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Project grants for research within Industrial Biotechnology and Environmental Biotechnology

Nordic region 2020

Information and guidelines for applicants

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Application information

Grant capital:
DKK 30 million

Award amount:
Grants of up to DKK 4 million for up to 3 years.

Application form opens:
June 25, 2020

Application deadline:
August 27, 2020 at 2 pm CET

Applicant notification:
December, 2020

Earliest fellowship start date:
January 1, 2021

Latest fellowship start date:
November 1, 2021

Review committee:
Committee on Industrial Biotechnology and
Environmental Biotechnology
(found on NNF website)

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(*New primary contact person available
from August 1, 2020*)

1 PROJECT GRANTS FOR RESEARCH WITHIN INDUSTRIAL BIOTECHNOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY

Nordic region 2020

These Project grants are within the grant-giving area "Life science research and industrial applications promoting sustainability", which supports research that translates into sustainable life science solutions for people and the environment.

1.1 PURPOSE

Applications are invited for project grants within industrial biotechnology and environmental biotechnology research. The project grants will be awarded for excellent research with a strategic perspective addressing major questions and challenges within these fields. Fellowships must be based at a university or other non-profit research institution in Denmark, Finland, Iceland, Norway or Sweden.

1.2 RESEARCH AREAS ELIGIBLE FOR GRANT FUNDING

The proposed research must involve a clear element of biotechnology (see bow below), have an outlook to scaling potential(s), contribute to sustainability and, if relevant, increase productivity. The research projects should preferably include one or more of the following topics:

- Use or engineering of biological/biotechnological tools and systems for synthesis and production of valuable products (e.g., chemicals, proteins and materials)
- Development of technologies and processes that can be utilized directly for bioproduction
- Improvement of the efficiency of biomanufacturing
- Use or engineering of biological/biotechnological tools and systems to protect or improve the environment
- Understanding, protection or manipulation of natural or industrial ecosystems in relation to application of biotechnology
- Data science promoting research within industrial or environmental biotechnology, including related ecosystems research

Projects primarily within plant science, agriculture or food biotechnology should be addressed to the foundation's calls for these areas. Applications will be assessed by the most relevant Novo Nordisk Foundation review committee.

> IMPORTANT! For the biotechnology requirement, the OECD short definition of biotechnology will be used as a reference for assessments. The OECD single definition of biotechnology is: the application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.

1.3 APPLICANT ELIGIBILITY

Faculty members and researchers with an independent research program at a university or other nonprofit research institution in Denmark, Finland, Iceland, Norway or Sweden are eligible to apply for these project grants.

In addition to the main applicant, applications may include one or more co-applicants who contribute scientifically to the project and will receive a financial share of the grant. A co-applicant must have an independent research program at a university or other non-profit research institution. The project may also include research partners who do not receive funding from the grant and may be located at a for-profit organization.

It is not possible to be the grant holder for more than one active project grant within Industrial Biotechnology and Environmental Biotechnology, or Biotechnology-based Synthesis and Production, at a time. Researchers holding an Industrial Biotechnology and Environmental Biotechnology project grant or a Biotechnology-based Synthesis and Production project grant, may apply for a new grant as the main applicant during the final year of the grant, however, a new grant cannot receive funding until the existing grant is completed and no longer active.

It is possible for the holder of an Industrial Biotechnology and Environmental Biotechnology research grant to be a co-applicant on an application submitted by another eligible applicant.

1.4 GRANT FUNDING

Grants can support research activities at a level of DKK 300.000-1 million per year for 1 to 3 years. For projects having a main applicant and a co-applicant located in different Nordic countries, the maximum amount that may be applied for is DKK 1.35 million per year (for these projects, the max. possible total amount is DKK 4 million per grant).

Grants may fund an entire project or a clearly defined part of a major project (in the latter case, a summary of the major project must be included).

Grant funding is available for:
- Direct project costs and operating expenses.
- Smaller scientific equipment.
- Salary for scientific researchers, technical assistants and PhD students, although not for the main applicant or co-applicants.
- Costs to publish the results of the project and to present them at an international conference.
- Administrative support for administration of the grant.
- For administrative support of the grant, an amount up to 5% of, and included in, the funding applied for from the NNF may be included in the budget.
- The administrative support:
   o *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*
   o *cannot cover administrative expenses that are not directly related to the project*
   o *can via the host institution be shared between the institutions of the main- and co-applicants, as detailed in the application budget*
   o *is not automatically included in the grant, and must be stated/applied for in the application budget, but should not be specified in detail*

Details of the funding that can be applied for are found under BUDGET (section 1.9) and the instructions for the budget in the application are found in section 2.4.3.

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

Novo Nordisk Foundation does not allow double funding of projects:
- If the applicant has received funding for the project or parts of the project from other sources, this must be included in the budget under *Additional contributions for the project*.
- If the applicant following submission of the NNF application receives funding for the project or parts of the applied project from others, NNF must be contacted as soon as possible.

1.5 LANGUAGE
The application must be in English.

1.6 APPLICATION PROCEDURE
The application must be completed and submitted using the foundation's electronic application and grant management system, "NORMA", which can be accessed at https://norma.novonordiskfonden.dk

Further information on how to access and navigate in NORMA can be found in section 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 for the completion of the application.

1.7 EVALUATION OF APPLICATIONS
The evaluation of applications for these project grants will occur through expert peer review. The members of the scientific review committee are posted on the NNF website. The evaluation of applications will emphasize scientific excellence, originality and potential as well as the achievements of the applicants.

As a general rule, the Novo Nordisk Foundation processes all applications and grants in accordance with the rules followed by public research councils and foundations. This applies, in particular, to conditions concerning confidentiality, reviewer eligibility, impartiality and conflicts of interest. The Foundation does not, however, provide scientific reasons or feedback for applications that are not selected for funding. Applications from ineligible applicants will not be reviewed.

1.8 IMPORTANT DATES

June 25, 2020
Application system opens

September-October, 2020
Evaluation of applications

December, 2020
Applicant notification

August 27, 2020, 2pm CET
Application deadline

January 1, 2021
Earliest possible start date

1.9   ESSENTIAL INFORMATION FOR COMPLETING THIS APPLICATION

Below are the instructions for specific fields of the application for a project grant for research within industrial biotechnology and environmental biotechnology.

Under APPLICANT INFORMATION

CV
Please provide your brief CV. Include:
- Education
- Employment history
- Recent research funding
- Current supervision/training/teaching activities
- Summary publication and bibliometric information.
    - total number of peer-reviewed publications
    - first/corresponding/senior authorships
    - citation information
    - h-index
- Other relevant information if space allows

(max. 4,000 characters)

Publications
Please provide the complete reference information for your most relevant publications for this application (up to 10). Include all authors (or number of authors, if necessary) for each publication and use bold or underline for your name. Applicants are strongly encouraged to provide a full list of publications in ORCID.
(max. 5,000 characters)

Summary of own research
Please summarize your own research that is of relevance to this application. (max. 2,000 characters)

Supplementary Information
This field can be utilized if there is additional information that is important for the committee's review of your application. (max. 2,000 characters)

Under PROJECT INFORMATION

Brief project description
Please provide a concise description of the project. Include:
- The scientific question that is being addressed.
- An explanation of how the research is within scope of the Call.

(max. 2,000 characters)

Project description
(max. 20,000 characters - including spaces, line breaks and special characters).

Please describe your proposed research project in detail. Elements to be included are:
- Purpose
    - Research question(s) to be addressed and how this research may contribute to solving sustainable challenges.

- Specific aims
- Scientific background that is most important for the project
- Experimental plan
    - Experimental designs and procedures
    - Methods and technologies to be utilized and developed
- Discussion of experimental outcomes and significance
    - Alternative approach(es) that may be needed

If the project will occur in more than one investigator's laboratory, include information regarding how work on the project will be divided and integrated.

If the project is a part of larger project or is related to ongoing projects in the same group/team, this must be explained. The activities to be supported by the NNF grant should be specified.

Up to four illustrations (images, figures, tables, etc.) can be included for the project description via the Illustration Uploads function immediately below.

The complete reference information for the literature cited in the project description is to be entered into the Literature references field below the Illustrations Uploads.

Lay project description
Please provide a non-confidential summary that is suitable for publishing on the Novo Nordisk Foundation website in case the project is funded.
(max. 1,000 characters)

Under CO-APPLICANTS
The information for including one or more co-applicants is found in section 2.4.4.

Under BUDGET
The allowable expenses and budget posts for a project grant for research within industrial biotechnology and environmental biotechnology are:
- Operating expenses
- Equipment (maximum amount of DKK 200.000 per year)
- Salary-scientist/researcher
- Salary-research technician (for salary costs for technical/scientific assistance)
- Salary-PhD student
- Tuition fee (max. DKK 80.000/year)
- Travel (in connection with conducting the research project)
- Conference participation (maximum amount of DKK 25.000 per budget year)
- Publication costs (maximum amount of DKK 25.000 per budget year)
- Bench fee:
    - *Support for individual researchers for the coverage of direct expenses needed to conduct the proposed research project. Bench fees must be specified in the budget, and 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. To include a bench fee in the budget, the fee must be part of the general expenses policy of the institute/institution and apply for all employees for which the policy concerns.*
- Direct administrative expenses:
    - *For administrative support of the fellowship, an amount up to 5% of, and included in, the funding applied for from the 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*
- *is not automatically included in the grant, and must be stated/applied for in the application budget, but should not be specified in detail*
- Other

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 NNF's 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, a user account for you may already exist in the NORMA 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 in the 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, please register as a new user.

The registered user who submits the application(s) is 'the applicant' and is the legal entity responsible for the truthfulness of the content in the application.

If you experience problems logging in, please contact NORMA support at norma-support@novo.dk.

2.2 GENERAL INSTRUCTIONS

Filling in the fields
For all applications, the individual fields must be completed in accordance with the information and instructions provided in this document and the NORMA system.

> IMPORTANT! To prevent loss of data, it is essential to press "Save Draft" before you leave NORMA or navigate in the system.

Abbreviations
Abbreviations should be defined at the first use. A list of abbreviations in the project description section is recommended.

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 email. 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 a valid application.

Once the application has been submitted, a confirmation of receipt will be sent to the email address for the applicant's NORMA account. If you do not receive a confirmation of receipt, please contact NORMA support at norma-support@novo.dk.

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 application(s) (in progress, submitted, approved and declined). In addition, there is a 'Pending Action' section where there may be additional requests from NNF regarding your application(s). 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.
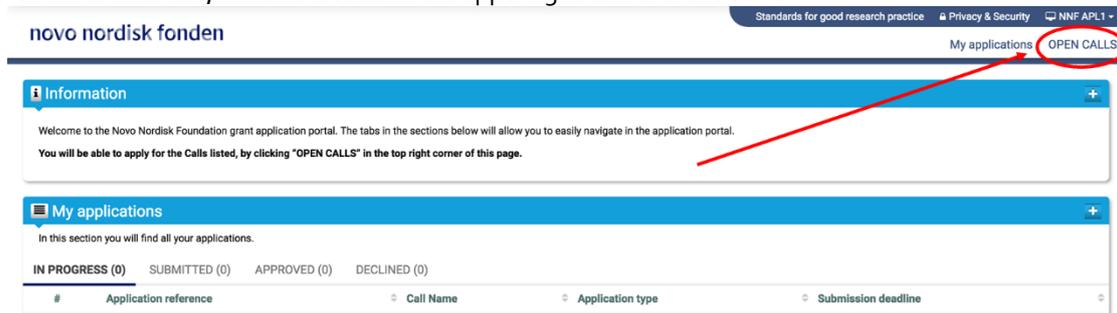
In the 'OPEN CALLS' window, all currently available grants from NNF are visible in seven tabs that are sorted by NNF's overall grant areas. Search the tabs to find the call that you wish to apply for.
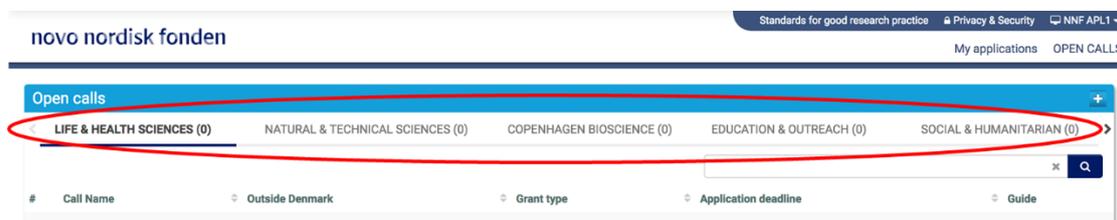
2.4   CREATING AND COMPLETING AN APPLICATION

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 the application 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 a word processing program such as Word can be copied and pasted into most text fields of the application. It is, however, important to check that special formatting as well as 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.

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

2.4.2 ILLUSTRATIONS

In the 'Project Information' tab, illustrations (figures/charts/tables/images/etc.) related to the project description can be uploaded. The illustrations will be integrated in the final application PDF.
- A maximum of four illustrations are allowed.
- Include the illustration number, title and legend/caption within each illustration file.
- The following file formats are accepted in the system: JPG, JPEG, PNG, BMP.
- The maximum accepted size for each illustration is 1050 x 1650 pixels.

2.4.3 BUDGET

The budget template having the correct number of budget years for the application must first be generated. This is done by entering the Grant Period Start Date and the Grant Period End Date, which can be found under the 'Project Information' tab - then press 'Save Draft'. You must provide these dates and press 'Save Draft' before entering any information in the budget.

The budget for each year of the project is to be provided (in budget/project years, not calendar years).

Costs are to be justified in the budget table and/or supplementary information field. Include sufficient detail for it to be clear what the funding will be used for.

- 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), in whole kroner amounts only (without decimals).
- When entering DKK amounts, do not use periods, commas or spaces.
- If you convert currency to DKK, include the cost in the original currency and the exchange rate in the Description or supplementary information field.
- Save and close the template when the budget is completed.

Additional or special information related to the budget can be entered in the supplementary information field.

Funds applied for or obtained from other sources must be entered under 'Additional Contributions for the Project'. Under 'Information for additional contributions', provide information for the project regarding funding received and/or applied for from other sources. Please describe the relation of these to the budget applied for from NNF.

2.4.4   CO-APPLICANTS

In addition to the main applicant, applications may include one or more co-applicants who take an active part in organizing and implementing the project and will receive a share of the grant funding. A co-applicant must have an independent research program at a university or other non-profit research institution. The project description must clearly describe the role of the co-applicant(s) in the project and the budget must clearly indicate the funding the co-applicant(s) will receive.

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 and email of the co-applicant. If the co-applicant is already a registered user in "NORMA", it is necessary to use the email address which the co-applicant has registered as his/her user email. After entering the name and email, select the role of 'Co-applicant' and then click the 'Invite' button. You will be notified by email when a co-applicant accepts the invitation.

A co-applicant will receive a co-applicant invitation email from NORMA that includes your name and a link for accepting the invitation. 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. These 'Co-applicant' fields can be completed by either a co-applicant or the main applicant.

Below the 'Co-applicant' fields is the upload function for uploading the short CV (1-2 pages) for each co-applicant. Uploaded short CVs will be included in the application pdf at the end of the file. Either a co-applicant or the main applicant can upload a short CV.

A co-applicant can read and edit information in the entire application; however, a co-applicant cannot submit the application. It is essential that the main applicant checks the information for the co-applicant(s) before submitting the application.

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 a submitted application exceeds the number allowed in points a-d, the later-submitted application will receive an 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"[2a], 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"[2b] 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 applications for different purposes/projects to different calls is permitted, as long as it is not to the same type of grant[2].
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 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[2]. 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'[2a] 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 active grants of different types[2], 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.

June 20202

The Novo Nordisk Foundation

Please read the "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.