

News@eml_ucb

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Letter from the Director

Dear EML Community,

The entire staff is ecstatic at the opportunity to return to hands-on work in the lab on Monday June 22 as we enter the Phase 2 Ramp-Up period. 2020 has become a dynamic year on many fronts and our whole staff stands with all of UC Berkeley and the Black community in the fight to acknowledge, address, and end systemic racism. During the pandemic shut down, we have all been trying to do our best to continue pursuing excellence in our research and home lives – the line separating those parts of our lives having blurred like never before.

Just like you, our staff have been balancing the demands of home -whether it be our children or parents or the endless stream of dishes that pile up- while continuing to do what we can to keep the EML working for approved Covid-19 projects and submitting grants. Just before the shutdown we had officially expanded our staff to include two talented Cal students who we've come to rely upon for extra help over the past few years at the EML, and I'd like to invite you all in welcoming Silverdew Shi and Emily Wang to the EML staff.

We're so grateful for your continued support during this time and cannot wait to get back into the swing of things, even if it's at a slower pace than we're used to. We hope you all are doing as well as can be during this time.

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With best wishes,

Reena
Guangwei
Silverdew
Emily
& Danielle



Reena & Vinod



Talia & Emily



Danielle & Jeff, Jonathan, Jaeven



Silverdew

New Rates Starting FY21 (July 2020)

Only two rates will be adjusted in the coming fiscal year (FY21): beam time is increasing to \$43.00/hour and staff labor is increasing to \$77.00/hour. All other rates will remain the same.

We have added the rate for the new Leica GP2 (\$60.00/day) and this tool can be booked out in any increment it's used (1/4 day, 1/2 day or whole day). And we have decided to drop our fee for usage of the Pelco Biowave Microwave; and while we are no longer charging for its use, the Biowave remains an essential and available tool within the lab.

The FY 21 rates have been approved by campus and we will update the [Charge Rate page of our website](#).

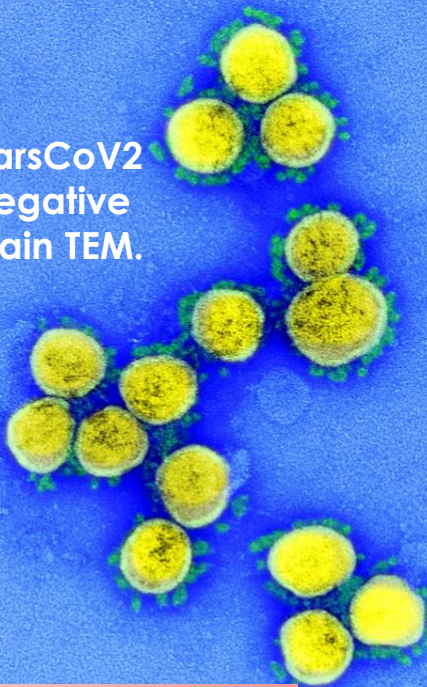
As a recharge unit, our goal is to provide top-notch services at very reasonable rates to all UC researchers. [Please let our director](#) know if you feel these new rates put our services out of reach for your lab.

Fiscal Year 21 Rates (2020-2021)

Beam Time	\$43.00
Microtome	\$10.00
Vacuum Evaporator	\$15.00
High Pressure Freezer	\$140.00
Freeze Substitution	\$70.00
Plunge Freezer	\$60.00
Critical Point Drying	\$35.00
Sputter coating	\$18.00
Staff Labor / Training Fee	\$77.00

Accessing the EML during Phase 2 Ramp-Up

SarsCoV2 negative stain TEM.



Starting June 22 Barker Hall, and the EML, has been approved by the [VCR to enter Phase 2](#) of ramp-up research activities. However, this does not mean that the EML will operate as normal- we have strict limits on the number people allowed in our facility spaces at one time.

Please email ucbeml@berkeley.edu if:

- You are from UC Berkeley and cannot access Barker Hall.
- You are from outside UC Berkeley and need to access the EML for a scheduled session.

You must be authorized to perform lab work in your home lab if you would like to access our facility. If you had access to Barker Hall before the shut down, you should still have that access once authorized for return to work. External (non-UC Berkeley) users are being handled on a case by case basis – please email the staff member you normally work with to arrange access or email ucbeml@berkeley.edu.

To gate access and limit the number of people coming to the EML, we have [updated our calendars](#) to reflect the new changes. We plan to adjust the restrictions on the calendars as needed to ensure we're aligning with the occupancy limits of our space.

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Credit: NIAID RML.
More coronavirus images:
<https://www.flickr.com/photos/niaid/>

Accessing the EML during Phase 2 Ramp-Up

The main health and safety changes are outlined here:

- We have an updated SOP that will be posted to the EML website outlining the general health and safety rules and expectations for each user.
- Users must bring and wear their own masks at all times in the facility. EML will provide gloves and face shields as needed. Bring your own lab coat! Only small supply of cleaned coats will be available.
- After scheduling time in any part of the EML, an automatic 30 minute cleaning time-block will be placed after the scheduled time to ensure proper cleaning between users.
- On the TEMs and SEMs:
 - Staff will clean touch points on the electron microscope controls, computer keyboards, mice, and samples holders. This will ensure no damage is done to our older microscope systems.
 - Users will be expected to wipe down chairs (armrests and any other touch points).
- Training: EH&S has authorized us to continue training with specific PPE in place: the use of gloves, face masks, and face shields.
- Room 3 access is limited to 1 person at a time – we expect this to reduce access to microtomy, so please plan accordingly. Weekend access will be granted on a case by case basis.
- The main EML suite (rooms 17, 21, 25) are limited to 5 persons at a time.
- NO ONE is permitted access to the facility if they are experiencing any Covid symptoms.
- Each user must follow the requirements of campus and must submit to the [daily symptom checker](#), take EH&S 207, and read the [campus guide to returning to work safely](#).

We will continue to communicate any updates to our access policies on our website, twitter, and via email communications. Please reach out directly to Danielle Jorgens if there are any concerns or comments.

All Settled in our New Space!

It is hard to believe that it has already been 1.5 years since we moved into our new space in Barker Hall (Room 21). We LOVE having a modern infrastructure and are enthusiastically looking forward to bringing in cutting-edge technology to amplify the excellent EM work done at the EML.



An Eye Toward Modernizing

As many of you know, since our successful move to the new space (21 Barker Hall) last year, we have been working hand in hand with multiple PIs on campus to bring new technology to the facility.

Last year, we purchased a new glow discharge unit in the lab, the Pelco Easiglow, which has lowered the amount of time for glow discharge from 45 minutes to 1 minute!

The EML is deeply grateful to Georjana Barnes as she expertly spearheaded the efforts over the last year to acquire a Leica GP2 cryo-plunge freezer, the state of the art instrument for cryo-plunging whole cells. Purchased through the BFRF program and with assistance from the Brohawn, Savage, Drubin, Barnes, Rine, and Doudna labs, the Leica GP2 is now housed within the EML and ready for regular use. We intend for this instrument to be a piece of a cryo-EM/cryo-ET pipeline that will tie sample preparation in the EML -via Leica GP2 plunge-freezing- and cryo-lamellae generation -via a cryo-capable FIB-SEM instrument for which I have been submitted grants- with the Stanley Hall Cal-Cryo Facility.

Ultimately, we aim to acquire a FIB-SEM which can perform both cryo- and room-temperature work (i.e. for resin embedded biological material and conventional SEM use) to fit the diverse needs of our EML community. We've submitted grant applications for such an instrument and worked closely with Jim Hurley and Eva Nogales, with the support of many other investigators; and we'll continue to pursue any possible avenues to find funding for this tool.

Other items on our wish list are a new CMOS detector for our Tecnai 12, an intermediate-to-high resolution SEM with EDS, and a modern TEM. Do you have a wish list item you think should be on our radar? Get in touch! dmjorgens@berkeley.edu

EML Notice Board

VCR Core Facilities Website

EML interns **Karen Zhai** and **Emily Wang** (now staff), with help from **Kate Ye**, were instrumental in bringing to life the [UC Berkeley VCR Core Facilities website](#). Thank you all for your dedicated work on this project!

Upcoming EM Meetings

[Microscopy and Microanalysis \(M&M\)](#)

Meeting: August 2-6, 2020

VIRTUAL

low registration fee!

The EML Is Social

We're low key into twitter these days. Check us out and follow us on LinkedIn and Twitter!

[LinkedIn: ucb-eml](#)

[Twitter: @eml_ucb](#)

Want to Intern with us?

We don't know when we'll be back to 'normal' but, looking to next summer (June-Aug 2021) we would like to know if you're interested in joining us for an internship. High school and undergrads welcome! email ucbeml@berkeley.edu