

## Doctoral researcher in Computational biology Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=244120>

Downloaded On: Oct. 6, 2024 7:18am

Posted Aug. 30, 2024, set to expire Dec. 30, 2024

**Job Title** Doctoral researcher in Computational biology  
**Department** T107 Bioproducts and Biosystems  
**Institution** Aalto University  
, , Finland

**Date Posted** Aug. 30, 2024

**Application Deadline** Open until filled  
**Position Start Date** Available immediately

**Job Categories** Graduate Student

**Academic Field(s)** Biology - Computational

**Job Website** [https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-researcher-in-Computational-biology\\_R40657](https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-researcher-in-Computational-biology_R40657)

**Apply By Email**

**Job Description**

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 13 000 students, 400 professors, and more than 4 500 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community's diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

The School of Chemical Engineering is one of the six schools of Aalto University. It combines natural sciences and engineering in a unique way.

We are now looking for a

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### Doctoral researcher in Computational biology

[The Biochemistry group](https://www.aalto.fi/en/department-of-bioproducts-and-biosystems/biochemistry) and [the Microbial physiology group](https://www.aalto.fi/en/school-of-chemical-engineering/microbial-physiology) develop methanogenic archaea as cell factories for CO<sub>2</sub> valorisation within a collaborative project funded by [the Erkkö Foundation](https://jaes.fi/en/frontpage/). To complement the team that consists of three doctoral researchers that are jointly supervised by Profs Jouhten and Scheller, we are looking for a doctoral researcher in computational biology.

### Scientific environment

[The Department of Bioproducts and Biosystems \(BIO2\)](https://www.aalto.fi/en/department-of-bioproducts-and-biosystems), one of three departments in the School of Chemical Engineering at Aalto University, has an internationally leading reputation in basic and applied research for the development of advanced materials from natural resources. It is one of Europe's leading research and higher education institutions in the field of sustainable chemistry and engineering based on the utilization of renewable resources.

BIO2 aims to contribute to the development of novel solutions to move towards sustainable primary production and processing systems that can produce materials with fewer inputs, less environmental impact, and reduced greenhouse gas emissions. Within bioscience, the department has research in bioprocess technology, molecular biotechnology, enzyme technology, metabolic engineering, synthetic biology, biomolecular, and biohybrid materials. Other strengths of the department include sustainable materials and products based on lignocellulose, ranging from nanomaterials to novel cellulose-based textiles.

### Research description

The key aims of the overall project are: 1) Elucidating the best-suited microbe for CO<sub>2</sub>-valorization. 2) Engineering the cellular regulation to redirect carbon flux from CO<sub>2</sub> to desired products. 3) Demonstrating multi-carbon compound production via methanogens. 4) Demonstrating a stable CO<sub>2</sub>-valorizing co-culture with internal acetate conversion.

These aims are targeted by a collaborative effort of three PhD students with diverse backgrounds, combining bioinformatics, microbiology and metabolic engineering.

Research is carried out at our excellent facilities at Aalto University, School of Chemical Engineering (<http://www.bioeconomyinfra.fi>). The laboratories are situated on the

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main campus of Aalto University in Otaniemi (short metro-ride from Helsinki) within [\[url=https://www.aalto.fi/en/department-of-bioproducts-and-biosystems\]](https://www.aalto.fi/en/department-of-bioproducts-and-biosystems)the Department of Bioproducts and Biosystems.

Your experience and ambitions \*

MSc degree \*

Solid understanding of molecular biology \*

Background in python programming \*

Aptitude to become an expert for applying python in biotechnology \*

Ability and interest to work smoothly and results-oriented in an interdisciplinary team \*

High self-motivation and persistence in tackling challenging scientific problems \*

Good written and oral communication skills in English

What we offer \*

High-end laboratory infrastructure and friendly colleagues \*

Opportunity to be part of two uprising, ambitious research groups \*

Freedom to bring in own ideas \*

Funding is reserved for 4 years

Doctoral studies at Aalto University take approximately four years. The candidate will be granted a one-year contract with the possibility of extension. The starting salary for a doctoral candidate is 3000 EUR/month and will increase with responsibilities and performance over time.

If you are chosen for this position, you will apply for the study right in doctoral studies at Aalto University School of Chemical Engineering. Thus, please check the student information and admission criteria at [\[url=https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-chemical-engineering\]](https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-chemical-engineering)<https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-chemical-engineering>. In particular, please pay attention to the mandatory skill level in English.

Ready to apply?

If you want to join our community, please submit the following application materials as a single PDF document in English through the 'Apply' link by Sept. 30th, 2024: \*

Cover letter (start as follows: "I am interested in this position because... ", then describe how you fulfil the job requirements) \*

CV, incl. list of publications \*

Research interest description (for future research) \*

Names and contact details of references (or to be provided upon request)

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Aalto University's employees and visitors should apply for the position via the internal HR system Workday (keyword Find Jobs) by using their existing Workday user account (not via the external webpage for open positions).

For additional scientific information, please contact Prof. Paula Jouhten (firstname.lastname@aalto.fi) or Prof. Silvan Scheller (firstname.lastname@aalto.fi).

Want to know more about us and your future colleagues? You can watch these videos: [\[url=https://www.youtube.com/watch?v=5k\\_og\\_6zUJQ\]](https://www.youtube.com/watch?v=5k_og_6zUJQ)Aalto University - Towards a better world, [\[url=https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be\]](https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be)Aalto People, and [\[url=https://www.youtube.com/watch?v=ZK6pDWm1\\_CE\]](https://www.youtube.com/watch?v=ZK6pDWm1_CE)Shaping a Sustainable Future. You can also check out our webpage about Aalto and Finland: [\[url=https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package\]](https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package)<https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package> and our new virtual campus experience: [\[url=https://virtualltour.aalto.fi/\]](https://virtualltour.aalto.fi/)<https://virtualltour.aalto.fi/>.

### About Finland

Finland is a great place for living with or without family - it is a safe, politically stable, and well-organized Nordic society. Finland is consistently ranked high in quality of life and was just listed again as the happiest country in the world: [\[url=https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/\]](https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/)<https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/>. For more information about living in Finland: [\[url=https://www.aalto.fi/en/node/32446\]](https://www.aalto.fi/en/node/32446)For international staff | Aalto University

Aalto University reserves the right for justified reasons to leave the position open, to extend the application period, and to consider candidates who have not submitted applications during the application period.

### Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

### Contact

Finland

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