

FY10 Policy for Use of the LSM510META Live-Cell Confocal Laser System

1. Faculty, staff, postdoctoral fellows, and students who wish to use the Zeiss LSM510-META Live-Cell confocal laser system in the BIDMC microscopy core facility should contact the Confocal Core Supervisor (contact information, below), to schedule training. The training consists of three sessions: 1) a complimentary 1hr consultation session, 2) one customized training session, and 3) one mentored session, each 1- 3 hrs long. The training cost is \$85/hour or free to the SIG user group and members of the Harvard Digestive Diseases Center (HDDC). Each individual user of the confocal system **MUST** receive instruction from the BIDMC Confocal Core staff before using the live-cell confocal system. This requirement exists regardless of whether or not there are already trained individuals from the same laboratory using the confocal or whether the new user has prior experience with similar confocal systems.
 - a. Training other users in your lab group or allowing untrained users to access the confocal under your sign-up will result in having confocal usage privileges revoked for a period of **6 months**, with no second warning. Reinstatement of privileges requires retraining before independent usage will be allowed and training fees will be charged for the retraining session for everyone including SIG and HDDC users.
2. The Live-Cell confocal system is available to trained, eligible users in time not scheduled by the SIG user group; 80% of the time on the live-cell confocal microscope is allocated to the SIG user group and the remaining 20% of confocal time is made available to non-SIG users for service work. Independent usage by non-SIG groups or individuals will be allowed only if approved by the Confocal Supervisor after consulting with the SIG user group.
3. SIG users are defined as members of those groups who participated in purchasing the Live-Cell confocal system via the NIH Shared Instrument Grant. The SIG grant was funded in 2006. Membership in the SIG user group is renewed on a yearly basis, on January 1st of each year, and entails a one year commitment. User group members who do not wish to renew their annual membership are required to give two months advance notice to the confocal supervisor so that a replacement for your slot can be identified.
4. The SIG user group will be stratified into Major and Minor user groups. Major users will be permitted to sign up 2 weeks in advance for a maximum of 8 hours/week of weekday time. Additionally, Major users doing long time-lapse experiment are permitted one night per week each for such studies, from 6 pm to 8 am the next day. Minor users will also be permitted to sign-up 2 weeks in advance but will be allowed only 4 hr/wk of weekday time. Minor users can also sign-up for night usage upon availability one week in advance. After **5 PM on Friday** (the week before use), all unencumbered time will be open for service work from outside users or for additional time for SIG users on a first-come, first-served basis.
5. User fees for the SIG Major user group in 2010 are \$3,081/yr (\$549/year for HDDC members) and will be invoiced monthly at a rate of \$257/month (\$46/month for HDDC members). User fees for the SIG Minor user group in 2010 are \$1,540/yr (\$275/year for HDDC members) and will be invoiced monthly at a rate of \$129/month (\$23/month for HDDC members). User fees for outside users are \$30/hr (\$22.50/hr for HDDC members) and this fee will be billed irrespective of daytime or overnight usage. No external corporate or external industry users will be given access to this instrument and external academic users are subject to a 25% overhead fee. Once yearly expenses for the Live-Cell confocal have been met, SIG users will no longer be invoiced for usage. Fees collected from outside users (after expenses are met) will be applied to improve or update the system.
6. If a slot for membership in the SIG user group becomes available, candidates will be asked to make application to join either the SIG Major or Minor user group. This

- application will be circulated amongst current SIG members for review and comments will be requested. Final acceptance into the SIG user group will be determined by the Confocal Supervisor and the Core Facility Director.
7. Access to the Live-Cell confocal system is obtained by key, which is located in E/DA-812. The SIG user group members may request a key but authorization for this must be obtained from the Core Facility Director. Please note that permission to obtain a key does not exempt SIG users from following the strict access policy as outlined in item #1.
 8. The Live-Cell confocal system is available for use 24/7. When making a reservation on the calendar, please clearly indicate the duration of your session as well as a contact number. If no contact number is identified on the sign-up sheet, the user will NOT be notified of instrument problems or other issues with the instrument prior to their session. Communications with other users before or after your session is highly recommended so that the lasers are left running for you to shorten your wait time.
 9. Microscope stage adapters for culture dishes, slides, and/or plates will NOT be left for you in the room. Instead, users are required to sign-out the stage adapters they need to use from the Confocal Specialist. Alternatively, you can purchase stage adapters for your lab group and can bring them to your session. Ordering information for microscope stage adapters can be provided by core staff. Please contact the Confocal Supervisor or Specialist in advance if you need the stage adaptor during off-hours. Please note that **no access** will be granted to the core labs by others on Dana 8 or by security. Please plan ahead—
 10. Users that need specific objective lens installed on the microscope for live-cell work are required to contact the Confocal Supervisor or Specialist in advance of their session. Users are **strictly prohibited** from removing the objective lenses from the microscope (or from other microscopes in the core) on their own. If any damage occurs to the lenses by their removal, the repair or replacement of this lens will be charged to the respective lab—no exceptions.
 11. Users who have reserved time on the confocal microscope are responsible for reporting for their session. All users are expected to begin and end their session promptly in consideration of others. Please allow an additional hour (as cushion) for new experiments so that you are able to end your session on time despite first-experiment set-backs.
 - a. Users are expected to cancel all reserved but unneeded time on the Yahoo!! calendar prior to their session. If you do not do so and fail to report for your session, you will lose privileges on the confocal for 1 month. No exceptions. Reinstatement of privileges requires retraining before independent usage will be allowed and training fees will be charged for the retraining session to all users, including SIG users and HDDC members.
 - b. Users who are more than 15 min late for reserved time may have their time reassigned to other users, unless your change in schedule is communicated to the Confocal Supervisor.
 - c. Users who chronically fail to report for reserved time (3 or more no-shows) are subject to permanent loss of user privileges. This decision will be made by the Core Facility Director in collaboration with the User's supervisor.
 - d. Any user who cancels another's time on the Yahoo!! calendar and takes the time for themselves will be subject to immediate loss of privileges with no recourse for reinstatement. No exceptions will be made for this unacceptable behavior!
 12. Users are responsible for ensuring that the microscope, table, and surrounding area are kept clean and organized, as you find the room when you enter. Microscope objective lenses should be handled with care and cleaned after each use with ROSS lens paper (in the blue box—PLEASE don't use Kimwipes!!). The Live-Cell confocal room has been designed as a BL2 facility since live human and mouse cells are used

- for live-cell experiments. Hence, **NO FOOD AND/OR DRINKS** are allowed in the confocal room. There will be a bottle of 70% ethanol for disinfecting the area after use as well as a spill kit under the sink to clean up spillage. You are **REQUIRED** to inform the Confocal Supervisor or Specialist of all spills in this facility so that the spill kit can be replaced.
13. Users are responsible for ensuring that the microscope and confocal system are shut-down properly, as per the detailed instructions in the training session. If the next person is not present and prior communication was not established, all components of the system should be shut-down.
 - a. If the microscope, confocal, and/or gas components are not shut-down properly and any component is left running for an extended period (this includes the lasers, computer, or mercury bulb), the user will be charged for this time at the regular rate to recover costs for replacing the used parts.
 - b. On the second offense at leaving the microscope or components running, the user will be required to complete another training session. This will be a training session with only 1 trainee (you) and will be charged at the regular rate of \$80/hr.
 - c. Any subsequent offenses will be subject to permanent loss of privileges at the discretion of the facility Supervisor or Director and in collaboration with the user's direct supervisor.
 14. Users are fully responsible for transferring their images to an external storage device in a timely manner. Please remember that the images from an overnight session must be saved and so you need to clean-up and save images by 8 AM the next morning. If this is not done, the Core, Core Staff, and/or the morning user is (are) not responsible for your lost data. Confocal time should not be scheduled that will be used **ONLY** to run the computer workstation. All images should be copied to an external storage drive **DURING** your scheduled session. If you wish to open or analyze images, please download the Zeiss confocal assistant (freeware) at www.zeiss.com on your personal computer. **ALL** files will be deleted from the confocal system on **Friday afternoon by 2 PM**. You will not be contacted to move or clear images from the hard drive in advance of this weekly deadline.
 15. Two computer work stations can be reserved for image processing for a 3 hr period. The workstation in Dana 828 has the original LSM510 software, AxioVision software, Adobe Photoshop, and Velocity software. This workstation is to be used only for processing images obtained from the confocal microscopes and should not be used for personal reasons, including email. Image manipulation using the Zeiss software or Adobe Photoshop should be performed under the ethical guidelines for the BIDMC Microscopy core that are outlined at ([URL for our web site](#)).
 16. Failure to follow training and other standard procedures is subject to penalty at the discretion of the Core Facility Director. In general, users will be expected to cover the expense incurred by any intentional misuse of the microscope, confocal system, or computer. If mistakes are made in good faith and reported promptly, consideration will be made and the penalty reduced accordingly.
 17. User conflicts or problems should be communicated immediately to the Core Supervisor or to the Core Facility Director. This must be done in writing via email.
 18. Appeals to this policy are to be submitted in writing to the Core Facility Director.

19. Contact Information:

Confocal Core Supervisor

Lay-Hong Ang, PhD

E/DA-814, Phone: 617-667-5373

Email: lang@bidmc.harvard.edu

Confocal Specialist

Yi Zheng, PhD

E/DA-814, Phone: 617-667-1880

Email: yzheng3@bidmc.harvard.edu

Core Facility Director

Susan J. Hagen, PhD

RW-871, Phone: 617-667-5308 or 667-1807 (Wendy Dasgupta)

Email: shagen@bidmc.harvard.edu

I was given a copy of and have read and understand the BIDMC Microscopy core facility **“Policy for Use of the LSM510META Live-cell Confocal System”**. I fully understand that when using this instrument in the BIDMC core facility, I am held responsible for proper use of the instrument and will be held accountable for any problems that result from my actions. I also understand fully the sign-up and training requirements for extended use of the instrument and facility.

Printed name: _____

Signature: _____

Date: _____