

The University of Rochester Departments of Biomedical Engineering, Biomedical Genetics, and the Center for Oral Biology are seeking 2 outstanding postdoctoral associates for a highly collaborative newly-funded project. These positions are available for one year starting as soon as possible and can be renewed for subsequent years based on research progress and the availability of funds.

**Responsibilities:** The principal focus of these positions will be to work on a collaborative team to develop functional human salivary gland tissue chips. For more than 550,000 patients annually diagnosed with head and neck cancers worldwide, severe loss of salivary gland function (xerostomia) is an unavoidable outcome of radiation therapy. Efforts to study radiosensitivity to discover effective radioprotective and regenerative strategies have been hampered by the inability to culture salivary gland mimetics *in vitro*, due to loss of secretory acinar cell phenotype. The work will utilize our microbubble (MB) array technology as a high-throughput, modular platform for the tissue chips. The MB platform will be used to develop tissue chips capable of long-term secretory function, exploring a variety of variables including cell seeding density, phenotype, and microenvironmental cues with the end goal of screening FDA-approved drugs to identify effective radioprotective agents and testing them *in vivo*. The project is supported by NIH 1UG3TR002212 (Benoit, DeLouise, Ovitt mPI). The selected candidates are expected to gather and analyze experimental data, which includes hydrogel material and MB platform synthesis and characterization and *in vitro* testing using salivary gland cell isolates. Data will be summarized and reported on a regular basis. Additionally, the candidate will identify synthetic, methodological, or technical problems, and adjust experimental protocols to ensure research progress towards the stated milestones. She/He will participate in weekly group meetings, communicate project progress, and interact with collaborators. In addition to working on this project, the candidate will also have an opportunity to work on side projects and to develop novel lines of research, based on the candidate's interests and background, and participate in the rich training environment at the University of Rochester. For more information about the research see:

<https://www.urmc.rochester.edu/labs/benoit.aspx>,  
<https://www.urmc.rochester.edu/labs/delouise.aspx>, and  
<https://www.urmc.rochester.edu/labs/ovitt.aspx>.

**Qualifications:** A PhD in bioengineering, chemical engineering, biology, or a related field is required. Proficiency in biochemical techniques, materials chemistry and polymerizations, analytical techniques (fluorescent microscopy, FACS, NMR, IR, Mass Spectrometry, MALDI-ToF, peptide synthesis, GPC, and HPLC), and tissue culture is desirable, as is past experience in animal handling and procedures.

**Benefits:** The post-doctoral scholar will enjoy a competitive salary, health benefits, excellent new laboratory facilities, low cost-of-living, a beautiful campus, and close ties with basic science and translational collaborators. The position is available beginning ASAP.

**Contact:** Interested candidates should send their CVs and a list of at least 3 references (in PDF format), to [benoit@bme.rochester.edu](mailto:benoit@bme.rochester.edu), [Lisa\\_DeLouise@URMC.rochester.edu](mailto:Lisa_DeLouise@URMC.rochester.edu), or [Catherine\\_Ovitt@urmc.rochester.edu](mailto:Catherine_Ovitt@urmc.rochester.edu). Applications will be accepted until the positions are filled.