

“Genetic Manipulation of Mice” (August 5-13th, 2004)

Instructors: Dr. Mercedes Rincón and John Dodge

Thursday, August 5th:

- 9 am to 10:00 am (HSRF 200): Overview/introduction
- 10:10 to 12:30 am (HSRF 200): Transgenic mice, general concepts and generation

Friday, August 6th:

- 9 - 11 AM (HSRF 200): embryonic stem cells/gene targeting, general concepts
- 12:30 - 2:30 PM (HSRF 200): knock out mice, general concepts

Monday, August 9th:

- 9 - 11:45 AM, Group **A** (HSRF Transgenic Mouse Facility): isolation of mouse fertile eggs (John Dodge)
- 9 - 11:45 AM, Group **B** (HSRF 200): Transgenic Mice I (Mercedes)
- 12 AM - 1 PM, seminar (HSRF 200) **Dr. Richard Flavell**, Howard Hughes Medical Institute, Yale University
“Genetic analysis of cytokine effect on the regulation of autoimmune disease”
- 1 PM – 2:30 PM, lunch/chalk talk with speaker (participation is mandatory) (HSRF 200)
- 2:30 - 5:30 PM, Group **A** (HSRF Transg. Facility): pronuclear DNA injection in mouse eggs and implantation (John Dodge)
- 2:30 - 5 PM, Group **B** (HSRF 200): Transgenic Mice II (Mercedes)

Tuesday, August 10th:

- 9 AM – 11:45 AM, Group **B** (HSRF Transgenic Mouse Facility): isolation of mouse fertile eggs (John Dodge)
- 9 AM – 11:45 AM, Group **A** (HSRF 200): Transgenic Mice I (Mercedes)
- open
- 1:30 PM – 4 PM, Group **B** (HSRF Transg. Facility): pronuclear DNA injection in mouse eggs (John Dodge)
- 1:30 PM – 4:30 PM, Group **A** (HSRF 200): Transgenic Mice II (Mercedes)

Wednesday, August 11th:

- 9:00 AM – 10:30 AM (HSRF 400), Embryonic Stem cells (John Dodge)
- 10:30 AM - 12:15 N, (HSRF 400): Gene Targeting in ES cells (Mercedes)
- 12:30 - 1:30 PM seminar (HSRF 400): **Dr. Jeff Molkentin**, Children’s Hospital Medical Center, Cincinnati.
“Genetic dissection of calcineurin-NFAT function in the mouse”
- 1:30 PM – 2:30 PM lunch/chalk talk with speaker (participation is mandatory) (HSRF 400)
- 2:30 PM – 3:45 PM, Group **A** (HSRF ES facility): How to culture ES cells (visualization of ES cells (John Dodge)

- 3:45 - 5:00 PM, Group **B** (HSRF ES facility): How to culture ES cells (visualization of ES cells (John Dodge))
- 2:30 – 3:45 PM, Group **B** (Mercedes' lab): generation and identification of gene targeted ES clones (Mercedes)
- 3:45 - 5 PM, Group **A** (Mercedes' lab): generation and identification of gene targeted ES clones (Mercedes)

Thursday, August 12th:

- 9 AM - 11:45 AM, Group **B** (HSRF Transgenic Mouse Facility): mouse embryonic blastocyst isolation (John Dodge)
- 9 AM - 11:45 AM, Group **A** (HSRF 400): Knock out Mice I (Mercedes)
- 12 N - 1 PM, Seminar (HSRF 400): **Dr. Marcus Bosenberg**, University of Vermont
“Inducible conditional knockout mice in mouse melanocytes: implications for melanoma modeling”
- 1 PM - 2:30 PM, Lunch (HSRF 400)
- 2:30 – 5:30 PM, Group **B** (HSRF Transg. Facility): injection of ES cells into blastocysts (John Dodge)
- 2:30 - 5 PM, Group **A** (HSRF 400): Knock out Mice II (Mercedes)

Friday, August 13th:

- 9 AM - 11:45 AM, Group **A** (HSRF Transgenic Mouse Facility): mouse embryonic blastocyst isolation (John Dodge)
- 9 AM - 11:45 AM, Group **B** (HSRF 400): Knock out Mice I (Mercedes)
- 12 N - 1 PM seminar (HSRF 300): **Dr. Roger Davis**, Howard Hughes Medical Institute, University of Massachusetts.
“TBD”
- 1 - 2:30 PM: lunch/chalk talk with speaker (participation is mandatory) (HSRF 300)
- 2:30 PM – 5:30 PM, Group **A** (HSRF Transg. Facility): injection of ES cells into blastocysts (John Dodge)
- 2:30 PM – 5:30 PM, Group **B** (HSRF 300): Knock out Mice II (Mercedes)

Monday, September 13th:

- 3 - 7 PM, student presentations and pizza (schedule can be modified to accommodate other conflicts)