

## Senior Researcher (Group Leader) in Computational Multi-omics Data Integration for Biosustainability – DTU Biosustain

### Description

Do you want to build and lead your own research team to break new ground?

If you have experience with computational approaches within multi-omics data integration, we have a unique opportunity to fulfill your professional ambitions as independent researcher and group leader. Your mission is to build and lead a small and agile research team that shall elevate DTU Biosustain's capabilities within use of data as well as related tools and systems.

At the Novo Nordisk Foundation Center for Biosustainability (DTU Biosustain) we develop the next generation biotechnology using synthetic biology techniques. We create novel methods and technologies as a foundation for development of new environment friendly products, better and less energy consuming manufacturing processes, climate friendly farming, etc. In other words, we try to solve some of the biggest challenges in the history of mankind, and you will get the chance to add your personal mark to this.

### Head your own research team and shape a strong data science research community

Your main task will be to establish and lead a research team working on integrating microbial multimodal data to gain insights into the complex microbial interactions that drive. DTU Biosustain has three large, well-established experimental research programs targeting the discovery of novel biosynthesis routes and exploration of compounds suitable for industrially robust microbial cell factories. The application areas of the three research programs include Microbial Foods, Sustainable Chemicals, and Natural Products. You will play an active role in shaping a strong data science research community at the Center, and our ideal candidate is interested in establishing tight interactions between experimental activities and multi-omics analyses pipelines, which will open new opportunities for scientific leadership at the frontier of biosustainability.

The successful candidate will have the opportunity to develop an academic career track as independent group leader, as this position comes with a start-up package for funding a small team.

Moreover, CFB's fundraising team will direct you to Danish private foundations fully dedicated to supporting data science.

### Responsibilities and qualifications

Your overall focus will be to develop computational approaches to strengthen the Center's protein engineering efforts, including developing new methods and applying state of the art machine learning. You will work and collaborate with researchers at DTU Biosustain and other DTU departments, as well as national and international academic and industrial partners towards establishing strong application-driven data science capabilities at DTU.

Your primary tasks will be to:

- Establish and manage a small research team, including supervising

### Hiring organization

Candidate-1st

### Employment Type

Full-time

### Beginning of employment

asap

### Job Location

Kgs. Lyngby, Denmark

### Working Hours

40

### Base Salary

euro USD 60K - 112K \*

### Date posted

May 16, 2024

BSc/MSc/PhD students, postdocs and researchers in the team

- Fundraise for external financial support with national and international private and public agencies or industry
- Develop and apply computational approaches to predictions and designs (such as AI or other application-oriented approaches)
- Contribute to teaching activities at DTU.

PhD or equivalent with experience from big data handling in the biological domain

We are looking for a profile that thrives on creating results via cross organizational collaboration and knowledge sharing. Additionally, your CV comprises:

- A PhD degree or equivalent
- As minimum two years of experience as postdoc or researcher, and maybe also industry experience
- Knowledge and interest within machine learning, high-throughput multi-omics data, computational predictions, as well as algorithm development and coding
- Motivation for completing a didactic/pedagogic education – if you do not have it already

You must contribute to teaching at the Department. DTU employs two working languages: Danish and English. You are expected to be fluent in at least one of these languages, and in time are expected to master both.

As a formal qualification you must hold a PhD degree (or equivalent) as well as academic qualifications equivalent to those obtained by holding a position as a researcher or postdoc. To be appointed as a senior researcher, you must have completed a didactic/pedagogic education. If you do not have the necessary education, then it is possible to complete this requirement within a period of two years of appointment.

**You will be assessed against the** responsibilities and qualifications stated above and the following general criteria:

- Research experience
- Experience and quality of teaching
- Research vision and potential
- International impact and experience
- Societal impact
- Innovativeness, including commercialization and collaboration with industry
- Leadership, collaboration, and interdisciplinary skills
- Communication skills

### **Salary and terms of employment**

The position is a full-time, permanent position as Senior Researcher. Starting date is Jan 1st 2025 (or according to mutual agreement).

Appointment will be based on the collective agreement with the Danish Confederation of Professional Associations.

The [salary](#) for the position will be determined by the applicant's qualifications and in agreement with the relevant union.

We wish the candidate to start as soon as possible (according to mutual agreement).

You can read more about [career paths at DTU here](#).

### Further information

Further information may be obtained from CSO, Dina Petranovic Nielsen ([dpet@biosustain.dtu.dk](mailto:dpet@biosustain.dtu.dk)). If necessary, we will set up a phone call to ensure your understanding of the job and your many opportunities.

If you are applying from abroad, you may find useful information on working in Denmark and at DTU at [DTU – Moving to Denmark](#).

### Application procedure

Please submit your online application no later **14 June 2024 (23:59 Danish time)**.

Applications must be submitted as **one PDF file** containing all materials to be given consideration. To apply, please open the link “Apply online”, fill out the online application form, and attach **all your materials in English in one PDF file**. The file must include:

- Application (cover letter)
- Vision for teaching and research
- CV including employment history, list of publications indicating scientific highlights, H-index and ORCID (see <http://orcid.org/>)
- [Teaching portfolio](#) including documentation of teaching experience
- Academic Diplomas (MSc/PhD)

You can learn more about the recruitment process [here](#).

Applications received after the deadline will not be considered.

All interested candidates irrespective of age, gender, race, disability, religion or ethnic background are encouraged to apply.

### The Novo Nordisk Foundation Center for Biosustainability (DTU Biosustain)

Recent progress in our ability to read and write genomic code, combined with advances in automation, analytics and data science, has fundamentally changed the scope and ambition of harnessing the potential of biological systems. Big data approaches and analysis of biological systems are key research instruments at the Center. DTU Biosustain utilizes these advances for microbial cell factory design to foster sustainable lifestyles in relation to three application areas: Sustainable Chemicals, Natural Products, and Microbial Foods. Learn more at [biosustain.dtu.dk](http://biosustain.dtu.dk)

### Technology for people

DTU develops technology for people. With our international elite research and study programmes, we are helping to create a better world and to solve the global challenges formulated in the UN's 17 Sustainable Development Goals. Hans Christian Ørsted founded DTU in 1829 with a clear mission to develop and create value using science and engineering to benefit society. That mission lives on today. DTU has 13,500 students and 6,000 employees. We work in an international atmosphere and have an inclusive, evolving, and informal working environment. DTU has campuses in all parts of Denmark and in Greenland, and we collaborate with the best universities around the world.

### How the process will look like

Your teammates will gather all requirements within our organization. Then, once priority has been discussed, you will decide as a team on the best solutions and

architecture to meet these needs. In continuous increments and continuous communication between the team and stakeholders, you're part of making data play an even more important (and understood) part withing Brand New Day.

### **Job Benefits**

USD 60K - 112K \*