

Postdoctoral Excellence Programme (PEP)

The Botnar Research Centre for Child Health

The Botnar Research Centre for Child Health (BRCCH) leads scientifically outstanding and innovative research in improving the health and well-being of children and adolescents worldwide. The Centre's goal is to become a leading hub for interdisciplinary and step-changing solutions to advancing paediatric medicine and to solving challenges in global paediatric health, particularly in low- and middle-income countries (LMICs). The BRCCH works in partnership with the University of Basel, ETH Zurich, the University Children's Hospital Basel (UKBB) and the Swiss Tropical and Public Health Institute (Swiss TPH).

Postdoctoral Excellence Programme (PEP)

The aim of the Postdoctoral Excellence Programme (PEP) is to foster the next generation of scientists who will lead interdisciplinary and step-changing approaches to address critical unmet needs and challenges in global paediatric medicine and health. This Call is open to eligible "Host Principal Investigators" with highly translational and ambitious proposals that they wish to bring to life together with a highly talented and aspiring Postdoctoral Fellow.

PEP supports 3-year research projects led by a postdoctoral scientist with up to 350,000 CHF in funding per award (the final allocated budget will be based on the employment and salary regulations for postdoctoral researchers at the respective BRCCH host institution). All submitted applications are expected to meet the eligibility and scope criteria of the Call and eligible applications will undergo an external peer-review process involving the Centre's Project Evaluation Board.

The key dates for the 2020 PEP Call:

1. Launch of the Call: **October 14th, 2020**
2. Application submission deadline: **January 13th, 2021 @ 17:00 CET**
3. Communication of grant awards: **Spring 2021** (exact date to be communicated in early 2021)
4. Awarded projects can be launched in **Summer 2021** (exact date to be communicated with grant awards)

Only Host Principal Investigators who hold a primary affiliation with the BRCCH partner institutions are eligible to apply and both Swiss-based and international Postdoctoral Fellows are welcome. Only applications in which a Postdoctoral Fellow has already been identified will

be considered for peer-review. Further details on the eligibility conditions for Host Principal Investigators and Postdoctoral Fellows can be found below.

Research proposals are expected to be scientifically outstanding, highly translational and relevant to BRCCH's mission to deliver the best science to those most in need.

Research proposals are required to align with the scope of at least one of the following research areas:

1. Paediatric Digital Health

This research area seeks projects focused on developing innovative and scalable digital health approaches that address key challenges and unmet needs in global paediatric health and medicine. We welcome projects involving eHealth, mHealth, Big Data, AI and computational-based approaches that will lead to improved health and well-being for children. Topics of interest, with a particular focus on applicability and relevance for LMIC settings, include but are not restricted to:

- Novel digital health interventions for paediatric patients.
- Advanced computational and Big Data approaches to disease prediction, management or prevention in children & adolescents.
- Improved paediatric healthcare delivery and access through digital tools.
- Digital tools to support clinical and caregiver decision-making.
- Computational tools for advancing paediatric clinical trial design & implementation.

2. Advanced Bioengineering for Paediatric Medicine

This research area welcomes novel biomedical, biotechnology and systems biology approaches that will significantly advance paediatric medicine. Technologies that will lead to novel medical interventions and diagnostic tools for conditions that cause significant disease burden in children and/or adolescents in the Global South are highly sought. Similarly, approaches that have strong potential for use and scale-up in LMIC settings are of interest.

Topics of interest, with a specific focus on paediatrics, include but are not restricted to:

- Molecular biotherapeutics and drug delivery systems.
- Biodiagnostic platforms and technologies.
- Novel vaccine technologies.
- Bioengineering approaches for enabling functional repair.
- Regenerative medicine approaches suitable for low-income settings.

Projects with a strong translational focus and that involve studies that will be conducted in a clinical or public health setting are of particular interest. Proposals solely focused on *in vitro*-based and small animal studies will not be considered.

3. Essential Paediatric Medical Devices

This research area welcomes projects focused on developing medical devices/technologies that are tailored to improving the diagnosis, treatment and management of diseases affecting children and/or adolescents. Projects focused on developing robust, low-cost medical technologies that can be directly applied in LMICs are of particular interest.

Topics of interest include but are not restricted to:

- Innovative devices for treatment & management of acute and chronic paediatric diseases.
- Point-of-care / point-of need diagnostic devices.
- Technologies for paediatric critical and emergency care.
- Advanced technologies in paediatric rehabilitation and surgery.

Projects involving technologies that have reached proof-of-concept stage or beyond are particularly sought.

4. Ethics, Policy and Implementation Research in Paediatric Health

This research area welcomes innovative projects focused on addressing outstanding ethical, regulatory and economic challenges associated with paediatric health interventions. It also aims to address how these factors influence the implementation and uptake of interventions in different settings (e.g. countries located in the Global North versus the Global South).

Topics of interest include but are not restricted to:

- Ethics of paediatric digital health interventions – from the perspective of the patient, clinician and/or caregiver.
- Ethics of paediatric clinical trials, with a particular focus on new and emerging intervention strategies and on trials conducted in LMIC settings.
- Novel approaches to economic evaluation of paediatric health interventions in different settings (e.g. varying socio-economic conditions, health care system structures).
- Innovative strategies to assess cost-effectiveness and feasibility of implementing interventions at-scale in various settings as above.

Please note, the BRCCH previously launched a biomedical research-oriented Call for COVID-19 research. Proposals related to COVID-19 will therefore only be considered in the focal area "Ethics, Policy and Implementation Research in Paediatric Health".

Application Requirements

- Applicants (i.e. Host Principal Investigators) will be required to submit a written application encompassing a detailed research proposal, relevance of the project to the Call's scope, strategy plan for translation to the clinic / public health setting within a realistic time frame and importance of the project for LMICs.
- The Call welcomes applications in the following research areas as described above:
 - Paediatric Digital Health
 - Advanced Bioengineering for Paediatric Medicine
 - Essential Paediatric Medical Devices
 - Ethics, Policy and Implementation Research in Paediatric Health
- Applications must provide a strong rationale for the project's potential for translation and adoption into medical practice or in a public health setting.
- Projects with a clear path to application and implementation in LMICs are of particular interest to the BRCCH.
- PEP research projects are intended to be 3-years in duration, with up to 350,000 CHF in funding per award. Research proposals that are less, or more than, 3 years in duration will not be considered.
- Project funding must be used to support a research project that is intended to be conducted by a postdoctoral researcher. Host Principal Investigators are welcome to consider eligible Postdoctoral Fellows that are located nationally or internationally.
- **Applications need to be submitted by the Host Principal Investigator (Host PI).**
- The entire amount of a PEP grant will be allocated directly to the main Host PI to support his/her Postdoctoral Fellow.
- Only applications in which a Postdoctoral Fellow has already been identified will be considered for peer-review.
- The postdoctoral researcher will be required, for the duration of the PEP project, to be employed directly by the Host Principal Investigator and to hold a primary affiliation with one of the four BRCCH partner institutions (University of Basel, ETH Zurich, UKBB or Swiss TPH).
- Collaborative applications involving more than one Host PI are possible (e.g. involving a Co-Host Principal Investigator based abroad). However, this is on the condition that the main Host Principal Investigator holds a primary affiliation and in-house research activities within one of the four BRCCH partner institutions.
- In cases where research activities are proposed to be conducted abroad, it is essential to clarify the situation with the personnel department of your home institution (social security, accident insurance, etc.) at an early stage. Please contact the HR department responsible for your team.
- **Important note for current BRCCH consortia:** Awardees of previous BRCCH research initiatives (i.e. MIP 2019 and FTC Call for COVID-19) are only eligible to submit an

application if the aims and context of the proposed work are entirely independent of previously funded projects.

- **More information can be found online brc.ch/pep under the FAQs section**

Eligibility Conditions

Additional information can be found online brc.ch/pep under the FAQs section

1. Host Principal Investigator (Host PI)

- The Host PI is required to hold a primary affiliation and in-house research / laboratory activities within one of the four BRCCH partner institutions: University of Basel, ETH Zurich, UKBB and Swiss TPH. PIs affiliated outside of these institutions cannot be considered as a Host PI.
- The Host PI (e.g., group leader, professor) is required to hold his/her primary affiliation with one of the respective BRCCH partner institutions for the entire duration of the funding period.
- Non-tenure and tenure-track professors who wish to apply as Host PI are responsible for acquiring a Letter of Confirmation (see template) from their institution that confirms guarantee of their salary and access to the necessary infrastructure for the entire funding period of the PEP grant.
- An applicant can only submit one application as a Host PI.
- It is possible for an application to include a Co-Host Principal Investigator (Co-Host PI) who is based within the BRCCH partner institutions or at an external institution (including institutions abroad).
- In this case of an international Co-Host PI, the research proposal is required to provide detailed information on the aspects of the work that will be conducted within the BRCCH host institution and in the co-hosting institutions, as well as a description of the infrastructure, size and support that will be provided by the co-hosting laboratory based abroad.
- The Co-Host PI is also required to submit a Letter of Confirmation (see template) ensuring that adequate support, laboratory access and infrastructure will be provided to both the Co-Host PI and the Postdoctoral Fellow for the entire duration of his/her stay.
- If an application will involve a research stay abroad for the Postdoctoral Fellow, it is the sole responsibility of the Host Principal Investigator and the Postdoctoral Fellow to clarify the respective requirements (social security, accident insurance, visa requirements etc.) with the human resources department of his/her home institution at an early stage. Please contact the HR department responsible for your research group.

2. Postdoctoral Fellow

- Postdoctoral Fellows can be resident in Switzerland or abroad prior to the Call.
- Fellows are required to have a completed doctorate (PhD) or to reach completion within 3 months after notification of awarded funding, or to have completed medical training with a doctorate degree (MD).
- An applicant can only submit one application as a Postdoctoral Fellow. Postdoctoral Fellows that have completed their doctoral degree in the laboratory of the Host PI / Co-Host PI cannot be considered.
- Fellows are required to have no more than 3 years' postdoctoral experience in an academic or industry setting by the time of notification of awarded funding.
- For medical researchers, Fellows are required to have no more than six years' experience after the state examination by the time of notification of awarded funding.
- Postdoctoral Fellows will be required to hold primary employment within the research group of the Host PI for the entire duration of the project.

Financial Information

- The PEP initiative supports 3-year research projects with a total budget of approximately 350'000 CHF¹ and awarded funding will be provided in three annual tranches.
- Within this budget, up to 15'000 CHF per year will be provided to cover research expenses, including travel/mobility allowances and research cost contributions. The budget allocated for travel and research costs may not be used to cover salary costs, and vice versa.
- Awarded funding is intended to cover direct project costs, including the postdoctoral salary based on the regulations of the hosting partner institution (no overhead costs).
- The following costs **will not be covered** by the PEP initiative: indirect costs including overheads, major equipment and/or infrastructure.
- Progress of awarded research projects will be monitored, and written progress and financial reports will need to be submitted annually.
- The entire amount of a PEP grant will be allocated directly to the Host PI to support his/her Postdoctoral Fellow (e.g., funding may not be allocated to Co-Host PI).

Projects that use human samples, patient data or animal models will require the necessary ethical and legal approval by the responsible commissions. The BRCCH adheres to the respective regulations of the partner institutions.

¹ The final allocated budget will be based on the employment and salary regulations for postdoctoral researchers at the respective BRCCH host institution

More information can be found online brc.ch/pep under the FAQs section

How to Apply

The application needs to be submitted by the Host Principal Investigator affiliated with one of the BRCCH partner institutions.

Submit your application online using the application portal at <https://brcch.optimytool.ch/en/>.

You will be prompted to provide the following:

1. Cover page
2. Application including research proposal and budget overview
3. Host / Co-Host Principal Investigator details:
 - a. CV / biosketch and publications list
 - b. Letter of Confirmation from institutions of Host PIs and Co-Host PIs
4. Postdoctoral Fellow details:
 - a. CV and list of publications
 - b. 2-3 reference letters

PEP Grant Clinic

We are pleased to answer your questions via email or from November 3rd & 4th and December 7th-9th during PEP Grant Clinics via Zoom. Please fill out our [Calendly](#) to reserve a 30 minutes time-slot. Please request only one slot. You will then receive a confirmation email with a designated time-slot and a unique web-link to the Zoom meeting.

Contact

Please address your enquiries to contact@brc.ch.

Find more information about the Call on our website brc.ch/pep