

Masters Thesis in bioimaging in the group of Henry Chapman at the Center for Free-Electron Laser Science (CFEL) at DESY

X-ray free-electron lasers offer new opportunities for obtaining time-resolved 3D structures of macromolecules, fibrils, and viruses by out-running radiation damage and avoiding the need for cryogenic cooling. Performing such measurements of these systems in aqueous environments remains a large challenge. This Masters project will develop a novel device to create high-speed flowing sheet of liquid of submicrometer thickness, and use optical laser diagnostics to characterise it and track co-flowing particles. The project will make use of two-photon polymerisation 3D printing to rapidly prototype and develop the devices. If you are interested or have further questions, please contact Prof. Henry N. Chapman (henry.chapman@desy.de) or Dr. Dominik Oberthür (dominik.oberthuer@desy.de).