

Senior Development Engineer/Scientist

Do you hold a PhD in microfluidics, Lab-on-a-Chip, or acoustics ? Do you want to contribute to the dynamic development of a start up business environment? Can you work well in a team and also independently on your own initiative?

Exciting and innovative spin out company requires an Engineering Scientist to work within a cross functional team of biologists and technology developers to assist in the development and commercialisation of a novel diagnostic platform. You will contribute to a project aimed at exploiting new medical diagnostic techniques for sample preparation on chip – from sample processing through to answer. This involves novel microfluidics methods to manipulate the fluid flow within microscale devices in which acoustic waves are used to both move and mix fluids and reagents as well as perform sample manipulation and sensing operations. The different frequencies of ultrasound interact with different phononic structures to give different functions, providing a "tool-box" of different diagnostic processes (sample processing, cell separation, detection), which, when combined, form a fluidic circuit, a complete diagnostic assay.

Supporting the development of in vitro diagnostic products in the areas of nucleic acid testing, the successful candidates will report to the Team Lead, supporting the design, build and validation of prototypes and test instrumentation, as well as experimental design and implementation, alongside the Assay Scientist. The work will also be supported by the group of Professor Jon Cooper at the University of Glasgow.

Role

You will perform engineering design, build, testing tasks, including the design of prototyping instrumentation and acoustofluidic testing set-ups, microfluidic testing of the assay functions (for NAT-based diagnosis), as well as the validation of designed systems on biological samples. You will also follow and write SOPs, record and interpret results and work within the company's quality systems and policies.

You will hold a BSc and a PhD in microfluidics, electrical engineering, Lab-on-a-Chip, or acoustics, or any cognate discipline. You will also have the proven ability to interact and work with external and internal partners/ disciplines on fast paced projects. Previous experience of Infectious disease diagnostics, assay validation, handling biological samples, working with in vitro diagnostic products and/or working on acoustofluidic devices would be desirable.

Key accountabilities

- Design, prototype and test instrumentation for the control and actuation of surface acoustic wave microfluidic devices.
- Design, carry out and validate assay processes for molecular diagnostics on SAW devices, including microfluidic processing and reagent storage solutions.
- Liaise with subcontractors proactively to ensure efficient delivery, including organising and carrying out required testing of versions of prototypes
- Write and follow SOPs, maintain laboratory equipment, records and record results in accordance with Company Policy.
- Perform laboratory validation of new products and methods.
- Thoroughly document laboratory work to an extent that will allow work to be analysed and replicated.
- Deliver instrument or method training to members of the team(s) as required.

- Support senior team members in the technical activities including directed laboratory work for technical troubleshooting.
- Report all activities to the Team Lead in a timely and comprehensive manner.

Candidate specification:

Required knowledge, experience and technical skills

Essential

- Degree or equivalent experience in Engineering or Physics.
- A submitted/nearing completion/awarded PhD in microfluidics, Lab-on-a-Chip, acousto-fluidics, acoustics, or relevant Physical Science subject
- Practical technical expertise in microfluidics or biosensing with acoustics.
- Practical technical expertise bioassays
- Must be skilled in the production of technical documents and training manuals

Essential competencies and behaviour

- Proactive attitude to problem solving
- Respond well to scientific challenge and apply significant rigor to your own work
- Excellent written and verbal communication skills coupled with the ability to prioritise multiple tasks
- Confidence to challenge existing systems & processes
- Competent in Word, Excel and PowerPoint

The position is based in Scotland and for 18 months in the first instance.

If you are interested in applying for this position please e-mail your CV with a covering letter to info@sawdx.com

Closing Date: 19 May 2017