



A VA Research Center of Excellence

Jonathan Baskin, M.D. receives a Cleveland VA Medical Research and Education Foundation Award

Cleveland, Ohio—Jonathan Z. Baskin, M.D. has been the Division Chief, Department of Otolaryngology – Head & Neck Surgery since 2008 at the Louis Stokes Cleveland Department of Veterans Affairs Medical Center (LSCDVAMC). He received a B.A. degree in history from the University of Michigan in 1993 and an M.D. from New York University’s School of Medicine in 1998. His research interests include bioengineering of bone substitutes using nano- technology.



Jonathan Baskin’s \$25,000 pilot award from the Cleveland VA Medical Research and Education Foundation commences immediately (through 5/31/2011) and is entitled **“BMP-2 activity following Steric Interdigitation in Collagen Scaffolds”**. His project focuses on evaluating, *in-vitro*, the degree of bone morphogenetic protein [BMP-2] activity of the collagen based bone substitute following self assembly of the material’s collagen fibrils (fibrillogenesis). This is done by releasing BMP-2 from fully formed implants using serial washings and using a BMP-2 biological assay in a cell culture system sensitive to a range of BMP-2 concentrations.

The clinical need for effective bone replacement materials exists for all surgical and dental specialties that treat skeletal deficiencies or defects. The need is particularly high in the craniofacial skeleton due to a combination of functional and aesthetic factors. As an indication of the clinical need, the American Association of Tissue Banks reported 1.3 million [cadaveric] bone grafts were distributed to all end-users in 2003 (the last year for which there is data) and the market size for synthetic bone substitutes is forecast to reach \$3.3 billion in 2013. Craniofacial and dental applications of biomaterial devices are estimated to account for 25-50% of the need.

About the APT Center: The APT Center is a cohesive intellectual community that offers its investigators the opportunity to meet regularly, have discussions within and outside of their fields, participate in list-servs, and attend educational and scientific conferences. It allows access to state-of-the-art facilities including MEMS design and fabrication, mixed-signal and wireless communication laboratories, telemetry laboratories, support staff and other technical and clinical resources. For additional information about the APT Center, please follow the link: <http://www.aptccenter.research.va.gov/aptccenterresearch/>