



## About the Core

The Hope center surgery core is available to plan and carry out surgical procedures for small rodent experiments. In addition to standardized procedures shown, we custom-tailor invasive or non-invasive procedure to the needs of the individual investigators.

The overall objective of the Animal Models Core is to assist translation of scientific discoveries to rodent models and to facilitate development of new therapeutic strategies for nervous system diseases. The Animal Models Core can provide access to core equipment and facilities, and expertise for surgery or protocol development. In addition, specific surgical and genetic models of disease will be made available to the Washington University community to accelerate investigation in disease-related neuroscience.

## Who can use the Animal Surgery Core?

The facility is open to Hope Center investigators who complete appropriate training. Animal Studies Committee approval is required. Other WU investigators and outside investigators are also encouraged to utilize Hope Center resources. Facility and procedure costs can be charged to grants; please see the current price list for costs (website). Hope Center investigators are eligible for discounted use. Please contact the Hope if you have questions about access or payment for core services.

### Surgeries

Middle cerebral artery occlusion (MCAO)  
 Bilateral carotid artery occlusion (BCAO)  
 Neonatal hypoxia-ischemia (H-I)  
 Hypoxic pre-conditioning  
 Seizure models

### Drug / Virus Delivery

Stereotactic injection  
 (forebrain, brainstem, spinal cord, or retina)  
 Drug injection (intraperitoneal, retro-orbital, tail vein)  
 Osmotic pump implantation

### Microscopy / Monitoring

Cranial window prep for microscopy  
 Laminectomy prep for microscopy  
 BP/CBF/Temperature monitoring

### Fluid / Tissue Collection

CSF collection  
 Blood collection  
 Organ harvesting  
 Perfusion fixation

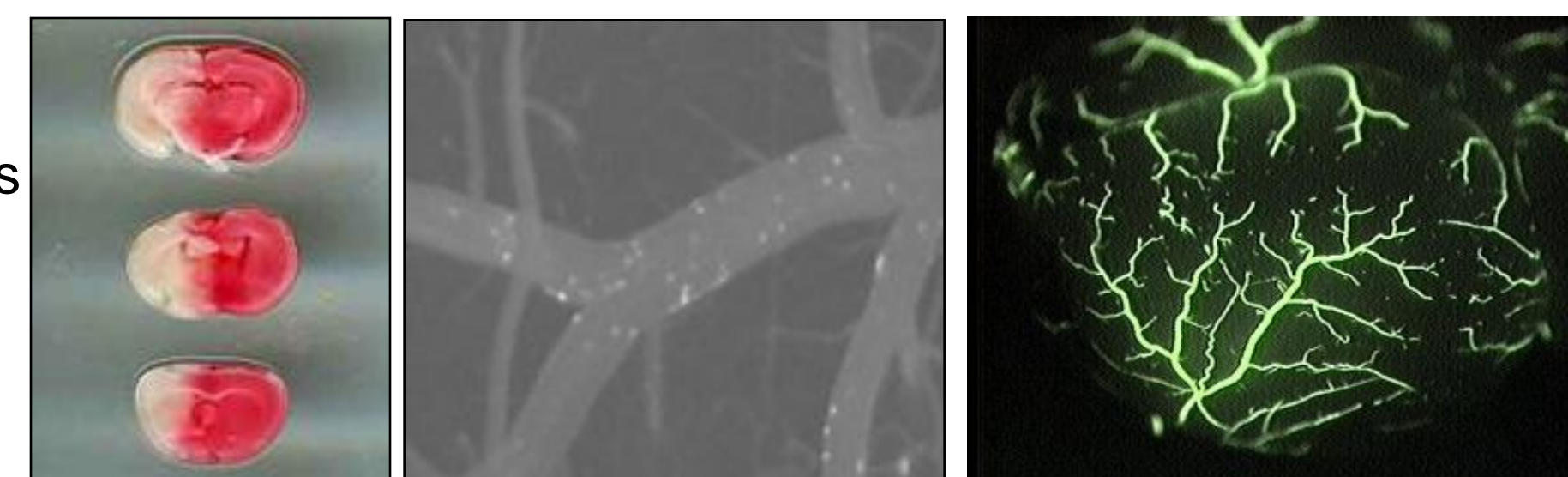
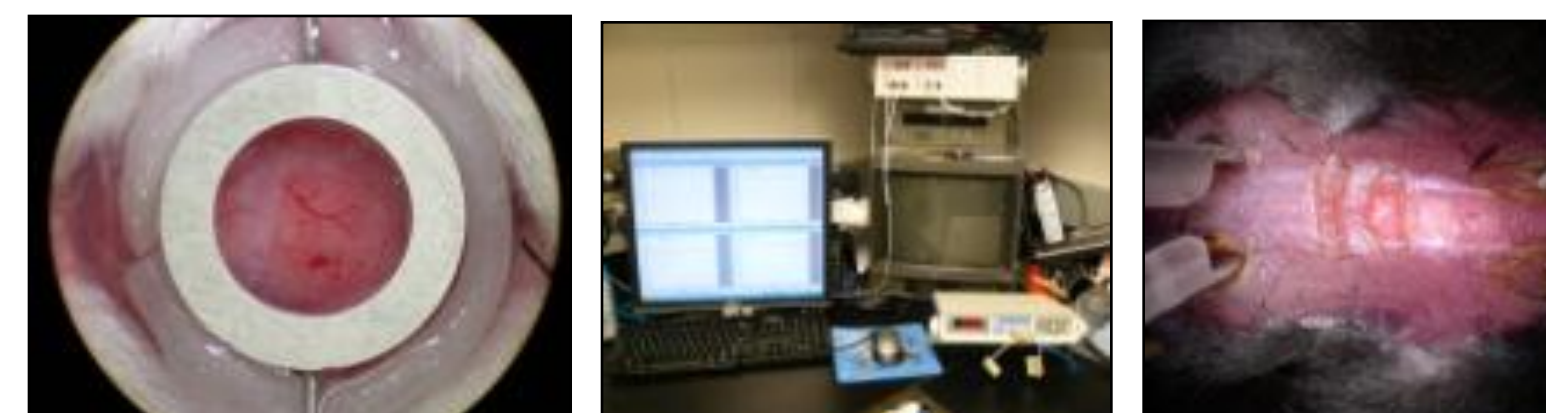
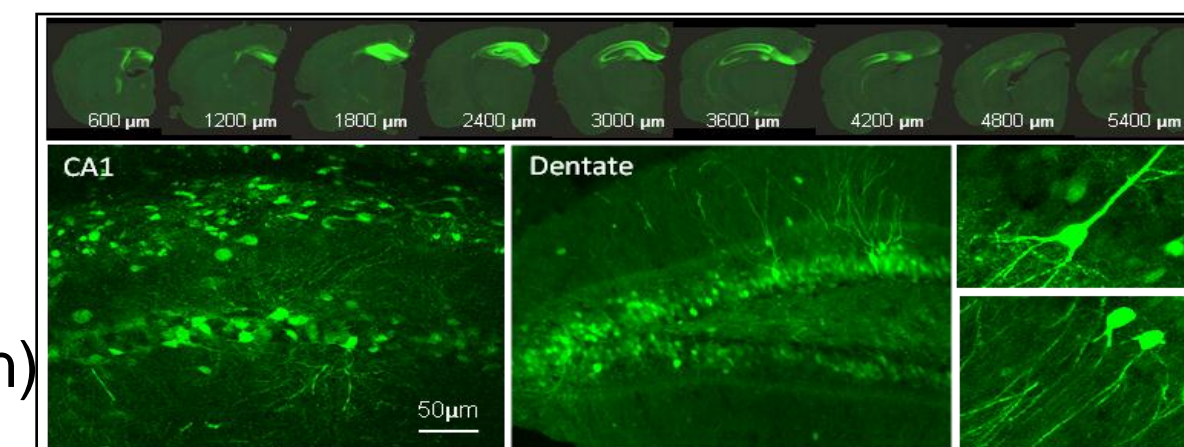
### Analysis

TTC-infarct volume analysis  
 Edema quantification  
 Leukocyte adhesion

### Miscellaneous

Consultation or training

## Procedures



## Equipment

Surgical stereo dissecting microscopes (4)  
 Autoregulated thermocontrollers (4)  
 Surgical drills  
 Laser doppler  
 Inhalant anesthesia delivery system (5)  
 Blood Gas Machine  
 Blood pressure monitor  
 Drug infusion pumps (2)  
 Rota rod  
 Autoclave  
 Incubator  
 Spinal cord injury impactor (NYU model) *new*  
 Biosafety hood for viral delivery  
 Short-term rodent housing

## Personnel

*Faculty Core Director:* Jin-Moo Lee, MD, PhD  
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## Contacts / Information

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Please visit our website  
 hopecenter.wustl.edu > Cores > Animal Surgery