Event Schedule

17.30 - 18.15  Guests arrive for networking and drinks
18.15 - 19.00  Award ceremony
19.00 - 20.30  Further networking with drinks and canapés
### Excellence with Impact Participants:

<table>
<thead>
<tr>
<th>Number</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University of Southampton</td>
</tr>
<tr>
<td>2</td>
<td>University of Nottingham</td>
</tr>
<tr>
<td>3</td>
<td>University of Sussex</td>
</tr>
<tr>
<td>4</td>
<td>University of Liverpool</td>
</tr>
<tr>
<td>5</td>
<td>University of Kent</td>
</tr>
<tr>
<td>6</td>
<td>University of Sheffield</td>
</tr>
<tr>
<td>7</td>
<td>University of Reading</td>
</tr>
<tr>
<td>8</td>
<td>University of East Anglia</td>
</tr>
<tr>
<td>9</td>
<td>University of Warwick</td>
</tr>
<tr>
<td>10</td>
<td>University of Dundee</td>
</tr>
<tr>
<td>11</td>
<td>The Pirbright Institute</td>
</tr>
<tr>
<td>12</td>
<td>Cardiff University</td>
</tr>
<tr>
<td>13</td>
<td>University of Bristol</td>
</tr>
<tr>
<td>14</td>
<td>Institute of Food Research</td>
</tr>
<tr>
<td>15</td>
<td>The Genome Analysis Centre</td>
</tr>
<tr>
<td>16</td>
<td>Durham University</td>
</tr>
<tr>
<td>17</td>
<td>Imperial College London</td>
</tr>
<tr>
<td>18</td>
<td>University of Birmingham</td>
</tr>
<tr>
<td>19</td>
<td>Royal Veterinary College</td>
</tr>
<tr>
<td>20</td>
<td>University College London</td>
</tr>
</tbody>
</table>

### Excellence with Impact Finalists:

- **a** University of Glasgow
- **b** University of Aberdeen
- **c** Babraham Institute
- **d** John Innes Centre
- **e** University of Edinburgh
- **f** University of Oxford
- **g** University of Leeds
- **h** Aberystwyth University and IBERS
- **i** University of Manchester
- **j** Queen Mary University of London

### Innovator of the Year Finalists:

1. **Dr Sheena Cruickshank** - University of Manchester
2. **Professor Gary Frost & Dr Douglas Morrison** - Imperial College London & University of Glasgow
3. **Professor Toby Mottram** - Royal Agricultural University
4. **Professor Tom Brown** - University of Oxford
5. **Professor Graeme Milligan** - University of Glasgow
6. **Dr Martin Pule** - University College London Cancer Institute
7. **Professor Cait MacPhee & Professor Nicola Stanley-Wall** - University of Edinburgh & University of Dundee
8. **Dr Andrew Almond** - University of Manchester
9. **Dr Barrie Rooney** - University of Kent
In the UK we can be proud of and should celebrate our excellent, world leading bioscience – 11% of global citations for bioscience stem from UK research. Harnessing this excellence can help solve real-world challenges in food, health, energy and materials.

The Fostering Innovation competitions are about recognising and rewarding individuals and organisations with the vision and drive to take research from the lab and make a tangible impact in the world.

The two competitions, Excellence with Impact and Innovator of the Year, demonstrate how world-beating UK science leads to great innovation, which delivers real impacts – economic and social. This benefits the productivity and prosperity of the UK economy through enhancing our vibrant and growing bioeconomy – currently estimated to directly contribute £36 billion GVA to the UK and employ 600,000 people.

I would like take this opportunity to congratulate and thank all the participants of both competitions for their work and achievements.

Professor Melanie Welham
BBSRC Chief Executive
About Innovator of the Year

This competition recognises and rewards individuals and small teams who have harnessed the potential of their excellent research. It is designed to recognise the full breadth of impacts that BBSRC funded research can have.

There are nine finalists who have been shortlisted by an independent panel. Today (18th May 2016) a judging panel met with each of the finalists and have selected winners in three categories:

- Commercial
- Social
- Most Promising

The judges have also selected one overall Innovator of the Year. Winners in each category will receive a £15,000 award and a trophy. The overall Innovator of the Year receives a further £15,000.

This is the eighth year that BBSRC has run the Innovator of the Year Awards.

For previous winners and more information please see: www.bbsrc.ac.uk/innovator
Sheena Cruickshank  
University of Manchester  

Based on her work on parasitic worm infections, Dr Cruickshank has engaged with immigrant communities from African, Asian and South American origins and has produced a dedicated infection and immunology course for non-native English speakers (ESOL module) to enable them to communicate more confidently about health and science. In response to their concerns about allergy and infection, her research has become more focused on translational projects, including monitoring disease susceptibility and developing a citizen science project to understand allergies, #BritainBreathing.

Gary Frost & Douglas Morrison  
Imperial College London & University of Glasgow  

Maintenance of appropriate body weight and composition over the life span is of major importance to health. Professor Gary Frost and Dr Douglas Morrison’s research focuses on developing population-based solutions to limit excess weight gain. Their work suggests the short chain fatty acid propionate, produced in the colon by gut bacteria from fermentation of carbohydrates, plays an important role in appetite regulation. They have developed and patented a novel food ingredient, inulin propionate ester, which efficiently delivers propionate into the colon in quantities that suppresses appetite. Their studies demonstrate a significant decrease in weight gain over six months.
Tom Brown
University of Oxford

Professor Tom Brown’s entrepreneurial activities have turned novel forensic, diagnostic and therapeutic applications of nucleic acids into successful products and companies. He has co-invented several DNA-based technologies including Scorpions and HyBeacons. Scorpions classify cancer patients to decide on the most suitable course of treatment (personalised medicine) and HyBeacons are used in genetic analysis and rapid human forensic identification. Professor Brown has co-founded three successful Biotech companies. Recently he has developed methods to chemically modify DNA using ‘click’ chemistry. This BBSRC funded research has been patented and has many applications in synthetic biology, biotechnology and drug discovery.

Toby Mottram
Royal Agricultural University

For years, milk samples have been taken and analysed using laboratory techniques to improve fertility management in dairy cows, but in modern milking parlours manual sampling is not practical. Milkalyser, an invention from Professor Toby Mottram, could revolutionise this. Milkalyser brings together several existing technologies and know-how into a single box that can be fitted into any parlour. Providing automated inline progesterone analysis could save a typical herd £20k annually. The benefits of monitoring progesterone in milk have been established by decades of BBSRC research. Through a start-up, employing five people, Dr Mottram is developing this technology with an InnovateUK Smart Award.
Martin Pule  
UCL Cancer Institute

Cancer is usually treated with small molecule or protein based therapies that spread through tissues and activate or block certain pathways. While increasingly sophisticated, such molecules have inherently simple modes of action and so in many cases act with insufficient specificity, causing damage to other parts of the body. T-cells are highly complex immune cells. Using synthetic biology, Dr Martin Pule has developed a technique to re-programme T-cells, enabling them to differentiate between cancer cells and normal cells. To develop this technology further Dr Pule has founded spin-off company Autolus and hopes it will lead to a new era of engineered cell-based cancer therapies.

Graeme Milligan  
University of Glasgow

Type II diabetes is a global disease of epidemic proportions. Professor Graeme Milligan studies how nutrients from food act as signalling molecules to help balance energy intake and expenditure. By understanding how fatty acids activate a pair of protein receptors, Professor Milligan has found that as well as regulating blood glucose levels, activating these receptors is likely to enhance insulin sensitivity, reduce appetite, promote weight loss and have anti-inflammatory effects. Based on generating and testing novel activators of these proteins he has co-founded Caldan Therapeutics with a Denmark-based chemist to develop medicines for the treatment of type II diabetes.
Andrew Almond
University of Manchester

Dr Andrew Almond’s BBSRC research focuses on the microscopic shape and motion of molecules, which underlies their biological function. He and his team invented a method for determining the shape of molecules, such as drugs, with unprecedented accuracy using a molecular microscope (NMR) and computer calculations.

Dr Almond’s work enables the identification of potential new drugs and a faster discovery pipeline. The technology was spun-out of the University of Manchester as C4XDiscovery to focus on optimising the design and development of medicines and partner with the pharmaceutical sector to generate better, safer products. C4XDiscovery was listed on the London Stock Exchange, valued at £31m.

Cait MacPhee & Nicola Stanley-Wall
University of Edinburgh & University of Dundee

Professor Cait MacPhee and Professor Nicola Stanley-Wall have discovered a naturally occurring protein, produced by ‘friendly’ bacteria, that can stabilise emulsions, air bubbles, and foams used in consumer products. The protein is able to bind to the interface between water and oil, or air and water, forming a thin, solid film. Their discovery could be used to improve a variety of products from food through to crop care. The pair tested the protein in ice cream and found it kept the ice-cream frozen for longer. This could allow products to be manufactured with lower levels of saturated fat – and fewer calories – than at present.
Barrie Rooney  
University of Kent

Sleeping sickness is a fatal neglected tropical disease for thousands of people living in sub-Saharan Africa. Diagnosis and treatment is complicated and involves a painful lumbar puncture. Following field work with Médecins Sans Frontières, and enabled by a BBSRC FLIP fellowship, Dr Barrie Rooney returned to basic research at the University of Kent, determined to make simpler, cheaper diagnostic tests, without the need to handle live parasites.

Using bioinformatics, biomarkers were identified, engineered into safe surrogate organisms and produced using traditional fermentation technology. Field trials are planned for late 2016 following successful testing at the WHO reference laboratory in the Institute for Tropical Medicine, Antwerp.
About Excellence with Impact

This competition aims to recognise institutions that can develop and successfully deliver a vision for maximising impact, alongside an institution-wide culture change.

The competition aims to:

• Encourage Research Organisations (ROs) to develop a vision that supports a wide range of impacts arising from their research
• Encourage ROs to drive forward a strategy that maximises impacts that could arise from their research
• Support ROs in embedding their agenda to deliver impact from their research
• Stimulate and enhance relationships between BBSRC and participating ROs
• Showcase to users of our research and other strategic partners those ROs that are actively encouraging impact arising from their excellent research
• Recognise and reward efforts by all members of a RO to maximise the social and economic impact of BBSRC-funded bioscience research.

The winning organisation will receive an award of £0.5M and there will be a further £0.5M available to be awarded at judges’ discretion to runners up and highly commended activities.

For more information please see:
www.bbsrc.ac.uk/excellence
Excellence with Impact Finalists

...of early career researchers now understand the importance of impact.

University of Glasgow

...new spin-outs created since 2013 from staff within host departments, adding to the cluster of biology based companies within the Aberdeen region.

University of Aberdeen
78% increase in Babraham Institute researchers engaging in Knowledge Exchange and Commercialisation and Public Engagement and Science Communication activities during the EwI competition.

Babraham Institute

16 Agricultural Scientist Support Exchange Team programme (Assets) promoting agricultural development through peer-to-peer mentoring between UK based and African scientists.

John Innes Centre

350,000 children under 5 treated in the current praziquantel anti-worm mass drug administration programme.

University of Edinburgh
...strands of activities under the themes of ‘Invest, Do More and Share’, covering a broad spectrum of areas for impact.

Queen Mary University of London

...CASE studentships, funded from industrial partners at the Centre of Excellence for Biocatalysis, Biotransformations and Biocatalytic Manufacture (CoEBio3), training the next generation to support the UK Bioeconomy.

University of Manchester

...increase in the number of companies engaged with Aberystwyth University, taking the total to 225 in 2015.

Aberystwyth University and IBERS
...Great Minds recruited so far, out of 250, who have the potential to make a major contribution to the University’s impact.

University of Leeds

...departments contributed to Excellence with Impact, developing new networks and university-wide public engagement and impact award schemes.

University of Oxford
Excellence with Impact Participants

...users have been reached through a digital media campaign announcing TGAC’s improved wheat genome assembly

The Genome Analysis Centre

...of BBSRC-funded researchers have delivered impact-related activities at Cardiff University during Excellence with Impact

Cardiff University

...internal training courses have been completed by around 400 staff at The Pirbright Institute

The Pirbright Institute

...rise in Higher Education Innovation Funding (HEIF)-eligible income at the Royal Veterinary College

Royal Veterinary College

...students have been engaged through Createlab, IP Wiseup and other competitions at Imperial College London

Imperial College London

...of students had jobs or were in further education within six months of graduation at Durham University (2015)

Durham University

...of bioscience PhD students receive two weeks of ‘Science and Society’ accredited training to maximise engagement and impact at the University of Bristol

University of Bristol
...per cent increase in income from contract research with industry thanks to the Business Engagement team at the University of Birmingham

University of Birmingham

...the year a new commercialisation approach will be implemented as research teams from the Institute of Food Research move to the new Quadram Institute

Institute of Food Research

...has been raised by a pioneering cancer treatment developed by University College London spin-out company Autolus

University College London

...departments form the Practitioners Of Outreach Group (POOG) at the University of Nottingham

University of Nottingham

...impact activities have been identified and mounted on an ‘Impact Wall’ at the University of Warwick

University of Warwick

...School Liaison Officer has been appointed to help scientists engage with local schools more efficiently and effectively

University of Dundee

...projects have been accelerated by Knowledge Exchange vouchers at the University of Liverpool

University of Liverpool
...represents Southampton’s engagement with the 100,000 Genome Project and the Genomics England Clinical Institute Partnership

University of Southampton

...stakeholders have been engaged by BBSRC-funded researchers at the University of Sheffield during Excellence with Impact

University of Sheffield

...represents the number of partners that the University of Sussex is currently working within the biosciences

University of Sussex

...science impact case studies have been produced for REF2020 at the University of East Anglia

University of East Anglia

...impact awards between the value of £100 - £20,000 have been issued to staff and students in recognition of high-impact activities at the University of Kent

University of Kent

...impact projects have been stimulated by Excellence with Impact at the University of Reading

University of Reading