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Key information about the call

Thematic funding for research projects on:

- Pathogenic fungi
- Novel antimicrobial resistance (AMR) tools
- Harnessing innate immunity

Geographical restrictions:

Main applicant must be anchored at a Danish research institution.

Co-applicant (if included) must be located at a research institution outside of Denmark.

Grant capital:

DKK 50 million to be awarded in total over up to three years of granting.

Award amount:

Up to DKK 3 million per grant for projects with a single applicant (one PI). Up to DKK 6 million per grant for collaborative projects (one PI plus one co-PI)

Application form opens: Application deadline:

23 May 2024 4 September 2024, 2pm CEST

Notification of funding decision:

Expected mid-December 2024

Earliest project start date: Latest project start date:

1 January 2025 1 October 2025

Contact:

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1 INFECTIOUS DISEASES – CATALYST GRANTS

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 read these guidelines carefully before initiating the application process, as the guidelines 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 and specifies the overall criteria.
- Section 2 provides the technical guidance for how to access and navigate the online application and grant management system, NORMA.
- Section 3 aids with essential information to include and best practice of how to apply for this specific call, using the specific forms and fields available in NORMA.

NNF will treat all applicant and application information confidentially. Read more about how NNF processes personal data under 'privacy & security' in 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

The purpose of the "Infectious Diseases – Catalyst Grants" programme is to provide catalytic funding for exploratory research projects within the thematic research areas outlined below. Within these thematic areas, the aim is to stimulate Danish research, strengthen international collaborations, and to initiate innovative research projects with exceptional potential for future direct impact on global challenges.

This programme will initially run for at least two years, and the themes outlined below are expected to be the same in the recurrent call in 2025.

1.2 THEMATIC RESEARCH AREAS

Research projects suitable for funding within the call must:

- Be in scope of at least one of the three thematic research areas outlined below.
- Be use-inspired. I.e., the research project can have a fundamental scientific focus but
 must include a potential application towards generating better and needed tools,
 and/or the scientific rationale, concept, and research direction is driven by the potential
 use to which the new knowledge will be put.

Pathogenic Fungi

Invasive fungal infections pose a growing threat to human health and with the rise of antifungal resistance, research and discoveries are needed to develop new and effective prevention, diagnostic, and treatment tools. The pathogenic fungi in scope of this call are the 19 Fungal Priority Pathogens listed by the World Health Organization.

Areas of research could be (but are not limited to):

- Target exploration and validation of novel potential therapeutic targets.
- Biomarker identification for future potential diagnostic tools.
- Understanding fungal biology or host-pathogen interactions that provide insights into potential vulnerabilities that could be targeted therapeutically or preventatively.
- Fungal genomics e.g., understanding how fungal pathogens evolve to cause disease, contribute to speciation, trace gene variation, and identify genomic changes that confer antifungal resistance.
- Mechanisms of antifungal resistance and improved strategies to mitigate emergence and spread of drug-resistant strains.
- Enabling tools and technologies such as establishment of assays, strains, or animal models for improved translational efforts.

Novel AMR Tools

Antimicrobial resistance (AMR) is one of the biggest threats to global public health. It constitutes a 'silent', ongoing pandemic, estimated to directly cause ~1.3 million deaths annually. There is an urgent need for new tools to combat AMR infections, but the existing clinical pipeline is weak and in need of substantial replenishment. The intention of this theme is to provide funding for early and exploratory projects that investigate rationally designed, novel and innovative approaches to prevent, diagnose or treat drug resistant bacterial infections with pathogens listed on the WHO Bacterial Priority Pathogen List, 2024 or the US CDC Antibiotic Resistance Treats Report.

Areas of research could be (but are not limited to):

- Promising new treatment modalities alternative to traditional small-molecule antibiotics (such as phages, monoclonal antibodies, multibodies or nanobodies, targeted protein degradation etc.).
- Dual-action or dual-modality or novel combination therapies to reduce the likelihood of resistance emerging.
- Rapid, point-of-care diagnostic tools.
- Microbiome -exploration, and -interventions to tackle AMR.

Harnessing Innate Immunity

Innate immunity provides a rapid, 'front-line' defence against respiratory pathogens through the recognition of Pathogen-associated Molecular Patterns (PAMPs). Although pathogens can evade innate immunity, one strategy is to boost innate defences using immunostimulatory molecules in situations where future exposure is predicted. This would give individuals an advantage over the pathogen(s) by promoting an early or more efficient innate immune response. The objective of this theme is to better understand how innovative tools can be developed and used to induce innate immunity and broadly counteract respiratory infections. Areas of research must have applicability to more than one respiratory pathogen and can focus on:

- Better understanding of the underlying molecular and cellular mechanisms of immunostimulatory stimuli, and how these translate to broadly protective outcomes.
- Better understanding of the duration and type of protection, including the interplay between central vs tissue-specific factors, epigenetic signatures, and metabolic pathways.
- Identification and characterization of novel therapeutic targets and/or novel immunomodulators for the induction of broadly protective responses.

1.3 ELIGIBILITY

- The main applicant must be anchored and have their primary employment and research group at a university, hospital, or other non-profit research institution in Denmark.
- The main applicant must be an established investigator with their own line of research.
- It is encouraged to include one international co-applicant in the project who is anchored and has their primary employment and research group at a university, hospital, or other non-profit research organisation outside of Denmark. If an international co-applicant is included, they must significantly contribute to the scientific advancement of the project and receive a significant part of the funding. Further, it must be clear from the application how the project collaboration is ensured, and the work and budget is distributed.
- The main applicant and, if included, the co-applicant must be employed at the
 institution they are applying from and must be guaranteed their own salaries for the
 entire project period.
- Collaboration with for-profit research partners (biotech, industry etc.) is possible, but funding cannot be awarded to for-profit research partner(s), unless they act as subcontractors (e.g., consultants, service providers, vendors, etc.).

Applying for this call will not affect your eligibility to apply for other NNF calls and vice versa (e.g., Project Grants in Bioscience and Basic Biomedicine or Clinical and Translational Medicine). However, you cannot apply to other NNF calls with a project that is overlapping in scope while the assessment of your application to this call is ongoing.

1.4 FUNDING

The total grant budget is DKK 50 million, which can be awarded over up to three years (2024-2026), meaning that this call will recur in 2025 and potentially in 2026.

The individual grants awarded can have one of two different granting frameworks:

- 1. For each grant where there is only one applicant based in Denmark, up to DKK 3 million can be awarded, with a grant period of up to 3 years.
- 2. For each grant where there is a Danish main applicant and a co-applicant based abroad, up to DKK 6 million can be awarded, with a grant period of up to 3 years.

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

- Salary of people employed by or involved in the project such as postdocs, PhD students, researchers, staff scientists, consultants, technicians, etc.
- If required by the foreign institution of the co-applicant, and confirmed in the support letter, the co-applicant can include a reasonable fraction of their salary based on their time commitment to the project stated in the application budget.
- Tuition fee for Ph.D. students.
- Travel expenses in relation to the project, e.g. collaboration meetings, conference and workshop participation and presentation of research results derived from the project, or other travel expenses that are directly related to the project, e.g. for experiments carried out in other labs for a limited period of time.
- **Open access publication** of results originating from the project, as well as open access data sharing and data management.
- Reasonable equipment required for the project.

- Consumables and operating expenses: Direct expenses for developing, implementing and
 operating the project, including materials, access to infrastructure, lab consumables,
 chemicals, reagents, research animals, analysis services, data collection and storage, etc.
- **Bench fee*:** Support for individual researchers for the coverage of direct expenses needed to conduct the research project applied for (must be specified in the budget).
- Administrative expenses**: (up to 5% of the applicant's overall budget and included in the budget) to cover administrative expenses directly related to the project.

NNF will not award funding for:

- commercial activities
- overhead
- salary for the main applicant

*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. A valid bench fee policy in line with the NNF requirements must be available at the time of application and this official documentation from the administering/co-applicant's institution must be provided upon request.

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

- can cover expenses such as for accounting, payment of salaries, purchasing, hiring, as well as auditing and financial reporting on the project
- cannot cover administrative expenses that are not directly related to the project
- can via the host institution be shared between the institutions of the main- and coapplicant(s), as detailed in the application budget
- is not automatically included in the grant, and must be stated/applied for in the application budget, but should not be specified in detail



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 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.

1.7 ASSESSMENT PROCESS AND CRITERIA

All submitted applications will initially be evaluated internally in the Novo Nordisk Foundation and based on their fit within the purpose and aim of this programme, selected applications will subsequently be evaluated by external peer review.

Submitted applications that will not progress to peer review will be informed.

The peer review will be conducted by international experts in the relevant fields, and the anonymous peer review report will, in writing, be shared with the applicants post granting decision, regardless of the outcome of that decision. The peer review report is meant as valuable feed-back regarding the projects, especially as this is a recurrent call. It will not be possible to submit objections to either the funding decision or the peer review.

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

- Fit within the outlined thematic research areas.
- Originality, feasibility, translatability, and potential for future impact, preferentially in the form of needed globally implementable tools.
- Scientific quality, state of the art, and methodologies in the project.

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 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: <u>normasupport@novo.dk</u>.



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 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.

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 all those involved with an application, meaning the main applicant or the contact person applying on behalf of an organization/institution as well as any co-applicants. Information about each applicant is collected through individual tasks in the APPLICANT DETAILS-section, detailing experience, publication history, application history with NNF, etc.

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.

3.2 CO-APPLICANT(S)

For this call one co-applicant is allowed for the application. A co-applicant participates actively in organizing and implementing the project and receives a share of the grant. The project description should clearly describe the role of the co-applicant, and the budget should clearly indicate the co-applicant's share of the total budget. The co-applicant must be invited through NORMA and subsequently enter their details in the system. Please follow the instructions in NORMA on how to invite a co-applicant to your application.



Note that inviting co-applicants can be time-consuming. Please start the invitation process as soon as possible and well in advance of the submission deadline

When the co-applicant accepts his or her invitation and has registered as a user in NORMA, they will gain access to the application. In addition, they will be assigned an APPLICANT DETAILS-task, available under MY TASKS from the APPLICANT PORTAL in NORMA. With this task, co-applicants

should input details such as their institutional affiliation, work and publication history, and application history with NNF.

Co-applicants will only be able to edit their own APPLICANT DETAILS-task, as well as make changes to the main application. The main applicant, on the other hand, can review and edit all Applicant Details-tasks for the application including those for co-applicants.



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

3.3 INSTITUTION

Please provide information about the institution where the grant will be administered. In case a grant is awarded, the Institution where the Main Applicant is employed will be the Grant Recipient. This institution is where the main applicant 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.

3.4 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.

BRIEF PROJECT DESCRIPTION (maximum 2000 characters, including spaces) In this field, please provide a brief stand-alone high-level summary of the project describing the scientific goals, significance, originality, and potential application and impact of the research project.

PROJECT DESCRIPTION (maximum 20,000 characters including spaces)

The project description should be sufficient in detail for a thorough scientific review and include the following:

- Aims/Goals/Objectives of the research project
- Brief background/introduction
- Research plan including experimental approaches, methods, tools, and technologies.

- Expected outcome(s), milestones, and deliverables including timeline. Please include a Gantt chart as one of the uploaded figured.
- Contingency plan(s) and risk mitigation strategies.
- Contribution and roles of main applicant and co-applicant (if included) including interdependencies and organizational outline.

It is encouraged to include preliminary data to support thorough scientific and feasibility evaluation of the proposed project.

LITERATURE REFERENCES

Please provide the reference information for the literature cited in the project description (maximum 8000 characters, including spaces).

LAY PROJECT DESCRIPTION

Please provide a brief, non-confidential summary for non-experts in lay language (English). 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.

3.5 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.



Applicants may only apply for the types of expenses listed in subsection 1.4.

3.6 APPENDICES

- 1) **Hosting letter.** A hosting letter from the administrating institution confirming that, if granted:
 - o The administrating institution will host the project and be the Grant Recipient.
 - o The applicant is an established investigator with their own line of research and will be employed for the duration of the project at the administrating institution.
 - If the main applicant is Head of Department or otherwise part of the management, the hosting letter must be signed by someone from the management level above the main applicant.
- 2) **Support letter** If there is a co-applicant included in the application, a support letter from the co-applicant's institution must also be submitted, confirming that, if granted:
 - The co-applicant is employed at the institution and the institution will support the co-applicant's participation in the project and ensure that the required infrastructure is made available.
 - If funding is requested to cover a reasonable part of the co-applicant's salary, the support letter should specify how this aligns with the other obligations of the co-applicant and the policies of the co-applicant's institution.

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 other than the hosting and support letter are not permitted and will not be included in the evaluation.

May 2024

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.