European Funding Opportunities: Collaborative projects

Dr. Andreas Krell
Solve-RD Kick-off meeting

- 22 partners
- ~ Euro 15 mill budget
- Project duration
  Jan 2018 – Dec 2022
- Coordinated by Eberhard Karls University
European collaborative projects – Characteristics

- **Budget**: 1 -10 M€/project
- **Top-down**: Topic definition
- **Covering the whole R&D chain**: Intersectoral
- **Interdisciplinarity**: Any legal entity
- **Peer-review evaluation**: Open to the world
- **Project duration**: 2-5 years
- **Min. 3 partners**: 100% of direct costs + 25% of indirect costs
Horizon 2020 – Collaborative Research

Part I – Excellent Science
1. European Research Council (ERC)
2. Future and Emerging Technologies (FET)
3. Marie Skłodowska-Curie Actions (MSCA)
4. European Research Infrastructures, including e-infrastructures

Part II – Industrial Leadership
1. Leadership in Enabling & Industrial Technologies (LEIT)
   - Information and Communication Technologies
   - Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing and Biotechnology
   - Space
2. Access to Risk Finance
3. Innovation in SMEs

Part III – Societal Challenges
1. Health, demographic change and wellbeing
2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
5. Climate action, environment, resource efficiency and raw materials
6. Inclusive, innovative and reflective societies
7. Secure societies

Part IV
Spreading excellence & widening participation

Part V
Science with & for Society

Non-nuclear direct actions of the Joint Research Centre (JRC)

The European Institute of Innovation and Technology (EIT)
Horizon Europe (2021 – 2027): Structure*

**Pillar I – Excellent Science**
1. European Research Council (ERC)
2. Marie Skłodowska-Curie Actions (MSCA)
3. Research Infrastructures

**Pillar II – Global Challenges & European Industrial Competitiveness**
1. Thematic clusters
   - Health
   - Culture, creativity and inclusive Society
   - Civil Security for Society
   - Digital, Industry and Space
   - Climate, Energy and Mobility
   - Food, Bioeconomy, Natural Resources, Agriculture and Environment
   - Non-nuclear direct actions of the Joint Research Centre (JRC)

**Pillar III – Innovative Europe**
1. European Innovation Council (EIC)
2. European Innovation Ecosystems
3. European Institute of Innovation and Technology (EIT)

**Widening participation and strengthening the European Research Area**
- Widening Participation and Sharing Excellence
- Reforming and Enhancing the European Research and Innovation System

* Common Understanding (27. März 2019)
Job opportunities

Job offer: Postdoc in computational genomics

- A postdoctoral researcher position in Genomics, Bioinformatics, and Statistical Genetics is available in the Computational Genomics group at the Institute of Medical Genetics and Applied Genomics. We are looking for an early experienced, highly motivated researcher with a strong enthusiasm to conduct cutting-edge research at the interface of computational biology and clinical genomics. **The position is part of the EU-funded research project “Solve-RD – Solving the Unsolved Rare Diseases” (www.solve-rd.eu),** in which we apply the latest sequencing technologies such as whole-genome sequencing, long-read RNA-seq and single cell sequencing to investigate 19,000 unsolved cases of rare genetic diseases. The successful candidate will be part of a large European network of researchers working on computational genomics, rare genetic diseases and personalized medicine.
How to engage!
Essential ingredients to start

**Prerequisites**
- Clear understanding of the programme and evaluation process
- Ideas and competencies matching the scope of a given topic
- A substantially convincing consortium that is able to reach the set goals
- Time to prepare

**Where to get information**
- Topic text
- Work programme (incl. Annexes)
- Online manual
- Proposal template
- Specific documents, eg. Clinical studies, FAQ
Where to find – calls/topics/references

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/h2020
Main WP

1. Introduction 2018-20_v2.0
2. Future and Emerging Technologies (FETs) 2018-20_v2.0
3. Marie Skłodowska-Curie actions (MSCA) 2018-20_v2.0
4. Research infrastructures (including e-Infrastructures) 2018-20_v2.0
5. Introduction to Leadership in enabling and industrial technologies (LEITs) 2018-20_v1.0
5i. Information and communication technologies (ICT) 2018-20_v2.0
5ii. Nanotechnologies, advanced materials, advanced manufacturing and processing, biotechnology 2018-20_v2.0
5iii. Space 2018-20_v2.0
6. Access to risk finance 2018-20_v2.0
7. Innovation in SMEs 2018-20_v2.0
8. Health, demographic change and well-being 2018-20_v2.0
9. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy 2018-20_v2.0
10. Secure, clean and efficient energy 2018-20_v2.0
11. Smart, green and integrated transport 2018-20_v2.0
12. Climate action, environment, resource efficiency and raw materials 2018-20_v2.0
13. Europe in a changing world - inclusive, innovative and reflective societies 2018-20_v2.0
15. Spreading excellence and widening participation 2018-20_v2.0
16. Science with and for society 2018-20_v2.0
17. European Innovation Council (EIC) 2018-20_v2.0
18. Dissemination, Exploitation and Evaluation 2018-20_v2.0
19. Cross-cutting activities 2018-20_v1.0

General Annexes to the Main WP
European Research Council
Euratom

Grant agreements, contracts and rules of contest
Model grant agreements
Polar climate: understanding the polar processes in a global context in the Arctic and Antarctic Regions

**Focus area:** Building a low-carbon, climate resilient future (LC)

**Type of action:**
- RIA Research and innovation action

**Horizon 2020**

**Work programme:** Climate action, environment, resource efficiency and raw materials

**Call name:** Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement

**Call ID:** H2020-CL-CLA-2018-2019-2020

**Specific Challenge:**

Many of the natural physical processes occurring in the polar atmosphere and oceans are potentially of profound significance in controlling conditions across the globe and affecting lives and livelihoods across the world, in the Polar, sub-Polar, temperate, and tropical regions. Understanding the interacting nature and feedback of polar processes and addressing their consequences in a global context will benefit the people, policy and businesses well beyond the Polar Regions.

**Scope:**

Proposals should aim at developing innovative approaches, building on existing data resources and infrastructures, the latest observational products (including in-situ observations), and state-of-the-art climate models, to assess the key physical and chemical processes in the ocean and atmosphere and the key ocean-atmosphere-ice interactions. Proposals should cooperate with relevant projects funded by the ESA Earth Observation Programme. In addition, they are encouraged to join the EU Arctic Cluster in order to build synergies and maximise the complementarity of the different actions in the Cluster. Proposals should build upon previous actions funded under Horizon 2020 and avoid duplication or overlap.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged, in particular with countries – beyond the EU Member States and countries associated to Horizon 2020 – that took part in the Arctic Science Ministerial meetings of 28 September 2016 and 25-26 October 2018.
PM-02-2017: New concepts in patient stratification

Specific challenge

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.

Scope

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

The Commission considers that proposals requesting a contribution from the EU of between EUR 4 and 6 million ...

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.
- Increased research and innovation opportunities in this innovative industries-driven field, particularly small or medium-sized enterprises (SMEs).

Type of action

Research and Innovation Action
Proposal structure: Collaborative research

- Every proposal is composed of two parts:
  - Administrative Forms (Part A)
    - Online via the Funding & Tender Portal
  - Technical Annex (Part B)
    - Comprises 5 sections:
      1. Excellence, 2. Impact, 3. Implementation (limit 70 pages RIA/IA, 50 CSA, 15 FET),
      4. Members of the consortium, 5. Ethics and security
Get connected: Examples

Conferences, brokerage events, info & networking days

Funded projects via CORDIS

→ Gaining visibility by providing thematic input!

Technology platforms, PPPs, associations

Partner search tools (e.g. NKS Ideal-IST), Funding & Tenders portal
Wrap-up! and Take-home!

- EU collaborative research provides interesting job opportunities
- Actively participating in EU research is a strategical decision
- Prepare well in advance
- Carefully read all relevant call documents (details might be crucial)
- Choose scientifically convincing consortium partners with matching expertise
- Gain experience as an evaluator

Get advice!

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...over the entire project lifecycle

...for institutions, science managers and researchers in Germany
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