

Research Histology and Tissue Imaging Core Policies

General

1. Please make sure to fill in **ALL** fields of the intake form and to add any additional information that you think might be important for the Core staff to know while working on your project. RHTIC staff is not responsible for something that was not specified on the form. Each order is a new request and we will not refer to the previous orders for the details on how to process your samples and specific services requested. Please come prepared with detailed instructions each time you submit your samples.
2. **Any project that is not considered to be routine (including regular processing, embedding, sectioning, H&E, and such commonly used special stains as Trichrome, Oil Red O, PAS, Toluidine Blue, Alcian Blue, and Picrosirius Red) should be discussed directly with a staff member at the time of intake.** All projects that involve immunohistochemistry, with or without digital imaging, should first have an in-person consult with a designated staff member.
3. The Core staff **WILL NOT** accept any orders without a clearly written/typed list of samples. Please avoid using simple digits (1,2,3,...) as sample identification numbers.
4. After your project is completed and you get notified by the RHTIC staff, we expect that you pick up your blocks, slides, and antibodies within two weeks. At this point, the Core will send a second notice. If your samples are not picked up within two weeks following the second note, you'll be charged a monthly storage fee of \$30 per projects (FY2019). If you have not picked up your antibody within a year and you do not have an ongoing/recurrent project using this antibody, the antibody becomes RHTIC property. After 1 year, we will send the final notification, and if the slides and blocks are not collected, they will be discarded.

Histology Services

5. Unless you provide specific embedding instructions, the core staff will embed your samples using the plane that maximizes the area of tissue exposure. Please prepare a diagram for any samples requiring special embedding technique. Samples that have more than 2 pieces of tissue per cassette or delicate samples that require significantly more embedding time will be charged an additional complex embedding fee (FY2019T- \$0.5/cassette).
6. If you did not specify the structures or tissue levels you are interested in, the Core staff by default will provide fully faced (maximum exposed area) sections.
7. The majority of our users would like RHTIC staff to bake their FFPE slides. Hence, we bake all slides by default. If you **DON'T** want your slides baked, please specify it on the intake form.
8. All new protocols or protocol modifications - even if coming with a detailed description (including unusual embedding and sectioning, special stains, IHC, IF, dual, triple or multiplex staining) - will

need to be tested by RHTIC staff using our kits, reagent, and equipment prior to use on your actual samples. If there is no established optimization fee for the service, there will be a one-time charge applied for labor and reagents spent on testing or optimizing a new or modified protocol.

9. If your samples lack internal controls, RHTIC staff will run a positive and a negative control **with each batch** of IHC and/or special stain slides to make sure that the assays performed well and the results are meaningful. Even if a client doesn't need the controls for his/her publication, presentation, or grant submission, the Core has to run them. The cost of staining control slides will be charged to the client. Therefore, creating larger batches of samples will maximize cost-efficiency. The maximum number of slides the Core can run per batch is 24 slides for a special stain, 20 slides for TUNEL assay, and 30 slides for IHC/IF. These numbers represent the total number of slides stained per run including the necessary controls.
10. The quality and suitability of the antibody for a particular project is a key factor for the IHC/IF/multiplex staining. Please consult with the Core staff before purchasing an antibody for a new assay. The Core will charge the optimization fee for **each antibody submitted** rather than per target. If a client brings in a second or a third antibody for the same target after the initially submitted antibody did not work, the client will be charged a second or a third optimization fee. If a client works with rare species (i.e. primates, dogs, pigs), it might take several antibodies to find the one that works well on the tissue from his/her animal model.
11. Our current IHC/IF optimization fee is based on 10 slides used on average to optimize a single antibody for research projects. If you have a rare target, submit an expired antibody or an antibody that the Core staff has notified you about possible complications, the Core staff may have to spend a lot more time and reagents on assay optimization, and we will have to charge a per slide service fee for additional slides used to obtain satisfactory staining. The Core will notify you about additional charges before proceeding with the additional optimization slides. **We will do our best to estimate the amount work required for optimization and will provide all optimization details upon request.**
12. The Core will re-embed, re-section, re-stain, and re-scan at no additional charge if an unsatisfactory result was due to the Core staff mistake or Core equipment failure. If the unsatisfactory result was a consequence of a client mistake (i.e. poor sample preparation, wrong antibody submitted, samples are not clearly labeled, wrong samples submitted, the level or embedding plane or section level was not specified on the intake form, etc) the client will be charged a full fee for repeating the services.

Imaging Services

13. By default, we will scan your slides at 20X magnification. If you would like your slides scanned at 40X, please specify it on the intake form.
14. Protected Health Information (clinical resection number, patient's name, ect) is **NOT allowed** on slide labels. If PHI is present on your slide label we will not scan it until you re-label the slide. It is

your responsibility to maintain the link between the re-labeled slides and the original label. Labels must be thin and perfectly flat for scanning.

15. It is the client's responsibility to collect all images and data on time. We will store your images and data files for 30 days from the day of the notification. After that time, all images will be deleted. If you are interested in longer storage or archiving your images and data, please contact RRC Scientific Computing Core.
16. Any projects that requires image analysis should be discussed with the Core staff prior to submitting the samples so that RHTIC staff has a full understanding of the project goals, metrics, and expected outputs and can provide a client with a time and cost estimate. It is possible that the Core histology lab or a client, if doing staining by him/herself, will need to go through several iterations of staining adjustment before a quality satisfactory for the image analysis is achieved.

Equipment Reservation

17. Each user who wants to use the core equipment needs to be trained by RHTIC staff even if the user has a previous experience. The training cost consists of tech time and instrument time spent on training. If the Core staff feels that a client needs an additional training to be able to comfortably and safely use the instrument independently, we will schedule an additional training.
18. If your samples require special cleaning of the instrument before or after you use the instrument or if you need to use special conditions (i.e. significantly lower temperature on the cryostat) please reserve additional time for cleaning or adjusting the conditions before and after your experiment.
19. It is the Principal Investigator's responsibility to ensure that his personnel receives Lab Safety and Bloodborne Pathogens training and is aware of the potential hazards and associated risks. It is user's responsibility to bring necessary Personal Protective Equipment (PPE=Gloves, goggles, lab coats, etc). If the user does not have proper PPE, he/she will not be allowed to use the instrument.
20. It is **required** that RHTIC staff is notified when a client is planning to section frozen human samples or virally/bacterially contaminated samples at the time of instrument reservation. For human frozen samples, the core will request the documents confirming that the tissue has been tested for major pathogens and is negative. **The following frozen samples CANNOT be sectioned on the Core equipment as they require a higher BSL level than available: (1) human brain; (2) samples contaminated with HIV, Hepatitis B or C; (3) samples positive for mycobacterial or systemic fungal disease; (4) samples contaminated with drug-resistant bacteria strains.** Samples contaminated with other known pathogens will need to be discussed with the Core staff and an individual biosafety level assessment will need to be requested from the UIC Biosafety Officer. To maintain a safe environment for all our users, the Core has the right to decline a request to use the Core equipment for sectioning frozen samples with high biosafety level. Please make sure to reserve extra cleaning time (to completely thaw the instrument and

perform all necessary cleaning) if you received the Core staff approval for sectioning of frozen human or contaminated frozen tissue.

- 21.** The users are expected to clean all paraffin and OCT waste after they are done using the instruments, to place sharps/hazardous waste in the appropriate containers provided by the Core staff, and to leave the instruments ready for the next person to start working immediately. The Core staff will provide proper disinfecting reagents and explain the cleaning steps during the training. If the Core staff has to do the cleaning, a client will receive a notification and will be charged \$75 cleaning fee. After 3 “cleaning” notifications, a client will lose the right to use the instrument.
- 22.** All reservation has to be cancelled 24 hours in advance. Full fee will be charged for cancellations given at a shorter time.