

Position Title: Microfluidics Engineer

Company: NetBio, Inc.

Location: 830 Winter Street, Waltham, MA 02451

Summary of Duties: Provide expertise in development of microfluidic systems to support the Company's advanced DNA analysis technologies. Work with engineering staff to develop fundamental microfluidics technology for the fabrication and operation of fully integrated disposable devices. Work with biology staff to design, fabricate, and test devices performing sample preparation for electrophoretic and separation sequencing. Defines and implements prototyping infrastructure for plastic disposables, including but not limited to machining, lithography, and embossing. Define and implement characterization tools, including optical inspection (QC/QA) and video microscopy. Work with engineering and manufacturing staff to transition prototype techniques to small- to medium-size production. Contribute to development program, from concept-generation and feasibility testing to detailed design, fabrication, troubleshooting, and implementation. Apply experience in microfluidics, MEMS or microfabrication; mechanical engineering and design using CAD-CAM; biomedical device manufacture to accelerate development of NetBio's fundamental technology platforms.

Qualifications: Master's degree in Chemical Engineering, Engineering, Physics, or a related field required. Demonstrated experience or knowledge with design, fabrication, testing and optimization of microfluidic devices, including thermoplastic devices with integrated electronics, for biological applications including size based sorting and mixing of biosamples and cell lysis; methods for DNA manipulation and analysis including DNA immobilization, hybridization, and fluorescence based detection; Separation methodologies for biosamples including ultra-filtration, centrifugation and electrophoresis; Bioprocess Engineering including Cell lysis, purification methodologies and DNA amplification strategies; Optimization of process parameters like pressure, flowrate, applied electric field amplitude, frequency and waveform, surface tension for optimum performance of glass and thermoplastic based microfluidic devices; Image analysis including micro flow visualization and DNA quantification; and, thermal analysis for fluids and solids in microfluidic and conventional configurations required. Experience can be gained concurrently with education curriculum. Multiple positions available.

To apply, please email resume to careers@netbio.com and reference Job # 2012-Eng001.