INTERDISCIPLINARY SYNERGY PROGRAMME 2020

Information and guidelines for applicants

Table of contents

Information about the call

Grant capital:
DKK 75 million

Award amount:
Up to DKK 15 million over 4 years per grant (approximately DKK 3.75 million per year)

Application form opens:
1 April 2020

Application deadline:
11 June 2020, 2 pm CEST

Applicant notification:
December 2020

Earliest start date:
1 January 2021

Latest start date:
31 December 2021

Review committee:
Committee on Interdisciplinary Research

Contact:
Anne-Sofie Tafdrup
Grant Specialist
Phone: (+45) 3527 6553
E-mail: asl@novo.dk

Kamilla Nørregaard
Scientific Manager
Phone: (+45) 3527 6522
E-mail: knr@novo.dk

1 INTERDISCIPLINARY SYNERGY PROGRAMME

These guidelines are intended to assist you in the application process when applying for a grant from the Novo Nordisk Foundation (NNF). It is important that you carefully read these guidelines before initiating the application process, as the guidelines contain the complete call text as well as instructions regarding the completion of the application.

NNF will treat all applicant and application information confidentially. Read more about how NNF processes personal data under 'privacy & security' in the online application system, NORMA. See how to access NORMA in section 2 of these guidelines.

Furthermore, please read 'General Terms and Conditions' for grants from NNF that all Grant Recipients must comply with:

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

1.1 PURPOSE

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

The goals of the Interdisciplinary Synergy Programme are to:
- Enable creative and novel, high-risk/high-gain interdisciplinary research
- Provide long-term support of such novel interdisciplinary research 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 AREAS OF SUPPORT

Research funded under this programme must aim at reaching novel insight through interdisciplinary approaches to resolve complex challenges in relation to the Novo Nordisk Foundation core science areas:
- Basic biomedical research, clinical research and health science research
- Life science research, biotechnology and industrial applications promoting sustainability
- Natural and technical sciences research with potential applications in biomedicine or biotechnology

If the application falls inside the Natural and technical sciences area, the applicant must explain in the application text how the topic has potential applications to biomedicine, health sciences or biotechnology.

1.3 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 and has potential for disruptive science and development of entirely new research areas.

The definition of interdisciplinary research, which is targeted here, is collaboration across scientific and technical disciplines and where the researchers may not have a common language. It is important that the collaboration is not just founded on adding methods from one research field to another but strives to synergistically combine theories, methods, and concepts from different fields to arrive at new results of broad interest.

The programme supports 2-4 research groups (the main applicant plus 1-3 co-applicants). A project with all co-applicants within the same discipline/institutional department will generally not be considered interdisciplinary under this programme. Optimally, there will be one applicant/co-applicant from each of the disciplines described in the application. Of note, disciplines do not refer to the education or formal position of the applicants, but rather their ongoing work expertise. Furthermore, the interdisciplinary consortium forming the application does not have to be new, the researchers may already have established interdisciplinary research directions together.

For the present call, the proposal is ideally founded on clear pilot data that support pursuing the novel and creative idea over an extended project period of 4 years. The overall goal of the project must be to build on these early and promising results, to consolidate the novel interdisciplinary research direction and carry the concept forward. If at the application stage no pilot results exist, the applicants are encouraged to consider the Exploratory Interdisciplinary Synergy Programme.

To be eligible for a grant:
- The main applicant should be at least 50% associated to a Danish university, hospital or other non-profit research 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 research groups of the co-applicants can be either located in Denmark or abroad. The co-applicants should significantly contribute to the scientific advancement of the project and receive part of the funding, as detailed under the budget, and shared by the host institution of the grant. *Ideally, all applicants should have the same level of obligation and commitment to the project.*
- Collaboration with industry is possible within this programme, however funding cannot be awarded to industrial partner(s).

As a guiding principle, research that could be supported via any other grant in the Novo Nordisk Foundation should not be submitted to this call.

General rules for applications:
a. Being the recipient of another Novo Nordisk foundation research grant does not preclude receiving an Interdisciplinary Synergy Programme grant.
b. Please refer to our general terms and conditions (https://novonordiskfonden.dk/en/conditions-for-grants/) for further information that apply when applying for/receiving a grant from NNF.

1.4   FUNDING
A total funding of up to DKK 15 million may be awarded per project which may run for up to 4 years. The total annual budget of the programme is DKK 75 million.

The grant cannot be used to cover the main applicant's or the co-applicant's own salary. Applicants may apply for funding for the following types of expenses:
- Salary for research and technical assistance, including laboratory administrators, postdoctoral researchers and Ph.D. students (including tuition fee up to DKK 80,000 per year per student, which must be specified in the budget), and research-year students.
- 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 related to the project.
- Expenses to workshops, meetings, exchange, seminars, or 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.

Administrative support may account for a maximum of 5% of the total budget and must be included therein.

The administrative support:
- can cover expenses such as for accounting, payment of salaries, 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-applicant(s), 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

NNF will not award funding for:
- commercial activities
- overhead

> ⚠️ The grant may not be used to cover 'overhead' (e.g., rent, electricity, water, maintenance etc.)

1.5   LANGUAGE
The application and any additional uploads must be written in English.

1.6   APPLICATION PROCESS
The application process consists of a one phase submission that must include the following elements:
- An extensive detailed project description including clearly formulated work packages, hypotheses, pilot data and explanation of how this data support the novel interdisciplinary idea.
- A description of the project's timeliness and appropriateness, and what concrete plans there are for carrying the project forward.
- A clear plan for how to achieve the interdisciplinary synergy, and a description of the roles of- 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 (NB: institution commitment letters are not required from the co-applicants).
- A detailed budget including all participating groups.
- A statement of whether application for other NNF research programmes are submitted within the same calendar year (for instance in the NNF Data Science Initiative).

The Novo Nordisk Foundation does not allow duplicate funded projects. If co-funding is obtained for the research described in the application, or parts of it, from other sources the applicant must inform the Novo Nordisk Foundation as soon as possible.

The application must be completed and submitted using NNF's online 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 and information about the required application content can be found in chapter 3. **Please read section 3.2 for detailed information on expected format of the application.**

1 April 2020 Call opens		**September 2020** First evaluation / First applicant notification	**December 2020** Final evaluation / Final applicant notification	
●	●	●	●	●
	11 June 2020 Application deadline		**1 January 2021** Earliest possible start date	

The Novo Nordisk Foundation's Committee on Interdisciplinary Research evaluates the applications.
The proposals are first evaluated by the committee. Up to 10 proposals are then selected for international, external peer review assessment, to the extent possible using experts in each of the main scientific disciplines of the application. Following the receipt of the peer reviews, the committee will make the final decision.

Applicants that are not selected for external peer review will after initial evaluation and first committee meeting be notified (i.e., in September 2020). The remaining applicants will in December 2020 be notified about whether they have been awarded a grant. The notification e-mail will be sent from noreply@norma.novonordiskfonden.dk to the e-mail address entered on initial registration.

> ⚠ NNF does not provide feedback in case an application is not selected for funding.

1.7 ASSESSMENT CRITERIA

It is essential that the applications are not evaluated on absolute feasibility, as projects that are high risk/high gain are encouraged. However, an ideal application will contain early pilot data that support the feasibility of the novel interdisciplinary idea and that show a path towards the larger-scale research implementation over the four years of the project.

In the evaluation of the applications, the committee will focus on the following aspects:
- Scientific quality of the project.
- Idea, creativity, and novelty.
- The interdisciplinary approach of the project and its relevance.
- Demonstration of pilot data that support the interdisciplinary concept and the plans for carrying the concept forward.

- Synergy between the applicants and how this will be achieved.
- Managerial and scientific qualifications of the programme leader/main applicant.

If the main applicant or co-applicants have active grants from NNF, this may be taken into consideration in the evaluation of your application for a new grant. If you apply, while having an active grant from NNF, you must describe how the project you propose in this application is different from and/or coherent with the project(s) already funded and briefly describe the progress of the already funded project(s). ***Active grant(s) of the co-applicants must also be described.***

2 THE APPLICATION AND GRANT MANAGEMENT SYSTEM – NORMA

Sections 2 and 3 provide guidance on completing and submitting an application through NNF's online application and grant management system NORMA. Section 2 contains general technical information, while section 3 contains information specific to the individual call. All the fields of the application form must be completed in accordance with these guidelines and the instructions in NORMA.

2.1 USER REGISTRATION

NORMA can be accessed through links on NNF's website or directly at:
https://norma.novonordiskfonden.dk

Before you begin, please read the instructions on the login page.

If you do not have a user profile in NORMA, you can register by clicking on REGISTER AS APPLICANT. You will be asked to fill in a contact form, which will appear in a new window. Main applicant should only have one user profile. Use your work e-mail address for registration. After the registration you will receive an e-mail with username and password. You can now log in to NORMA. When you log in for the first time, you will be asked to change your password.

Applicants who have previously applied for a grant from NNF, or have an active grant, may already have a user profile in NORMA. If you are in doubt, an existing user profile can be retrieved by clicking FORGOT PASSWORD and entering an e-mail address. If you have a user profile in the system you will receive an e-mail with login information and a new password within 5–10 minutes.

A registered user that submits an application is legally responsible for the truthfulness of the content of the application.

If you experience technical problems, please contact NORMA Support: norma-support@novo.dk.

> ⚠️ An applicant cannot change the e-mail address provided at registration. Please contact NORMA Support if you need to change your e-mail address.

2.2   CREATING AN APPLICATION

To initiate a new application, you first need to identify the call and grant you wish to apply for. In NORMA, go to the OPEN CALLS tab, located in the upper right corner of the screen. All currently available grants are visible in tabs that are sorted by NNF's overall grant areas.

Initiate an application by clicking the blue APPLY NOW button. Your draft application is then created and will remain a draft version until you actively submit the application.

You can create and subsequently edit a draft version of the application until the deadline. A draft application can be saved by clicking SAVE DRAFT and may be cancelled at any time up to the deadline by clicking the button CANCEL APPLICATION. An application is not submitted to NNF until an applicant has clicked SUBMIT.

The application comprises tabbed sheets that all need to be completed, but not in any order. Fields marked with a red star (*) are obligatory to fill in.

You can review the application at any time by clicking OPEN under MY APPLICATIONS on the NORMA front page. The whole application, including any currently entered data, can be downloaded as a PDF file by clicking on APPLICATION PDF. Make sure the PDF is readable and formatted appropriately before submitting your application.

2.3   TEXT AND ILLUSTRATIONS

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

> ⚠ To prevent loss of data, it is essential to press SAVE DRAFT before you leave NORMA or navigate in the system.

APPLICATION TEXTS
Text from, e.g., Word can be copied and pasted into most text fields of the application. It is, however, important to check that formatting, special letters and symbols have not been converted or lost in the text fields after copying and pasting. If the formatting looks wrong in NORMA or in the PDF, you can try to change all text to 'Normal' under the tab FORMAT.

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

> ⚠ For readability purposes, standard fonts, font size 11-12, and line spacing between 1.0 and 1.5 must be used.

ILLUSTRATIONS
Illustrations with figures/charts/tables/images etc. related to the project description can be uploaded under PROJECT INFORMATION (a maximum of four illustrations are 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 for illustrations are accepted in the system: JPG, JPEG, PNG, BMP. The maximum accepted size for each illustration is 1050*1650 pixels.

2.4 SUBMITTING THE APPLICATION

The application in its entirety must be submitted electronically via the application system by clicking SUBMIT. 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.

All applicants must read and accept NNF's Standards for Good Research Practice before submitting the application. A link can be found under 'Policies' in the top right corner of the window. Further, the applicant must declare that the information provided in the application is true and accurate.

An application cannot be submitted unless all the required fields have been completed. Fields in the application that are incorrectly completed or incomplete will be listed in a box at the top of the screen. Clicking on each individual line marked in red takes you directly to the incomplete field. The box will disappear when you select SAVE DRAFT. This allows you to continue with the application and submission.

> ⚠ A list of any incorrect or incomplete entries will be autogenerated when you click SUBMIT. Amending incorrect or incomplete entries can be time-consuming, so we recommend submitting applications well before the deadline.

If you wish to modify a submitted application before the deadline, it is possible to reopen the application. Be aware that the application must be resubmitted before the deadline. Applications cannot be modified after the submission deadline.

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 (please check your spam folder), you should contact NNF as soon as possible using the contact details on page 3.

If you wish to withdraw a submitted application after the deadline you must contact NNF via e-mail, using the contact information on page 3.

> ⚠ Please remember to check that the PDF version of the application is legible and contains all entered information and uploads before submitting the application.

3 APPLICATION CONTENT

This section provides guidelines on the content and format required in the sections of the online application form for this call.

3.1 APPLICANT INFORMATION

Enter information on the main applicant, co-applicant(s) and administrating institution in the following tabbed sheets:

- Personal information
- Current institution
- Educational information
- Administrating institution
- Applicant information
- Co-applicant(s)

> ⚠️ Registering a new administrating institution in NORMA can take up two working days. The application can be edited but cannot be submitted before this information is registered. We therefore recommend that you register an administrating institution well in advance.

MAIN APPLICANT

CV for main applicant: can be a maximum of 4,000 characters. Please include in your CV a short bibliographic overview summarizing total number of peer-reviewed publications, number of first authorships, number of corresponding authorships, number of citations, and h-index.

Publications list (for main applicant): Can be a maximum of 5,000 characters. Please only include the 10 most relevant publications for evaluating your merits. Include a complete specification of all authors for each publication with your own name highlighted. Applicants are strongly encouraged to state their ORCID and provide a full list of publications in ORCID.

Summary of own research: Can be a maximum of 2,000 characters. Please provide a short summary of your research and explain how the past years of research fit into the current proposal and collaboration.

CO-APPLICANT(S)

For this call, between 1-3 co-applicants are required.

Co-applicants signify persons who will contribute scientifically to the advancement of the project, participate actively in organizing and implementing the project, and who will have a financial share in the grant. The project description should clearly describe the role of any co-applicant, and the budget should clearly indicate the co-applicants' share of the total budget. ***Ideally, all applicants in the consortium have the same level of obligation and commitment to the project.***

Co-applicants must be invited through NORMA and subsequently confirm their status as co-applicants in the application:

- Go to the INVITATIONS link in the blue field on the left
- Click the + symbol and enter the name and e-mail address of the co-applicant
- Select CO-APPLICANT under ROLE in the drop-down menu
- Click INVITE
- Co-applicants will be contacted automatically through NORMA and asked to confirm their status as co-applicants

When the co-applicant accepts his or her status as co-applicant, additional fields will appear in the application. The CO-APPLICANT field includes information about co-applicant(s), including previous grants received from NNF. **Please provide name, institution, and department for each co-applicant.**

The following uploads must be included as CO-APPLICANT UPLOAD(S) (it is recommended to create a single combined PDF file for each co-applicant):

- A short CV (a maximum of two pages).
- A short bibliographic overview summarizing total number of peer-reviewed publications, number of first authorships, number of corresponding authorships, number of citations, and h-index (can be a maximum of 4,000 characters).
- Publications list; please only include the 10 most relevant publications for evaluating your merits. Include a complete specification of all authors for each publication with your own name highlighted. Co-applicants are strongly encouraged to state their ORCID and provide a full list of publications in ORCID.
- A short research summary and an explanation of how the past years of research fit into the current proposal and collaboration (a maximum of two pages).

Either the co-applicant or the main applicant must complete the CO-APPLICANT field. Only one person can edit the application at a time. If the co-applicant has confirmed participation but the information has not been entered in the CO-APPLICANT field, NORMA will not include the co-applicant as part of the application. The main applicant must therefore check that the information about any co-applicant(s) is included in the application before submitting it.
The application cannot be submitted before the required number of co-applicants have accepted. Similarly, if the number of co-applicants exceeds the maximum number allowed, the application cannot be submitted. NB: Only by contacting NORMA-support can a co-applicant be removed, which may take some hours to do. Thus, make sure that the co-applicants are correctly entered in due time before submission.

Please start the process of inviting co-applicants well in advance of submission deadline.

> ⚠ Please note that co-applicants can read, edit and upload information in the entire application but cannot submit the application.

3.2 PROJECT INFORMATION

Enter a description of the project under the PROJECT INFORMATION tab. A maximum of four illustrations can be uploaded here.

GRANT PERIOD
After you enter the start and end dates for the grant, NORMA generates a grant period in whole years. The grant period is the duration of NNF's grant for the project, which for this call is up to 4 years.

PROJECT TITLE
Please provide a short title for the project (maximum 150 characters, including spaces).

BRIEF PROJECT DESCRIPTION
Please provide a brief stand-alone summary of the project describing its purpose, target group, activities, and justify wherein the interdisciplinary synergy value of the project lies (maximum 2000 characters, including spaces). NOTE: The brief project description should be in a format suitable for sharing with potential peer reviewers before disclosing confidentiality.

PROJECT DESCRIPTION

Please provide a comprehensive project description (maximum 30,000 characters, including spaces) addressing **the elements detailed in section 1.6**.

The project description should be well-written, clear, concrete and direct, and is expected to be developed and written jointly by the group of applicants.

Avoid unnecessary repetitions from the BRIEF PROJECT DESCRIPTION (which supposedly contains descriptions of purpose and target group).

The project description must provide:
- clearly formulated work packages and hypotheses;
- details on work packages and methodologies (existing or developing);
- details on why the project requires that exact combination of complementary expertise and knowledge of the involved partners and how the synergy between them will ensure advancement of the project;
- details on the role of each of the applicants, e.g., in relation to supervising students, and what synergy-enhancing activities are planned;
- description of how the proposed research may have potential application, possibly in the long-term, within the biomedicine or biotechnology; and
- description and motivation of the overall end-goal, as well as possible side benefits within the individual scientific disciplines that could be generated from the novel research direction.

Please do not use abbreviations and limit the use of acronyms – the applications will be assessed by a committee that are not necessarily experts within all disciplines covered by the call. An abbreviation might mean something in one discipline, and something different in another discipline. In the same line, please **use a language directed towards persons that are non-experts** but have a high academic level.

LITTERATURE REFERENCES
Please provide the reference information for the literature cited in the project description (maximum 4000 characters, including spaces).

LAY PROJECT DESCRIPTION
Please provide a brief summary for non-experts in lay language. If the application is awarded a grant, the text may be used for publication (maximum 1000 characters, including spaces).

RESEARCH KEYWORDS
Choose up to 5 keywords which best describes the research for this proposal.

> ⚠️ Please note that the application should address all the assessment criteria listed in subsection 1.7.

3.3   BUDGET

The budget only comprises of the information entered in the BUDGET tab. Additional budget information attached under UPLOADS or added under other tabs than BUDGET will not be considered.

Before you begin to fill in the budget template, enter GRANT PERIOD START DATE and GRANT PERIOD END DATE under the PROJECT INFORMATION tab and press SAVE DRAFT. The budget must be entered in budget years following the grant period and not calendar years.

Complete the budget as follows:
- Click on the blue OPEN/EDIT icon to open a budget in a pop-up window.
- Click the + key to add budget rows.
- Select one of the budget headings, enter an amount under VALUE (DKK) and specify what the amount is for under DESCRIPTION.
- All amounts must be stated in Danish kroner (DKK) without decimal points, commas or spaces. NORMA automatically inserts the thousands separator.
- Save and close the budget spreadsheet by clicking SAVE and CLOSE (in that order) and then return to the BUDGET tab.

Important: If you make any changes to the grant period after filling out the budget, you <u>must</u> clear the budget table <u>before</u> making the change to the grant period.

Any comments about the budget can be entered in the SUPPLEMENTARY INFORMATION field. **Please make sure it is clear who of the collaborators each expense is dedicated to.**

Funding, both received and applied for, from the applicant's own organisation and from other sources should be entered under ADDITIONAL CONTRIBUTIONS FOR THE PROJECT. The amount entered should be the total sum for the entire grant period. The NNF does not allow double funding and there can be no budgetary overlaps between projects. It must be clearly described in the INFORMATION FOR ADDITIONAL CONTRIBUTIONS field what the additional contributions cover and how the project proposed in this application is different from the project already funded or applied for from other parties than NNF. **If the applicant, post application submission, receives funding for the project or parts of the applied project from others, the NNF must be contacted as soon as possible.**

The way in which the budget is set up influences any later financial reporting to NNF. Please note that the financial accounts must have the same headings as the budget posts in the application.

> ⚠ Applicants may only apply for the types of expenses listed in section 1.4.

3.4   UPLOADS
- A signed letter of commitment from the Danish host institution, taking responsibility to hosting the project as well as administrating the grant (*Hosting letter*).
- A one-page overview of the co-applicants (i.e., their name, institution, department) (*Other uploads*).
- Signed letters of commitment from each of the co-applicants, stating their contribution to advancing the project and their commitment to their share in the grant (*Support letter*). Note: this is a letter from the co-applicant; not the co-applicant's institution.

Please do NOT attach other appendices such as recommendations, support letter from collaborators, offers on equipment, etc.

All uploads must be in PDF format. NORMA automatically places these uploads at the end of the application. Please respect the page limitation and the upload requirements stated in the call. Uploads in excess of these limits may not be considered for evaluation.

3.5   PREVIOUS AND CURRENT GRANTS FROM NNF

If the main applicant or any co-applicant have received any grants from NNF as an applicant or a co-applicant within the past five years, you must provide the application number, project title, grant period (in years), grant amount, and the percentage share of the grant (100% if there is no co-applicant). Briefly summarize how any of the grants may be related to the current application.

If you have previously submitted other applications to NNF in the same calendar year, summarize how these applications are related to the current application.

17 March 2020

The Novo Nordisk Foundation

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.