

BioLink call for proposals 2019: Grants for the networking of biobanks established for research purposes

1. Aim and scope

The Swiss National Science Foundation (SNSF) is launching a call for projects aimed at networking biobanks by harmonising their IT systems. The purpose of this harmonisation is to share data in order to address specific scientific questions. Biobank networking is a prerequisite for obtaining answers to these questions. Biobank networking is open to researchers in all research areas for IT systems-networking of existing biobanks, or to researchers who are setting up or plan to set up a biobank.

Grants are awarded for the implementation of IT systems that allow biobank connectivity and data sharing. The investigation of scientific questions is not eligible for funding under this scheme.

Registers that are not associated with biobanks set up for research purposes are excluded from this call. Biobanks established within the SNSF “Longitudinal Studies” programme may also participate in the call as long as the scientific questions being investigated differ from the research objectives already funded by the SNSF.

2. Key information on the call

2.1 Call for proposals

The SNSF will allocate a budget of 3 million Swiss francs for the 2019 call. This budget is intended to support 3 to 5 projects.

2.2 Deadlines for the 2019 call for proposals

Letters of intent for participating in the call must be sent to the SNSF by **22 March 2019** (cf. formal requirements, 6.2 (c)). The deadline for the submission of proposals is **20 May 2019**.

2.3 Release of funds

Projects have to be started by **1 December 2019**.

2. Current situation

The BioLink initiative is one of the measures taken by the SNSF to improve the quality of and access to scientific data. It complements the creation of the Swiss Biobanking Platform (SBP), which was launched in 2014 and the first BioLink Call in 2016. The scope of these two measures is to harmonise biobanking procedures according to international standards (SOPs, legal and ethical advice), to harmonise the IT systems required for the exploitation of biobanks, to provide access to samples, and to ensure that data are reproducible and interoperable. Together, they respond to the needs of the scientific community in the field and seek to promote the long-term establishment of a network of biobanks in Switzerland to strengthen biobanking activities in line with recognised international standards.

3. Legal basis

The BioLink call for proposals is published in accordance with the Funding Regulations of the SNSF (Article 6 in conjunction with Article 48). The call document outlines the specific requirements for the award of grants, details relating to the application and evaluation process, and the rights and obligations of grantees. Unless otherwise defined in this call document, the provisions of the Funding Regulations and the corresponding Implementation Regulations apply.

4. Provisions specific to the funding scheme

5.1. Basic requirements

Applications must be based on original scientific questions that are of current interest. Applicants must clearly indicate how the response to the scientific question addressed is critically dependent on the networking of the selected biobanks.

Applicants must describe the development of the IT system and how it will be implemented in an implementation plan. This plan must include the justification for the selected IT system. It must provide information on how the quality of and access to data in accordance with the FAIR* principles will be guaranteed, on the interoperability of the biobanks, and on how the compatibility of their data will be ensured.

As a general rule, applications will be submitted by one or two applicants who represent a multi-centre research consortium. Exceptions to this rule may be permitted if they are justified for scientific reasons.

Grantees undertake to collaborate with the Swiss Biobanking Platform (SBP) and, in particular, to consult with the SBP on the choice of IT systems and the quality and semantic criteria necessary to harmonize the IT systems. The grantees further undertake to register with the SBP's national biobank catalogue.

Third-party access to data is a mandatory requirement in accordance with the provisions of the Funding Regulations (Article 47).

Grants are intended solely for the purpose of funding the development and implementation of IT solutions (hardware and software). To address scientific questions deriving from the sharing of data, investigators may submit a grant application for project funding.

* The FAIR principles stand for Findable, Accessible, Interoperable and Reusable (Wilkinson, M. D. *et al.* The FAIR Guiding Principles for scientific data management and stewardship. *Sci. Data* 3:160018 doi: 0.1038/sdata.2016.18 [2016]).

Applicants may only submit one application to the current BioLink call. They may also have only one ongoing BioLink grant. The latter condition also applies to grantees of the funding scheme “Driver projects” of the Swiss Personalized Health Network (SPHN).

5.2. Duration of funding

The duration of funding is limited to 24 months.

5. Requirements for applicants and the submission of applications

6.1 Requirements for applicants

Natural persons are eligible to submit applications if they meet the general eligibility requirements for the submission of applications pursuant to Article 10 of the Funding Regulations of the SNSF. Several applicants form a research group pursuant to Article 12 of the Funding Regulations.

Moreover, members of research groups

- a. demonstrate extensive first-hand scientific experience in the research domain covered by the project and in biobanking;
- b. are responsible for the conception and realisation of the project.

The research group must designate one of its members who is employed in Switzerland as the applicant responsible for the correspondence with the SNSF (Article 12, paragraph 4 of the Funding Regulations).

6.2 Requirements for the submission of applications

- a. Applications must be submitted in compliance with the directives of the SNSF and must contain all required documents and information.
- b. Applicants must submit a joint research plan that outlines the envisaged scientific questions, the choice and the implementation of IT systems, and details how they will be maintained after expiry of the 24-month period funded by the SNSF. Applicants must provide information on how the quality of the data will be guaranteed and access to them will be maintained in the long term. Applicants must describe their objectives precisely and provide information on how the required funding will be distributed, on the persons participating in the collaborative project and on the relevant milestones.
- c. Investigators wishing to apply for funds must send the SNSF a letter of intent to biolink@snf.ch by 22 March 2019. This letter (one A4 page) must briefly outline the scientific questions to be investigated, list the persons involved, as well as the biobanks that require networking. This brief description will allow the SNSF to identify the external experts needed to evaluate the application.
- d. Applications must be submitted in electronic form through the *mySNF* portal by 20 May 2019.
- e. Applications (including all annexes) must be written in English.
- f. Applicants may not submit more than one application and may not participate in more than one project in this funding scheme.
- g. Other formal requirements relating to the submission of applications apply, i.e. those set out in the Funding Regulations and corresponding Implementation Regulations.

6.3 Project partners

In contrast to applicants, project partners are researchers who make a partial contribution to the research project without being responsible for the project. They are not project collaborators whose salaries are paid out of the grant (Article 11 of the Funding Regulations, Article 1.12 of the General implementation regulations for the Funding Regulations). Project partners within the Bi-oLink initiative include, for example, persons who participate in the data sharing by contributing to the IT systems, and researchers who make available their biobanks data to answer the scientific questions addressed but are not involved in the design or implementation of the project. Partners can benefit from the grant. As a general rule, costs for project partners should not exceed 20% of the total grant. Their involvement in the implementation of the IT systems must be duly justified. Partner costs do not cover the employment of collaborators (Article 2.10 of the General implementation regulations for the Funding Regulations).

Partners located in countries outside Switzerland are not eligible to receive funding for infrastructure costs.

6.4 Collaboration with industry representatives

Persons employed by for-profit organisations may participate as project partners as long as they provide a written guarantee by the submission deadline that no commercial use is envisaged on the basis of this collaboration (Article 1.12 of the General implementation regulations for the Funding Regulations). They are not eligible for SNSF funding, however. They must be self-funded and provide a written guarantee that their data and published results are accessible at all times without any restrictions.

6. Costs covered by the grant

7.1 Eligible costs

Grants are awarded to support the technical implementation of IT systems. The costs that can be charged include:

- a. Costs of equipment linked to the development and implementation of the IT systems: IT hardware (computers and data storage), software and licenses, software used to adapt existing software;
- b. Salaries of technical collaborators employed to implement the IT systems;
- c. Training costs for the use and maintenance of the IT systems;
- d. Costs of internal project coordination and cooperation and networking activities;
- e. Costs of data preparation.

The costs must be quantified and their coverage requested in the application.

The following costs are excluded:

- a. Costs of the creation, expansion and maintenance of biobanks;
- b. Research costs associated with the investigation of the scientific questions addressed.

The SNSF may authorise transfers between cost categories during the grant period.

Costs generated by project partners should comprise only a small share of the total budget of the project.

7. Evaluation process and criteria

Applications that meet the formal and personal requirements and are not clearly inadequate will be evaluated by the SNSF in collaboration with a panel of international experts with recognised biobanking experience.

The Biology and Medicine division of the National Research Council (NRC) assesses the recommendations of the international panel and submits its funding decisions for approval to the Presiding Board of the Research Council.

8.1 Evaluation criteria

The following criteria shall be applied in the evaluation process:

- a. Quality of the scientific questions: scientific relevance of the proposed project, topicality, originality, feasibility, relevance of the proposed methods, value added by sharing the biobanks data to respond to the scientific questions addressed. In the case of applications for use-inspired research, the project's broader impact outside science is considered.
- b. Quality of the IT systems: relevance and appropriateness of selected models, feasibility of implementation, contribution to the data quality, long-term sustainability of the biobanks network and of the accessibility to data.
- c. Qualifications of the researchers: scientific CV and specific competence in relation to the research project and to biobanking.

8. Administration of the grant / rights and obligations of grant holders

9.1 Transfer of funds

Funds are transferred in annual instalments.

The first instalment is paid by the SNSF on request by the grantee responsible for correspondence. The payment of the first instalment has to be requested for 1 December 2019 at the latest.

The transfer of the second instalment is subject to approval of the annual progress report on the project for the first year.

9.2 Cost-neutral extension of project duration

In exceptional, justified cases, and at the grantee's request, the SNSF may extend the grant by a maximum of 12 months without provision of additional funding. The extension must be requested before expiry of the grant period.

9.3 Reporting

Grantees are obliged to submit reports. They must

- a. submit an annual scientific report on the attainment of agreed milestones for the implementation of the IT system as of the start date of the grant;
- b. submit an annual financial report as of the start date of the grant;
- c. submit a final scientific report on completion of the project and a final financial report at the end of the grant.

9.4 Discontinuation of funding

For important reasons, particularly if the defined milestones are not reached or the formal requirements are no longer met, the SNSF may discontinue the grant after conducting a hearing with the persons involved.