



COLBY BEHAVIORAL NEUROSCIENCE LAB Manual and Lab Safety Plan

Department of Psychology
RVS 10/2017

For Colby College Students and Employees

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BEHAVIORAL NEUROSCIENCE LAB RESEARCH

WELCOME TO THE GLENN LAB!

The primary goal of the Glenn lab is to study the effects of dietary choline, administered at various life stages, on cognition, stress reactivity, anxiety and overall brain plasticity and function. As part of the research this semester, you'll be designing and conducting studies that may explore these areas. We'll be working hands-on with Sprague Dawley rats, and conducting a range of behavioral tests and observations. We look forward to the opportunity to work with all of you on this and are very excited for a fun semester! ☺

To make life a little easier for you, we've provided a packet of information that you may find handy for working in the lab. And of course, if you have any questions, please do not hesitate to ask!

I. PURPOSE & SCOPE

This document summarizes critical information regarding animal care and use in a research setting as well as general laboratory safety in the behavioral neuroscience lab. It is not intended to replace more comprehensive information available in the campus wide Laboratory Safety Plan (LSP), or any course/study programs outlined by Melissa Glenn. Participation in certain protocols and procedures may require additional safety training and certification. The requirements in this manual and Departmental Laboratory Safety Plan (DLSP) apply to all faculty, staff, students and student employees that work or conduct research in the behavioral neuroscience lab.

II. CONTACT INFO

Assistant Professor of Psychology/ Lab Director
IACUC Committee Chair

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Lab & Facility Manager/ Research Technician

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III. REQUIREMENTS

1. AALAS Training Tutorials

In order to work with animals in a laboratory setting, *IACUC (Institutional Animal Care and Use Committee)*, requires that each of you complete two online courses below from the AALAS website. You will need to finish both of the courses and pass the exams prior to your first class/session with the animals. You must print your proof of completion for both exams and bring these with you to your first class so that you may be signed off with your lab supervisor or course instructor. You will not be permitted to start work with the animals until you furnish these completion forms. Your AALAS login names and passwords will be emailed to you by the training coordinator Amanda Kimball. The website is <http://www.aalaslearninglibrary.org>

- **Course #1- "Ethical Decision Making in Animal Research"**

To find this course, click on "Animal Care and Use Courses" on the right. Then choose "AALAS Courses" and then under the "Bioethics" tab, you'll see "Ethical Decision-Making in Animal Research" After you have taken the course, you should take the Final Exam.

- **Course #2- "8th Edition Guide to the Care and Use of Laboratory Animals"**

This course can be found under the "Animal Care and Use Courses" on the right and then under "AALAS Courses," and then you'll see "US Mandates and Guidelines." Click on this and then you'll find the course.

2. Health Questionnaire

You will also need to fill out the "Laboratory Animal Occupational Health Program Health Questionnaire" and return to the Garrison-Foster Health Center prior to working with the animals.

3. Lab Orientation and Safety Training

You will need to complete the Lab Orientation and Safety Training with Melissa and/or Amanda and sign the Safety Training Acknowledgement and return to Amanda.

4. Lab Safety Training Moodle

You will need to log into the Lab Safety Training course on Moodle and complete the quiz and electronically sign the form.

5. IACUC Protocol Approval

Before you can start your own research project, you must write out a protocol explaining your proposed research plan in the IACUC protocol format made available by Amanda or on web.colby.edu/iacuc/ This protocol must be approved by the IACUC prior to conducting any research. If you are volunteering or employed as a research assistant under a particular study, then Amanda will add your name to the approved protocol for that study.

IV. FACILITY ACCESS

- **Never share the vivarium access code or lab keys with anyone for any reason**
 - We limit access to the lab spaces to protect the animals and the students. The vivarium portion of the lab can only be accessed via a key code that is assigned to each person or class. It is your responsibility to remember and keep this passcode private. The keys to the other lab spaces outside of the vivarium (300, 304, 305 and 311) are located within the vivarium and must be signed out and returned each day
- **Unauthorized visitors must be approved by Melissa or Amanda prior to lab entry**
 - We welcome anyone who is interested in the research to visit the facility, however permission must be given ahead of time

V. IACUC & ANIMAL WELFARE CONCERNS

Animal research on campus is overseen by a federally mandated committee made up of Colby faculty & staff, veterinarians and community members. This committee, referred to as the Institutional Animal Care and Use Committee, or IACUC, must approve all research protocols involving the use of vertebrates. They conduct meetings to approve protocols and inspect animal use programs and facilities two times per year and report findings to the USDA and OLAW. More information regarding the Colby IACUC can be found online- web.colby.edu/iacuc/

- **Reporting concerns of Misuse, Mistreatment, Non-Compliance of the Care and Use of Animals in Research, Teaching and Testing**
 - Colby is committed to ethical and compliant care and use of animals in research, teaching and testing. If you are aware of potential violations to existing animal care and use regulations or observe misuse or mistreatment of animals, you are strongly encouraged to report your concerns. The college will not tolerate retaliation toward or harassment of employees or students who, in good faith, report actual or possible violations. The college will thoroughly investigate each case carefully and discreetly, taking all reasonable precautions, consistent with the need for complete review of the case, to maintain confidentiality to the extent permissible under federal and state laws and to protect the rights and interests of both the person making the report and the subject(s) of the investigation.
 - Concerns may be reported in person, via phone, email or submitted anonymously through written correspondence to any of the following:
 - Chair of the IACUC-Melissa J. Glenn, 5550 Mayflower Hill, Waterville, ME; (207)859-5571; email: mjglenn@colby.edu
 - Lab Manager- Amanda Kimball, 5550 Mayflower Hill, Waterville ME; (207) 859-5563; email: akimball@colby.edu
 - Provost and Dean of Faculty- Margaret McFadden, 4770 Mayflower Hill, Waterville, ME; (207) 859-4770; Email: Margaret.mcfadden@colby.edu
 - IACUC Veterinarians: Dr. Matthew Townsend, DVM or Dr. Peter Walsh; 51 Western Avenue, Fairfield, ME; (207)453-7387

- **Please do not take cell phone videos or pictures in the lab (unless permission is given from Amanda or Melissa ahead of time)**

VI. ANIMAL CARE AND USE

ANIMAL HANDLING

- **ALWAYS wear gloves when handling the rats**
 - This provides some protection for you in the event that a rat does bite, as well as inhibiting the transmission of pathogens and development of allergies.
 - It also provides consistency for the rat by covering up our personal scents, which is important when conducting studies.
- **ALWAYS wear lab coats when working with the rats**
 - This is for personal cleanliness, consistency within the study by covering up our personal scents, and inhibiting the development of allergies.
- **Avoid strong odors/wearing perfume**
 - Rats are macrosomatic and really very heavily on their sense of smell to operate within their environment. Any particularly strong odor can cause stress.
- **Handle animals frequently/consistently**
 - They habituate to things that are done frequently and consistently in a non-stressful manner. The more routine handling that is done, the more relaxed the rat will be when we need to work with him/her.
- **Never pick up a rat by the tail**
 - The tail is very sensitive and if grabbed in the wrong place, you can cause painful stripping of the skin. It is also EXTREMELY stressful for the rat. Tail pick-up is only used in rare circumstances and done under the training AND supervision of Amanda or Melissa.



Picking up Rats

To lift the rat, grasp his body by placing the palm of your hand along the back of the rat and wrap your thumb and fingers around the body just underneath his forearms. As you do this, take care not to leave a stray finger pointed out in front of his face, as he may take the opportunity to bite this digit if he is so inclined. You can avoid this by wrapping all fingers around his body (see picture). You can then cradle him in a football hold so that his body is supported by your arm.

COLONY ROOMS

- **Sign colony room door sheet upon entry and notify Amanda/Melissa immediately of issues regarding any of the following:**
 - Temperature
 - The temperature should be between **18°C and 23°C**
 - Humidity

- Humidity should read between **20-60%**
- Notes
 - Sign the sheet if you are feeding/cleaning or just checking rats in a particular study
- IVC Rack Function
 - All rats are housed in polycarbonate cages with a wire bar lid that holds the water bottle and food pellets. Each cage is placed on a rack in one of the IVC units located within the colony rooms. The IVC units are individual ventilation systems that supply fresh air to and exhaust spent air, dander and odor from each cage. It is important that when you do any routine colony room checks, you make sure that the exhaust blowers are working appropriately and have not come unplugged. Make sure that the gauges on the IVC units read **.25 and .30** (left to right). If these racks are not working properly, the rats may suffocate or at the very least be extremely stressed which may compromise research
- **Conduct behavioral tests or husbandry tasks during the light period only (8am-8pm)**
 - Rats are nocturnal animals, operating on a 12 hour day/night cycle. Lights in colony rooms are set up on an automatic timer to come on at 8am and turn off at 8pm. Any variance in this schedule may affect physiology of the animals and compromise research.
- **Obtain permission for after-hours entry and follow lighting procedure**
 - Unless you are running a test that requires colony entry during dark cycle, you must have permission from Amanda or Melissa to enter beforehand and turn on red lights only in the hallway and colony room prior to entry. Red lights will not disturb the animals during the dark phase.
- **No Loud Music/Noises in Colony Rooms**
 - Rats have an acute sense of hearing and are very sensitive to noises in their environment so it is best to be quiet and avoid noises like jingling keys or cell phone ringing as this may cause stress
- **Clean up after yourself**
 - We need to keep these colony rooms clean so it is important to clean up after yourself if you spill food or water
- **Use only Odoban cleaning spray in the colony and testing rooms**
 - Unlike bleach or other cleaning agents, Odoban is safe for use around the animals
 - Use 200ml of Odoban concentrate and fill the rest of the spray bottle with water

HUSBANDRY

- **Provide access to food and fresh water at all times**
 - **Do not go more than 3 consecutive days without checking food/water amounts.** If any rats in your study go without food or water for any length of time, this will affect their stress levels and in turn, affect the outcome of your research results. It is important to note that rats will not eat food if they do not have access to water
 - Make sure that the hole in the water bottle is facing down
 - Do not fill water bottle all the way to the top as this will create a suction effect and your rat will not be able to get water out of the hole. Leave about 1.5 inches of air at the top
- **Record food and water intake 2 times per week**
 - Space these days out so that you do not go more than 3 consecutive days in a row
- **Record body weights 1 time per week**
 - This is oftentimes the best way of assessing rat health if no other clinical signs are present
- **Clean cages 1 time per week**
 - **Do not go longer than 7 days without changing out cages** as this will stress your rats and have a negative effect on your research outcomes

- **Change out water bottles to clean bottles 1 time per week**
 - On the days where you are filling water without changing the bottle, make sure to dump old water prior to filling
- **Change out cage lids one time per month**
- **Report low food inventory to Amanda**
 - If you open the last bag of food, it is your job to let Amanda know asap. If she is unavailable, you can write her a note on the white board outside of her office or email her
- **Make sure that every rat in your study has tail ID markings at all times**
 - We use non-toxic sharpies to mark tails with their appropriate identification number. Each tail has a black or red stripe to indicate if it is an odd or even number and then directly below that is the rat's study id number written in black sharpie.
 - These markings will rub off over the course of the study, so it is extremely important that they are re-marked periodically as this is the only way to identify the rat in the case that they get mixed up.

HEALTH MONITORING & OBSERVATIONS

As the main source of human contact for your animals, you will likely be the first person to notice if there is a change in their behavior or health. It is important to notify the lab manager of any odd behavioral observations or health issues as soon as possible so that veterinary action can be taken. It is also important to record these observations in your lab journal as well. Take some time to familiarize yourself with your healthy rats so that you may be able to recognize when they are sick. Healthy rats should be active (unless sleeping), have a smooth and shiny haircoat, and bright, clear eyes.

Here are some signs that your animal may be stressed or sick:

- Scruffy, unkempt haircoat – from dehydration or lack of grooming
- Raised hair
- Hunched Posture
- Little interaction with cagemate
- Red porphyrin staining around eyes or nose
- Coughing
- Sneezing
- Chattering
- Feeling cool to the touch
- Decreased appetite
- Weight loss
- Respiration increase or labored breathing
- Inactivity

SICK RAT



VII. BEHAVIORAL TESTING

It is very important to remember that everything that happens to a rat, from prenatal events to the present, will affect its behavior. This includes things like:

- prenatal stress,
- litter size,
- maternal care,
- pre- and post- weaning period,
- frequency and type of handling,
- cage-changing frequency,
- time since the last cage change,
- type of bedding,
- perfume/cologne/breath/behavior of the experimenter,
- time of day/week/month/year,
- temperature/humidity/lighting/noises within macro- and microenvironment,
- genotype & genotype distribution amongst cage-mates
- gender,
- strain,
- age,
- behavioral/drug/dietary history,
- any significant noises that occur before or during the behavioral test session,
- and the list goes on...

So it is EXTREMELY important that we control these factors as tightly as possible because any number of these can contribute to the variability of data. It is your responsibility to keep this in mind whenever you are working with or around the animals of your or someone else's study. It is also your responsibility to make a note in the lab journal of any factors/events that may impact an individual animal, test or study.

BEFORE THE TEST

- **Read entire behavioral test SOP beforehand**
 - Familiarize yourself with the test and become aware of any differences in procedure that would apply to your study
- **Notify and Plan with Lab Manager**
 - It is crucial to set up a schedule ahead of time with Amanda so that she can make arrangements to book testing rooms, equipment, supplies, computers, research assistants
 - It is also important to **make sure that you have the necessary training ahead of time** so that you can adequately run the test
- **Avoid running tests on weekends if you have not run the test before**
 - Because Amanda's hours are Monday-Friday 8am-4pm, she will not be available to help in the event that something should go wrong, so it is not recommended that you run tests on weekends if you are not familiar with the test or testing equipment
- **Set up lab notebook** (See lab notebook section)
 - Describe your procedure in detail
 - Make any outlines or charts for hand-scored data
 - Make sure to specify the file name and location in the journal entry

DURING THE TEST

- **Be Consistent**
 - It is important that all experimenters try to adhere to the exact same procedure so that there is very little variability- this **includes wearing lab coats and gloves** so we all smell and look alike
 - Load rat cages onto cart and wheel down to the testing area. Leave cart in hallway, just outside of testing room

- **Use clear transport cage to transport rats** from cages to the testing apparatus and place rat into apparatus the same way each time
- Rooms should be set up the same way for all subjects within a study. This includes any visual and auditory cues. Room lighting should be about halfway on the slider and should illuminate the apparatus evenly
- **Wipe down apparatus/testing objects in between each rat to eliminate scents/stress hormones.**
 - Spray odoban onto paper towel and wipe. Do not spray directly onto surface as the odoban may be overpowering to the next rat.
- **Keep testing rooms free of distractions**
 - Shut the door when testing
 - Researcher should be outside of testing room when possible
 - Keep noise levels down
- **If testing males and females, try to test females first**
 - Many times the females will be more distracted by the male scents so when possible, it is best to try to test the females first
- **Avoid doing stressful procedures in the same room as non-stressed rats**
 - Non-stressed rats may become stressed from hearing ultrasonic vocalizations or smelling stress pheromones from other rats undergoing stressful procedures. When possible, try to keep these procedures separate from other rats.
- **Movies, Videos, TV shows, Personal Laptops etc., are on a restricted use basis**
 - Permission must be given by Amanda or Melissa for each individual use as some tasks require more attention than others

AFTER THE TEST

- **Turn off the computer!!**
 - The laptops will start running very slowly if they are not turned off each day
- **Perform general clean up**
 1. Empty bedding into trash
 - If you are planning to use the bedding for the next day, you must remove it from the apparatus and store it in an empty cage
 2. Spray apparatus with odoban and wipe down with paper towels
 3. Sweep up any bedding or food remnants into trash
 4. Sweep up carts using dustpans and spray with odoban
 5. Discard all trash- gloves, used paper towels, etc., into general trash
 6. Dispose of needles into sharps container
 7. Take holding cages into room 235 and spray down with odoban and hot water using hose

Periodic Quality Review

Every so often, Amanda or Melissa will choose a time to follow you during your routine husbandry and/or behavioral testing to ensure that all tests and animal handling are being conducted correctly. They will give feedback and instructions as needed. This is done to ensure the quality of the research.

VIII. KEEPING A LAB NOTEBOOK

Throughout your research careers, you will need to keep lab notebooks/journals to record your procedures/findings and any pertinent information for your study. It is important that these books are able to withstand scrutiny from your peers and the scientific community in the event that your findings are published. In addition, notebooks must be extremely detailed so that in the future, we can replicate your study exactly the way it was done. Many times we will not have time to analyze all the data of a study right after it is conducted so it is imperative that you take detailed notes of everything you do (including observations, mistakes, etc.,) so that after you have graduated, we can rely on these notebooks.

In the Glenn Lab, we use paper journals, but we also use iPads and Dropbox so that anyone in the lab can have access via a remote location. Here are a few rules:

- **Journal Hardcopies stay in the lab and do not leave.**
 - This is so that others can work on your study and add to your notes when needed.
- **You MUST write an entry each time you come into the lab**
 - This includes husbandry, procedures, behavioral testing, immunohistochemistry, etc.,
 - All journal entries should contain (at the very least) the date, your initials and task completed
- **All journal entries should be copied into computer files and saved in the Dropbox once a week.**
 - This should be done by Friday of each week.
 - PIs are responsible for ensuring that this is done.
 - All numerical data (body weights, food/water intake, etc.,) gathered for the week should be entered into the excel file

JOURNAL SET UP

Below are some examples of what should be included in the journal entries for each activity. This list is just a starting point.

Behavioral Tests

- Date, Time, Names of RAs, Your Initials
- Computer File Name & location
- Step by Step protocol for the test
- Observations on individual animal behaviors
- Issues/Mistakes- includes tracking, camera, animal mix-ups, etc.,
- Any hand-scored numerical data

Brain Sectioning

- Date, Initials
- Condition of the brain,
- hemisphere (Right/Left)
- which side was glued down to the block (posterior/anterior)
- how your blocking came out
- number of slices
- if there was compression & attempts to fix
- overall comments about how the slicing came out

Husbandry Tasks

- Date & Initials
- What was done- cage cleaning, water bottle changeout, food/water weighing etc.,
- Any Numerical Data- Body Weights & Food/Water Weights (Out:In)
- Detailed Observations on any strange animal behaviors/appearances
- Issues/Mistakes

Drug Treatments

- Date, Initials
- Administration Info- IP or SC Injections
- Time Administered
- Rat ID Info
- Dose- solution mixing notes
- Amount Administered (Also kept in drug log if DEA scheduled drug)
- Comments/Issues

Immunohistochemistry/ELISAs

- Date & Initials
- Specific Step by Step protocol with reagents & amounts
- Brain/Sample #s
- ELISA Plate Layout
- Issues/Mistakes
- Comments on results

BEHAVIORAL TEST VIDEO RECORDINGS

- **Videos must be saved to computer or hard drive**
 - Make sure that every behavioral test is being tracked, recorded and saved in the computer or hard drive. These videos must be saved so that in the event that findings do get published, these videos will be available for a possible audit
- **Record file names and locations in lab notebook**

DROPBOX ACCESS

The lab uses an online Dropbox account so that we can share and access files throughout the duration of a study. The Dropbox is downloaded on all lab computers so you will be able to save files directly from any lab computer. The only thing we do not save in the Dropbox are video files as they are too large to store. Follow the instructions below to login from your personal computer:

- Go to <https://www.dropbox.com/>
- You can either download the app or sign-in through the online browser
 - Login email: glennlab@me.com
 - Password: **COLbyLab** (case sensitive)
 - ****Note that the o in COLbyLab is actually a zero**

IX. DEPARTMENTAL LAB SAFETY PROGRAM

Prior to working in the lab, you should have completed and passed the Lab Safety Training Moodle that covers the Colby Lab Safety Program (LSP). The LSP is the primary resource for rules and regulations regarding campus-wide safety in laboratories. The Departmental Lab Safety Program (DLSP) outlines department-specific rules and procedures and is intended to supplement, not replace, the LSP. A copy of the LSP can be found in room 300 and in the Vivarium outside of room 227. The requirements listed in this DLSP must be followed in addition to those stated in the LSP.

SAFETY EQUIPMENT LOCATION

It is very important that you know the location of each of these items prior to working in the lab.

- **Door Signs**
 - Located next to the entrance of each lab/vivarium space
 - Contains emergency contacts and specific hazards located in the room/facility
- **Emergency Eye Wash & Showers**
 - Located in room 237, 300 and 304
- **First Aid**
 - Mounted on the walls in 300 and 304 and near entrance of 237
- **PPE**
 - **Glasses/Goggles**- Mounted on the walls of 300, 304 and near entrance of 237
 - **Gloves**- Mounted on walls in 300, 304, 237, Vivarium Hall (2 locations)
 - **Lab Coats**- Hanging in vivarium hallway and in 300 and 304
- **Spill Kits**
 - Located under each fume hood in room 300, 304 and 237
- **Satellite Accumulation Area**
 - Located under the fume hood in room 300 and room 237
- **MSDS/SDS**
 - The easiest place to find this information is online at <http://hazard.com/msds/> or the specific chemical vendor website
 - Printed MSDS/SDS are located in a binder in 300
- **Accident and Spill Report Forms**
 - In hallway outside of room 227
- **DLSP and LSP**
 - In hallway outside of room 227

PERSONAL HYGIENE AND PROTECTIVE EQUIPMENT

- **Use good personal hygiene practices as stated in LSP**
 - Avoid exposed skin- dress appropriately
 - Wash hands prior to leaving lab
 - Do not touch face/mouth while in laboratory- this includes eating, drinking and chewing gum
 - Replace gloves often and do not touch door handles, computers, phones or other common items with contaminated gloves
- **Use goggles/glasses when you are handling hazardous chemicals or performing injection procedures with animals**

- Avoid wearing contact lenses in wet lab if you can
- Depending on splash risk, goggles may be the better choice over glasses
- **Always wear lab coat when working with animals or hazardous chemicals**
- **Use the fume hood when working with hazardous substances**
 - Work at least 6" away from glass shield
 - Pull glass shield down as far as possible
 - Never stick your head under the hood for any reason

HOUSEKEEPING AND PROCEDURE REQUIREMENTS

- **Always read the full protocol or recipe PRIOR to starting the procedure**
 - Become aware of any particularly hazardous substances used in procedure and the specific hazards associated with them. Read the MSDS/SDS for the hazardous substances that you will be working with
 - Ask Melissa or Amanda for help if you are uncomfortable with any substance or equipment prior to starting the procedure
- **Keep the lab neat**
 - Wash dishware and return to its proper place after use
 - Return chemicals to their proper storage place
 - Properly dispose of waste (See below)
 - Wipe down Fume Hood with soap and water
- **Make the smallest amount necessary when making solutions**
 - Calculate exact amounts of solutions needed prior to starting the procedure to cut down on costs and waste storage amounts
- **Label solutions/mixtures**
 - Name of the mixture, date made, and your initials
 - Use lab tape and a sharpie
 - If the specific recipe for this mixture is not located in the lab's general recipe book, then you must include the names and volume parts of the specific chemicals contained in the mixture on the label

EQUIPMENT, CHEMICALS & PROTOCOLS THAT REQUIRE ADDITIONAL TRAINING

- Cage Wash Machine Operation
- Autoclave Operation
- Anesthesia Machine
- Sodium Azide preparation
- General Staining & Counterstaining Procedure
- Paraformaldehyde preparation
- BrdU preparation and Injections
- Surgical procedures and I.P. and S.C. Injections of any kind
- Liquid Nitrogen handling

WASTE DISPOSAL AND SECONDARY STORAGE

- **Always properly store or dispose of any solutions you made or used PRIOR to leaving the lab**
 - Do not leave solutions unattended on bench tops or in fume hood
 - **Store all waste in the SAA cabinet in DAVIS 300.** Do NOT leave waste on a countertop or under a different fume hood other than the designated SAA in DAVIS 300.
- **Do not pour ANYTHING down the drain unless you have checked with Amanda or Melissa first!**
- **If storing a solution that you made in a secondary container for later use:**
 - Use appropriate HDPE Plastic or Glass container
 - Follow labeling requirements (above)- Name, Date & Initials with SHARPIE
 - Let Amanda know that you made a solution and where you stored it so that she can label with appropriate NFPA diamond rating
- **If disposing of hazardous solutions:**
 - Read instructions located in protocol/recipe or in MSDS/SDS for disposal protocol for hazardous substances
 - Ask lab manager/lab director if you are unsure of how to store or dispose of a certain chemical or solution
 - In the **SAA in DAVIS 300**, find the waste container for that specific solution and while under fume hood, use funnel to pour solution into container
 - If no waste container has been generated for the specific chemical, ask Amanda to prepare a new HDPE waste container ahead of time
- **Store sharps in the appropriate container**
 - For hazardous materials, such as BrdU, discard the needle and syringe into the specific BrdU sharps container
 - For other substances, discard the needle and syringe into the sharps container

ACCIDENTS AND EMERGENCIES

- **Follow the emergency procedures outlined in the LSP, including but not limited to the following:**
 - Immediate Danger- pull fire alarm, exit building and call security
 - Not Immediate Danger- notify Amanda or Melissa, do not leave area until help arrives
 - Do not attempt to handle an emergency or spill by yourself; do not attempt to fight fires
 - Fill out accident or spill forms
- **Medical attention:**
 - Emergencies: call 207-859-5911 or 911
 - Academic Months: Garrison-Foster Health Center; Monday-Friday 8am to 8pm; Weekends noon-8pm
 - Summer Months:
 - MaineGeneral Express Care; 211 Main Street, Waterville, ME 04901
 - MaineGeneral Emergency Care; 149 North Street, Wateville, ME 04901
- **Skin contact contamination**
 - Flush area with water for 15 minutes & seek medical attention
- **Ingestion of chemical**
 - Immediately call emergency personnel and get medical attention
- **Chemical burns to eyes**

- Use eye wash station to flush eyes for 15 minutes and seek medical attention
- **Large scale chemical burns**
 - Remove contaminated clothing and stand under emergency shower for 15 minutes and seek medical attention
- **For Spills:**
 - For small spills that you are comfortable handling, you may refer to the MSDS/SDS for specific chemical information and use a spill kit to clean up. Spill kits are located under the fume hood in each lab space. Notify Amanda or Melissa
 - For larger spills, notify Amanda or Melissa and unless you are in immediate danger, do not leave until someone comes to assist you
- **If Bitten:**
 - Calmly return animal to his cage
 - Wash the wound thoroughly with antiseptic soap and water
 - Cover with a bandaid
 - Notify Amanda or Melissa and if necessary, seek medical attention (infection/swelling/itching/requiring stitches)

WORKING ALONE

We do permit trained students to work alone in the lab or vivarium if they meet the following requirements:

- Must be properly trained on the procedure by Amanda or Melissa and have received permission beforehand
- Must let Amanda or Melissa know when they plan to work and what procedure they will be doing
- Must know and follow the proper clean-up protocol, including chemical waste disposal and storage