BioCity Announcement 18/2023

This week

* MBC Bioinformatics Consultation, May 2nd at 10:00
* Sustainability Seminar, May 3rd at 14:15
* Frontiers of Science, May 4th at 12:00, Myllyharju
* Drug Discovery and Chemical Biology Symposium, May 4th at 12:00

Next week

* Start-Ups Rising from Academia, May 8th at 13:30
* FICAN West Science Day, May 9th at 09:00
* CellMech CellCom Seminar, May 9th at 13:00, Goult
* Immunology Seminar, May 9th at 13:00, Todd
* Aboa Tech Talks, May 11th at 09:00
* InFLAMES Corporate Corner, May 11th at 11:45

In near future

* Studia Generalia: Honorary Doctors of the Faculty of Medicine, May 25th at 09:15
* Frontiers of Science, May 25th at 12:00, Jänne
* IPP Seminar, May 26th at 13:00, Frilander and Änkö

Courses

* Single-cell RNA-seq data analysis using Chipster

Other news

* TBI newsletter

Open positions

* Postdoctoral Researcher / Project Researcher
* Postdoctoral Researcher / Project Researcher

Save the Date

* 49th Annual Meeting and Summer School of the Scandinavian Society for Immunology, June 4th–7th
* 2nd FinnBrain International Congress on Prenatal and Early Life Stress, June 8th – 9th
* 2nd Nordic Conference on Personalized Medicine (NORPM2023), June 14th-16th
* 32nd BioCity Symposium, August 24th–25th
* Finnish-Japanese Immunology Symposium in Turku, August 29th–30th

Links to recruitment pages

Turku BioNet Seminar Calendar
Kiinamyllyn viikkokalenteri
PGE Course Calendar

MBC Bioinformatics Consultation

May 2nd at 10–12
On-site event / Virtual event
Biocity 7th floor (office 7087b) / Zoom

Open bioinformatics consultation sessions are organized regularly on-site (Biocity and Medisiina-D) and in Zoom. Feel free to pop in without reservation and ask about bioinformatics, experimental design and data analysis. Medical Bioinformatics Centre organizes the Consultation sessions under the Biocenter Finland Bioinformatics platform and they are open to all academic researchers.

All discussions are private and you may wait for your turn in the zoom waiting room or in the lobby near the meeting room.

Join the Zoom: https://utu.zoom.us/j/63674596027

Full schedule for the spring: https://elolab.utu.fi/mbc-bioinformatics-consultation/

Please note that last minute changes to the schedule are possible and will be updated on this website.

Read more about MBC and the training and support options available: https://elolab.utu.fi

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Sustainability Seminar

May 3rd at 14:15
On-site event
Säästöpankki lecture hall, UTU main building

The closing seminar of the Thematics Talk Together -seminar series is organized by the Steering Group for Sustainable Development and aims to discuss the results of the series and envision how to strengthen collaboration in research for sustainability. This closing seminar summarizes the seminar series and visions from each thematic collaboration and discusses how to further strengthen collaboration in research for sustainability at the University of Turku.

Take a look at program and register by April 28:
https://www.utu.fi/en/research/thematic-collaborations-in-research/thematics-talk-together/sustainability

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Frontiers of Science

May 4th at 12:00
on-site event
Presidentti auditorium, BioCity
Spring 2023 program

Prof. Johanna Myllyharju, University of Oulu, Finland
Hypoxia response and collagen synthesis as therapeutic targets
Host: Jyrki Heino (jyrki.heino@utu.fi)

Coffee and sandwich served at 11:45

Six students and early-career postdocs are welcome to **have a lunch in restaurant Mauno and discuss with Prof. Myllyharju** after the seminar. This is a great possibility to learn hosting skills in friendly environment and create connections for future. Every student are welcome to join, in spite of which research group they belong to. BioCity Turku will offer the lunch.

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

Professor Johanna Myllyharju is an expert on the key enzymes regulating hypoxia response and extracellular matrix synthesis. Oxygen and extracellular matrix homeostases are vital for normal functioning of cells and tissues, and disturbances in their balance are associated with many common diseases. Therefore, detailed information on these enzymes is essential for understanding their molecular mechanisms and biological effects in detail. This has already paved the way towards pharmacologic interventions, exemplified by a longterm industrial collaboration to develop enzyme inhibitors that activate the hypoxia response as therapeutic drugs, the first one being approved for treatment of severe anemia of chronic kidney diseases in 2018.

Selected publications

Ollonen T, Kurkela M, Laitakari A, Sakko S, Koivisto H, Myllyharju J, Tanila H, Serpi R, Koivunen P. 2022. Activation of the hypoxia response protects mice from amyloid-β accumulation. Cell Mol Life Sci. 2022 Jul 19;79(8):432.

Elamaa H, Kaakinen M, Nätynki M, Szabo Z, Ronkainen VP, Äijälä V, Mäki JM, Kerkelä R, Myllyharju J, Eklund L. 2022. PHD2 deletion in endothelial or arterial smooth muscle cells reveals vascular cell type-specific responses in pulmonary hypertension and fibrosis. Angiogenesis. 2022 May;25(2):259-274.

Cockman ME, Lippl K, Tian YM, Pegg HB, Figg WD Jnr, Abboud MI, Heilig R, Fischer R, Myllyharju J, Schofield CJ, Ratcliffe PJ. 2019 Lack of activity of recombinant HIF prolyl hydroxylases (PHDs) on reported non-HIF substrates. Elife. 2019 Sep 10;8:e46490

General information

- You can download all spring 2023 FoS-seminars in your calendar from here: https://seafile.utu.fi/d/4a0b831f23ef420786b0/
- Registration is not needed for the on-site seminars
- 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, please print out this seminar diary and after the seminar ask the BioCity coordinator to sign it
- Please note that any audio or video recording of the seminars is strictly forbidden.

Drug Discovery and Chemical Biology Symposium

May 4th at 12:00-16:00
Hybrid event
Lecture hall 2, Biomedicum 1, Helsinki / Zoom

Registration
Places still available for online attendance (registration link). Online link (Zoom) will be provided to registered participants a few days prior to the event.

Confirmed speakers
Prof. Päivi Tammela, University of Helsinki
Dr. Michael Courtney, Turku Bioscience Centre, University of Turku and Åbo Academy University
Laxman Yetukuri, CSC – IT CENTER FOR SCIENCE LTD

Find out more
Symposium's web page
DDCB consortium web page
FIMM High Throughput Biomedicine Unit (HTB)
HTB LinkedIn page

Start-Ups Rising from Academia

May 8th at 13:30
On-site event
Workshop meeting room, Joki Innovation Cenre 3rd floor

Did you come up with an excellent tech idea but you wonder how to take the next steps?
Do you want to meet like-minded scientists and get motivation for your innovative work?
Have you heard about Entrepreneurial Hub Konttori?
Are you interested in listening (success)stories from the spinoffs rising from Turku academia?

Come and join this Thematics TeamUp networking event where you will hear how to succeed in the startup world and to get motivation and gentle push for taking the big leap towards entrepreneurship. You will have the opportunity to exchange ideas and to find people who can support you on your startup path. Join us to network and get invaluable insights into the latest developments.

Program

13:30 Mix and Mingle with snacks and drinks

14:00 Welcome words
Jaakko Järvi, FTDS chair
Jyrki Heino, HDDD chair

14:10 Key-note talk: The story of CardioSignal - Transforming science into health tech business
Mikko Pänkäälä, Precordior Oy
14:30 Q&A

14:40 Support and motivation for researchers with great ideas
Marjo Pihlavisto, UTU support services for research based spin-offs
David Oliva, TUAS approach to launch innovations
Tom Palenius, Turku Business Region
15:10 Q&A

15:20 Five-minute talks by spin-offs raising from Turku academia
Henri Muurimaa, Eduten Ltd
Isabella Pönkkä and **Nellie Inkinen**, Pure LuminescenceTechnologies Oy
Mikko Pohjola, Korpi Solutions Oy
Kaapo Seppälä, CTRL Reality Oy
Rufus Vinod and **Lauri Koittola**, Reilu Kuljetus
Miika Niemeläinen, 3D-FLUOHISTO
15:40 Q&A

15:50 Mix and mingle with snacks and drinks
16:30 Event ends

Register to the event by Wednesday 3 May
https://link.webropolsurveys.com/S/EC946220AAA11D29

The event is hosted by Future Technologies and Digital Society (FTDS) and Health, Diagnostics and Drug Develepment (HDDD) strategic profiles of the University of Turku together with Health Campus Turku.

FICAN West Science Day

May 9th at 09:00
On-site event
Argentum, Aurum, Henrikinkatu 2

The 1st FICAN West Science Day – Co-operation in translational cancer research

Invited speakers

Bruno Sainz, Department of Biochemistry, Universidad Autónoma de Madrid (UAM), Department of Cancer Biology, Instituto de Investigaciones Biomédicas Alberto Sols CSIC-UAM, Madrid, Spain
Jukka Westermarck, Turku Bioscience Centre, University of Turku and Åbo Akademi, Institute of Biomedicine, University of Turku
Kari Kurppa, MediCity Research Laboratory, Institute of Biomedicine, University of Turku
Janne Leivo, Department of Life Technologies, University of Turku
Peter Boström, Department of Urology, Turku University Hospital
Johanna Schleutker, Institute of Biomedicine, University of Turku, and Department of Genomics, Turku University Hospital
Maija Hollmén, Medicity Research Laboratory and InFLAMES Flagship, University of Turku
Satu Mustjoki, Department of Clinical Chemistry and Hematology, University of Helsinki, and HUS Comprehensive Cancer Center

Registration by April 27:
https://link.webropol.com/s/FICANWestScienceDay2023

Take a look at the program of the event:
https://biocityturku.fi/wp-content/uploads/2023/04/v050423-Program-FICAN-West-Science-Day.pdf

The training has been applied for eligibility in PhD doctoral studies and medical doctor specializing education (Kirurgia / runkokoulutus, Kliininen hematologia, Radiologia, Sisätaudit / eriytyvä koulutus, Geriatria, Kliininen farmakologia ja lääkehoito, Korva,- nenä- ja kurkkutaudit, Neurokirurgia, Patologia, Sisätaudit / runkokoulutus, Syöpätaudit, Yleiskirurgia, Endokrinologia, Ihotaudit ja allergologia, Neurologia, Perinnöllisyyslääketiede, Urologia, Yleislääketiede) at the University of Turku.

CellMech CellCom Seminar

9th May at 13:00
On-site event
Auditorium Biochemistry (Biocity 3rd Floor)

Ben Goult, University of Kent, UK
TALIN in MECHANOmemory – spatial organisation encoded by BINary mechanochemical switches

Dr. Goult is recognized for defining the protein talin as a major mechanosensitive signaling hub, and more recently discovered that talin has “molecular memory” providing organisms with the capability to store data through persistent alterations in protein conformation.

Talin, the primary link between integrins and the actin cytoskeleton, coordinates the binding of a wide range of cytoskeletal and signaling adaptors in a force-dependent manner. Our foundational work on talin has shown that mechanosensitive proteins contain force-dependent switches and can store binary information persistently, which can be written/updated using small changes in mechanical force. Talin contains 13 of these binary switches, and they mediate the linkage between

integrin and actin filaments inside the cell to transmit mechanical loads and enable talin to serve as a mechanosensitive signaling hub for the recruitment of many other proteins. Talin, in conjunction with vinculin, forms a meshwork of these switches to form a meshwork code, or more concisely, a MeshCODE. I propose that the multiple switches within the talin rod function to process and store time- and force-dependent mechanical and chemical information. Here Ben will talk about the ability to write/store/compute information in the shape of these talin molecules and present new data on the role of post-translational modifications. Most strikingly, our new data on the changing shape of a talin molecule as its pattern of switches unfold and refold indicates a spatial rearrangement of molecules within integrin adhesion sites. A switch-changing state introduces a quantized step-change in length (40, 50, or 150 nm depending on the switch), which results in precise repositioning of ligands, and a molecule attached to a talin can relocate up to 700 nm as a function of these switch patterns whilst still being coupled to the integrin. Visualizing talin to scale offers a radically new perspective of what binary information in a cell looks like and indicates a mechanism for how alterations in the binary strings of talin molecules lead to persistent changes in signaling and adhesion architecture.

Selected publications

Sam Barnett and Ben Goult. (2022) The MeshCODE to scale – Visualising synaptic binary information. Frontiers in Cellular Neuroscience. 16:1014629 PMID: 36467609

Goult BT, Brown NH and Schwartz M. (2021) Talin in mechanotransduction and mechanomemory at a glance. J. Cell Sci. 134(20):jcs258749 PMID: 34708856

Goult BT (2021) The mechanical basis of memory – the MeshCODE theory. Frontiers in Molecular Neuroscience 14:592951 PMID: 3371664

Immunology Seminar

May 9th at 14:00
Virtual event

John Todd, University of Oxford
From genetics to disease mechanisms to clinical trials in type 1 diabetes

Host: Riitta Lahesmaa (rilahes@utu.fi)

Registration latest May 8th at https://link.webropolsurveys.com/S/9FE7447C1A28E71F

Immunology seminar series is jointly organised by the Finnish Society for Immunology, InFLAMES Flagship and Turku Bioscience. For further information contact Anne Lahdenperä (ankahy@utu.fi) or Riitta Lahesmaa (rilahes@utu.fi), University of Turku.

John Todd FRS, FMedSci, FRCP Hons, PhD is Professor of Precision Medicine at the University of Oxford, Director of the Wellcome Centre for Human Genetics and of the JDRF/Wellcome Diabetes and Inflammation Laboratory (DIL), and an Emeritus Senior Investigator of the National Institute for Health Research. Previously, Todd was Professor of Human Genetics and a Wellcome Trust Principal Research Fellow at the University of Oxford, and until 2016, Professor of Medical Genetics at the University of Cambridge. His PhD was in Biochemistry at the University of Cambridge, followed by a postdoctoral fellowship at Stanford University. Todd researches type 1 diabetes (T1D) genetics and disease mechanisms with the goal of delivering clinical interventions. Todd helped pioneer genome-wide genetic studies in common diseases. He then went on to study the associations between disease-associated genetic variants and phenotypes in T1D by founding and deploying the Cambridge BioResource. In the latest phase of his research, to translate basic genetic and immunological knowledge to treatment and prevention, the DIL is testing the efficacy of low doses of interleukin-2 in newly-diagnosed children with T1D to preserve the remaining pancreatic islet beta-cell insulin production and investigating the role of the microbiome in T1D.

Selected publications

Jia-Yuan Zhang, …, John A. Todd, Ricardo C. Ferreira. Low-dose IL-2 reduces IL-21+ T cells and induces a long-lived anti-inflammatory gene expression signature inversely modulated in COVID-19 patients. medRxiv, 2023. doi: https://doi.org/10.1101/2022.04.05.22273167

Arcadio Rubio García, Athina Paterou, …, Nicola Ternette, Maki Nakayama, John A. Todd, Marcin L. Pekalski. HLA-DQβ57, anti-insulin T cells and insulin mimicry in autoimmune diabetes. medRxiv, 2023. doi: https://doi.org/10.1101/2022.05.11.22274678

Zhang JY, Hamey F, Trzupek D, …, Todd JA, Ferreira RC. Low-dose IL-2 reduces IL-21+ T cell frequency and induces anti-inflammatory gene expression in type 1 diabetes. Nat Commun. 13(1):7324, 2022. doi: 10.1038/s41467-022-34162-3

Richardson TG, Crouch DJM, …, Todd JA, Davey Smith G. Childhood body size directly increases type 1 diabetes risk based on a lifecourse Mendelian randomization approach. Nat Commun. 13(1):2337, 2022. doi: 10.1038/s41467-022-29932-y

Warncke K, Weiss A, Achenbach P, von dem Berge T, …, Szypowska A, Todd JA, Bonifacio E, Ziegler AG; GPPAD and POInT Study Groups. Elevations in blood glucose before and after the appearance of islet autoantibodies in children. J Clin Invest. 132(20):e162123, 2022. doi: 10.1172/JCI162123

Aboa Tech Talks – Sustainable Packaging

May 11th at 09:00-11:00
Virtual event
Flyer

The universities in Turku launched in autumn 2021 a joint webinar series focusing on technology and sustainable development. Aboa Tech Talks will highlight new technologies and innovative technological research that can offer solutions to the complex global challenges of our time.

The eigth Aboa Tech Talks – Sustailable packaging webinar is open to everyone interested, including representatives from industry, government, the third sector, researchers and students. UTU will moderate the event and the language is English.

Webinar will be recorded and made publicly available. The previous Aboa Tech Talks -recordings can be seen in Turku Tech Campus webpages (link below)

Programme and speakers

Eija Kulju, Turku University of Applied Sciences
Enhancement of customer acceptance by new, sustainable packaging designs

Rajesh Koppolu, Åbo Akademi University
Nanocellulose-based sustainable packaging

Christian Höglund, CH-Polymers Oy
Recyclable coating solutions for paper and board packaging materials

Johanna Salokannel, Novia University of Applied Sciences
Shipping point of view – Packaging a necessary evil?

Host: Johanna Salokannel, Novia University of Applied Sciences / Aboa Mare

No registration needed. Just open the event flyer below and click the join the webinar -link.

Take a look at the event flyer and join the webinar, click!
Take a look at the previous Aboa Tech Talks recordings, click!

InFLAMES Corporate Corner

May 11th at 11:45
On-site event
Cave Theatre, Visitor and Innovation Centre Joki

Welcome to the InFLAMES Research Flagship's Corporate Corner titled *Novel Technologies to Improve Human Health* on Thursday May 11th, 2023 at 11:45–16:00. The event will be held in Cave Theatre, Visitor and Innovation Centre Joki, Lemminkäisenkatu 12b, Turku. The event starts with lunch at 11:45 and you are welcome to the networking event at Sokos Hotel Kupittaa after the official programme from 16:00.

We have a great list of speakers from InFLAMES, Gilead, Finnish Red Cross Blood Service, Brinter, Finnadvance and much more!

All interested parties are welcome.

Take a look at the detailed program and register to the event by May 3
https://inflames.utu.fi/events/inflames-corporate-corner-novel-technologies-to-improve-human-health/

Studia Generalia: Honorary Doctors of the Faculty of Medicine

May 25th at 09:15
On-site event
Alhopuro hall, Medisiina D

In connection with the Ceremonial Conferment of Doctoral Degrees at the Faculty of Medicine, Studia Generalia lectures will be organized in Medisiina D's Alhopuro hall on Thursday, 25 May from 9:15 to 11:00. Lectures will be given by the Faculty's Honorary Doctors.

Please register on 17 May at the latest: https://link.webropolsurveys.com/S/BDE3040696581E74

Coffee is available from 8.45am.

Programme

9.15 Welcome by Dean Pekka Hänninen
9.20 Professor Emeritus Mikael Knip: The unsolved puzzle of type 1 diabetes
Discussion 5 min
9.40 Professor Emeritus Björn Klinge: The link between oral and systemic health
Discussion 5 min
10.00 Professor Manuel Tena-Sempere: Connecting body weight and reproduction: Physiological basis and pathological implications
Discussion 5 min
10.20 Professor Adelaida Zabalegui: Implementation of Advanced Practice Nursing in Spain
Discussion 5 min
10.40 Chief Physician Hanna Nohynek: What did the covid-19 pandemic teach us about vaccines?
Discussion 5 min
11.00 Closing by Dean Pekka Hänninen

Frontiers of Science

May 25th at 12:00
On-site event
Presidentti auditorium, BioCity
Spring 2023 program

Prof. Pasi Jänne, Dana-Farber Cancer Institute, Harvard Medical School, USA
Challenges in molecularly targeted treatment of lung cancer
Host: Klaus Elenius (klaele@utu.fi)

Coffee and sandwich served at 11:45

Six students and early-career postdocs are welcome to **have a lunch and discuss with Prof. Jänne** after the seminar. This is a great possibility to learn hosting skills in friendly environment and create connections for future. Every student are welcome to join, in spite of which research group they belong to. BioCity Turku will offer the lunch.

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

The Jänne Lab's research integrates bench-based studies with translational research and clinical trials of novel therapeutic agents in patients with lung cancer. The Lab's main research interest centers on understanding and translating the therapeutic importance of oncogenic alterations found in lung cancer. Dr. Jänne is a translational thoracic medical oncologist at the Dana-Farber Cancer Institute and a professor of medicine at Harvard Medical School. He is the director of the Lowe Center for Thoracic Oncology and the scientific co-director of the Belfer Center for Applied Cancer Sciences.

Selected publications

Hartmaier RJ, Markovets AA, Ahn MJ, … , Cantarini M, Jänne PA. 2023. Osimertinib + Savolitinib to Overcome Acquired MET-Mediated Resistance in Epidermal Growth Factor Receptor-Mutated, MET-Amplified Non-Small Cell Lung Cancer: TATTON. Cancer Discov. 13:98-113

Kobayashi Y, Oxnard GR, Cohen EF, Mahadevan NR, … , Sholl LM, Jänne PA. 2022. Genomic and biological study of fusion genes as resistance mechanisms to EGFR inhibitors. Nat Commun 13:5614

To C, Beyett TS, Jang J, Feng WW, …, Eck MJ, Gray NS, Jänne PA. 2022. An allosteric inhibitor against the therapy-resistant mutant forms of EGFR in non-small cell lung cancer. Nat Cancer. 3:402-417

Kobayashi Y, Chhoeu C, Li J, Price KS, Kiedrowski LA, Hutchins JL, Hardin AI, Wei Z, Hong F, Bahcall M, Gokhale PC, Jänne PA. 2022. Silent mutations reveal therapeutic vulnerability in RAS Q61 cancers. Nature 603:335-342

Jänne PA, Baik C, Su WC, Johnson ML, Hayashi H, Nishio M, Kim DW, Koczywas M, Gold KA, Steuer CE, Murakami H, Yang JC, Kim SW, Vigliotti M, Shi R, Qi Z, Qiu Y, Zhao L, Sternberg D, Yu C, Yu HA. 2022. Efficacy and Safety of Patritumab Deruxtecan (HER3-DXd) in EGFR Inhibitor-Resistant, EGFR-Mutated Non-Small Cell Lung Cancer. Cancer Discov. 12:74-89

General information

- You can download all spring 2023 FoS-seminars in your calendar from here: https://seafile.utu.fi/d/4a0b831f23ef420786b0/
- Registration is not needed for the on-site seminars
- 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, please print out this seminar diary and after the seminar ask the BioCity coordinator to sign it
- Please note that any audio or video recording of the seminars is strictly forbidden.

IPP Seminar

May 26th at 13:00
Virtual event

RNA special seminar

Mikko Frilander, University of Helsinki
Minor spliceosome dysfunction leads to chromosome segregation defects

Minna-Liisa Änkö, University of Tampere
The role of RNA protein interaction and RNA structure in gene regulation

Chair and concluding remarks: Noora Kotaja

Zoom: https://utu.zoom.us/j/62415869446

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

Single-cell RNA-seq data analysis using Chipster

29th–30th May 9:00-12:30
Virtual event

This hands-on course in Zoom introduces single-cell RNA-seq (scRNA-seq) data analysis methods. It covers the processing of transcript counts from quality control and filtering to dimensional reduction, clustering, cell type identification and cluster marker gene detection. You will also learn how to do integrated analysis of multiple samples.

The course consists of lectures and exercises. The lectures will be pre-recorded, and participants are requested to view the videos prior to the course and test their knowledge with a set of questions. This gives you more time to reflect on the concepts so that you can use the classroom time more efficiently for discussions and exercises.

Registration (by May 21) and more details about the course: https://ssl.eventilla.com/scrnaseq2023

TBI newsletter

Turku BioImaging (TBI) would like to share with their first TBI Newsletter edition: https://www.bioimaging.fi/wp-content/uploads/2023/04/TBI-Newsletter-April-2023.pdf

In this first newsletter, TBI covered the latest TBI news and events starting from the beginning of the year 2023. Here are some highlights:

- BIMA MSc program and internship opportunities
- Image analysis course and new workshop on imaging workflow
- Field of View Research program and TBI activities
- News from the Cell Imaging and Cytometry (CIC) Core
- New TBI team members
- Upcoming events

Sign up for the TBI Newsletter mailing list to stay up to date!

Postdoctoral Researcher / Project Researcher

We are opening new opportunities to join our research team investigating the mechanisms of neurological diseases. The team develops and applies optical tools (probes and actuators), imaging and lab automation instrumentation together with proteomics analyses to acquire novel biological insight. The projects aim to identify druggable events leading to perturbed synaptic connectivity. This project develops methods primarily for the purpose of identifying and quantifying defective function of SynGAP1 protein carrying disease-associated mutations using cultures of rodent and/or human neurons as well as other systems. Suitable assays should be evaluated for compatibility with drug-library screening in a potential follow-up project.

Key Tasks and Responsibilities

- Identifying the mechanistic bases for synaptic perturbation resulting from SynGAP1 abnormalities, using gene transfer into rodent and/or human neurons, high-throughput microscopy, optogenetics, image analysis, proximity proteomics and biochemical analyses. The current project aims to establish functional assays suitable for subsequent drug screens.
- Supervision of junior researchers and collaboration with colleagues and project partners
- Documentation and reporting

Take a look at the full call text:
https://rekry.saima.fi/certiahome/open_job_view.html?did=5600&lang=en&id=000014791&jc=14

The start of employments is negotiable, preferably in May-June 2023. The position is fixed-term for 24 months (negotiable), with a possibility for extension.

Please submit your application through the online application system no later than **7.5.2023**. Kindly use a link to the online application system https://www.utu.fi/en/university/come-work-with-us/open-vacancies (job ID 14791)

In case you need help with the application process, please turn to biocityhrservices@utu.fi
For further information about the position, please don't hesitate to contact michael.courtney@utu.fi

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Postdoctoral Researcher / Project Researcher

We are opening new opportunities to join our research team investigating the mechanisms of neurological diseases. The team develops and applies optical tools (probes and actuators), imaging and lab automation instrumentation together with proteomics analyses to acquire novel biological insight. This project establishes methods for high-throughput monitoring of the integration of neurons into synaptically-connected circuits. The project builds on proteomics data and analyses with the aim to identify druggable events leading to perturbed synaptic connectivity. The impact of protein loss associated with early-stage Alzheimer's disease on the sustained integrity of the circuit is investigated.

Key Tasks and Responsibilities

- Investigating the relation between single cell signalling networks and integration into neuronal circuits in models of synaptopathies, especially Alzheimer's disease. Techniques include fluorescent probe and actuator design and/or implementation, viral preparation and gene transfer, human and/or rat neuronal culture, adaptation of high-throughput microscopy instrumentation, data analysis pipelines as well as integration with synaptic proteomics.
- Supervision of junior researchers and collaboration with colleagues and project partners
- Documentation and reporting

Take a look at the full call text:
https://rekry.saima.fi/certiahome/open_job_view.html?did=5600&lang=en&id=000014785&jc=14

The start of employments is negotiable, preferably in May-June 2023. The position is fixed-term for 24 months (negotiable), with a possibility for extension.

Please submit your application through the online application system no later than **19.5.2023**. Kindly use a link to the online application system https://www.utu.fi/en/university/come-work-with-us/open-vacancies (job ID 14785)

In case you need help with the application process, please turn to biocityhrservices@utu.fi
For further information about the position, please don't hesitate to contact michael.courtney@utu.fi

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49th Annual Meeting and Summer School of the Scandinavian Society for Immunology

June 4th–7th
On-site event
Marina Palace Turku

The SSI2023 meeting brings together immunologists at all career stages, from PhD students to experienced senior scientists, interested in various aspects of immunology. Join us to hear the latest research from basic immunology to translational and clinical studies!

Abstract submission DL is March 13th

More information, registration and program: https://ssi2023.fi/

2nd FinnBrain International Congress on Prenatal and Early Life Stress

June 8th –9th
On-site event
Turku Boat Yard, Hevoskarintie 23, Turku, Finland

Accumulating evidence is showing that both prenatal and early postnatal stress is related to a wide variety of child outcomes. Recently also the possibility of epigenetic inheritance of stress related phenotypes across generations has been put forward. The 2nd FinnBrain International Congress covers these topics on early life stress exposure and its influences on development and health. Multidisciplinary program with interesting keynote speakers.

Registration deadline on May 5th

More information, registration and program: https://sites.utu.fi/finnbraincongress/

2nd Nordic Conference on Personalized Medicine

June 14-16
On-site event
Marina Palace Turku

The Finnish Society of Clinical Pharmacology in collaboration with the University of Turku is organizing the Second Nordic Conference on Personalized Medicine (NORPM2023) in Turku on 14-16 June 2023. The programme is covered by distinguished international experts and formed around state-of-the-art sessions focusing on research and implementation of personalised medicine.

More information, program, registration and abstract submission are available at the Conference web page at www.norpm2023.fi

Abstract deadline 31 March 2023 and early bird – registration deadline 25 April 2023.

32nd BioCity Symposium

Sculpting Tissues – cells, matrix and forces
August 24th – 25th
On-site event
Mauno Koivisto Centre, BioCity, Turku

Registration is now open until **Friday 11 August 2023, 23:59** (CET+1)
If you wish to submit poster abstract please register at latest **Friday 9 June 2023, 16:00** (CET+1)
Register to the event here, click!
Details regarding the abstracts and posters here, click!

The 32nd BioCity Symposium will explore the mechanisms regulating tissue architecture and homeostasis in biological organisms. This complex and dynamic "sculpting" process is carefully coordinated from the very beginning of life. Cells build tissues by proliferating, migrating, altering phenotype and generating a modifiable extracellular matrix (ECM).

In turn, the ECM's biochemical and biomechanical properties determine cell behaviour and cell-cell crosstalk to control gene expression and cell state and the response to injury and insult (tissue repair, fibrosis, inflammation, cancer) and therapeutic targeting. Next year's BioCity Symposium will focus on this reciprocal interplay between cells and their microenvironment to build healthy tissues, and how dysregulation ultimately leads to disease.

All latest information from: https://biocityturku.fi/biocity-symposium/

Invited speakers

Christopher Chen, The Biological Design Center; Boston University; Harvard University, US
Miki Ebisuya, European Molecular Biology Laboratory (EMBL) Barcelona, Spain
Peter Friedl, Radboud University Medical Center, Netherlands
Edouard Hannezo, Institute of Science and Technology Austria, Austria
Kairbaan Hodivala-Dilke, Barts Cancer Institute, Queen Mary University of London, UK
Daniel Krueger, Hubrecht Institute, Netherlands
Rachel Lennon, Wellcome Trust Centre for Cell-Matrix Research, UK
Alexandra Naba, University of Illinois at Chicago, USA
Erik Sahai, The Francis Crick Institute, UK
Michael Sixt, Institute of Science and Technology Austria, Austria
Fiona Watt, European Molecular Biology Organization (EMBO), Germany

Welcome!

Finnish-Japanese Immunology Symposium

August 29th–30th
On-site event
in Turku

Emerging concepts in immunology - from basic mechanisms to treating immune mediated diseases

Save the date, more details will follow later!

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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