



EMERGING INVESTIGATOR 2023

INDUSTRIAL BIOTECHNOLOGY AND
ENVIRONMENTAL BIOTECHNOLOGY

Nordic countries

Information and guidelines for applicants

Table of contents

- 1 EMERGING INVESTIGATOR 2023..... 4**
- 1.1 PURPOSE..... 4
- 1.2 AREAS OF SUPPORT 4
- 1.3 ELIGIBILITY..... 5
- 1.4 FUNDING..... 6
- 1.5 LANGUAGE..... 8
- 1.6 APPLICATION PROCESS..... 8
- 1.7 ASSESSMENT CRITERIA..... 9
- 2 THE APPLICATION AND GRANT MANAGEMENT SYSTEM – NORMA 9**
- 2.1 USER REGISTRATION 10
- 2.2 CREATING AN APPLICATION 10
- 2.3 TEXT AND ILLUSTRATIONS..... 11
- 2.4 SUBMITTING THE APPLICATION..... 11
- 3 APPLICATION CONTENT 12**
- 3.1 APPLICANT 12
- 3.2 INSTITUTION..... 14
- 3.3 PROPOSAL..... 14
- 3.4 BUDGET 15
- 3.5 APPENDICES..... 16

Information about the call

Grant capital:
DKK 20 million

Award amount
Up to DKK 10 million per grant

Application form opens:
7 November 2022

Application deadline:
11 January 2023 at 2 pm

Interview:
22 March 2023 (upon invitation)

Applicant notification:
April 2023

Earliest start date:
1 May 2023

Latest start date:
1 April 2024

Review committee:
Committee on Industrial Biotechnology and Environmental Biotechnology

Contact:
Henning Jørgensen
Senior Scientific Manager, PhD
Email: hej@novo.dk
Phone: +45 7242 2588

Juliana Mee
Grant Specialist
Email: jum@novo.dk
Phone: +45 2062 7323

Torben Vedel Borchert
Scientific Director
Email: tvb@novo.dk
Phone: +45 3077 6977

1 EMERGING INVESTIGATOR 2023

INDUSTRIAL BIOTECHNOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY

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>

Please, also go to '[Applying for a grant](#)' at the NNF website [Grants in Open Competition](#) to learn more about the NNF application and granting process.

1.1 PURPOSE

With this call for applications, the NNF seeks to support upcoming and highly promising research leaders within industrial biotechnology and environmental biotechnology in the Nordic countries. The intention of the Emerging Investigator grant is to enable excellent scientists to establish their own research group or to further strengthen their recently started group.

The Research Leader Programme

To support the best and most talented research leaders at all career stages, from senior postdocs wanting to start their own independent research group to established senior principal investigators, the NNF offers three different grants under the Research Leader Programme: Emerging, Ascending and Distinguished Investigators.

Please note that only the Emerging and Ascending Investigator grants are open within Industrial Biotechnology and Environmental Biotechnology.

The Emerging Investigator profile

The Emerging Investigator grant is for talented researchers typically at the senior postdoc or assistant professor level. The grant is intended for researchers who have matured to a point where they are ready to start their own independent research group, or existing group leaders in the early phase of starting their group. See further details under the section 'Eligibility'.

1.2 AREAS OF SUPPORT

The proposed research must address major challenges within Industrial Biotechnology and Environmental Biotechnology. The research should be fundamental in character but have a strategic outlook to scaling potential(s), contribute to sustainability and, if relevant, increase

productivity. The proposed research must involve a clear element of biotechnology (see box below). One or more of the following topics should preferably be included in the research:

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

Proposals focusing on plant science, agriculture and food biotechnology should be submitted to the Novo Nordisk Foundation Committee on Plant Science, Agriculture and Food Biotechnology, while proposals with a focus on pharmaceuticals and therapeutics should be submitted to the Novo Nordisk Foundation Committee on Bioscience and Basic Biomedicine.



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.

Essentially, any chemical or physical modification of a biological entity or product is considered biotechnology within this call.

1.3 ELIGIBILITY

The following criteria apply to the Emerging Investigator grants.

Career stage

The applicant must at the time of application be at the level of senior postdoc, senior researcher, assistant professor, or newly employed associate professor (or any level equivalent to one of these positions). Ideally, applicants should have 4-8 years of research experience after having received their PhD degree (leave of absence not included).

Applicants should have a strong track record within their field of research relative to their career stage, which will typically include primary or senior authorships on high-impact research publications, contributions to key conferences in the field, important technology developments etc.

Applicants who are already established independent group leaders with more than two years of group leader experience are only exceptionally considered 'Emerging Investigators'. Instead, they would typically fit into the 'Ascending Investigator' category.

Applicants who, at the time of application, have already secured a `starting grant` with similar scope (e.g. Villum Young Investigator, DFF – Sapere Aude, ERC starting grant, etc.) are only considered eligible if they in the application can argue how management of two large and clearly non-overlapping projects is feasible.

Importantly, applicants should have a clear goal and strong motivation for starting their own independent research group, or further strengthening their newly started research group.

Place of employment and institutional anchoring

Researchers from across the world with the academic potential to establish an independent research program at a university or other non-profit research institution in Denmark, Finland, Iceland, Norway or Sweden are eligible to apply for the Emerging Investigator grant. This host institution administrates the grant.

During the grant period, the grant recipient and the associated group members must be employed at the administrating host institution.

A hosting letter signed by the head of department/institute must be provided. The letter should confirm that the host institution will provide the required infrastructure, laboratory and office facilities, as well as administration of the grant.

The grant cannot be used to cover teaching substitutes. Grant recipients must contribute to the teaching environment at the host institution in the ways, and at the levels, that are required or expected for the grant recipient's position there.

Important restrictions

Important restrictions regarding NNF grants and proposals:

- Applicants may submit only one application per call.
- The present call is for the grant type `Investigator` that includes Emerging Investigator, Ascending Investigator, Distinguished Investigator, the NERD programme, NNF Young Investigator, NNF Laurate Research grants and the annually reoccurring Data Science Investigator calls under the Foundation's Data Science Initiative. If an applicant submits more than one application to these calls within the same year, only the first application submitted will be evaluated, while the subsequent applications will receive administrative rejections. After having received notification on the funding decision, the applicant may submit a new application for a Novo Nordisk Foundation "Investigator".
- It is not possible to hold more than one active Investigator grant. Applicants with an active Investigator grant can only apply for a new Investigator grant in the final year of the project, however, the grant periods cannot overlap.

1.4 FUNDING

A total of up to DKK 20 million is available for grants up to DKK 10 million over a 5-year grant period.

Applicants may apply for funding for the following types of expenses:

- **Salary** for the applicant for all or part of the project period in case the applicant is not tenured or guaranteed her or his own salary.

- **Salary for employees**, e.g. PhD students, postdoc and/or for research or technical assistance. Salary for employees can only be applied for if they are employed at a lower job structure/salary level than the applicant.
- **PhD tuition fee** up to DKK 80.000 per student per budget year (must be included separately).
- **Operating expenses** such as lab consumables, chemicals and reagents, computing resources or software, sequencing/omics-analyses and other chemical analysis directly associated with the project.
- **Equipment** required for the project. The costs may not exceed 20% of the total budget.
- **Conference participation** up to DKK 50.000 per budget year.
- **Travel** expenses directly related to the project, for example, to perform experiments or analysis in another lab for a limited period. Up to DKK 30.000 per budget year.
- **Publication costs** of results originating from the research project, up to DKK 25.000 per year.

Bench fee can be included in the budget for support of individual researchers to cover expenses needed to conduct the proposed research.

Bench fee is calculated per academic employee actively working on the project and may only be used for expenses that are related to the research project and which cannot be included within another individual budget category. Bench fee may account for maximum DKK 8.000 per month per FTE working on the project, and the budget must specify the expenses covered by the bench fee, which may include:

- Common or shared laboratory expenses and consumables
- Laboratory utilities (electricity, gas, water)
- Maintenance of essential equipment
- Service contracts
- Technical and IT support

Note, that bench fee cannot cover rent, administrative support, representation, social contributions etc. To include a bench fee in the budget, the fee must be a part of the general expense policy of the administrating institution, and it must apply for all employees independently of funding source.

Documentation that the administrating institution has a general bench fee policy should be included in the Hosting Letter from the administrating institution enclosed as link or appendix. An unspecified bench fee without documentation will not be accepted.

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
- 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

- Double funding of projects:
 - If the applicant has received funding for parts of the project from other sources, in part or in full, this must be accounted for in the budget, as no budgetary overlaps are allowed.
 - If an identical or overlapping project proposal has been submitted to other funding institutions than the NNF, it must be noted under 'supplementary information'.
 - If the applicant, after 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.



The grant may not be used to cover 'overhead' (i.e. 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 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.



When all applications have been assessed, applicants will be notified about whether or not they have been awarded a grant. The notification e-mail will be sent from norma-noreply@novo.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

NNF's Committee on Industrial Biotechnology and Environmental Biotechnology will primarily assess the applications based on the following criteria:

Primary assessment criteria:

- Novelty and originality of the research idea.
- Potential impact on the research areas mentioned in Section 1.2.
- Feasibility of the proposed research.
- Achievements of the applicant.
- Independence and research leadership potential of the applicant.
- Mobility and international experience, as well as engagement in the research community.

Emerging Investigator grants are individual grants awarded to excellent junior researchers with original and ambitious projects, to help them start their own independent research group. Hence, independence and research leadership potential of the applicant constitutes important assessment criteria. As such, both 'Project' and 'Person' will be considered in the assessment.

The following elements will not be given weight during the evaluation:

- The current funding situation of the applicant. However, the level of commitment of the candidate to the project can be taken into consideration by the committee, for instance, if the applicant has existing major obligations or large grants.
- Whether the applicant applies for funding for his/her own salary, or has own salary covered by host institution or other funding.

The applicant, as the principal investigator of the proposed project, should during the project act independently from more senior researchers at the host institution where the project and the applicant is based. If the project involves collaboration with other groups or independent investigators, the applicant must clearly demonstrate ownership of the project. The nature of collaboration, including roles and responsibilities, should be well described in the application.

Other grants from NNF

If you have an active grant from NNF, this may be taken into consideration in the evaluation of your application for a new grant. In general, it is recommended that the Grant Recipient has delivered results on the active grant(s) before submission of a new application to NNF. 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).

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. The 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 your user name 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 who 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

Initiate an application by finding the call you wish to apply for in the OPEN CALLS-section on the Applicant Portal in NORMA. Use the search filters at the top of the section to filter by e.g., overall funding area, and initiate an application by clicking APPLY NOW next to the relevant call.

Applications can be edited up until the deadline. A draft application can be saved by clicking SAVE DRAFT and may be cancelled at any time up until the deadline by clicking CANCEL APPLICATION. An application is not submitted to NNF until an applicant has clicked SUBMIT and has received confirmation that the application has been successfully submitted.

You can review the application at any time by reopening from within NORMA. Opening the application will also allow you to download the application in its entirety as a PDF. Make sure the PDF is readable and formatted appropriately before submitting your application.

2.3 TEXT AND ILLUSTRATIONS

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.

TEXT FIELDS

Text from Microsoft Word or comparable word processors can be copied and pasted into most text fields of the application. It is, however, important to check that formatting, special characters, 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, try changing all text to *Normal* using the **FORMAT** dropdown. It is the responsibility of the applicant to ensure that the pdf looks correct before submitting.

The available options for formatting text are at the top of the text fields. Some shorter text fields do not have the option to use rich text formatting.



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

ILLUSTRATIONS

Illustrations such as figures, charts, tables, images, etc. related to the project description can be uploaded under **PROPOSAL**. A maximum of four illustrations are allowed. The illustrations will be placed on a separate page in the application PDF but can be referenced throughout the project proposal as needed. For readability, please name the files numerically by the order in which they are referenced.

The following file formats for illustrations are accepted in the system: JPG, JPEG, PNG and 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.



Please remember to check that the PDF version of the application is legible and contains all data and uploads before submitting.

All applicants must read and accept NNF's [Standards for Good Research Practice](#) before submitting the application. 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. Applications can be cancelled at any time before submission. If you need to withdraw an application after the deadline, please get in touch with NNF via e-mail, using the contact information on page 3.

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.



A list of any incorrect or incomplete entries will be generated at the top of the screen when you click SUBMIT. Clicking one of these error messages will take you to the relevant field. Amending incorrect or incomplete entries can be time-consuming, so we recommend submitting applications well before the deadline.

3 APPLICATION CONTENT

This section provides guidelines on the content required in the sections of the online application form for this call, as well as essential information regarding the project description, structure and budget.

3.1 APPLICANT

The applicant tab contains various sections with information about the main applicant:

- Personal information.
- Educational information.
- Current institution.
- Experience.

- Previous and Current Grants from NNF.

After filling in all mandatory fields, the applicant should complete the task to save the details.

MAIN APPLICANT

The main responsible party for the application can enter their details through the Applicant Details-task with the type 'Applicant'. After filling in all mandatory fields, the applicant should complete the task to save the details.

APPLICANT INFORMATION

CV (4,000 characters, including spaces)

- Education.
- Employment history.
- Research funding.
- A short bibliographic overview summarizing total number of peer-reviewed publications, number of first authorships and corresponding or senior authorships, number of citations, development in citations per year and h-index.
- International experience also including shorter research stays.
- Substantial findings and contributions to science, society, technology, and innovation (incl. patents).
- Other relevant information, e.g. contribution to teaching or science outreach.

Publications (5,000 characters, including spaces)

Applicants should include a link to an updated profile with a full publication list, e.g. Google Scholar, ORCID, Web of Science or Scopus. Below that, list the 10 most relevant publications for evaluating your merits. Please include all authors (or number of authors on publications with more than 10 authors) and highlight your own name. Please also provide the 5-year impact factor for the individual journals.

Summary of own research (2,000 characters, including spaces)

Please provide a summary of your research achievements and describe how you expect your research will contribute to solve major challenges within industrial biotechnology or environmental biotechnology with a strategic outlook to improve sustainability and provide high-impact solutions at a large scale.

Supplementary information (2,000 characters, including spaces)

This field can be used to provide additional information that is important for the committee's evaluation of your application, e.g. leave of absences, employment situation, possible considerations regarding your fit with the 'investigator' profile, teaching obligations, other project obligations.

PREVIOUS AND CURRENT GRANTS FROM NNF

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

If you 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 are related to the current application.

3.2 INSTITUTION

Please provide information about the institution where the grant will be administered. This institution is where you will be employed during the grant period and the institution which will be responsible for budgeting, accounting, and staff supported by the grant.



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

3.3 PROPOSAL

Describe the project using the fields on the PROPOSAL tab. Each field (Project title, Brief project description, Project description, Illustration uploads, Lay project description, and Research methods) will have a short instruction text describing the expected input and maximum characters available.

PROJECT TITLE (maximum 150 characters, including spaces)

Please provide a short title for the project.

BRIEF PROJECT DESCRIPTION (maximum 2,000 characters, including spaces)

Please provide a brief stand-alone summary of the project describing its purpose, target group and activities, including the major challenge and knowledge gaps being addressed, overall purpose and expected outcomes.

PROJECT DESCRIPTION (maximum 30,000 characters, including spaces)

The applicant is free to choose any preferred structure for the project description. The following elements should be included:

- Major challenge being addressed and strategic outlook. How does the proposed research help to provide sustainable and scalable solutions to challenges within industrial biotechnology or environmental biotechnology?
- Critical knowledge gaps and identification of important research questions.
- Specific aims, testable hypotheses, and success criteria.
- Scientific background covering state-of-the-art most relevant to the project.
- Experimental plan including methods and technologies to be utilized and/or developed.
- Alternative approaches, risk assessment and contingency plans.
- Discussion of experimental outcomes and potential impact.
- Motivation for becoming a research group leader.

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

ILLUSTRATION UPLOADS

A maximum of four illustrations of 50 MB each can be uploaded here to support the evaluation of the proposal (images, figures, tables etc.) Accepted formats are .jpg, .png, .gif, .bmp. See Section 2.3 for more details. **Do not upload your CV (see Section 3.1), Hosting letter or Letter of confirmation here (see Section 3.5).**

LITERATURE REFERENCES (maximum 4,000 characters, including spaces)

Please provide the reference information for the literature cited in the project description.

LAY PROJECT DESCRIPTION (maximum 1,000 characters, including spaces)

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.



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

3.4 BUDGET

The budget for the project applied for only comprises the information entered on the BUDGET tab. Additional budget information attached under UPLOADS or added on any other tabs than BUDGET will not be considered.

GRANT PERIOD

Before you can fill in the budget template, start by entering the start and end dates for the grant. This will determine the number of years available from the budget template. The grant period is the duration of NNF's grant for the project, and the budget counts years following the project start date rather than calendar years.

CREATE BUDGET

After saving the project start and end dates, the budget template will become available to edit. The budget will open in a new tab, in which you will need to add the subcategories you need for your budget. Please follow the instructions at the top of the screen to complete the budget.

Notes:

- The budget continuously saves changes you've made without the need to manually save. You are free to leave the budget at any time and come back at a later point.
- When you are done filling in your budget, please use the SAVE AND CLOSE button. This will check that all information has been filled out correctly and in accordance with the guidelines, saving the budget to your application.
- You can now return to the BUDGET tab. A summary of the budget will be displayed, review it to ensure that it is correct.
- The full budget details can be viewed or edited at any time before submission of the application by reopening the budget template.

Any comments about the budget can be entered in the SUPPLEMENTARY INFORMATION field.

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. The INFORMATION FOR ADDITIONAL CONTRIBUTIONS field must clearly describe 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, after submitting the application, 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 subsection 1.4.

3.5 APPENDICES

Only the following **mandatory upload** will be considered in the assessment:

- A hosting letter signed by the head of department/institute must be provided. The letter should confirm that the host institution will provide the required infrastructure, laboratory, and office facilities, as well as administration of the grant. If relevant, the general bench fee policy of the institution should be included.

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.

October 2022

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.