

WELCOME TO THE RUBELAB

Getting Started

This is intended to give you a brief overview of the lab and let you know the things you need to get started. Specific sections include:

- *Current Contact Information*
- *Away Dates*
- *Lab Meeting*
- *Lab talks*
- *Lab talk preparations Equipment check out*
- *Rubelab Mandatory Microscope Training*
- *Appointments with Ed Rubel*
- *Rubelab Animal Protocol*
- *Environmental Health and Safety*
- *Ordering Supplies*
- *Lab Duties*
- *Rubelab Check Out Procedures*

Current Contact Information

When you first arrive, see the Laboratory Manager. You will need to provide your contact information:

- Full name
- Home address
- Phone number
- E-mail address

This contact information is added to the Rubelab contacts sheet, which gets circulated to lab members, and the Rubelab e-mail list. Because the nature of laboratory work inherently involves odd hours, people might need to contact you when you are not in the lab. The Rubelab e-mail list is used to circulate general laboratory information and announcements as well as Department and University information.

Away Dates

The Laboratory Manager (currently, Robin Gibson) is the central point of contact for the lab. If you have an unplanned absence (i.e., out sick), please email Robin (rgibson@uw.edu) and let her know you'll be out so she can sign you out of the lab calendar and let other lab members know.

Scheduled vacation times vary according to roles and responsibilities. Graduate students research technicians, and research scientists should check with their PI before scheduling planned away times. Senior fellows have more autonomy but need to keep their project deadlines and other laboratory obligations (such as chicken chores) covered while they are away. Faculty is autonomous in vacation scheduling. However, everyone should let Robin know when he or she will be away in case people are looking for you.

Lab Meeting

The Rubelab meets weekly in **CD 365** on the 3rd floor of this building **at 9:00 am Wednesday mornings**. Except for unusual circumstances, all lab members (lab assistants, rotation and graduate students, technical

staff, fellows, medical residents and PIs) are expected to attend. Please be prompt. Attendance is not formerly taken, but if you are absent Ed frequently asks where you are, so plan on letting someone know in advance if you cannot attend.

Lab meetings consist of two parts. The first part is the business part (affectionately dubbed "bitches and moans" by some; if you hear it, this is what it refers to). Seminars and upcoming events are announced, problems in the lab are addressed, and any department and/or University wide information that impacts the lab is discussed. The business portion of lab meeting is always held first, and it happens whether Ed is in town or not.

Lab Talks

The second part of the lab meeting is a lab talk given by a lab member on the work they've been doing. **Graduate students, senior fellows, medical residents on rotation, and PIs** primarily give these talks. Occasionally an invited speaker will give a talk.

Lab talks are an opportunity to present work to a captive audience that understands your research area. The feedback given by other lab members is considered valuable, and lab members often use it as an opportunity to "try out" a talk planned for another venue.

Lab talks do not take place when Ed is out of town, although they will take place December-April when Ed is in CA. Ed usually joins these meetings via Go-To-Meeting.

Generally speaking, lab members give a talk once or twice a year. Ideally, your talk should be scheduled at points in your research where you have interesting data to share and/or you seek input on a new or different direction. The quality of the talk should be comparable to any public talk you would give: be prepared to defend a well-planned presentation given with slides, graphs, and analysis.

Equipment Checkout

The Rubelab owns some basic equipment that you can check out to give lab talks (or other talks):

- Mac Book Pro Laptop Computer
- View Sonic Projector (Full HD 1080p Projector)
- In Focus LP120 Projector
- Mini Display Port to VGA Adapter (this connects the laptop to the VGA cable on the projector)
- Extension Cords

The sign out sheet for this equipment is in **Robin Gibson's** office in CD176E. If you need help setting up the equipment for your presentation, please let Robin know in advance. CD365 houses a computer and large display screen so an alternative to checking out a projector and bringing a laptop to CD365 is to bring your presentation on a thumb drive and use the computer/display screen that is in there for your talk. This is especially useful when Ed attends via Go-To-Meeting as this allows us to share the computer screen with him so he can see the talk.

Rubelab Mandatory Microscope Training

We are very fortunate to have some outstanding microscope equipment, including the Zeiss Axioplan in Room CD186C, a Nikon Optiphot, and a Marianas system in room CD 175. Our equipment is very expensive and not standard laboratory equipment by any stretch of the imagination. The Rubelab microscope expert, Glen McDonald, is a top-drawer expert on microscopy techniques.

Because of the amount of money and staff support invested in our microscopes, NO ONE is allowed to use any of the microscope equipment WITHOUT first having a microscope lesson from Glen MacDonald. You must see him before you attempt to use any of our microscopes. If you have any questions about the microscopes at any time, please ask Glen.

Appointments with Ed Rubel

The lab manager (Robin) currently schedules Ed's calendar. Ed's major scheduling priority is being accessible to members of his lab. He does have an open door policy.

You should know that in addition to his own research program, Ed is the Research Director for the Otolaryngology Department, and sits on numerous University committees. Additionally, he is frequently a guest speaker at other institutes, and travels an average 2-3 weeks each month during the regular quarter.

Because of these other demands on his time, it can be difficult to show up unannounced and chat for an hour. Most new lab members quickly realize that conversations requiring 1/2 hour or more are best scheduled with the lab manager. And if you want to have a "Gotta minute?" kind of conversation, it's often best to check with the lab manager to see when Ed will actually be in his office. The longer you're in the lab, the better feel you'll have.

If you need to schedule things like committee meetings or meetings with Ed and another faculty member, it's best to have the lab manager block one or two tentative time slots and then confirm when all parties can meet.

Please clarify the location of your meeting. It's your responsibility to designate the location of any meeting you initiate. Most of the time people meet one-on-one with Ed in his office. But for meetings with more than one person, you must find a location. There is an online system for reserving conference rooms in the CHDD building, including CD 365, where we have lab meeting. For conference room locations and scheduling assistance please see Robin or Llyne.

The Bloedel library is used by many groups (fish group, audiology groups, administrative groups, journal clubs, practice talks), so don't assume it will be available when you need it. We've had many instances of people forgetting to reserve the library, only to find it occupied when they tried to use it. Space is short here, and there aren't many rooms in the Bloedel Center that can accommodate 3 or more people. There is a Google calendar for reserving the Bloedel library. Liezel prints out the reservation schedule weekly and posts it on the door of the library. If you need to use the library, please see Robin, Llyne or Liezel for reserving a time using the Google calendar.

Rubelab Animal Protocol

Any work involving physical contact with animals needs to be documented on our animal protocol (**2048-02**). If you are doing research on animals, then you need to be added to this protocol BEFORE doing any experiments.

The **Institutional Animal Care and Use Committee (IACUC)**, pronounced "I-A-COOK" is the UW watchdog department that administrates our protocol.

There are regulatory requirements for personnel working with animals or working in animal areas. The [Office of Animal Welfare \(OAW\)](#) in conjunction with the [Department of Comparative Medicine \(DCM\)](#) and [Environmental Health and Safety \(EH&S\)](#), provide training, certifications and screenings that meet these requirements.

Listed below are all the pre-requisites for working with animals. Here's an overview of the process:

Animal Use Training Requirements

All individuals working with animals must complete at least the following:

1. [University of Washington Animal Use Laws and Regulations](#) training.
2. [Animal Use Medical Screening \(AUMS\)](#).
3. Additionally, individuals using certain species at the University of Washington must complete **species-specific training classes**, including an in-person, hands-on, laboratory-training course.

Please visit the **Animal Use Training** website [here](#) for more information regarding trainings.

If you have a question about what training your staff needs, please contact [AUTS](#).

You can check what training you have completed by using the **My Research Training Transcript (MRTT)**:

MRTT: My Research Training Transcript

The MRTT allows researchers and research administrators to view their research-related required training records. Instead of visiting several separate compliance unit sites, you just need to visit this application created by the Office of Research Information Services (Oris). Click on [HERE](#) to access MRTT.

*Please note that the [Animal Use Medical Screening \(AUMS\)](#) is not included in this application.

Submit a New Personnel Form

Please see the lab manager about submitting a New Personnel Form to the IACUC protocol.

Significant Changes to the Protocol

Everything we do with animals must be in the Animal Protocol. Any deviations or variations to the protocol must be approved by IACUC beforehand in the form of a **Significant Change**. All Significant Changes must be submitted, reviewed and approved before said changes are implemented. If you are working with animals, please know how to access and consult the Animal Protocol so that you are sure that the procedures you are following are approved.

How to Log Into the IACUC Protocol Site

- 1) Log into the [Microsoft 365 Login Page](#)
- 2) Type in your '@uw.edu' email address ([UWNetID@uw.edu](#)).

(Note: SharePoint does not recognize "@u.washington.edu" as a valid UW email. Even if your email is "NetID@u.washington.edu", use "UWNetID@uw.edu" to log in successfully.)

- 3) After you type in youremailaddress@uw.edu, you do not need to put in a password; you will be re-directed to a UW NetID login page.

- 4) Hit the “enter” key or click “Sign in”.
- 5) Sign in to the UW NetID Login page as you normally would.
- 6) You should now have access to the site. (Note: If you have a UW NetID but are not a UW student or UW Employee you will need to be endorsed by OAWRSS in order to access the site. Please email oawrss@uw.edu).
- 7) The Rubelab Protocol was recently migrated into [Hoverboard](#). Please read the online information about Hoverboard or sign up with OAW for an orientation session. A quickstart guide is available on the Hoverboard website.

These next two steps are only required if you need to enter a Comparative Medicine housing facility...

- Take the [Online SPF Training Class](#)— REQUIRED FOR RODENT USERS ONLY
- Then take an orientation. (The 2 pre-requisites for this session are to take the SPF Class and be approved on a protocol prior to registering for the orientation). [SPF In Person Training Registration](#)

Environmental Health and Safety

Lab Safety:

- Lab Safety Manual (LSM)
- Safety Training Matrix
- Lab-Specific Chemical Hygiene Plan (CHP)
- Personal Protective Equipment (PPE)
- Emergency Response Procedures
- Eye Wash and Safety Shower Locations
- CPR Certified Personnel
 - Location of AED
- CHDD Evacuation Maps
- Chemical Exposure

Lab Safety Manual (LSM)

The [Lab Safety Manual \(LSM\)](#) is a document provided by UW Environmental Health and Safety. All laboratory staff, students and Post-Docs working in labs that use hazardous chemicals must have access to a copy of the manual and supplemental laboratory specific information. The LSM manual may be accessed online using the EH&S website, or there is a hard copy that lives in the Histology lab (CD 186A), or, there is a link to the manual on the Rubelab website. Lab specific information may be found in the hard copy in CD 186A or on the Rubelab website.

Safety Training Matrix

Please complete the [Safety Training Matrix](#), print it, sign it and give it to the Lab Manager to put in the Lab Training Document binder. This PDF form will help you identify which training you are required to receive based on the type of work you do in the lab. Some of the training sessions are required only once; others need to be renewed annually or semi-annually.

Online Safety Training Records Look-up

You may access your training records using the [My EH&S Training](#) tool. This site allows you to view your EH&S safety training records and reprint course certificates. It is a good idea to check your record once in a while to see if any of your training certificates have expired or if they are due to expire soon.

Lab Specific Safety Information

This is a lab specific section of the Laboratory Safety Manual. It contains information specific to the Rubelab. This information is available in a separate section located in the front of the hard copy of the LSM found in CD 186A. It is also available on the [Rubelab website](#).

Personal Protective Equipment (PPE) Hazard Assessment Guide

This guide is available on the [Rubelab website](#) as well as in a separate binder located in CD186A. This guide lists the PPE required for various lab specific procedures that are carried out in the Rubelab. Before carrying out any procedure in the lab, please read the protocol carefully, identify hazardous chemicals you will be handling, and consult the various resources you have available (the PPE assessment guide, SOPs, MSD sheets) to make sure you are adequately protected.

Hood Etiquette:

Please be considerate when using the fume hoods in CD186A and CD186D by adhering to the following rules:

- **Do not store unnecessary items in the fume hood.** The fume hood is a common workspace that needs to remain clean and uncluttered in order to work properly. **Slots within the fume hood, which direct airflow, must not be blocked.** The slot at the rear of the work surface is essential for proper air movement. **The sash should be kept as low as possible to improve overall performance of the hood.** The more closed the sash is, the better protection from an unexpected chemical reaction. Procedures should be done with the sash at the level of the maximum approved sash height marking or lower.
- If you leave something in the hood to air out, **label it and date it**, that way it can be thrown away or handled as hazardous waste at some point. **Please don't leave mysterious items in the hood.** Such potentially toxic items take up valuable space, and they quickly render the hood useless as a shared workspace. *Mystery items are difficult and costly to handle because we can't throw something away if we don't know what it is.* **EH&S charges a fee for the disposal of "unknowns".** This fee is easily avoided by properly labeling your items.

Name:

Date:

What it is (e.g. *tubes with trace phenol*)

- **Return chemicals and reagents to their proper storage places.** If they are flammable, put them in the flammable storage cabinet, if they are acids, put them with the other acids in the acid cabinet.

Liquid waste protocol:

When starting a liquid wasted bottle, please fill out an EH&S waste label completely and attach it to the bottle. Most importantly, record the % Composition of the solution's contents. *EH&S will not pick up solutions that are lacking this information.* You may print out labels from the EH&S website [here](#).

Figure 3-1 Hazardous Waste Label

HAZARDOUS WASTE
UNIVERSITY OF WASHINGTON
ENVIRONMENTAL HEALTH AND SAFETY (206) 695-5878

CHEMICAL COMPOSITION AND ASSOCIATED HAZARDS: %

Corrosive Reactive Other (explain)
 Non-Hazardous Toxic
 Ignitable Oxidizer

WASTE GENERATOR INFORMATION: Labeled by _____

Department _____ Place _____

Building _____ Room _____

Fill out the label completely, including percentages of constituents, the hazards of the waste, and contact name. If you do not know the hazards of your chemical, use the MSDS of the chemical to determine what they are. Do not date the container or label. Deface or remove any original labels remaining on the container to avoid confusion about the identity of the waste. Please note that the percentages **MUST ADD UP TO 100%**.

If a waste bottle is full, check to see if it has a piece of red tape with a RT# on it. If it does, this means there is a bigger waste receptacle in Histology (CD186A) where the full little bottle may be dumped and then re-used. For example, xylene, formaldehyde and methanol all have RT#'s:

Waste	RT#
Formaldehyde	754
Xylene	755
Methanol	756

If these bottles are full, please dump them in the appropriate container in Histology rather than starting a new bottle.

Chemical Waste Pick-Up:

Request collection of your waste by submitting a [Chemical Waste Collection Request](http://www.ehs.washington.edu/forms/epo/1470.pdf) found online at <http://www.ehs.washington.edu/forms/epo/1470.pdf>. Fill out all information completely and fax or mail the form (information is on the form).

Rubelab Protocols:

Lab protocols may be found on the [Rubelab Protocols webpage](#). Additional protocols and procedures may be found in the notebooks located above the desk in the Histology lab (CD186A).

Standard Operating Procedures (SOPs):

Hard copies of Rubelab SOPs are in the Lab Safety Manual that is kept above the desk in the Histology lab (CD186A). These are also accessible on the Rubelab website ([SOPs](#)).

Material Data Safety Sheets (MSDS)

Notebooks containing Material Data Safety Sheets are kept above the desk in the Histology lab (CD186A). The MSDS sheets for some of the frequently used chemicals in the lab may be found on the Rubelab website ([MSDS](#)). MSDS sheets for all other chemicals may also be accessed online using [MyChem](#).

Training Records:

Documentation of Training—The lab must keep a log of all training records.

- New lab member orientation documentation

Ordering Supplies

Rubelab Order Form (doc)

Shared Supplies (Shared Budget Matrix)

Project Specific Supplies (use a budget supplied by your PI)

Budget Authorization

Receiving/Storing Items

Signing and Returning the Packing Slip

Rubelab Main Brain Page

What	Description	Who
RESPONSIBILITIES SHARED BY EVERYONE		
Lab Safety		Everyone
Lab Dish Washing	Wash your glassware and put it away. Please see Robin Gibson for training before using the dishwasher downstairs.	Everyone
Animal Surgery Room	Leave clean and stocked.	Everyone
Sharps Waste	Red Biohazardous Sharps Containers: seal when no more than 2/3 full, label with autoclave tape, PI and Room # --do not cover vents. Leave next to autoclave. <i>Notify Van or Jialin.</i>	Everyone
Biohazardous Waste	When Red Biohazardous Waste bags are no more than 2/3 full they must be double bagged and transported to autoclave room for decontamination following the posted instructions. The waste is then placed in a black garbage bag and put in the garbage dumpster. Be sure to label the bag with room number and PI name.	Everyone
Non-Biohazardous Lab Glass and Plastic	Cardboard boxes must be labeled with PI name and Room number. When boxes are less than full, the boxes must be taped shut using packing tape and LABORATORY GLASS TAPE. They may then be placed in the hall for custodial pick-up (as long as they are not too heavy) or taken directly to the dumpster.	Everyone
Styrofoam Box Recycling	Styrofoam Boxes are bagged and labeled following the SOP that is posted in CD 186L (darkroom) and on the Rubelab webpage. UW recycling is notified for pick-up.	Everyone
Ordering Supplies	General supplies are ordered on a shared budget matrix by everyone. Please see detailed ordering instructions in " Welcome to the Rubelab ".	Everyone

LAB DUTY SPECIFIC MAIN BRAINS

Microscopy	Training, consultation and maintenance.	Jennifer Stone, Sophie Seo
Autoclave	Please see Van, Jialin or Stephanie for training before using the autoclave. Maintenance duty includes running monthly biospore safety test.	Van Redila, Jialin Shang, Stephanie Davidson
Lab Coats	Send soiled coats to UW laundry facility.	Esra Camci
Sharps Waste	Red Biohazardous Sharps Waste Container Disposal: Autoclave and transport to T-276 in the T-Wing.	Van Redila, Jialin Shang

EQUIPMENT SPECIFIC MAIN BRAINS

Confocal Microscope	Training, consultation and maintenance.	Jennifer Stone
Cryostat, CD 186N	Training, consultation and maintenance.	Ling Tong
Sledge, CD 186N	Training, consultation and maintenance.	Ling Tong
Microtome, CD 186N	Training, consultation and maintenance.	Jialin Shang
Vibratome	Training, consultation and maintenance.	Sophie Seo
Sterilization Oven	Located in dark room.	Esra Camci
PCR machine	Located in molecular biology	Ling Tong
Centrifuge	Located in basement (Tempel lab)	Sophie Seo

What	Description	Who
i-Cycler (Bio Rad)	Located in basement (Tempel lab)	Robin Gibson
Gas Tanks	Oxygen and CO2 tanks, ordering and changing, consulting.	Jialin Shang, Van Redila

ROOM SPECIFIC MAIN BRAINS

Tissue Culture, CD186H		Jialin Shang
Histology, CD 186A		Sophie Seo, Ling Tong
Molecular Biology, CD 186D		Irina Omelchenko/Ling Tong
Animal Surgery, CD 055		Van Redila
In Vitro Suite: CD 056		
Fish Cave, CD 056E	<i>No longer in use.</i>	
VOR Testing, CD 056B		Jim Phillips
Mouse ABR, CD 056D		Ed Rubel, Ling Tong
Animal Physiology, CD 068		Van Redila
Tempel Physiology CD 072		Cliff Hume, Jay Rubinstein
Bloedel Maintenance	Building concerns/burned out light bulbs.	Llyne Foy, Robin Gibson
Freezers		
Refrigerators		

LAB MANAGER DUTES

EH&S	Maintain Chemical Hygiene Plan, attend and follow-up with inspections	Robin Gibson
Website	Maintain and update website	Robin Gibson
IACUC	Attend inspections.	Robin Gibson
Animal Protocol	Submit Significant Changes; complete renewals	Robin Gibson
Eye Wash Checks	Flush monthly and log the date.	Robin Gibson
Lab Safety Training	Maintain and document lab-training records.	Robin Gibson
Ed's Calendar		Robin Gibson
Lab Meeting Announcements	Weekly announcement sent out on Tuesday whether or not we are having lab meeting on Wednesday.	Robin Gibson

Rubelab Website

Rubelab Check-out Procedures:

The following is a list of things you must do prior to leaving Rubelab. This applies to everyone from graduate students on rotation to Senior Fellows and Visiting Scholars.

- 1) Clean and return all of your instruments to surgery.
- 2) Clean out all of your lab drawers — look in surgery, histology, physiology, the cutting room...check all the rooms you used during your time here.
- 3) Properly dispose of all of your chemicals/drugs, OR give them to somebody else in the lab that may make use of them.
- 4) Check all fridges, the upright and chest freezers, and any paraffin boxes for tissue sections or uncut tissue: throw these out, give them away, or make arrangements for them to be sent on.
- 5) Put all of your slides into slide boxes, labeled clearly with appropriate histology series numbers, and then put them into a filing cabinet for storage.
- 6) Copy all of your files from Cajal/other network drives to CDs.
- 7) Check hard drives of other computers on which you may have stored files, e.g. the confocal, Spot, the ABR computer, the back lab computers.
- 8) Check for any animals you may have left in the animal rooms, make necessary arrangements.
- 9) Check for any slides you may have left on slide-drying flats in histology