TURKU BIOIMAGING
NEWSLETTER

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WELCOME TO THE THIRD TBI NEWSLETTER!

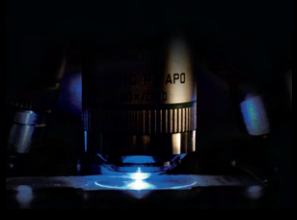
Turku BioImaging (TBI) is an independent umbrella organization that coordinates imaging activities, funding, and education in Turku, Finland. TBI also provides open access services in image data analysis. In this third TBI newsletter, we cover the latest TBI news and events. Sign up for the **TBI Newsletter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

TURKU IMAGING DAY 2023


Image by Junel Solis

The Field of View Research Program together with TBI organized the first **Turku Imaging Day** on October 3rd. The Turku Imaging Day took place during the celebrations of **the 80th anniversary of the Faculty of Medicine** of the University of Turku. Turku Imaging Day brought together more than 150 researchers interested in imaging to strengthen and grow the imaging community in Turku. The event consisted of excellent scientific talks all about imaging, presentations from local imaging facilities, flash talks and posters from early career researchers. At the end of the day there was an evening networking event during which the winners of flash talk and poster competitions were announced (image on the left). Flash talk winners: 1st Joanna Pylvänäinen (on left), 2nd Jonne Kunnas (on right), 3rd Samuel Svärd (second from left, in photo Samuel´s PI Gennady Yegutkin). Poster competition winners: 1st Ana Popovic (second from right), 2nd Erika Atencio Herre (third from right), 3rd Umair Khan (third from left). Thanks to all speakers, participants, organizers, and sponsors, and see you all next year!

NEW EDITION OF THE BLACK BOOK



The TBI team is very pleased to announce the release of the new edition of the iconic **TBI Black Book**, which presents "all things imaging" in Turku for scientists and industry/SME partners. The book is an overview of the various imaging technologies and services available in Turku, contact information, and information on TBI educational and image analysis services. It also presents the imaging facilities and research infrastructures that provide access to imaging technologies in practice. The TBI team thanks all contributors and authors and hopes that this book will be useful to the imaging community. The Black Book is available **here**.

MSC PROGRAMME IN BIOLOGICAL IMAGING - NEW ACADEMIC YEAR


Image by Jatta Helin

The new academic year has again kicked off, and with that the newly admitted MSc students in biomedical imaging have started their studies in Turku. This year saw the greatest interest in the BIMA so far - 17 students from all around the world embarked on their journey to the interesting world of imaging. The local imaging community warmly welcomes the new students! On the image TBI's BIMA coordinator Anna Jalo (left) with some of the students on Turku Imaging Day.

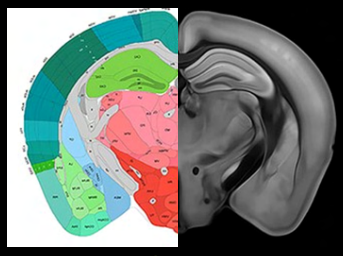
FINGMICE NETWORKING EVENT IN TURKU

As a part of their "tour" 2023, the **FinGMice network** organized the event **"Infrastructures and AI-based tools promoting high-quality research with mouse models"** in Turku last week of August. Several important topics about the use of animal models and AI-based image analysis in biomedical research were covered. TBI´s Pasi Kankaanpää and Guillaume Jacquemet gave talks about TBI services and AI in image analysis and participated in the panel discussion "How to get most out of your mouse model using AI-based image analysis?" together with other experts Juho-Antti Mäkelä, Pekka Ruusuvuori and Lassi Paavolainen.


Image by Vootele Voikar

MOUSE BRAIN ALIGNMENT TOOL DEVELOPED UNDER THE ISIDORE PROJECT

Turku BioImaging, in collaboration with Zuzana Čočková (**Charles University, Prague**) and Francisco Lopez-Picón (**Turku PET Centre**) developed the Mouse Brain Alignment Tool (MBAT), a Python-based software for processing autoradiographic (ARG) images of mouse brain tissue sections and analyzing them using topographical data from the Allen Institute's Mouse Brain Atlas. The ARG images of mouse brain were from a study that investigates brain damage caused by COVID-19. This project was funded by the **ISIDORe project** of **Euro-BioImaging** through the **Finnish Advanced Microscopy Node.** In June 2023, Zuzana visited TBI and worked on the software together with TBI's image analyst Junel Solis and the rest of the team. The software will soon be made available to the public for download. Read more info about the project **here**.



EURO BIOIMAGING
FINNISH ADVANCED MICROSCOPY NODE

FUNDING OPPORTUNITIES TO COVER ACCESS TO EURO-BIOIMAGING SERVICES

Do you want to use come cool imaging technology for your project but lack funding to cover the access fees and other costs? There are different funding opportunities to support your research and get **FREE access** to Euro-BioImaging services:

- **ISIDORe** for projects related to infectious diseases
- **CanSERV** for projects related to cancer
- **COMULISglobe** to support correlative and multimodal imaging

Both Finnish Euro-BioImaging Nodes are participating in these calls! Get more info **here**.

EURO BIOIMAGING

canSERV
providing cutting edge cancer research services across europe

ISIDORe

Correlated Multimodal Imaging in Life Sciences
comulis globe

LIFE SCIENCE RESEARCH INFRASTRUCTURE COORDINATION GROUP

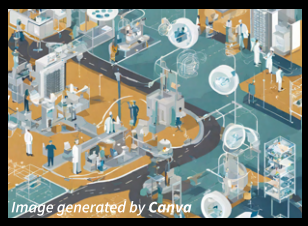


Image generated by Canva

A new life science infrastructure coordination working group has been established in Finland. The group will suggest a new model to national decision makers on how Finnish research infrastructure funding should be organized. The aim is to enable more sustainable operations of research infrastructures that are critical for life scientists. TBI's Pasi Kankaanpää is a vice chair of the group.

UPCOMING EVENTS

Nov 6-10	**Practical course on Deep Tissue Imaging** University of Oxford, UK
Nov 14-17	**11th NorMIC workshop on Microscopy Image Processing** University of Oslo, Norway
Nov 29-Dec 1	**Correlative Array Tomography Workshop** University of Gothenburg, Sweden
Nov 28-Dec 7	**Workshop on AI Basics for Image Processing** ANERIS, Euro-BioImaging, online
Jan 22-26	**Practical course in Advanced Microscopy** University of Zürich, Switzerland

GOTHENBURG BIOIMAGE ANALYSIS COURSE

Image by Irina Belaia

In September, Turku BioImaging in collaboration with the **Centre for Cellular Imaging (CCI)** at the **University of Gothenburg** ran the **Introductory Course to Image Analysis in Life Sciences**. For participants in Turku, the course was organized in a hybrid format: while teachers were in Gothenburg, the TBI team supported the trainees on site. The course consisted of lectures and hands-on sessions and lasted for 5 days during which the trainees got an introduction to bioimage processing, image analysis, workflows, machine learning tools as well as basic data handling in Python. Thanks to the organizers and a great set of teachers!

NEW INSTRUMENTS IN CIC CORE FACILITY

Image from leica-microsystems.com

Cell Imaging and Cytometry (CIC) **core facility** has purchased:

- **Leica Stellaris 8 confocal microscope platform** (see image)
- **Leica Thunder Widefield Microscope**
- Upgrade of **M2 Aurora Light-Sheet Microscope**

Instruments delivery is expected at the end of 2023/beginning of 2024 and will be followed by user training. Stay tuned!