FAQ – Challenge 2026 – Biological systems under non-equilibrium conditions

Below are the responses to questions asked during the Webinar on the Challenge 2026 theme "Biological Systems under Non-Equilibrium Conditions." The recording of the webinar is available here.

For further questions email challenge@novo.dk. Please include the name of the call "Biological systems under non-equilibrium conditions" in the subject line.

Eligibility and Application process

Q: From which countries can you apply as main applicant?
A: Researchers from non-profit research institutions in the European Union, Schengen Area and UK.

Q: How important is it that the main applicant is from Denmark? If the main applicant is from another EU country, how important is it that there are multiple co-applicants from Denmark?
A: There must be at least one main- or co-applicant from Denmark. The proposal will be evaluated based on the suitability of the applicant group and not their location.

Q: Can labs from the USA be part of a consortium?
A: Co-applicant institutions may be located anywhere globally.

Q: Can the entire team be DK-based, or do some members need to be from outside Denmark?
A: Yes. The application will be evaluated based on the suitability of the applicant group and not their location.

Q: Can large consortia apply with more than 4 research groups?
A: An application can consist of one main applicant and up to 3 co-applicants. Other collaborators can be included in the project on specific limited tasks.

Q: The workshop can lead to an applicant becoming a member of more than one consortium, is that possible?
A: You may only submit one application as the main applicant. However, as a co-applicant you may participate in a maximum of two Challenge Programme proposals.

Q: Can the main applicant role be shared between two PIs?
A: No.

Q: Do the roles of all PIs need to be "equal" in the project, or should the main applicant, for example, be more prominent? Does the budget need to be split more or less equally?
A: The main applicant must have a project leader role, but all applicants are expected to contribute significantly to the advancement of the project. The budget distribution should reflect the scientific activities in each applicant's group, with consideration that some research activities may be more expensive than others.

Q: Can one project include two partners from the same institution? And if that is not possible, can we have multiple partners from the same country?
A: Yes.

Q: How many projects/grants will be funded?
A: The total programme budget is DKK 150 million or approximately EUR 20 million. The individual grant size is DKK 40-75 million (approximately EUR 5,4 -10 million).

Q: Are main- and co-applicants required to have tenure? Can they be at the senior scientist level?
A: Main applicants and co-applicants are required to have their salary guaranteed and have a contract extending the entire grant period.

Q: I am a tenure-track assistant professor, and I am negotiating with more senior collaborators (associate professors and full professors) while remaining a consortium lead. Will that be a problem?
A: No. But it may be beneficial for the project if there is someone in the leadership group with experience in running a large and complex project.

Q: Are overheads allowed as a cost in the budget?
A: The Novo Nordisk Foundation does not support overhead costs. This programme covers direct costs, including direct administrative costs in amounts of up to 5% of the total budget.

Q: Can PhD studentships be funded?
A: Yes, salary and tuition fees for PhD students can be included.

Q: Can postdocs salary be included?
A: Yes, salary for postdoctoral researchers can be included.

Q: What are the main evaluation criteria?
A: The evaluation criteria are as follows:

1. Scientific quality and Impact
2. Scientific approach
3. Scientific environment and collaboration
4. Investigators' track record.

Q: How much time is the main applicant expected to devote to the project?
A: There is no fixed time allocation expectation.

Q: Is the seniority of applicants taken into consideration in the evaluation? Is the call suitable for early/mid-career researchers?
A: The investigators' scientific track record is an evaluation criterium, including experience with project management.

Q: Is gender balance important for the evaluation?
A: The evaluation of applications is only based on the listed evaluation criteria.

Q: Can we have an industry collaboration on the project?
A: A company can be included as a collaborator but cannot receive any of the funding.

Q: Are non-EU subcontractors allowed?
A: There is no geographic limitation to where subcontractors can come from.

Q: Can researchers who hold an ERC grant of any type apply? Or are there restrictions as sometimes with other funds?
A: There are no restrictions on non-NNF funds.

Q: Can you be a co-applicant on a proposal in this call, if you are a co-applicant of an active Challenge grant?
A: Yes.

Q: What is the duration of the grant?
A: The duration of the grant is 6 years. It is not possible to apply for a shorter period.

Q: How similar is this funding scheme to an ERC synergy grant in terms of deliverables?
A: The projects can be fundamental research but should identify a potential solution to the Challenge in the future (~ 15 years' timeframe).

Q: Is there a template for the Expression of Interest (Stage 1 application)?

A: No. But please refer to the instructions in the Guidelines for Applicants and in the online application system NORMA.

Q: How are the IP rules?
A: The Novo Nordisk Foundation does not claim any rights to research findings from the funded projects. Intellectual property and agreements of collaboration are to be solved between the research institutions involved.

Theme and scope

Q: Can you explain how water science is included in the call?
A: Research topics that fall within the Novo Nordisk Foundation's Strategy 2030 in health and sustainability can apply for this call. Please remember to explain in your proposal how the research question links to a solution, for instance accelerating drug development, tissue engineering, regenerative medicine, or sustainable biotechnology.

Q: Would you fund work on non-animal model systems? Plants?
A: Yes. Please remember to explain in your proposal how the research question links to a solution, for instance accelerating drug development, tissue engineering, regenerative medicine, or sustainable biotechnology.

Q: How do you define non-equilibrium and what biological systems are included in this?
A: Dynamic processes in biological systems are traditionally described theoretically by equilibrium or near-equilibrium statistics where classical thermodynamics apply. However, many biological systems operate far from equilibrium. The purpose of this Challenge is to develop new theoretical frameworks that provide more accurate descriptions of biological systems that operate far from equilibrium.

With non-equilibrium processes we refer to dynamic and functional processes that occur outside of equilibrium in response to external exchange of e.g. energy, information and/or mass. Examples include enzyme catalysis, biosynthetic materials, cellular movement, organisation and adaptation, embryonic development, genetic regulation, and metabolism.

Many biological systems are in a non-equilibrium state, so please motivate in your application how your system fits within the scope and why it is necessary to study. Based on the questions from the webinar, here are examples of topics that are in scope (please note that these are non-exhaustive examples):

- Infection, cancer, gene regulatory networks, development and aging, research on organoids to study mechanisms of disease.

The biological system in scope ranges from single biomolecules to the organism level. Topics asked during the webinar that we consider out-of-scope:

- Health policy perspective looking at bench to bedside models for moving biotech to clinical practice, epidemiological questions such as the spread of viral diseases in epidemics and pandemics.

However, if you can argue that the system of choice involves non-equilibrium dynamics and processes, you are welcome to apply.

Q: Is the development and validation of technological advancements in non-equilibrium conditions in scope?
A: Yes, but there should also be an element of establishing new or improved theoretical frameworks.

Q: Can I ask someone to look at a synopsis of an application to evaluate whether it would be aligned with the scope of the call?
A: We do not have resources to review synopsis of applications or have pitch meetings, but you are welcome to send us a scope question in the mailbox.

Q: How "direct" should the link between a fundamental research question and the solution be? Can it be achieved down the line after project completion, or does it need to be achieved within the project?
A: The proposals can address a fundamental research question but should identify a potential solution to the Challenge in the future (~ 15 years' timeframe).

Q: Why were this theme chosen?
A: Many biological systems operate in a state that is out-of-equilibrium, which is in strong contrast to our description of biological systems, typically assuming an equilibrium state described by thermodynamics. Hence, this Challenge aims to deliver a new theoretical framework for out-of-equilibrium thermodynamics.

The theme was developed by NNF with input from external stakeholders. With new experimental and computational techniques, it is timely to formulate new theories that have not been possible before.

Q: What are some big unsolved problems in this area from NNF's point of view?
A: We will leave it up to you to define unsolved problems.

Q: Is there a list of research groups in Denmark? Divided by field?

A: No, but we recommend that you attend our Challenge 2026 workshop on 28 August (2026 Challenge Programme Theme: Biological Systems Under Non-Equilibrium Conditions - Novo Nordisk Fonden).