



Academic Feasibility Study – Invitation to submit proposals

Introduction

The Future Targeted Healthcare Manufacturing Hub is a 7 year £10m UKRI-EPSC investment under the Manufacturing the Future theme. The Future Manufacturing Hubs were created to support the commercialisation of early-stage research opportunities in emerging areas, and to help manufacturing industries respond to future opportunities and drivers, thus contributing to a prosperous UK. A key characteristic of the Hub model is that the research is driven by the long-term research challenges of commercial stakeholders in the sector.

The Hub's academic team is based across six leading universities and eight university schools and departments; UCL (Lead), Imperial, Loughborough, Manchester, Nottingham and Warwick. The Hub is supported by over 40 partnering companies and organisations with interests in the sector.

Mission

By 2025 targeted biological medicines will transform the precision of healthcare prescription, improve patient care and quality of life. The current “one-size-fits-all” approach to drug development is being challenged by the growing ability to create stratified and personalised medicines targeted to specific sub-populations and even individuals. Without significant manufacturing and supply innovations, the promise of targeted healthcare will remain inaccessible for many. The impact on health and well-being is profound. Our mission is to act as a national network to take the UK forward to a world-leading position for manufacture in the targeted healthcare sector.

Vision

1. **To enable the creation, delivery and dissemination of innovative manufacturing research**, underpinning cost-effective, robust manufacture, supply and delivery of targeted biotherapeutics.
2. **To provide the manufacturing infrastructure and capabilities** needed to enable UK manufacturers to exploit advances in precision medicine, through new technologies, skilled personnel, IP and spin-outs.
3. **To enhance UK competitiveness** in this new era with a programme of Grand Challenges that create and combine decisional tools and manufacturing innovations.



Eligibility and Remit

UKRI-eligible academic researchers are invited to submit proposals for feasibility studies that test or demonstrate the potential of new approaches, tools, technologies, analytics, data analysis and management, or process operations, or activities that broaden the impact of current work into new areas. These could be aimed at bridging PhD students that have just submitted, to capitalise on their recent work, or it might provide an extension or buy-out time of existing RAs. These could also be used to enable secondments of PDRAs into or out of the Hub to bring new learnings or techniques.

Funding can be used to support recently submitted PhD students when studentship funding has come to an end, PDRAs, RAs, staff, or technicians within the host Institutions, who are not already funded by the Hub.

Studies should fit the remit and vision of the Hub, including strategic areas identified recently by the User Steering Committee. This collective Hub remit is in the biological manufacture and formulation of biologics used as therapies, which include: ATMPs (e.g. CAR-T, cell therapies, Viral Vectors), nucleic-acid gene therapies (mRNA, siRNA etc), proteins, ADCs, peptides, exosomes. Aspects of their manufacture and formulations can span a range of technologies, for example those in the table below:

Analytics, Characterisation	Decisional Tools: Cost of Goods	Health Policy Innovation
Cell-Free Synthesis	Decisional Tools: Supply Chain	Rapid Response
Formulation	Digital Methods	Regulatory Strategies
Data Mining, Process Control, PAT	Cell engineering	Scale-down, Microfluidics
Decisional Tools: Capacity Planning	Health Economics	Downstream processing

Successful projects are expected to generate tangible outputs that could include one or more of the following:

- a. Preliminary data that is then used to apply for further funding.
- b. Publication or white paper that demonstrates study results in a wider context.
- c. Proof-of-concept data that can be used to develop a business case.

The Hub will provide £20-45k in support, for projects of 3 to 6 months duration. Funds can be used to support Directly Incurred costs: salary (PhD students, staff, RAs, PDRAs or technicians), consumables and small travel items, but not overheads and estates costs. Funds awarded for salary costs can be used to support a full-time or part-time role. Costs should be calculated on the basis of full Economic Cost (fEC) and the Hub will provide funding at up to 100% fEC.

Projects can begin from November 2021 and must be able start by 31st March 2022 at the very latest.



Results from Feasibility Studies

On conclusion, each study will provide a high-level report to the Hub consortium outlining the potential of the technology or approach that has been investigated, and briefly outline the plan for future development. Funding will be released upon satisfactory receipt of this report.

Application Process

Academic Feasibility Studies are awarded competitively. Applications will be via a 1-stage process to facilitate a fast turnaround with submission of a detailed work plan for the study with milestones and deliverables (see proposal form). Applicants are responsible for completing institutional research risk assessments and, where necessary, ethics approvals.

Assessment Process

Allocation of resource to feasibility studies will be decided by a committee of Hub Executive Team members, addressing any institutional conflicts of interest where identified. Decisions will be based on the potential impact and assessed against the following criteria:

Section	Assessment Criteria
1. Eligibility (Y/N)	<ul style="list-style-type: none"> Does the proposal fit within the Hub remit, vision and objectives? Is the applicant eligible to hold an UKRI-EPSC grant? Is the project eligible?
2. Fit (scored)	<ul style="list-style-type: none"> Will the proposed project help the Hub to develop or explore new areas of potential strategic benefit to the programme?
3. Description (scored)	<ul style="list-style-type: none"> Is it really a feasibility study? Is this a truly novel and innovative approach, or an incremental improvement? Is there sufficient preliminary evidence to believe it could be applicable to biopharma?
4. Deliverables (scored)	<ul style="list-style-type: none"> Will the planned deliverables fully enable the future development plan? Are the deliverables achievable within the timescale of the project?
5. Host Environment (scored)	<ul style="list-style-type: none"> Does the applicant have facilities and resources to deliver? Does the applicant have relevant publications? Does the applicant have active research in this area? Is the applicant committing any additional funding or resources to the project?
6. Future Development (scored)	<ul style="list-style-type: none"> Is future research in this area likely to be fundable by EPSRC, BBSRC or other research funders? Is there potential for new collaborative grant proposals involving Hub/Spoke investigators?



Future Targeted Healthcare Manufacturing Hub Academic Feasibility Study Information

2021-22

Key Dates

Activity:	Date
Opening date	1 st June 2021
Closing date, application deadline	15 th September 2021, 17:00 UK time
Review and decisions (<i>by Hub panel</i>)	w/c 10 th October 2021
Projects can begin	from 1 st November 2021

Further information

For further information, clarifications and questions, please contact Eleanor Bonnist, Hub Project Manager: eleanor.bonnist@ucl.ac.uk