

# Principal Investigator Initiative

## 2021 Call for Applications

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 that advance paediatric medicine and solve challenges in global paediatric health, particularly in low- and middle-income countries (LMICs). The BRCCH works in close 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).

The Principal Investigator Initiative (PII) aims to drive interdisciplinary research that addresses critical challenges in global paediatric health and medicine. The PII enables consortia-based projects with a concise focus led by Investigators based within the BRCCH partner institutions. The Call seeks translational research projects that deliver novel innovations across paediatric health diagnosis, disease treatment and prevention. The Call also welcomes projects that aim to advance the implementation and uptake of step-changing paediatric health interventions, particularly in LMICs.

The PII Call will support 4-year research projects with up to 1 million CHF in funding per award. Only Principal Investigators who hold a primary affiliation with the BRCCH partner institutions (University of Basel, ETH Zurich, UKBB and Swiss TPH) are eligible to apply as Investigators (Lead or Co-) on submitted applications. All applications are expected to meet the scope and eligibility requirements of the Call. Eligible applications will undergo a rigorous external peer-review process involving an international review panel.

### Key Dates for the 2021 Call:

1. Online Applications Clinic: Tuesday, August 24th 2021 @ 09:00-16:30 CET
2. Letter of Intent submission deadline: Friday, October 1st 2021 @ 17:00 CET
3. Application submission deadline: **Friday, November 5th 2021 @ 17:00 CET**
4. Communication of grant awards: April 2022

## Research Scope

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

Topics of interest, with a particular focus on 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, treatment or prevention.
- Improved paediatric healthcare delivery and access through digital tools.

### 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 LMICs 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.

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. 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.

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. resource-rich versus resource-limited countries).

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 socio-economic evaluation that assess the sustainability of economic costs of implementation and the scale-up of paediatric health interventions in different settings.

**Please note, since the BRCCH previously launched a Call in 2020 specifically enabling COVID-19 research, COVID-19 related proposals will not be considered in the PII Call.**

## Application Requirements

- PII research projects are intended to be 4-years in duration, with up to 1 million CHF in funding per award.
- Applications are required to be led by at least one Investigator (tenured, tenure-track or non-tenure) from one of the four partner institutions: University of Basel (UniBas), ETH Zurich (ETHZ), University Children's Hospital of Basel (UKBB) and Swiss Tropical and Public Health Institute (Swiss TPH). Cross-institutional and multi-disciplinary consortia are strongly encouraged. Applications involving one sole Investigator (i.e. without Co-Investigators and/or Collaborators) need to provide written justification for this decision.
- Applications can include Collaborators based within the BRCCH partner institutions and/or external organisations. Such organisations include Swiss and international institutions, hospitals and/or industry/start-up partners. In such cases, research contracts will need to be developed with the support of Unictetra and/or ETH transfer for approved projects.
- Applicants will be required to submit a written application encompassing a detailed research proposal, relevance of the project to the remit of the BRCCH and the Call's scope, strategy plan for translation to the clinic/public health setting within a realistic timeframe and importance of the project for LMICs.
- The research proposal must clearly define the unique contributions brought by each co-applicant involved in the project and to provide detailed information on the aspects of the work that will be conducted within the respective institutions.
- Submitted PII applications will need to align closely with the BRCCH's remit to be considered for funding. The Call welcomes applications in the following research areas as described above:
  - Paediatric Digital Health
  - Advanced Bioengineering for Paediatric Medicine
  - 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.

- Collaborative efforts with researchers in LMICs are highly encouraged. Projects with a clear and genuine path, or realistic potential, for translation and uptake in LMICs will be given priority for funding.
- Applications need to be submitted by the Lead Principal Investigator via the [BRCCH grant management system](#). PII funding will be allocated directly to the Lead Principal Investigator and Co-Investigators (if applicable).
- 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, FTC for COVID-19, and PEP 2020) are only eligible to submit an application if the aims and context of the proposed work are entirely independent of previously funded projects.

## Eligibility Requirements

### 1. Principal Investigator (PI)

- PIs (Investigator and Co-Investigator) are 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 designated Investigator on a project application.
- A PI is required to be an experienced senior researcher (e.g. independent group leader, professor) and to be affiliated with the respective BRCCH partner institution for the entire duration of the funding period. Salaries of Investigators and Co-Investigators need to be ensured for funding to be awarded, and cannot be covered by PII project funding.
- Consortia are expected to designate one Investigator as the project lead (e.g. for reporting requirements). Further Co-Investigators from the four BRCCH partner institutions are welcome.
- An applicant can only submit one application as an Investigator (Lead or Co-Investigator).

- Successful applicants (Investigators and Co-Investigators) are responsible for acquiring a letter of confirmation from their institution(s) that confirms guarantee of their salary and access to the necessary infrastructure for the entire funding period of the PII grant. **Important Note:** Successful applicants will be notified by the BRCCH prior to receipt of awarded funding to request letter submission.

## 2. Collaborator

- A collaborator is expected to provide a defined scientific contribution and to enable the consortium to deliver impact. These contributions need to be essential for the overall success of the project (i.e. if one were to remove the collaborator in mind, the project would either be seriously weakened or not viable).
- The costs generated by Collaborators must be of minor significance, compared to the overall budget. In general, these costs should not exceed 10%.
- Collaborators can be affiliated with external organisations other than UniBas and ETHZ, including Swiss and international institutions, hospitals and/or industry partners.
- Collaborators do not necessarily need to have a permanent contract with UniBas (including hospitals and Swiss TPH) or ETHZ.
- An applicant may be listed as a collaborator on more than one PII application.

## Financial Information

- Applicants can request up to 1,000,000 CHF in funding per project. BRCCH reserves the right to adjust allocated funding budgets.
- Eligible costs that are covered by awarded funding are: Direct project costs including personnel salaries according the guidelines of the four BRCCH partner institutions, consumables, fee-for-service infrastructure use, software and computing resources, costs for materials of enduring value where justified, field expenses, travel costs and third-party charges.
- Ineligible costs that are not covered by awarded funding are:
  - Costs related to the employment of Investigators and Co-Investigators at the four partner institutions.
  - Costs related to the employment of Collaborators and their personnel.
  - Indirect costs such as, but not limited to, HR expenses, infrastructure, overheads including space charges, administration and costs that would exist whether or not the submitted project occurs.
- In general, the budget should proportionally reflect the scientific contributions of each Investigator and Collaborator. All costs must be justifiable against the scope of the project and be auditable/traceable.
- The main budget must be dedicated to research activities at the four BRCCH partner institutions.
- Up to 10% of the total requested budget can be allocated to Collaborators. This applies to Collaborators based within the BRCCH partner institutions, external academic institutions, industry and other external organisations.
- Collaborators will be able to invoice eligible project costs related to the designated Investigator (Lead or Co-Investigator). The budget-share for each Collaborator must be indicated in the detailed project budget.
- If external collaborators (national or international) will be involved in the project, research contracts will need to be developed with the technology transfer offices of UniBas/ETHZ.

## PII 2021 Call in Brief

- The PII supports 4-year research projects with up to 1 million CHF in funding.
- Researchers are eligible to submit only one PII application as an Investigator (Lead or Co-Investigator).
- Direct project costs are eligible for awarded funding, which includes staff salaries, consumables and travel. Salaries of Investigator, Co-Investigators and Collaborators, major equipment and/or infrastructure costs are not eligible for PII funding.
- Deadline for submission of letter of intent: **Friday, October 1<sup>st</sup> @ 17:00 CET.**
- Deadline for full applications: **Friday, November 5th 2021 @ 17:00 CET.**
- Awarded projects can be launched on a rolling basis in summer 2022.

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

## How to Submit a Letter of Intent

The Letter of Intent (LOI) should be submitted by the designated lead Principal Investigator. **All LOIs need to be submitted online by Friday, October 1st 2021 @ 17:00 CET, using BRCCH's application portal at <https://brch.optimytool.ch/en/>.** A template document is provided on the [BRCCH PII webpage](#).

Note, the requested information is needed for administrative purposes only and will not be used to scientifically evaluate projects.

You will be prompted to provide the following information:

1. Investigator(s) and Collaborator(s) details
2. Research area
3. Project title
4. Project aims
5. Relevance statement



## How to Submit an Application

The application should be submitted by the designated lead Principal Investigator. **All applications need to be submitted online using BRCCH's application portal at <https://brcch.optimytool.ch/en/>. Full applications need to be submitted by Friday, November 5<sup>th</sup> 2021 @ 17:00 CET.** A template of the application form can be downloaded from the [BRCCH PII webpage](#).

You will be prompted to provide the following information:

1. Cover letter
2. Principal Investigator details
  - a. CV/biosketch and publications list
3. Co-Principal Investigator(s) details (if applicable)
  - a. CV/biosketch and publications list
3. Collaborator(s) details (if applicable)
  - a. CV/biosketch and publications list
4. Research proposal
5. Budget overview
6. Project milestones overview

### Online Application Clinic

We are pleased to answer your questions via email ([contact@brc.ch](mailto:contact@brc.ch)), or on **Tuesday, August 24<sup>th</sup> 2021** during the PII Application Clinic. Please fill out our [Doodle](#) to reserve a 25-minute time-slot. Please request only one slot. You will then receive a confirmation email with a designated time-slot and meeting details.

### Contact

Please address your enquiries to [contact@brc.ch](mailto:contact@brc.ch)