IB3 - Heriot-Watt Institute of Biological Chemistry, Biophysics and Bioengineering

ABOUT OPPORTUNITY

Founded as an interdisciplinary research institute in 2012, The Institute of Biological Chemistry, Biophysics and Bioengineering (IB3), occupies a niche position in bio-photonics by bringing biological chemistry, biophysics and bio-engineering together in one Institute under Professor Rory Duncan.

KEY BENEFITS OF IB3

We aim to maintain a world-leading centre of excellence, building on a strong foundation of genuine interdisciplinary research, a strong and diverse funding record and an extensive extra-mural collaborative network. A unique complement of infrastructure and facilities required to engage in this activity at the highest level is already in place in; world class cell biology, super resolution molecular imaging, atomic force microscopy, tissue/cell culture and bioprocessing facilities, laser and optical laboratories, linked by a high speed data network, all in one building complex.

Research at the interfaces between quantitative biological research and the physical sciences and engineering is recognised as a high impact area by UK – EPSRC, MRC, BBSRC, STFC and Wellcome Trust have all recently announced strategic priorities in this area. Initial membership of the institute includes researchers in receipt of substantial funds from all of these agencies.
AREAS OF INTEREST:

A particular strength is in super-resolution imaging and developing the next generation of optical microscopy tools. The Institute has access to every available super-resolution imaging modality in state-of-the-art surroundings, including PALM, STORM, SIM, gSTED, FLIM and FCS imaging and spectroscopies, supported by substantial Medical Research Council support. This unique imaging facility operates an open-access pay-for-use model and benefits from full time post-doctoral support. Furthermore, the physical scientists involved work closely with the life scientists, providing analytical tools, signal processing and novel optical approaches to help address key biomedical questions.

Other important areas of research within IB3 include bioengineering – particularly in diagnostics, antigen detection and microfluidics. Several researchers in this area provide expertise in the design and fabrication of detection platforms to miniaturise, streamline and improve the sensitivity of diagnostics, currently in the areas of water purity and human and animal healthcare.

INTELLECTUAL PROPERTY STATUS

Alongside a broad portfolio of patent and non-patent IPR, the IB3 group offers collaborative research, unique facilities and consultancy in biology, bio-photonics & bio-chemistry.

FOR FURTHER INFORMATION:

About our research in bio-photonics and licensing opportunities in microscopy, super resolution imaging:

e: Technology-Licensing@hw.ac.uk

or Contact us at:

www.ib3.eps.hw.ac.uk/Contact.html

We welcome enquiries from interested parties and are keen to develop new collaborations in our research areas.