Collaborative PhD scholarship in Child Health Technology

Sheffield Children's NHS Foundation Trust and Sheffield Hallam University are inviting applications for a collaborative PhD scholarship in the area of Child Health Technology, to start October 2021 or February 2022. The scholarship is jointly funded by Sheffield Hallam University and The Children's Hospital Charity.

Our research areas

The focus of the call is for novel developments in Child Health Technology. This collaboration will enable the successful applicant to explore creative approaches to developing health technologies which directly address an identified clinical need and improve healthcare outcomes for patients.

We are inviting research proposals across all our areas of expertise in Child Health Technology. Possible areas of focus include (but are not limited to):

- 3D imaging technology
- Additive Manufacturing / 3D Printing
- Apps
- Artificial Intelligence / Machine Learning
- Assistive Technology
- Big Data
- Co-design and development of interventions
- Communication
- Cybersecurity
- Diagnostic Technologies
- Digital
- Lifestyle interventions
- Mobile Hardware / Software
- Novel treatments
- Robotics
- Sensors
- Telehealth
- Tissue Engineering
- Virtual Reality / Augmented Reality / Gamification
- Wearables

Developing your research proposal

It is expected that applicants will develop their own topics and research proposals, based on an understanding of current clinical issues and needs. Your research proposal should demonstrate that it aligns with national strategic priorities in child health and addresses an identified clinical need.

All projects will have joint academic and clinical supervision. You should contact potential supervisors at an early stage to discuss and develop your research ideas. You are encouraged to find out more about our staff and their current research to inform the development of your proposal. For the successful candidate, the full supervisory team will be confirmed as part of the recruitment and admissions process.

For information on potential clinical supervisors at Sheffield Children's NHS Foundation Trust, please contact Professor Paul Dimitri (Director of Research and Innovation; paul.dimitri@nhs.net) or Dr Gillian Gatenby (Associate Director of Research and Innovation, gillian.gatenby@nhs.net).

Information and contact details for potential academic supervisors at Sheffield Hallam can be found by browsing the relevant Research Centre pages and associated staff profiles. Areas with research expertise of particular relevance to this call are:

Advanced Wellbeing Research Centre | Sheffield Hallam University

Art, Design and Media Research Centre | Sheffield Hallam University

Biomolecular Sciences Research Centre | Sheffield Hallam University

Centre of Behavioural Science and Applied Psychology | Sheffield Hallam University

Department of Computing | Sheffield Hallam University

<u>Lab4Living | Design and Health & Well-being | Sheffield Hallam University</u>

Materials and Engineering Research Institute | Sheffield Hallam University

Sport and Physical Activity Research Centre | Sheffield Hallam University

Or you can find a list of all our research areas on our website: <u>Research areas | Sheffield Hallam University</u>

If you need further advice, please contact the Doctoral School <u>doctoral school@shu.ac.uk</u> stating "SCH/SHU PhD scholarship enquiry" in the subject line of your email.

Eligibility

Applicants will need to fulfil the University's admissions requirements for research degrees including the necessary academic attainment and submission of a suitable research proposal, as well as any English language requirements where applicable.

- All applicants should hold a strong undergraduate degree (2.1 or above) and/or a relevant masters qualification (or expectation of the same).
- Scholarships are open to Home and International applicants. However, scholarships pay tuition fees at Home/UK levels only, and International students will be expected to provide the difference between the Home and International tuition fees from another funding source.
- Currently enrolled PhD students are not eligible to apply for these scholarships
- Members of the University's academic staff are not eligible to apply for these scholarships
- Students in full-time employment are not eligible for University scholarships that include a stipend.

How to apply

1. Find supervisors

You should contact potential supervisors at an early stage to discuss and develop your research ideas.

Potential academic supervisors at Sheffield Hallam can be found by browsing the relevant Research Centre or Institute pages (see 'Developing your research proposal' above).

For information on potential clinical supervisors at Sheffield Children's NHS Foundation Trust, please contact Professor Paul Dimitri (Director of Research and Innovation; paul.dimitri@nhs.net) or Dr Gillian Gatenby (Associate Director of Research and Innovation, gillian.gatenby@nhs.net).

2. Develop your research proposal

Once you have discussed you research idea you should produce a clear, detailed research proposal. You will need to evidence that you have an aptitude for doctoral level research, and that you can communicate your research ideas clearly and concisely.

Proposals should be up to 1500 words long and include:

- the potential supervisors at Sheffield Hallam University and Sheffield Children's NHS Foundation Trust
- an outline of the proposed research and the central questions, problems or hypothesis that you plan to address, including the alignment with national strategic priorities in child health and discussion of the clinical need for your project
- the current knowledge and context, referencing key background literature
- proposed methodology or approach, if known
- the potential significance or impact of the research, including the potential impact for SCH and/or its patients.

3. Submit your application

To consider your application, we will need

- a completed application form
- your research proposal, attached as a separate document (Word or PDF)
- two academic references (a reference form is included as part of the application form)
- copies of qualifications, certificates and/or results transcripts
- proof of English language ability where English is not your first language
- copies of your passport and any relevant visas for International applicants

The application form can be accessed via How to apply for a research degree | Sheffield Hallam University

You should submit your application via email to doctoralschool@shu.ac.uk by the closing date of 23:30 on 17 June 2021. Please state "SCH/SHU PhD scholarship application" in the subject field of your email. Please note we are unable to accept late applications.

Child Health Technology research

Sheffield Hallam University and Sheffield Children's NHS Foundation Trust have a history of successful research collaboration, including PhD research. Some examples of current collaborative research between Sheffield Hallam and Sheffield Children's NHS Foundation Trust can be found on our website: Developing new technology for Sheffield Children's Hospital | Sheffield Hallam University

Sheffield Children's NHS Foundation Trust

Research at Sheffield Children's NHS Foundation Trust covers a wide range of clinical specialties, working with some of the country's leading professionals in paediatric conditions. The Sheffield Children's Clinical Research Facility (CCRF) opened in 2008 and was the first paediatric clinical research facility in the UK. Our Directorate of Research and Innovation is a 'one stop shop' for research professionals, supporting both the set up and delivery of research running at the Trust. Currently we have over 300 research projects open in the Trust and these range from highly complex clinical trials of investigative medicinal products to small pilot studies. Last year over 1,700 patients and volunteers participated in research at our Trust, including nearly 1000 participants taking part in COVID-19 Urgent Public Health Research studies. The research conducted at the Trust is a mix of non-commercial and commercial funded research, which is supported by

the National Institute of Health Research (NIHR), charity funders and industry partners. Within our Clinical Research Facility we have a team of highly skilled research nurses, officers and data managers to support our research. We also have a team specialising in all aspects of research governance. We are keen to grow our own researchers and support those who are at the early stages of their clinical research careers. We believe our excellent research facilities offer researchers all that they may require to support their research ambitions and we aim to see research expand in all of our clinical specialties.

Research - Sheffield Children's NHS Foundation Trust

Sheffield Children's NHS FT hosts the NIHR Children and Young People MedTech Co-operative (NIHR CYP MedTech) and the National TITCH (Technology Innovation Transforming Child Health) network. These child health technology networks have been established to support the development and spread of child health technology through partnership across the clinical, academic and private sector. NIHR CYP MedTech and TITCH has successfully supported funding calls, worked with SMEs to bring technology to the NHS and identified unmet needs leading to technology areas in key field of paediatrics and child health. The Cooperative organised the first Child Health Technology Conference in March 2021, with presentations, seminars and demonstrations on a range of areas relating to child health technology.

The proposed National Centre for Child Health Technology will bring together experts in health, academia and industry to develop cutting edge technologies that will deliver the world's most advanced healthcare for children.

NIHR CYP MedTech – NIHR Children and Young People MedTech Co-operative

TITCH Network

<u>Child Health Technology Conference 2021 – NIHR CYP MedTech</u>

National Centre for Child Health Technology (CCHT) - Sheffield Olympic Legacy Park

Sheffield Hallam University

We're one of the leading new universities in the UK for research, with an international reputation in areas such as materials science, art and design, sports science and engineering, biomedicine, and economic and social research. Each of our four research institutes supports several specialist centres, as well as research within specific academic departments. In the Research Excellence Framework (REF) 2014, 65% of the research submitted by Sheffield Hallam was rated world-leading or internationally excellent. Our work is driven by a community of passionate researchers and a leadership team with experience across industry, government and higher education.

Our research in the area of child health encompasses a range of disciplines and approaches, spanning engineering; materials science; biomolecular sciences and tissue engineering; design and co-design methodologies; the use and development of digital media and gaming applications for clinical applications; qualitative and quantitative approaches to understanding the patient experience; physical activity, exercise science and lifestyle interventions; and health and social care.

Examples of our work on healthcare technologies are available on our website: <u>Case studies - Healthcare</u> Technologies | Sheffield Hallam University

About these scholarships

Scholarships are available for 3 years of full-time or 5 years of part-time study.

The PhD scholarship will provide you with:

- University tuition fees at Home levels. Note that the scholarship covers tuition fees at Home levels
 only, and if you are liable to pay tuition fees at the International rate you will be expected to pay
 the difference between the Home and International fees yourself (or from another funding
 source).
- An annual maintenance stipend at standard UKRI national minimum doctoral stipend rates
 (£15,609 per annum for 2021/22 full-time study; £7,805 per annum for part-time). The stipend is
 paid to you on a monthly basis as a tax-free bursary and is intended to cover basic living costs to
 enable you to undertake your studies.
- Project expenses and costs as agreed as part of the admissions process, although the successful applicant will be encouraged to seek additional funding from other sources to support the costs of the research project (e.g. project consumables).

PhD researchers will be registered for a PhD at Sheffield Hallam University and will be expected to be based in Sheffield. Researchers will be supported by a supervisory team comprising academic and clinical supervisors from both institutions. Alongside furthering your knowledge and expertise in your chosen field, as a PhD researcher you will develop core research skills including understanding of methodologies; literature review and critical appraisal; data analysis and management; research integrity and ethical research practice; and dissemination skills including writing, presentation and public engagement.

The Conditions of Award for University Scholarships from Sheffield Hallam University are available on our website: University scholarships | Sheffield Hallam University

Selection process

Applications will be reviewed by a joint SCH-SHU panel, and shortlisted candidates invited to interview.

Interviews will take place via videoconferencing; it is anticipated that these will be held week commencing 19 July 2021.

Candidates will be asked to deliver a 10-minute presentation on their research proposal, followed by an interview.