

Funding opportunities for the Cluster for Cardiovascular Research

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Topics covered in this presentation

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- Sources of international funding European, U.S., other
- > How to search for relevant calls and subscribe to call updates
- Services of the Euresearch network and the Grants Office of the University of Bern
- Your contacts



University of Bern Grants Office

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- Central point of contact for funding questions for University of Bern and Inselspital researchers.
- Comprised of experts from the Vice-Rectorate Research and other support units, e.g. Coordination Point for Early Career Researchers.
- Located in the former SBB building at Hochschulstrasse 6.
- > Runs the Euresearch Regional Office Bern.



Euresearch network

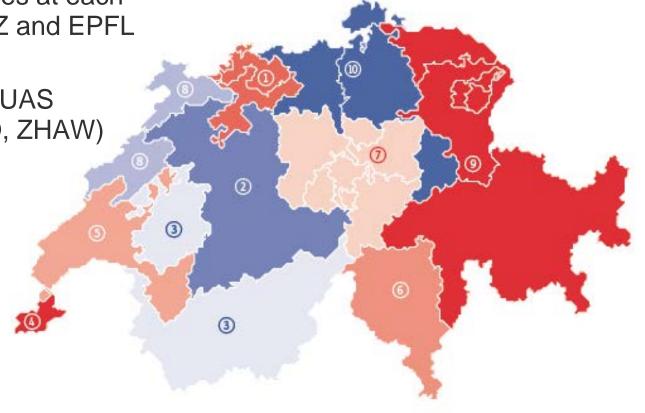
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> 1 Head Office in Bern

> 10 Regional Offices at each university + ETHZ and EPFL

> 3 Contact Points UAS (FHNW, HES-SO, ZHAW)

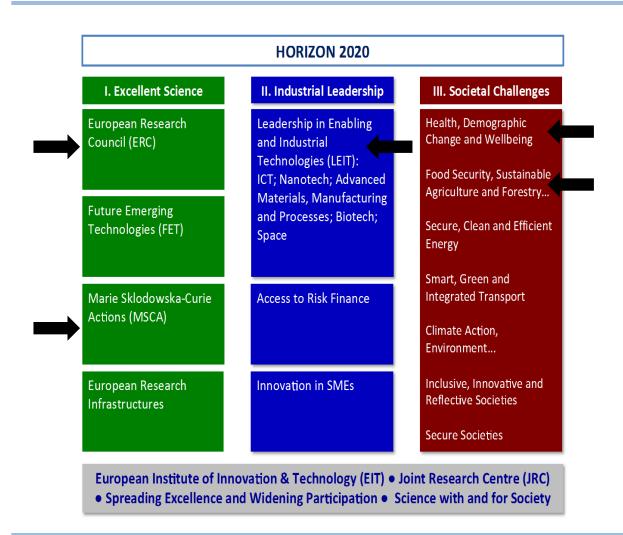
1 Contact Office in Brussels:SwissCore





Main H2020 funding opportunities

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CH currently fully associated (money from EU):

☑ ERC

✓ MSCA

CH currently not associated (money from SERI):

✓ LEIT

✓ SC1 Health

✓ SC2 Food



H2020 funding – ERC and MSCA

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European Research Council (ERC)

Ground-breaking frontier research projects across all fields, selected on basis of scientific excellence.

Bottom-up topics; single PI projects.

Next deadlines:

ERC Starting Grant opens Jul 2016 deadline Oct 2016
ERC Consolidator Grant opens Oct 2016 deadline Feb 2017
ERC Advanced Grant opens 24 May 2016 deadline 1 Sep 2016

Marie Skłodowska-Curie Actions (MSCA)

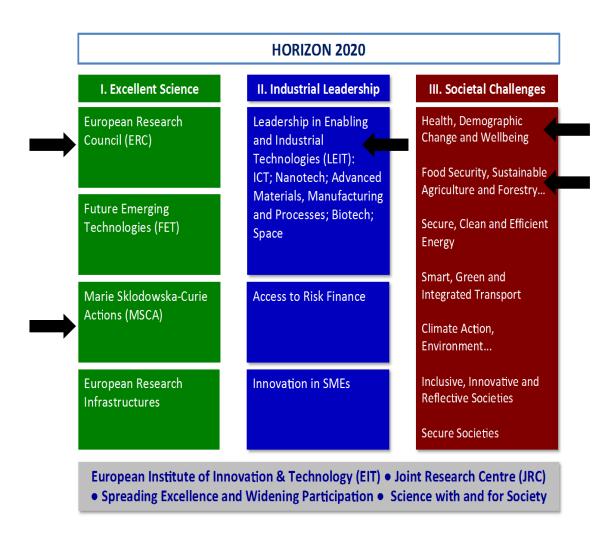
Research training and mobility grants for individual postdocs and PhD/postdoc networks.

Bottom-up topics; PhD/postdoc fellows and supervisors Some next deadlines:

Individual Fellowships open deadline 14 Sep 2016
Innovative Training Networks opens Sep 2016 deadline Jan 2017



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Political aspects of the Societal Challenges in general

- Tackle global and societal challenges & concerns of citizens & society
- Address political priorities of the EU
- Inter-sectorial and multidisciplinary collaborative research & innovation
- Promising solution need to be tested, demonstrated and scaled up





Political aspects of Societal Challenge 1

- European/global problems to be solved
 - >65 yrs: increase from 92 million (2013) to 148 (2060)
 - Chronic disease → cause 87% of all deaths/ill-health/workprevention
 - Public spending on health 7% of GDP (2013) to 9.1% in 2060



Health research policy objectives

- Translating science to benefit citizens
- Improve health and well-being outcomes and address health inequalities
- 3. Promote healthy and active ageing
- 4. Support efficient and sustainable health and care systems
- Support the development and uptake of digital solutions for health and ageing well
- 6. Promote market growth and job creation in the health area
- 7. Promote EU as a global leader in the health area.



Basic Rules

- The EU Commission has identified the problems
- You provide together with your international consortium of experts the best solution to the identified problem
- One can only submit a proposal to a challenge in an open call







Health, Demographic Change and Wellbeing Call



Call 'Personalised Medicine'

23 topics open in 2016 14 topics open in 2017 € 933.99 mill.

Further details on topics: Work Programme 2016-2017

Note: Health, demographic change and wellbeing work programme 2016-2017 is published on the Participant Portal

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016 2017/main/h2020-wp1617-health, op.ndf

wp1617-health en.pdf

Save the Date: Info Day, Horizon 2020 - 'Health, demographic change and wellbeing' on 8 July in Brussels, Belgium

http://ec.europa.eu/research/index.cfm?pg=events&eventcode=314FDE2A-B120-5C11-0BC24DEE2CA8115E



Upcoming Calls

Area 1: Understanding health, well-being and disease

SC1-PM-02-2017: New concepts in patient stratification Call opens on 29 July 2016 → Deadline: 4 October 2016 (First stage) & 11 April 2017 (Second stage)	Research and innovation actions (RIA)
SC1-PM-03-2017: Diagnostic characterisation of rare diseases Call opens on 29 July 2016 → Deadline: 11 April 2017	Research and innovation actions (RIA)

SC1-PM-02-2017: New concepts in patient stratification *Specific Challenges:*

Despite the major advances in **understanding disease** in the post-genomic era, still a majority of all drugs are effective in only a limited number of patients. From a clinical perspective, implementing **knowledge-based decisions on what therapeutics to use for which patients** and, if relevant, in which combinations, are extremely challenging. The aspiration to provide more effective therapeutic interventions tailored to the individual or groups of individuals with common molecular phenotypes remains unfulfilled because of the variable response of individuals to such interventions... **goal: more targeted therapies**

Scope:

Proposals should deliver novel concepts for disease-mechanism based patient stratification to address the needs for stratified or personalised therapeutic interventions. ..integrate multidimensional and longitudinal data and harness the power of -omics, including pharmacogenomics, systems biomedicine approaches, network analysis and of computational modelling. The new concepts of stratification should be validated in preclinical and clinical studies taking into account sex and gender differences. Proposals should focus on complex diseases having high prevalence and high economic impact ...

Expected impact:

- New models for patient stratification to inform clinical decision making.
- Accelerate the translation of biomedical and clinical research results to medical use.
- Increased cost-effectiveness of the novel concepts in comparison to already established practices.

Type of Action: Research and Innovation Action (100%)



Upcoming Calls

Area 3: Treating and managing diseases

SC1-PM-08-2017: New therapies for rare diseases	Research and innovation
Call opens on 29 July 2016	actions (RIA), CH eligible
→ Deadline: 4 October 2017 (First stage) & 11 April	
2017 (Second stage)	
SC1-PM-10-2017: Comparing the effectiveness of	Research and innovation
existing healthcare interventions in the adult	actions (RIA), CH eligible
population	
Call opens on 29 July 2016	
→ Deadline: 4 October 2017 (First stage) & 11 April	
2017 (Second stage)	

SC1-PM-10-2017: Comparing the effectiveness of existing healthcare interventions in the adult population *Specific Challenges:*

Effective health care and prevention may be improved by additional evidence as to the most effective health interventions. Growing numbers of patients affected by chronic diseases also call for efficiently managing co-morbidities ...

Scope:

Proposals should compare the use of currently available preventative or therapeutic (pharmacological as well as non-pharmacological) healthcare interventions in adults. While there is no restriction on the diseases or interventions to be the focus of proposals, preference will be given to proposals focusing on interventions with high public health relevance and socio-economic impact, i.e. interventions addressing conditions that are particularly frequent, may lead to co-morbidities, have a high negative impact on the quality of life of the individual and/or are associated with significant costs or where savings can be achieved. A cost effectiveness analysis must be included. Given the focus on existing interventions, proposals will aim to contribute to improve interventions, take decisions about the discontinuation of interventions that are less effective or less cost-effective than others, and make recommendations on the most effective and cost-effective approaches. A comprehensive array of clinical and safety parameters, as well as health and socioeconomic outcomes (e.g. quality of life, patient mortality, morbidity, costs, and performance of the health systems) for chosen populations should be assessed ...

Expected impact:

- More effective and safer interventions at individual and population level;
- Enhanced compliance with healthcare interventions in the adult population;
- The use of health technology assessment methodology in this target group ...

Type of Action: Research and Innovation Action (100%)

Upcoming Calls



Area 5: Methods and data	
SC1-PM-16-2017: In-silico trials for developing and assessing biomedical products Call opens on 8 November 2016 → Deadline: 14 March 2017	Research and innovation actions (RIA),
SC1-PM-17-2017: Personalised computer models and in-silico systems for well-being Call opens on 8 November 2016 → Deadline: 14 March 2017	Research and innovation actions (RIA),

SC1-PM-17-2017:

Personalised computer models and in-silico systems for well-being Specific Challenges:

There is continuous progress in systems medicine, multi-scale modelling and patient-specific modelling but these research opportunities have only been used sporadically in exploring well-being, disease prevention or rehabilitation. These areas of intervention are crucial for reducing healthcare demand, building sustainable healthcare systems and for assuring a healthy and motivated workforce. More, innovative methods are needed for better understanding biological (incl. microbiome), social, environmental, lifestyle, occupational, economic etc. factors on human physiology and thereby on well-being and health. This could help in identification of interventions for improving well-being and health: by increasing resilience to challenges and illness by better prevention adapted to predispositions and behaviours (including gender) ...

Scope:

Proposals should aim at the development of **new integrative computer-models** and simulation systems of acceptable validity, with the potential to being reused, build on open service platforms and with application in well-being, health and disease. The projects must **incl. computer modelling and simulations able to aggregate various information sets e.g. molecular, biochemical, medical imaging, social, lifestyle, economic, occupational, microbiome, environmental, developmental, psychological, gender etc. to generate robust predictors for resilience** to challenges and **recovery from_stresses and illness**. The models will process and apply individual/patient-specific information in a multi-scale approach for integrating information (from at least one biological level from molecule to entire body) ...

Expected impact:

Benefit for health and well-being: new personalised interventions for increasing resilience and recovery ...

Award Criteria



1. Excellence (min 4 points/max 5 points)

- Ground-breaking nature (e.g. level of ambition, beyond the state-of-the-art, novel approach, addresses challenge, ...)
- Conceptually robust; trans-disciplinarily considered...

2. Impact (min 4/max 5)

- Addressing the expected impacts listed in the WP under the relevant topic;
- Enhancing innovation capacity and integration of new knowledge;
- Effectiveness of the proposed measures to communicate the project, disseminate and/or exploit the project results, and appropriate management of IPR.

3. Quality and efficiency of implementation (min 3/max 5)

- Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources;
- Competences, experience and complementarity of the individual participants, as well as of the consortium as a whole;
- Appropriateness of the management structures and procedures, including risk management.



What is important when setting up a consortium?

- > Min. rule: 3 partners from different EU or AC
- Balanced consortium with complementary skills and as many as needed to carry out the work
- > International/European approach must be evident
- > Some partners should have past collaborations



Consortium and Partners



Consortium: "Minimum rule of three"

At least three members of three different EU member States (MS) or EU-associated countries (ACs) required.

Status of Switzerland

How to find partners

Project databases

Cordis Project Database http://cordis.europa.eu/fp7/projects_en.html

Partner search databases

Fit for Health 2.0 http://www.fitforhealth.eu/





Past projects in similar areas (1)

EC Database http://cordis.europa.eu/projects/home_en.html
Some examples of related – field projects

- Cardiovascular surgery/ cardiology:
- EUTRAF: The European Network for Translational Research in Atrial Fibrillation www.eutraf.eu - FP7 Health - closed
- EUSTROKE: The European Stroke Research Network (Uni Bern Prof. Britta Engelhardt) FP7 Health - closed
- CATCH ME: Characterizing Atrial fibrillation by Translating its Causes into Health Modifiers in the Elderly - H2020 PHC 2014 -http://www.catch-me.info/about
- EUTRIGTREAT : Identification and therapeutic targeting of common arrhythmia trigger mechanisms - FP7 Health - Uni Bern (DCR Prof. Dr. Hugues Abriel)



Past projects in similar areas (2)

- Ischemia/ Reperfusion:

- DOPPLER-CIP: Determining optimal non-invasive parameters for the prediction of left ventricular morphologic and functional remodelling in chronic ischemic patients - FP7 Health - http://www.doppler-cip.eu
- CAREMI: developing clinically applicable treatments for ischemic heart disease (IHD) by exploiting the biology of endogenous resident cardiac stem cells (eCSCs) - http://www.caremiproject.eu/ FP7- Health - closed
- MITOCARE: A novel approach for treating myocardial infarction <u>http://www.mitocare.eu/</u> FP7 Health - closed
- TECHNOBEAT: Tools and TECHNOlogies for Breakthrough in hEArt Therapies - H2020 - PHC 16https://www.mh-hannover.de/technobeat.html



Partner searches for relevant calls

Database: http://www.fitforhealth.eu/page/services

Acronym: A HOPE

Objective: Avoiding re-hospitalization for heart failure with the idea to recruit a significant number of patients hospitalized for heart failure

Contact: Dr. Daniel Fernandez-Berges

Sistema Extremeño de Salud - dep: Medicina Interna (Hospital Don Benito-Villanueva) Carretera Don Benito-Villanueva - 06400 Don Benito, Spain

Email: polonibo@gmail.com

Website: www.gobex.es, www.fundesalud.es

www.grimex.org





Innovative Medicines Initiative 2



 Public-Private Partnership between EU and EFPIA (European Federation of Pharmaceutical Industries and Associations).



- Goal: provide faster access to better medicines through identifying promising drug candidates with greater certainty at an earlier stage
- Open Call: Call 8 & 9
- IMI Budget: is taken from the societal challenge Health
- Rules for participation: For <u>research and innovation actions</u> (RIA) the consortium must comprise at least 3 legal entities (no EFPIA members but they may join later) located in an EU Member State or Horizon 2020 Associated Country.
- Switzerland is fully eligible, funding from SERI

IMI 2 Call 9



- Addressing the clinical burden of Clostridium difficile infection (CDI): evaluation of the burden, current practices and set up of a European research platform
- Development of immune tolerance therapies for the treatment of rheumatic diseases
- Data quality in preclinical research and development
- Next generation of electronic translational safety NEXGETS
- Identification and validation of non-invasive markers across the spectrum of nonalcoholic fatty liver disease (NAFLD)
- Joint influenza vaccine effectiveness surveillance

The following topic is under consideration for inclusion in future IMI Calls:

A European distributed data network (DDN) project to facilitate intra-EU access to, and analysis of, real world data to improve health outcomes for EU patients Note: topic forms part of the IMI Big Data for Better Outcomes (BD4BO) programme (just recently a subtopic was funded in the area of CVD: Heart Failure, atrial fibrillation & acute coronary syndrome patients







MAIN PROBLEMS IN PROPOSALS WITH CLINICAL STUDIES

- Lack of a clear plan how to split the work of the study.
- Often the information provided on the recruitment and the patient is not detailed enough: Highest risk is that the recruitment of patients will not go according to plan.
- A common weakness is that the timing of the project does not take all the risks into account that could delay the studies.
- Often study protocols are not ready at project start.



HOW TO INVOLVE CLINICAL PARTNERS

4 possibilities:

- As full partner (preferred solution if the consortium is not too large)
- As a subcontractor
- As 3rd party making resources available against payment
- As a linked 3rd party
- For advantages and disadvantages of each possibility follow the link to the official presentation from the European Commission at the Health open info day:

http://ec.europa.eu/research/health/pdf/infoday_2015/cros s-cutting-items.pdf (Slides 43-44 from EC)

Recruitment of Patients



- One of the biggest challenges: will be examined carefully in the evaluation.
- Important to report: an account of the average patients per clinic with this symptom/disease to prove that you will reach the patient numbers planned.
- By selecting the best suitable partners and showing that the recruitment plan should work makes your proposal strong. This is where your project can excel.
- In addition give a detailed account of the selection of patients, patient categories, and inclusion and exclusion criteria.
- Describe in detail your choice of patient. Whether or not children or the elderly are selected you have to explain why you include this patient group or why not.
- State any recruitment challenges you may encounter in the contingency plan.

Contingency Plan: show how you mitigate risks & give an account of risk mitigation measures



- Mention the possible time delay to receive regulatory authority approvals and the time to fulfil the regulatory requirements (some requests may be unexpected and time-consuming).
- Be aware of the possibly long delays in ethical screening.
- Mention the possible time delay due to required authority approval for drug Good Manufacturing License (GMP).
- Study using drugs: describe the mitigation plan if the drug gives side effects/treatment failure, e.g. use another drug or conclude with a negative study result?
- Mention the possibility of recruitment lacking behind schedule and/or insufficient number of patients giving consent.

Describe how you mitigate these risks!

Dos and Donts when filling in the template for clinical studies



- Study design and endpoints:
 Describe the 1ry and 2ry endpoints in detail and how they will be measured as outcomes. Include references to regulatory bodies, such as the European Medicines Agency (EMA).
- Scientific advice:
 If advice given by e.g. EMA then this advice/request/answer must be incl. in the proposal with a summary of the communication.
- Do not forget to reference relevant guidelines of regulatory bodies.





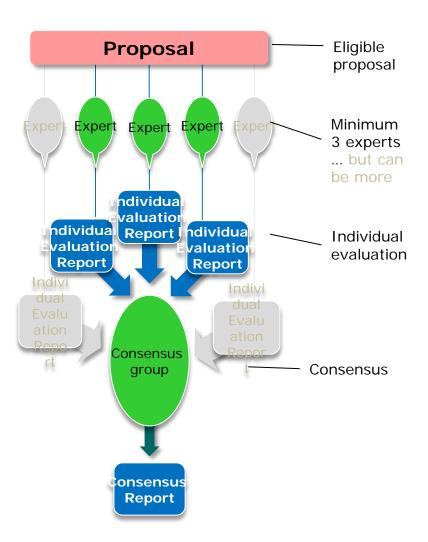
Main points: What is needed to write a Societal challenge proposal?

- EURESEARCH
 Swiss guide to European research & innovation
- Read the topic text carefully and understand what is expected for the project
- Your project idea needs to fit to the requirements set out in the topic text
- Set-up a consortium (decide on a coordinator and partners)
- Follow the structure of the proposal template (part B) and write the proposal within this template
- Fill in the administrative forms (Part A)
- Submit the proposal electronically via the participant portal (ECAS account needed!) ideally 2-3 days before the deadline
- Euresearch is here to support you in all these steps, just contact us!





Evaluation





xperts

H2020 ONLINE MANUAL

Join the database of independent experts for European research and innovation.

The European Commission appoints independent experts to assist with research and innovation assignments including the evaluation of proposals, monitoring of projects, and evaluation of programmes, and design of policy.

New experts

Who can be an expert?

You have a chance of being selected as an expert if

- have high-level of expertise in the relevant fields of research and innovation (see call for details on types of expertise).
- can be available for occasional, short-term assignments

REGISTER AS EXPERT



What do expert assignments involve?

Experts, as peer reviewers, assist in the:

- · evaluation of proposals
- · monitoring of actions

In addition, experts assist in the:

 preparation, implementation or evaluation of programmes and design of policies. This includes the Horizon 2020 Advisory Groups.

Assignments mainly concern research and innovation, falling within the Horizon 2020 programme designed to address the challenges Europe is facing through funding excellent science, technology and innovation.

Take a look at the most recently funded projects.

Business innovation coaches support SMEs funded via the SME instrument. An expression of interest for experts willing to become Business Innovation Coach for the SME instrument is available on the EASME website. Candidate coaches will also be asked to provide more detailed information on their competence and experience here.

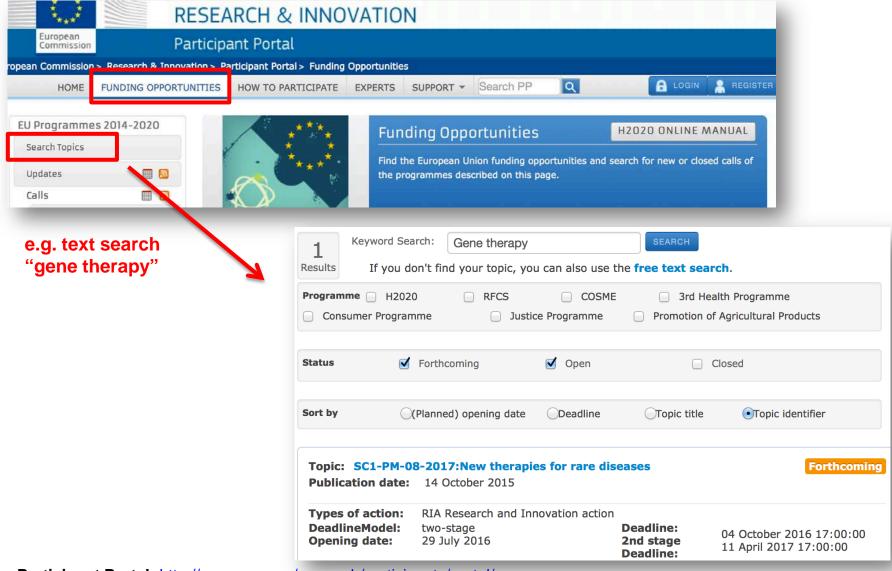
In order to access the expert registration form, you are first asked to login with a valid Participant Portal (ECAS) account. If you do not have it yet, it easy to create your Portal (ECAS) account.

Registered experts

- Registered experts can complete or update their profile at any time by logging-in to their Portal account (ECAS) and accessing My Expert Area.
- . Your profile is only available to the Commission for consideration once it is complete and valid.
- Should you get a contract as independent expert, please check that the Bank Account on which you
 want to be paid is still valid before you introduce a request for payment.

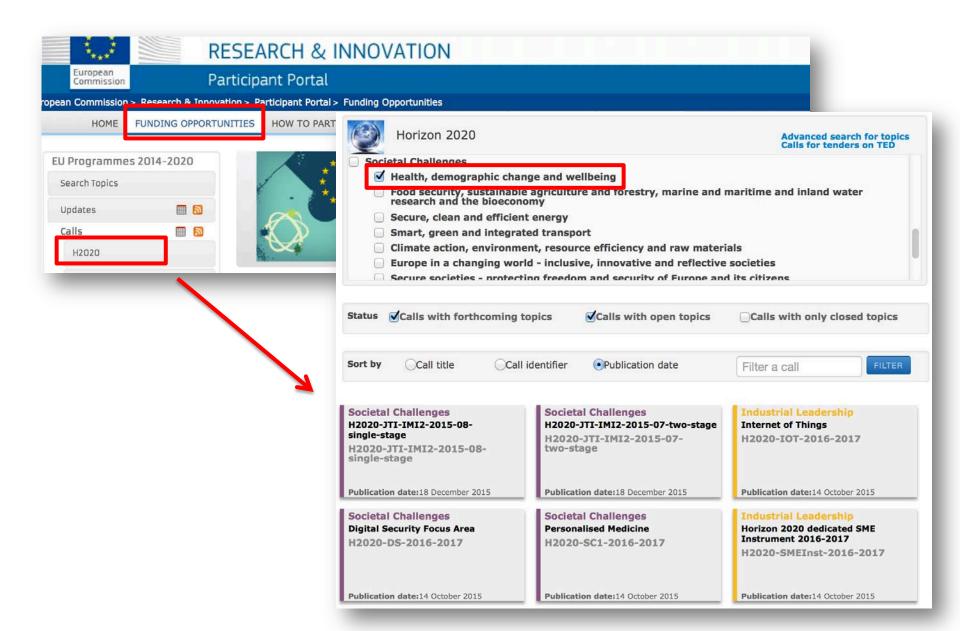
DCR Cluster for Cardiovascular Research ■ health@euresea

How to find H2020 calls (1)



Participant Portal: http://ec.europa.eu/research/participants/portal/

How to find H2020 calls (2)

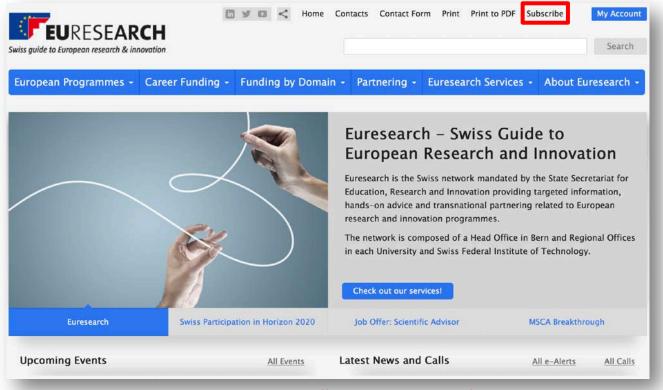


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Signing up for updates – H2020

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Register on the Euresearch website to automatically receive updates on calls. Choose keywords to obtain targeted information.



Euresearch: https://www.euresearch.ch/

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Sources of U.S. funding – NIH

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- National Institutes of Health (NIH) primary agency of the U.S. government responsible for biomedical and health-related research, e.g., National Heart, Lung, and Blood Institute (NHLBI)
- Three main grant types open to Swiss institutions and organizations (public/private, for-profit/not-for-profit), can be bottom-up or top-down:
 - Research Project Grant (R01)
 3-5 years, renewal possible, direct costs \$25,000-\$500,000/year
 - Small Research Project Grant (R03)
 2 years, no renewal, direct costs up to \$50,000/year
 - Exploratory/Developmental Research Grant (R21)
 2 years, no renewal, total direct costs up to \$275,000

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NIH proposals with Swiss applicants

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- > If the main applicant is a Swiss institution, there is an extra review step to determine:
 - Whether the proposed project involves talent, resources, study populations, or environmental conditions that are not readily available in the U.S. or that strengthen existing U.S. resources
 - Whether the proposed project has specific relevance to the mission and objectives of the NIH, and has the potential to significantly advance the field of health sciences in the U.S.
- Qualified foreign investigators who have unique expertise or resources have as good a chance of being funded as U.S. investigators
- Recommendation: First participate in a project as a partner (with the main applicant in the U.S.) before submitting a proposal as the main applicant.

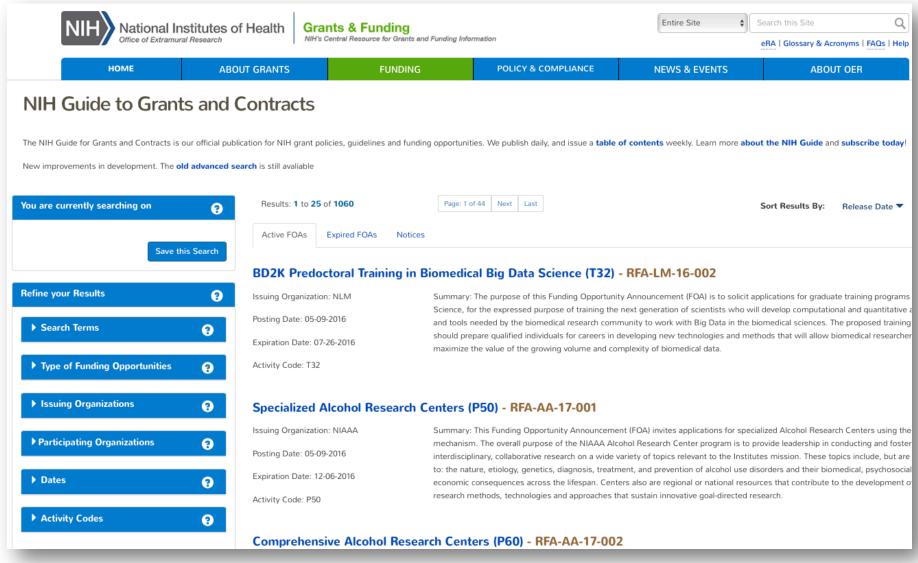
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Sources of U.S. funding – DoD

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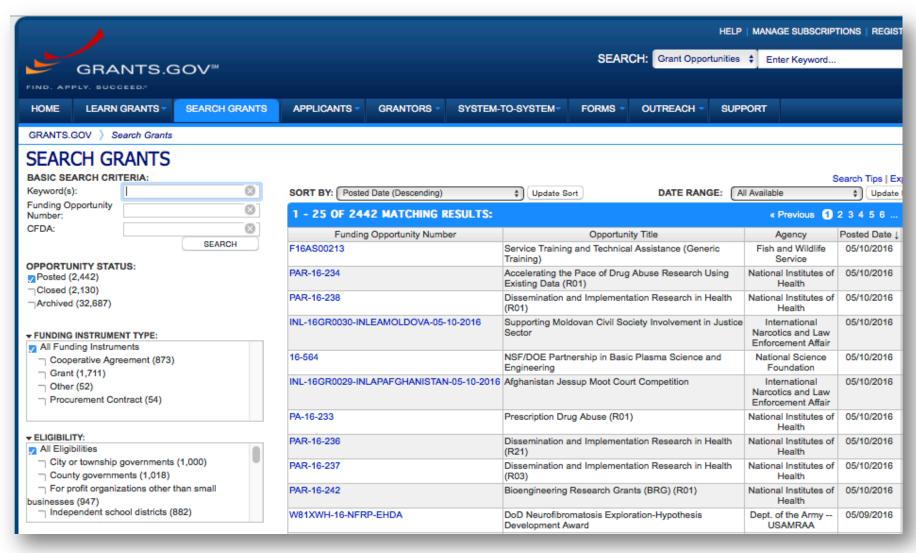
- Department of Defense (DoD) funds basic and applied research into Human Systems (e.g., Congenital Heart Disease, Vascular Malformations, Women's Heart Disease)
 - Investigator-Initiated Research Award
 Basic and translational single PI projects, up to 3 years, total direct costs \$1.2 million
 - Focused Program Award
 Multiple, distinct projects led by individual Pls, up to 4 years, total costs \$10 million
 - Discovery Award
 Innovative, non-incremental, high-risk/high-reward projects, up to
 1.5 years, total direct costs \$200,000
 - Technology/Therapeutic Development Award
 Product-driven, translational single PI projects, up to 3 years, total direct costs \$3 million

How to find calls – NIH



NIH Guide to Grants and Contracts: http://grants.nih.gov/funding/searchguide/

How to find calls – all Federal grants (incl. DoD)



Grants.gov: www.grants.gov/web/grants/search-grants.html



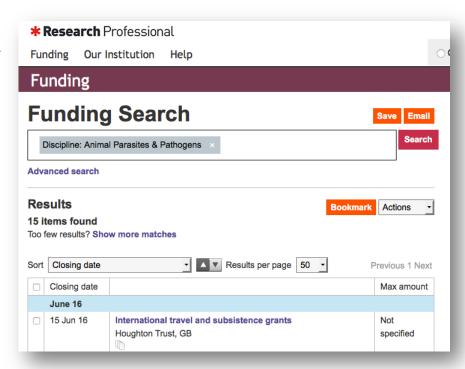
Sources of international funding – other

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> Research Professional

Extensive database with funding opportunities, scholarships, travel grants and prizes. Swiss eligibility pre-selected.

Access via Uni Bern network or from anywhere with your personal login





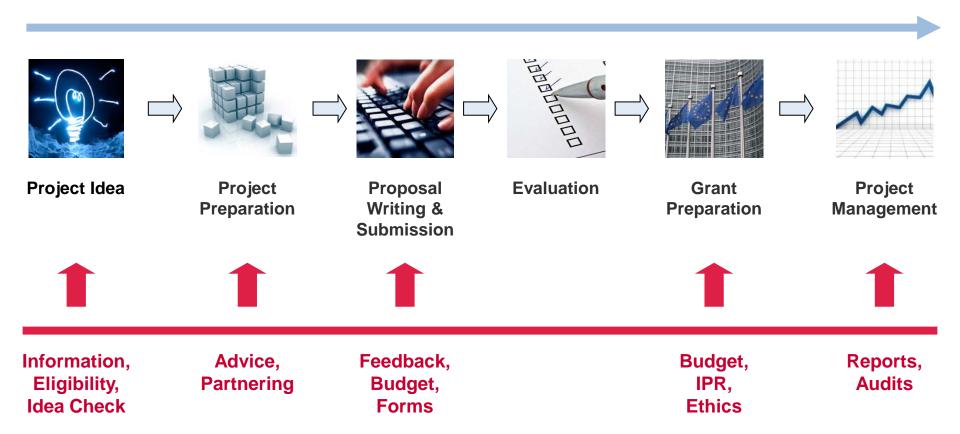
Euresearch Service



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Grants Office services

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Euresearch support for Horizon 2020



University of Bern financial support

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Seed money

Up to CHF 10,000 for the preparation of EU collaborative projects where the University of Bern has a major role Website

Travel grants

Funds for trips to prepare international projects Website

Initiator grants

Up to CHF 20,000 for early career researchers for the preparation of third-party funding applications post PhD Website



Your contacts

UNIVERSITÄT BERN

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- U.S. fundingusgrants@research.unibe.ch+41 31 631 48 47
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