



SWEDISH FOUNDATION *for*  
STRATEGIC RESEARCH

**The Swedish Foundation for Strategic Research (SSF)**  
**announces**  
**framework grants for research on**  
***Novel biomarkers of clinical relevance***

The Swedish Foundation for Strategic Research announces a total of SEK 225 million in a national call for proposals for problem- or application-driven research projects of the highest international scientific standard. The announcement aims to stimulate interdisciplinary research collaboration within the area of novel biomarkers, of clinical relevance for human and/or veterinary medicine as well as of a strategic value for the Swedish biomedical industrial sector.

Selected research projects will be supported by framework grants in the range of SEK 4 - 7 million per year (incl. overhead) to be used for, e.g., salaries (for senior scientists, postdocs, PhD students etc.) and research tools according to the needs of the projects for a period of five years. Funding during the two last years will be dependent upon a successful mid-term evaluation.

**Importance of the biomarker area**

Biomarkers are bio-molecules or cells, in different biological fluids and tissues, which may be used for one or more of the following purposes, for example:

- To diagnose an ongoing disease
- To monitor the progression of a disease
- To predict the outcome of a disease
- To study treatment effects

The number of biomarkers has increased dramatically over the last decade, with the rapid progression of different imaging and –omics technologies. The challenge onward is to select high-quality biomarkers that are useful in the daily clinical work. The discovery of a novel biomarker includes identification of a candidate marker, development and validation of a suitable method for its measurement, characterization of its occurrence and biological variation in healthy individuals as well as in patients, and finally demonstration of its usefulness in the clinical setting.

Efficient biomarkers are indispensable for the health care system, including the Swedish biomedical industrial sector, from screening purposes and diagnosis of a particular

disease to response to therapy. In the case of prevention of disease, use of biomarkers can facilitate early diagnosis and treatment, improving the quality of life for the patient as well as having positive health economic effects.

## **Scope of the present call**

The aim of this call is to stimulate and strengthen collaborative and innovative research with the objective to develop novel biomarkers of clinical relevance for human and/or veterinary medicine as well as a strategic value for the Swedish biomedical industrial sector. The biomarkers should give an added clinical value, i.e. have the potential to be used to diagnose and/or monitor pathological processes and/or therapeutic responses.

Projects could aim to target an important disease for which no or only sub-optimal biomarkers exist at present, using either already established or new technology (although technology development *per se* will not be prioritized). In the case of replacing an existing biomarker, the project should be designed to document superiority of the new marker.

Furthermore the projects should aim to achieve 'proof-of-concept' at mid-term and plan the last 2 years to provide evidence for positive impact on clinical decision-making and/or improved patient outcome by using the biomarker. The proposals should also hold argumentation for (and if possible, study-design to develop) the right analytical platform for the biomarker to achieve a useful level of applicability for the suggested purpose of the marker.

In this call, clinical needs and expected endpoints should be identified along with a vision for utilization/exploitation in Sweden, within a time span of up to 15 years after completion of the project. The importance of using the biomarker(s) studied to the health care system should be specified. If applicable, the applicants should describe the potential importance of the biomarker(s) for the Swedish biomedical industrial sector. The importance for health care and industry should preferably be described in terms of tangible goals and milestones.

## **Eligibility**

All projects should be based on reliable interdisciplinary collaboration between, typically, two to four applicants with different types of relevant complementary scientific expertise, from the same or different research group(s), not necessarily co-localised. All applicants should take active part in the project and their activities should be at least partly financed by the project budget.

The proposal must be submitted by a main applicant who should be a prominent researcher prepared to assume the scientific responsibility for the project during the entire grant period. All co-applicants should be senior scientists (i.e. not postdocs or PhD students). All applicants must be employed by a Swedish university, university college, university hospital or a public or private non-profit research institute. At least one of the applicants must be employed by a university/university college.

In this call the applicants must have access to relevant clinical material to validate the biomarkers. It is considered a strength if at least one of the applicants has relevant clinical expertise and experience. Industrial representatives as well as public authorities and organizations are preferably seen as collaborating partners, but will not be funded by the grant.

A maximum of 25% of the grant may be used for salary for the main applicant and/or the co-applicants, but only to cover up to a maximum of 25 % of the salary of each applicant.

The budget of the proposal should be in the span SEK 4-7 million per year for five years.

An approved grant may be used for co-funding in EU-funded projects provided the core in the two projects overlap.

Please note that:

- each applicant is allowed to be represented in one application as a main applicant
- each applicant is allowed to be represented in one application as a co-applicant

Applications not conforming to these conditions will not be considered. It is the responsibility of the main applicant to inform the co-applicants and check the compliance of the proposal before submission

## **Application and submission**

A complete application must contain, among other data specified in the portal, a full description of the research program and full details of the relevant expertise of the participating groups. It should contain a clear account on the strategic and clinical significance of the research program, demonstrating a vision of utilization/exploitation of the research in Sweden during the project period or up to 15 years after completion of the project.

Each proposal shall clearly describe the state of the art within the addressed area. It is also important that the proposal gives a clear picture of the resources available and shows that the proposed constellation of research groups will be effective in view of its objectives.

The application is submitted via the SSF portal at: <http://apply.stratresearch.se>. To get a complete view of all data required for submission it is necessary to consult the portal. Please log on to the portal in due time before the deadline.

## **Evaluation**

Applications will be assessed by an evaluation committee, including scientists from industry and academia. In a first selection the applications will be judged primarily on the scope (as described above) and strategic relevance. Furthermore, applications that the committee judges cannot compete in the final step of the evaluation or are too incomplete to be assessed will not pass this first step. The selected applications will be sent on international scientific evaluation. The international evaluation will then be taken into account by the evaluation committee in order to produce a final recommendation on which the SSF board will base its decision.

The applications will be reviewed using the following criteria:

- Conformity to the scope and eligibility criteria as outlined above
- Scientific quality; originality, strengths, weaknesses, interdisciplinarity, and feasibility of the research plan
- Strategic relevance to Swedish industry and/or society and importance of the proposed research
- Qualification of the applicants, previous scientific accomplishments, international experience, networks, and leadership/management of research teams.

## Time table

- Last date for applications: **25 March 2014, 14.00 hours**, at the latest
- Decision by the SSF Board: late autumn 2014
- Project start: January 1, 2015

No additional material submitted after the deadline will be considered.

Please note that the Foundation is subject to the Principle of Public Access to Official Records (Offentlighetsprincipen). Thus, applicants should avoid submitting material that they do not wish to be made public, e.g. information that could prevent patenting.

Contact persons at SSF:

Inger Florin, Scientific secretary, Life Sciences  
[inger.florin@stratresearch.se](mailto:inger.florin@stratresearch.se), 08-505 816 74

Joakim Amorim, Research programmes manager  
[joakim.amorim@stratresearch.se](mailto:joakim.amorim@stratresearch.se), 08-505 816 65