**Remember to register to 33rd BioCity Symposium at latest this Friday!**
**https://biocityturku.fi/biocity-symposium/**

# BioCity Turku Announcement 33/2024

## 33/2024

**This week**
* Human Diversity Seminar, 13th August at 10:15, Dediu
* InFLAMES Guest Seminar, 14th August at 14:00, Glerup

**In near future**
* Nordic Metabolomics Conference 2024, 26th-28th August
* 33rd BioCity Symposium: Unleashing the power of metabolism, 29th–30th August
* Frontiers of Science, 12th September at 12:00, Rothenberg
* 23rd European Conference on Computational Biology, ECCB, 16th–20th September
* IPP and TREMENDO Seminar, 2nd September at 15:00, Malm

**Save the Date**
* Finnish Organ-on-Chip Meeting, 23rd- 24th October
* Turku Imaging Day, 23rd October

**Courses**
* Cell Signaling
* Bioimage Analysis for Quantitative Microscopy

**Open positions**
* Project Researcher / Doctoral Researcher
* Postdoctoral Researcher

**Links to recruitment pages**

Turku BioNet Seminar Calendar
Kiinamyllyn viikkokalenteri
PGE Course Calendar

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**Human Diversity Seminar**

13th August at 10:15-11:00
Hybrid event
Black Box, seminar room 269, Arcanum / Zoom

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**Dan Dediu**, University of Barcelona
*Color has it all: from genetics, perception, cognition and environment to large-scale cross linguistic variation*

Join the zoom: You can also participate the seminar via zoom: https://utu.zoom.us/j/61515345616

Human Diversity is Profi7 funded research cluster which focuses on cutting-edge research on how human contacts and communication networks influence material and immaterial culture, genes, disease burden, transgenerational effects and evolutionary fitness of people. How did past contacts and communication networks induce current human diversity, and how will society be prepared for future changes in diversity? https://sites.utu.fi/humandiversity/

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**InFLAMES Guest Seminar**

14th August at 14:00
On-site event
Lauren 1, Medisiina D

**Associate Professor Simon Glerup**, Aarhus University, Denmark
*Building biotechs in academia*

Host: Olli Pentikäinen

Coffee, tea and pulla is served before the seminar.

Simon Glerup is Associate Professor at Aarhus University, serial biotech entrepreneur and executive, dedicated to transforming excellent science to transformative treatments for the benefit of patients. Simon is experienced in building teams and building companies. His academic research group studies cellular mechanisms of protein sorting and degradation in the context of health and disease. Their scientific findings have formed the basis of several patent applications, collaborations with industry, and three spin-outs raising more than 150 million EUR in investments from top tier venture capital firms to date. He is also a member of the Novo Nordisk Foundation Innovation Committee, supporting early-stage innovative life science in the Nordic countries.

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**4th Nordic Metabolomics Conference**

26th-28th August 2024
On-site event
Mauno Koivisto Congress Centre, BioCity, Turku

On behalf of the local organising committee, we are delighted to welcome you to the 4th Nordic Metabolomics Conference, an official annual conference of the Nordic Metabolomics Society. The conference aims to highlight and discuss the latest metabolomics research in the Nordic countries and abroad.

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The scientific programme includes five sessions focusing on different aspects of metabolomics research from method development, bioinformatics, and applications in human health and nutrition. There are 7 keynote speakers from leading international metabolomics research groups.

Congress program, speakers and latest updates from https://nmetc2024.fi/

Welcome!

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**33rd BioCity Symposium**

29th–30th August
On-site event
Mauno Koivisto Congress Centre, BioCity, Turku
Take a look at the poster

**UNELASHING THE POWER OF METABOLISM**

Registration to the BioCity Symposium is open until **Friday 16 August 2024**, 23:59 (CET+1)
Register here, click!

The Symposium this year will cover metabolism at many levels, from cellular to organismal. Particular focus will be on the interplay of metabolism with other physiological systems such as immune system, gut microbiome, and how such interplay may lead to disease. Some of the Symposium themes include immunometabolism, cancer metabolism, neurometabolism, mechanisms of energy balance, molecular nutrition, and metabolic imprinting.

Up-to-date information from Symposium web pages: https://biocityturku.fi/biocity-symposium/

**Symposium Speakers**
**Jingyuan Fu**, University Medical Center Groningen, the Netherlands
**Amalia Gastaldelli**, Institute of Clinical Physiology, CNR, Italy
**Norman Haughey**, Johns Hopkins School of Medicine, USA
**Ville Hietakangas**, University of Helsinki, Finland
**Henrik Munch Roager**, University of Copenhagen, Denmark
**Luke O'Neill**, Trinity Biomedical Sciences Institute; Trinity College Dublin, Ireland
**Anu Suomalainen Wartiovaara**, University of Helsinki, Finland
**Raffaele Teperino**, Helmholtz Munich, Germany
**Craig B. Thompson**, Memorial Sloan Kettering Cancer Center, USA
**Claudio Vernieri**, IFOM ETS, the AIRC Institute of Molecular Oncology, Italy
**Antonio Vidal-Puig**, University of Cambridge, UK

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**Frontiers of Science**

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September 12th at 12:00
Onsite event
in Presidentti auditorium, BioCity
Autumn 2024 program

**Prof. Ellen Rothenberg**, California Institute of Technology, USA
*Epigenomic and gene regulatory network mechanisms controlling the dynamics of early T cell lineage commitment*
Host: Riitta Lahesmaa (rilahes@utu.fi)

Coffee and sandwich at 11:45, first come first served!

Six PhD researchers and early-career postdocs are welcome to **have a lunch and discuss with Prof. Rothenberg** after the seminar. This is a great possibility to learn hosting skills in a friendly environment and create connections for future. Everyone is welcome to join, BioCity Turku will offer the lunch.

If you got interested, please send an email to biocityturku@bioscience.fi

The Rothenberg group studies the molecular mechanisms that are responsible for developmental lineage choice as hematopoietic stem cells differentiate into T lymphocytes. This is a complex process in which stem-cell multipotentiality is lost in steps that actually overlap with the initiation of T-cell specific differentiation events. Thus, it offers unique insights into the nature of "stem-ness" and the distinction between activation of a development program and irreversible commitment to that program. The approaches used in the lab are a combination of in vitro developmental biology, high-resolution characterization of individual cell developmental states, and molecular genetics of gene regulation. The Rothenberg group focuses on identifying the transcription factors and signaling events that induce T-lineage gene expression in an uncommitted precursor and determine also how they work to force the cell to relinquish other developmental options. Kinetic dissection of this complex process using in vitro differentiation systems and retroviral perturbation make it possible to solve the roles of individual regulatory molecules in successive, highly-defined developmental contexts.

**Selected publications**

Shin B, Zhou W, Wang J, Gao F, Rothenberg EV. 2023. Runx factors launch T cell and innate lymphoid programs via direct and gene network-based mechanisms. Nat Immunol. 2023 Sep;24(9):1458-1472. doi: 10.1038/s41590-023-01585-z

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Rothenberg EV. 2023. The β-selection step shapes T-cell identity. Nature. 2023 Jan;613(7944):440-442. doi: 10.1038/d41586-023-00025-0

Shin B, Hosokawa H, Romero-Wolf M, Zhou W, Masuhara K, Tobin VR, Levanon D, Groner Y, Rothenberg EV. 2021. Runx1 and Runx3 drive progenitor to T-lineage transcriptome conversion in mouse T cell commitment via dynamic genomic site switching. Proc Natl Acad Sci U S A. 2021 Jan 26;118(4):e2019655118. doi: 10.1073/pnas.2019655118

**General information**

- You can download and save all the autumn 2024 FoS-seminars to your calendar from here: https://seafile.utu.fi/d/44a70f80ac1e46a9ad0a/
- Registration is not needed, participation list is circulated in the audience
- If you are a student and later wish to get a certificate of attendance from the Frontier of Science seminars, print out the seminar diary and after the seminar ask the BioCity coordinator to sign it https://seafile.utu.fi/d/44a70f80ac1e46a9ad0a/
- Please note that any audio or video recording of the seminars is strictly forbidden.
- Autumn 2024 image credits to Mia Åstrand: Details of the Bacteroides fragilis VgrG protein (PDB ID: 8GRA). Image created in the PyMOL Molecular Graphics System, Version 2.5 Schrödinger, LLC.

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**23rd European Conference on Computational Biology, ECCB**

16th – 20th September
On-site event
Logomo, Turku

Welcome to ECCB conference in September 2024!

University of Turku and CSC – IT Center for Science have joined forces to host the 23rd European Conference on Computational Biology ECCB2024 in Turku, Finland, 16-20 September 2024.

We aim to arrange a great conference for the computational and life science community and beyond, with top keynotes and talks, lively poster sessions, exciting exhibitions, and other social events. We welcome scientists from a wide range of disciplines, including computational biology, systems biology, bioinformatics, artificial intelligence, biology, and medicine. The focus of the conference is on data and algorithms for health and science. IT infrastructures supporting the research will surely be on the agenda as well. With computational and multidisciplinary expertise, we can respond to the growing global challenges and provide health and well-being from the data.

**Registration via** https://eccb2024.fi/

Hashtag: #ECCB2024

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**IPP and TREMENDO Seminar**

2nd September at 15:00
On-site event
in Aistikattila, Flavoria, Medisiina C124

**Heli Malm**, MD, University of Helsinki/HUCH
*Prenatal exposure to drugs – harmful effects and challenges in investigating them*

IPP seminar series covers the diversity of biomedical/medical research performed in Integrative Physiology and Pharmacology research unit in Institute of Biomedicine, University of Turku plus interesting talks by visitors from national and international research collaboration networks.IPP seminar series covers the diversity of biomedical/medical research performed in Integrative Physiology and Pharmacology research unit in Institute of Biomedicine, University of Turku plus interesting talks by visitors from national and international research collaboration networks.

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**Finnish Organ-on-Chip Meeting**

23rd-24th October
On-site event
in Kauppi Campus, Tampere Universit

Welcome to the first Finnish Organ-on-Chip meeting, taking place at Kauppi Campus, Tampere University, this October. Building upon the success of the Helsinki Organ-on-a-Chip meeting in 2023, Finnish Organ-on-Chip (FIN OoC) meeting continues the tradition of bringing together national and international experts in Finland. Our goal is to strengthen the Organ-on-Chip (OoC) network nationally and in Northern Europe.

The Centre of Excellence in Body-on-Chip Research (CoEBoC) based at Tampere University, hosts the meeting at the Finnish OoC hotspot. Join us for insightful discussions, network and visit our laboratories.

We look forward to having you at the meeting!

For more information and to register, visit the FIN OoC 2024 webpages

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**Turku Imaging Day**

23rd October
On-site event
in Presidentti auditorium, BioCity

Turku, long celebrated as the European imaging capital, is proud to announce the second edition of Turku Imaging Day!

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This event will showcase our state-of-the-art equipment and infrastructure, service centre, as well as the talented individuals who drive innovation in imaging methods and technologies. This will be an opportunity for our imaging community to meet face-to-face, share experiences, and explore new opportunities for cooperation. Our event is focused on fostering local talent, giving special space to our early-career researchers to present their work.

Additionally, we are excited to extend the exciting day with an evening social program for networking and drinks, providing a relaxed atmosphere to further connect with colleagues.

We look forward to seeing you there!

Full program and more details to be announced closer to the event.

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**Cell Signaling Course**

Starting 2nd September at 10:00
On-site event
10 ECTS

The ÅAU Cell Signaling course (10 ECTS) starts with the first introduction lecture on September 2nd 2024 (Mon), at 10-11.30, in Auditorium Biology (ÅAU Biology; Biocity 2nd floor, A-entrance).

The course will introduce the key signaling receptors and pathways as well as the most important principles of inter- and intracellular signaling and signal processing. The role of signaling in different disease conditions and therapeutics is a central theme on the course. The course is aimed at MSc students (year 4-5) and PhD students in biology, biochemistry, and health biosciences.

Since 2018, this course is organized in collaboration with the University of Turku (UTU) as part of the Scientia Aboensis co-operation. The course begins with four introductory lectures by Professor Jyrki Heino (UTU) and continues with lectures by signaling experts from both ÅAU and UTU. The course language is English.

Enrolments:
ÅAU students (and UTU students who have access to ÅAU systems) via Peppi.
UTU and other students at the first lecture and/or by e-mail to max.lonnfors@abo.fi

More detailed information and full course schedule can be found on the course Moodle page:
https://moodle.abo.fi/course/view.php?id=11760

For questions regarding the course, please contact max.lonnfors@abo.fi

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**Bioimage Analysis for Quantitative Microscopy Course**

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30th September - 4th October at 09:00-17:00
On-site event
exact place in the campus TBA

We are thrilled to announce the upcoming Bioimage Analysis for Quantitative Microscopy course, exclusively for researchers at Åbo Akademi University and the University of Turku. This intensive course will take place from Monday, September 30th to Friday, October 4th, 2024, in Turku, Finland. Every day from 9-17.

*Course Highlights:*

- **Cutting-Edge Content:** Learn the latest image analysis methods for image quantification, including basic image analysis, deep learning for microscopy and histopathology, live cell imaging data analysis, data visualization, and open science practices.
- **Hands-On Experience:** Get acquainted with user-friendly image analysis tools such as Fiji, QuPath, TrackMate, and CellTracksColab.
- **Expert Insights:** Attend scientific talks from leading experts in the field of image analysis. *These talks will be open to everyone.*
- **Interactive Learning:** The course is limited to 20-25 participants, ensuring personalized attention. Selection is based on applicants' motivation and relevance to their research.

*Application Information:*

- **Apply by:** August 31st, 2024. Results will be published by September 3rd.
- **Application Form:** Click here to apply

*Additional Resources:*

- **Course Details:** For more information, visit the course GitHub page.
- **Course Poster:** Download the course poster.

*Organizers and Support:*

The course is organized by the Jacquemet Lab at Åbo Akademi University and supported by BioCity Turku, Åbo Akademi University, Turku BioImaging, Field of View -research program and Euro-BioImaging.

*Contact Information:*

For further questions, please contact *(Please cc both in your email)*:

- **Joanna Pylvänäinen:** joanna.pylvanainen@abo.fi

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- **Hanna Grobe:** hanna.grobe@abo.fi

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**Project Researcher / Doctoral Researcher**

Molecular Systems Immunology Group at Turku Bioscience Centre, led by Prof. Riitta Lahesmaa, is searching for a project researcher or doctoral researcher to study immunoregulation in autoimmunity and cancer. Disorders in immune system and lymphocyte function lead to immune diseases or cancer. We aim at studying the molecular mechanisms underlying immune mediated diseases aiming at enabling individualized treatment in the future. Molecular Systems Immunology group aims at understanding the regulation of human immune system to predict, prevent and treat immune mediated disorders. We study epigenetic and transcriptional regulation of T cells and molecular mechanisms of immune mediated diseases such as Type 1 Diabetes.

Project 1. is focused on studying how the novel long noncoding RNAs we have identified influence human T cell differentiation and their role in autoimmune diseases and cancer. Project 2. in collaboration with Orion Pharma Immuno-Oncology team studies molecular basis of human T cell exhaustion in cancer. A range of methods including single-cell genomics, mass cytometry, proteomics and CRISPR-Cas9 will be used in experimental work along with computational tools to address the questions.

**Apply at latest 19 August 2024 16:00 (Europe/Helsinki)**.

Full call text (Job ID 20439) and electronic application system can be found from the following link: https://www.utu.fi/en/university/come-work-with-us/open-vacancies

For further information please contact: Prof. Riitta Lahesmaa riitta.lahesmaa@utu.fi

Enquiries on the application procedure may be directed to HR Specialist Paula Luoma paula.luoma@utu.fi

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**Postdoctoral Researcher**

Molecular Systems Immunology research group at Turku Bioscience Centre, led by Professor Riitta Lahesmaa, is seeking for a motivated postdoctoral researcher to study T-cell response in cancer. This two-year project is funded by The Finnish Research Impact Foundation. During the project the postdoctoral researcher will have an opportunity to work about half of the time also in Orion in Turku with Orion's Immuno-oncology team.

Immunotherapy has revolutionized cancer treatment and the number of cases eligible for immunotherapies are steadily rising. T cells infiltrate the tumor site and launch cytotoxic responses against cancer cells. However, immunosuppressive tumor microenvironment prevents anti-tumor immune responses. In this project our research group in Turku Bioscience will collaborate with the immuno-oncology team in Orion aiming at discovering novel mechanisms responsible for insufficient anti-tumor T-cell responses. Our ambition is to find new means to modulate T-cell responses and

identify patients suitable for such innovative therapeutic approaches in the future. A range of methods including single-cell genomics and computational tools will be used to address the questions.

**Apply at latest 19 August 2024 16:00 (Europe/Helsinki).**

Full call text (Job ID 20435) and electronic application system can be found from the following link: https://www.utu.fi/en/university/come-work-with-us/open-vacancies

For further information please contact Prof. Riitta Lahesmaa riitta.lahesmaa@utu.fi

Enquiries on the application procedure may be directed to HR Specialist Paula Luoma paula.luoma@utu.fi

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**Links to recruitment pages**

University of Turku in Finnish and in English
Ådo Akademi University in Swedish and in English
FinBioNet

If you have events you would like to add to BioCity Announcement please contact biocityturku@bioscience.fi

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