

## Lessons learnt: the role of academia and industry in the UK's diagnostic testing response to COVID-19 – a statement by the Academy of Medical Sciences

---

**Academia and industry have a vital, and currently under-utilised, role to play in supporting the UK's COVID-19 diagnostic testing response.** Collaboration across the NHS, academia and industry has already supported the development of testing centres across the country, including the UK Lighthouse Labs Network, through the exchange of staff, equipment, reagents, knowledge and skills. However, testing capacity will need to be significantly expanded to cope with increasing demands over winter 2020/21,<sup>1</sup> and there is a necessity to better leverage the totality of the UK's capability, including that in academia and industry. To achieve this, the future testing response must:

- **Involve partners from across the three sectors in the development of testing strategies, with greater transparency and timely communication** of decisions to all stakeholders involved. This will provide clarity on the engagement opportunities for academia and industry and guide how they can most effectively contribute.
- **Leverage local and community-based diagnostics to complement the wider system to support the UK's testing efforts.** This will include utilising simpler logistics for sample transport and accessibility, as well as approaches for more localised decision making and interventions in response to local outbreaks.
- **Enhance collaboration across, and capitalise on the combined strengths of, the NHS, academia and industry.** Investment in existing relationships, and the development of new networks and alliances will help to strengthen the UK's testing capability.
- **Adopt a more proportionate laboratory accreditation process** to ensure that as many laboratories as possible with the capacity and capability are able to contribute to the national testing response. **Maintaining the regulatory agility** catalysed by the COVID-19 pandemic would also help to position the UK as a leader in advancing innovation at speed.
- **Be underpinned by a sustainable workforce strategy** that provides career opportunities, including to university graduates, in a challenging job market as a result of the pandemic, and encourages **greater permeability across the NHS, academia and industry** to meet workforce requirements while enhancing expertise and building capacity.
- Provide certainty to laboratories by **agreeing sufficient, timely and longer-term funding and contracts**, so that they can secure the required resources and workforce to provide the services needed.
- **Rapidly adopt proven innovative testing mechanisms and better define the cases in which tests could be used** to assist in the creation of more effective tests for specific unmet diagnostic needs. **Early engagement with the NHS and social care settings** will help to ensure practical solutions are developed and embedded effectively.

Looking ahead, there is an even greater opportunity provided by the pandemic to position the UK as a leader in diagnostics in the long-term. This opportunity is consistent with the government's ambition to build a large-scale diagnostics industry in the UK as outlined in Pillar 5 of the strategy to scale up COVID-19 testing programmes.<sup>2</sup> Investing in the UK's diagnostic infrastructure, from discovery and development to evaluation and adoption, would ensure its future sustainability and could leverage further investment from the private sector into the UK diagnostics industry. It would enable the rapid remobilisation of resources in the event of future epidemics, and allow for the advances in collaboration, innovation, regulatory agility, skills and infrastructure made throughout the COVID-19 pandemic to be repositioned to meet the UK's broader diagnostics demands for cancer, cardiovascular, and other disease areas.

We know from our discussions that the UK diagnostic testing community stands ready to work with government and other partners across the life sciences sector to further develop the UK's COVID-19 testing strategy and sustainably build diagnostic capacity across the sectors. The Academy will continue to support these efforts to ensure that the UK's diagnostic testing landscape is fit for purpose now, in response to the COVID-19 pandemic, and in the future.

### **Background to this statement**

This statement was informed by a roundtable the Academy convened on 2 October 2020.<sup>3</sup> The meeting brought together stakeholders from across the diagnostic testing community including the NHS, academia, industry and government to: explore the challenges and enablers faced by academic and industrial laboratories in contributing effectively to the COVID-19 diagnostic testing response; consider lessons learnt from the initial upscaling of testing in spring 2020; and identify mechanisms that could be implemented for the UK to be better prepared in future. Implementing the opportunities identified in the report will be critical in enabling academic and industry laboratories to enhance the UK's diagnostic testing capacity and capability both now, in response to the ongoing COVID-19 testing challenge, and beyond, placing the UK in a stronger position to respond to the eventuality of future pandemics. We are grateful to all those that contributed to these constructive discussions. This statement does not necessarily reflect their views. This statement is published by the Academy of Medical Sciences and has been reviewed and endorsed by its Council. Council members who declared a conflict of interest were excluded from the process. Further details are available on request.

---

November 2020

### **Academy of Medical Sciences**

The Academy of Medical Sciences is the independent body in the UK representing the diversity of medical science. Our elected Fellows are the UK's leading medical scientists from hospitals, academia, industry and the public service. Our mission is to advance biomedical and health research and its translation into benefits for society. We are working to secure a future in which:

- UK and global health is improved by the best research.
- The UK leads the world in biomedical and health research, and is renowned for the quality of its research outputs, talent and collaborations.
- Independent, high quality medical science advice informs the decisions that affect society.
- More people have a say in the future of health and research.

Our work focusses on four key objectives, promoting excellence, developing talented researchers, influencing research and policy and engaging patients, the public and professionals.

Academy of Medical Sciences  
41 Portland Place  
London W1B 1QH  
+44(0)20 3141 3200

[info@acmedsci.ac.uk](mailto:info@acmedsci.ac.uk)  
[www.acmedsci.ac.uk](http://www.acmedsci.ac.uk)  
[@acmedsci](https://www.instagram.com/acmedsci)

Registered Charity No. 1185329  
Incorporated by Royal Charter. Registration No. RC000905

---

<sup>1</sup> Academy of Medical Sciences (2020). *Preparing for a challenging winter 2020/21*. <https://acmedsci.ac.uk/file-download/51353957>

---

<sup>2</sup> Department of Health and Social Care (2020). *Coronavirus (COVID-19) Scaling up our testing programmes*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/878121/coronavirus-covid-19-testing-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878121/coronavirus-covid-19-testing-strategy.pdf)

<sup>3</sup> Academy of Medical Sciences (2020). *Lessons learnt: the role of academia and industry in the UK's diagnostic testing response to COVID-19*. <https://www.acmedsci.ac.uk/COVID-diagnostics-report>