

## Program Description

A PhD in Oral Biology is offered by the Department of Translational Dental Research, Boston University Henry M. Goldman School of Dental Medicine (GSDM). This program is administered through the Division of Graduate Medical Sciences of Boston University School of Medicine and is part of the Program in Biomedical Sciences (PiBS).

The Program will train people whose goals are to pursue research in pathologies relevant to biological interactions between dental or oral structures with systemic influences originating from other organ systems or from the environment. The PhD will typically require five years, with extensive didactic and research training. Accepted applicants are supported by scholarships and stipends. Training enables graduates to pursue academic and commercial positions, or further postdoctoral research. The outcomes for successful dentist candidates has included subsequent clinical specialty training leading to a fulfilling career in clinical practice, fundamental biological research, or a combination of both in academic and commercial settings in the US and elsewhere.

### THE PROGRAM:

- Recruits students with strong backgrounds in the life and basic sciences who are interested in additional advanced training in dental and medical sciences. Applicants should have a BS in a life science; DMDs and MDs or equivalent can be eligible depending on the strength of scientific training.
- Aims to educate students in modern state of the art scientific approaches to oral biology and oral disease research.
- Accommodates and trains students whose primary goal is to pursue research careers either in academia, industry or clinical research.

### Boston University Research Environment

The University is located in Boston, one of the most dynamic cities for biomedical research. The University itself is a premier research institution with a sophisticated core research infrastructure and an internationally recognized faculty in respective fields. The environment at Boston University Medical Campus and also including faculty members at the Charles River campus is unusually collaborative and provides students with a variety of learning and research opportunities that are not typically available elsewhere.

### RESEARCH TOPICS

A variety of research topics are available to PhD candidates and include, but are not limited to, the topics listed below. Note that interests of the faculty evolve over time, and that additional areas of research typically develop related to those listed.

- Molecular and cellular aspects of oral cancer to develop novel therapeutic opportunities
- Sjogren's syndrome research
- Osteocyte biology, obesity and systemic interactions
- Osteocytes as a regulator of bone structure
- Diabetic bone disease
- Osteoarthritis and temporomandibular joint dysfunction
- Fibrosis and connective tissue biology

### Faculty Mentors

#### Manish Bais, DVM, PhD

Research Associate Professor

#### Maria Kukuruzinska, PhD

Professor

Associate Dean for Research

#### Paola Divieti Pajevic, MD, PhD

Associate Professor

#### Philip Trackman, PhD

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