



Mouse Radiography

High resolution radiography is a relatively inexpensive imaging technique that can provide much information and detail about small animal skeletal and soft tissue features from specimens, or from intact and live animals.

The Faxitron® system has been and continues to be widely used for high resolution radiographic evaluation for biopsy specimens, forensics, archaeology, anthropology and other purposes.

The phenotyping core laboratory (BRB 840) has a film Faxitron machine, and now has a scanner that can digitize the film radiographs (and other transparencies) for analysis, presentations and publication. In our laboratory, specimens from all species and sources can be imaged (radiographed). Contact Nadine Forbes nforbes1@jhmi.edu for more information, and scheduling.

For in vivo imaging, the Small Animal Imaging resource program (SAIRP) is accessible to all animals in the BRB vivarium. Available imaging echnologies, include Faxitron, MRI, PET, SPECT, IVIS. For more information, go to <http://sairp.rad.jhmi.edu/>



In this mage from a mouse, can you identify incisors? Middle ears (bullae)? Inner ears? Lateral processes (wings) of the atlas? Cervical vertebrae? Clavicles? Humeral epiphyses?

Surviving Clinical Pathology

We (humans) and our pets normally survive procurement of relatively small blood volumes required for routine clinical pathology evaluation e.g. hematology, clinical chemistry, without any ill effects.

However mice and other small animals may be severely stressed or injured, and blood volume

required for the test, or blood lost when bleeding is difficult to control, may significantly impact health, well being, phenotypes, and research results.

JHU's IACUC provides information and guidelines at <http://www.jhu.edu/animalcare/>.

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Surviving Clinical Pathology (Cont from page 1)

A 20g mouse has a circulating blood volume of ONLY about 1.1-1.4 ml (6-8% of body weight, with lower percent expected in older or obese animals). To minimize adverse effects, not more than 10% of the circulating blood volume (<0.15ml!) should be taken from a healthy animal at one time, and sufficient recovery time must be allowed between sampling.

The effects of bleeding (stress, volume depletion, and anemia) may affect other experimental parameters, and these factors should be considered in study design.

JHU's IACUC provides guidelines and training to assist investigators in selecting collection sites, handling strategies, anesthetics and equipment for obtaining optimal specimens for different study

objectives.

Obtaining specimens from live animals must be included on the approved IACUC protocol, and procedures must be performed by trained personnel.

To have a trained, experienced professional assist you, or perform these procedures for you, contact Julie Watson at jwatso19@jhmi.edu

Summer Fun & Phenotyping

Villa Erba (pictured right) in Cernobbio, Italy, on Lake Como was a beautiful venue for the joint meeting of ESLAV, AISAL, FELASA, ICLAS. This joint meeting provided an interesting multinational perspective on a wide variety of laboratory animal science and phenotyping issues in EU, US, Canada, Asia, and other countries.

<http://www.felasa-iclas2007.com/>

More of our phenotyping Faculty (Dr.'s Brayton, Gabrielson and Watson) will participate in the CLDavis Foundation phenotyping conference in Madison, WI July 25-27.

<http://www.cldavis.org/courses/upcoming.html>

Also consider beautiful Bar Harbor in the Fall. Applications are invited for the 6th Annual Workshop on the Pathology of Mouse Models for Human Disease, September 30 - October 6, 2007 at the Jackson Laboratory.

www.jax.org/courses/events/coursedetails.do?pid=450&detail=scope



Comparative Pathology Slide Conference

The Department of Molecular and Comparative Pathobiology and the Phenotyping Core host an **informal semimonthly slide conference**, to emphasize recent phenotyping and comparative pathology cases, and to provide a friendly and educational venue for colleagues within and outside of the JHU community to present and discuss interesting cases.

To be added to our mailing list, contact phenocore@jhmi.edu

The next slide conference will be Tuesday August 21, 2007, 4-6PM, in 801 BRB. Please email cbrayton@jhmi.edu if you have slides or a case that you would like to present.

Cases from June 26, 2007:

Dr.'s Southard, Brayton - mouse - enteritis, ileitis, villus shortening, fusion, syncytia, MHV NEG colony

Dr. Pierce-dog - heart base tumor,

Chemodectoma,

Dr. Murtazina - mice - induced IBD (Inflammatory/proliferative bowel disease) B6 model

Dr.'s Kelly, Trembley, Brayton - Xenopus - mycobacteriosis; spleen, liver, kidney, lung necrosis with many Gram POS AFB

Dr.'s Almeida, Convers - mice - M ulcerans arthritis, pododermatitis

Dr. Montali - Ferret - necrotizing-pyogranulomatous mesenteric lymphadenitis, r/o FIP-like ferret coronavirus

Dr.'s Kelly, Montali, Brayton - mouse -- HAC (hyperkeratosis associated coryneform) bacteria in skin, ear canals of immunodeficient, haired mice

Dr. Montali - cat - gastritis, with abundant helical bacteria in mucosa

June 2007 - What's your diagnosis: Mouse Colon, gravid female nematode, Pinworm; note protozoa in gut

For more information and references, Follow links from:

<http://www.hopkinsmedicine.org/mcp/phenotypingcore/newsletter.html>

WHAT'S YOUR DIAGNOSIS?
Tissue from a mouse.

