MUSCULOSKELETAL CENTER FOR IMAGING CORE FACILITY

User Information for MicroCT

1. INITIAL CONSULTATION & PRICING

Contact the Operations Manager, Stacey Russell, to discuss your study objectives and sample type(s). Users should identify the region of interest (ROI) for imaging and analysis. An estimate of the total cost will be given for your samples.

	Scanning	Analysis with Technician	Analysis without Technician	Training	Consultation/ bone prep/ post processing
UMMS Investigators	\$75/hour	\$40/hour	No Charge	\$40/hour	\$40/hour
Non-UMMS Investigators	\$100/hour	\$40/hour	N/A	N/A	\$40/hour

2. SAMPLE PREP & REQUEST FORM PACKETS

The samples should be prepared as outlined in the Procedures for Bone Prep document on the website. MicroCT jobs must have a <u>completed</u> Request Form and Inventory Sheet to accompany the samples. This includes the PI's signature and **speed type** # of the grant to be recharged for this work. If you are an off campus user, please include the payment method. [See Instructions for External Users.] If the Core is performing supplemental services, more detailed information must be provided to the Operations Manager, Stacey Russell.

3. SCANNING

All samples will be scanned at the $114\mu A$ intensity setting or lower. Intensities higher than $114\mu A$ are not used due to the shortening of the life of the x-ray source. Most samples are scanned dry overnight (long scans), unless otherwise requested by the researcher. Only approved safe liquids (distilled water, PBS, or 70% ETOH) may be used in scanning. After all of the samples have completed scanning and reconstruction, they are ready for analysis and imaging.

4. ANALYSIS & IMAGING

The Core can perform the analyses and imaging for you, but depending on the current workload volume, this may take up to several weeks, especially for large projects. For this reason, a separate workstation was purchased by the Core for individuals to quantitatively analyze their own samples using the Scanco software. Investigators may perform analyses once they have been trained. In addition, DICOM files maybe created for researchers who have other software on their own computers.

5. TRAINING

For on-campus investigators who prefer to do their own analysis using the Scanco software, they are required to take a minimum of 4 hours of training. Training times are scheduled directly with the Operations Manager, Stacey Russell.

6. IMAGES & DATA OUTPUT

When the Core analyzes samples, investigators will receive a set of images, Excel files of all the parameters with statistical calculations, a method for publication, and some discussion of the results in an email. Oncampus users will be granted access to the Core shared drive, so that they may read and copy files to their own computer. Off-campus users can obtain their raw image files using a Dropbox or other method.