MedTechLabs

Background

The recently established MedTechLabs research center is a collaboration between KTH Royal Institute of Technology (KTH), Karolinska Institutet (KI) and Region Stockholm. The objective of the center is to create world-leading demand-driven research in medical technology, aiming for better and more cost-effective healthcare. The research should lead to improved diagnostics, therapy or patient management. The focus is therefore primarily on research that has a potential to be applicable in a clinical environment within the next five years. The goal of the center is also to create conditions for implementing new knowledge, facilitating dissemination of new methods, both within Region Stockholm, nationally and internationally.

A prerequisite for achieving these goals is interdisciplinary collaboration in technology and medicine in the Stockholm region. Researchers from KI and KTH will work together to develop technology and methods to be applied within a clinical environment. For more information, please see www.medtechlabs.se.

During the next five years, MedTechLabs will expand into new focus areas.

Call for funding

MedTechLabs hereby announces a call for funding of research programmes in the focus areas of bioelectronic medicine and/or AI within healthcare. Each programme shall involve one programme director from each of KI and KTH, respectively. The programmes should have the potential to deliver breakthrough developments in the use of bioelectronic medicine and/or AI in healthcare, preferably in areas characterized by high disease burden in society.

The research programmes should clearly describe the health challenge being addressed, which approach is proposed, and the respective contributions from collaborating researchers from KI and KTH. A funded programme is responsible to roll out a call for projects or to advertise research position.

MedTechLabs intends to support one to two programmes in the range of SEK 2-7 million per year and programme, respectively, for a period of 4-5 years. The call closes June 3, 2019. The estimated project start is January 1, 2020.

Who can apply?

The applicants must include one programme director from KI and KTH respectively. Both applicants must have a level of activity in the project of no less than 20% of a full-time equivalent and must be employed at least 20% by their respective administrating organisations throughout the grant period. Both Programme Directors must have at least a docent or Associate Professor title.

How to apply

The applications will be processed through Region Stockholm's portal for research applications, https://forskningsstod.vmi.se/Ansokan/start.asp

Funding application instructions

- Go to our website at https://forskningsstod.vmi.se/Ansokan/start.asp
- Select Apply here (Ansök här).
- Fill in the various parts of the registration form (registreringsformuläret).
- Fill in the application form.

Register your application on the registration form

The registration form in the system contains fields where you register details about yourself and information

It is only possible to register persons with a Swedish personal ID number or coordination number.

Registered 'domicile': Enter details of the project's 'domicile', i.e. the clinic or equivalent that will administrate the project and the hospital and department or equivalent to which the clinic belongs. The new Karolinska University Hospital organisation will be inserted into the domicile drop-down menu.

Summary:

The summary shall outline:

- What is to be done.
- Why.
- How the new knowledge will be of benefit to the health service.

Fill in the application form

Download an application form from the registration form. Retain the same file name (SLL2019xxxx.doc).

The research programme

The research programme should be a maximum of 10 pages in Arial font size 12, line-spaced 1.15, and should include:

- *Purpose and goals:* State the overall purpose and specific goals of the research programme.
- *State-of-the-art:* Summarise briefly the current research frontier within the research programme. State key references.
- *Significance and scientific novelty:* Describe briefly how the collaborative programme relates to previous research within the area, and its importance in the short- and long-term. Describe how the programme moves forward or innovates the current research frontier.
- *Preliminary and previous results:* Describe briefly your own and participating researchers' previous research and pilot studies within the research area that make it probable that the collaborative programme will be feasible. State if no preliminary results exist.
- Describe the *research collaboration*, including the following items:
  - **Theory and method:** Describe the underlying theory and the methods to be applied in order to reach the programme goal.
  - **Time plan and implementation:** Describe summarily the time plan for the programme during the grant period, and how the research will be implemented.
  - **Programme organisation**: Clarify the contributions of yourself and the participating researchers in the implementation of the programme. Describe and explain the competences and roles of the participating researchers in the programme, and also any other persons who are important for implementation of the project.
  - **Potential impact:** Elaborate the content and scientific relevance of the programme in the context of contributing to better health, and in which patient groups.
  - **Novelty:** Describe The extent to which the proposed research exceeds the state-of-the-art in the field, as well as its innovation potential.
  - **AI:** If there is an element of AI in the proposed programme, it should be clear how AI will be used in a novel way to achieve the goals. The proposals should clearly distinguish elements of AI (e.g. machine learning and/or deep learning) from that of other advanced analytics.

- o **Ethical considerations**
- o **Feasibility:** Please describe:
    - how the programme will access clinical data and/or patients
    - the availability of the required infrastructure
    - ethics, regulatory considerations and patient safety
- o **Gender and equality aspects:** Please describe how gender and equality aspects will be taken into account, both regarding the hypothesis/issue/purpose of the programme as well as the particfpating researchers.
- o **Programme directors and added value of research collaboration:** Describe the planned collaboration between KI and KTH; it should be clear how each Programme director is central to the programme's implementation. Describe the merits of the research groups. Describe how the planned research collaboration will enable the researchers to engage in research tasks that are more comprehensive and challenging than would be possible if the researchers worked individually. State the central scientific questions of the research collaboration, how the collaboration will be structured and/or developed. Your application may include several more participating researchers with a doctoral degree whose scientific competence will be crucial for the implementation of the proposed research. The participating researchers should be listed in the application, as well as how each will contribute. Account for any international collaboration in your research.

Other applications or grants:

- Describe the relationship with other applications/grants from other funding bodies for the same programme (from you or another researcher).
- Please provide the following information also, when relevant.
    - o **Equipment:** Describe the basic equipment you and your team have at your disposal for the programme
    - o **Need for infrastructure:** Specify the need for local infrastructure and if depreciation costs for this is included in the application.

Additional required documents:

- Maximum 2-page CV for each Programme Director
- The 10 most relevant publications for each Programme Director
- A letter from the head of a clinical unit or equivalent, indicating how the programme is facilitated in a clinical setting and that support to implement the programme will be provided.
- A signed letter from each Programme director's Head of Department supporting the application.

- Budget. List personnel costs, other costs and any other funding for the programme. The model of SUHF for overhead costs for the respective administrative organization should be applied in the budget calculations. Please use the provided budget template and adjust for the indirect costs at your department.