

Artificial Intelligence and Life Sciences: Research

Asked by: Hardy, Emma

To ask the Secretary of State for Science, Innovation and Technology, pursuant to her Answer of 8 June to question 187868 on Artificial Intelligence and Life Sciences: Research, what proportion of UK Research and Innovation funds does research involving (a) humans, (b) human materials, (c) animal models and (d) non-animal technologies receive; and what steps UKRI is taking to increase the proportion of funding for non-animal technologies in relation to animal models.

Answering member: George Freeman Department: Department for Science, Innovation and Technology

It is not possible to break down UK Research and Innovation (UKRI) funding data in this way. The Government actively supports and funds the development and dissemination of techniques that replace, reduce, and refine the use of animals in research (the 3Rs), primarily through funding from UKRI for the National Centre for the 3Rs (NC3Rs). UKRI provide around £10 million funding per annum to the NC3Rs for research to develop 3Rs technologies.

The NC3Rs has committed to increase funding for technologies that replace the use of animals, including through their £4.7 million joint funding call with UKRI's Biotechnology and Biological Sciences Research Council for next generation non-animal technologies.

HC Deb 20 June 2023 | PQ 189016

- [Animal Experiments](#)

Asked by: Smith, Henry

To ask the Secretary of State for Science, Innovation and Technology, whether she will provide further funding to support the scientific community in transitioning from animal-based research to (a) organ-on-a-chip, (b) artificial intelligence and (c) other human-specific methodologies.

Answering member: Paul Scully | Department: Department for Science, Innovation and Technology

The Government is committed to the development of alternatives to using animals in scientific procedures and through UK Research and Innovation (UKRI) continues to provide core funding for the National Centre for 3Rs (NC3Rs), which works nationally and internationally to drive the uptake of non-animal technologies.

UKRI funds a portfolio of research projects involving humans, human materials, animal models, and non-animal technologies, including a joint £4.7 million joint funding call with the NC3Rs launched last year, focussed on

supporting next generation non-animal technologies, such as organ-on-a-chip.

HC Deb 14 June 2023 | PQ 187163

Drugs: Safety

Asked by: Cameron, Dr Lisa

To ask the Secretary of State for Health and Social Care, what steps he is taking to help facilitate collaboration between (a) the Medicines and Healthcare products Regulatory Agency and (b) biotechnology companies developing (i) organ-on-a-chip technologies and (ii) human-specific methods for assessing the safety of new drugs.

Answering member: Will Quince | Department: Department of Health and Social Care

The Medicines and Healthcare products Regulatory Agency (MHRA) is aware of organ-on-chip technologies to better identify potential toxicity of novel medicines and has engaged with other organisations active in this space such as the National Centre for the Replacement, Refinement & Reduction of Animals in Research who have hosted meetings on this theme. The MHRA has also provided scientific advice to at least one biotechnology company on the use of this technology to support proof of concept for a new medicine. The MHRA does not identify those with whom it may have had discussions for reasons of commercial sensitivity.

In relation to human specific methods, some medicines have been developed which only have activity in humans, such as eculizumab (Soliris), tebentafusp (Kimmtrak) or CAR T cell products (for instance, Kymriah, Yescarta and Tecartus). These medicines were developed using human specific methods; however, versions of these medicines that were active in animals were, in some cases, also used. The MHRA supports the developers of these products by its offer of scientific advice services, the Innovation Office and the Innovative Licensing and Access Pathway.

HC Deb 13 June 2023 | PQ 187728

Animal Experiments

Asked by: Maskell, Rachael

To ask the Secretary of State for Science, Innovation and Technology, with reference to the report of the National Centre for the Replacement, Refinement and Reduction of Animals in Research entitled The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs published in 2023, what steps she plans to make

research on the replacement, refinement and reduction of animals in research available to the research community.

To ask the Secretary of State for Science, Innovation and Technology, with reference to the report of the National Centre for the Replacement, Refinement and Reduction of Animals in Research entitled The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs published in 2023, whether she plans to take steps to support the formation of expert groups to (a) review and (b) publish analysis of research on the replacement, refinement and reduction of animals in research.

Answering member: Paul Scully | Department: Department for Science, Innovation and Technology

The Government is currently considering the independent report of February 2023, commissioned by the National Centre for the Replacement, Refinement and Reduction of Animals in Research. The Government supports and funds the dissemination of the 3Rs (replacement, reduction and refinement) through UK Research and Innovation's funding of the National Centre for the 3Rs, which works nationally and internationally to drive the uptake of non-animal technologies, and through research into the development of alternatives by Innovate UK, the Medical Research Council, and the Biotechnology and Biological Sciences Research Council.

HC Deb 09 June 2023 | PQ 186916; PQ 186919

[Animal Experiments](#)

Asked by: Maskell, Rachael

To ask the Secretary of State for Science, Innovation and Technology, with reference to the report of the National Centre for the Replacement, Refinement and Reduction of Animals in Research entitled The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs published in 2023, whether she plans to make additional funding available to UK Research and Innovation grant holders to support the validation of replacement technologies for animal testing.

Answering member: Paul Scully | Department: Department for Science, Innovation and Technology

The Government is committed to the development of alternatives to using animals in scientific procedures and continues to actively support and fund the development and dissemination of the 3Rs (replacement, reduction and refinement) for the use of animals in scientific procedures. This is achieved through UK Research and Innovation's funding of the National Centre for the 3Rs, which works nationally and internationally to drive the uptake of non-animal technologies, and through research into the development of alternatives by Innovate UK, the Medical Research Council, and the

Biotechnology and Biological Sciences Research Council. There are currently no plans to make additional funding for validation available.

HC Deb 09 June 2023 | PQ 186918

Animal Experiments

Asked by: Maskell, Rachael

To ask the Secretary of State for Science, Innovation and Technology, with reference to the report of the National Centre for the Replacement, Refinement and Reduction of Animals in Research entitled The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs published in 2023, what steps she plans to take to ensure that research projects funded by UK Research and Innovation do not use animals where replacement technologies could be used in their place.

Answering member: Paul Scully | Department: Department for Science, Innovation and Technology

The Government is considering the independent report of February 2023, commissioned by the National Centre for the Replacement, Refinement and Reduction of Animals in Research.

All research projects funded by UKRI undergo rigorous peer review which is expected to identify animal alternatives if they exist. Any project involving animals will also be required to go through the processes required by the Home Office.

HC Deb 09 June 2023 | PQ 186917

Artificial Intelligence and Life Sciences: Research

Asked by: Hardy, Emma

To ask the Secretary of State for Science, Innovation and Technology, whether she is taking steps to support research and development into (a) advanced cultures of human cells and tissues, (b) organ-on-a-chip technology and (c) artificial intelligence.

Answering member: Paul Scully | Department: Department for Science, Innovation and Technology

UK Research and Innovation (UKRI) funds a portfolio of research involving humans, human materials, animal models, and non-animal technologies. This includes a recent £5 million investment by UKRI's Medical Research Council in two new platforms as part of a human nervous tissue resources call; and a £4.7 million joint funding call by UKRI's Biotechnology and Biological Sciences Research Council (BBSRC) and the National Centre for the

Replacement, Refinement and Reduction of Animals in Research focussed on supporting next generation non-animal technologies, such as organ-on-a-chip.

This complements work by UKRI including £1.6 million support for an AI in bioscience network.

HC Deb 08 June 2023 | PQ 187868

[Science: Finance](#)

Asked by: Hobhouse, Wera

To ask the Secretary of State for Science, Innovation and Technology, whether her Department is taking steps to increase funding for (a) projects that involve the sophisticated use of human cells and tissues, (b) organ-on-a-chip technology, (c) (i) electroencephalography and (ii) other non-invasive approaches to recording brain activity and (d) other human-specific research into mental health disorders.

Answering member: George Freeman | Department: Department for Science, Innovation and Technology

UK Research and Innovation (UKRI) funds a portfolio of research projects involving humans, human materials, animal models, and non-animal technologies. For example, last year their Biotechnology and Biological Sciences Research Council and the National Centre for the Replacement, Refinement and Reduction of Animals in Research launched a £4.7 million joint funding call focussed on supporting next generation non-animal technologies, such as organ-on-a-chip.

UKRI also funds a significant amount of research into non-invasive neuroimaging to advance our understanding of human brain and mental health. For instance, since 2010 their Medical Research Council has invested £3.8 million into non-invasive neuroimaging in mental health research.

HC Deb 08 March 2023 | PQ 156212

- [Animal Experiments](#)

Asked by: Gibson, Peter

To ask the Secretary of State for Environment, Food and Rural Affairs, whether her Department is taking steps to end animal testing in the UK.

Answering member: Rebecca Pow | Department: Department for Environment, Food and Rural Affairs

The Home Office Regulator will only grant licences to use animals in science where there are no alternatives, where the number of animals used is the minimum needed to achieve the scientific benefit, and where the potential harm to animals is limited to that needed to achieve the scientific benefit.

The Government is supporting and accelerating advances in biomedical science and technologies to reduce reliance on the use of animals in research. UK Research and Innovation provides core funding for the National Centre for the Replacement, Refinement, and Reduction of Animals in Research (NC3Rs), which works to drive the uptake of new methodologies, including alternatives to animals.

The Government is committed to the development of alternatives to using animals in scientific procedures and continues to actively support and fund the development and dissemination of the 3Rs (replacement, reduction and refinement) for the use of animals in scientific procedures. This is achieved through UK Research and Innovation (UKRI)'s funding of the National Centre for the 3Rs, which works nationally and internationally to drive the uptake of non-animal technologies, and through research into the development of alternatives by UKRI.

HC Deb 21 February 2023 | PQ 143870

[Animal Experiments](#)

Asked by: Sharma, Mr Virendra

To ask the Secretary of State for Science, Innovation and Technology, what steps she is taking to help ensure that the UK is a global leader in the use of non-animal technologies and approaches in scientific research.

Answering member: George Freeman | Department: Department for Science, Innovation and Technology

The Government is committed to the development of alternatives to using animals in scientific procedures and through UK Research and Innovation (UKRI) provides core funding for the National Centre for 3Rs (replacement, reduction and refinement) (NC3Rs), which works nationally and internationally to drive the uptake of non-animal technologies. The UK has a world leading reputation for the delivery of the 3Rs principles and the NC3Rs is widely recognised as being world leading, supporting research and innovation that provides researchers in academia and industry with technologies that are more predictive, cost-effective and humane than current animal models.

HC Deb 21 February 2023 | PQ 142651

[Animal Experiments](#)

Asked by: Smith, Henry

To ask the Secretary of State for Science, Innovation and Technology, what steps his Department is taking to support innovation in developing new non-animal technologies and approaches in science.

Answering member: George Freeman | Department: Department for Science, Innovation and Technology

The Government is committed to the development of alternatives to using animals in scientific procedures and through UK Research and Innovation (UKRI) funds the National Centre for the 3Rs (NC3Rs), which works to drive the uptake of non-animal technologies.

The NC3Rs, UKRI and the Defence Science and Technology Laboratory have developed a Non-Animal Technologies Roadmap setting out a 2030 vision and strategy for how non-animal technologies could be used to replace the use of animals in research across a number of sectors. The NC3Rs also has set out its strategy to increase the focus on animal replacement technologies.

HC Deb 15 February 2023 | PQ 141449

- [Animal Experiments: Licensing](#)

Asked by: Carden, Dan

To ask the Secretary of State for the Home Department, what steps her Department is taking to ensure that (a) new approach methodologies and (b) non-animal methods are considered as part of the licence approval process for animal use in science.

Answering member: Miss Sarah Dines | Department: Home Office

The Home Office Regulator will only grant licences to use animals in science where there are no alternatives, where the number of animals used is the minimum needed to achieve the scientific benefit, and where the potential harm to animals is limited to that needed to achieve the scientific benefit. Applicants seeking a licence are required to robustly evidence their consideration of alternative methods.

The Government is supporting and accelerating advances in biomedical science and technologies to reduce reliance on the use of animals in research. UK Research and Innovation provides core funding for the National Centre for the Replacement, Refinement, and Reduction of Animals in Research (NC3Rs), which works to drive the uptake of new methodologies, including alternatives to animals.

The Government has no plans to establish an independent committee to review project licence applications.

