



Professor in Microbial Physiology

Department of Bioproducts
and Biosystems



Aalto University



Aalto University

Aalto University is a multidisciplinary community of bold thinkers where science and art meet technology and business.

Aalto University is a university where research, art and education are promoted hand in hand. We are committed to **identifying and solving grand societal challenges** and building an innovative future.

With high-quality research we aim at creating significant impact on the international scientific community, industry and business, as well as the society at large. Disciplinary excellence is combined with **multidisciplinary** activities, engaging both students and the local innovation ecosystem.

Aalto has with nearly 11 000 students and more than **six schools** an 400 professors. We are an international community: more than 40% of our academic personnel have an international background.

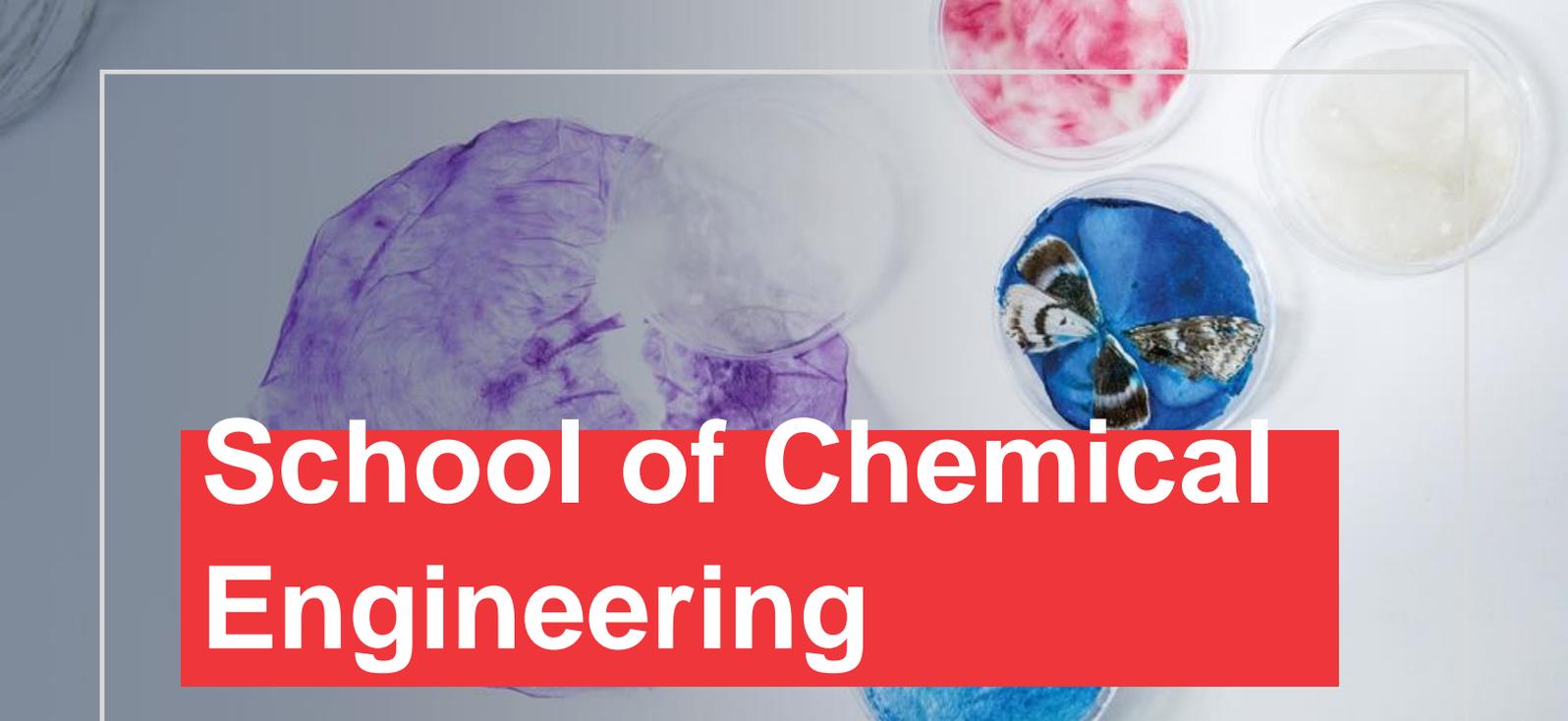
Aalto University was **founded in 2010** as three leading Finnish universities, Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki, were merged. Our campus is located in Espoo, Finland.

The University campus in Espoo is developing into a unique, open innovation hub and a center of collaboration that attracts partners from all around the world. It encourages sharing of ideas, inter-disciplinary encounters, creativity, growth and entrepreneurship. The core of the campus will be a vibrant city with versatile services and attractive places to meet.



Aalto University

More info at
aalto.fi



School of Chemical Engineering

Providing novel solutions to help society transform on a sustainable economy based on utilization of natural resources.

The School of Chemical Engineering combines natural sciences and engineering in a unique way. Research carried out at the School is focused on industrial biotechnology, forest products technologies, chemical engineering, materials science and nanotechnology, metals and minerals processing and energy technology. The activities cover the whole chain from scientific research and theory to processes resulting in innovative products and applications. The School is backed by strong cooperation with the business world: new knowledge created through research is used to reform industry and promote new forms of business.

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Aalto University
School of Chemical
Engineering

The school has **three departments**: Bioproducts and Biosystems, Chemical and Metallurgical Engineering, Chemistry and Materials Science.

It hosts two infrastructures: Bioeconomy infrastructure that enables research from molecular level to biobased technology concepts; Raw Materials research infrastructure supports the research of circular economy targeting to closed metallurgical and hydrometallurgical processes and inorganic energy materials.

The school has **480 staff** members in total, 45 professors and 150 doctoral students and approximately 800 students annually. It educates a wide range of responsible, broad-minded experts for industry.

More info at
chem.aalto.fi



Department of Bioproducts and Biosystems

The department of Bioproducts and Biosystems (BIO2)

<http://bio2.aalto.fi/en/>

one of the 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 chemicals and advanced materials from natural resources.

It is one of the leading European research and higher education institution in the field of sustainable chemistry and engineering based on the utilization of renewable resources. BIO2 aims to contribute in 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 bio-hybrid materials.

Other strengths of the the department include sustainable materials and products based on lignocellulose, ranging from nanomaterials to novel cellulose based textiles.

Tenure track in Aalto University

The tenure track is open to talented individuals who have excellent potential for a scientific career. Individuals placed on the Aalto University professorial tenure track have the possibility to advance in their career through regular performance assessments, which take into account their merits in all areas of their scope of duty.

Launched in 2010, the tenure track has attracted a wide range of international applicants, giving Aalto University the possibility of recruiting top experts and young research talent to join the Aalto University community. Read more about the Aalto University tenure track system at www.aalto.fi/en/tenuretrack and <http://www.aalto.fi/en/about/careers/careerstories/>

More info at
bio2.aalto.fi



Professor in Microbial Physiology

Professor in *Microbial Physiology*

Microbial physiology deals with the quantitative description of cellular level mechanisms, biochemical pathways, and regulation of metabolism in microbial cells. In particular we see that the field of microbial physiology is necessary for using microbes as cell factories for the production of chemicals, proteins, materials, etc. The efficiency of such production processes requires quantitative and systems-level understanding of cellular processes including understanding of metabolic fluxes, as well as carbon and redox balances. Research in microbial physiology can involve approaches such as modelling, metabolic engineering, and synthetic biology.

Your roles and goals:

As a professor at the Department of Bioproducts and Biosystems (<http://bio2.aalto.fi/en/>) you will establish and lead your own research group. You will contribute to teaching at BSc, MSc, and doctoral level.

We offer a research-oriented environment, with highly functional laboratories and research infrastructure (<http://www.bioeconomyinfra.fi/>). The research groups in related fields, such as biochemistry, biomolecular materials, synthetic biology, protein technology, molecular biotechnology, and bioprocess technology form an environment that supports the development of the field of microbial physiology, and providing beneficial interactions.

The professorship can be filled on any level in the Aalto tenure track system, i.e. Assistant, Associate, or Full Professor.

More info at
position.aalto.fi

A photograph of a modern university interior with a large red text box overlaid. The background shows a spacious, well-lit hallway with wooden slat walls and glass railings. The red box contains the text 'Working at Aalto University' in white, bold, sans-serif font.

Working at Aalto University

Why join us?

Established in 2010 as a merger of three leading Finnish Universities, we are both **challenger of the old, and traditional with strong history** and legacy.

Our unique combination of fields in **art and design, technology and business enable multi-disciplinarity** and finding clever solutions for the world's most wicked problems in the interfaces of these fields.

We aim for **societal impact**, educating game changers to drive sustainability.

We enjoy working at our evolving **collaborative campus close to the heart of Helsinki**, with good connections, great architecture and amazing nature.

We are **international and diverse**: more than 40 % of our faculty comes from outside of Finland. Our working environment is multi-cultural, widely English-speaking and its easy to settle in, despite of wherever you come from.

We have strong [academic standing and reputation in our key fields](#) – Aalto University is among top 10 of New Universities in the world (QS ranking).

Our **well-functioning and fair Tenure Track career system** enables building a successful academic career, providing support for fulfilling your professional ambitions.



Living in Finland

Finland is [among the best countries in the world](#) according to many quality of life indicators, including being the [happiest country in the world \(UN study 2018\)](#).

We are humble people, but dare to say we have **one of the most advanced education systems in the world**.

The Nordic values of **equality and co-operation** are rooted deeply into our society. We are one of the world's top countries in press freedom and consider the many voices in our society a strength.

With high investments in R&D, a strong innovation culture, open data and advanced state of digitalization, we are a nation of **innovation and entrepreneurship**.

Gender equality, flexibility and low hierarchy are at the core of our **Nordic working environment**. Professional ambitions can be combined with a fulfilling personal life.

We are one of the world's most **reliable and stable** nations with low levels of corruption and high level of safety. We are proud to provide exceptionally high standards of social security and healthcare, financed by the state.

Having four distinct seasons, clean air and thousands of lakes, we are some nature-loving people and take good care of our **unique environment**. We enjoy our midnight sun in the summer and northern lights in the winter.

Finnish language is known to be a bit on the complicated side, but don't worry, we Finns are fluent in English, and have an **international mindset**.

We have **wide and reliable transport networks**, with Helsinki airport serving over 100 direct destinations. The comprehensive public transport makes it easy to commute. Our campus is situated within a 10 minute metro ride from the heart of Helsinki.

Want to live in the best country in the world?

More about [Helsinki](#)

More about [Espoo](#)

More about [Finland](#)

More about [working at Aalto](#)

**Aalto University –
a community of
game changers**
aalto.fi



Aalto University