

BIOM 502: Molecular Basis of Disease

Course Directors: Dr. Jonathan Katz, jkatz@penmedicine.upenn.edu; Dr. Jennifer Punt, punt@vet.upenn.edu

Course Coordinator: Anne-Cara Apple, annecara@penmedicine.upenn.edu

Tuesdays and Thursdays, 9–10:30am

Location: BRB 251

Date	Speaker	Topic	Student Speaker
1/16	Jonathan P. Katz, MD, and Jenni Punt, VMD, PhD	Course introduction	n/a
1/21	Reed Pyeritz	The Promise and Peril of Molecular Genetic Clinical Testing	n/a
1/23	Paul Axelson	Intro to Infectious Disease	n/a
1/28	Carolyn Cambor, MD; Sara Cherry, PhD; and Sydney Shaffer, MD, PhD	Intro to Pathology of Human Disease	n/a
1/30	Meena Bewtra	Intro to Clinical Epidemiology	n/a
2/4	Tara Mitchell	Melanoma	Zachary Lamplugh
2/6	Steve Scherer	Genetic Neuropathies	Fred Fregoso
2/11	Kenneth Shindler	Optic Neuritis	Alexandra Indeglia
2/13	Jim Hoxie	HIV	Guillaume Harmange
2/18	Gregory Bisson	Tuberculosis	Conroy Field
2/20	Stuart Isaacs	Smallpox Vaccines	Zvi Cramer
2/25	Marni Falk	Mitochondrial Disorders	Kimberly Apodaca
2/27	Alice Chen-Plotkin	Parkinson's Disease	Kristen Nehls
3/3	Mike Rickels	Type 1 Diabetes	Alexander Benton
3/5	Murray Grossman	Dementia	Laura Pinheiro
3/10	Ron Rubenstein	Cystic Fibrosis	Ryan O'Connell
3/12	Rotonya Carr	Non-Alcoholic Fatty Liver Disease (NAFLD)	Charlie Ho
3/17	Dan Rader	Lipoprotein Disorders	Roseanne Davila-Rivera
3/19	Gary Wu	IBD	Shane Bouchard
3/24	Katalin Susztak	Chronic Kidney Disease Development	Zachary Lamplugh and Fred Fregoso
3/26	Ed Behrens	Langerhans Cell Histiocytosis	Alexandra Indeglia and Guillaume Harmange
3/31	Paige Porrett	Organ Transplantation	Conroy Field and Zvi Cramer
4/2	<i>No class - hold in case of snow day</i>		
4/7	Phil Scott	Leishmaniasis	Kimberly Apodaca and Kristen Nehls
4/9	Ken Margulies	Heart Failure	Alexander Benton and Laura Pinheiro

4/14	Amy Clark	Breast Cancer	Ryan O'Connell and Charlie Ho
4/16	Michael Povelones	Malaria	Roseanne Davila-Rivera and Shane Bouchard
4/21	<i>No class - hold in case of snow day</i>		
4/23	<i>No class - hold in case of snow day</i>		

Presentation dates have been randomly assigned. If you know you will be absent from class on your assigned presentation date(s), please contact Anne-Cara Apple immediately.

ASSESSMENT:

There will be a total of 100 points awarded for this class.

Class Participation: 35 points total.

- Professionalism: 10 points. Includes attendance, punctuality, and advance notification of any expected absences.
- Active Participation: 25 points. This is a significant component of your grade, so please do participate. Ask questions that show us you read the material before class.

Class Presentations and Discussions: 45 points total.

The course is designed to introduce you to a broad array of human disease conditions. The visiting faculty are typically MDs with active clinical appointments, who will introduce the clinical aspects of the disease over 30-40 minutes. This will be followed by an individual or joint student presentation (20-30 minutes) on a translational or basic research paper addressing some aspect of the disease mechanism, diagnosis, or therapy. Students should contact the faculty ahead of their presentation to discuss the topic and paper to be presented.

The remainder of the time will be spent in group discussion of the paper, focusing specifically gaps that need to be and could be filled by collaborating biomedical researchers. The class will break out into groups to speculate about what still needs to be answered/advanced and submit a written question (via post-it note or index card) to the student leader(s). The student leader(s) will select, with the visiting clinical scientist, one or two questions or ideas to expand upon.

Presentations and discussions will be scored on the basis of the clarity of your talk and quality of your slides, your ability to engage the audience, and a demonstration that you have mastered the subject matter by your ability to answer questions from the audience. The individual presentations will be worth 25 points; the joint presentations will be worth 20 points.

Post-Class Evaluations: 20 points.

After each class you will be required to submit a brief (3-4 sentences) evaluation of the faculty speaker via Canvas, focusing on 1) quality of the presentation, 2) the relevance to translational research, and 3) the faculty speaker's engagement with the students. You may later use these to help complete your course evaluations. Note that feedback will later be shared anonymously with the speakers after the conclusion of the course.