





Table of contents

1	POSTDOCTORAL FELLOWSHIPS FOR RESEARCH WITHIN INDUSTRIAL BIOTECHNOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY	4
1.1	PURPOSE	∠
1.2	AREAS OF SUPPORT	2
1.3	ELIGIBILITY	5
1.4	FUNDING	6
1.5	LANGUAGE	
1.6	APPLICATION PROCESS	
1.7	ASSESSMENT CRITERIA	9
2	THE APPLICATION AND GRANT MANAGEMENT SYSTEM - NORMA	9
2.1	USER REGISTRATION	9
2.2	CREATING AN APPLICATION	10
2.3	TEXT AND ILLUSTRATIONS	10
2.4	SUBMITTING THE APPLICATION	
3	APPLICATION CONTENT	
3.1	APPLICANT	12
3.2	INSTITUTION	13
3.3	PROPOSAL	13
3.4	BUDGET	14
3.5	APPENDICES	15

Information about the call

Grant capital: DKK 20 million

Award amount Up to DKK 2.5 million per grant

Application form opens: June 15, 2023

Application deadline: August 24 2023, at 2 pm CEST

Applicant notification: December 2023

Earliest start date: January 1, 2024

Latest start date: November 1, 2024

Review committee: Committee on Industrial Biotechnology and Environmental Biotechnology

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1 POSTDOCTORAL FELLOWSHIPS FOR RESEARCH WITHIN INDUSTRIAL BIOTECHNOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY

Nordic countries 2023

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 <u>Applying for a grant</u> at the NNF website <u>Grants in Open Competition</u> to learn more about the NNF application and granting process.

1.1 PURPOSE

Applications are invited for individual fellowships to support outstanding postdoctoral scientists conducting research within industrial biotechnology and environmental biotechnology. The intention of the fellowship is to enable excellent young scientists to develop their own independent research area. Fellowships must be based at a university or other non-profit research institution in Denmark, Finland, Iceland, Norway, or Sweden.

1.2 AREAS OF SUPPORT

The proposed research must address major challenges within Industrial Biotechnology and Environmental Biotechnology, with a strategic perspective addressing major questions and challenges within these fields. 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 definition of biotechnology: 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 ELIGIBILITY

An applicant must either:

 Have a PhD or equivalent degree obtained within 6 years of the application deadline date,

or

 Be a PhD student who will defend her/his thesis before April 1, 2024. In this case, the PhD supervisor must confirm the expected defence date. The PhD degree must have been obtained before the Postdoc Fellowship can be activated.

The applicant must consult with the planned supervisor at the Nordic host institution before submitting the application (a hosting letter from the administrating institution must be uploaded, Section 3.5). If a research stay in another country is proposed (see below), the planned supervisor at that location must also be contacted prior to applying (a hosting letter from the institution abroad must be uploaded, Section 3.5). The Nordic host institution will administer the fellowship throughout the fellowship period, including possible periods when the postdoctoral research is performed at another research institution. To utilize the fellowship, a recipient must be accepted as a postdoctoral employee at the Nordic host institution (in Denmark, Finland, Iceland, Norway, or Sweden).

The applicant has the main responsibility for developing the project, writing the application, and carrying out the proposed research.

Important restrictions regarding NNF grants and proposals:

- At any given time, the applicant may only have *one* Novo Nordisk Foundation Postdoctoral Fellowship¹ application under evaluation.
 - o If the applicant submits more than one application, only the first application submitted will be evaluated, while any subsequent applications will receive an administrative rejection. After having received notification on the funding decision, the applicant may submit a new application for a Novo Nordisk Foundation "Postdoctoral Fellowship".
- The applicant may submit applications for other grant types, e.g., Research Leader Programmes or Pioneer Innovator Grants, while their "Postdoctoral Fellowship" application is under evaluation if these applications cover different research activities.
- It is not possible to hold more than one active Postdoctoral Fellowship grant. Applicants with an active Postdoctoral Fellowship grant can only apply for a new Postdoctoral Fellowship grant in the final year of the project, however, the grant periods cannot overlap.
- Please refer to our <u>general terms and conditions</u> for further information when applying for/receiving a grant from NNF.

1.4 FUNDING

The total annual budget for the Postdoctoral Fellowships within Industrial Biotechnology and Environmental Biotechnology is up to DKK 20 million. **Each grant can be up to DKK 800,000 per year for projects with a duration of 1-3 years**. Please note, at least 1 year must take place at the Nordic host institution. The duration of the fellowship should reflect the time frame of the research activities.

For applicants currently based at a Nordic host institution who have not conducted research in another country, research activities in a laboratory in another country for at least 6 and maximum 24 months in total will be considered as a positive element for the postdoctoral training but is not a requirement.

Applicants may apply for up to DKK 800.000 per year for the following types of expenses:

- Salary for applicant including pension, holidays, etc. according to the current agreements and regulations at the Nordic host institution (please, consult with the Nordic host institution regarding current agreements and regulations).²
- Salary for research technician (costs for technical/scientific assistance)
- Operating expenses
- **Equipment** (maximum amount of DKK 100.000 for an individual instrument)
- **Travel / Relocation expenses**: If the fellowship will include at least 6 months research stay at a collaborating laboratory outside the country of the host institution, an amount of up to DKK 100.000 for travel and housing costs abroad can be included in the budget, in addition to the annual maximum of DKK 800.000 for all other expenses.
- Conference participation (maximum amount of DKK 25.000 per budget year)
- Publication costs (maximum amount of DKK 25.000 per budget year)

¹ **Postdoctoral Fellowship calls at the Novo Nordisk Foundation** include: Postdoctoral Fellowship within Plant Science, Agriculture and Food Biotechnology; Postdoctoral Fellowship within Industrial Biotechnology and Environmental Biotechnology; Postdoctoral Fellowship for research abroad – Bioscience and Basic Biomedicine; Visiting Scholar or Postdoctoral fellowships at MIT, Stanford Bio-X, University of Oxford *or* Weizmann, and New Exploratory Research and Discovery (NERD) programme.

² Institutions can apply for funding of additional expenses they incur for leave in connection with the birth of a child for all grant recipients and all personnel employed in Denmark with salary covered by a Foundation grant. For more information: Novo Nordisk Foundation increases support for parental leave to promote diversity and equal opportunities - Novo Nordisk Fonden

- 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, the bench fee must not 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.

A confirmation that the administrating institution has a general bench fee policy must be included in the Hosting Letter from the administrating Nordic Institution and uploaded as an Appendix (see Section 3.5). An unspecified bench fee without documentation will not be accepted.

FULL-TIME EQUIVALENTS (FTE)

For salary items, the number of full-time equivalents per year must be stated in the field FTE. There are 1924 gross hours in a year, from where non-working days must be deducted. **EXAMPLE**: Assuming that there are 6 weeks of holidays (222 hours), 10 public holidays (74 hours) 10 educational days (74 hours) in a year, the net hours amount to 1,554 per year. To find the FTE for e.g., 30 hours, the calculation should be: 30 (hours) / 1554 (net hours) = 0.02, which is what should be stated in the FTE field.

Budget item (illustrative purposes only)		Description (illustrative purposes only)
Salary – PhD	1	PhD (1 person-year full time)
Salary – project employees		Project staff (2 x 60 hours)
Salary – TAP	0,21	Technical staff 2.5 person months full time

- **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 <u>Committee on Industrial Biotechnology and Environmental Biotechnology</u> will primarily assess the applications based on the following criteria:

- Novelty and originality of the research idea
- Potential impact on the research areas mentioned in Section 1.2
- Impact on the applicants' future career prospects
- Feasibility of the proposed research
- Achievements of the applicant
- Mobility and international experience

Postdoctoral Fellowships are individual grants awarded to excellent young scientists with original and ambitious projects to enable them to develop their independent research area. Hence, the potential of the applicant constitutes an important assessment criterion, and as such, both `Project´ and `Candidate´ will be considered in the assessment.

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. Applications from ineligible applicants will not be reviewed.

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 REGISTER from the loginpage. Here you can also retrieve forgotten passwords by clicking the FORGOT PASSWORD-link. The main applicant should only have one user profile. Please use your work e-mail address for registration. After registration, you will receive an e-mail with your username and a temporary password, which you can then use to log in to NORMA. After logging in for the first time you will be asked to provide a password of your own choosing.

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.

The application comprises tabbed sheets that need to be completed but not necessarily in chronological order. Fields marked with a red star (*) are mandatory to fill in.

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 email. 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 <u>Standards for Good Research Practice</u> before submitting the application. Further, the applicant must declare that the information provided in the application is true and accurate.

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.

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.



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.

3.1 APPLICANT

The APPLICANT-tab contains information about an applicant and is collected through individual tasks in the APPLICANT DETAILS-section, detailing personal information, experience, publication history, application history with NNF, etc. The applicant 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.

CV

Please provide your brief CV with information on education, employment history, recent research funding, current supervision/training/teaching activities, summary of publication and bibliometric information (total number of peer-reviewed publications, first/corresponding/senior authorships, citation information, h-index), and other relevant information if space allows (max. 4,000 characters, including spaces).

PUBLICATION LIST

Please provide the complete reference information for your most important publications (up to 10). Include all authors (or number of authors, if necessary) for each publication and use bold or underline for your name. Applicants should include a link to an updated profile with a full publication list for the applicant on either Google Scholar, Web of Science, Scopus or ORCID. (max. 5,000 characters, including spaces).

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, including spaces).

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 administrated. 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 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 in good time.

3.3 PROPOSAL

Describe the project using the fields on the PROPOSAL tab. Each field will have a short instruction text describing the expected input and maximum characters available.

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, the scientific question being addressed and activities (maximum 2,000 characters, including spaces).

PROJECT DESCRIPTION

Please describe your proposed research project in detail. Elements to be included are (maximum 20,000 characters, including spaces):

- 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?
- Specific aims, testable hypotheses, and success criteria.
- Critical knowledge gaps and identification of important research questions.
- 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.
- Description of scientific skills (e.g., new techniques and data handling) and transferable skills (e.g., project management and entrepreneurship) that the applicant will gain from the planned postdoctoral training.
- Motivation for developing an independent research area and seeking a research career

ILLUSTRATION UPLOADS

A maximum of four illustrations of 50 MB each can be uploaded here. Accepted formats are .jpg, .png, .gif, .bmp.

LITERATURE REFERENCES

Please provide the reference information for the literature cited in the project description (maximum 4,000 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 1,000 characters, including spaces).



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

HOSTING LETTERS

- Host letter from the planned postdoctoral supervisor at the administrating institution in Denmark, Finland, Iceland, Norway or Sweden, acknowledging that the postdoctoral fellow can conduct the proposed project in the supervisor's lab and institution. If a bench fee is included in the budget, the hosting letter must include a statement that this fee is part of the general expenses policy of the administrating institution.
- If the project will involve a research stay at a laboratory in another country, a host letter from the collaborating laboratory confirming that the postdoctoral fellow can work on the project at that institution must be provided.

OTHER UPLOAD (only for current PhD students):

• If the applicant is a PhD student: A letter from the PhD supervisor confirming the timeline for thesis completion before April 1, 2024.

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.

May 2023

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 Foundation is to improve people's health and the sustainability of society and the planet.