



# **Biological Chemistry**

The Babraham Institute provides unique research facilities of national importance. These have been developed with significant investment from the BBSRC. The Biological Chemistry Facility provides a research capability at the interface between chemistry and biology. We solve biological problems through the use of our chemical knowledge and synthetic chemistry skills. This might involve developing a new analytical method, advising on the best way to label a biological molecule or devising a strategy to find inhibitors to use as a tool to investigate a specific biological process.

# **Areas of expertise**

At our core we are experienced synthetic chemists applying our skill set to solve biological problems. We have a purposebuilt chemistry laboratory in which we can carry out almost any chemical reaction on a research scale.

A key requirement in developing new analytical techniques, or in identifying new chemical structures found within cells, is to make standards. We routinely make standards for mass spectroscopy; mass spectroscopy being particularly good at providing the sensitivity and selectivity required to study the small amounts of materials found within cells.

We also design chemical probes to explore biological pathways and develop new assays to measure changes in biological systems.

# Services on offer

- Synthesis of hard to source compounds
- Synthesis of isotopically-labelled standards for mass spectroscopy
- · Development of new analytical methods
- Determining molecular structures
- Advice and research capability in the biological chemistry field

# Pricing

Because of the nature of our biological chemistry projects is variable, each is priced on an individual basis.





To find out more: info@babrahamie.co.uk www.babraham.ac.uk/science-services/biological-chemistry







#### **Bioinformatics**

The Bioinformatics group has a wide range of experience covering virtually all aspects of modern bioinformatics and statistics in both academic and commercial settings.



### **Biological Chemistry**

The Biological Chemistry Facility provides a research capability to solve biological problems through the use of chemical knowledge and synthetic chemistry skills.



#### **Biological Support Unit**

The Biological Support Unit (BSU) provides housing and care for rodents at a highly defined health status, offering the highest standards of welfare, excellence in husbandry and procedural technique to support both academic scientific research programmes and private companies.



#### Flow Cytometry

The Flow Cytometry Facility offers high quality service and state-of-theart instrumentation to members of the Babraham Institute and external companies, including those based on the Babraham Research Campus.



#### **Gene Targeting**

The Babraham Gene Targeting Facility provides a complete service to generate novel genetically altered mouse strains for biopharmaceutical companies and academic institutes.



# Imaging

The Imaging Facility provides supported access to state-of-the-art fluorescence imaging technologies and offers expertise in live and fixed cell imaging.



#### Lipidomics

The Babraham Lipidomics Facility has established a series of LC-MS/MS, GC-MS/MS and HR/AM direct infusion mass spectrometric methods to analyse 37 classes of neutral lipids, phospholipids and sphingolipids from various biomedical samples.



#### Mass Spectrometry

The Mass Spectrometry Facility is equipped with a range of high resolution systems, which can be used for the identification, characterisation and quantitation of almost any type of biomolecule.



#### Sequencing

The Next Generation Sequencing Facility provides library quality control and sequencing services for the Babraham Institute and external companies, offering a variety of sequencing solutions for different project sizes and a broad range of applications.



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