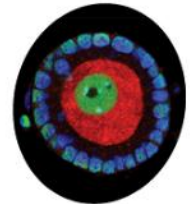




# Maximising impact: driving the Bioeconomy



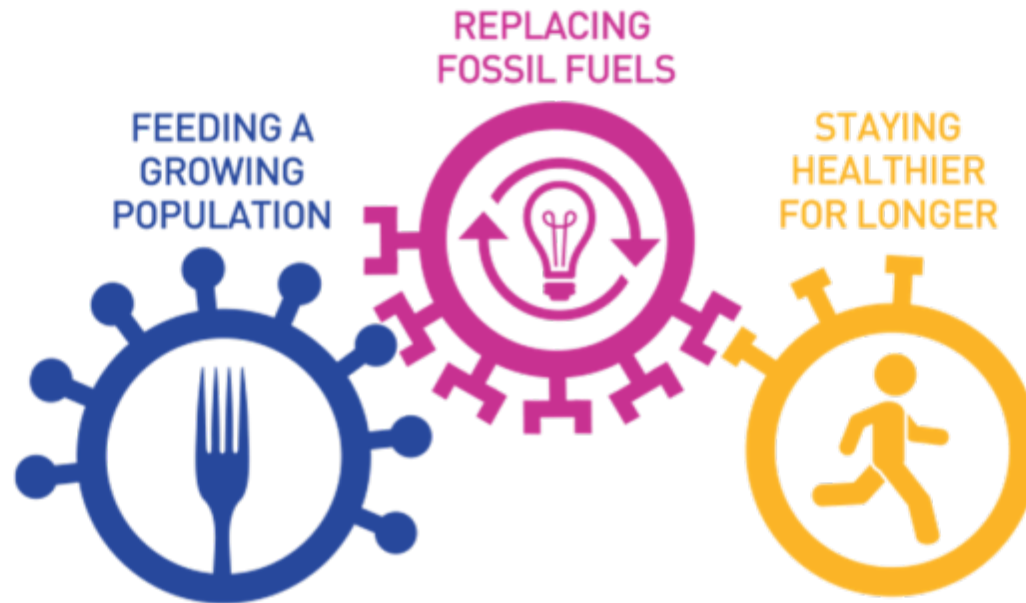
Adam Bowen – Senior Innovation Manager  
Daniela Hensen – Peer Review Officer

- Today...
  - What is impact?
  - How do we support impact and innovation
    - at the earliest stages of research
    - when developing ideas
  - Some examples

## BBSRC – what we do

- Fund **world-class bioscience research** in UK Universities and Institutes
- Fund **bioscience training and skills** for the next generation of bioscientists
- Drive the widest possible **social and economic impact** from our bioscience in industry, policy and public goods
- Promote **public dialogue** on bioscience

# Meeting society's challenges



- The world needs to produce 50% more food by 2050
- Food & agri sector in UK already worth £96Bn a year
- Need for low carbon alternatives to fossil fuels
- Demand for energy predicted to grow by 20% in 2030 (from 2010)
- 21% of UK population will be aged 60+ by 2050
- Tackling obesity would save wider UK economy £50bn per year by 2050

# Knowledge Exchange & Commercialisation - *Policy*



**BBSRC /  
RCs**

**Host  
institutions**

- **Invest** in research and training to achieve the **widest possible benefits & impact**, not just commercial exploitation
- Effective **management** of intellectual assets
- Develop and deliver **strategic vision** for all aspects of KEC, including wider benefits to society and economy
- **Sharing** and combining of Intellectual Assets between institutions in the interest of public good
- **Recognise and reward** people taking part in KEC activities

# Impact – what does it mean?



# Impact – what does it mean?

Ask questions:

- Who might benefit from this research?
- How might they benefit from this research?

The answers will help write the **Impact summary**

- What will be done to ensure that potential beneficiaries have the opportunity to engage with this research?

The answer will help write the **Pathways to Impact**

# Pathways to Impact - Do

- Consider Impact very early in your preparation, so that it informs the design of your research
- Activities are **project-specific** (considering relevant beneficiaries and user needs), appropriate and carried out by staff involved in the grant
- Clear description of how the applicant intends to reach and engage with the beneficiaries of the research, including clear deliverables and milestones.
- Co-production and involvement of beneficiaries and users from the outset (including research design).
- Demonstrate clear commitment for realising both academic and non academic research impacts



## Pathways to Impact – Don't

- Vagueness, lack of specificity and clear deliverables
- Activities are not project specific, but routine activities for University research posts
- Too much focus on track record rather than what will be done as part of this research project
- Lack of consideration of broader beneficiaries, likely impacts and appropriate mechanisms for realising the potential impacts
- Activities narrowly focused, end focused, and purely for dissemination purposes rather than knowledge exchange and impact generation

# Pathways to Impact - How

Activities outlined in the Pathways to Impact:

- Remember to consider and include project specific costs relating to proposed impact activities e.g. engagement workshops or marketing materials, etc.
- Need to be appropriately staffed, costed and justified (**the Committee will recommend cuts if justification is deemed insufficient**)
- Can include cost for students (**the only place where student costs can be included as part of a RM proposal!**)
- Structure your Pathways to Impact and provide clear project-specific milestones and timelines

# Support for ROs to enable innovation

**Collaborative  
research**

**Collaborative  
training**



**People & Information  
Exchange**

**Commercialisation**



# Enabling impact and innovation



## BBSRC Impact Acceleration Accounts (IAAs)



# Biopesticides regulation



Moth infected with an insect pathogenic fungus used for biocontrol. Credit: *Dr Dave Chandler, University of Warwick*

RELU-funded researchers developed recommendations to improve biopesticide regulations, working with UK regulators to reduce barriers to commercialisation.

UK supermarket Marks and Spencer used the research to improve their pesticide strategy.

Informed European Parliament discussions.

The project's impact on biopesticides regulation and the biopesticides industry was recognised in a report from the Defra Science Advisory Council.

The EU biopesticides market was worth US\$54M in 2010, and growing rapidly. Biopesticides could replace some synthetic chemical pesticides, which can harm the environment and health.

a new EU Directive on the regulation of biopesticides represents a 'seismic shift' in biopesticide policy.

## **Xelect Ltd boosts global aquaculture industry**



Atlantic salmon. Image: *Professor Ian Johnston, University of St Andrews.*

Xelect Ltd founded 2013 to provide genetic services to companies throughout the global aquaculture supply chain.

BBSRC provided funding via Follow-on funding, two LINK grants and an Industrial Partnering Award

Using Xelect's markers, companies can add £600 to the value of a tonne of farmed Atlantic salmon.

Xelect has established an exclusive European licence with SalmoBreed A/S for their marker technology, as well as a trial licence with Landcatch Natural Selection for their fish farms in Chile.

**Xelect has been profitable since founding, and is continuing to grow**



## Clyde Biosciences Limited cut the cost of drug development



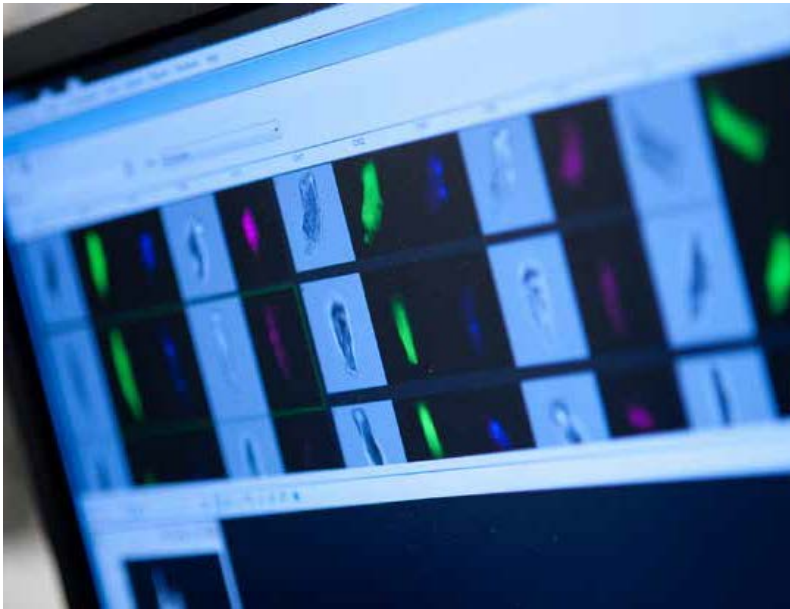
Dr Margaret Anne Craig, CEO, Clyde Biosciences.  
Image: *Clyde Biosciences*

Clyde Biosciences Ltd was founded by researchers at the University of Glasgow, following Follow-on Fund and Enterprise Fellowship support.

The company is developing its innovative system, which can help identify potential new drugs that adversely affect heart cells. The system will be used by the pharmaceutical industry to reduce the time and cost of drug discovery.

Clyde Biosciences' clients include AstraZeneca and Johnson & Johnson.

# Babraham Bioinformatics



Researchers around the world are able to interpret their biological data thanks to software and training guides produced by the Bioinformatics Group at the Babraham Institute. Image: *Jacqui Matthews, The Babraham Institute*

Researchers in hundreds of academic institutions and companies worldwide can interpret their biological data thanks to open access software and training guides produced by Babraham Bioinformatics.

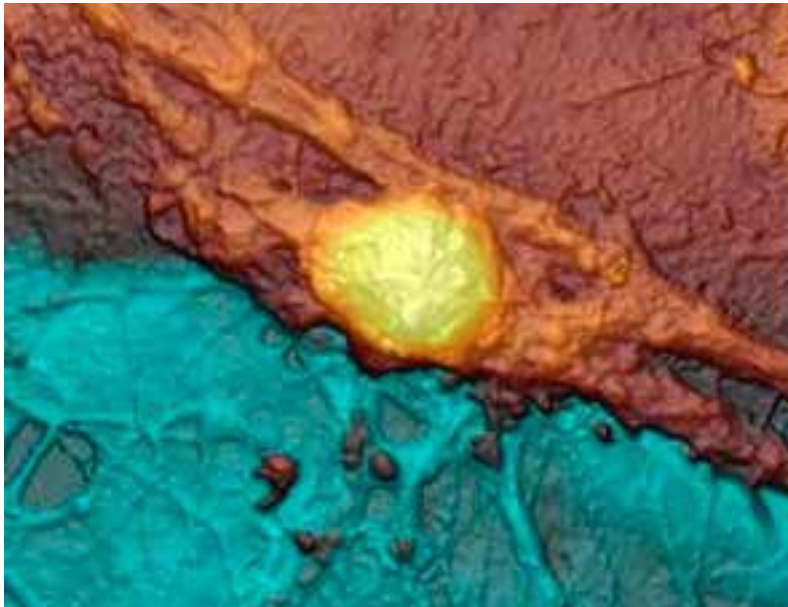
## Babraham Bioinformatics:

- are producing software vital to Cambridge Epigenetix's product marketing
- provided essential data analysis for groundbreaking stem cell research
- provide training to researchers and companies on the Babraham Research Campus and further afield.

**hundreds of academic institutions and companies worldwide can interpret their biological data thanks to open access software and training guides**



# lonscope: live cell imaging



A neuron viewed with the scanning ion conductance microscope. Image: *lonscope*

**Spin-out company lonscope has been established.**

**Scanning ion conductance microscope (SICM), which developed by researchers at Imperial College London and the University of Cambridge.**

**Sold over 35 SICM devices to leading life-science and materials-science researchers world-wide**

**opening up new areas of science by making it possible to study complex biological systems at a new level of detail.**



Please note that this presentation should not be used as a substitute for reading the current grants guide as information in it may become out of date, the BBSRC grants guide can be found here:

<http://www.bbsrc.ac.uk/funding/apply/grants-guide/>

# Keep In Touch!

## Visit the Web Site

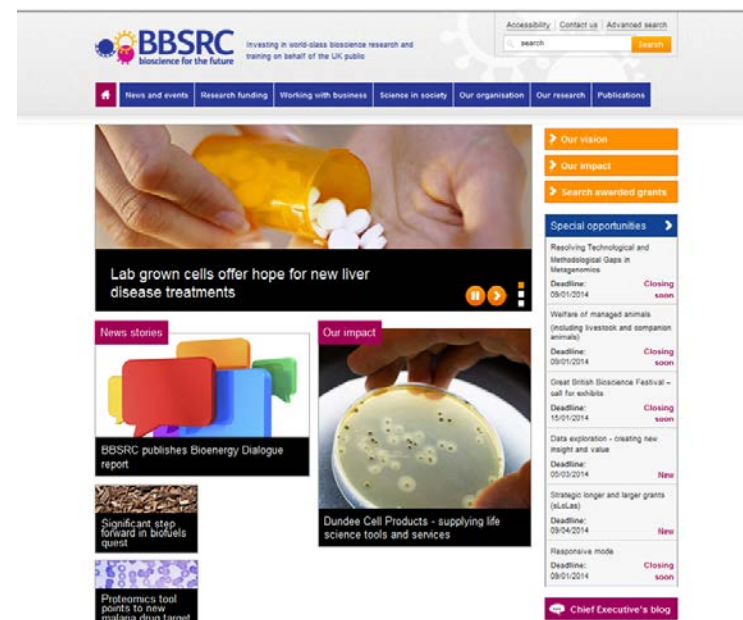
- [www.bbsrc.ac.uk](http://www.bbsrc.ac.uk)

## Tell us about exciting outcomes

- We are always looking for interesting case studies, particularly showcasing impacts of BBSRC-funded research
- Contact BBSRC External Relations:  
[external.relations@bbsrc.ac.uk](mailto:external.relations@bbsrc.ac.uk)

## Sign up for the email bulletin

- <http://www.bbsrc.ac.uk/news/news-email/>



The screenshot shows the BBSRC website homepage. At the top, there is a navigation bar with the BBSRC logo and tagline 'Investing in world-class bioscience research and training on behalf of the UK public'. Below this is a search bar and a menu with items like 'News and events', 'Research funding', 'Working with business', 'Science in society', 'Our organisation', 'Our research', and 'Publications'. The main content area features a large banner for 'Lab grown cells offer hope for new liver disease treatments'. To the right, there is a sidebar with 'Special opportunities' and a list of grants with deadlines and 'Closing soon' status. Other sections include 'News stories' and 'Our impact'.



# Contact

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