Biotechnology and Biological Sciences Research Council

BBSRC Perspective

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Portfolio Manager – Bioimaging

MMC 2023
BioImagingUK Community Meeting

03 July 2023

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Introduction and Strategy Overview

UK Research & Innovation

- UKRI is a **national public funder** of research and innovation
- Will invest **£7.9bn in 2022/23** to support research and innovation for economic growth and benefit to society
- Seven UK Research Councils, Innovate UK, and Research England
- Funded by HM Treasury, reports to DSIT

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BBSRC: What we do

- Invest in world-class **discovery** and **strategic bioscience research** to advance the frontiers of biology and drive towards a healthy, prosperous and sustainable future
- Invest in **bioscience training and skills** for the next generation of bioscientists
- Invest in **cutting-edge infrastructures** to support bioscience research
- Drive the widest possible **social and economic impact** from our bioscience in industry, policy and public goods
- Promote **public dialogue** and **engagement** on bioscience

8 BBSRC-supported Research Institutes

Providing **national capability/expertise** in strategically important areas: sustainable agriculture, plant & crop science, animal health, food & nutrition, healthy ageing, advanced genomics and bioinformatics

At the core of research and innovation campuses

BBSRC Institute Strategy centres on **Capability**, **Connectivity** & **Culture**

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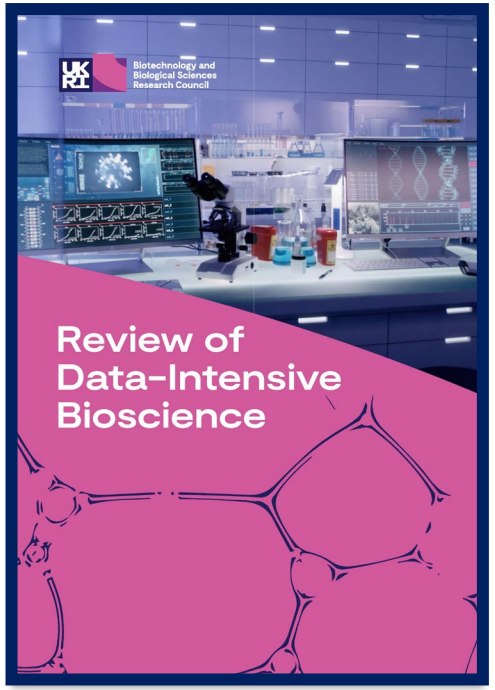
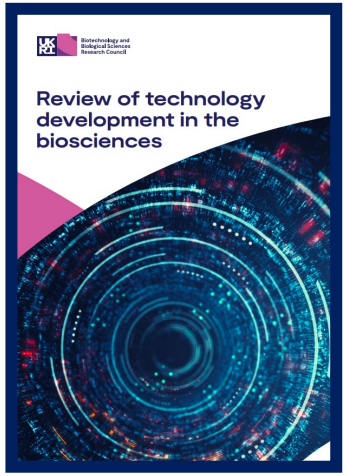
Bioimaging and BBSRC





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Infrastructure and Access	Training and Skills	Data Management and Analysis
Working in partnership with industry	International Engagement	World-class Bioscience

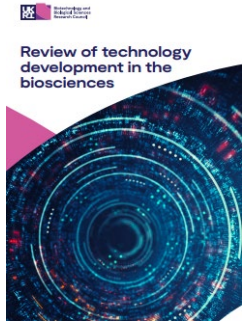
BBSRC Review of Technology Development Recommendations

Funding
To enable support of the different types and stages of technology development, BBSRC should establish a comprehensive support framework, leading to an increase in investment

Peer Review
BBSRC should consider innovation in its peer review processes and fully embed technology development as a recognised and valuable component

Skills and Training
BBSRC should prioritise both short and longer-term actions to support different training needs and career stages, with an emphasis on interdisciplinary and innovator skillsets

Culture Change
BBSRC should promote the value of diversity and team working in the biosciences and foster an open, dynamic, and inclusive system of technology development in the UK



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Read the review here

Research Technology Professionals (RTPs)
BBSRC should work with the RTP community to highlight their talent and promote their central role in technology development in the biosciences

Terminology
BBSRC should consider mechanisms to bring together the technology development communities and facilitate interdisciplinary engagement

Support Landscape
BBSRC should consider opportunities to support the underpinning infrastructure required for technology development

What is a Research Technical Professional?

The following definition is generally accepted across UKRI:

"Research technicians and technology and skills specialists (herein collectively referred to as Research Technical Professionals, or RTP) have expert knowledge and technical competence in their field.

They may include - but not limited to - data scientists, data engineers, archivists, informaticians, statisticians, software developers, audio-visual technologists, **technical professional staff** and individuals staffing and managing core research facilities, across all disciplines."

Read more information on BBSRC Investing in Research Teams here

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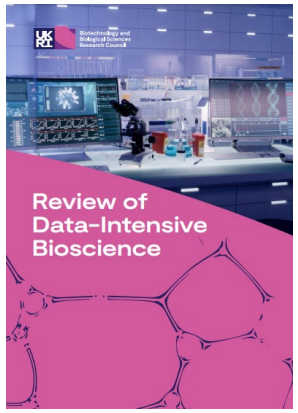

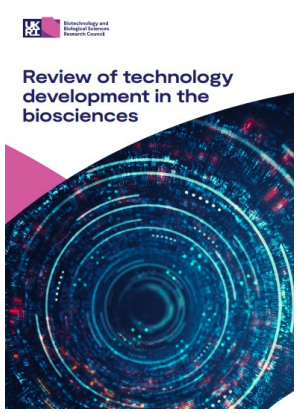

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Opportunity Overview

Transformative Research Technologies (TRT)

- BBSRC launched the 2023 Transformative Research Technologies (23TRT) funding opportunity on **26 June 2023**.
- Through this funding opportunity, you can apply for funding to pursue **early-stage development of cutting-edge research technologies with transformative potential in the biosciences**.
- The maximum award value is **£225,000** full economic cost (fEC) and must be **between six to 18 months in duration**. BBSRC will fund 80% of the FEC. Total fund of **£3m.**
- **Applicant Webinar Recording, Slides & Q&A Available, covering:**
  - an overview and scope of the 23TRT funding opportunity
  - what BBSRC is looking for in applications
  - the application and assessment process including applying through **the Funding Service**
  - opportunity for questions and answers

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Live on the funding finder as of 26 June 2023

Closing 5 October 2023

Responding to the review of Technology Development in the Biosciences

technology.development@bbsrc.ukri.org

23TRT implements multiple recommendations from this review:

- Increased indicative funding pot (TBD, <£2.75m) and award size (+20%, £225k)
- Ensures clarity about what 23TRT's scope and aims are
- Recognize diversity of applicants and roles in the success of projects.
- Improve our peer review processes to ensure 23TRT delivers on its aims

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Live on the funding finder as of 26 June 2023

Closing 5 October 2023

BBSRC Responsive Mode

Open to applications in **all areas across BBSRC remit** – responsive to needs of community

Up to **£2 million** available for projects lasting up to **5 years**

Applications can request funds for:

- New infrastructure and equipment
- Instrument development
- Use of external equipment and facilities
- Network development and summer schools

Research Technical Professionals can be costed on to grants or apply as PI or Co-I

3 deadlines every year

- ~~11 January 2023~~
- ~~26 April 2023~~
- **27 September 2023**

Contact

Remit: remit@bbsrc.ukri.org

Eligibility: eligibility@bbsrc.ukri.org

RTPs: technicalresearchers@bbsrc.ukri.org

See RM Spotlights for 2023:

- building stronger **biological understanding of the role of nutrition on human health** across the life course
- **bioelectricity** as a holistic approach to understand diverse (microbial) **cell behaviours**
- fundamental research to **enhance animal welfare**

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More info on BBSRC RM Research Grants here

Cross-UKRI Responsive Mode Pilot

- Apply for funding for interdisciplinary ideas that **transcend, combine or significantly span disciplines.**
- This pilot scheme will support **breakthrough** or **disruptive interdisciplinary** ideas not routinely funded through existing UKRI responsive mode schemes.
- Awards will be **potentially transformative** for the participating disciplines or lead to the **creation of new disciplines**.
- **£200,000 to £1.2 million**, funded at 80% fEC, **£32.5m** funding pot

Round 1 is live on the funding finder

Opened 8 June 2023, Outline applications closing 20 July 2023 16:00

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UKRI Biotechnology and Biological Sciences Research Council
UKRI Economic and Social Research Council
UKRI Engineering and Physical Sciences Research Council
UKRI Medical Research Council
UKRI Natural Environment Research Council
UKRI Science and Technology Facilities Council

UKRI Basic Technologies Call 2022

- **Cross-UKRI** funding opportunity, this pilot funding opportunity focused on sensing and imaging
- **Multidisciplinary** projects taking a **dual PI approach**: a problem-owner and a solution-provider
- Up to **£180k** available per project
- Initially a total of £2.5m available
- Reflecting demand, **total £4.3m invested** by UKRI across **24 projects**

Access the 2022 UKRI Basic Technologies Call Text here

Funded projects include

- Stroboscopic opto-acoustic scattering (SOAS) flow cytometer for pre-cancerous detection
  University of Cambridge
- Fast DNA Sequencing Using Near-field Microwave Sensors
  UCL and University of Cambridge
- Graphene based pH microsensor networks for Blue Carbon monitoring
  University of Plymouth
- NoMAD: Non-destructive Mobile Analysis and imaging Device
  Universities of Liverpool and Exeter

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UKRI Biotechnology and Biological Sciences Research Council
UKRI Engineering and Physical Sciences Research Council
UKRI Medical Research Council
UKRI Natural Environment Research Council
UKRI Science and Technology Facilities Council

ALERT: Mid-Range Equipment Call 2022

£200k to £1.5m available for mid-range equipment across the biosciences

Can support a range of equipment including:

- **Widely used** and **underpinning capability**
- Emerging **advanced research technology** or utilisation in new ways
- Promoting **collaboration and increased access** to users within industry, public sector and other institutes

Recent changes to guidance highlight:

- **Research Technical Professionals** can be both PIs or Co-Is
- How we define **platforms** or **pipelines**
- Welcome applications for **'lab-to-field'** equipment

  "Equipment which enables the translation (or applied use) of laboratory scale experiments to real-world settings or environments"

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Access the 22ALERT Call Text here

Other funding opportunities

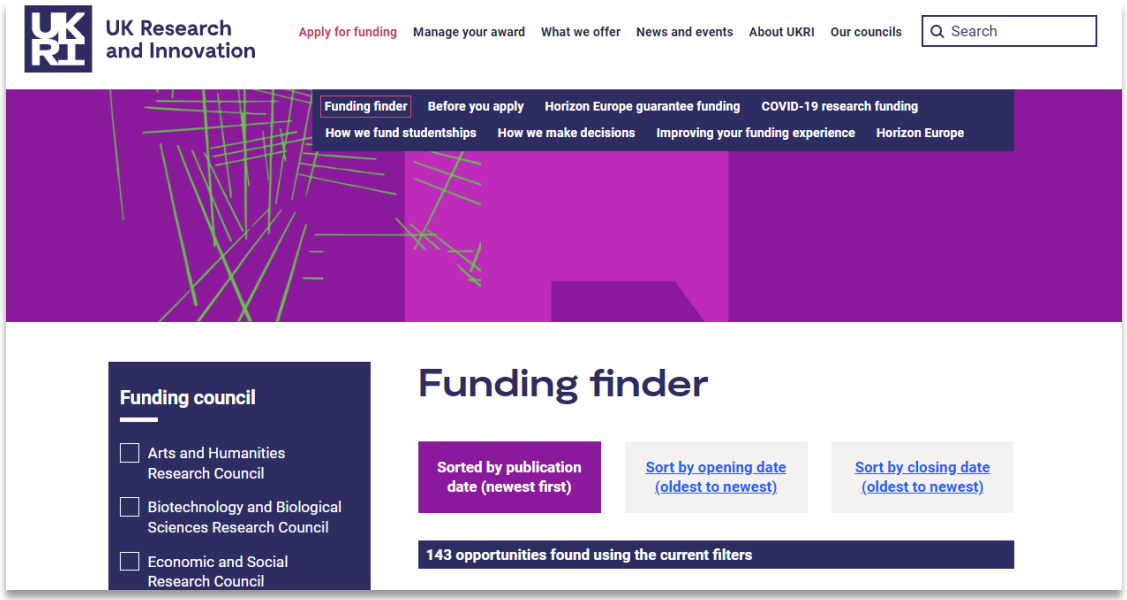
Support for Bioinformatics and Biological Resources for the Bioimaging Community

- Enabling Reliable Testing Of SMLM Datasets
  King's College London
- The "SEISMIC" facility for Spatially rEsolved sIngle and Sub-cellular oMICs
  University of Surrey

- Look out for new opportunities on the horizon

*"we will invest in technology development, software, and resources through our **£9.5 million per year Tools and Resources fund**" – BBSRC SDP*

- Also consider funding opportunities from the other UKRI councils



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Access the Funding Finder here

Transition from Je-S to the new Funding Service

sbf@ukri.org

About Simpler and Better Funding – UKRI

The Journey

- Successive introduction of new features means new and current systems will run in parallel
- New features piloted and introduced after testing and feedback from external and internal users
- Research Opportunities will launch in the new service in increasing numbers through 2023
- **Live grants will be migrated onto the new service**

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Contacts & References

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RM Remit	remit@bbsrc.ukri.org
RM Eligibility	eligibility@bbsrc.ukri.org
RTPs	technicalresearchers@bbsrc.ukri.org

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Strategy Documents

BBSRC Review of Technology Development
BBSRC Strategic Review of Bioimaging
UKRI Responsible Innovation
UKRI Strategy
UKRI Corporate Plan
UKRI Delivery Plans
Data-Intensive Bioscience Review
Technician Commitment
UK Innovation Strategy

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Thank you

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