

# What Every New ICCB-Longwood Screener Should Know

## 1. SCREENING ROOM STAFF:

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The best way to contact the screening room staff for questions is via email (iccb\_screen@hms.harvard.edu). This address will send your email to each staff member. You can also contact the staff by phone at 617-432-5815.

## 2. OTHER SCREENING FACILITY STAFF:

Caroline Shamu	Director ( <a href="mailto:caroline_shamu@hms.harvard.edu">caroline_shamu@hms.harvard.edu</a> )
Jennifer Smith	Deputy Director ( <a href="mailto:jennifer_smith@hms.harvard.edu">jennifer_smith@hms.harvard.edu</a> )
Katrina Rudnicki	Coordinator of Operations ( <a href="mailto:katrina_rudnicki@hms.harvard.edu">katrina_rudnicki@hms.harvard.edu</a> )
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Jennifer Nale	Data Curator ( <a href="mailto:jennifer_nale@hms.harvard.edu">jennifer_nale@hms.harvard.edu</a> )
Sean Erickson	Screensaver Developer ( <a href="mailto:sean_erickson@hms.harvard.edu">sean_erickson@hms.harvard.edu</a> )

## 3. GENERAL INFORMATION

Our website, <http://iccb.med.harvard.edu/>, has a lot of information and can answer many of your questions. Please initially refer to our website for your queries. Recommended pages to view are the General Workflow for [Small Molecule](#) and [RNAi](#) Screening, as well as the [FAQ](#) section. We are continually updating our website; please let us know if you have suggestions.

## 4. YOUR SCREEN IS YOUR RESPONSIBILITY

The screening model at ICCB-L is investigator-initiated, staff-assisted. ICCB-L staff advise screeners at all stages of the screening process: instrument training; assay development and automation; data analysis; and secondary screen and follow-up strategies. They also perform all compound transfer and siRNA/miRNA aliquoting steps, and run complex automation for screens as required. ALL other steps of a screen (including reagent preparation, cell and reagent plating, and assay readout) are the responsibility of the investigator.

## 5. PRIOR TO YOUR INITIAL VISIT

Submit your application form for [Small Molecule](#) or [RNAi](#) screening. You will then be contacted by Jennifer Smith to review your screen application, discuss your goals and logistics in detail, and the overall screening process at ICCB-L. You must complete all relevant biosafety training at your current institution prior to initiating work at ICCB-L. If you are not a Harvard affiliate, your institutional biosafety officer must sign the screening facility user agreement to confirm you have completed all relevant laboratory training.

To initiate the process of instrument training and access to ICCB-L, you must complete the online [Equipment Training Request Form](#). After submission, you will receive an email of approval or questions for which additional information is required. Once approved, please follow the instructions in the email to schedule your training.

## 6. FEE FOR USE OF ICCB-L RESOURCES

A fee is charged for access to screening at ICCB-Longwood; more information about the screening fee structure is available on the ICCB-L website application pages for [Small Molecule](#) or [RNAi](#) Screening. In addition, there are fees associated with the use of some instruments and for custom lab automation projects. More information on these fees is available on the [Fee Summary](#) page.

You will be asked to provide a billing code or PO for fees and consumables at one of your first visits to the screening facility. Please contact Katrina Rudnicki if you have questions regarding the billing form or fees for screens, lab automation projects, trainings and instrument use.

## 7. BIOSAFETY

ICCB-L is a BSL-2 lab space, and all users must observe BSL-2 lab practice. In brief:

- a. No food items (including food waste and food packaging) are permitted in the lab.
- b. Biohazardous waste must be properly disinfected or inactivated prior to disposal in appropriate containers. If you have questions about waste disposal, please consult the screening facility staff.
- c. Glove Policy: No gloves are to be worn when entering and exiting the screening rooms (e.g., door handles, elevator buttons). While working in the screening facility, gloves are to be worn when using keyboards, computers and other common work surfaces.
- d. Appropriate protective clothing should be worn at all times.

During your equipment training visit, you will be required to complete a brief ICCB-L Screening Facility Lab Specific Training session. The screening room staff member who is training you on equipment will most likely walk you through this screening room-specific training.

## 8. MEETING WITH DATA TEAM

Prior to screening ICCB-L library plates, you must meet with David Wrobel and/or Jennifer Nale to discuss how data will be handled throughout the screen. Included topics are analysis and submission of data, raw data visualization tools and Screensaver, ICCB-L's internal database. This meeting is typically scheduled once an assay has been optimized and an automated Z' factor experiment performed.

## 9. SCHEDULING TIME ON INSTRUMENTS

[Instruments sign-ups](#) are available online through [PPMS](#). You must have an eCommons ID to access the instrument sign-ups. If you are from a non-Harvard Medical School affiliated hospital or institution, you may request an eCommons account by emailing Katrina Rudnicki. You must be trained by an ICCB-L staff member on an instrument before access will be granted to schedule time. Please visit the ICCB-L website for further details about how PPMS works and [equipment scheduling at ICCB-L](#).

## 10. TRANSFER SCHEDULING

Chemical and siRNA/miRNA transfer requests can be made through the online [chemical transfer request](#) form or [siRNA transfer request](#) form. Please do not send transfer requests to individual staff members.

Your library plate NUMBERS for siRNA/miRNA and chemical transfer must be submitted with the transfer request. There are no exceptions.

Please do not request to rescreen any library plates without first consulting with Jennifer Smith.

If you have questions about selecting compound library plates to screen, please consult Jennifer Smith. An up-to-date list of [available libraries and our recommendations](#) for prioritizing them in your screen is available online.

## 11. ASSAY PLATES

Assay plates prepared for chemical pin transfer should be labeled with the library plate number from which compound will be transferred, the plate replicate (specified with a letter), screen number and date of transfer. For easiest handling, it is preferable that the label is on the short side opposite the letters. All lids should be removed, and plates should be stacked in an order agreed upon with a staff member before chemical pin transfer.

Assay plates prepared for siRNA and/or miRNA transfer should be labeled with the library plate number from which the siRNAs/miRNAs will be transferred, the plate replicate (specified with a letter), screen number and the date of transfer. It is preferable that the label is on the long side of the plate, opposite the numbers.

## 12. BE READY

Your plates must be ready for transfer at your appointment time. Your appointment indicates when the transfer will start. Make sure all plate filling, labeling, centrifugation etc. has been completed by that time. If you are late for a scheduled appointment and the appointment cannot be accommodated in the remaining appointment time, it might be necessary to cancel the appointment.

## 13. RESPECT THE SCREENING ROOM

The screening room is a facility shared by many people and we request that you be respectful to all researchers using the lab. Please clean up after yourself and leave the instruments ready for the next person to use. Empty your vacuum trap after each use. If a biohazard box or waste container is full, do not continue to use it. Instead, find another appropriate waste container to use and notify a staff member.

## 14. EXPERIMENTAL PROTOCOLS

Written protocols are required for each screen. A preliminary protocol is essential to help ICCB-L assist you in planning your screen, and the established screening protocol is necessary to understand the context of submitted data. The protocol can be simple, but should include specifics such as volumes added; timing of each step; instruments used for liquid handling, transfer and assay read out; and the composition of any reagents. Please also include a description of what is considered a positive in the assay. Preliminary protocols should be submitted as a word or text file via email to [iccb\\_screen@hms.harvard.edu](mailto:iccb_screen@hms.harvard.edu) and established protocols should be returned with the primary screen report (see below).

## 15. PRIMARY SCREEN REPORT

This report serves as documentation for your deposited screening data. Both the primary screen report and analyzed primary screen data should be returned to David Wrobel within 1 month of completing your primary screen. These documents must be submitted prior to requesting a cherry pick request.

## 16. CHERRY PICK REQUESTS

Cherry pick requests must be sent to David Wrobel, in the correct format, after the analyzed data and primary screen reports have been submitted. This request will be forwarded to the screening staff, who will create your cherry pick plate within two weeks of receiving your request. For small molecule screens, a cherry pick of up to 0.3% of the total number of compounds screened is included in the screening fee. One microliter of each compound requested will be provided. For full-genome siRNA screens, a cherry pick of 1200 individual duplexes (representing 300 genes) is included in the screening fee. The same volume of siRNA reagent that was used for the primary screen is provided for the cherry pick. You will be notified by email when your cherry pick is ready.