Call for new project proposals for the Einstein Center 3R (EC3R) – Second Funding Phase

We invite applications for collaborative research network projects on 3D tissue models to join the Einstein Center 3R (EC3R).

Submission deadline: January 9, 2023, 23:59 CET
Number of projects funded: 1-2
Duration of the grant*: 7/2024 – 12/2026 (i.e. 2.5 years)
The amount of funding per project: € 83,000/year (i.e. 12 month)
*Pre-requisite: positive interim evaluation of the EC3R

General description of the EC3R
The Einstein Center 3R (EC3R) is a joint initiative of biomedical research institutions in Berlin (Charité-Universitätsmedizin Berlin, Freie Universität Berlin, Humboldt-Universität zu Berlin, Technische Universität Berlin, Berlin Institute of Health, German Federal Institute for Risk Assessment, Max Delbrück Center, Robert Koch Institute) to enhance their 3R (Replace, Reduce, Refine) activities in an integrated approach.

After a one-year preparatory phase from July 2020 to June 2021, the Einstein Center 3R started full-scale activities in July 2021. If the interim evaluation is positive, the second funding phase of the EC3R will start in July 2024. It has a duration of 2.5 years, i.e. until the end of 2026. The EC3R aims to make Berlin a role model for 3R driven national and international biomedical research, improving the development of alternative methods and their corresponding dissemination and knowledge transfer to the public. The proposed center consists of three layers and two cross-sectional projects, as shown in Figure 1.

The **Communication & Outreach** program aims to highlight the visibility of the strong Berlin 3R activities and communicate about 3R research in a transparent and scientifically sound manner.
The **Education & Training** program intends to integrate the broad spectrum of existing measures and design new activities to improve the awareness, knowledge and application of 3R methods.
The **Collaborative Research Network** focuses on **the joint development of 3D tissue culture models.** It consists of multiple projects that are closely interacting with each other.
Two **Cross-sectional Projects** support the Collaborative Research Network by innovative artificial intelligence applications and an extended quality management, leading to an increase of 3R research quality.
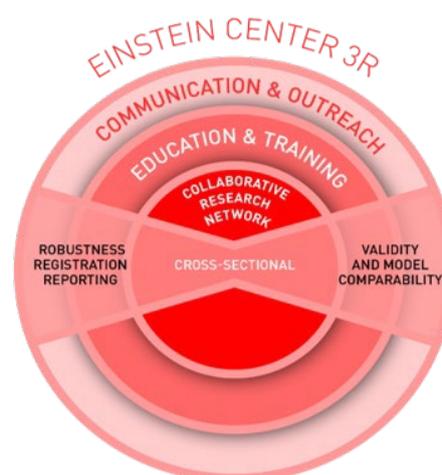
Figure 1. Structure of the EC3R

Timeline of the interim evaluation for the second funding phase
The anticipated dates of the evaluation are as follows: In June 2023, the report/proposal will be submitted to the Einstein Foundation Berlin, in September, the on-site evaluation will take place, and in December, a decision on the continuation of the EC3R will be made as well as the decision officially communicated.

Call for projects to enter the EC3R Collaborative Research Network

Despite the latest advances in the field of organoids and 3D models, there are still major limitations when it comes to aspects of robustness, transferability and applicability of a certain 3D model to address multiple scientific questions.

With this call, we are seeking interdisciplinary 3D tissue model network projects that will lead to the development of robust and applicable models.

Core group

At the core of each network project is a research group of 2-3 principle investigators, which further develops a special 3D tissue model based on *ex vivo* tissue cultures, spheroids, organoids, or 3D bio printing techniques.

User groups

Each of these core groups is surrounded by additional partner groups that are potential future users of the model that will be developed. Together, they form a network project. Through a direct collaboration, each user will contribute expertise and feedback about the minimum necessary characteristics and biological functions the model should have in order to be applicable to a variety of scientific problems (Fig. 2).
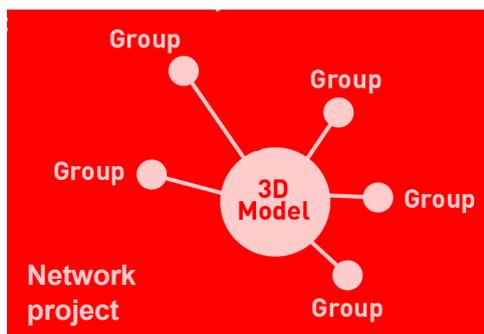
Fig. 2: Network project: Different groups of potential users and experimenters interact with the scientists building and developing the 3D model.

Due to the complexity of 3D tissue models, each network project requires at least three partners of different expertise. The collaboration of groups that are currently primarily working on animal models and see possibilities for the concrete replacement of animal experiments in their projects is explicitly desired. The integration of early career researchers is highly welcome.

Collaborative Research Network

The different network 3D model projects and all involved scientists (Fig. 2) are joined together in an overarching Collaborative Research Network (Fig. 3). The network will provide a platform for cross-cutting topics such as agreements on standards and comparative validation of alternative methods, using their own model as an example. Therefore, it is an integral task to develop and implement strategies to improve the validity and transferability of the 3D model in everyday practice.

The aim of this joint approach is thus to produce robust models that actually reflect the needs of regional research approaches in Berlin, ensuring the future application of these models within Berlin research projects.

You can learn more about the current projects on our website. In the course of a two-step internal evaluation prior to the interim evaluation by the Einstein Foundation Berlin, one or two of these projects will be replaced by new projects from this call.
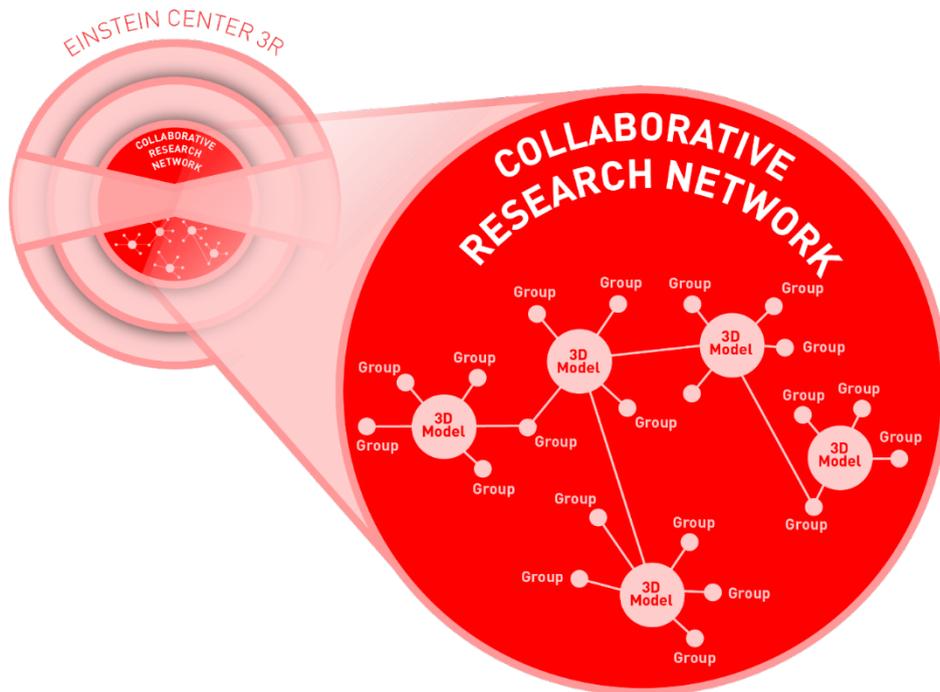
Figure 3. Interdisciplinary network projects that consist of several different groups interact with each other, thus forming a Collaborative Research Network dedicated on developing 3D tissue models.

Budget

Participation in this center requires a high level of commitment from the groups involved. The funds available at the center can only support the joint activities, but not finance them completely. The EC3R members must therefore recognize the great benefits of creating a Berlin network for the further development of 3D tissue models, which will certainly provide an excellent basis for attracting corresponding joint projects.

The budget allocated per core project amounts up to max € 83,000 EUR per year for a period of two and a half years. Each project is expected to use the allocated budget to engage one staff member working on the development of the 3D model. Additional own contribution is welcome and necessary. The total available budget for the Collaborative Research Network amounts up to € 500,000 per year.

Rules for participation

All funding recipients must be eligible as determined by the funding statutes of the Einstein Foundation Berlin and affiliated with a Berlin research institute or university.

Contacts

Stefan Hippenstiel; Speaker of EC3R

Corinna Pelz; EC3R office, phone: +49 30 450 580 188