

**Jobbnorge ID:** 273958  
**Deadline:** 3/10/2025  
**Website:** <http://www.ntnu.no>  
**Scope:** Fulltime  
**Duration:** Temporary

The Department of Biotechnology and Food Science has a vacancy for a

## PhD Candidate in Synthetic Biology for DNA as Data Storage

### This is NTNU

NTNU is a broad-based university with a technical-scientific profile and a focus in professional education. The university is located in three cities with headquarters in Trondheim.

At NTNU, 9,000 employees and 43,000 students work to create knowledge for a better world.

You will find more information about working at NTNU and the application process [here](#).

Video: <https://youtu.be/Xt-yHCN5QS0>

### About the position

Are you motivated to take a step towards a doctorate and open up exciting career opportunities? As a PhD Candidate with us, you will work to achieve your doctorate, and at the same time gain valuable experience that qualifies you for a further career in higher education and research, in and outside academia.

You will work in a well established, friendly and international group with state-of-the-art infrastructure at Norway's largest university.

Your immediate Line Manager will be the Head of Department.

### About the project

The goal of the position is that the PhD will complete a doctoral education programme and obtain a doctoral degree.

The PhD candidate will work as part of the PolySpore project funded by the NovoNordisk Foundation. In the project we will develop novel biological and hybrid materials as well as new data-storage concepts using bacterial spores. The PhD candidate will work on genetically optimizing and manipulating the Gram-positive bacterium *Bacillus subtilis* to explore concepts of data storage in DNA.

You will report to Prof. Johannes Kabisch.

### Duties of the position

- Genetic engineering of *Bacillus subtilis* to present heterologous proteins
- Genome engineering of *B. subtilis* to optimize spore display
- Data analysis
- Preparation of manuscripts and doctoral thesis
- Presentation of results at group meetings and scientific conferences
- Carry out research of good quality within the framework described above
- Academic publications and popular science dissemination

Be prepared for changes to your work duties after employment.

### Required selection criteria

- You must have a Master's degree in biotechnology, biochemistry or equivalent. Your course of study must correspond to a five-year Norwegian course, where 120 credits have been obtained at master's level. Master's students can apply, but the master's degree must be obtained and documented before starting the position and no later than the 31.07.2025.
- You must have a strong academic background from your previous studies and have an average grade from your Master's degree study, or equivalent education, which is equal to B or better compared to [NTNU's grading scale](#). If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you have a weaker grade background, you may be considered if you can document that you are particularly suitable for a PhD education.

- You must meet the requirements for admission to the faculty's Doctoral Programme (<https://www.ntnu.edu/nv/phd>)
- Good oral and written presentation skills in English equivalent to level C1

Please note for detailed information about what the application must contain, see paragraph "About the application".

If you cannot document skills in Norwegian, Swedish or Danish at [level A2](#) upon employment, you must complete [Norwegian courses](#) corresponding to at least 15 credits before the end of the employment period. NTNU will facilitate this.

The appointment is to be made in accordance with [Regulations for the Universities and Colleges Act \(university and colleges regulations\)](#) and [Regulations for the degrees philosophiae doctor \(ph.d.\) and philosophiae doctor \(ph.d.\) in artistic development work at the Norwegian University of Science and Technology \(NTNU\)](#) for general criteria for the position.

## Preferred selection criteria

- Preference will be given to candidates with prior experience in genetic engineering of *Bacillus subtilis*
- Good oral and written presentation skills in Norwegian/Scandinavian equivalent level A2

## Personal characteristics

To complete a doctoral degree (PhD), it is important that you are able to:

- Work in a structured way, set goals and make plans to achieve them
- Present and discuss your research with other professionals
- Work constructively under pressure or in the face of adversity
- Show curiosity and a strong motivation for the subject
- Analyze data, assess different perspectives and draw well-founded conclusions

Emphasis will be placed on personal qualities.

## We offer

- An exciting job with an important [mission](#) in society
- Developing tasks in a strong and international professional environment
- Career guidance and [follow-up during the PhD period](#)
- Open and inclusive working environment with committed colleagues
- [working capital](#) that can be used to implement the project
- [mentor programme](#) as a [new employee at NTNU](#)
- [training during working hours](#) and [company sports at NTNU](#)
- As a public employee, you have favourable benefits as a member of the [Norwegian Public Service Pension Fund \(SPK\)](#)

You will be employed as a PhD Candidate at NTNU and will have access to [employee benefits and discounts](#).

## Diversity

Diversity is a strength, and at NTNU we aim to be an employer that reflects the diversity in society and that makes use of the potential of the population's collective skills. Our vision is [Knowledge for a better world](#) and [our values are creative, critical, constructive and respectful](#). We believe that an organization that is equal, diverse and gender-balanced is essential for us to achieve our goals.

We strive to attract employees with different skills, life experiences and perspectives to contribute to even better problem solving of our societal mission in research and education.

If you think this position is relevant and interesting, we encourage you to apply, regardless of gender, functional ability and cultural background, or whether you have been out of work for a period of time.

## Salary and conditions

In the position of PhD Candidate, code 1017, your gross salary will normally be NOK 536 200,- per annum depending on qualifications and seniority. A 2% statutory contribution to the State Pension Fund is deducted from the salary.

The employment period is 3 years. If learning Norwegian (level A2 corresponding to at least 15 credits) is to be completed before the end of the employment period, the employment period can be extended by 10 weeks.

For employment as a PhD Candidate, it is a prerequisite that you gain admission to the PhD programme in Biotechnology (<https://www.ntnu.edu/nv/phd>) within three months of your employment contract start date, and that you participate in an organized doctoral programme throughout the period of employment.

The position is conditional on external funding from the NovoNordisk Foundation.

As an employee at NTNU, it is important that you keep yourself up to date with academic and organizational changes and adapt to them.

For the necessary academic and social interaction, it is a prerequisite that you are physically present and available to the institution on a daily basis.

## About the application

The attachments (including a description of your scientific work) must accompany the application as these documents form the basis of the application assessment. The documents must be in English.

**Please note:** the application will only be assessed on the basis of the information we have received by the application deadline. Therefore, make sure that your application clearly shows how your skills and experience meet the criteria described above. The application and all attachments must be sent electronically via [Jobbnorge.no](https://jobb norge.no). If you are invited to an interview, you must bring certified copies of certificates. The application must include:

- Transcripts and diplomas for Bachelor's and Master's degrees
- CV
- Copy of Master's thesis. If you have recently submitted your Master's thesis, you can attach a draft of the thesis. Documentation of a completed Master's degree must be presented before taking up the position.
- Project outline containing proposals for an overall description of research questions, theoretical perspectives, methodological design for the project and progress plan (maximum 1500 words/4 pages)
- Short letter of motivation (400 words/1 page)
- Possibly publications etc. other relevant research work
- Possibly certificates
- Names and contact information of three relevant referees

If all, or parts, of your education has been taken abroad, we also ask you to attach documentation of the scope and quality of your entire education, both Bachelor's and Master's education, in addition to other higher education. If your institution uses "diploma supplement" (normal for most European institutions), you must attach this. A description of the documentation required can also be found [here](#). If you already have a statement from [Norwegian Directorate for Higher Education and Skills \(HK-dir\)](#), please attach this as well.

Joint works will be considered. If it is difficult to identify your contribution to joint work, you must attach a brief description of your participation.

When assessing the best qualified, we emphasize necessary qualifications such as education, experience and personal suitability. Motivation for the position, ambitions and potential for research will also count when assessing the candidates.

NTNU recognizes a wide range of academic contributions and has committed itself to The San Francisco Declaration on Research Assessment and CoARA (responsible assessment of research and recognition of a greater breadth of academic contributions in accordance with NTNU's social mission).

The appointment is carried out in accordance with the principles of the [State Employees Act](#), and [Export control](#) (legislation that regulates the export of knowledge, technology and services). Candidates who, after assessment of the application and attachments, are considered to be in conflict with the criteria in the latter act, will not be able to be employed.

## General information

A public list of applicants with name, age, job title and municipality of residence is prepared after the application deadline. If you wish to be exempt from entry on the public applicant list, this must be justified. Assessment will be made in accordance with [current legislation](#). You will be notified if the exemption is not granted.

If you have any questions about the position, please contact Professor Johannes Kabisch, e-mail: [johannes.kabisch@ntnu.no](mailto:johannes.kabisch@ntnu.no).

If you have any questions about the recruitment process, please contact Cecilie Skagfjord, e-mail: [cecilie.skagfjord@ntnu.no](mailto:cecilie.skagfjord@ntnu.no).

If you think this position looks interesting and in line with your qualifications, you are welcome to apply.

**Application deadline: 10.03.2025**

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For practical information about [working at NTNU](#), please visit this webpage.

[The city of Trondheim](#) is a modern European city with a rich cultural scene. [Trondheim is the tech capital of Norway](#) with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

## NTNU - knowledge for a better world

### NTNU - knowledge for a better world

The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

### Department of Biotechnology and Food Science

Our activities contribute to increased exploitation of existing and new ingredients for sustainable food production as well as next-generation energy solutions and medical technology. We educate graduates for a wide range of careers in industry, public administration and academia. [The Department of Biotechnology and Food Science](#) is one of eight departments in the [Faculty of Natural Sciences](#).

## Additional information

### Place of service:

Høgskoleringen 1 7491 Trondheim (Trondheim Municipality)