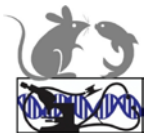




## 2019 JHU MOUSE PATHOBIOLOGY AND PHENOTYPING SHORT COURSE

MONDAY	July 15, 2019	Welcome, Intro, Posters, Exhibits, Reception	
8am-5pm	Registration – Turner Concourse		<b>TURNER</b>
845-10am	Brayton – Introduction: Phenotyping & Famous Mice		Tilghman
10-11	Brayton – Common Phenotypes & Disease (Spontaneous /NON infectious)		Tilghman
11-12	Watson – Environmental influences on phenotypes - What is in your mouse environment?		Tilghman
12-1	<b>LUNCH – POSTERS, Meet the Cores</b>		Tilghman
1-2	<b>Brayton – Resources for Rigor and Validity in PreClinical Research</b>		Tilghman
2-3	Brayton – Microbiome & infectious phenotypes in our research		Tilghman
3-4	Brayton – Immunovariability in (immune sufficient and immune deficient) mice		Tilghman
4-5	Hutchinson – Research relevant social life and behaviors of mice		Tilghman
5-6pm	<b>RECEPTION POSTERS, Meet the Cores</b>		<b>TURNER</b>
TUESDAY	July 16, 2019	GEM & Multidisciplinary Phenotyping	TURNER
9-10	Hawkins/Reeves – Making Mice - traditional and new transgenic technologies		Tilghman
10-11	Aja – Metabolic Phenotypes & Phenotyping		Tilghman
11-12	Mitzner – Pulmonary/Respiratory Phenotypes & Phenotyping		Tilghman
12-130	<b>LUNCH &amp; TOURS – CMOR (metabolic) &amp; BRB Imaging, Behavioral + visit Cores/posters</b>		
130-230	Doyle – Ophthalmic Phenotyping		Tilghman
230-330	Kim, Schrode /Lauer/May – Auditory Phenotyping		Tilghman
330-430	Foss/Gabrielson – IMAGING for Phenotyping		Tilghman
430-530	H Adissu (NIH) – Digital Pathology: options for image analysis and quantitative pathology		
WED	July 17, 2019	Practical Phenotyping 1	Go3/PCTB
9-10	Watson – Clinical / Physical Exam – Modified SHIRPA		Go3 MRB
10-11	Brayton – Clinical Pathology – oversimplified		Go3 MRB
11-1130	Brayton & al – Online & other Resources for mouse research, publishing, reviewing		Go3 MRB
1130-1230	<b>LUNCH BREAK (on your own) &amp; Tours – CMOR (metabolic) &amp; BRB Imaging, Behavioral</b>		
1230-3	LAB 1: Watson / Forbes & al – Clinical Examination		PCTB G
315-5	LAB 2: Forbes / Brayton & al – Clinical Pathology and Specimen collection		PCTB G
THURS	July 18, 2019	Practical Phenotyping 2	Go3/PCTB
9-1030	Brayton/Forbes- Anatomic Pathology Phenotyping – Necropsy + trimming		Go3 MRB
1030-1130	Brayton – Microscopic Anatomy & Pathology – interactive Quiz format		Go3 MRB
1130-1230	<b>LUNCH BREAK (on your own)</b>		
1230-430	LAB 3: Forbes / Brayton & al – Anatomic Pathology – Necropsy, tissue collection		PCTB
FRIDAY	July 19, 2019	Practical Phenotyping 3 Advanced Pathology	Go7/PCTB
9-11	LAB 4: Forbes / Brayton & al – Anatomic Pathology – Tissue Trimming for histology		PCTB
11-12	<b>Mouse Pathobiology</b> Review – interactive Quiz format		PCTB
12-1	<b>LUNCH BREAK (on your own)</b>		
1-2	A Meeker – Immunohistochemistry - principles and protocol development		Go3 MRB
2-3	B Karim, N Pate (NCI) – Pathology in Preclinical Cancer Research		Go3 MRB
3-4	S Elmore (NIEHS NTP) – Embryo and Developmental Phenotyping		Go3 MRB
5pm	<b>Quizzes Due ! Grad students in course ME680.712</b>		

**PLEASE COMPLETE & TURN IN EVALUATIONS !**  
**Pick up Attendance & RACE forms – THANKS FOR COMING !**



## **FYI: IMPORTANT COURSE INFORMATION**

**AIMS** – Provide information, practical tools and skills essential to optimal use of mice and GEM in many areas of translational research

- ◆ **Rigor, Reproducibility, Validity, Translatability** in research involving mice;
- ◆ Week of mice & GEM ‘muromics’, ‘mousology’;
- ◆ Meet colleagues.

### **PLAN**

- ◆ **Lectures - Syllabus Material** will be posted on the website for about 1 month.
- ◆ **Labs** (Hands on, practical sessions) **Lab Manual** provided.
- ◆ **Reception**– Meet colleagues, Cores, exhibitors
- ◆ **Tours** – Sign up on Monday. Space is limited. MEET PROMPTLY at 12 Noon, Tuesday & Wednesday.

**LABS** – Wednesday Afternoon; Thursday Afternoon; Friday morning in PCTB labs.

- ◆ **GRAD students taking the course for credit, must participate in lab, sessions, and complete and hand in worksheets.**
- ◆ You should have a printed lab manual if you are participating in labs.
- ◆ You may download the manual from Website if you are not participating in labs.
- ◆ Meet in G03 15 min before lab if you don’t know how to get to labs.

### **FOOD**

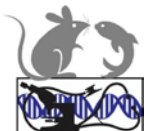
- ◆ Monday Breakfast, lunch and reception in the registration area
- ◆ Tue-Fri Snacks, coffee, tea but not a full breakfast or lunch will be provided.
- ◆ On Thursday there is a farmers market ~1.5 blocks south of this building on the west side of Broadway.

**QUIZ** – **GRAD students taking the course for credit** will receive electronic access to the Quiz available on Monday, due 5pm July 19, 2019

- ◆ **Open book, JHU honor code applies.**

**EVALUATIONS** – Please complete & turn in by 5pm Friday 7/19 in order to receive attendance certificate (and up to 33 hours of RACE credit).

Constructive suggestions to improve future courses are especially appreciated.



## EXHIBITORS



**CRC Press**  
Taylor & Francis Group

<https://www.crcpress.com/>



**JOHNS HOPKINS**  
MEDICINE

## CORES

[http://www.hopkinsmedicine.org/Research/core\\_facilities/](http://www.hopkinsmedicine.org/Research/core_facilities/)

BRB Behavior Core

[http://www.brainscienceinstitute.org/index.php/cores/the\\_behavioral\\_core\\_at\\_the\\_school\\_of\\_medicine/](http://www.brainscienceinstitute.org/index.php/cores/the_behavioral_core_at_the_school_of_medicine/)

BRB Imaging Center <https://apps.onc.jhmi.edu/cischeduling/>

SAIRP Small Animal Imaging Resources Program

<http://www.hopkinsradiology.org/sairp>

CSMR (CMOR) Centralized Services for Metabolism Research (CSMR)

[http://www.hopkinsmedicine.org/institute\\_basic\\_biomedical\\_sciences/research\\_centers/metabolism\\_obesity\\_research/service/](http://www.hopkinsmedicine.org/institute_basic_biomedical_sciences/research_centers/metabolism_obesity_research/service/)

Oncology Tissue Services Core <http://tmalab.jhmi.edu/index.html>



JHU Phenotyping (& Pathology) Core

<http://www.hopkinsmedicine.org/mcp/PHENOCORE/index.html>

Transgenic & ES Cell Core <http://www.hopkinsmedicine.org/core/home.htm>

Flow Cytometry and Cell Sorting Facility /Becton Dickinson Immune Function

Laboratory <http://jhmmi.jhsph.edu/department/FlowCytometry/FrameForm.cfm>