

生科二館 332 室之螢光顯微鏡使用規則

Regulations and Rules for use of Fluorescence Microscopes in LSII-332

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目錄 Table of Contents

I.	合格程序 Qualification procedure.....	2
II.	操作不當之處罰 Punishment about misconduct.....	4
III.	其他使用規定 Other regulations	5
	A. 螢光燈源 mercury(Hg) lamp	5
	B. 軟體設定 settings of the software	5
	C. 使用記錄 notebook.....	6
	D. 資料備份 data backup	6
	E. 故障回報 abnormality report.....	6
	F. 清潔 cleaning	7
IV.	收費標準 Fees	8
V.	附錄 Appendix.....	8

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I. 合格程序 Qualification procedure

每個新使用者需要：

Every new user needs to :

1. 跟隨合格使用者完成三次實驗，總時數達3小時以上，(陪同之新使用者需簽名)。
observe operation by a certified user three times, for a total of 3 hours (signatures of a new user are required)
2. 由合格使用者全程陪同，自己獨立進行三次實驗，總時數達3小時以上(陪同之合格使用者需簽名)。
operate with a certified user aside three times, for a total of 3 hours (signatures of a certified user are required)
3. 請指導老師以電子郵件寄發「公用儀器使用同意書--顯微鏡」給教學助理。
email TA a signed Agreement Sheet of Instrument by the lab PI.
4. 與教學助理核對使用記錄並進行操作測驗後，申請核發網路預約帳號及設定密碼，同時開啟門禁。
check all the records with TA and take an operation exam. Then apply for online reservation password and ID-card approval for accessing room 323.
5. 正立、倒立和解剖顯微鏡的使用權需分別認證。
Upright, inverted and stereo microscopes are qualified separately.

已有一台顯微鏡使用資格，

if you are already a qualified user of one fluorescence microscope

欲使用另外一台顯微鏡的合格程序：

and you want to use another one, you need to:

6. 由合格使用者全程陪同，自己獨立進行三次實驗，總時數達3小時以上(陪同之合格使用者需簽名)。
operate with a certified user aside three times, for a total of 3 hours (signatures of a certified user are required)
7. 請指導老師寄發更新的貴重儀器使用同意書。
email TA an updated signed Agreement Sheet of Instrument by the lab PI.
8. 尋找管理者核對使用記錄與進行操作測驗。使用紀錄、操作測驗與同意書均核對無誤後，即成為另一台顯微鏡的合格使用者。
check all the records with TA and take an operation exam. After everything is done, the user will be qualified for another microscope.

建議（非必須）：

Suggested but not required:

9. 在使用顯微鏡前，新使用者最好能參加過顯微鏡訓練課程，或曾經上過顯微鏡的相關課程（例如張大慈老師所開的生物巨分子檢驗分析），以瞭解顯微鏡的基本原理。

Before using the microscopes, new users are encouraged to attend the microscopy training workshop or have taken any related course about microscopy (e.g., Prof. DT Chang's biological macromolecules, etc.) to ensure a full understanding of the basics of microscopy,

II. 操作不當之處罰 Punishment about misconduct

若使用者有操作不當的行為，

If any misconduct happens,

1. 使用者的第一次操作不當將會以**口頭警告並勞作服務一次**。
A verbal warning will be issued for the first offense and is subjected to one-time community service.
2. 若發生第二次操作不當，該使用者將**禁用一個月**並通知該其指導教授。
Individual user will be penalized for a one month restriction of use for the second offense and instructing professor will be notified.
3. 若發生第三次操作不當，該使用者所屬實驗室之**全部使用者均禁用一個月**。
The whole lab will be penalized for a month for the third offense.
4. 使用不當記錄以**年**作單位計算。
The record of misconducts runs in a yearly basis.
5. 發生操作不當之使用者所屬實驗室除以上所述之處罰外，仍需負責相關儀器維修費用與責任。
Individual lab is responsible for the cost of any damages due to the abuse of the instrument.
6. 若有**非合格使用者**自行使用顯微鏡，該使用者將取消所有螢光顯微鏡使用資格並禁用**一學期**，其所屬實驗室需負相關責任。
If an unqualified user uses any microscope alone, this user will be forbidden to use all fluorescence microscopes for one semester. Individual user's lab will be responsible for all collateral damages and held accountable for the offense.

III. 其他使用規定 Other regulations

A. 螢光燈源 mercury(Hg) lamp

1. 每一位使用者在離開前，理論上需將所有電源關閉。
The current user by default should turn off everything before leaving the room.
2. 為保護及延長燈源壽命，螢光燈源必須冷卻 30 分鐘以上才可以再度開啟。
To protect and extend the light source, subsequent users should turn on Hg lamp after Hg lamp has been cooled down for 30 minutes.
3. 若需連續使用螢光燈源，接續的使用者需提前告知前一位使用者不需關閉螢光燈源。建議使用者在關閉燈源之前通知下一位使用者。
The subsequent user is responsible for contacting the current user regarding whether turning off Hg lamp. The current user is suggested to call the subsequent user before turning off the light source.
4. 若有使用者未等待 30 分鐘即開啟螢光燈源，則視為一次操作不當。
If any user is found or reported to turn on Hg lamp before 30 minutes cool down, this will be considered as one misconduct.
5. 若有使用者離開後未關閉螢光燈源，亦視為一次操作不當。
If any user is found or reported to leave without turning off Hg lamp, this will be considered as one misconduct.

B. 軟體設定 settings of the software

1. 為確保各使用者均能順利操作，禁止更改任何顯微鏡操作軟體內之預設設定。
To ensure smooth operation, all users are prohibited to change any setting in the microscope software.
2. 使用者可以將自己掃描的設定另存新檔，或者利用既有的圖片重新使用 (Reuse) 其設定。
Users are encouraged to save their settings in separate files, or **reuse** the configuration of an existing picture.
3. 使用前請確認軟體維持在原預設設定，若軟體原設定遭更動，則歸咎在最後一位使用者，視為一次操作不當。
Please confirm the software remained in its default setting before use. If the user was found or reported to alter settings and not returning to default when finished, the last user will be held accountable and an offense will be registered to the user.

C. 使用記錄 notebook

1. 使用顯微鏡請務必先在預約系統登記。使用時請填寫登記表記錄使用狀況。預約後若不克前來須上網取消預約。

Users must book time block each time before use. Users must also fill the form in the notebook after using the microscope. Users have to cancel the reservation if users cannot use the microscope on time.

2. 沒有使用資格者請勿自行預約。

Users without certification are not allowed to use reservation system.

3. 違反上述事項者將視作一次操作不當的行為。

Users will be subjected to one offense for disobeying the above rules.

4. 若只使用電腦處理資料而未使用顯微鏡，也需要在登記表記錄，以備查詢。

The users should also fill the form in the notebook even if using the computer only.

D. 資料備份 data backup

1. 強烈建議各使用者在每次掃瞄後，將自己的實驗資料備份。

Backing up data in a separate storage device immediately is strongly encouraged.

2. 管理者將於每月月初移除公用電腦內的資料。

Files will be removed from the hard drive periodically at the beginning of each month, and will be announced in advance.

E. 故障回報 abnormality report

若在使用時發現儀器問題，使用者需：

If you find any abnormality in operating the microscope, you need to

1. 在登記表上註明問題。

make a note in the notebook

2. 通知教學助理。

report to TA

3. 若有緊急狀況，請立即通知管理者（林立元老師）。

In case of emergency, call the administrator (LY Lin) immediately.

F. 清潔 cleaning

1. 使用者需負責本顯微鏡室的清潔（包含地面、桌面、顯微鏡外部、油鏡鏡頭等）

Users are responsible for the cleaning of the microscope room, including the floor, the desk, the external part of the microscope, and the oil objectives, etc..

2. 本顯微鏡室禁止飲食。

Do not eat or drink in the microscope room.

3. 違反上述規範者，視為一次操作不當記錄。

Users will be subjected to one offense for disobeying the above rules.

IV. 收費標準 Fees

1. 各顯微鏡之維修與消耗性費用(請見附錄)將由使用實驗室按時間比例分攤。
The maintenance fee and cost of consumable parts of each microscope (please see appendix) will be partitioned to each laboratory according to total using time.
2. 帳單會以電子郵件寄到各指導教授及院秘書，費用將直接由教授的系所經費中扣除。
The bill will be emailed to both individual PI and secretary, and money will be deducted from PI's departmental account directly.

V. 附錄 Appendix

一般螢光顯微鏡基本耗材與保養費用：

Basic cost of consumable items and maintenance

Consumable part	Unit price	
Filter set (about 3 year; about 8000 hr)	24000	Upright: 4 sets Inverted: 3 sets
Filter module (about 3 year; about 8000 hr)	80000	Stereo: 2 sets;
Hg lamp 100W (250 hr)	10000	One per microscope
Regular maintenance (once per year)	10000	Yearly per microscope