Introduction

The International Iberian Nanotechnology Laboratory (INL) is launching 5 research staff positions. The laboratory provides a high-tech research environment formed by state-of-the-art infrastructure equipped with the latest technologies, to address the major challenges in nanofabrication, nanocharacterization and other nanotechnologies applied to environmental & food control, nanomedicine and nanoelectronics.

A successful candidate should have a PhD degree in the relevant field of study. The applicant should have strong enthusiasm for work and excellent communication skills.

INL will offer the successful candidate a competitive salary and benefits package. The position is for two years and will be available as of October 1st, 2013. It is renewable pending on performance and funding availability.

Job Offers

1 - Microfluidics and nanofluidics. INL seeks an experienced researcher on the design and fabrication of microfluidic and nanofluidic devices (PDMS, SU8, hot embossing, injection molding) for lab on chip applications. The researcher is expected to collaborate with existing teams at INL developing efficient sample separation/purification/concentration fluidic modules (electrophoretic, magnetophoretic, diffusion based, etc…) to allow more efficient analyte detection at relevant concentrations for food and biomedical applications.

---

2 - Smart labels for food packaging. INL is seeking an experienced researcher on the design and fabrication of indicators, for food quality, safety and control (freshness, ripeness, smell, taste, oxygen or spoilage). These indicators are aimed to be incorporated on food packaging envelopes for monitoring, tracking and tracing of food. The researcher will collaborate with teams at INL developing chemical and bio-functionalized nanostructures, and incorporating them on the packaging materials, as well as teams developing electronically based sensors fabricated for flexible substrates (package).

---

3 - Magnetic Particle Imaging (MPI). INL seeks an experienced engineer/physicist to work on the development of a magnetic particle imaging system, targeting an imaging system operating at low fields, and capable of identifying particle distributions in live specimens (small animals) or equivalent phantoms. Work is envisaged to proceed either through the development of magnetic sensor arrays for dedicated sample areas or through spatial field scanning techniques coupled to the non-linear characteristics of magnetic nanoparticles. Experience on the design and utilization of other of imaging systems (f.e. MRI) is welcome. The researcher

will strongly interact with sensor and signal processing groups as well as groups preparing NPs for enhanced imaging contrast at INL.

---

4 - Low field integrated nuclear magnetic resonance probes. INL seeks to hire a NMR engineer or scientist to participate in the ongoing project of designing, fabricating and testing a low field (0.1T) , integrated (chip-based) NMR system for local chemical analysis (water, olive oil, wine,...). The researcher will interact with microfabrication groups and with the signal processing group in building the integrated platforms (sensors, microcoils, and electronics). He/she should coordinate the testing phase of the present platform, and the transition from a coil based to a magnetic sensor based detection system.

---

5 - High resolution electron microscopy II. INL seeks to hire a researcher with a strong background on nanostructure and nanodevice characterization using high resolution corrected electron microscopes. The researcher should also be familiar with the use of focused ion beam systems for sample fibbing and analysis. He/she will strongly interact with INL nanodevice and nanostructure fabrication (chemical and physical) groups providing support for chemical and wafer process analysis as well as post process of nanostructures and device analysis. He/she is expected to carry his/her own research activities exploring unique features of the instruments installed at INL.

How to apply

Interested applicants should submit, until **August 25th 2013**, their curriculum vitae, a cover letter describing motivation and research experience, and two reference letters through INL's recruitment website at: http://inl.int/job_offers

Contacts:

Avenida Mestre José Veiga, S/N
4715-330 Braga, Portugal
Tel.: 00351253 140112
Email: reo@inl.int

www.inl.int

These positions are being covered through the "Nanotechnologies for biomedical, food and environmental applications" integrated programme (SAESCTN-PIIC&DT/1/2011), financed by the Norte Regional Operational programme (ON.2 – O Novo Norte), under the National Strategic Referenced Framework Programme (QREN), through the European Regional Dvevelopment Fund (FEDER)."