



MICROFLUIDX
cell manufacturing systems

Contact: Cesare Cejas – cesare@microfluidx.co.uk

Job Title: **Microfluidic Technician**

Duration: Full time

Location: Health Research Building, College Lane Campus, University of Hertfordshire, UK

Reports To Head of Microfluidics

About MicrofluidX

MicrofluidX is an award-winning startup developing a break-through bioprocessing platform for the CGT market, based on microfluidic technology. Its platform allows ultra-low costs and scale-up of CGT from discovery to commercial stages, making these very potent treatments affordable for a wider number of patients, and reducing development times by several years. MicrofluidX is currently developing a system that will allow biologists to test dozens of cell culture conditions in parallel in an automated way replacing the Petri dish, the flask, the bag, the bioreactor, and the centrifuge all at once!

Cell and gene therapies (CGTs) are fast-growing areas of medical development. With over 700 clinical trials in progress, some treatments (e.g. Kymriah, Yescarta) have already reached the market. This technology is at a critical juncture where advances are achieving clinical realisation, yet manufacturing remains a key challenge, hindering clinical development and patient accessibility. Three critical manufacturing hurdles remain: prohibitive costs of goods, low process stability and control, and lengthy scale-up from discovery to commercial stages.

Position overview

Your role is to contribute to the design of a microfluidics-based bioprocessing platform, by performing microfabrication (e.g. soft lithography, CNC micro-milling, stamping, bonding) to consistently develop, fabricate, prepare microfluidic chips. You will gather in/post-process physical data on microfabrication as well as hydrodynamics flow test with a multidisciplinary team to suggest design changes and process improvement.

Responsibilities and Duties

- Perform microfabrication methods in company sites to prepare chips using but not limited to soft lithography, stamping, bonding. Experience with operating and designing for CNC micro-milling is a plus.
- Perform occasional hydrodynamic flow experiments on fabricated microfluidic chips to understand fluid streamline behavior necessary to optimise design. This is performed in conjunction with optical microscope imaging
- Problem-solve with the team on designs, microfabrication protocols
- Participate in supplier selection, and adjacent system design



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Qualifications

- At least a BSc in Engineering with focus in Fluid Mechanics/Hydrodynamics/Microfluidics (or related fields) with extensive microfabrication experience working in a clean room
- Experience and technical know-how operating a SUSS Mask Aligner (MJB4 and/or MA8), plasma bonding machine, spin-coaters
- Experience and technical know-how operating hand held tools such as hand drills, table saws, etc.
- Capable of using CAD softwares (e.g. Clewin for 2D lithography drawing in GBR formats and Inventor/SolidWorks for conventional 3D sketches)
- Possesses a valid driver's licence

Salary and perks

Competitive salary based on experience