



Protocol General Assembly

October 5, 2022

Public session

1. Talk by Arun Sampathkumar (MPI for Molecular Plant Physiology, Golm)
“Live cell based imaging approaches to understand mechanotransduction in plants”
2. Talk by Nadja Tarakina (MPI for Colloids and Interfaces):
“Following reactions at the nanoscale: in-situ and in-operando TEM study”

Visit of the microscopy facilities at the MPI for Molecular Plant Physiology and MPI for Colloids and Interfaces.

After dinner: discussion on the status of MaxBI and the maintenance of an updated list of members.

October 6, 2022

Internal Part

1. **Welcome notes** from Wiebke Möbius, spokesperson
2. **Joined discussions:**

Jan Peychl (MPI CBG Dresden): Applications for large equipment in Dresden
Jan introduced an MPI CBG specific model of a process to apply for large equipment. This involves a hierarchical order of teams involved in the development of ideas and the decision process. A useful tool in this is a list of microscopes with their life cycle illustrated as a heatmap highlighting equipment to get out of service soon. He also provided advice how to write a careful application.

Stefan Volkery (MPI for Molecular Biomedicine): How to hire staff in core units?

The prerequisite to acquire staff for the imaging unit is listing the number of projects and instruments to take care of. One needs to prove that the workload increased so that the lack of personnel is affecting progress and ultimately the research of the departments. In future less personnel is expected to be hired by departments, so a gap is foreseeable. One could try to use the publication by GerBI (<https://doi.org/10.1002/jemt.22648>). This raised the question

how imaging core units could be evaluated for example by the SAB. The number of publications might not be a good parameter since co-authorships are often not granted for the service. Other measurable parameters were instrument usage and the number of supported projects or users. Staffing centralized units independent of departments might be a solution. Institute-wide meetings of facility heads were also discussed as means to get attention and interest representation.

In summary topics were identified for further discussion e.g. in coffee breaks:

- BAR applications for computer equipment
- Facility evaluation

3. Research data management (RDM)

Arun Sampathkumar: Presentation of the results of our survey on RDM

Yves Vincent Grossmann (MPDL): “Research Data Management: Why? Some Aspects and MPDL Services”

Christian Schmidt (NFDI4BIOIMAGE and I3D:bio, DKFZ): “Bringing FAIR data management into practice for the bioimaging community”

As outcome we consider offering a coffee break or even a ½ day workshop introducing OMERO.

4. Reports form the Workgroups and financial officer

WG1: Elisa D'Este , Elisa.Deste@mr.mpg.de: report from the WG1 - Communication

Elisa reported that the aim for 2022 to expand the network was reached by the help of our new student helper Klara Diester. Now 38 facilities/service groups (+12), 22 institutes (+22, however, some got lost by merging) and approx.150 members/stakeholders are part of the MaxBI community.

As communication tools within the network mailing lists for members and delegates were implemented. In addition, information is gathered on our next cloud.

Coffee breaks: 3 session were organized in 2023:

1. meeting flow cytometry users to get to know each other,
2. the demand for advanced courses and training for facility staff and users (with WG3),
3. the use of Argoslight for quality control of light microscopes /Sergiy Avilov, MPI Immunobiology and epigenetics).

In 2023 we plan to have regular meeting with and without specific topics every 2nd Thursday in a month to increase coherence and discussion within the network.

For external communication the MaxBI website (taken care of by Stefan Volkery) and Social media (with the help of Christian Kukat) were used.

The Spotlight lectures format provides opportunity to increase visibility. This year only 2 lectures were organized. Elisa reminded us to make her aware of anyone who does great imaging related work to fill in the next rounds of Spotlight lectures. In the end

WG2: Wiebke Möbius moebius@mpinat.mpg.de: report from Steering Group

Wiebke gave an update on the current networking activities going on with GerBI: Continued participation in the GerBI team “Training and knowledge transfer”. One recent activity of this team focused on the just establishing platform “Microscopy DB” (<https://microscopydb.io/>) as

an activity of BINA (BioImaging North America). This platform is meant to assemble and display global information useful for the bioimaging community: job advertisements, training material and courses by linking to the respective sites.

Further, Wiebke mentioned the joint MaxBI-GerBI seminar series – “Ask the expert”. One event on “artificial intelligence for image analysis” happened in April, the next on “FLIM” will take place on October 14.

More importantly, a discussion on an agreement for service contracts between Zeiss Microscopy GmbH (Herbert Schaden), the Central Administration (Rainer Bastian) and MaxBI (Wiebke) was established on the initiative of Zeiss. This discussion now reached a stage where the concept of an “MPG advanced care contract” plus spare parts at discount prices via the eProcurement system is favoured. However, this requires material group managers who are responsible to list the spare parts in the eProcurement, keep the prices up to date, handle the contracts and support a renewal after term. MaxBI is important here to make the connection to the community, get feedback and hear about the demand.

In the discussion preference for “premium contracts” was expressed to avoid time consuming spare parts ordering. Concern was also expressed regarding reaction time. Moreover, it was asked about more information on the type of microscopes that would be covered under such a contract and the time frame of availability. Interest was expressed to hear more about the process of negotiations with Leica Microsystems and whether participation was possible there.

WG 3: Gabriele Malengo, gabriele.malengo@synmikro.mpi-marburg.mpg.de: report from WG3 -Staff and users training

Gabriele reported on the latest efforts to establish equipment maintenance courses. These courses were designed to enable facility heads to perform preventive maintenance and adjustments by themselves and to ensure reproducible imaging. Carl Zeiss microscopy GmbH is currently offering 3 courses over 4 days in January, February and March 2023 on confocal system including an introduction to Elyra and Light Sheet. The 12 participants include facility head (3), staff (6) and responsible persons within departments (3). Contact persons are Herbert Schaden (VP), Gert Barda (Lead Trainer).

In addition, a 2-day confocal course is planned by Leica and will take place in spring 2023 at the MPI for Multidisciplinary Sciences, Göttingen. Virtual courses on wide-field microscopes teaching calibration, cleaning and adjustments are an option. Initial contacts to other companies like Nikon, Andor, Abberior and Milteny are currently established.

Gabriele further emphasized that volunteers are welcome for the next series of online MaxBI Tutorials. Since travel restrictions are unlikely to occur anymore, staff knowledge exchange by short or extended visits are encouraged. Gabriele also mentioned the joined activities with GerBI in the form of the “Ask the expert” format and the opportunity to obtain MaxBI scholarships (50% of participation fee) for the facility management course offered by GerBI. Further Gabriele reported the great success of two training courses in 2022 on Basics of Image analysis using the ImageJ GUI (51 participants, 24 from MPG) and ImageJ macro scripting (53 participants, 22 from MPG) provided by Antonio Politi (MPI for Multidisciplinary Sciences, Göttingen) and Christian Tischer, Arif Khan and Anniek Stokkermans (Center for Bioimage Analysis, EMBL). The next course to take place in person is planned for 2 half-days in December provided by Antonio Politi and Elisa D’Este. Finally Gabriele reminded us that funding is available to organize hands-on courses or to ask MaxBI for support in performing IMPRS courses.

Financial officer: report by Christian Kukat, christian.kukat@age.mpg.de

Christian reminded us of the purpose of our funding written in the original grant proposal that was submitted 2 years ago. However, due to the pandemic we could not spend the funding in the planned way, so the funds for 2021 were transferred to 2022 and 2023. In 2022 little was spent from that budget for the student helper, Klara Diester and for paying the 50% scholarship

for the GerBI Facility Management course. The remaining budget for 2022 was then transferred to the next year or to extend the total funding period

After the reports the steering group was dismissed by voting by show of hands.

5. Election of the new steering group

The voting procedure was performed hybrid. The election committee consisted of Anja Fröhlich and Christian Schmid.

Wiebke Möbius was elected with 13 yes votes and 1 abstention. The other members, Arun Sampathkumar as deputy spokesperson, Christian Kukat as financial officer, Jan Peychl and Stefan Volkery as associates were unanimously elected.