DEPARTMENT OF BIOMEDICAL SCIENCES

The Department of Biomedical Sciences serves as a hub for basic and translational research at the College of Dentistry, located in Dallas. Additional interdisciplinary and translational research opportunities are provided by research faculty located in the clinical departments of Comprehensive Dentistry, Diagnostic Sciences, Endodontics, Oral and Maxillofacial Surgery, Orthodontics, Periodontics, and Public Health Sciences. Faculty participating in the graduate programs have research interests that range widely within a central focus area of craniofacial biology. These research interests include:

- **Bioengineering and Regeneration.** This focus area offers a wide range of research projects using bioengineering scaffolds and delivery vehicles needed for tissue regeneration, plus biomechanics of dental tissues (particularly dentin and bone, with the application of this data to the design of new dental materials).

- **Craniofacial Development and Genetics.** New discoveries in genetic epidemiology and the functional genomics of commonly inherited disorders have opened up avenues for early diagnosis and intervention.

- **Mineralized Tissue Biology.** This area of study includes a broad spectrum of topics covering cell-cell and cell-matrix interactions during organogenesis and structural biology.

- **Translational Research.** A highly interdisciplinary field aimed at developing a new cadre of biomedical researchers trained formally in in translational and clinical research.

- **Neuroscience, Pain, and Sleep Apnea.** This area explores craniofacial pain pathways using TMJ dysfunction as a model along with sleep disordered breathing.

- **Microbiology and Immunology.** Molecular mechanisms of host-microbe interactions of homeostasis and dysbiosis for oral systemic health.

In addition to many well-equipped individual laboratories, the College provides access to core facilities and analytical instruments, including advanced microscopes (confocal, laser capture, slide scanning, and scanning electron microscope), real-time PCR, and microCT.

Expert faculty provide basic science instruction to students in dental, dental hygiene, and graduate clinical specialty programs, as well as those in pursuit of an MS or PhD in Oral Biology. The Oral Biology graduate program (OBIO) is administered by a graduate program committee, with members from all disciplines in both basic science and clinical backgrounds.

**Faculty**

Bellinger, Larry L, Regents Professor  
Biomedical Sciences  
PHD, University of California at Davis, 1974

Benson, M D, Associate Professor  
Biomedical Sciences  
PHD, University of Michigan, 2000

Dechow, Paul C, Regents Professor  
Biomedical Sciences  
PHD, University of Chicago, 1980

Feng, Jian Q, Regents Professor  
Biomedical Sciences  
PHD, University of Connecticut, 1991

Groppe, Jay C, Associate Professor  
Biomedical Sciences  
PHD, University of California at Santa Barbara, 1991

Honeyman, Allen L, Associate Professor  
Biomedical Sciences  
PHD, University of Kansas, 1988

Kesterke, Matthew J, Instructional Assistant Professor  
Biomedical Sciences  
PHD, University of Pittsburgh, 2016

Kramer, Phillip R, Professor  
Biomedical Sciences  
PHD, Texas A&M University, 1996

Liu, Xiaohua, Associate Professor  
Biomedical Sciences  
PHD, Tsinghua University, China, 2002

Logan, Shaun M, Instructional Assistant Professor  
Biomedical Sciences  
PHD, University of North Texas Health Science Center, 2009

Lu, Yongbo, Associate Professor  
Biomedical Sciences  
PHD, University of Missouri-Kansas City, 2007

Newman, Joseph T, Adjunct Associate Professor  
Biomedical Sciences  
PHD, University of Texas Medical School at San Antonio, 1973

Opperman, Lynne A, Regents Professor  
Biomedical Sciences  
PHD, University of the Witwatersrand, South Africa, 1985

Qin, Chunlin, Professor  
Biomedical Sciences  
PHD, Okayama University, 1998

Reuben, Jayne S, Instructional Associate Professor  
Biomedical Sciences  
DMD, Harbin Medical University, 1983

Ruest, Louisbruno, Associate Professor  
Biomedical Sciences  
PHD, McGill University, Montreal, Canada, 2002

Suh, Sang Jin, Associate Professor  
Biomedical Sciences  
PHD, University of Wisconsin, Madison, WI., 1994

Svoboda, Kathy K, Regents Professor  
Biomedical Sciences  
PHD, University of Nebraska Medical Center, 1982
Tao, Feng, Associate Professor
Biomedical Sciences
PHD, Fudan University, China, 2000
MD, Wannan Medical College, People's Republic of China, 1986

Umorin, Mikhail P, Instructional Assistant Professor
Biomedical Sciences
PHD, Baylor University, 2006

Wang, Qian, Associate Professor
Biomedical Sciences
PHD, Chinese Academy of Sciences, 1998

Wang, Xiaofang, Associate Professor
Biomedical Sciences
DDS, Fourth Military Medical University, China, 2003

Zhang, Hua, Instructional Assistant Professor
Biomedical Sciences
PHD, University of Missouri-Kansas City, 2010
MD, Qingdao Medical College, Qingdao, China, 1994