Mitigating the impact of COVID-19 on Academic Ophthalmology and Ophthalmic Research

The Royal College of Ophthalmologists is deeply concerned about the impact of the COVID-19 pandemic on academic ophthalmology, research and innovation in ophthalmology and vision sciences.

Since sight impairment differentially affects the most vulnerable members of society, interruption of research in ophthalmology and vision sciences is likely to exacerbate existing health inequalities.

This document articulates the nature of the impact, identifying how/what is already happening in a rapidly evolving situation. Even at this early stage of the COVID-19 pandemic it is clear that the impact is likely to be deep and long term. If the pandemic is extended through further 'waves' of acute disease activity in the population, there will be further amplification of these impacts.

This document sets out the key issues and the proposed actions required from key stakeholders to mitigate the significant potential adverse impacts on academic ophthalmologists at all career stages and on research in general within ophthalmology and vision sciences. Key stakeholders include ophthalmologists, the UK Government, the Conference of Postgraduate Medical Deans of the United Kingdom, Medical Schools Council, Health Education England (HEE), NHS Education for Scotland (NES), Health Education and Improvement Wales (HEIW) and the Northern Ireland Medical and Dental Training Agency (NIMDTA).

Background

A significant impact of the COVID-19 emergency has already been felt across the full spectrum of clinical, population health and laboratory research within ophthalmology and vision sciences with the longer-term future scale and scope of this impact is increasingly being recognised, as it is in all clinical specialties and other areas of academic medicine.

Academic ophthalmology and ophthalmic research has been significantly affected through different routes in the first, acute phase of the COVID-19 pandemic. Even if the UK does not experience further acute phases, ophthalmic research will continue to be affected for the foreseeable future.

Importantly, there is limited scope to readily reposition and redirect ophthalmic and vision sciences research to address COVID-19-related areas, nor to be well positioned to respond to the significant pivoting of scientific research funding, as well as research facilities and resources, towards research that directly mitigates the impact of the pandemic.

It is recognised that it will not be feasible to resume all interrupted ophthalmic research, due to the shortfall in funding or delays in research activities that cannot be overcome. Inevitably this will leave gaps in scientific evidence to inform clinical practice, service provision and policies.

The impact of the COVID-19 pandemic on academic ophthalmology and ophthalmic research has already been felt through

- **Interruption of research due to closure of research facilities / academic institutions to all but COVID-19 related laboratory research or repurposing for COVID19 research.**
  - Phased re-opening of Higher Education Institutions (HEIs) is in planning with shift work and severely reduced numbers of researchers being allowed access under the requirements of 'COVID-19 secure'.
  - Reopening of research facilities will be slow and full capacity will not occur in the foreseeable future.
  - Laboratory research that cannot take place 'remotely' is being prioritised in the re-opening of HEIs, differentially impacting on the ability to resume to full capacity epidemiological and other population health sciences research and data science.

- **Interruption of research that is patient facing and requires recruitment of patients, especially shielded or extremely vulnerable patients, through normal NHS services but not COVID19 related, or recruitment of healthy volunteers that requires access to healthcare facilities e.g. for imaging**
  - As further less-urgent/routine NHS services start to resume, the scope to recommence interrupted clinical trials will be reviewed and it is clear that some valuable research will no longer be considered viable.

- **Interruption of dedicated/protected research time and training that requires research facilities in HEIs/Research Institutes or NHS facilities and/or recruitment of patients**
  - Academic trainees at all levels have been affected, including pre-doctoral trainees who have lost the opportunity of an Academic Clinical Fellow post, clinical research training fellows and other doctoral-level trainees whose PhD studies and time Out of Programme for Research (OOPR) has been interrupted, and post-doctoral/intermediate clinical fellows including those on personal awards .
  - Tenured academic ophthalmologists and those on advanced/senior personal research awards have been affected directly and through interruptions to the trainees they supervise
  - There is a significant risk to of a long-term impact on the capacity for research within ophthalmology and creation of a gap in the academic ophthalmology workforce.

- **Interruption of research due to increased clinical duties as many academic ophthalmologists, at all career stages, re-deployed to support frontline NHS services, including those who have interrupted their academic training and research to do so.**
  - Additionally, like their NHS colleagues, academic ophthalmologists have faced interruptions due to sickness with COVID19, needing to self-isolate, or family caring responsibilities, including childcare while schools were closed.

Current actions and considerations to mitigate the risks

As the NHS starts to resume and restore clinical services, HEIs are starting to plan an extended phased return to work within the constraints of the 'COVID secure' environment. The UK government's bringing forward of the £100 million of Quality-related Research (QR) funding to eligible institutions is a welcome emergency measure but does not constitute *additional* funds to support the COVID-19 recovery for HEIs.

Guidance[1] is emerging from key funders of research and clinical academic training about the framework and principles for resuming research and restarting academic training.

The only scenario in which there is any 'inbuilt' mitigation is a personally funded post-doctoral fellowship that the fellowship holder is able to suspend with agreement from the funding body and assurance that it can be restored at an appropriate time and without any reduction in resource. These assurances are more difficult for the smaller funding agencies.

Addressing the funding gap through *costed* extensions of grants and fellowships will be complex. Whilst major funders have made positive comments about the principles of considering time only extensions, there is not yet absolute clarity about this. There is a need for concerted action eg via the Association of Medical Research Charities for consistency, at the very least, from the major funders about a firm commitment to costed grant extensions of *at least* 6 months.

There is also a need for clarity that clinical academics, whose research has been interrupted, because of the closure of research facilities will not be disadvantaged and that their posts will continue unchanged, in a climate where many HEIs are facing significant loss of teaching and research income and are already limiting expenditure on staff and facilities. It is clear that all academic staff will be expected to increase their contributions and commitments to income generating teaching. This is likely to pose particular challenges for clinical academics who already have fixed clinical and research commitments.

There is currently a lack of firm commitments about the two key resources required - time and funds. These are needed now, to facilitate resumption of academic training and research activities and to ensure there is clarity should there be any further acute phases in the COVID-19 pandemic.

The Royal College of Ophthalmologists is calling for action and commitments from ophthalmologists:

1. Academic trainees and their academic supervisors should proactively communicate with Postgraduate Deans, Training Programme Directors and their funders to develop plans for resumption and reconfiguration, if required, of their research and training.

2. Academic ophthalmologists and other ophthalmologists who are Principal Investigators should proactively communicate with their funders, HEIs and Trust R&I leads, as appropriate, to develop plans for resuming/reconfiguring their research.

3. Ophthalmologists should engage with the development and implementation of the Government's UK Research and Development Roadmap[2]

The RCOphth is asking key stakeholders to support the following principles in protecting and reducing the impact on research

1. Commitment from Chief Executives and Trust boards to include consideration of research in their planning for both resumption of NHS services in the short term and reconfiguration of NHS services based on lessons learned from the COVID-19 pandemic in the longer term.

2. Commitment from Postgraduate Deans and Training Programme Directors to Out of Programme Research (OOPR) extensions for all trainees undertaking higher degrees of *at least* 6 to 12 months, with longer extensions if the case can be made to accommodate individual needs.

3. Commitment from Postgraduate Deans and Training Programme Directors to allow equivalent academic 'time back' for pre-doctoral and post-doctoral trainees –- who were unable to have their dedicated academic/research time due to redeployment to NHS services or other interruption to research.

4. Commitment from HEIs, Trusts and other employers and HEE, NES, HEIW and NIMDTA to continue upholding established guidance set out in the *'UK clinical academic training in medicine and dentistry: principles and obligations document'*

5. Commitment from HEIs and other employers to assess and redress the differential impact on academic ophthalmologists with significant child/family caring responsibilities due to the COVID-19 pandemic

6. Commitments from the major funders, in particular UK Research and Innovation (UKRI) and National Institute for Health Research (NIHR) and Wellcome Trust, to costed extensions of at least 6 to 12 months to research grants and to personal awards (studentships and fellowships), where there is no other way to complete the intended research

7. Commitment from UK Government to review core funding for research in HEIs to 'protect' it from anticipated diminished education income to Universities and Research Institutes, as it operationalises the UK Research and Development Roadmap[2]

8. Commitment from UK Government to include consideration of how to preserve and protect NHS research and academic medicine in future pandemic planning, including in the operationalisation of the UK Research and Development Roadmap[2].

[1]Selected guidance (as of 1 June 2020)

https://wellcome.ac.uk/sites/default/files/clinical-principles-and-obligations-plus-faqs-2018-08.pdf
https://www.nihr.ac.uk/documents/restart-framework/24886
https://acmedsci.ac.uk/grants-and-schemes/whats-available-to-me/career-support-space
https://acmedsci.ac.uk/file-download/50182747
https://www.nihr.ac.uk/documents/progressing-uk-clinical-academic-training-in-2020-addressing-the-challenges-of-covid-19/24958
https://www.ukri.org/research/coronavirus/guidance-for-the-research-and-innovation-communities1/
https://www.amrc.org.uk/blog/medical-research-charities-and-covid-19-amrcs-response-and-key-guidance

[2] UK Research and Development Roadmap

https://www.gov.uk/government/publications/uk-research-and-development-roadmap/uk-research-and-development-roadmap

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