



Exploratory Research Instrumentation 2024

Information and guidelines for
applicants

Research
Instrumentation
2024

Table of contents

- 1 Exploratory Research Instrumentation 2024 4**
- 1.1 PURPOSE..... 4
- 1.2 AREAS OF SUPPORT 4
- 1.3 ELIGIBILITY..... 5
- 1.4 FUNDING..... 6
- 1.5 LANGUAGE..... 6
- 1.6 APPLICATION PROCESS..... 6
- 1.7 ASSESSMENT CRITERIA..... 7
- 2 THE APPLICATION AND GRANT MANAGEMENT SYSTEM – NORMA 7**
- 2.1 USER REGISTRATION 8
- 2.2 CREATING AN APPLICATION 8
- 2.3 TEXT AND ILLUSTRATIONS..... 9
- 2.4 SUBMITTING THE APPLICATION..... 10
- 3 APPLICATION CONTENT 10**
- 3.1 APPLICANT 10
- 3.2 INSTITUTION..... 11
- 3.3 PROPOSAL..... 11
- 3.4 BUDGET 13
- 3.5 APPENDICES..... 14

Information about the call

Grant capital:

From DKK 2 to 7 million per grant, for a period of up to 4 years.
The total grant capital in 2024 is expected to be DKK 15 million.

Application form opens:

11 October 2023

Application deadline:

11 January 2024, 2 pm (CET)

Applicant notification:

September 2024

Earliest start date:

1 December 2024

Latest start date:

30 November 2025

Review committee:

Internal committee and international peer review

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Guidelines version:

2024.01

1 EXPLORATORY RESEARCH INSTRUMENTATION 2024

Please read these guidelines carefully before initiating the application process, as they contain the complete call text as well as instructions regarding the completion of the application:

- **Section 1** describes the overall frame and conditions of the call, eligibility criteria and evaluation process.
- **Section 2** provides technical guidance for how to access and navigate in the application and grant management system NORMA.
- **Section 3** gives essential information regarding the requirements to content, structure, and budget of the application.

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

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

1.1 PURPOSE

With the Exploratory Research Instrumentation Programme, NNF wishes to strengthen the Danish research and innovation environments by supporting the development of new research instrumentation and methodology, that is not commercially available today and/or is significantly more sustainable or otherwise advantageous than commercially available solutions. The goal of the programme is to:

- Develop novel research instrumentation and methodology from idea to prototype.
- Create a strong Danish ecosystem for technology and method development by expanding the necessary scientific and technical expertise at non-profit research institutions.
- Facilitate new research and insights, as well as new research infrastructures, based on the instrumentation and/or methodology developed.

1.2 AREAS OF SUPPORT

The instrumentation and/or methodology to be developed should enable research and development within NNF's strategic focuses on biomedicine and health sciences, sustainability and biotechnology, and natural and technical sciences as well as data science.

Specific overarching research fields include:

- Biomedicine
- Clinical and translational medicine
- Industrial and environmental biotechnology
- Plant science, agriculture, and food biotechnology
- Natural sciences with potential applications in health or sustainability
- Technical sciences with potential applications in health or sustainability

- Computational science, including data science, with potential applications in health or sustainability.

Applications for the Exploratory Research Instrumentation within natural, technical, or computational sciences must explicitly describe how the proposed instrumentation and/or methodology may have potential future applications in health or sustainability.

1.3 ELIGIBILITY

The applicant must hold a PhD degree and should be employed with a primary affiliation (at least 80 %) as postdoctoral researcher, (senior) scientist, assistant professor, associate professor, professor, or academic technical staff (“AC-TAP”) at a university or other not-for-profit research institution in Denmark. The applicant should have a documented interest in instrument and/or method development and significant expertise relevant for the project at a level commensurate with the applicant’s career stage.

Exploratory Research Instrumentation grants are individual grants at the disposal of the grantee. If the applied project involves collaboration, the collaboration must be detailed in the project description. Invitation of co-applicants is not possible within this call.

Does the project mainly involve acquisition of commercially available research infrastructure?

Please consider the “NNF Research Infrastructure Programme”.

Does the project involve commercialisation of instrumentation and/or methodology?

Please consider the Pioneer Innovator and Distinguished Innovator Programmes.

Is instrument and/or method development only a small part of the project?

Please consider other project calls offered within the relevant funding area, e.g., “NNF Project Grants”, the “NNF Investigator Programmes”, or the “NNF New Exploratory and Research Discovery (NERD) Programme.”

Special rules for applications:

- An applicant may submit only one application per call to any of the ‘Exploratory Research Instrumentation’, ‘Research Infrastructure – Large Equipment and Facilities’, or ‘Equipment Upgrade’ programmes. These three programmes are evaluated in parallel.
- Whether the applicant can apply for own salary depends on the nature of employment.
 - An applicant who holds a *time-unlimited or tenure-track position*, e.g., assistant professor with a tenure track position, time-unlimited academic technical staff, time-unlimited senior researchers, and time-unlimited associate professors, are expected to have their salary covered during the entire grant period and cannot apply for their own salary.
 - Applicants who hold a *time-limited position* as, e.g., postdoctoral researchers, assistant professors without a tenure-track, time-limited associate professors, time-limited academic technical staff, data scientist or similar may apply for own salary.
- NNF does not allow double funding of project-specific expenses. If an applicant has applied for, or has received, funding for the project or parts of the project from others, this must be detailed in the budget of the application. If the applicant receives funding

- for the project or parts of the project from other sources following submission of the NNF application, NNF should be contacted immediately.
- d) It is not possible to hold more than one active Exploratory Research Instrumentation grant. Researchers with an active grant may apply for a new grant during the final year of the grant, however, a new grant cannot be activated until the existing grant is completed and no longer active.
 - e) It is permitted to hold two or more active NNF grants of different types, i.e., researchers with an active Exploratory Research Instrumentation grant may apply for a new grant of a different type, e.g., a Project Grant or an Investigator grant.
 - f) The general conditions that apply when receiving a grant from the NNF can be found on our [webpage](#).

1.4 FUNDING

A total of up to DKK 15 million is available for grants between DKK 2-7 million for a period of 1-4 years.

Applicants may apply for funding for the following types of expenses (see section 3.4 for details):

- Salary for the applicant and scientific staff if holding a time-limited position and technical staff.
- Tuition fee for PhD students
- Equipment and parts
- Operating expenses
- Travel, conferences, and meetings
- Publication costs
- Intellectual property related costs (fees for legal counsel, licenses and patents)
- Data management
- Bench fee
- Direct administrative expenses

Co-funding is not mandatory. Any potential co-funding of the project during the project period must be described in the budget.

NNF will not award funding for:

- Salary for the applicant or scientific staff in permanent positions
- Commercial activities
- Overhead

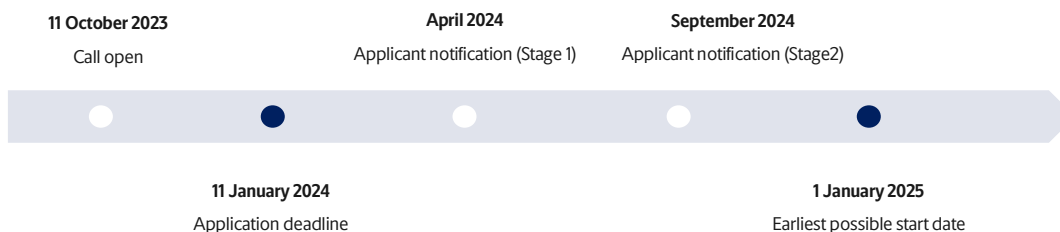
1.5 LANGUAGE

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.

Further information on how to access and navigate in NORMA can be found in chapter 2 and information about the required application content can be found in chapter 3. **Please read Chapter 3 for detailed information on expected format of the application, budget, and required uploaded documentation.**



Applicants will be notified whether their application has progressed to stage 2 or not in April 2024. Applicants proceeding to stage 2 will be notified about whether they have been awarded a grant in September 2024. The notification e-mail will be sent from noreply@norma.novonordiskfonden.dk to the e-mail address entered on initial registration.

1.7 ASSESSMENT CRITERIA

The applications will primarily be assessed based on the following criteria:

- Scientific need and potential long-term impact of the proposed instrumentation or methodology.
- Novelty and feasibility of the project. Development of novel technologies with the potential to significantly advance the targeted scientific field is encouraged. *Although not a requirement, if pilot results exist, it would be advisable to include these.*
- Potential use, availability and dissemination of the developed instrumentation or methodology, e.g., open access publication and open-access to users.
- Prospects for commercialisation and/or claim of intellectual property.
- Scientific and/or technical qualifications of the applicant as compared to the level expected for the career stage and type of employment.
- Reasonability of the applied for budget.

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 how to complete and submit 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 login-page. 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.

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.



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

2.4 SUBMITTING THE APPLICATION

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

All applicants must read and accept NNF's [Standards for Good Research Practice](#) before submitting the application. 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.



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, and best practice of how to apply for this specific call.

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.

Please note the following requirements:

- **CV** can be maximum 4000 characters (including spaces, line breaks and special characters). Please include in the CV a short bibliographic overview summarising total number of peer-reviewed publications, number of first authorships and corresponding authorships, number of citations and *h*-index. If relevant, kindly include a description of the technologies that the applicant has contributed to developing and the applicant's role in this development.
- **Publication list** can be a maximum of 5.000 characters (including spaces, line breaks and special characters). Include up to the 10 most relevant scientific products (publications, patents, software or similar) and briefly motivate the choice of these in relation to the current application. Include the name of all authors/contributors with your own name highlighted. You are strongly encouraged to include a link to an updated profile (with full publication list) in ORCID, Google Scholar, Web of Science, Scopus, or similar.
- **Previous and current grants from NNF:** If you have submitted other applications within the last year, summarise 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 summarise how any of the grants are related to the current application.

Please note that invitation of co-applicants is not possible within this call.

3.2 INSTITUTION

Please provide information about the institution where the grant will be administrated. This institution is where the infrastructure will be anchored 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 below in the PROPOSAL tab:

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 the targeted instrumentation and methodology to be developed and research activities that may be enabled by this technology (maximum 2000 characters, including spaces). NOTE: The brief project description may be used to invite potential peer reviewers. Hence, do not disclose confidential information in the brief project description.

PROJECT DESCRIPTION

The project description can be a maximum of 20,000 characters. Please address the points below preferable in the order given:

- The scientific application and need for the proposed instrumentation or methodology, including how it differs from commercially available alternatives.
- The technical targets for the developed instrumentation or methodology at the end of the grant period. Please include pilot data, if available.
- A detailed description of the project including:
 - The development activities.
 - The research or applications that will be enabled by the developed technology.
 - Organisation of the project, including the potential contributions from other project participants, e.g. from non-profit research institutions, instrument developers and/or instrument manufacturers.
 - Major milestones, key performance indicators and deliverables relevant for the research and/or development aspects of the project. The applicant is encouraged to include other relevant information such as design thinking, innovation loops etc if relevant. *If relevant, a figure may be uploaded as an illustration.*
 - Identification of the main risks for the project and appropriate mitigation plans.
 - A clear plan for data management, if relevant.
- Beyond the “Exploratory Research Instrumentation” grant. Please provide a short description on the expected translation of the developed instrumentation and methodology, including how it will be exploited.
- Synergy with ongoing research activities and/or research infrastructures, if relevant.

Please limit the use of abbreviations and non-standard acronyms. Abbreviations should be defined at the first use. The application will be assessed by an interdisciplinary committee, which may not be familiar with field-specific acronyms.

ILLUSTRATION UPLOADS

A maximum of four illustrations of 50 MB each can be uploaded here. Accepted formats are .jpg, .png, .gif, .bmp. **Please upload the Gantt chart as one of the four illustrations.**

LITERATURE REFERENCES

Please provide the reference information for the literature cited in the project description (maximum 800 characters, including spaces).

LAY PROJECT DESCRIPTION

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



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

3.4 BUDGET

The budget only comprises the information entered in the BUDGET tab. Additional budget information attached under UPLOADS or added under any other tabs than BUDGET will not be considered. The budget must be entered in budget years following the grant period and not calendar years. Notice that the total budget for the grant must be between DKK 2 million and DKK 7 million with a grant period of 1-4 years. Funds may be unevenly distributed over the grant period.

ELIGIBLE BUDGET EXPENSES

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

- **Salary for non-permanent academic and technical employees**, e.g., PhD students, postdoctoral researcher, assistant professors *without* tenure-track, technical staff and data scientists. **Salary will not be covered for applicants or scientific staff with permanent positions.**
- **Tuition fee for PhD students** up to DKK 80,000 per year per student (must be included as a separate budget item).
- **Equipment and instrumentation** needed for the project. Please include quote for equipment exceeding DKK 500,000.
- **Operating expenses** incl. materials, consumables, chemicals and software licenses, directly related to development of the proposed instrumentation and/or methodology.
- **Data management** incl. expenses for collecting and storing data.
- **Travel expenses** in relation to the project, e.g., conference and workshop presentation, and presentation of research results derived from the project.
- **Publication costs** of results originating from the project.
- **Intellectual property costs** (consultant fees, licenses and patents)
- **Bench fee** can be included in the budget for support of personnel whose salary is covered by the grant. The bench fee is calculated per employee actively working on the project and may only be used for expenses that are related to the project and which cannot be included within another individual budget category. 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, library access

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. If applied for, documentation of the host institutions general bench fee policy provided. An unspecified bench fee without documentation will not be accepted. The bench fee can be maximum DKK 8,000 per month per full time employee (FTE) full funded by the project.

- **Direct administrative expenses** for up to 5 % of the funding applied for. The following applies:
 - can cover non-scientific, administrative expenses in relation to the infrastructure, such as accounting, administration related to payment of salaries and purchasing, hiring, as well as auditing and financial reporting on the infrastructure,
 - cannot cover administrative expenses that are not directly related to the infrastructure,

- is not automatically included in the grant and must be stated/applied for in the application budget but should not be specified in detail.

GRANT PERIOD

Before you can fill in the budget template, start by entering the start and end dates for the grant. NORMA then generates a grant period in whole years, which is reflected in the budget template. The grant period is the duration of NNF's grant for the project, which for this call is 1-4 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 always 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.

3.5 APPENDICES

- A signed letter from the administering institution, which confirms that the institution will host the project including provide access to the required infrastructure, such as laboratory and office facilities, and administration of the grant. The nature of employment for applicants who hold a temporary position should be outlined if the applicant's salary is included in the budget. (*Hosting letter*)
- Vendor quotes for major equipment applied for (over DKK 500,000). Please mark quoted equipment in the budget description. (*Other uploads*)
- Documentation for the bench fee policy at the host institution (if applied for). (*Other uploads*)

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.

DO NOT provide any other appendices, e.g., no employment contracts, recommendations and support letters from collaborators.

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