Policy Biochemical Imaging Centre Umeå (BICU):

The Biochemical Imaging Centre Umeå is part of the VR-funded National Microscopy Infrastructure (NMI). This open access facility provides state-of-the-art imaging equipment and dedicated personal for super-resolution microscopy, advanced live cell imaging, atomic force microscopy, affinity measurements and correlative imaging approaches.

1. Organization

BICU staff:

Director: Richard Lundmark
Scientific support, organization, budget administration.
Contact: richard.lundmark@umu.se

Facility manager and Light Microscopy specialist: Irene Martinez
Managing of the imaging instruments, booking system, website administration, education on instruments, course teaching, scientific/technical support, billing of user fees, data storage, support with data analysis.
Contact: irene.martinez@umu.se

Light Microscopy and Electron Microscopy specialist: Naga Venkata Gayathri Vegesna
Education on instruments, course teaching, scientific/technical support, sample preparation, support with data analysis.
Contact: gayathri.vegesna@umu.se

Steering board:

- Thomas Borén, Medicinsk Kemi och Biofysik, UmU
- Richard Lundmark, Integrativ Medicinsk Biologi, UmU
- Magnus Wolf-Watz, Kemi, UmU
- Linda Sandblad, Molekylärobologi, UmU
- Anders Olofsson, Medicinsk Kemi och Biofysik, UmU
- Ludmilla Morozova-Roche, Medicinsk Kemi och Biofysik, UmU
- Jonathan Gilthorpe, Farmakologi och klinisk neurovetenskap, UmU
- Stephanie Robert, Umeå Plant Science Centre, SLU
- Mattias Alenius, Molekylärobologi, UmU

Affiliated to steering board:

- Andrei Chabes, Prefekt, Medicinsk kemi och Biofysik, UmU
- K-G Westberg, Prefekt Integrativ Medicinsk biologi, UmU
- Markus Grebe, Scientific advisor, Plant physiology, University of Potsdam, Germany

2. Policies and procedures of the facility

Light Microscopy:
1. User registration:
All users have to be registered via an online application form prior to any assistance at the microscope. The registration form can be found here: https://nmi.scilifelab.se

2. Services provided:
- Consultation prior to imaging
- Technical support for image acquisition
- Personal training to provide driver’s license per instrument.
- Assistance with Image analysis (including image pre-processing: improvement of image quality and intermediate processing: segmentation of the image. We are not involved in high-level image processing: model prediction)
- All projects and experiments are important and deserve equal attention from us

3. Care and Use of Equipment:
All researchers have access to the services provided by the facility. External users are accommodated as time permits. We encourage the independent use of the instruments; however, all unassisted use must have the approval of a BICU staff member.

Please never attempt to fix any equipment problems no matter how trivial they may seem. As soon as possible, contact BICU staff.

We will attempt to rectify the problem or will contact the appropriate service personnel. Following microscope use, the room and equipment should be left clean, operational, and in the standard configuration.

Users may not change BICU designated settings on any instrument. Repair of damage to instruments by the users may be billed to the Principal Investigator.

4. Payment / Fees/ Billing:
The billing is made twice a year.

If a research group uses the facility instruments in a regular basis, a discount on the final price would be made to the PI.

Technical method development would follow a different payment policy in agreement with BICU staff.

If payment is not provided, access to the facility may be restricted.

Instruments are charged on a per hour basis:

Academic Institutions:

Confocal microscopes: 200kr per hour. Drivers License: 1000kr.
Widefield microscope: 100Kr per hour. Drivers License: 500kr.

For long-term experiment such as in vivo over night, the price is fixed if the experiment is longer than 10 hours. If the experiment continues next day, the hours start to count again from 8:00 a.m.

**Industry:**

The users will pay full price for the use of the instruments.

**5. Training:**

All users must be trained by a BICU staff member prior to using any instrument in the facility. The training is on a first-come, first-served basis. If you would like training, please start by contacting BICU staff. The actual amount of training required depends on the system, the user’s background, and the samples. Investigators, staff or students must never provide initial training to other users.

Users must follow all instructions of the BICU staff.

If a significant amount of time elapses between training and use of the instrument, the user may be denied access to the instrument and asked to attend training again. Operating these instruments is a complex procedure and must be practiced regularly.

**6. Booking:**

Once the user has finished the training, the e-booking system will be activated for him/her. You can find the link on the website: [https://booking.chem.umu.se/artologik/](https://booking.chem.umu.se/artologik/)

Users can only reserve time for their own use and no user may reserve time on any instrument for someone else.

It is your responsibility to know if someone has booked the microscope after you. You should check the e-booking system at the end of your session. If you are using a microscope and the next user is coming less than 1 hour after your session ends, leave everything on. This will help maintain the health of lasers and mercury lamps. You should communicate the next user and the manager that the system is left on.

If the next user realizes that they will not use the microscope it is still their responsibility to turn off the microscope.

If you add a new reservation for a microscope while another user is on that microscope, or less than 30 minutes before the start of that user’s session, it is your responsibility to tell that user and to ask him or her to leave the microscope on for you.

**7. Samples/ Hazardous Materials:**
Users must communicate to the BICU staff if their samples are toxic or dangerous and require any specific handling.

8. Computers and Data Storage:

According to University rules, users are responsible for their own data.

BICU server it is just for data transfer. Data cannot be stored on the server due to space limitation. The facility doesn’t take any responsibility for the lost of the files due to technical problems with the computer/hard disks.

Do not download/upload programs or files onto BICU computers. Users doing so may have their use of the facility restricted. BICU computers are not to be used for any purpose other than image acquisition or analysis.

Atomic Force Microscopy:

Cantilivers are paid separately to LMR’s group. They are provided at the table next to the AFM. Users have to write in the cantilever journal the use and the status of them.

Fees:

200kr/hr without assistance.

650kr/hr with assistance.

ITC and Biacore:

Users have to use their own chip for the SPR system.

ITC and Biacore Fees: 800kr/day without assistance.

8. Acknowledgements/Co-authorship Policy:

Investigators are requested to recognize the role of BICU in producing data for publication in the acknowledgement section of the manuscript. This will enable us to demonstrate our importance to the research programs at the university and help to ultimately obtain additional equipment and funding critical for meeting the needs of our users. We ask that the authors submit a copy of the bibliographic reference of the publication for our records.

BICU acknowledgement: “We acknowledge the Biochemical Imaging Center at Umeå university and the National Microscopy Infrastructure, NMI (VR-RFI 2016-00968) for providing assistance in microscopy”.

We would also appreciate if you could acknowledge BICU contribution in your oral presentations. BICU and NMI logos are available from the website
Co-authorship is appreciated and may be requested in the following instances: significant intellectual contribution to experimental design, extensive analysis and/or interpretation of data, and preparation of data for the purpose of publication. Authorship agreements will be made prior to the study and no staff member should be included as an author without the opportunity to review the manuscript prior to publication.

**General activities/services within BICU**

The facility provides training support and teaching along the year. Annual course in Bioimaging is also organized at the facility.

**BICU Report:**

BICU presents an annual report to NMI and KBC where we reflect the budget for next year and the current use of the facility in terms of number of projects, users and publications. We also provide information about courses, workshops and teaching.