

Research

Research in the School centres around four interlinked groupings, which focus on multi and interdisciplinary research, build upon the School's research strengths and respond to the key themes of current international agendas.

“ Professor Steve Busby, Head of School "We are delighted with our performance in the **REF 2014** (</schools/biosciences/news/2014/18Dec-biosciences-top-six-for-research.aspx>) which is due to the hard work of our brilliant staff at all levels. These results confirm our continued upward trajectory, and assert our place as one of the leading bioscience schools in the UK"

The four school research themes are:

- [BioSystems and Environmental Change](/research/activity/biosystems-environmental-change/index.aspx) (</research/activity/biosystems-environmental-change/index.aspx>)
- [Microbiology and Infection](/research/activity/microbiology-infection/index.aspx) (</research/activity/microbiology-infection/index.aspx>)
- [Molecular Cell Biology and Signalling](/research/activity/molecular-cell-biology-signalling/index.aspx) (</research/activity/molecular-cell-biology-signalling/index.aspx>)
- [Plant Genetics and Cell Biology](/research/activity/plant-genetics-cell-biology/index.aspx) (</research/activity/plant-genetics-cell-biology/index.aspx>)

Areas of underpinning expertise:

- [Computational Biology](/research/activity/computational-biology/index.aspx) (</research/activity/computational-biology/index.aspx>)
- [Structural Biology and Molecular Biophysics](/research/activity/structural-biology-molecular-biophysics/index.aspx) (</research/activity/structural-biology-molecular-biophysics/index.aspx>)
- [Mass Spectrometry](/facilities/advanced-mass-spectrometry/index.aspx) (</facilities/advanced-mass-spectrometry/index.aspx>)
- Biological Chemistry
- [Light Microscopy](/facilities/balm/index.aspx) (</facilities/balm/index.aspx>)
- High Throughput Sequencing
- ["-omics" Technologies](/facilities/genomics/index.aspx) (</facilities/genomics/index.aspx>)
- Robotics
- Biological and Environmental Observations

Research in 60 seconds

Academics from the School of Biosciences take the challenge of describing their research in 60 seconds.

Click an image to watch the video and read the transcript.



</university/colleges/les/research-gallery/mark-viant.aspx> Measuring environmental stress by studying animals at the molecular level



</university/colleges/les/research-gallery/lindsey-leach.aspx> Discovering the genetic mechanisms driving lung cancer



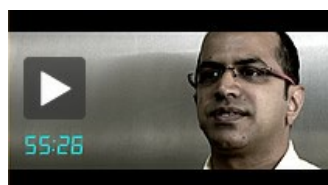
</university/colleges/les/research-gallery/alicia-hidalgo.aspx> Researching how the nervous system is formed and how it works



</university/colleges/les/research-gallery/george-bassel.aspx> Understanding and modelling how plants grow at a molecular and biophysical level



</university/colleges/les/research-gallery/anne-marie-krachler.aspx> Developing drugs to prevent attachment of bacteria to body tissue



</university/colleges/les/research-gallery/apoorva-bhatt.aspx> Finding better vaccines in the fight against tuberculosis



[\(/university/colleges/les/research-gallery/chris-thomas.aspx\)](http://university/colleges/les/research-gallery/chris-thomas.aspx)

Researching the problems of antibiotic resistant bacteria



[\(/university/colleges/les/research-gallery/tim-dafforn.aspx\)](http://university/colleges/les/research-gallery/tim-dafforn.aspx) Creating a handheld disease detector

We are a research-rich university, ranked highly in the UK for research excellence the 2014 Research Excellence Framework ranked us sixth in the Russell Group with over 90% of the school's research research rated as world leading (4*) or internationally excellent (3*), '.

We are proud to have five Nobel Prize winners amongst our alumni and academic staff.

[Privacy](#) | [Legal](#) | [Cookies and cookie policy](#) | [Accessibility](#) | [Site map](#) | [Website feedback](#) | [Charitable information](#)

© University of Birmingham 2015

