellström Award from the Craniofacial Osseointegration and Maxillofacial Prosthetics Rehabilitation Unit, Edmonton, Alberta, Canada. In 2008 he received the Astra Tech Scientific Award for Applied Research in Osseointegration.