Biotechnology and Biological Sciences Research Council

Minutes

Meeting: **BBSRC TRANSFORMATIVE TECHNOLOGIES STRATEGY ADVISORY PANEL**

Date and Time: 13 – 14 May 2024

Venue: Mercure Manchester Piccadilly Hotel (Portland Street, Manchester, M1 4PH)

Attendance

Panel Members
Professor Richard Emes (Nottingham Trent University) - **Chair**
Professor Neil P. Chue Hong (University of Edinburgh) – joined remotely
Professor Rachel Errington (Cardiff University)
Dr Thomas Gorochowski (University of Bristol) – joined remotely
Professor Pippa Hawes (Francis Crick Institute)
Dr Andrew Holding (University of York)
Professor Tiina Roose (University of Southampton)
Professor Jason Swedlow (University of Dundee)
Dr Darren M. Wells (University of Nottingham)
BBSRC Office
Dr Rowan McKibbin, Associate Director, Frontiers and Foundations
Dr Ian Lewis, Head of Transformative Technologies
Ms Ashleigh Bignell
Dr Richard Brown
Dr Pete Burlinson, Head of Rules of Life – joined remotely for item TT 04-05-24
Dr Jane Garrad
Dr Daniela Hensen
Mr Philip Hubbard
Dr Linda Millyard
Dr Tom Pearson
Dr Tim Shuttleworth, Head of Research Infrastructure – joined remotely for items TT 01-05-24 and TT 02-05-24

Agenda

Item	Description	Paper ID
Monday 13 May 2024		
1	Director's Update	Oral
Tuesday 14 May 2024		
1 (cont'd)	Reflections from Director's Update and Matters Arising	Oral
2	Discussion on future bioscience research infrastructure needs	TT 01-05-24
3	Bioscience resources as infrastructure	TT 02-05-24
4	Convergence of Engineering Biology and Artificial Intelligence	TT 03-05-24
5	UK Innovation Strategy – Genomics: 2024 revisit	TT 04-05-24
6	Developing a Transformative Technologies vision statement	TT 05-05-24
7	AOB	Oral
Items to note		
	TT SAP November 2023 Minutes	n/a

Summary and actions

Item	Paper ID	Summary and actions
1	Oral	**Director's Update** The discussion touched upon a range of forward planning activities as well as ongoing organisational changes.
2	TT 01-05-24	**Future bioscience research infrastructure needs** In 2019, UKRI published its research and innovation infrastructure landscape analysis and opportunity report. To support BBSRC in its preparation for a refresh of this analysis across 2024/25, the panel considered how UKRI has delivered on the opportunities highlighted in these reports, what infrastructure might be needed in future, and explored a number of topics including integration, training, sustainability, commercial considerations, and software.
3	TT 02-05-24	**Bioscience resources as infrastructure** This paper outlined BBSRC's current support for bioresources, considered how BBSRC could define a 'core bioresource' and explored the factors that

		contribute to the long-term sustainability of bioresources. Whether there is a need for a national UK mechanism to identify core resources was raised, and what would be needed to inform such a mechanism.
4	TT 03-05-24	**Convergence of Engineering Biology and Artificial Intelligence** The convergence of engineering biology and AI (EB x AI) presents a transformational opportunity to leverage and combine the power of each to achieve greater-than-sum-of-parts outcomes. This paper provided an overview of the current landscape and sought input and advice to guide BBSRC strategy in fostering this emerging area. The panel discussed potential areas of interest and suggested further exploration of the theme to help identify areas within EB x AI that would be genuinely transformative.
5	TT 04-05-24	**UK Innovation Strategy – Genomics: 2024 revisit** In December 2021, the panel discussed genomics, part of "Bioinformatics and Genomics" as one of the seven key technologies highlighted in the UK Innovation Strategy. The UK research and innovation landscape has changed significantly since then, and therefore in conjunction with the upcoming Spending Review it was seen as timely to review how these changes impact on the original panel recommendation as well as seek advice on what the next steps should be for BBSRC. The panel discussed potential areas of interest and suggested that BBSRC work with the community to further define opportunities.
6	TT 05-05-24	**Transformative Technologies vision statement** It was seen as timely to develop an impactful vision statement for transformative technologies to help BBSRC clearly communicate the potential of the area for bioscience and beyond. This paper sought input from the panel on what such a vision statement could look like.
7	Oral	**AOB** The opportunity was raised to discuss how the focus on transformative technologies in the Global North could also benefit Low and Middle Income Countries (LMICs).