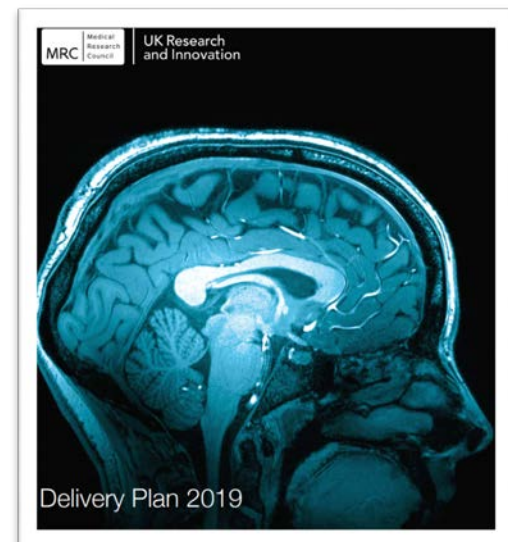


Bioimaging in BBSRC and MRC – relevant activities

BioimagingUK Meeting
1 July 2019
MMC19

Daniela Hensen (UKRI-BBSRC)
Charlotte Inchley (UKRI-MRC)

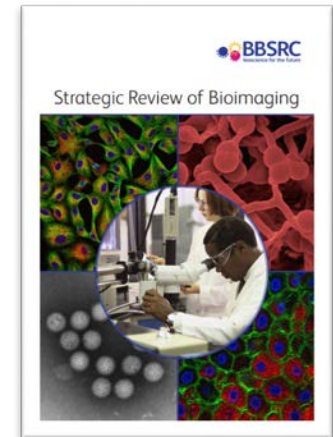


Overview

- Bioimaging and BBSRC
- Bioimaging and MRC
- Recent activities
 - Data-intensive bioscience review (BBSRC)
 - UKRI Review of Artificial Intelligence
 - BBSRC and AI
 - BBSRC Big Ideas Pipeline
 - MRC NeuroNex call with NSF
- Funding opportunities

Bioimaging and BBSRC

- Bioimaging technologies explicitly used in a minimum of approx. 40% of BBSRC's funded portfolio of responsive mode grants, initiative grants, fellowships and strategic institute projects
- Strategic Review of Bioimaging
- Forward Look for UK Bioscience and BBSRC Delivery Plan
 - Transformative Technologies
 - Infrastructure
- BioimagingUK network



Bioimaging and MRC

- **Delivery plan 2019:**
- 3.1 Research and innovation priorities:
 - *Discovery Science*- Strengthen the development and use of **novel analytical, sensing and imaging technologies** to improve understanding of biological mechanisms and facilitate in-depth human phenotyping at scale and over time.
 - *New tech and infrastructure*- Work with health departments and research charities to strengthen UK clinical and population research infrastructure. We will place particular emphasis on the growing need for multi-site networks with aligned **capabilities in advanced imaging**, genotype/phenotype analysis and data science

Bioimaging and MRC

- Much of the imaging through Neurosciences and Mental Health Board (NMHB)
- 24% of applications to NMHB have focus on imaging
- fMRI, MEG, PET
- Other imaging via Molecular and Cellular Medicine Board (MCMB)

- NMHB priority: **Insights into the Living Human Brain**
- More to come in this area!

Recent activities – Data-intensive bioscience review

To support the continued development of bioscience as a data-intensive discipline, UKRI-BBSRC is conducting a review in 2019.



The aims of the review are to:

- strengthen BBSRC's understanding of the research landscape in this area
- identify current issues and future needs within the UK research community
- ensure BBSRC is well positioned to support future requirements.

Activities

- Community questionnaire
- Expression of Interest for community workshop
- Community workshop – September 2019
- Final report – envisaged for end of 2019

Thank You!

Recent activities – UKRI Review of Artificial Intelligence

Aim of the review:

- Understand current support for AI research and innovation
- Identify opportunities
- Assess gaps in provision
- Recommend future support strategies that will enable AI to realise its full potential to the UK.

UK Research and Innovation



Recent activities – BBSRC and Artificial Intelligence

Understanding AI *in a bioscience context*

- Definition of AI relevant to the bioscience community
- Understanding current support for AI research and innovation
- Identifying opportunities
- Assessing gaps in provision

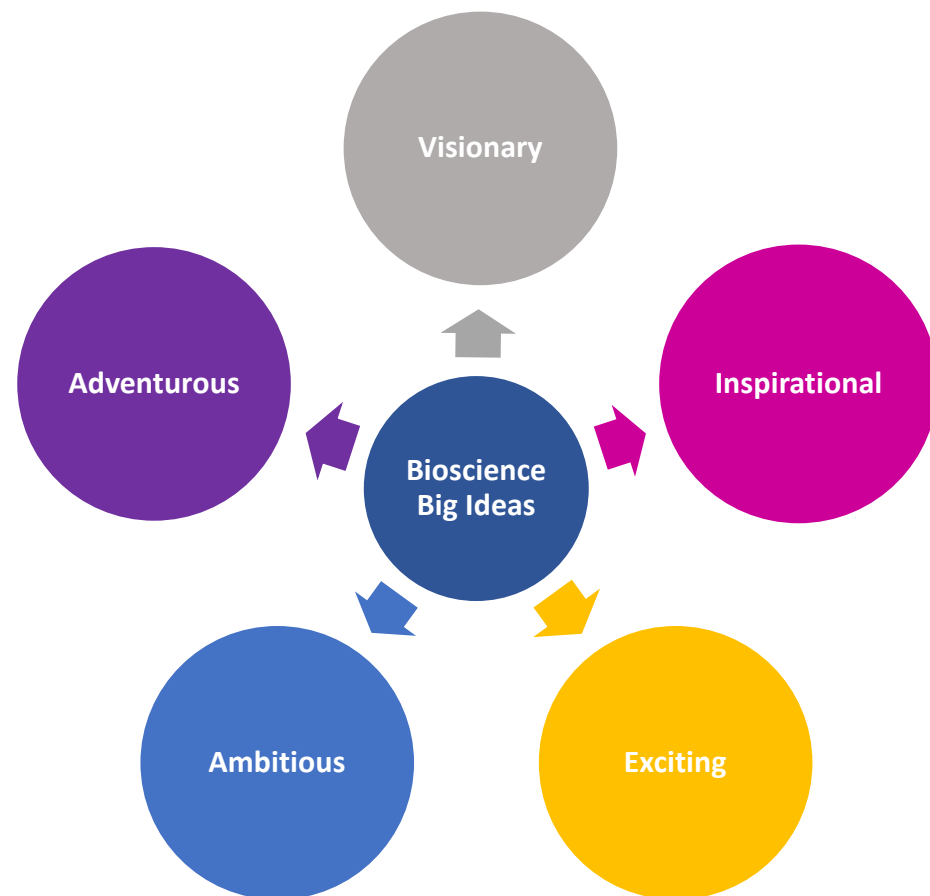


! Invitation to engage with BBSRC !

Contact Daniela Hensen, strategy lead for data and AI (daniela.hensen@bbsrc.ukri.org),
to voice your thoughts.

Recent activities – The Bioscience Big Ideas Pipeline

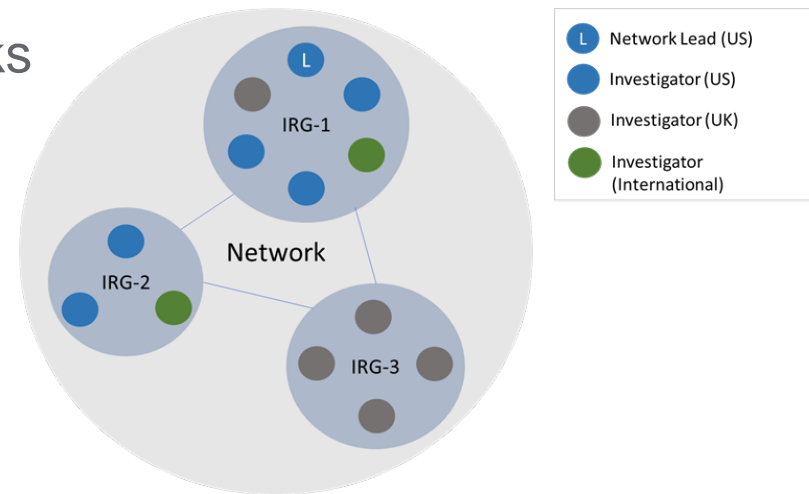
- A pilot programme aiming to engage with BBSRC’s broad research and innovation community to help identify the next generation of potential research and innovation priorities
- It is not a call for proposals but could inform the development of future research and innovation strategy which in turn could potentially attract investment or lead to support for community activities
- Fundamental, strategic or applied, all big ideas are welcome, and multidisciplinary big ideas are particularly encouraged.



<https://bbsrc.ukri.org/news/policy/2019/190611-n-bioscience-big-ideas-pipeline/>

Recent activities – MRC

- NeuroNex- Next Generation Networks in Neuroscience
- NSF-led call, also involving CIHR, FRQ and DFG
- Call closed April 14th, funding decisions in March 2020
- >90% of UK components of networks have imaging aspects



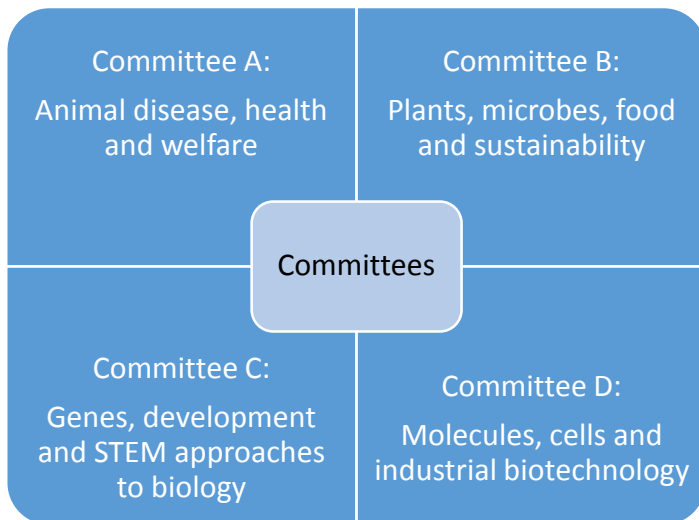
Funding opportunities – live

BBSRC Responsive Mode

- Three closing dates per year
- Next deadline: 2 October 2019

MRC Responsive Mode

- Boards meet 3 times per year
- Next NMHB deadline: 2 October 2019 (funding decisions March 2020)
- NMHB priority area: Insights into the Living Human Brain
- MCMB: 4 September
- IIB: 18 September
- PSMB: 25 September



Funding opportunities – live

2019 TRDF: Transformative Research Technologies

- Support early-stage development of cutting edge, high-impact transformative research technologies based on new advances in fundamental engineering, physical and life sciences
- Maximum of £150,000 (£187,000 100% FEC) for 6 to 18 months



Support for early-stage development of cutting-edge research technologies

Call status: Open
Application deadline: 17 September 2019, 16:00

<https://bbsrc.ukri.org/funding/filter/2019-tools-resources-development-fund/>

Funding opportunities – in development, details tbc

2019 Bioinformatics and Biological Resources Fund



- Facilitate the establishment, maintenance and enhancement of high-quality bioinformatics and biological resources
- Estimated launch September 2019

2019 ALERT mid-range equipment initiative



- Mid-range equipment costing over £200,000 including VAT.
- Instrumentation to be deployed on a multi-project and multi-use basis.
- Estimated launch September 2019

Funding opportunities – in development, details tbc

Bioimaging Business Interaction Vouchers

- Help resource short collaborative activities between an academic partner and an industry based partner, enabling:
 - A longer-term relationship
 - Improved interactions
 - Knowledge exchange
 - New collaborative research and innovation projects

Launching soon!



Questions - Stay in touch



Daniela Hensen (UKRI-BBSRC) – daniela.hensen@bbsrc.ukri.org

Charlotte Inchley (UKRI-MRC) – charlotte.Inchley@mrc.ukri.org