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| Project Title | Lymph Node Implant for Breast Cancer-Related Lymphoedema |
| Supervisor | Prof Jimmy Moore Jr |
| Theme(s) | Biomechanics and Mechanobiology Medical Device |
| Project Type | Lab based |
| Project Description | <p>A large percentage of breast cancer patients who undergo lymph node resection develop an incurable swelling of the arm called lymphoedema.</p> <p>We are developing an implant to replace the fluid delivery characteristics of lymph nodes. We have developed a lymph node implant that releases a growth factor to regenerate the damaged lymphatic vessels. We would like to visualize the release and flow of the growth factor once it is implanted in the tissue. We can do this using a microfluidic chip that simulates fluid flow like in tissue.</p> <p>The goal of this project is to use a fluorescence microscope to live image the microfluidic device as the fluorescent-labelled growth factor flows through it over time. This will help us understand where the growth factor travels to within the surgical site.</p> |