

## **ILAS Lab Users Handbook**

Integrated Laboratory for Archaeological Sciences (ILAS)  
Medical Research Laboratories (MRL) Room 407, 89 Waterman St.

Website: <https://sites.brown.edu/ilas/>

v.2024

Welcome to the ILAS! This document serves as a handbook for new users to gain access to the lab, complete all required steps for access and use, and conduct research safely.

The ILAS Director is responsible for ensuring that all new protocols and chemicals are approved and registered appropriately. Individual laboratory users and PIs are responsible for supplying necessary protocols and permits (see attached approval form), and purchasing chemicals and disposable supplies. Brown University key documents include: The Chemical Hygiene Plan (CHP) and Statement of Protocols (SOP) (annual review); the Chemical Environmental Management System (CEMS) (new chemicals); and the Biological Research Authorization form (BRA) (new every three years + annual review). Other approvals may include the USDA, for import of biological specimens and soils, and relevant export agencies in foreign countries (for foreign materials).

### **Who uses the ILAS?**

The ILAS is shared between the Joukowsky Institute for Archaeology and the Ancient World (JIAAW) and the Department of Anthropology (ANTHRO). Most users are faculty and graduate students. Other affiliated researchers include undergraduate students (rare), scholars from affiliated departments on campus and other nearby universities, and international scholars from various fields who conduct archaeological research. For a current list of users and active research projects, check the ILAS website.

### **How can new users gain access?**

There are several stages to this process:

- 1) Potential users of the ILAS must gain access through a short application (see ILAS website) that details the purpose, procedures, and duration of research to be carried out. Most faculty, post-doctoral, and graduate student researchers in ANTHRO or JIAAW should expect to gain access to the ILAS, barring exceptional circumstances, extraneous intended use, lack of space, or safety issues. Undergraduate students and unaffiliated researchers require sponsorship by an approved laboratory member, who will take responsibility for protocols and supervise the research.
- 2) Upon approval, the new laboratory user must submit their set of protocols (if not already in-use in the ILAS) for approval by EHS. The ILAS Director is responsible for submitting a revised Biological Research Authorization (BRA) form to the Institutional Biosafety Committee (IBC), that includes new protocols and new lab users.
- 3) After access is granted, the ILAS Director will walk new users through the laboratory, to allocate space and set up scheduling for equipment use.
- 4) All new users will need to be set up in the Brown system, and have a Brown ID card for access to the laboratory. If a new user has no Brown ID card, the process should be undertaken by the researcher with the sponsoring faculty/campus unit.

<https://card.brown.edu/your-brown-card>

- 5) With a working Brown ID, physical access is requested through campus Access Control, by the ILAS Director (who is listed as a Building Access Control Authorized Contact). Entrance to the ILAS wet lab is through a Brown ID card swipe at the MRL 407 door. New users can also request perimeter access to the MRL building for nights and weekends.
- 6) All new users must complete laboratory safety training to carry out research in the ILAS.

### **How do new users complete mandatory lab safety training?**

There are three mandatory in-person training sessions required for researchers at Brown to work in wet labs: Laboratory Safety Training, Hazardous Waste Training, and Biological Safety and Bloodborne Pathogens (BBP) Training. Environmental Health and Safety (EHS) usually offers combined shortened safety training sessions for the incoming researchers at the beginning of each term. Otherwise, users can complete the training modules individually, over the course of the year.

Researchers need to pre-register for training sessions in TrainCaster, by following the link below or by emailing [safetytraining@brown.edu](mailto:safetytraining@brown.edu), noting the laboratory (ILAS), the name of the ILAS Director (listed as the PI), and the researcher's Brown username.

<https://brown.traincaster.com/>

The ILAS Direct (an EHS Program Coordinator) will provide the [Department TrainCaster/Training Managers](#) with a list of researchers' names and emails. TrainCaster Managers must add the incoming researchers to TrainCaster and notify [safetytraining@brown.edu](mailto:safetytraining@brown.edu) of these additions.

### **Which resources and equipment are available for lab users?**

The laboratory facilities include the immobile fume hood, sinks, workbenches, storage areas, cabinets, shelves, safety equipment, and electrical outlets. Additional furniture includes laboratory stools and mobile equipment including a muffle furnace, MARS 6 microwave digestion system, centrifuges, and microscopes. Some supplies (such as glassware) are available to all laboratory users, but individual users will need to purchase their own disposable supplies (such as pipets). Distilled water is available through all taps in the laboratory.

The allocation of new workspace may necessitate the re-allocation of workspace to existing laboratory users. The allocation of all workspace is not permanent or absolute, and in cases of high user workflow, specific scheduling arrangements may need to be made to ensure all laboratory users have equitable opportunities for research (e.g., use of workspace by one party in the morning, use of same workspace by another party in the afternoon). Maintaining workspaces is the shared responsibility of all laboratory users. At the discretion of the ILAS Director, laboratory users may be asked to clean workspaces or revise protocols for safety reasons. Privileges to use the laboratory may be revoked for failure to comply with safety protocols.

The ILAS Director is responsible for situating new equipment in the laboratory, and ensuring equipment is generally safe for use. Individual researchers are personally responsible for following all protocols related to everyday use and safety of equipment, including maintenance.

## **How do I get new chemicals, materials, and supplies?**

Unfortunately, the MRL building has no front office to receive any materials. Researchers should have materials shipped to their home unit (usually Anthro or JIAAW) and physically transport them to the MRL space. Unless hazardous or a chemical (see below), most supplies can be easily ordered online, or purchased elsewhere and brought to the ILAS.

For chemical purchasing, Fisher Scientific is the recommended supplier, and the Brown Buys system (in Workday) is the best way to purchase them. All chemicals (e.g., acetone, hydrogen peroxide, etc.)-- even the seemingly most benign (e.g., bleach, baking soda, etc.)—need to be registered with CEMS. CEMS is the place to 1) register new chemical purchases for the lab in the CEMS system, 2) look up SDS sheets for chemicals, and 3) request hazardous chemical waste removal.

<https://cems.unh.edu/brown/CEMS/Dashboard>

There's a very short form to fill out, and access is usually granted within 24 hours. Once in the system, the ILAS Director can add new users as a "colleague" for the ILAS.

When the chemicals arrive, lab users will need to scan the QR code on each bottle/unit, and add it to the online list of chemicals registered for the MRL 407. Chemical Environmental Management System (CEMS) is a software tool used by the University to track and maintain chemical containers found in research buildings on campus. When a chemical is received at a campus stockroom, a barcode is added to the container, the chemical information is entered into the CEMS system, and the location and owner of the chemical are recorded. See: <https://www.brown.edu/health-safety/topics/laboratory-safety/chemical-storage-compatibility-and-transfer>

Once chemicals are inventoried in the ILAS, they will be stored according to Safety Data Sheet (SDS) protocols. All new chemicals or chemical procedures must be submitted for approval within the laboratory Chemical Hygiene Plan. All new chemicals in the laboratory must be marked in permanent marker with the name of the research PI, and the date of purchase (e.g., Morell-Hart 2024). Flammable chemicals (e.g., acetone) generally go in the marked compartment under the fume hood. Acids, bases, etc. generally go into the blue chemical storage cabinet.

## **What protocols are needed for storing, using, and disposing of chemicals?**

Laboratory users will be working with a number of different kinds of chemicals, involving different processing methods, storage needs, and disposal protocols. Outlined below is a general framework regarding storage and waste. EHS manages the disposal of hazardous waste generated in all University-owned buildings. EHS has developed extensive guidance and training on the proper management of hazardous waste from the point of generation to ultimate disposal off-site.

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Compliance with OSHA requirements is detailed in the Chemical Hygiene Plan & Laboratory Safety Manual (CHP). A copy of the CHP is sent to each Laboratory Supervisor responsible for a research or teaching laboratory in which hazardous chemicals are handled. The laboratory Chemical Hygiene Plan

consists of a cover page and Standard Operating Procedures (SOP) section, reviewed and updated annually. Unwanted, unused, or expired chemicals will be removed from the laboratory and chemical storage areas will be maintained and inspected annually. Information on proper handling, storage and disposal of chemicals and access to related Safety Data Sheets (SDS) must be made available to all laboratory employees prior to the use of the chemical.

**Chemical processing.** Fume hoods are the primary engineering controls used to control inhalation exposures to hazardous substances in University research buildings, and to prevent splashes of chemicals onto clothing and skin and into eyes. The purpose of a chemical exhaust hood is to prevent or minimize the escape of airborne contaminants from the hood to the laboratory air. All protocols involving the fume hood must be strictly followed by ILAS users.

**Biohazardous waste.** Biological waste is any material that contains or has been contaminated by a biohazardous agent. Biological waste includes, but is not limited to: Petri dishes, surgical wraps, culture tubes, syringes, needles, blood vials, absorbent material, personal protective equipment, and pipette tips. These items must be disposed of properly. EHS provides a service to pick up and dispose of biological waste. Biohazardous waste pick-up requests can be made by submitting the biohazard waste pick-up request form. See: <https://www.brown.edu/health-safety/topics/biological-safety/biohazardous-waste>

### **How do I bring materials and specimens to the ILAS?**

Laboratory users will be working with a number of different kinds of materials, involving different permits, methods, and storage needs. Outlined below is a general framework regarding permits, shipping, storage and tracking, and protocols.

**Permits and shipping.** Shipments of certain biological materials are regulated domestically by the Department of Transportation (DOT) as well as the Federal Aviation Administration (FAA), and the International Air Transportation Association (IATA), if sent internationally. Carrying biological materials on one's person onto an aircraft is prohibited. All biological materials must be properly packaged and checked as luggage or transported via a courier. Federal or state permits (such as USDA certification for plant materials and soils) are required for some biological materials. Permits are issued in the name of the PI who is required to keep them updated and current as necessary; the Biosafety Office does not hold any "centralized" permits. Receipt of new specimens and samples must be approved (through copies of documentation and relevant permits) by the ILAS Director, and potentially the EHS. See <https://www.brown.edu/health-safety/topics/biological-safety/biological-materials-shipping>

**Specimen storage and tracking.** Space for storing specimens in MRL 407 will be allocated by the ILAS Director, pending availability. Some laboratory users may have to store the bulk of their specimens or samples elsewhere on campus, until ready for processing. All laboratory users are responsible for maintaining a record of their specimens in a centralized location of the ILAS. Different specimens and samples may have specific required protocols for storage and tracking. It is the responsibility of individual laboratory users to follow all applicable laws and university policies.

**Specific protocols related to specimens.** All laboratory users must follow the specific protocols outlined in the approved BRA, for storage, handling, and/or processing of their research specimens and samples (e.g., animal teeth, sediment samples, flotation samples). New protocols must be submitted to the ILAS Director to undergo the BRA process and secure approvals.

### **Who is responsible for what?**

The Biological Research Authorization form (BRA) must be submitted to the Institutional Biosafety Committee (IBC). Brown University's (IBC) is responsible for regulating the use of biohazardous agents to ensure compliance with appropriate regulations and guidelines and to safeguard the health and safety of Brown University personnel and the community. BRA protocol approval is valid for three years AND must be updated annually using the BRA – Annual Update, Amendment & Termination Form. At the end of three years, a new Biological Research Authorization (BRA) must be submitted to renew an approval.

The laboratory Chemical Hygiene Plan (CHP) consists of a cover page and Standard Operating Procedures (SOP) section. This section must be reviewed and updated annually. Annually, the cover page and SOP section need to be reviewed for updates. If there are no changes in the Laboratory SOP section, then the cover page is the only form that needs to be updated and sent to the Chemical Hygiene Officer for completion. The SOP section needs to be sent in for review only if you have made changes to it. See: <https://www.brown.edu/health-safety/topics/laboratory-safety/chemical-hygiene-and-laboratory-safety-manual>

New chemicals must be ordered through approved stockrooms, by approved laboratory users. The Chemical Environmental Management System (CEMS) is the inventory system that must be used with new chemicals. <https://cems.unh.edu/brown/CEMS/Dashboard>

The ILAS Director must maintain an accurate chemical inventory by removing the chemical container from CEMS when it is empty or disposed of as waste. To do this, remove the barcode from the container and place it on the barcode collection sheet found in the lab. Either log into the CEMS website and mark the container empty, or send the barcode collection sheets to EHS Box 1914 or email [labsafety@brown.edu](mailto:labsafety@brown.edu) for removal. Containers that are collected as hazardous waste are removed from the system by our waste collection contractor. Laboratory Supervisors and others who manage chemical inventories can receive systems training by contacting EHS at [labsafety@brown.edu](mailto:labsafety@brown.edu)

The ILAS Director is responsible for filling out the accident/injury/exposure report form, in case of incident: <https://drive.google.com/file/d/1w86d8Fn0C8klqHHYeezHgl-KD-nk2weZ/view>

Individual users are responsible for cleaning and laundering lab coats. Do not launder laboratory coats at a regular laundry business or at home as this could spread contamination. Laboratory coats that have been contaminated with hazardous materials shall be disposed of and replaced, professionally laundered by an approved vendor, or cleaned using a departmental washer and dryer. If you are working with substances of high acute or chronic toxicity and wearing washable laboratory coat, evaluate the potential for exposing non-laboratory personnel when laundering and wear disposable laboratory coats if others may be placed at risk during the laundering process. The frequency of cleaning will be dependent on the amount of use and contamination. Contact the Purchasing Services Department at 401-863-2206 for a list of approved laundering vendors. For more information see: [https://drive.google.com/file/d/13Ybam8lKkQ5\\_TOlpVj6Z5FG2KuOkHSe-/view](https://drive.google.com/file/d/13Ybam8lKkQ5_TOlpVj6Z5FG2KuOkHSe-/view)

**Integrated Laboratory for Archaeological Sciences (ILAS)  
Medical Research Laboratories (MRL) Room 407, 89 Waterman St.  
New Lab User Request Form**

**Name(s) of new user(s):** \_\_\_\_\_

**Sponsoring PI (if applicable):** \_\_\_\_\_

**JIAAW or ANTHRO or NEITHER:** \_\_\_\_\_

**General objective of research in ILAS space (1-2 sentences):**

**Type of specimens or samples to undergo analysis:**

**Equipment to be used (1 summary sentence):**

**Methods to be followed (1 summary sentence; indicate if new protocol for ILAS or already existing):**

**Chemicals to be used (short list):**

**Space needs (rough estimate):**

**Storage needs (rough estimate):**

**Applicable research and/or import permits (indicate if in-hand or in-process):**

**Anticipated duration of research (in months):**

***\*Upon approval, new lab users may be required to: 1) undergo laboratory training, 2) submit relevant chemical and protocol documentation, and/or 3) provide proof of applicable permits***

**Key Contacts:**

ILAS Director (2023-2024): Shanti Morell-Hart [shanti\\_morell-hart@brown.edu](mailto:shanti_morell-hart@brown.edu)

Department of Anthropology Chair (2023-2024): Paja Faudree [paja\\_faudree@brown.edu](mailto:paja_faudree@brown.edu)

Joukowsky Institute Director (2023-2024): Andrew Scherer [andrew\\_scherer@brown.edu](mailto:andrew_scherer@brown.edu)

Brown Facilities Management: <https://www.brown.edu/facilities/services>

Facility Emergency: (401) 863-7800

Service Request: (401) 863-7800

Environmental Health and Safety:

Biological Safety: [biosafety@brown.edu](mailto:biosafety@brown.edu)

Biosafety Officer: (401) 863-3181

Laboratory Safety Specialist: (401) 863-3783

Occupational Health & Safety Officer: (401) 863-1522

Website: <https://sites.brown.edu/ilas/>