

# Imaging Facility Trainings and Services

## 1. Trainings at level 1 (Background knowledge)

*1a: Basic Microscope Principle*

*1b: Basic Digital Imaging and,*

*1c: Basic Image processing and Analysis.*

**1d: Leica Confocal Microscope Principle**

**1e. HCS Image Analysis**

**1f. Huygens 3D Rendering and Deconvolution and,**

**1g. Imaris.**

1a and 1b are mandatory before any other training, and 1c before 1e or 1f or 1g. All Trainings at level 1 are preferred in-person onsite (TRB A4-110A), and can be online via Zoom except 1b. If trainees prefer an online training, a good internet connection (>10Mbps) for Zoom online meeting, and a screen size above 11" and resolution above 1360X768 are required for 1a, and 1c.

1d, 1e, 1f, 1g are special and optional training. Training is available in-person onsite (TRB A4-110A or A4-110C) or online (via Zoom). A decent internet connection (>50Mbps) for Zoom online meeting, and a screen size above 14" and resolution above 1920X1080 are required.

## 2. Training 2 (Real equipment training using training slides)

Training 2 will be onsite (TRB A4-110) in person. Equipment includes Olympus BX61, Keyence BZ-X810, Molecular Device(MD) ImageXpress Micro Confocal(IXMC) High Content System(HCS), Leica SP5II, Leica SP8, Akoya PhenoCyclerFusion2(PCF2), Upright Leica SP8X at BCCHR Animal Facility, Leica SP8X STED at CMMT. The trainer will use training slide. The trainees do not need to bring their own samples.

## 3. Training 3 (Trainee sample application training)

Training 3 is one trainee in person onsite training. The trainee must bring their own samples.

## 4. Renewal training

If a trained and qualified user has not booked and used any specific training/service for more than six months, the Calpendo system will require the user to book a new refreshing training again before booking self-service on that specific instrument. Such renewal training can take less time than the training 3 took. Renewal training is preferred onsite (TRB A4-110) in person, with exceptional online for 1e, 1f or 1g.

## **5. Full imaging service**

Full service can be onsite (TRB A4-110) in person or online. The manager will follow digital image ethics to acquire, process, or analyze images user's specimen according to user's requirements.

If users prefer full service with online monitoring or communication, Imaging manager will be onsite of the selected microscope (Olympus BX61, Keyence BZ-X810, MD IXMC HCS, Leica SP5II, Leica SP8, Akoya PhenoCyclerFusion2(PCF2), Upright Leica SP8X, Leica SP8X STED, Image analysis PC, HCS Analysis 1, Imaris), image user's samples with remote communication to users by Zoom and/or Windows Remote Assistance. Users can be online anywhere, better with a decent internet connection (>50Mbps) for Zoom and a screen size above 23" and resolution above 1920X1080. Users are expected to come A4-110 to drop sample before, and pick samples after service.

## **6. Booked assisted service**

By user's booking assisted service and approved by Imaging manager, users will be onsite of the selected equipment (Olympus BX61, Keyence BZ-X810, MD IXMC HCS, Leica SP5II, Leica SP8, Akoya PhenoCyclerFusion2(PCF2), Upright Leica SP8X, Leica SP8X STED, Image analysis PC, HCS Analysis 1, Imaris). The assistance can be onsite or online remotely.

## **7. Self-service service without assistance**

Once a use completed Training 3 of a specific equipment, be confident to do oneself independently, and qualified by the manager, the use can book self-service and automatically approved by Calpendo. (Users can still book Assist service after qualified Training 3).

In case of anything wrong, the user should record any error or issue happened, make a screen shot, and report to Imaging manager ASAP. The imaging manger will response to user's report ASAP.

## **8. Imaging Technical time**

For all other imaging service, including but not limited to, bulb replacement of customer's microscope, customer software installation, microscope related software and hardware check-up, trouble shooting, repair, etc. please book Calpendo-> Imaging > Imaging Technical time. Please also book training 1a, 1b, 1c, 1d on Instrument of "Imaging Technical time". Unbooked Assisted time on imaging Core microscope and/or computer will also be added to the user's Imaging Technical time after the assistance for billing.

Depends on the mutual established experience and confidence between trainer and trainees during trainings, trainer will decide when a trainee can move on to the next step, or to combine or pass any step of step 2, 3, 4, 6, or let users stay in step 5 or 6.

Happy Imaging!