Academy of Medical Sciences (AMS) inquiry on Long-term sustainability of health research in the UK

For more information about the consultation please visit: https://acmedsci.ac.uk/policy/policy-projects/long-term-sustainability-of-health-research-in-the-uk

Summary:

Physiologists are at the centre of encouraging more diverse and inclusive criteria for clinical trials to ensure that emerging research benefits everyone and is not limited to traditional trial participant demographics

Funders and Research England are best placed to put policies and structures in place that recognise the contribution of interdisciplinary working on meeting societal challenge goals

Consultation response:

1. When considering how health research operates in the UK today, which features are:

a. Sustainable

The Government target for total R&D investment to reach 2.4% of GDP by 2027 is an example of an aspect of the research landscape that is both sustainable and should be sustained in other to ensure the future success of the UK's health research sector. Additionally, the Government should sustain its ambition to spend £22 billion of public money a year to promote the UK as a 'science superpower' and encourage further investment from the private sector.

b. Unsustainable

Structural and embedded collaboration between physiologists and frontline clinicians in the development of studies, research and trials remains an unsustainable part of the health research landscape. As COVID-19 has demonstrated, physiological input into clinical trials provides clear benefits in terms of patient outcomes but this interdisciplinary work needs to be embedded and not rely on personal connections and chance meetings. While collaborative research is increasing as a proportion of published papers[1] and some journals are adopting a 'mission-led' approach to publishing, such as Emerald Publishing with their journals that focus on the United

[1] Adams J. and Gurney KA (2016). The implications of international research collaboration for UK universities. Digital Research Reports. Digital Science. Available at https://s3-eu-west-1.amazonaws.com/pfigshare-u-files/4786699/Digital_Research_Report_Collaboration.pdf

Nation's Sustainable Development Goals (SDGs), publication can also be a barrier to collaboration, with concerns continuing to exist around recognition and rights to intellectual property[2].

Physiologists are also at the centre of encouraging more diverse and inclusive criteria for clinical trials to ensure that emerging research benefits everyone and is not limited to young, white cis men.

2. When considering how to make health research in the UK more sustainable, what are the major:

a. Barriers

A major barrier that exists is insufficient physiologist inclusion in human clinical trials developed by clinicians and epidemiologists.

b. Opportunities

Learning from COVID-19 response to focus research on defined objectives and ensure rapid trial and approval process for treatments and vaccines.

3. Which single barrier/opportunity is of the highest priority to you/your organisation and why?

The most significant barrier and opportunity for The Physiological Society is ensuring that the contribution of physiology to tackling major societal grand challenges is recognised. This includes both physiology's role in understanding the ageing process and the most effective ways to modulate or slow the ageing process and the impact of age-related diseases. In addition, we are also working to highlight the contribution of physiologists in understanding how the climate emergency will affect human and animal health in future.

4. Who is best placed to affect change in the areas you have listed? (can be one or more organisations, groups, individuals)

Funders and Research England are best placed to put policies and structures in place that recognise the contribution of interdisciplinary working on meeting societal challenge goals that go beyond traditional understandings of single-discipline outputs. We recommend that a future research assessment exercise adopts a structure which explicitly identifies and rewards research that is founded on interdisciplinary approaches.

A future assessment exercise replacing the Research Excellence Framework (REF) for publicly funded research in higher education should introduce flexibility to allow individuals whose research and outputs straddle discipline-based assessment structures to be returned to multiple Units of Assessment, recognising the breadth of the research teams in which they operate, and the outputs generated from this. We recommend that REF Outputs contain an option for an additional narrative to explain the interdisciplinary context of research outputs.

[2] Tipton M. (2018). Collaboration: Friend or foe. *Physiology News*. The Physiological Society. Available at https://static.physoc.org/app/uploads/2020/02/21100002/112-a.pdf

In addition, The Physiological Society is working with stakeholders including universities, research users and UKRI should instigate a study to provide further evidence on how engagement in interdisciplinary research shapes research careers, within and beyond academia.

5. Are you aware of any relevant published or unpublished evidence which we should consider during this project?

https://static.physoc.org/app/uploads/2021/11/03154159/Interdisciplinary-research-and-REF-report_WEB.pdf

https://physoc.onlinelibrary.wiley.com/doi/10.1113/JP279986

https://www.physoc.org/magazine-articles/experimental-design-and-irreproducibility-in-pre-clinical-research/