**Joint NIHR Oxford-Sheffield Biomedical Research Centre Pump-priming scheme for Vaccine Research – Guidance notes**

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| **Quick summary**   * Pump priming funds are available both for collaborative projects (Oxford-Sheffield), and projects with Oxford investigators only. * Two categories of funding are available based on project size: smaller awards (up to £10,000) and larger awards (up to £20,000). * Deadline for applications **10th October 2024**. Funds awarded must be spent between April 2025 and March 2026. * Early career researchers based in any Oxford/Sheffield university department are eligible. * Collaborative projects must be focussed on an area of shared interest between the Oxford and Sheffield BRCs. * Oxford-only projects must align with one of the subthemes of the Oxford BRC Life-saving Vaccines theme. |

**The Oxford BRC Life-saving Vaccines theme**

The [NIHR Oxford Biomedical Research Centre (BRC)](https://oxfordbrc.nihr.ac.uk/about-us-intro/) is a collaboration between the University of Oxford and Oxford University Hospitals (OUH) NHS Foundation Trust to support translational research aimed at generating breakthroughs which benefit patients, improve care by the NHS, and support the wider economy. Vaccine research has been an Oxford BRC theme since inception of the BRC in 2007. In the current round of BRC funding (Dec 2022 – Nov 2027) the [vaccines theme](https://oxfordbrc.nihr.ac.uk/research-themes/life-saving-vaccines/) is comprised of subthemes focussed on:

* Outbreak pathogens – led by Professor Sarah Gilbert and Professor Teresa Lambe
* Enteric vaccines - led by Professor Maheshi Ramasamy
* ‘The big three’ (TB, malaria and HIV) - led by Professor Simon Draper
* Childhood/pregnancy/perinatal vaccines - led by Dr Simon Drysdale
* Vaccines in chronic disease and ageing - led by Professor John Frater and Professor Susanna Dunachie

Contributing to the theme is underpinning expertise in vaccine immunology, human infection challenge models, manufacturing and public engagement.

**Vaccine-related research in the Sheffield BRC**

The NIHR Sheffield BRC is a partnership between the University of Sheffield and Sheffield Teaching Hospitals NHS Foundation Trust which aims to bridge the gap between new discoveries and development of treatments, diagnostics, medical technologies and policy changes. The [Infection and Immunity theme](https://www.sheffieldbrc.nihr.ac.uk/our-research/infection-immunity) was introduced in 2022 (more information [here](https://www.sheffield.ac.uk/smph/research/themes/infection-and-immunity) on the School of Medicine and Population Health website). Vaccine-related research is embedded across all three subthemes:

* Infection and immunodeficiency – led by Professor John Snowden and Professor Thushan de Silva
* Infection and inflammation – led by Professor Stephen Renshaw and Dr Simon Danby
* Combatting Pathogen resistance and escape – led by Professor Simon Foster and Dr Tom Darton

**Shared interests between the Oxford and Sheffield BRCs**

The Oxford and Sheffield BRCs have many areas of shared interest in the area of vaccines, in particular vaccines for malaria, typhoid and respiratory infections, human challenge studies, applied immunology, and vaccines in underserved communities.

Examples of recently funded pump-priming projects in Oxford, for example include (i) studying the effects of paratyphoid vaccination and infection on microbiome in a controlled human infection model (ii) applying sieve analysis to study evolution of the SARS-CoV-2 virus in nasopharyngeal swab samples from a phase III vaccine trial, and (iii) investigating whether an immune competence score based on serum protein concentrations prior to vaccination can predict vaccine responsiveness.

Examples of recently funded pump-priming rounds in Sheffield, for example, include: (i) collection of induced sputum samples to investigate the lower-respiratory tract microbiome and innate immune responses in community-acquired pneumonia, (ii) optimisation of long-read sequencing approaches to analyse the skin microbiome in patients with skin and soft tissue infection, (iii) development of spectral flow-cytometry approaches to evaluate immunogenicity of malaria vaccines.

If you have an idea but are not sure who to approach or how to go about setting up links, please contact [jennifer.hill@ndm.ox.ac.uk](mailto:jennifer.hill@ndm.ox.ac.uk) / Tom Darton ([t.darton@sheffield.ac.uk](mailto:t.darton@sheffield.ac.uk)) who can link you to potential collaborators at each institution. There are also opportunities to join in-person or hybrid group meetings in Sheffield (for example the Clinical Infection Research Group) and Oxford (for example the Oxford Vaccine Group lab meeting) to discuss ideas and, subsequently, present preliminary findings.

**Pump priming awards**

While the primary function of BRC funding is to support infrastructure for clinical research, funding may also be used to meet costs of research into fundamental mechanisms of pathophysiology or disease, or to demonstrate proof-of-concept or the validity of new experimental designs or approaches. Building on a pump priming award scheme initiated by the Oxford BRC Vaccines theme in 2023, awards will be available in year three of the current BRC funding period to support both collaborative projects, bringing together researchers based at the Oxford and Sheffield BRCs to carry out a project in an area of shared interest, and Oxford-only projects. Funding has been allocated for small projects with up to £10,000 available, and larger projects up to a limit of £20,000.

To qualify, collaborative projects must be led by early career researchers at Oxford and Sheffield Universities in partnership, be focused on an area of shared interest between the Oxford and Sheffield BRCs, and funds must be spent within a 1-year period, with a final project report due 3 months after the budget period.

To qualify, Oxford-only projects must be led by an early career researcher at Oxford University, sit within one of the subthemes or areas of underpinning expertise listed above, and funds must be spent within a 1-year period.

Examples of potential projects types include:

* applying an analytical technique to previously collected samples from a vaccine study to explore underlying immunology/biology,
* performing additional analyses of existing sequencing datasets,
* or a qualitative research study exploring perceptions to a vaccine-related topic in a specific population group of interest.

Projects should aim to generate preliminary data which could lead to a future application for more substantial funding.

**Eligibility and eligible costs**

NIHR BRC funding is aimed at early translational and experimental medicine research. Research requiring the use of animal models or tissues is not eligible. Applicants need not be current recipients of BRC funding. Applications from researchers based in all University of Oxford departments are welcomed, however Oxford Vaccine Group, the Jenner Institute and Experimental Medicine are the three units funded in the BRC vaccines theme and project selection will take this into account, aiming to achieve balance between the units over time.

Applicants for the pump-priming awards should be early career researchers, for example PhD students, post-doctoral researchers, and academic clinical lecturers. The project must be supported by a subtheme lead within the Oxford BRC Life-saving vaccines theme (collaborative and Oxford-only projects), and for collaborative projects also by a subtheme lead in the Sheffield BRC Infection and Immunity theme.

Consumables, equipment (up to £5,000), staff salaries and travel and subsistence for visits between Oxford and Sheffield are all eligible costs. Stipends or salaries for PhD students are not eligible for pump priming funding.

**How to apply**

Applicants are requested to complete a brief application form and submit a 2-page CV (lead and co-applicants). Applications should be sent to both jennifer.hill@ndm.ox.ac.ukand parvinder.aley@paediatrics.ox.ac.uk by 5pm on Thursday 10th October 2024.

**Selection criteria**

Applications will be judged by a panel representing the Oxford and Sheffield vaccines/infection and immunity themes and assessed according to the following criteria:

* Is the proposed project within the scope of NIHR BRC funding (supporting innovate early translational and experimental medicine research), and fitting within one of the five vaccines theme subthemes or areas of underpinning expertise?
* Is the proposed project original and likely to generate novel insights?
* Is the project plan realistic with measurable deliverables? Are risks suitably addressed?
* Is the project likely to generate findings which could underpin a future expansion of the project or a new line of enquiry?

**Conditions**

Applicants will be notified of the outcome by the 6th of December 2024. The award funds will be available for the 12 months from 1/04/25 to 31/03/26 and must be spent completely within this year, no-cost extensions cannot be considered. Awardees will be requested to provide regular updates on spending including plans to ensure completion by the 31st March 2025. Awardees will be expected to submit a report on their pump priming project within 3 months of the award period.

**Timelines**

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| Application deadline | 10th October 2024 |
| Awardees announced | 6th December 2024 |
| Award period | 1st April 2025 – 31st March 2026 |
| Deadline for project report | 30th June 2026 |