TURKU BIOIMAGING
N E W S L E T T E R

WELCOME TO SECOND TBI NEWSLETTER!

Turku BioImaging (TBI) is an independent umbrella organization that coordinates imaging activities, funding, and education in Turku, Finland. TBI also provides open access services in image data analysis. In this second TBI newsletter, we cover the latest TBI news and events from the spring 2023. Sign up for the **TBI Newsletter mailing list** to stay up to date!

PIX4BUSINESS - BUSINESS COOPERATION PROJECT

Pix4Business is a business cooperation project of TBI's Image Data Team (IDAT). The goal of the project is to increase the impact and productivity of bioimaging data in life science companies in Southwest Finland. At the moment, IDAT collaborates with 4 companies in the project in advanced image data analysis, and interacts with dozens of companies in Finland and abroad. Besides establishing company collaborations, Pix4Business also focuses on spreading awareness of modern image analysis and strengthening academia-industry connections in research and education. The project is funded by the European Regional Development Fund. More information on **the TBI website**.

DEMO DAY 2023

During the spring, University of Turku (UTU) and Turku University of Applied Sciences arranged a Demo Day for high school students of the Turku region. In collaboration with Cell Imaging and Cytometry Core, TBI's Pasi Kankaanpää and Junel Solis (photo) organized one of the demos. The popular demo focused on microscopy and image analysis.

Image by Pasi Kankaanpää

EURO-BIOIMAGING ALL HANDS MEETING

TBI attended **Euro-BioImaging All Hands Nodes Meeting** in Heidelberg, Germany in April. TBI's Dado Tokic discussed industry-academia collaborations and Jiri Funda gave a talk about both Finnish Nodes of Euro-BioImaging - **FiAM and FiBI**. The two Nodes offer open access to biological and biomedical imaging technologies, services, and training. The meeting was very productive. We look forward to the next meeting in Torino!

Image by Susanne Vainio

FIRI CALL 2023

In this spring's call of the Academy of Finland "**FIRI 2023: roadmap research infrastructures 2021–2024 and international memberships**", TBI led two consortium proposals for our two Euro-BioImaging Nodes **Finnish Biomedical Imaging (FiBI)** and **Finnish Advanced Microscopy (FiAM)**, as well as contributed to the proposal of **Biocenter Finland**. Altogether, the three proposals apply for over 13 M€ for Finnish imaging infrastructures. Approx. 3 M€ of this is applied for Turku, for new imaging instruments and services. FIRI funding is intended to strengthen and upgrade national research infrastructures that advance scientific research.
Results of the call will be published in late 2023 / early 2024.

EURO-BIOIMAGING BOARD MEETING

In May, a **Euro-BioImaging Board Meeting** was held in Turku, with representatives from 16 member countries. TBI's Pasi Kankaanpää and Christoffer Lagerholm from the Cell Imaging and Cytometry Core gave a tour through local imaging facilities. The TBI team also participated in a networking event, discussing with several key European imaging persons. The managers of our Finnish Nodes, TBI's Jiri Funda (FiBI) and Irina Belaia (FiAM), also met in person with their respective Euro-BioImaging ERIC coordinators from Torino and EMBL– Alessandra Viale and Johanna Bischof (photo).

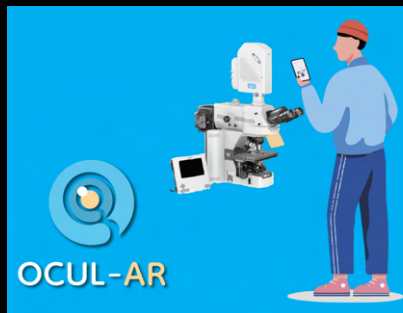*Image by Pasi Kankaanpää*

COLLABORATIVE RESEARCH FUNDING 2023

BioCity Turku announced the results of the call for Collaborative Research Funding 2023. Three of the grantees are affiliated with the *Field of View Research Program* led by TBI:

Guillaume Jacquemet, "Bringing Expansion Microscopy to BioCity"
Johanna Örling (Kirsi A. Virtanen's research group), "The spatial crosstalk of cervical lymph nodes and brown adipose tissue in humans"
Jiri Funda (Turku BioImaging), "Turku Imaging Day"
Congratulations to all grantees!

OCUL-AR MOBILE APP FOR LEARNING MICROSCOPY

Ocul-AR – an augmented reality mobile app for learning microscopy is released!
Ocul-AR helps researchers and students become independent microscopy users; read the paper here. Ocul-AR was developed as a collaboration between TBI, Åbo Akademi University, University of Turku and Turku University of Applied Sciences. The project was funded by Blue Skies funding (UTU Faculty of Medicine) and TBI. For more info, visit the Ocul-AR page.

NEURAL NETWORK IN BIOIMAGE ANALYSIS

The course NEURAL Networks in Bioimage Analysis, at the Biotechnology and Biomedicine Center in Vestec, Czechia, was organized in May. The course provided an introduction to machine and deep learning in

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image analysis. TBI´s Junel Solis was a guest lecturer on the course and gave the online lecture *"3D blob segmentation using StarDist in Python"*. More info about the course is here.

NEUBIAS CONFERENCE IN PORTO

The 5th NEUBIAS Conference took place in Porto, Portugal in May. The goal of the conference was to bring together the bioimage analysis community into a multi-faceted event, consisting of a training school and open symposium. TBI´s Irina Belaia participated in both events and presented TBI´s services and activities. It was a intense week of networking, lectures, and brainstorming. More info about the conference is here.
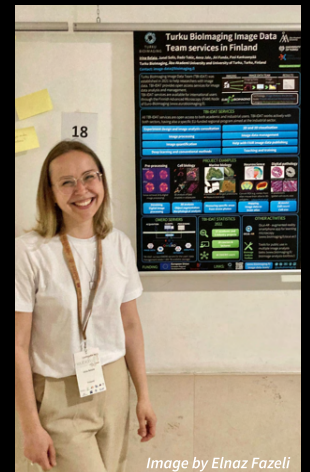
Image by Elnaz Fazeli

UPCOMING EVENTS

Aug 22-25	**BNMI Symposium** Odense, Denmark
Aug 29	**Infrastructures and AI-based tools promoting high-quality research with mouse models** FinGMice networking event, Turku, Finland
Sep 10-16	**Advanced Methods in Biomedical Image Analysis School** Brno, Czechia
Sep 11-15	**Turku PET Centre Neuroimaging course** Turku, Finland
Oct 3	**Turku Imaging Day** Turku, Finland
Oct 23-26	**CytoData Symposium** Helsinki, Finland

EDUCATIONAL COLLABORATION

A delegation from Turku, including TBI team members, visited the cell imaging core facility PRIMACEN at the University of Rouen Normandy in

Image by Joanna Pylvänäinen

June, for an imaging workshop and networking conference. The visit consisted of scientific talks, networking events, and as well as brainstorming workshops for future educational collaboration. More info about the visit is here.

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