

MCBI 7430/PATH 7430: Cytometric Technologies Lecture Schedule, Spring 2015

Tuesday/Thursday 3:30-5 PM

Brody 7S-08 (Pathol. Conf. Room), or 4W-37/39 (Flow/Confocal Lab)

Lecture	Date	Topics	Instructor	Room
1	Jan13 (Tu)	Orientation: What will be covered, course objectives, etc. History of Flow Cytometry	Weidner, Lehman	7S-08
2	Jan15 (Thur),	Physical aspects of Light (reflection, diffraction, scatter, etc)	Weidner	7S-08
3	Jan20 (Tu)	Fluorescence	Weidner	7S-08
4	Jan 22 (Thur)	Microscopy Basics: Light, Optics, Phase Contrast, DIC	Hoffman	7S-08
5-6	Jan 27(Tu), 29 (Thur)	Lasers and Detectors	Hu	7S-08
	Feb 3(Tu)	Exam #1		7S-08
7	Feb 5 (Thur)	Flow Cytometry: Fluidics	Weidner	7S-08
8	Feb 10 (Tu)	Flow Cytometry: Optics, Mirrors, Filters	Weidner	
9	Feb 12 (Thur)	Flow Cytometry: A. Probes and Labels; B. Data Analysis	Weidner	7S-08
10	Feb 17 (Tu)	Flow Cytometry Applications: Cell Sorting	Lehman	7S-08
11	Feb 19 (Thur), 24 (Tu)	Flow Cytometry Applications: Cell Cycle	Lehman	7S-08
12-13	Feb 26 (Thur), Mar 3 (Tu)	Flow Cytometry Lab Exercise: Cell Cycle	Lehman, Arthur	4W-37
	Mar 5 (Thur)	Exam #2		7S-08
		Spring Break March 9-16		
14	March 17 (Tu)	Flow Cytometry: Apoptosis Assays	Weidner	7S-08
15	March 19 (Thur)	Flow Cytometry Demonstrations: Cell Sorting, Apoptosis	Weidner	4W-37
16	March 24 (Tu)	Flow Cytometry: Immunophenotyping (Lecture)	Wang	7S-08
17	March 26 (Thur)	Immunophenotyping (Lab Demo)	Wang	4W-37
18	March 31(Tu)	Slide based Cytometry (iCys)-Lecture	Lehman	7S-08
19	April 2 (Thur)	Slide based Cytometry (iCys)-Lab Exercise	Lehman, Arthur	7S-19
20	April 7 (Tu)	Mass Spectrometry, Biological Applications	Selim	7S-08
21	April 9 (Thur)	Mass Spectrometry (Lab Demo)	Selim	4W-29
22	April 14 (Tu)	Confocal Microscopy: Confocal principle, applications, etc	Weidner	7S-08
23	April 16 (Thur)	Confocal Microscopy Demonstration	Weidner	4W-37
24	April 21(Tu)	Special guest Lecturer (Topic to be Announced)	Zucker	7S-08
24	April 23 (Thurs)	Automated Digital Tissue Imaging (Aperio)	Arthur	7S-08
25	April 28 (Tues)	Total Internal Reflection Microscopy	Weidner	7S-08
	April 30 (Thurs)	Exam #3		7S-08

Instructors: Douglas Weidner, Ph.D (Co-Course Director), Dept Microbiol. & Immunol.
 John Lehman, Ph.D, (Co-Course Director), Dept. Pathology & Lab. Med.
 Donald Hoffman, Ph.D, Dept. Pathology & Lab. Med. (Emeritus)
 Xin-Hua Hu, Ph.D, Dept. Physics
 Mustafa Selim, Ph.D, Dept. Pharmacology
 Duncheng Wang, Ph.D, PostDoctoral Scholar, Dept Microbiol. & Immunol.
 Robert Zucker, Ph.D, US Environmental Protection Agency, Research Triangle Park NC
 Justin Arthur, Research Specialist, Dept. Pathology & Lab. Med.