EXPLORATORY INTERDISCIPLINARY SYNERGY PROGRAMME

Information and guidelines for applicants
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Grant information

Grant capital:
Up to DKK 5 million over 1-2 years (DKK 2.5 million per year)
Total budget: DKK 50 million

Application form opens:
1 April 2019

Application deadline:
27 August 2019

Applicant notification:
December 2019

Earliest start date:
January 2020

Latest start date:
December 2020

Review committee:
Committee on Interdisciplinary Research

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1 EXPLORATORY INTERDISCIPLINARY SYNERGY PROGRAMME

1.1 PURPOSE
It is becoming increasingly clear that some of the most complex scientific challenges only can be achieved through interdisciplinary efforts. With the Exploratory Interdisciplinary Synergy Programme, the Novo Nordisk Foundation seeks to strengthen the synergy between researchers, across disciplines, organizations and national borders.

The goals of the research programme are to:
- Pursue creative and novel, high-risk/high-gain interdisciplinary research ideas
- Support early-stage attempts at attacking such novel interdisciplinary ideas
- Stimulate an emerging interdisciplinary research culture that spans across scientific disciplines and techniques
- Break down or overcome the barriers that exist between the different disciplines
- Strengthen and internationalize Danish research

1.2 ELIGIBILITY
The project should be based on a novel research idea, where the interdisciplinary challenges are at the centre. Such a novel interdisciplinary research direction is characterized by high-risk/high-gain elements. The goal of the present programme is to test the basic concept and generate the early data that can prove the feasibility of the idea and provide a direction for a more complex and expanded project stage. Following the conclusion of this exploratory programme, the applicant may choose to apply for the full Interdisciplinary Synergy Programme. It must be noted, however, that it is not a requirement to pass through the exploratory stage before considering an application for the full Interdisciplinary Synergy Programme.

The definition of novel, interdisciplinary research, which is targeted here, is collaboration across scientific and technical disciplines, that does not normally take place. In other words, research that could be supported via any other grant in the Novo Nordisk Foundation should not be submitted to this call.

Core science areas in the Novo Nordisk Foundation

**Biomedical and health science research and applications** supports basic research in biomedicine that paves the way for advances in translational medicine and innovative clinical applications. Among the key topics are: basic biomedical research, translational biomedical research and technologies, clinical research, health-related data science infrastructure and applications, and research in patient-centred healthcare and treatment systems.

**Life science research and industrial applications promoting sustainability** is a new focus area in the Novo Nordisk Foundation, addressing the escalating global sustainability challenges and potential for research to make a positive impact in reducing environmental footprint. Areas that are supported include industrial biotechnology, plant and food biotechnology, environmental biotechnology as well as basic research, platforms and technologies to support discoveries and solutions from research on sustainability.

**Natural and technical sciences research and interdisciplinarity** is a new focus area in the Novo Nordisk Foundation. Basic natural and technical sciences research provides a necessary basis for future advances in biomedicine, health sciences and biotechnology. New and innovative discoveries will increasingly stem from interdisciplinary applications across a broad range of basic scientific research, including chemistry, physics, engineering, computer science and mathematics. In addition, selected other research fields play a critical role in advancing the scientific agenda by integrating perspectives from such disciplines as psychology, sociology, anthropology, economics and law.

**Patient-centred and research-based care** focuses on making Denmark a global leader in delivering patient-centred and research-based care for people with diabetes and facilitate development of this care within diabetes comorbidities and other endocrine disorders.
It is a requirement that the project aims to be truly interdisciplinary, and that the programme leader in the application clearly states its timeliness and appropriateness, and how the synergy will be catalysed between the involved partners.

The Exploratory Interdisciplinary Synergy Programme supports 2-4 research groups, of which the main applicant should be at least 50% associated to a Danish university, hospital or other non-profit organisation, that will be considered the host institution of the project. Levels of association of less than 50% at the Danish institution must be justified in the application. The other research groups can either be located in Denmark or abroad and each represent different scientific or technical disciplines. Collaboration with industry is possible within this programme, however funding cannot be awarded to industrial partner(s).

Being the recipient of another Novo Nordisk Foundation project grant does not preclude receiving an Exploratory Interdisciplinary Synergy Programme grant.

### 1.3 Research Fields

Research funded under this programme must aim at interdisciplinary approaches to resolve challenges in relation to the core science areas: **Biomedical and health science research and applications**, **Life science research and industrial applications promoting sustainability**, **Natural and technical science research and interdisciplinarity**, and **Patient-centred and research-based care**.

The proposed research project must bring researchers from different scientific and/or technical disciplines together to resolve challenges in relation to the above-mentioned science areas. The idea behind the project need not to be supported by preliminary data.

The proposed research project must bring researchers from different disciplines together. Examples of disciplines could be engineering, IT/computer science, medicine, mathematics, anthropology, physics, psychology, biology etc. A project with co-applicants within the same discipline will generally not be seen as interdisciplinary under this programme, and optimally, there will be one applicant/co-applicant from each of the disciplines described in the application.

Examples or inspiration for relevant, interdisciplinary research, can be found at institutions such as Stanford Bio-X. This could be, but is not limited to, research that combines neurology with electro engineering, ICU clinicians with chemists, surgery with computer science, pathology and material science, etc.

### 1.4 Funding

Up to DKK 2.5 mio. per year can be requested for a project running over 1-2 years, for a total funding of up to DKK 5 mio. per project. The total annual budget of the programme is DKK 50 million.

Funding can be requested to cover expenses directly associated to the project as follows:
- Salary, but not own salary for main or co-applicants.
- Direct project costs, including materials, consumables, and purchase of services.
- Equipment, provided it is essential for the proposed project, and its use after completion of the project, can be clearly justified.
- Scientific publications originating in the project.
- Expenses to workshops, meetings, exchange, seminars, and other efforts directed at ensuring fruitful synergy between the partners of the programme.
- Travelling, accommodation and registration for scientific conferences.
- Bench fee: Support for individual researchers for the coverage of direct expenses needed to conduct the research project applied for (must be specified in the budget). Bench fees may
only be used for operating expenses, lab consumables, and access to lab space and facilities, that cannot be included within another individual budget category.

For administrative support of the grant, an amount up to 5% of, and included in, the funding applied for from NNF may be included in the budget.

The administrative support:
- can cover non-scientific, administrative expenses in relation to the project, such as accounting, administration related to payment of salaries and purchasing, hiring, as well as auditing and financial reporting on the project
- cannot cover administrative expenses that are not directly related to the project
- can via the host institution be shared between the institutions of the main- and co-applicants, as detailed in the application budget
- is not automatically included in the grant, and must be stated/applied for in the application budget, but should not be specified in detail

1.5 LANGUAGE
The application must be in English.

1.6 APPLICATION PROCESS
The submission must comprise a comprehensive project description that includes the following elements:
- A detailed project description, including how the data expected from the project will support the overall novel interdisciplinary idea and support the planned transition into a larger-scale implementation.
- A clear plan for how to achieve the interdisciplinary synergy, and how the partner groups will interact and collaborate in the process.
- Letter of commitment from the Danish host institution.
- Letters of commitment from all co-applicants.
- A detailed budget including all participating groups.

The application must be completed and submitted using the foundation's electronic application and grant management system, “NORMA”, which can be accessed from: https://norma.novonordiskfonden.dk

Further information on how to access and navigate in NORMA can be found in chapter 2.

It is important, that the applicant carefully reads these guidelines before initiating the application process, as this document contains the complete call text as well as instructions regarding the completion of the application.

1.7 SELECTION PROCESS
The Novo Nordisk Foundation’s Committee on Interdisciplinary Research evaluates the applications.
It is essential that the applications are not evaluated on absolute feasibility, as projects that are high risk/high gain are encouraged. Instead, it is important that the main outcome of this exploratory phase is clear and tangible data that prove the feasibility of the novel interdisciplinary idea and that show a path towards a larger-scale implementation, consisting of a more complex and expanded consortium. In other words, when compared to the Interdisciplinary Synergy Programme, the proposals for the present programme should be considered the initial phase to generate the preliminary data needed for eventually applying to the Interdisciplinary Synergy Programme.

In the evaluation of the applications, the committee will focus on the following aspects:
- Scientific quality of the project.
- The interdisciplinary approach of the project and its relevance.
- How the expected data at the end of the project will support the proposed interdisciplinary idea and aid the subsequent transition into a larger-scale implementation.
- Synergy between the applicants and how this will be achieved.
- Idea, creativity, and novelty.
- Qualifications of the programme leader/main applicant.

**1.8 IMPORTANT DATES**

<table>
<thead>
<tr>
<th>April 2019</th>
<th>November 2019</th>
<th>December 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application system opens</td>
<td>Evaluation of applications</td>
<td>Applicant notification</td>
</tr>
</tbody>
</table>

- 27 August 2019: Application deadline
- January 2020: Earliest possible start date

**1.9 IMPORTANT INFORMATION WHEN COMPLETING THIS APPLICATION**

Co-applicants signify persons who will contribute scientifically to the project and who will have a financial share in the grant. It is a requirement that co-applicants are informed about the project and that they have agreed to being mentioned in the application. During submission, please fill out the following information when completing the application form:
- "Co-applicant": Name and institution must be given for each applicant.
- "Information regarding co-applicants": describe research and publications during the past 3 years that relate to this application. (Max. 10,000 characters in total).

The applicant must have established agreements with the Danish host institution as well as co-applicants, and letter of commitment from both must be included in the application. (Please do NOT attach other appendices such as Recommendations, offers on equipment, etc.)
If the application falls inside the *Natural and technical science* area, please indicate in the application text how the topic has potential applications to biomedicine, health sciences or biotechnology.
2  THE NOVO NORDISK FOUNDATION APPLICATION AND GRANT MANAGEMENT SYSTEM - NORMA

2.1  USER REGISTRATION

The Novo Nordisk Foundation (NNF) application and grant management system “NORMA” can be accessed through links on NNFs website or directly at: https://norma.novonordiskfonden.dk

Before you begin, please read the instructions and technical information on the login-page.

It is possible to register as an organization in the application system, however organizations are currently only eligible to apply for open calls within ‘Social and Humanitarian Grants’ and ‘Education and Outreach Grants’.

If you hold an active grant, or if you have applied for funding from NNF recently, you may already exist in our system. You can check this by clicking “forgot password,” enter the email address you used when previously applying and request a new temporary password. If you are registered in our system, you will receive an email within 5-10 minutes with your login details and the temporary password. If you are not in our system, register as a new user.

The user registered, who submits the application(s) is ‘the applicant’; the legal entity responsible for the truthfulness of the content in the application.

If you experience problems logging in please contact NNF using the contact information on page 3.

2.2  GENERAL INSTRUCTIONS

Filling in the fields

For all applications, the individual fields must be completed in accordance with these guidelines and the instructions supplied in NORMA.

### Abbreviations

Abbreviations should be defined at the first use, and preferably a list of abbreviations should be included in the project description.

### Submission

The application in its entirety must be submitted electronically via the application system. It is not possible to submit an application or any part of it by standard mail or e-mail. Any material submitted outside the application system will not be included in the evaluation and will not be returned.

Applications cannot be modified after the submission deadline. If you wish to make changes to a submitted application before the submission deadline, it is possible for you (the applicant) to reopen...
the application. Be aware that the application must be resubmitted before the deadline in order to be evaluated.

Once the application has been submitted, a confirmation of receipt will be sent to the e-mail address used for logging into the system. If you do not receive a confirmation of receipt, you should contact NNF as soon as possible using the contact details on page 3.

Confidentiality
All applicant and application information will be treated confidentially.

2.3 IDENTIFYING THE CORRECT OPEN CALL IN NORMA

When you are logged into NORMA, you will enter ‘My Applications’, where you will find an overview of the status of your applications (in progress, submitted, approved and declined). In addition there is a ‘Pending Action’ section where there may be additional requests from NNF regarding your applications.

To initiate a new application you first need to identify the call and grant you wish to apply for. Go to the ‘OPEN CALLS’ tab, which is located in the upper right corner of the screen.

In the ‘OPEN CALLS’ window, all currently available grants from NNF are visible in seven tabs that are sorted by the foundation’s overall grant areas. Search the tabs to find the call that you wish to apply for.

2.4 CREATING AND COMPLETING AN APPLICATION

- An application is initiated by clicking the blue “Apply Now” button, once you have identified the call and grant you wish to apply for.
- Your draft application is then created and it will remain a draft version until you actively submit the application. After submission, you can continuously edit or cancel the application prior to the deadline. However, you are responsible for submitting or re-submitting before the deadline.
- If you wish to withdraw a submitted application after the deadline you must contact NNF via email, using the contact information on page 3.
To submit the application, it is necessary to read and accept NNF’s standards for good research practice. A link can be found in the top right corner next to your name. Further, the applicant must declare that the information provided in the application is true and accurate.

You can at any time during the application process access a PDF view of your application, and you should always check to ensure that the PDF is readable and formatted appropriately before submission.

2.4.1 APPLICATION TEXTS
Formatted text from e.g. Word can be copied and pasted into most text fields of the application. It is, however, important to check that special formatting and special letters and symbols have not been converted or lost in the text fields after copying and pasting.

Available functions for formatting text are at the top of the text fields. Some shorter text fields do not have the option to format.

2.4.2 ILLUSTRATIONS
In the ‘Project Information’ tab, figures/charts/tables/images, (etc.) related to the project description can be uploaded (maximum four illustrations is allowed). Include illustration number and legend/caption for each illustration file when uploading. The illustrations will be integrated in the final application PDF.

The following file formats are accepted in the system: JPG, JPEG, PNG, TIFF, BMP. The maximum accepted size for each illustration is 1050*1650 pixels.

2.4.3 BUDGET
The budget template will be correctly generated once you have entered the Grant Period Start Date and Grant Period End Date, which can be found under the ‘Project Information’ tab, and pressed ‘Save Draft’. You must provide these dates, before entering any information in the budget. The budget must be entered in budget years following the grant period and not calendar years.

- To access the budget template press the blue ‘Open / Edit’ icon
- Press the ‘+’ icon to add budget rows
- For each budget row, choose a budget post from the drop down menu, specify details for the post under “Description”, and enter the amount under ‘Value’.
- All amounts must be stated in Danish Kroner (DKK) without decimals.
- When entering DKK amounts, do not use periods, commas or spaces.
- Save and close the template when the budget is completed.
- Supplementary information for the budget requested from NNF can be entered in a separate field.
- Funds applied or obtained from other sources must be entered under ‘Additional Contributions for the Project’. Please specify what the additional funding covers and state if there are any overlaps with the budget applied for from NNF.

IMPORTANT! For readability purposes, standard fonts, font size 11-12, and line spacing between 1.0 and 1.5 must be used.
2.4.4 CO-APPLICANTS
For certain calls, a number of co-applicants may be either required or allowed for the application. Co-applicants take an active part in organizing and implementing the project and will receive a share of the grant. The project description must clearly describe the co-applicants’ role in the project and the budget must clearly indicate the co-applicants’ share.

Co-applicants must be invited and accept their status as co-applicants in NORMA. To invite co-applicants, go to the ‘Invitations’ tab, which can be found on the left side of the screen. The main applicant must provide the full name, email and select role as ‘Co-applicant’ and then press the ‘Invite’ button. You will be notified by email once the co-applicants accept the invitation.

Co-applicants will be contacted by email from the main-applicant via NORMA and asked to confirm their status as co-applicants. The co-applicant has the option to accept or decline the invitation. If the co-applicant accepts, additional fields will be visible in the ‘Co-applicants’ tab in the application. The ‘Co-Applicant’ fields must be filled out by either the co-applicant or the main applicant. It is essential that the main applicant ultimately checks that the fields have been correctly populated before submitting the application.

A Short CV (maximum 2 pages) for each co-applicant must be uploaded to the application as a PDF file under the ‘Co-Applicants’ tab.

Co-applicants have the ability to read, edit and upload information in the entire application, however, cannot submit the application.

If co-applicants are mandatory, the application cannot be submitted before the required number of co-applicants have accepted. Please start the process of inviting co-applicants well in advance before submission deadline.

3 GENERAL RULES FOR GRANT APPLICATIONS

The general conditions (a-h) apply to grant applications to NNF
- The ‘applicant’ in the rules below refers to the main applicant responsible for submitting the application. There are no general rules for co-applicants.
- There may be additional application conditions for individual calls, if so these are specified in the guidelines in section 1 under ‘Eligibility’.
- If an applicant submits applications exceeding the allowed in points a-d, the latter application(s) will receive administrative rejection.
- Points g-h are relevant only if you currently hold an active NNF grant.

a) An applicant may submit only one application per call.

b) For the NNF grant type “Project grants”\(^2\), an applicant may submit only one application per calendar year.

c) An applicant may submit one application for either the NNF grant type “Investigator Grants”\(^2\) or “Postdoctoral fellowships” and may not submit another application for either grant type while the application is under review. If the applicant receives a written rejection from NNF for the submitted application, the applicant may again apply for either grant type.
d) An applicant may submit only one application for a specific purpose/project per calendar year. Submitting two or more applications for different purposes/projects to different calls is permitted, as long as it is not to the same type of grant.

e) When applying for grants that do not allow funding for the applicant’s salary, the applicant must be able to account for own salary during the entire grant period applied for.

f) NNF does not allow double funding of project-specific expenses. If an applicant has applied for, or has received, funding for the project or parts of the project from others, this must be detailed in the budget of the application. If the applicant receives funding for the project or parts of the project from other sources following submission of the NNF application, NNF should be contacted as soon as possible.

g) It is not possible to hold more than one active grant of the same grant type. Researchers with an active grant of a specific type may be able to apply for a new grant of the same type during the final year of the grant, however, a new grant cannot be activated until the existing grant is completed and no longer active. The only exemption to this is that researchers with an active ‘Project Grant’ awarded by a specific committee may apply for another ‘Project Grant’ while their current grant is active if all three following requirements are met:
   • it is awarded by a different committee,
   • it is for a different purpose/project, and
   • the applications are not submitted within the same calendar year.

h) It is permitted to hold two or more active grants of different types, i.e., researchers with an active grant of a specific type may apply for a new grant of a different type.

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\[2\] An ‘NNF grant type’ is defined by the general grant frame and/or support function. Three examples of individual NNF grants that are three different NNF grant types are: ‘Challenge Programme Grants’, ‘Steno Collaborative Grants’ and ‘Tandem Programme Grants’. Two examples of NNF grant types that include multiple NNF grants having the same general grant frame and support function are:

\[2a\] Type ‘Project Grants’ includes: Project Grants for Biotechnology-based Synthesis and Production Research; Project Grants in Endocrinology and Metabolism; Project Grants in Clinical and Translational Medicine; Project Grants for Clinical Nursing Research; Project Grants in Bioscience and Basic Biomedicine, Project Grants for Art History Research.

\[2b\] Type ‘Investigator Grants’ includes: Emerging Investigator; Ascending Investigator; Distinguished Investigator; NNF Young Investigator; NNF Laureate Investigator, Investigator Grant in Art History Research, Excellence Project for Young Researchers within Endocrinology and Metabolism, Borregaard Clinical Scientist Fellowship, Research Stipend in General Practice, and Advanced Grant in Endocrinology and Metabolism.

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September 2018
Please read “Terms and conditions for grants from the Novo Nordisk Foundation”, that all grant recipients must comply with:

http://www.novonordiskfonden.dk/en/content/conditions-grants

The Novo Nordisk Foundation is an independent Danish Foundation with corporate interests. The objective of the Novo Nordisk Foundation is twofold: To provide a stable basis for the commercial and research activities conducted by the companies within the Novo Group and to support scientific and humanitarian purposes.

The vision of the Novo Nordisk Foundation is to contribute significantly to research and development that improves the lives of people and the sustainability of society.