Trond Mohn Foundation and the University of Bergen jointly announces a

Research Program for Translational Research in Epidemiology

Background and aims

Trond Mohn Foundation's (TMS) vision is to make a substantial difference to the development of Norwegian research milieus aiming for the highest international level. The field of epidemiology has developed radically in recent years, partly due to advancements in large-scale data analysis and genetics in addition to causal theory for observational data.

This research program aims to take this development one step further by encouraging new collaborative constellations that involve researchers with a background in biomedicine, bioinformatics, and clinical medicine in addition to epidemiology and medical statistics. By building bridges between laboratory-based and population-based research and an effort to develop novel approaches to causality, the program aims for an even more robust scientific understanding of non-communicable diseases (NCDs).

In particular, the program is intended to contribute to the scientific and strategic development of the newly established Center for Translational Research in Epidemiology (TRACE) at the University of Bergen (UiB). The centre aims to study risk factors and causes of disease in large populations by exploiting the power of epidemiology, experimental biomedicine, and informatics/bioinformatics. The program will promote and facilitate collaboration between researchers from basic and clinical medical research, epidemiology, and informatics.

TRACE currently consists of researchers from three UiB departments (the Department of Global Public Health and Primary Care, the Department of Biomedicine, and the Department of Informatics), and is based in the EPISTAT environment at the UiB Department of Global Public Health and Primary Care. It is an integrated part of the Alrek Health Cluster which is an excellent venue for collaborations and public outreach. TRACE already collaborates with a number of research institutions in Norway and abroad and is currently reaching out for new collaborations that can contribute towards the aims of the centre.

Thematic scope of the program

TMS has set aside a maximum of 18 MNOK for this research program. Proposed projects shall contribute to the development of TRACE as an interdisciplinary centre and must include the use of epidemiologic methodology in combination with experimental biomedical technology and/or informatics.

The project proposals should address one or more of the following thematic areas:

- 1) Identification of novel causal relationships in NCDs.
- 2) Identification of common causal mechanisms for different NCDs with the aim of providing new treatments.
- 3) Translation of causal insights into prevention strategies of NCDs at population and individual level.

The proposed projects are expected to deliver one or more of the following outcomes:

- 1) Novel knowledge on causal mechanisms for NCDs
- 2) Novel knowledge on causal mechanisms shared by different NCDs
- 3) New innovative causal inference methods based on integrated approaches
- 4) Identification of new targets of intervention which may lay the ground for drug repurposing and new molecular entities
- 5) Precise and personalized risk predictions through the application of integrated methodology
- 6) Translation of risk predictions to preventive measures at the population and individual level

In addition to the more technical requirements outlined in section A-C, proposals must meet the following requirements:

- The proposed scope of the proposed projects must be in line with the overall thematic scope of TRACE and address one or more of the three thematic areas as described above. Proposals must state clearly which thematic area(s) to which they will be contributing to.
- Proposals should be clearly cross-disciplinary / multi-disciplinary and involve researchers from at least two departments/faculties/institutions.
- The project must be led by **one** dedicated principal investigator (PI) of high academic standing and with proven project leadership experience.
- At the time of submission, the PI must have their main position at UiB and normally be employed at UiB in a permanent position as either a researcher, an associate professor, or a professor.
- Any TMS funding must be matched by resources at about the same level from the participating institution(s).
- UiB must be the main applicant institution and the Department where the PI is employed must have agreed to host the project as outlined in the proposal, including the proposed budget.

Please note that the inclusion of relevant partner institutions is encouraged and expected.

For further information: Please consult Appendices A to C.

Appendix A – How to apply for funding under this program

There will be a two-step application process as follows:

Step 1: Pre-qualification

Step 1 will be organized and implemented by UiB. Eligible proposals will be evaluated by an international panel of experts appointed by the Board of TRACE. The evaluation will focus on the scientific quality of the proposals including plans for generation and pursuit of novel scientific ideas. In addition, priority will be given to proposals that clearly will contribute to the overall aims of TRACE and the thematic areas outlined above.

The evaluation criteria listed in Appendix C will be the basis for evaluation of proposals in both Step 1 and Step 2. In Step 1, the Board of TRACE may make an overall assessment considering the aims of TRACE and this program, before selecting a *minimum of five and a maximum of seven* high quality proposals to be entered into Step 2.

Step 1 Proposals must be written in English and contain the following:

- Short research plan (template to be provided).
- The budget sheet (template to be provided).
- A letter from the TRACE board, confirming that the proposed research is in line with the aims and scientific scope of TRACE. Contact Ramune Midttveit (Ramune.Midttveit@uib.no), for a letter of support, no later than 10.11.2022.
- A commitment letter from the host institution describing the nature and level of its
 contribution to the project and its willingness to host the project. The letter must be
 signed at the appropriate institutional level.
- In cases where institutions other than the host institution are expected to contribute
 with resources to the project, a letter signed at the appropriate level of the
 contributing institution should be included. The letter should describe the nature of
 the resources to be committed and confirm institutional support of the proposal and
 its budget.

Application deadline for Step 1 proposals is **15.11.2022 at 12:00 (noon)**. One copy of the proposal and the required attachments, compiled into **one (1) PDF file**, is to be submitted to Ramune Midttveit (Ramune.Midttveit@uib.no) at UiB. Receipt of submitted applications will be confirmed by email.

Proposals that are submitted after the deadline and/or that do not meet the formal requirements will not be evaluated.

Following the Step 1 evaluation and Center Board decision, PIs of successful Step 1 proposals will receive an invitation from TMS with information on how to proceed with the Step 2 applications.

Step 2 Final

Step 2 – final - will be organised and implemented by TMS. Eligible Step 2 proposals will be evaluated by an international panel of experts appointed by the TMS. The expert panel will make recommendations to the TMS board. Depending on the expert's quality assessments and recommendations, TMS may grant a maximum of 18 MNOK to projects under this program.

Applications must be written in English and contain the following:

- The research plan (template to be provided by TMS)
- The budget sheet (template to be provided by TMS)
- A letter from the TRACE board, coonfirming that the proposed research is in line with the aims and scientific scope of TRACE.
- A commitment letter from the host institution describing the nature and level of its contribution to the project and its willingness to host the project. The letter must be signed at the appropriate institutional level.
- In cases where institutions other than the host institution will contribute with resources to the project, a letter signed at the appropriate level of the contributing institution should be included. The letter should describe the nature of the resources to be committed and confirm institutional support of the proposal and its budget.

How to submit Step 2 proposals:

Application deadline for Step 2 proposals is **16.03.2023 at 12:00 (noon)**. One copy of the proposal and the required attachments, compiled into **one (1) PDF file**, is to be submitted to *grants[at]mohnfoundation.no*. Receipt of submitted applications will be confirmed by email.

For questions about Step 2 proposal preparations please contact

- Anne Marie Haga: phone +47 970 05 276, amh[at]mohnfoundation.no
- Oddveig Åsheim: phone +47 416 63 164, oa[at]mohnfoundation.no

Appendix B – Project funding and project grant agreements

It is a prerequisite for funding that any TMS contribution is matched by resources (in kind and fresh) from the participating institutions at about the same level. The overall budget of each project should allow for the establishment of a research team and for collaborative and/or cross- disciplinary research to take place.

Each project may be granted TMS funding for either three or four years, with a contribution from TMS between three and six million NOK.

Matching resources from the host institution may include salaries, consumables, equipment, overhead related to positions funded by TMS and "leiestedskostnader" (e.g., the use of labs / equipment).

Funding from the foundation may not be put towards overhead and/or other expenses not directly incurred by the project. For this program, TMS funding may normally not cover the salary of the project leader or "frikjøp" of UiB-employees.

In the event a grant application is successful, a project grant agreement will be entered into by TMS and the host institution, in which their respective responsibilities will be detailed in full.

In conjunction with the grant agreement, consortium agreements between the collaborating institutions must be put in place as well as an agreement ensuring the project's affiliation to TRACE and access to the relevant research infrastructures / data.

Appendix C - Evaluation criteria

The evaluation criteria listed below will be the basis for evaluation of proposals both in Step 1 and Step 2. Proposals will be assessed on their own merit. The evaluation will focus on the scientific quality of the proposals including plans for generation and pursuit of novel scientific ideas. In addition, priority will be given to proposals that clearly will contribute to the overall aims of TRACE and the thematic areas outlined above.

In Step 1, the Center Board will, after external evaluation, consider all proposals and make an overall assessment to ensure that the aims of TRACE are considered, before nominating 5-7 proposals to be entered into Step 2.

In Step 2, TMS will appoint a panel of internationally renowned experts to evaluate the proposal and make recommendations for funding to the foundation Board. In addition to the proposal, evaluators will have access to this program description including the evaluation criteria as detailed below.

Please note: any documents / information not specifically asked for, will not be made available to evaluators.

The basic reference for the evaluation is as follows:

Assessment Criteria	Description
Significance	The extent to which the chosen objective and approach may lead to progress beyond the current state-of-the-art.
Feasibility	How may the proposed research activities contribute to realization of the described goals and the subject area.
	The extent to which the conceptual framework, design, methods, and analyses are appropriate for the aims of the proposed research.
	The extent to which the available resources, the institutional commitments, and any other unique features, will contribute towards the success of the proposed
Environment and	research.
consortium	The quality of the consortium (incl. complementarity / balance).
	Extent of uniqueness of expertise on the proposal topic.
Investigators	The extent to which the investigators' experience, track record, training, preliminary data and/or past progress may contribute towards the success of the project.
Scientific leadership	The extent to which the need for strategic leadership is addressed.

	Plans for recruitment of young research talents and building collaborative capacity.
Innovation and	The suitability of the described approach towards translation and innovation.
translation	
	Is there an identifiable potential to improve methods, the utilization of
	equipment/data and /or clinical practice?
	The extent and quality of the international cooperation activities set out for the
International	project.
cooperation	- International networks
ocoporation.	- International mobility
National	The extent to which the project will make use of national research expertise
cooperation	and help to promote national network building.
Value added	How the proposed project may contribute to:
	- Enhanced research competence and capability
	- Exploit the research opportunities provided by the existing research
	infrastructure
	- A long-term positive impact on the research milieus
	- Academic training
Dissemination	Plans for scholarly publication, dissemination, and other communication
and outreach	activities.
	Plans for increased and improved communication with local stakeholders,
	users (including patients) and the public, as well as end-users.
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Please note: The reply to this invitation involves the recording and processing of personal data (such as name, address and CV). Such data will be processed pursuant to Norwegian law. The questions and any personal data requested are required to evaluate the application in accordance with the specifications of the call for proposal and will be processed solely for that purpose by TMS. The review process requires that personal information given in the proposal must be made available to external reviewers. All such experts are required to sign and adhere to a declaration of confidentiality in this regard.