

The ABC's of the
Ragon Institute Flow Cytometry Core Facility
600 Main Street, Cambridge, MA

Access/Biosafety/Calendars

Last updated 03/19/2026

Welcome to the Imaging Core of the Ragon Institute of MGH, MIT and Harvard! We provide access to and training on state-of-the-art flow cytometry and microscopy equipment for labs at Massachusetts General Hospital and other researchers in the Boston/Cambridge area. We are also affiliated with the Harvard Center for AIDS Research (CFAR).

Personnel/Contact information:

Flow Cytometry: <https://ragoninstitute.org/research-service/flow-cytometry-core/>

Michael Waring, Director (mwaring@mg.harvard.edu)

Nathalie Bonheur, Research Technologist: nbohneur@mg.harvard.edu

Kat Folz-Donahue, Research Technologist; kfolz-donahue@mg.harvard.edu

Microscopy: <https://ragoninstitute.org/research-service/microscopy-core/>

Director:

Web Presence and Resources for Flow Cytometry

We are a part of the:

CFAR Advanced Technologies core

<https://cfar.globalhealth.harvard.edu/core-services-overview/advanced-technologies-core/>

iEagle Harvard pages (under “Flow Cytometry” and “Cellular Imaging and Microscopy”)

<https://crrc.catalyst.harvard.edu/>

We have an account with Fluorofinder panel design tool, <https://app.fluorofinder.com>

--The New England Cytometry Users Group holds an annual fall meeting for local flow cytometry enthusiasts. <http://newenglandcytometry.com>

--Purdue University hosts a cytometry message board, with searchable archives at

<https://lists.purdue.edu/scripts/wa.exe?A0=CYTOMETRY>

--ISAC (International Society for Advancement of Cytometry) has a social networking page on their site. You need an account. [Isac-net.org](http://isac-net.org)

--Discord has a flow cytometry server, email mwaring@mg.harvard.edu for an invitation link.

Overview (Flow Cytometry):

The flow cytometry facility offers a variety of services to MGH and the surrounding community. Below please find a brief outline of these services and where you can find more information. For all core usage, it is helpful for us to have a description of the experiment(s) you are interested in running, as well as describing any previous flow cytometry experience you may have (and what software/platforms).

Instrumentation: Our instruments are listed on our homepage

<https://ragoninstitute.org/research-service/flow-cytometry-core/>

The needs of your experiment will determine which instrument is appropriate for you to use.

Use of our analysis instruments requires attending a flow cytometry seminar class described below (“Just the FACS”), as well as an instrument orientation with core personnel.

If you are interested in sorting, the core sorters are primarily run by core personnel, but training is available for Ragon members with frequent sorting needs.

Due to administrative costs of external funding, academic users that do not have an MGB fund number (GR#####) will need to pay a higher rate, unless you are CFAR or Ragon affiliated, in which case the IDC is waived—let us know if you are CFAR! For-Profit industry accounts have a separate rate that is charged for usage. Rates are listed on our webpages linked above!

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I. Access

As the Ragon Institute develops new collaborations and works outside of our parent institution (MGH), it becomes necessary to make sure all collaborators follow the proper safety procedures. For this reason, all **non-MGH** researchers will be required to acquire an “Extended Worker” MGH ID badge and fulfill the requisite training and procedures to become eligible to perform work in MGH facilities and receive a badge for independent access. This includes health screening, CITI training (for working with patient samples, required for all hospital badgeholders), a CORI check, verification of work/visa status, Fire/Safety Training for our facility, and Shipping training to ensure proper sample handling during transport.

ALL Core users (including non-Ragon MGB researchers) must complete portions of our new hire lab orientation checklist. Outside users will also have an orientation checklist that needs to be completed, which covers general work practices at MGB and our specific policies (dress code, sample transport) at Ragon.

**We periodically audit our access list, and users that have not visited in over a year will be inactivated. You can call from the lobby to be escorted up if that happens

Access: How to Register:

Ragon members: Email ragoncytometry@mgh.harvard.edu with the instruments you wish to use, what your experiment is, and any previous flow experience you have. You'll be added to the core distribution list for class announcements and core info. You can also register for the RCMS system following the directions found on our website.

Project description (potential hazardous samples)

Potential risk to operator from exposure, NIH requirements

A description of the biological agents in your project must be approved. A brief description of the biological materials used (host species, any pathogens), as well as any genetic manipulations performed on the samples, must be provided on the “Outside Sorting Registration Form”.

In addition, all holders of MGB badges, including “extended workers”, are required to complete annual refresher training through Healthstream. Annual training is a hospital requirement in accordance with The Joint Commission for all MGB employees and badge holders.

Access: External users

The Ragon Institute is also interested in providing services and expertise to researchers outside of our established affiliations. To do so, we must have approval in our MGB IBC (MassGeneral Brigham Institutional Biosafety Committee) protocol to work with the materials involved in your project. If the samples will be run by core personnel, then we only need to verify that the samples are covered. No further registration is required; however you will need to be escorted into the lab and must call the core to let us know you are here.

Access:

Outside users who wish to have access and/or run their own samples will be required to apply for a non-employee MGB ID badge to provide access to the appropriate floors. Since you will have

access to MGH property and will be performing research/experiments, we must make sure that you have appropriate credentials. See “How to Register” in section I. above.

Billing:

You will need to provide a billing contact for your company/group, and core fees can be paid by credit card, check or PO.

External users will be processed as a new hire to MGH, and will need to undergo:

1. Health screening, including completion of an Occ Health screening form
(medications, allergies, immunization history)
2. Online CAP training (20 minutes)
3. Visit the MGH Main Campus for your badge.
4. HIPAA Healthstream training.
5. Orientation for our building

Access: Transportation: there is a shuttle bus from MGH Main Campus that departs from the Jackson building on the hour and half hour. Its a Partners van and says MIT on the route sign and stops right outside of our building.

Sample transport in personal vehicles is discouraged, and on public transportation is not permitted.

We are a short walk from the Kendall T stop

II. Biosafety

- Dress Code: It is important to remember that the core lab is regular lab space and the same PPE rules apply as for the rest of the Ragon lab space—clothing should protect/cover your legs and **no open toe shoes are permitted**. In addition, lab coats should be worn, safety glasses are available but optional—researchers will need to manipulate liquids that are under pressure and spring-loaded fittings that are subject to breaking, posing a potential hazard. Ragon researchers should bring their lab coat from their usual bench area; visiting researchers can find lab coats in the hallway outside of the core.
- Sample transport: New regulations can now hold recipients of packages responsible if samples are not shipped or transported safely to the site. Travel to and from our facilities requires that samples are packaged properly. Individual tubes should be tightly capped (no filter caps!), and transported in sealed containers, such that if dropped they will not leak/spill. Package them as if you were planning to ship them—sealable Styrofoam containers (no ice buckets), carry in a bag or tote.
Internally, each group has locking plastic boxes for travel between lab space and floors. For researchers travelling from off-site, the use of SaftPak shipping boxes to transport samples is an option. Their website can be found at www.saftpak.com, and there is a short training module on the website.
- When travelling to the lab floors with samples please use the freight elevator, never the passenger elevators, or use of the stairways adjacent to the lab space is also permitted.
- Samples should **ONLY** be carried through lab space. Coats and personal items can be left in the core lab, and should **NOT** be brought into the BL2 space (cell sorter rooms or TC rooms).
- MGB IBC review: all unfixed samples to be handled within the core facility must have approval of the MGB Institutional Biosafety Committee. An IBC protocol number must be provided, or hazardous samples from external labs will need to be added to the core's protocol.
- **ALL** work with pathogens or biologicals must be amended to the Core IBC protocol. Please contact core administrators to complete this process. (This includes internal Ragon samples.)

To transport samples from main campus, you will be required to fill out a Bill of Lading, which you can get from security or ask your lab manager.

III. Calendars/Website

Calendars: The Ragon Institute Imaging core uses a web-based interface for reserving instruments and tracking users and grants for billing, which is part of the Research Cores Management System and accessed at <https://researchcores.partners.org> . Signup instructions are in a separate document available on our home page.

<https://ragoninstitute.org/research-service/flow-cytometry-core/>

If you are not an MGH employee, you may need to get a non-employee MGH ID badge for access to operate core instrumentation. Please email mwaring@mg.harvard.edu with your full legal name and your email address, and I will submit a request to HR.

IV. Sorting

All sorting is performed by core operators, please refer to the “Sorting Guidelines” document available on our home page.

Outside users

The Ragon Institute is also interested in providing services and expertise to researchers outside of our established affiliations. To do so, we must have approval in our MGB IBC (MassGeneral Brigham Institutional Biosafety Committee) protocol to work with the materials involved in your project. If the samples will be run by core personnel, then we only need to verify that the samples are covered. No further registration is required, however you will need to be escorted into the lab and must call the core to let us know you are here.

Access:

Outside users who wish to have access and/or run their own samples will be required to apply for a non-employee MGH ID badge to provide access to the appropriate floors. Since you will have access to MGH property and will be performing research/experiments, we must make sure that you have appropriate credentials.

The following information needs to be sent to mwaring@mg.harvard.edu:

Applicants will be processed as a new hire to MGH, and will need to undergo:

1. Health screening, including completion of a Occ Health screening form (medications, allergies, immunization history)
2. Online CAP training (20 minutes)
3. Visit the MGH Main Campus for your badge.
4. HIPAA Healthstream training.
5. Orientation for our building

We also need to be provided with:

Project description and instruments requested

Potential risk to operator from exposure, NIH requirements

A description of the biological agents in your project must be approved. A brief description of the biological materials used (host species, any pathogens), as well as any genetic manipulations performed on the samples, must be provided on the “Outside Sorting Registration Form”.

All interactions with industry are overseen by the Innovation division:

<http://rvl.partners.org/about-innovation>

V. Training

Usage of the flow cytometers requires attending the “Just the FACS” introductory informational seminar, an “Instrument Orientation” session, and demonstrating proficiency in using the instruments before independent or after-hours work will be permitted.

There are many online tutorials on flow that may be useful and are recommended before attending the class. I would recommend that you review the ThermoFisher tutorials linked below, then time permitting the unit on compensation from Mario Roederer. The BD Biosciences tutorials cover more material and are worth viewing if time permits.

They can be found linked from:

<http://newenglandcytometry.com/cytometry-training/>

Our training syllabus consists of:

1. “Just the FACS”: 90-minute lecture, offered every 6-8 weeks depending on demand, and is held in the first-floor seminar room at 600 Main Street, Cambridge MA. Refer to the core rates table for cost.

--This session covers the basics of flow cytometry, as well as some common pitfalls and issues, and is useful even for the experienced flow cytometrist. Register by emailing mwaring@partners.org,

--Any colleagues that wish to attend are welcome to join us, seating is plentiful. ALL attendees should send an email to me with their funding information (grant number and PI for internal Partners users, or a billing contact for external users).

2. Instrument Orientation: demonstration of the setup and operation of the instruments and software. User must attend one session for each different platform/software package.

3. Proficiency- user must demonstrate competency in setting up and operating the instruments before they may run independently

4. HTS: the instruments that use the Diva software are equipped with a plate loader (High Throughput Sampler) for running samples from a plate, which requires a separate training session to learn.