Dragonfly rules and tips

- 1. Please always announce your cancellations in the Outlook Dragonfly user email group and send an email to dragonfly1@health.ucsd.edu. If you are not a member of the group, please email Max to be added to the group and you will receive cancelation notices.
- 2. Every user should be trained by gCore. All users should sign up using the FBS facility booking system.
- 3. Before turning off the power, wait for the Fusion program to shut down and the Fusion box to disappear.
- 4. If the scope gives errors, make sure the condenser head (the top part of the microscope) is lowered and, if needed, power-cycle the microscope. To do that, shut down both the scope and the computer, wait 5 seconds and restart.
- 5. If supplies are running low such as immersion fluids and lens paper, email Max at mrempel@ucsd.edu
- 6. Keep the objectives clean, and do not scratch them while cleaning. If the dry objectives (10x and 20x) are contaminated with oil, email Max at mrempel@ucsd.edu, and Max will clean them up.
- 7. When making folders, include your name in the folder name.
- 8. For eye safety, when using lasers, watch the image on the screen and avoid glancing at the stage.
- 9. The Micropointer for laser ablation is a powerful laser; don't use it without special training by gCore.

If you need urgent help, please call and for non-urgent help, please email:

Max Rempel m.(585)705-1400 mrempel@ucsd.edu or

Derek Rinaldi m.(978)831-8523 derek.rinaldi@oxinst.com (Andor OxInst support)

Andor OxInst support andor.us microscopy support@oxinst.com

Dragonfly reservation limits:

- Limits for primetime hours are 4 hours per day, 12 hrs per week, and 30 hrs per month. There is no limit on non-prime hours.
- Future appointments: up to 4 per user.
- Booking in advance: up to 14 days ahead.

- Please always announce your cancellations.
- Please never save your images on Drive C, and don't leave them on Drive D.

Drive C is only for the system. Saving the images on Drive C fills it up and crashes the system. The majority of the users bring external drives and set Fusion software to save the images directly to their external drives. This saves your time and keeps the local drives in good shape. The only reason to automatically save your images on local drives is, in rare cases, when users record large z-stacks and tiles, and saving them on the external drive slows down the imaging. In that case, please automatically save the images to Drive D instead of Drive C. Please bring your external drive to the imaging session and move your images to it right away. Please don't keep copies of the images on the local drives since they fill up quickly. As the drives fill up, gCore will delete your images without warning.

For biosafety compliance, if you are using live biological materials, please enter in the appointment comments which cells, tissues, or viruses you are using.

Prime time is on weekdays from 9am to 6pm. The primetime hourly price is \$65 until Aug 1st, 2024 and \$75 after that. The non-primetime cost is \$20 per hour.

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Andor OxInst support andor.us_microscopy_support@oxinst.com

Dragonfly lasers and wavelengths

Dragonfly Fusion Software guide

Dragonfly training videos

Please make sure you are included in the <u>Dragonfly Mailing list</u>

Available Dragonfly wavelengths

- Please donate to gCore microscopic images for our website, newsletters, and grants.
- Please donate microscope slides that we can use for training.

[Dragonfly training at UNC]

How to open Imaris files with ImageJ: Install a Labkit plugin.

Wed 10/4/2023 1:26 PM

How to open Imaris (.IMS) files with ImageJ: install a labkit plugin.

I tried, and it worked.

How to associate Imaris .ims files with ImageJ. (2 min video)

IMARIS

Imaris workstation is a commercial alternative to ImageJ, allowing automation of 3D reconstruction of cells, neurons, axons, dendrites, and vessels and also allowing automatic quantification of cells, nuclei, synapses, contact points, puncta, and measuring volumes and intensities.

Free Imaris Training

We have a paid subscription to Imaris workstation, software and remote training. To schedule a remote training session, please write to **Erich at <u>ussupport_imaris@andor.com</u>** or at <u>Imaris Remote Support Scheduler</u>.

Video recordings of training of SCRM users with Eric on Imaris v10.1.

- 1. puncta workflow 1.5 hours Dec 18, 2024
- 2. filament workflow 2hours July 2024
- 3. Introduction to Imaris 2 hours May 23, 2024
- 4. Imaris 10.1 Trainable Al Image Analysis Oxford Instruments, Video 33 min. Dec 2023.

Imaris station can be reserved via FBS.

IMARIS training materials, support (ussupport imaris@andor.com).

Max Rempel, Ph.D. Director,

gCore (Stem Cell Genomics and Microscopy Core) gcore.ucsd.edu

(858)255-4159 (cell), mrempel@ucsd.edu Book time with me

Sanford Consortium for Regenerative Medicine (SCRM), Sanford Stem Cell Institute (SSCI), University of California San Diego (UCSD), 2880 Torrey Pines Scenic Dr, Room 1318, La Jolla, CA 92037.

Your data is stored at the core for 2 months. Please download it as soon as you can.

Please include in the Acknowledgments: "We would like to thank the Stem Cell Genomics Core at the Sanford Stem Cell Institute for providing sequencing (or microscopy) services."

This is Max's generic welcome message.

Thanks for taking the Dragonfly training.

If you have a limited experience with confocals, please invite me or another experienced confocal user to help you start. Once you do a few samples, you should be able to continue yourself.

If you have not already registered in the FBS (Facility Booking System), I have registered you there. Please look for a letter from FBS - facility booking system and accept the invite.

If you are already registered in FBS for the Human Embryonic Stem Cell Core Facility (hESCCF) flow sorting core of Cody, it is different. My core is called gCore. When looking for Dragonfly, please make sure you are in the right facility in FBS.

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Facility: gCore, Genomics Core, Sanford Consortium, SCGM (gCore):

UC SAN DIEGO (UCSD)

gCore - gCore, Genomics Core, Sanford Consortium, SCGM
hESCCF - Human Embryonic Stem Cell Core Facility
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Then, use your chart string to book the time on Dragonfly. The ChartString is the University payment ID, also called PTF (Project Task Fund) and looks like 1111111.1.1111 (or 111111111.1). If you don't have it, please get it from your lab manager or PI.

Schedule Resource	
Resource: Dragonfly (Dragonfly) Specify Resource Use	
Time Actual Start 08-22-2024 Thu 12:30 AM > End 08-22-2024 Thu 12:45 AM > 0.00:15 0.00:15	Proj.Task.FndSrc 12345678.1 (PTF=ChartString) -OR- PayAlias Test
Customer Lab, SCGM (100) Lab Director = Principal Inv	'estigator Service Order # (Specify Service Order) ✓

I also added you to a Dragonfly user email group. If you cancel your reservation, please announce it in the group so that others can use it. Cancelations are allowed before the reservation starts.

If you see in the group that someone else canceled a reservation, please book your time in FBS and then reply to the group to let others know that you took the timeslot.

We currently have over 100 users, so it is important to keep Draginfly in good shape. For the please read and follow the

Dragonfly Rules. The IMARIS plugin instructions are at the end of the same doc.

If anything goes wrong, please call me at m.585-705-1400. If the supplies run low, please email me.

Please also request training on the <u>Keyence microscope</u>. It can produce Z-stacks, tiles and videos and has about 40-60% resolution of Dragonfly, so it is a good and often available alternative for many applications.

You can watch Dragonfly training videos. They are very good.

In addition to microscopy, my core offers Long-read RNA and DNA sequencing, splice variants, structural variations, T2T genome sequencing, 6-letter DNA methylation, direct RNA sequencing, single-cell short-read RNAseq, and Bioinformatics services. Please reply if you are interested or book the time on my booking page for a meeting.

Best, Max

Public link https://bit.ly/dragonfly200

Edit