

### IMAGING FACILITIES OF INMED

It is composed by François MICHEL (responsible) and Thomas TRESSARD.

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Responsibilities:

	François (80% PF / 20 % Team)	Thomas (20% PF / 80 % Team)
Microscopes	Confocals Wide Field Binocular	Two-photon
Software	Axiovision Image J	Neurolucida Imaris
Others	Trainings Administration Supplier interaction Website	Trimscope Training

➤ INMED hosted a large range of common acquisition and analysis system:

- Three confocal microscopes :
    - Olympus FV500 (G. Floor 1)
    - Zeiss LSM 510 (G. Floor 3) (time-lapse equipped)
    - Leica SP5-X spectral (G. Floor 2)
  - Three wide field fluorescent microscopes
    - Upright Zeiss Apotome (G. Floor 1)
    - Upright Nikon (close to culture room)
    - Inverted Zeiss (L2 culture room - PPGI)
  - One ultrafast multibeam multiphoton microscopes : Trimsopes (Rotarien)
  - A fluo binocular (close to culture room)
  - Neurolucida neuron reconstruction software (G. Floor 2)
  - Two delocalized software licenses for Axiovision with plug-ins
    - Co-localization
    - Automesure (segmentation and batch treatment of images)
- INMED hosted also "Team" setups but available for other INMED Team (Let see with corresponding team leaders)
- Two ultrafast multibeam multiphoton microscopes : Trimsopes
    - Rosa *in vitro* (+ 3 stimulation lasers (UV (405 nm), blue (488 nm), green (565 nm)))
    - Rosa *in vivo*
  - Two inverted microscope for time-lapse (Igor)
    - FRAP (488 nm) / Uncaging (405 nm)
    - Metamorph driven inverted microscope with temperature and CO<sub>2</sub> controller
  - In vivo imaging for Voltage sensitive dyes (Roustem)
  - One computer for imaging analysis with Imaris (Rosa's office)

**Every new user should contact François before using any imaging setup.**

## Directions for microscope users of INMED imaging platform.

The microscopes of the Imaging platform are apparatus designated to be used by all (but specially trained) INMED members. They are usable 24/7. The only requests for the users are: i) respect other users; ii) clean lens and working area after use; iii) If you have any problems, minor or not inform François immediately (francois.michel@inserm.fr or phone 28108).

In order to organize the optimal using of the microscopes and to provide an access for every user, we ask you to follow a few rules:

- Every user (no exception) must take an introduction training (theoretical and practical) with François. Make an appointment by email (francois.michel@inserm.fr). The imaging software and every material concerning the platform devices (calibrations, lessons...) are in the intranet : Netdata\9-imagerie
  - Mandatory individual reservation on: <http://booking.inmed.univ-mrs.fr/>
  - Reserve in advance (no more than 2 weeks before use)
  - No more than 3 slots per team per week (1 per day maxi)
  - 3 hours per slot : slots are divided in 3 periods: 9-12 am / 12-3 pm / 3-6 pm. The Midday slot could be divided in 2 half slots. You can make a reservation after the regular start of a regular slot but you have to stop the imaging session at a normal hour: you can get the 10 – 12 am slot but not 10 am-1 pm even if the duration is 3 hours.
  - You can begin before 9 am and finish after 6 pm and work during week-ends, it won't be taken into account but you might reserve anyway.
  - Try as much as possible to use effectively the time slots (full time use, the ½ hour late is not serious). In the case that you cannot work during your reserved time, let the other users know as soon as possible via the corresponding mailing list and remove your reservation time in the website.
  - When the microscopes are free 48 hours before use, you can reserve as many hours as you want, you just have to indicate this info in the reservation website.
  - When you reserve, fill "brève description" with the name of the team / your name and phone number extension for example : "INMAGIC/François 28108"
- You must subscribe to ad hoc mailing lists (see next page), by sending me an email ([francois.michel@inserm.fr](mailto:francois.michel@inserm.fr)).
- Before you start working, verify if all the lens and working place are clean. Otherwise it will be your responsibility to clean everything.
- Confirm to the previous user that the microscope should left switch "on" for you (phone 28126 for Olympus and apotome, 28148 for Zeiss confocal). At this time, you will be considered as responsible to switch "off" the lasers and mercury bulb. Otherwise, if no one calls you when you work with these devices, switch all off when you finish or call the next user.
- Write down the time used and when you switch it off and add comments if necessary. The last user of the day has to switch the bulb and lasers off.
- Data will stay **3 months** in the acquisition computer and I will automatically erase it **with no reminder** from me (cleaning every beginning of each month). Do not forget to transfer your data in the network and clean it as fast as possible.



If one of these rules is not followed (with no exception) it will imply crescendo sanctions:

- 1 - Oral remark, 2 – meeting with the team leader, 3 - interdiction to make a reservation the next week,
- 4 - interdiction to make a reservation the next month, 5 – No more access to INMED imaging platform.

## Mailing lists

Mailing lists are important as information diffusion tools and they allow to:

- Communicate between users; warn others that you cancel a reserved slot for example.
- Share problems or asking help
- Having information concerning microscope states and to be aware of current stuff

Mailing list members are listed in: W :(Netdata)\9 – Imagerie\mailing list.xls

Use and subscription are mandatory

Structured illumination Microscopy: Apotome	apotome@inmed.univ-mrs.fr
Confocal Microscopy	confocal@inmed.univ-mrs.fr
Multiphoton Multibeam Microscopes: TriMscopes	trimscope@inmed.univ-mrs.fr
Image analysis club	Analyse.image@inmed.univ-mrs.fr

Do not forget to tell me when you leave for unsubscribe

## Safety direction concerning mercury vapor lamp HBO and lasers.

Hg lamp, call also HBO, last 300h and cost +/-100€ each. I change all of it at this used time for safety and light intensity reasons.

Do not forget to switch it off after use, a full WE mean 60 h lost (20 €) for nothing. Lasers and other fluorescent source such as X-cite have to be switch off too.

There specific condition to use these lamps. If they are not respected it will degrade rapidly the illumination quality and in the worst case break it.

The lamp should be cooled before switch it on: it mean off since 45 minutes.  
And it should be used more than 30 minute before switch it off.

To follow these rules you have to check reservation schedule in intranet and/or in corresponding microscope journal.

Directions:

- If there is a user that will come after you, let the lamp on
- If there is more than an hour free between the end of your work and the next user switch it off

For a better control, fill the time number in the lamp power supply in the microscope journal at the end of your working session, as well as the hour you switch it off.

If a lamp explodes (never arrived yet in INMED):

- Do not breathe
- Go out of the room and close it for 1 hour minimum.
- Let fresh air coming in after for several hours
- Fill care &safety form and warn C&S and imaging core facilities responsible (Séverine P)

**- COORDINATES****User name:****Status:**

Phone(s):

e-Mail:

Date for INMED leaving (if applicable):

**Team leader name :****TRAINING THREAD****TRAININGS**

Date	Trainings	Signature
	Theory	
	Binocular	
	Upright Microscope Nikon	
	Inverted Microscope PPGI	
	Apotome	
	Confocal Olympus	
	Confocal Zeiss	
	Confocal Leica spectral	
	Trimscope	

I should subscribe to these mailing lists: confocal ☐ apotome ☐ Trimscope ☐

I confirm that I have read user direction for INMED imaging facilities.

date

signature

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