

# DRAGANOVA LABORATORY

## Lab Member Onboarding Guide

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Department of Biochemistry | Emory University School of Medicine

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## Welcome to the Draganova Lab!

We are so excited to have you join our team. During your time in the lab, we hope you gain a deeper understanding of structural biology, chemistry, and virology, as well as learn new skills and techniques that can be applicable to any of your future endeavors. Above all, we hope your time is enjoyable and an experience for you to learn and grow while having fun.

We created this lab manual as a one-stop-shop for access to general lab information, our policies and philosophies, lab organization and workflows, as well as any other information you may need or questions you may have. If there is anything in the document that seems unclear, feel free to ask Lizzy for clarification.

To ensure that all lab members understand what is expected of them, everyone is asked to sign a form at the end of the document acknowledging that they have read the manual and understand our policies.

This lab manual is a living, breathing document that is continuously being updated as we learn what works and what doesn't. If you have any ideas or suggestions as to what to add or change, feel free to share with Lizzy. All ideas are good ideas!

This manual was inspired the [Annika Barber Lab Manual](#). You are welcome to use our manual for inspiration – just make sure to cite us and others used to craft your own.

# Philosophies

## Lab Culture

Our lab strives to maintain an environment that is welcoming and inclusive to all types of scientists. We recognize that not all people come from the same background, have similar scientific training nor share identities. Furthermore, we acknowledge our privileges that have allowed us to become academic scientists - we must use these privileges to make systemic change in STEM and everyday life.

## Mentoring

Mentoring is an essential component of one's scientific training. We believe that all lab members deserve a **safe space** to do science while in a supportive, mentored environment. We are committed to providing tailored mentoring experiences to each member as we recognize that each person comes with a different set of goals and aspirations. Lizzy will work with each lab member to ensure they are able to make the most out of their time in the lab - whether it is for one semester or five years.

## Research

We think viruses are cool (and we hope you do, too!). Our lab focuses on molecular mechanisms of proteins essential for herpesviral replication. But we appreciate the importance of studying other proteins, systems and doing so from various perspectives or with different techniques. Trainees are encouraged to be creative with their projects and discuss areas of new research directions with Lizzy. Your opinions and interests are valued!

As the principal investigator (PI), Lizzy is committed to upholding these philosophies. Furthermore, as a member of the lab, each of you are essential towards keeping these philosophies alive. Together, we can do some cool science while having fun.

# Code of Conduct

## Harassment & Discrimination

Our lab has a zero-tolerance policy for any form of discrimination, including but not limited to, racism, sexism, homophobia, xenophobia, and any other behavior that isolates or belittles others. We follow all [Emory policies](#) regarding harassment and discriminatory behavior - there is no place for any of this behavior in our lab, department, or university.

**Most importantly - we treat each other with respect.**

If you or someone else in the lab is being harassed or mistreated, alert Lizzy immediately so it can be addressed. If Lizzy is the source of concern, please reach out to the Biochemistry Department Chair, Eric Sundberg.

### Research Ethics

As scientists, we have a responsibility to answer pressing scientific questions honestly and thoroughly – in both a robust and reproducible manner. Fabrication, falsification, and plagiarism will not be tolerated. Emory requires that all research personnel receiving funds from NIH and NSF obtain training in the Responsible Conduct of Research at least one time at each career stage. This included graduate students and postdoctoral fellows on training grants. Refer to the [Emory RCR website](#) for information on how to obtain training, how to document training and additional resources on data rigor and reproducibility.

### Authorship

The lab follows all standard guidelines regarding authorship when it comes to publications. A great resource can be found [here](#). In general, authorship is granted to those who do the following (quoted from the above reference):

- “Each author is expected to have made substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data; or the creation of new software used in the work; or have drafted the work or substantively revised it; AND
- To have approved the submitted version (and any substantially modified version that involves the author’s contribution to the study); AND
- To have agreed both to be personally accountable for the author’s own contributions and to help ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated and resolved.”

Typically, work from our lab will result in Lizzy as the corresponding (last author) and the main student/trainee on the project as the first author. Co-first authorships will be considered if equal amount of work is contributed by each author. In the case of collaborations stemming from our lab, co-authors will include students/trainees from the collaborator’s lab in addition to our own group. If we are invited to collaborate, members from our group who contribute to the project will likely be second/middle authors, with Lizzy as one of the last authors, but not corresponding.

Authorship will be discussed at the beginning of each project, but it is subject to change as roles in the project change. If someone leaves the lab and turns their project over to someone else to complete, the person actively working on the project will likely become first author, although co-first authorships can be discussed.

### Photos and Social Media

The lab currently has an [Emory website](#), a personal [lab website](#) and a Twitter account under Lizzy's name (@ebdraganova). We regularly post content to these platforms. If you wish for your photo to not be included, let Lizzy know when you join the lab.

When using your own social media to represent the lab, please do so with care and in a responsible manner.

## Expectations

We want to do great science in a collaborative manner (and maybe have some fun?). As we are all adults, we believe that each person can make their own schedule that allows them to prioritize their research, classes and other trainings in the most effective way possible. If issues of productivity do arise, Lizzy will work with these individuals to develop strategies for time management.

### All Lab Members

- **Respect:** each member should treat other lab members, and those within our research space with respect and collegiality. As described above, there will be zero tolerance for harassment of any kind.
- **Integrity:** Be honest with your experiments – there is zero tolerance for fabrication, falsification or plagiarism. The data are what the data are – even if it wasn't what you expect, it could turn out to be very exciting!
- **Collaborate:** We can do more when we work as a team. Help new members get acclimated. Share your tips and tricks about an assay that someone else is trying for the first time. Share reagents and equipment with our colleagues.
- **Honor lab duties/space/time:** As a team member, it is expected you keep up with your assigned responsibilities, so the lab remains in an operational state. Furthermore, be respectful of our lab and office space as these are shared areas – clean up your messes and keep loud noises to a minimum. If someone looks busy (AirPods in and focused on a task), send them a message on Teams to chat with them later – they may be up against a deadline you are not aware of.
- **Ask questions:** As we say in the lab, there are no stupid questions. Questions mean you are listening and learning.
- **Make mistakes:** Yes, we said **make** mistakes. Learning and developing new techniques means you will make mistakes, but mistakes mean you are trying. It is okay if something does not work the first time. Reflect, troubleshoot, and try again. Never be afraid to ask for help and be honest when you are struggling.
- **Be present:** All lab members are expected to participate in lab meetings unless otherwise instructed. Certain circumstances, such as undergraduate student schedules may preclude full participation, but this will be discussed on a case-by-case basis.
- **Departmental seminars:** As good citizens of the Biochemistry Department, lab members are *very strongly encouraged* to attend departmental seminars that take place every Thursday at 12 PM in the Whitehead Auditorium. Treats are served before the seminar!



## Lizzy

As Principal Investigator (PI) of the lab, Lizzy's job is to ensure the lab can do exciting science in a safe and collaborative space. Therefore, Lizzy will strive to ensure the following:

- Funding: Lizzy will consistently apply for large-scale external funding sources to ensure the lab has the resources needed to continue doing cutting-edge science
- Mentorship: Lizzy will craft a tailored mentoring experience for each lab member to ensure they reach their career goals in a timely manner
- Advocacy: Lizzy will advocate and be a voice for lab members who are unable to do so
- Collaborations: Lizzy will network and consistently explore new research avenues/directions for the lab to explore
- Available: Lizzy will make herself regularly available to lab members to discuss science and career development

## Research Specialists

- Carry out independent research projects
- Maintain daily essential operations of the lab including ordering, ELN's, inventories, waste management, lab safety, and other lab management tasks
- Assist with the onboarding and training of new members
- Develop a career path plan and seek opportunities to fill that path (Lizzy will provide guidance as you navigate this)

## Postdoctoral Scholars

- Develop an independent project within the lab – if you are pursuing academia, you and Lizzy will discuss what can be taken with you
- Share your expertise with the lab
- Mentor graduate and undergraduate students
- Apply for funding opportunities
- Present at conferences
- Develop a career path plan and seek opportunities to fill that path (Lizzy will provide guidance as you navigate this)

## Graduate Students

- Develop (with Lizzy) a thesis project in the lab - this should follow a scientific question in the lab that can be answered during your time as a graduate student. You should expect 1-2 major publications

- Prioritize research in balance with program requirements (TA, grant writing, service, etc.)
- Mentor undergraduate students in the lab
- Present your research within and outside the university
- Develop a career path plan and seek opportunities to fill that path (Lizzy will provide guidance as you navigate this)

### Undergraduate Students

- Assist other lab members with research projects (data collection/analysis) and lab duties such as dishwashing/autoclaving
- If a long-time member of the lab, work on a semi-independent project
- Apply for the Emory [SIRE](#) or [SURE](#) programs if interested in a formalized research experience in our lab
- Undergraduate students are also encouraged to discuss work-study options with Lizzy
- Develop a career path plan and seek opportunities to fill that path (Lizzy will provide guidance as you navigate this)

**Key Takeaway: We all work together – no one works for anyone else in the lab.**

## Rotating in the Draganova Lab

### What can you expect?

Thanks for trying out the lab! We hope you enjoy your stay. A few things about our rotations:

- Before rotating, you will meet with Lizzy to discuss your career goals and scientific interests. Lizzy will also present ongoing projects in the lab and ideas for rotation projects.
- After your initial meeting, Lizzy will assign a short-term project to you based on your interests and based on what is currently happening in the lab
- You will be assigned a senior graduate student, research specialist or postdoc mentor to help you as you navigate your rotation project
- You will meet with Lizzy weekly to discuss your progress and troubleshoot
- You will attend our weekly lab meetings
- You will give a short presentation to the lab at the end of your rotation

### What's the big picture?

We hope that your rotation will allow you to develop a higher-level vantage point of what science we do in the lab and why we do it (what are the big biological questions driving our research?). During the rotation, you should ask others about what they are working on, evaluate how we work together, and ask Lizzy questions about her mentoring philosophy and lab vision. At the end of your rotation, you should be able to answer the following questions:

- Am I excited about the research in the lab?
- Do I understand why the lab is taking the approaches currently being employed?
- If I join, will I be able to thrive in this laboratory environment? Will I be excited to come here every day?
- Do I sense any cultural aspects of the lab that I am either very excited about or turned off by?
- Will this lab help me achieve my career goals?

If you decide the Draganova Lab would be a great fit for you, reach out to Lizzy to discuss options for moving forward. These will include the formalized program requirements for selecting a thesis research lab.

If you decide the Draganova Lab is not for you, no worries. We hope that you learned something and make sure to keep in touch. Lizzy is always happy to serve on thesis committees and serve as an informal mentor.

## Onboarding

You just joined the lab – now what do you do? Start here to make sure you have access to all our resources and are set-up for success!

### [Welcome Survey](#)

Once you join the lab, you will receive a link to a Google form to fill out information for our lab website. This includes general information about your preferred name, pronouns, and other interests. We also ask for a headshot/picture to put with your name. You are not required to provide a picture if you prefer not to do so.

### [Building Access \(24/7\)](#)

The fourth floor of Rollins (where our lab is located) requires key card access using your Emory ID. Make sure you provide the numbers on the bottom of the back of your Emory ID card in the welcome survey. Neha will submit this information to Tammie Starks (our departmental administrator) to grant you access. Access can take up to a week after the request is made.

### [WiFi Access](#)

When working on campus, make sure you are connected to Emory Unplugged as this will give you the most access to various resources, including printing. Detailed instructions for how to do this can be found [here](#).

### [Printer](#)

The lab has access to a departmental printer on our side of the 4<sup>th</sup> floor (Biochemistry Printer South Wing). To connect, go to the [Biochemistry Intranet page](#) and select the IT button. Follow the instructions to connect to the South Wing printer. If you have issues, ask other lab members for help or email our department IT manager, Billy Passauer.

### [Shared Lab Outlook Calendar](#)

The lab keeps all important events and meetings on a shared Microsoft Outlook calendar, including lab meeting times, conferences, equipment install/repairs, lab outings, and birthdays. You will automatically be added to the calendar when you join.

### [Biochemistry Listserv](#)

Our lab's primary appointment is in the Department of Biochemistry. Make sure you register your email address, so you get important emails regarding departmental seminars, First Friday

events, holiday parties, and the annual retreat! Shout out to Cam for figuring this out. The instructions are as follows:

1. Navigate to the [Emory listserv catalog](#).
2. On the right side of the webpage under the section “Access Unlisted Lists” type in the listserv name “BIOCHEM-L” and hit search.
3. Once it populates, on the right side of this screen under “Options” click the “Subscribe or Unsubscribe” button.
4. Type in your full name and Emory-specific email address and click the button at the bottom of the screen labeled “Subscribe (BIOCHEM-L)”.
  1. This will send an email to your registered email account from the account *LISTSERV.CC.EMORY.EDU*.
5. When you receive this email, click the link provided to confirm your subscription request, and wait 1-2 business days to be added to the listserv!

### Trainings

All lab personnel are required to be trained to work with the materials they handle in the lab space. Furthermore, lab personnel must stay up to date on refresher trainings to keep them in compliance with Emory Environmental Health and Safety Office ([EHSO](#)) policies. Once you join, you will receive multiple emails from BioRaft after Lizzy has added you with instructions on how to complete these trainings. Trainings must be completed before working in lab.

### Lab Notebooks (eLabNext)

The lab uses eLabNext as our lab notebook, ordering, and inventory repository. Electronic lab notebooks (ELNs) are an easy way to store and disseminate data within the lab. They are particularly useful for when a project turns over from one lab member to another – no more wasting time searching through hard copy notebooks or trying to decipher a person’s handwriting. You can consider eLabNext as your one stop shop for storing all data files and protocols including:

- Details of individual experiments including metadata files
- Standard operating protocols (SOPs) for common laboratory techniques
- Fridge/freezer inventories
- Reagent inventories

Once you join the lab, Lizzy will assign you a seat. While it isn’t practical to keep a laptop in the lab space, members typically keep an informal notebook in lab for making quick calculations or

recording changings to a protocol. One should include time at the end of their experiments to keep their ELN up to date.

Make sure you download the [eLabNext app](#) on your phone to make the most of the functionalities in the lab and [install the eLabWebEdit](#) component so you can edit files uploaded to eLabNext in real time (such as Microsoft Office applications).

Documentation for how eLabNext works can be found [here](#). For lab specific use of eLabNext, refer to the [eLabNext Notebook and Data Management](#) section of this guide and the lab's eLabNext Guide (coming soon!).

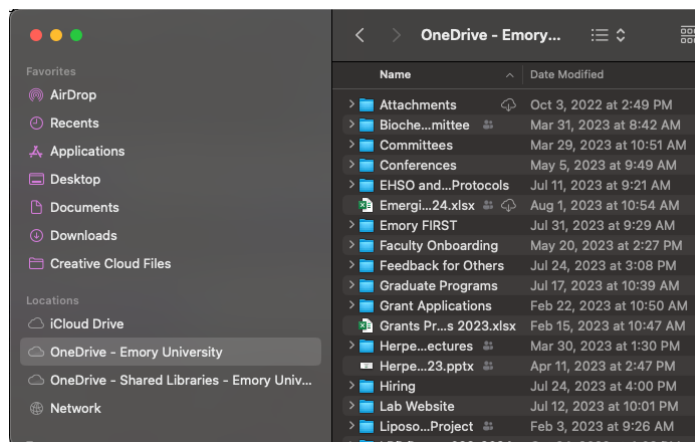
### [Benchling](#)

The lab uses [Benchling](#) to store all lab plasmid and primer information. Lizzy or Neha will add you to the lab account once you join. If you generate or purchase a plasmid, the sequence and all relevant information regarding how it was made (or purchased) should be included. See [Lab Plasmid/Antibody Storage](#) for information on how we store these types of reagents in the lab.

### [Microsoft Teams/OneDrive](#)

Emory uses Microsoft applications as our default software for communication and presentations. This includes [Microsoft Teams](#) – a file sharing and group chatting platform. The lab keeps all important documents including this manual, housekeeping documents, and literature/papers in this location. If you download any papers, promptly upload it to Teams so it can be disseminated with the group.

[OneDrive](#) is a Microsoft-based cloud storing system, compatible with Mac and PC. You can sync all our Microsoft Teams files, as well as your own OneDrive files in the Finder of your Mac or PC (see picture below in the Locations section). Doing this allows you to access your files remotely simply by logging in to your Emory OneDrive account.



### [Biorender](#)

The lab has a subscription to [Biorender](#) for making high-resolution figures for presentations and manuscripts. Lizzy will add you once you have joined the lab.

### [SBGrid Consortium](#)

Given we are a structural biology lab, we commonly use protein visualization and structure refinement software such as PyMOL, ChimeraX, Coot/Phenix, and many others. Our software licenses and access are maintained through [SBGrid](#). Lizzy will add you as a member and then you will receive a username and password. There are two ways to access our software: 1) through the shared lab computer or 2) on your own laptop using the [SBGrid Remote Installation Manager](#) following the instructions at the provided link. Unfortunately, only Mac and Linux computers can run SBGrid.

### [Zotero Reference Manager](#)

The lab stores all literature references in a shared lab library using Zotero. You can get started by clicking [here](#) to download Zotero onto your computer. Lizzy will add you to the lab library which you can access from your own computer, once you have downloaded the application, or the shared lab computer. Any changes to this library will be seen by the whole group.

### [Lab Duties](#)

Every lab member is assigned a set of lab duties when they join. Many of these duties do not require substantial amount of work. For example, the person in charge of the thermal cyclers serves as the point person for if something breaks and would call the manufacturer for assistance. See the shared [Lab Duties](#) list on Teams for the most recent assignments.

## General Logistics

### Lab Hours

Working in the lab is an essential component of our research since we predominantly perform wet lab experiments (at the bench rather than a computer). Generally, the lab works during standard American “workday” hours ranging from 8:30 AM – 5:30 PM on weekdays. Each lab member should anticipate spending time in the lab performing experiments during these times, albeit to different extents depending on the role:

- Hourly staff (Research Specialists): 40 hours/week are expected by the university, along with corresponding paid vacation and sick days. Employees must clock in and out with the [Kronos timekeeper system](#).
- Graduate students: Early on, graduate students will divide their time between research and classes. Once classes and candidacy are completed, research should be conducted full-time, with an expectation of ~40 hours/week (aside from various committee meetings and service work which is always encouraged!).
- Undergraduate students: ~10-12 hours/week are expected for undergraduates. Students need to provide their expected lab schedule to their assigned lab mentor. Undergraduates are not allowed to work in the lab alone unless given permission to do so.
- Postdocs: Like other paid employees, postdocs are expected to work ~40 hours/week, but they do not need to clock in.

Weekends: We believe in a healthy work life balance so we can have fresh minds for our science throughout the week. Therefore, we encourage lab members to protect time for themselves to spend time with family/friends, work on a hobby, or cook a new dish! While weekend work is perfectly okay (the lab is quieter and equipment is readily available), just know that this is not a requirement. Sometimes, experiments such as cell maintenance require it. But we should be maximizing our time during the work week such that weekend work isn’t always necessary. If you want tips on time management, ask Lizzy.

**Take away**: We are all adults, responsible for managing our own time. If everyone is putting in the required hours for their research, they can make their own schedules (within limitations) – we want to overlap with you during standard working hours. Working with the team ensures experimental issues can be troubleshooted in a timely manner. Issues with productivity will be addressed by Lizzy.



## Working from Home

The pandemic changed how our society works, but as mentioned above, most of your work will be at the bench. There are times when our work becomes computer-based: solving a structure, writing a manuscript/review, or working on your thesis. If you want to work from home during these scenarios, discuss with Lizzy. Participation in weekly individual and group meetings is still expected.

If you are feeling under the weather, please keep it to yourself and stay home. If you feel able, you are welcome to work remotely.

## Time Off

If you are staff (hourly or postdoc), follow all Emory HR guidelines for time off. Graduate students do not have set vacation/sick days but should follow Emory HR guidelines. For international trainees, it is understood that taking 2-3 weeks off at time is most feasible due to travel logistics. Undergraduates typically take vacations during built in time off throughout the school year, such as Spring Break, but are also allotted other times on a case-by-case basis.

**Any anticipated time off (whether it is one day or multiple weeks) should be discussed with Lizzy at least two weeks in advance.**

Lab members are not expected to work on [university holidays](#) when campus is closed.

Religious holidays: Some members of our community recognize religious holidays not found on a traditional American calendar. If you fall into this category, let Lizzy know so you can arrange to have the time to observe these important holidays.

Sick: If you are ill and will not be coming to lab, send an email or Teams message to Lizzy ASAP so we don't worry about you! To reiterate, I would rather you work healthy rather than try to work sick and result in all of us getting sick – you don't have to be the hero.

## Office Hours

Lizzy: I strive to be as available as possible, but sometimes there are deadlines that must be met. If my door is open, feel free to stop in. If my door is cracked, only stop by if it is an urgent matter. When the door is closed, I am either out of the office, in a meeting, or trying to get some work done. Send me an email or message me on Teams to schedule a time to chat.

Lab members: Unfortunately, lab members do not have individual offices for quiet time, but rather a shared cubicle space. Please be respectful of your colleagues – do not be loud or disruptive as this is a common working space. If you need a quiet space to work or have a meeting

where you will not be interrupted, feel free to reserve the 4121 or 4102 conference rooms via your [Emory Outlook account](#).

## Meetings

Lab Meetings: Generally, lab meetings are held on Mondays from 2:30 – 4 PM in RRC 4102. All lab members are expected to attend. Each meeting starts with lab business where we discuss pressing matters in the lab concerning supplies, equipment, and personnel.

The types of lab meetings can vary throughout the semester – please refer to the lab meeting schedule to know what is expected each week.

- Individual lab member presentation: This style of meeting is for trainees to gain experience putting together a formalized presentation of their research – this will be for a single presenter. This presentation helps the trainee prepare for qualification exams, conferences, and other public speaking opportunities. The goal is to strengthen scientific communication in a supportive and judgement-free space.
- Journal Club: One person presents a paper from the field (either historical or current study). Each lab member should have read the paper prior to coming to lab meeting. The presenter should present all relevant figures, including an explanation of the purpose of the study, methods used, any critique of the workflow, and conclusions/future work.
- DEI/STEM Education Journal Club: Once a semester, we will discuss a paper focused on either an effort to improve DEI in academia, current DEI in STEM issues, or other studies geared towards understanding others' experiences in academia. Each lab member will read the paper and we will discuss in a round-table format.
- Exciting Science/Technique: Each lab member gives a 10-min synopsis of any paper of their choice (from any field) that they find interesting. The synopsis should include why you chose the paper, the goal of the study, hypotheses, conclusions and the major techniques used.
- State of the Lab: Twice a year, Lizzy will hold a “state of the lab meeting” to update everyone on the current funding landscape, discuss how we have spent our money, how we plan to spend additional money, and what projects we are focusing on.

Individual Meetings: Each lab member will meet with Lizzy once a week to discuss progress, weekly goals, and bottlenecks. Undergraduates working on similar projects will also meet with Lizzy as a group.

## eLabNext Notebook and Data Management

### *Experiments and Protocols*

As mentioned above, the lab uses the ELN eLabNext for all things related to the lab. Every experiment you perform in the lab should be documented in eLabNext under the appropriate project folder. A useful strategy, especially for planning new experiments, is to write out a protocol in eLabNext based on how you think the experiment should be performed. Print it out and make notes on it as you perform the experiment in lab. After the experiment is over, you can go back to the original protocol and edit accordingly to match what was done. This is also a great exercise to make sure you have all your reagents ready before getting into the lab and realizing halfway through the experiment you are missing a stock of a certain buffer.

Any data generated as a part of the experiment should be included in the appropriate eLabNext entry including SDS/agarose gels, FPLC chromatograms, light scattering chromatograms, etc. Both the **raw data and the annotated images** should be in each corresponding eLabNext entry. Data images can be easily annotated within eLabNext.

### *Data Storage/Backup*

Storing your raw data files on eLabNext is smart since it is automatically backed up for us. **Nothing is ever safe in one place, so every lab member should have their data stored in their Emory OneDrive/Teams account.** The easiest way to do this is to import data immediately into OneDrive. Then, one can go into eLabNext and import the data while filling out their notebook. It is also good practice to back up your data to an external hard drive twice a year. Lizzy is happy to provide external hard drives for lab members.

### *Data Organization*

Your data will start to accumulate quickly! It is essential to develop a file system for yourself (and so that when you leave, others can locate your data with ease). We recommend a [sub-folder system](#) to keep your documents organized. Consistency is key!

### *File Naming*

Naming your files consistently and appropriately will save your future self so much work. In our lab, files should be named with the following format/convention:

**Year\_Month\_Day-Experiment-Initials**      Example: **2023\_03\_12-NEC220S75Purification-ED**

This file format ensures we know when the experiment happened, what the experiment was and who performed the experiment. Note: there are no spaces in the file name – this is because certain operating systems, such as Linux, struggle to open files with spaces.

A bad example is something like this: Protein1-gel. With this, we have no idea what protein, gel, day, or person the file is referring to. [Harvard](#) has great information on naming files.

## Equipment, Ordering/Inventory, and Lab Stocks

### *Equipment*

The lab has various pieces of equipment – both solely for our lab and some we share with others in the department. Major shared equipment includes:

- NanoDrop: non-lab users are required to record when they use it
- SEC/FFF-MALS/DLS: all **trained** users should reserve time on the Shared Light Scattering Calendar (Neha can provide access) along with filling out the Light Scattering Log on the [Biochemistry Intranet](#) after use (navigate to the Lab Services and Equipment Logs tab).
- Refrigerated shaking incubators: We have three Innova Shaking Incubators: bottom is **only** for insect cells; middle is kept at 37C (unless otherwise reserved); the top shaker can be used at any temperature. All Draganova Lab users should reserve time for the shakers on eLabNext. Outside users will reserve on Clustermarket which is linked to the eLabNext calendar ensuring internal users will see external reservations.
- Beckman and Eppendorf Refrigerated Centrifuges: outside users can request these when needed.

Each piece of equipment is labeled with a QR code. Scanning this QR code with your eLabNext app on your phone will take you to all relevant product information including the manual and serial numbers. Serial numbers are needed if we need to repair an item.

### *Ordering/Inventory*

We keep our inventories on eLabNext including reagents/supplies, equipment, primers, antibodies, proteins, glycerol stocks, cells, and viruses. If you want to know if we have something, this is a good place to start. It will also tell you where each item is located.

If you need to order an item, request the order in eLabNext and then alert the Teams Ordering channel so Neha can place the order in a timely manner. Once an order is received, it should be marked as received in eLabNext.

Department Services: For items such as bacterial media, agar plates, and certain buffers, the department offers a departmental service at no charge to us. Place your order on the [Biochemistry Intranet](#) under the Lab Services tab. Trent will have it ready for you in 24 – 48 h.

### *Storage Space*

All lab members have storage space in the -20 and -80 freezers – labeled racks are provided in each allowing one to store boxes of tubes of various sizes. It is helpful to create a “working” -20 freezer box for yourself for samples that are in temporary use. There is also ample 4-degree fridge space (either in the big main fridge, or in smaller VWR fridges throughout the lab space). There should be no loose tubes/racks stored in any of these spaces to prevent sample loss from other users moving in and out of these areas.

### *Lab Stocks*

Certain items in the lab we keep as stocks for the entire lab including competent cells, antibiotics, antibodies, plasmids, etc. Corresponding QR codes are kept on the doors of the fridges and freezers where they are stored. When you remove a tube, scan the QR code with the eLabNext app and indicate a tube was used. Once the boxes become empty to a certain amount, the person in charge of those stocks will be alerted and can make more for the lab in a timely manner.

Lab plasmid stocks: We keep stocks of all plasmids available for the lab in the Lab Plasmid Box in the -20 freezer. If you need plasmid, remove 0.5 uL to transform into DH5 $\alpha$  cells and mini prep your own stock. This will help minimize use running out of plasmid.

**Naming:** Your plasmids should be named in numerical order from when they were made. For example, Lizzy’s plasmids start at ED01 and go up to ED65. See the lab’s eLabNext tutorial document for how to name your lab samples.

Lab antibiotic stocks: Antibiotic stocks are stored as 1 mL aliquots (useful for 1 L cultures). If you need less than 1 mL, take a tube for yourself and store in your working -20 freezer box. Make sure you record in eLabNext that you removed a tube.

### Communication

#### *Deadlines*

There are times when lab members need components for various applications (graduate/medical school), faculty positions, postdoc positions, or grant/funding opportunities that require Lizzy’s attention. This includes editing text and providing letters of recommendation.

As PI, I am happy to support all trainees' endeavors regarding career enhancement and advancement. But I also have many other tasks and responsibilities, so please inform me well advance of deadlines so I have ample time to commit to each task.

- Letters: One month's notice
- Editing text/presentations: two weeks' notice

### *Recommendation Letters*

For letters, Lizzy will need the following information from you:

- Current CV
- Instructions for what to include in the letter – are there any specifics that need to come through?
- Instructions for submission (how to submit – portal or email; name of person or department to address the letter; address of the department/organization)
- Deadline

If you need more than one letter (grad/med school or faculty positions), a shared Excel/Google sheet is best to include all this information in one place. You can also send Lizzy calendar invites for due dates, so she is easily reminded.

### *Presentations*

Presenting your work is essential to your career as a scientist. Presentations can take various formats including poster, oral (short/long), or flash talks. Each require ample time for preparation to ensure you communicate your work as clearly and effectively as possible.

- Poster presentations: Lizzy is happy to give feedback on posters but remember to start preparing well in advance as posters need to be printed prior to attending the conference. All posters should be uploaded to the Lab Teams Lab Presentations folder. Feel free to peruse prior posters for inspiration.
- Oral presentations: Trainees can give practice presentations either during their scheduled lab meeting slot or they can schedule a time when the lab is available outside of lab meeting to give a practice run. Remember to leave yourself enough time to address comments. Lizzy is also happy to give individual feedback whenever it is requested.

General: All presentations, whether internal or external, poster or oral, and lab meetings, should be uploaded to Microsoft Teams.

## Lab Cleanup

While we have our own bench spaces, many of our areas in lab are shared, either with our group or another. Please be mindful to clean up the space around you. Balances should be wiped away of loose powders and small spills should be cleaned up promptly.

Twice a year, the lab will coordinate an afternoon to clean up the lab space. This can include, but is not limited to, disposing of old buffers/reagents, wiping down benchtops, disinfecting shakers/centrifuges, and general organization. Lab cleanup duties will be assigned prior to the day of cleaning. Food for the lab on Lizzy after the cleanup is done!

## Attire

Individual styles are greatly appreciated in the lab (like Lizzy's purple hair)! Everyone has their own identities and personalities – feel free to let it shine. Just make sure to do it in a manner that keeps you safe while working in the lab.

- Regular lab work: We are a casual work environment and do not require formal clothing. Choose your style based on what you are most comfortable in. Be sure to adhere to EHSO guidelines which require close-toed shoes and long pants (at a minimum). Lab coats are available for extra protection.
- Lab representation: There may be times when you go to a conference, university, or departmental presentation. Try to find a professional style that suits your individual preferences!

## Offboarding Checklist

All good things must come to an end – we are sad you are moving on, but we are looking forward to seeing the great things you will accomplish in your career! Use the following checklist when leaving the lab:

- Clean off your bench including all old/unusable reagents and buffers. If there is anything of use to other lab members, give it directly to those people. There should be nothing left in your drawers.
- Empty out any working freezer or fridge boxes.
- Clean out any samples left in any fridge or freezer that will no longer be used.
- Inventory all your -20 and -80 boxes in eLabNext so we know what you are leaving behind and where we can find them.
- Go through your data files on eLabNext and Teams with Lizzy – discuss where things are and how they were organized.
- Make sure the data on Teams is the most up-to-date version available.
- Provide your new contact information which we will need for additional publications.
- Clean your personal desk and empty the drawers. Return the key to the drawer cabinet.
- Stay in touch!



## Draganova Lab Manual Signature Form

I acknowledge that I have read the above policies. Any questions or concerns regarding these policies have been brought to Lizzy's attention. I understand that at any point in my training I can come to Lizzy to discuss any issues that arise within the lab, without fear of judgement. Overall, I agree that I will adhere to the policies found in this manual.

Printed Name: \_\_\_\_\_

Lab Role: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_