



Client is in the semiconductor industry by developing strategic competencies, innovative technologies and intellectual property; enabling enterprises to be technologically competitive; and cultivating a technology talent pool to inject new knowledge to the industry.

BIOELECTRONICS PROGRAMME

Senior Research Engineers – Microfluidics/Lab on Chip

Multiple positions are available for highly motivated research engineers on the development of silicon-based microfluidic/Lab-on-chip (LOC) technologies for point-of-care diagnostics and drug development applications. The technologies developed are targeted to the following :

1. Nucleic acid probe assay on an integrated microsystem which can perform nucleic acid purification, nucleic acid amplification via polymerase chain reaction (PCR), and label-free nucleic acid detection
2. Protein assay on an integrated microsystem which perform protein purification and multiplexing detection
3. Micro/nanofluidic device for cell enrichment, cell sorting and cell detection
4. Cell culture on microchip (more especially 3D culture) and in situ real time cell monitoring and drug screening
5. Micro/nanofluidics and thermal simulation and modeling
6. Droplet and digital microfluidics
7. Micro pump and microvalve technologies, in an automated fashion

Responsibilities:

The key responsibilities will be in the design of microfluidic devices, the integration and characterization of individual components and their integration into complete systems for point-of-care diagnostics and drug development applications



Requirements:

- Ph.D degree in Physics, Chemistry, Chemical Engineering, Electrical Engineering, Biomedical Engineering, Bioengineering or a related field
- Hands-on skills in either microfluidic components characterization or biological characterization of microdevices
- Experience in any of the following fields would be an advantage :
 - micro/nano fluidics (such as droplet, digital fluidics) and thermal characterization or simulation
 - cell culture and cell sorting, enrichment and sensing
 - micro PCR, micro extractor, nano electrical or optical sensors both for protein and nucleic acid detection
 - surface chemistry for biospecies immobilization and biochemistry
 - silicon-based microfabrication, MEMS, and /or microfluidicsThe specific background of the candidate on the above fields will be matched with the different on-going or future projects.
- Excellent communication skills and teamwork with strong self-motivation
- Good publication track record

Interested candidates are invited to submit your latest updated resume stating your availability of employment, current, achievements and expected salary to Adrian Collin Png at: adrian@collincrawford.com