Title:	i-sense Intern in Mobile Diagnostics and Machine Learning
Salary:	£10.43 per hour; 36.5hours/week
Duration:	The intern expected start date will be agreed with Prof McKendry and will last up to three months.
Terms and Conditions:	In accordance with the relevant UCL policies. The interns will have to prove their eligibility to work in the UK.
Accountable to:	The Director of i-sense, Prof Rachel McKendry, Director of Biomedicine and Life Sciences, London Centre for Nanotechnology, UCL

Job Summary:

Applications are invited from talented recent graduates or postgraduate students to join *i-sense EPSRC IRC* for a paid Internship to develop innovative smartphone connected paper microfluidic diagnostic tests for the emerging infectious diseases in community settings. The interns will have the opportunity to develop their skills by working at the cutting interface of nanotechnology, telecommunications, medicine and public health.

The positions are based at the London Centre for Nanotechnology UCL and funded by *i-sense*, the £11M five-year EPSRC Interdisciplinary Research Collaboration in Early Warning Sensing Systems for Infectious Diseases, and benefits from a large scale multidisciplinary project involving over 100 scientists, engineers and clinicians from UCL, Imperial College, London School for Hygiene and Tropical Medicine and Newcastle University, in conjunction with Public Health England and industrial partners ranging from OJ-Bio through to O2 Health and Microsoft. i-sense aims to create innovative mobile health technologies that allow doctors to diagnose and track serious diseases (such as major flu epidemics, antibiotic-resistant bacteria and HIV) much earlier than ever before.

Nanosensors are being developed including smartphone-connected diagnostic tests for use in community settings. We are also exploring the use of symptoms reported on search engines and social networks to identify early indicators of an outbreak. This early-warning diagnostic system has the potential to bring major economic and human benefits to patients, the public, the NHS and global healthcare providers – benefiting patients by allowing them to gain faster access to treatment, the public by curbing the spread of infectious diseases, the health service by enabling more cost-effective models of community based care, and help to identify 'hotspots' of emerging infections, such as Ebola.

In addition to new skills and experience to add to your CV, you will be paid £10.20 per hour which is the London Living Wage for a full-time internship. If you earn £11,500 or less during the 2017/18 tax year, your income is within the Personal Allowance limit and therefore, not subject to tax. If you earn more than £11,500 during the year, you will need to file a self-assessment to HMRC.

Duties and Responsibilities:
- The post holder will assist the PDRAs in the day-to-day activities in the i-sense Lab. General duties include:
- To execute experiments
- To collect and analyse data
- To maintain appropriate databases, keeping accurate written and computerised records and to ensure that these records are stored in a secure place and to maintain confidentiality of all electronically stored personal data in line with the provisions of the Data Protection Act.
- To undertake literature searches and to be able to interpret and present the findings of the literature searches
- Any other duties within the remit of the internship and in line with identified development needs of the intern.

Person Specification

Essential Qualifications
- Applicants should be a recent graduate of a degree in Engineering, Physical or Life Sciences or other relevant subject

Essential Knowledge and Experience
- Knowledge of sensor development, calibration and machine learning

Desirable Knowledge and Experience
- Diagnostic test development
- Mobile phone app design

Essential skills and abilities
- Ability to work well in a team and build good working relations with diverse teams
- Open minded attitude to other scientific areas than their own
- Ability to quickly learn new lab methods and techniques
- Good oral and written communications skills
- A demonstrated ability to maintain good laboratory records.

Application procedure

Please email your CV and a Cover Letter detailing your suitability and reasons for applying to Rachel McKendry, r.a.mckendry@ucl.ac.uk.