

Our lab studies how cancer cells develop drug resistance, and more specifically, how tumor microenvironment provides support and protection for tumor cells. Our aim is to develop better treatment strategies to overcome this tumor microenvironment mediated drug resistance. To investigate these topics we utilize both normal and cancer cells in 3D organoid culture systems, which mimic the architecture and organization of tissues. We use this platform in co-culture systems to understand how stromal and epithelial cells communicate with each other, and have also adopted the use of organoids for larger scale methodologies, such as proteomics, metabolomics, RNA-seq and ribosome foot-printing experiments to gain insight into multiple mechanisms by which cancer cells become drug resistant in 3D environments.

Our group is located in the Longwood medical area, at the Beth Israel Deaconess Medical Center, with several established collaborations with groups in the Harvard Medical School, MIT, Yale, Weill Cornell and MD Anderson. This environment provides unique opportunities for performing cutting-edge science, training in state-of-the-art technologies, forming new collaborations, and developing new technologies. We are looking for highly motivated individual(s) who have recently finished (or about to finish) their [PhD](#), with excellent communication and critical thinking skills, and who are able to work as part of a team. Training in cell biology, molecular biology and microscopy, and basic understanding of cell signaling networks is required.

For more information, please visit our lab web page: <http://www.muranenlab.org>

Please send a cover letter with short description of your research interests and previous experience, current CV, and names of three references to [tmuranen@bidmc.harvard.edu](mailto:tmuranen@bidmc.harvard.edu).