Panel for Core Facilities meeting
Physical meeting (Roskilde University)
June 12th. from 13:00 to 15:00

Participants
Thomas Hartig Braunstein (THB), Sebastian J Kjeldgaard-Nintemann (SKN), Nynne Christensen (NC), Nina G. Burmeister (NGB), Sonia Diaz Garcia (SDG), Peidi Xu (PX), Richard de Mets (RM), Julia Katharina Mertesdorf (JKM), Morten Frendø Ebbesen (MF), Chris Dinant (CD), Jon Sporring (JS), Xiaowen Wang (SW), Sunny Dai (SD), Bichitra Paul (PB), Yasuko Antoku (YA), Felipe Delestro Matos (FDM), Juan Miguel Valverde (JMV), Suneth Dayan (SD), Parisa Rezaee (PR), Agatha Silva (AS), Katharina Kaiser (KK), Clara Prats (CP).

Agenda

- Welcome - Thomas Hartig Braunstein (THB)
- Wrap up of the European Light Microscopy Initiative Conference – THB
- News from Eurobioimaging – THB
- Discussion Topic: Expansion Microscopy – Agatha Silvan
- Overview of the LEAF process in CFIM – THB
- Discussion topic: Data management and transfer – Morten Fredø
- DBI-INFRA IACF updates - TL
- Expertise searchable tool - RM
- Outreach activities – SDG
- PoF activities in 2025 - THB - ALL
- Next DBI meeting _ All
- AOB

Thomas Hartig Braunstein (THB) chaired the meeting based on the points presented in the mail sent to all the participants prior to the meeting.

Wrap up of the European Light Microscopy Initiative Conference
The first topic on the agenda was the European Light Microscopy Initiative Conference (ELMI). This version of the conference was the 25th anniversary and was held in Heidelberg, where it all began, (from June 3-6). Some highlights of the 2025 conference included company workshops, an international line-up of speakers, a comprehensive exhibition, and a dedicated community workshop room where participants could engage directly with experts and peers. The event welcomed more than 500 attendees. From CFIM (Core Facility for Integrated Microscopy) attended: Sunny Dai (SD), Thomas Hartig Braunstein (THB), Xiaowen Wang (SW), Agatha Silva (AS), and Katharina Kaiser (KK) and from the Aarhus BioImaging Core Facility, Anna Lorentzen (AL) and Nina G. Burmeister (NGB).

THB gave a brief report on some of the interesting subjects covered at the conference, with specific emphasis on microscopy and techniques. One of the big highlights in the conference was the Swept,

Confocally Aligned Planar Excitation (SCAPE) microscope, presented by Elisbeth Hillman - this type of microscope is extremely fast and allows for optical sectioning. A version of the microscope manufactured by ASI was showcased and although it was not a turnkey system, it still had impressive specs when it came to speed and sensitivity (hundreds of volumes per second).

Also, two new interesting dyes were presented. The CarboTag is a dye for labelling cell walls in live plants, something that was not really possible earlier, and the tag can be coupled to different fluorophores. The HMSiR dye is a spontaneously blinking dye in the near infrared spectrum, that can be used for SMLM imaging. Similar and cheaper versions of blinking dyes can be bought from Janelia Farm, eg. the JF646b dye. This may ease the preparation of STORM experiments in the future.

In a very impressive lecture on centriole formation, Virginie Hamel illustrated how expansion microscopy could be used to identify the players involved in the intricate structure. The authors were able to identify 24 proteins involved in the molecular assembly of centrioles.

The conference had lots of other interesting lectures and great discussions and was, as always, very informative and great for networking.

News from Eurobioimaging

THB continues by sharing that, as part of the Horizon Europe project EVOLVE, there are several opportunities for the Danish Node at EuroBioImaging, including participation in *the Train the Trainer program*, the *EVOLVE Call for Conference Participation*, the *Mentoring Program*, and *the Job Shadowing Program*. Visit this link for an overview of the opportunities made possible by funding from the EVOLVE project, as well as information about eligibility and how to apply.

TH concludes sharing that there are many other topic-specific funding opportunities at EuroBioImaging. Further details are available on the EuroBioimaging webpage how to access funding

TH also shares how to register for Eurobioimaging user access visiting this page on the DBI INFRA website. Here you can find the steps to follow: Select Technology and Node, submit proposal and after proposal submission.

He also highlightes that THB, SDG, RM, NC, TL were attending the All-Hands Node meeting in Heidelberg in March. The aim of the annual All-Hands 'meeting was to bring together scientists from the Euro-BioImaging Nodes to meet each other, encourage interdisciplinary collaborations, and to discuss most relevant topics for Euro-BioImaging operation and developments in imaging. The meeting started with the Panel of Nodes meeting, bringing together coordinators from our 41 Nodes for important updates. In this meeting attended by THB and NC it was announced that Sebastian Munck of Flanders BioImaging and Ilva van Houwelingen of the Population Imaging Node Rotterdam were elected by their peers as the new Panel of Nodes Chair and Vice-Chair respectively.

Moreover, BNMI (Bridging Nordic Microscope Infrastructure) is also offering Job shadowing programs where a Nordic imaging core facility will host facility staff member coming from another Nordic partner imaging facility to share with him/her experience and knowledge on a certain type of work related to the facility itself: technical of managerial. Read here to know more about this program.

Discussion topic: Expansion Microcopy

Ágata Silvan (AS) presented Expansion Microscopy (ExM) as a powerful technique based on sample preparation, enabling nanoscale resolution imaging with conventional light microscopes. She described the state-of-the-art protocols in ExM and its potential when combined with other microscopy techniques (e.g., SIM, STED, light sheet). She also shared with the rest of the PoF an

overview of resources currently available, as well as important considerations and challenges when performing ExM experiments.

Overview of the LEAF process in CFIM

TH gives an overview of LEAF (Laboratory Efficiency Assessment Framework) program, a well-established certification scheme for green laboratories used internationally. The LEAF certification scheme is designed to improve sustainability and efficiency in laboratories and is used as a tool to reduce the carbon footprint of laboratories without compromising the quality of research and education. There are three levels: bronze, silver, and gold. TH stresses that CFIM, core facility for Integrated Microscopy at BMI (department of Biomedical Science at University of Copenhagen) has successfully achieved the bronze certification this year. The process involved meeting with a LEAF representative, organizing team roles, completing sustainability checklists, and undergoing certification. As part of their efforts, CFIM introduced measures such as safety and LEAF sheets, lab introductions for new users, and clearly marked waste fractions.

DBI-INFRA IACF Updates

TL continues with the next point in the agenda, giving an update on the DBI-INFRA Image Analysis Core Facility (IACF). The IACF is physically located at the DBI-INFRA Hub (UCPH Faculty of Health and Medical Sciences), but its services are accessible from anywhere. TL highlights the events organized by the IACF team, and the new design of the DBI INFRA IACF website.

Furthermore, the DBI-INFRA Image Analysis Core Facility, composed of Tricia Loo, Julia Mertesdorf, and Peidi Xu, will offer free consultation sessions for life scientists with bioimage analysis questions at Roskilde University at the end of the symposium. They will also visit Aarhus University in September.

Visit the new design DBI INFRA website to learn more about the projects, services and events organized by the DBI INFRA IACF in 2025. Among them the Call4Help, a bi-monthly public and free consultation moderated by the DBI-INFRA Image Analysis Core Facility. You can attend online to obtain quick guidance for your bioimage analysis problem or learn from the questions of your peers.

Overview of the CF techniques sheet

Richard de Mets (RM) continues the meeting with an update on the searchable expertise tool.

He emphasizes that the core facilities are themselves responsible for updating their equipment in a spreadsheet in a Google account and that the main advantage of this setup is the simplification of the maintenance of updates of the techniques for each facility, and the quick expansion if new facilities join the infrastructure.

The spreadsheet should be updated anytime there is a new technique at your facility that you want to promote. Furthermore, the date of the last update appears on the table. It was agreed that the table will be showed in the Danish Bioimaging Network website covering all the core facilities in Denmark.

The tool is implemented in the DBI-INFRA website DanishBioImaging Infrastructure (dbi-infra.eu) and the Danish BioImaging website DBI Techniques Table , where all the facilities in Denmark can now be included.

Action: If your facility is not yet listed on this page, please contact RM to request access to the spreadsheet and include your facility in the Danish Bioimaging techniques table.

Outreach activities

SDG shares that in 2025 we continue the DBI serie serie called "meet the DBI-INFRA users" with an interview with Vinay Mishra, a postdoctoral researcher in the Department of Physics, Chemistry, and

Pharmacy at SDU and a user at DaMBIC. His project is about *MicroTool: Microscopy for Enhanced Stability of Mixed Dairy Products* and access to the advanced microscopy facilities at DaMBIC was key to the success of his research.

Furthermore, we feature Andrea Mancini, a 27-year-old PhD researcher in the Cell Stress and Survival (CSS) group at the Danish Cancer Institute (DCI) who is working on a research project that uses the Carl Zeiss Cell Discoverer 7 microscope for automated high-throughput microscopy. The equipment is open access and if you are a researcher interested in using the Zeiss Cell Discoverer 7 at the Danish Cancer Institute's bioimaging facility, please reach out to Chris Dinant (cdi@cancer.dk) core facility leader.

RDM brought up the idea of including another researcher in the series: Trine Schønfeldt, a PhD student in Skin Immunology at the University of Copenhagen. SDG will contact her to arrange an interview.

Furthermore, DBI-INFRA maintains accounts on several social media platforms, including Twitter, LinkedIn, Instagram and YouTube. On LinkedIn. DBI-INFRA currently has over 1,600 followers, and we aim to reach 2,000 followers.

Furthermore, SDG encourages all to participate in the Global bioimaging initiative along with Royal Microscopy to give visibility to the core facility staff. The Royal Microscopical Society (RMS) and Global BioImaging (GBI) have launched the RMS Authorship Guidelines, an initiative aimed at ensuring that imaging scientists working in core facilities receive the authorship recognition they deserve. They have created a poster outlining best practices for authorship acknowledgment in imaging research. The poster is accessible in this link for print and display prominently in your workplace. Additionally, RMS and GBI are inviting imaging scientists across the global community to join this campaign to raise awareness about this guideline. Danish BioImaging (DBI) participated on Tuesday, 17 June.

Finally, SDG encourages everyone to reach out to her if anyone would like to feature an event, job offer, or news article in the upcoming DBI newsletter and to keep the DBI website updated with job openings, open calls and events on the DBI website.

Data Management and transfer
Morten Fredø continues the meeting by sharing that, at the next PoF meeting, he will present how he uses UCloud at DaMBIC as a platform for data transfer and storage. By that time, OMERO (Open Microscopy Environment Remote Objects) will hopefully be fully implemented as an app to complement the images with tagging and metadata, making them searchable and supporting the broader use of stored images as a resource.

PoF Activities in 2025
The next point on the agenda is to plan the PoF agenda for the next meeting. THB invited brainstorming on topics to discuss during the PoF meetings in November.

ACTION: Please fill in this google doc to provide the topics you would like to include for the PoF meeting in November.

Next DBI meeting
To conclude, it was agreed that the next PoF meeting will be held via Zoom on November 7, from 13:00 to 14:30.

Anyone working in a Microscopy Facility, open or closed Facility is welcome to join the PoF meetings. If voting is needed, each Facility has one vote, given by its official representative. We aim

at 3 yearly meetings, where of one will be in person, in conjunction with the yearly Danish Bioimaging Network meeting. Contact Sonia.garcia@sund.ku.dk if you are a staff of a core facility in Denmark interested in attending these meetings.

AOB
None