

Postdoctoral Fellowship Opportunity

U.S. Naval Research Laboratory

Washington, DC

Opportunities are available to conduct basic and applied research developing in vitro human tissue models at the U.S. Naval Research Laboratory in Washington, DC. Current research programs include developing and optimizing biofabrication and tissue engineering techniques to create model brain, lung and gut tissues. State-of-the-art cell patterning and cell positioning technologies (cell printing) are used to study and manipulate cells in novel ways. The laboratory is also developing novel bioreactors to support the tissue models and integrate them with the challenge and analysis protocols of collaborating researchers. These studies rely on a broad understanding of many different scientific disciplines including microbiology, cell biology, immunology, material science, chemistry and polymer science. Qualified candidates will have a Ph.D. in Mechanical Engineering, Electrical Engineering, Bioengineering, Biology or related fields. Experience with mammalian cell culture is required. Experience with design and fabrication of sensor and control systems, computer programming, scientific instrument design, microfabrication, 3D CAD/CAM and laser optics is desired. Experience with in vitro microvascular systems, microfluidic perfusion systems, bioreactors or lab-on-a-chip culturing/analysis systems is appreciated. Additional skills may include cell transfection, quantitative polymerase chain reaction (qPCR), confocal microscopy, electrophysiology and cell-printing. Submit curriculum vitae to russell.pirlo@nrl.navy.mil.