FOUNDATIONS OF MEDICINE (FDNMD-ML)

FDNMD-ML 1024 Special Topics in Inflammation and Lipid Research (1 Credit)
Typically offered occasionally
The elective is devoted to training students in the basic techniques of molecular biology and their application to the study of genes encoding proteins involved in cholesterol trafficking. The student will be expected to complete a thorough review of the literature in relevant areas of study. The student will learn basic statistical analysis and data presentation, maintain a laboratory notebook with records of experiments and clear, concise and informative notes. Attendance at lectures and laboratory meetings will be required. The student will design a specific project under the supervision of Dr. Reiss. This project will utilize several of the following techniques: cell culture, polymerase chain reaction, immunoblotting and microscopy. The student will conduct the experiments for this project and obtain data for analysis and presentation.
Grading: SOM Graded
Repeatable for additional credit: No

FDNMD-ML 1030 Toxicology: Classical and Environmental (1 Credit)
Typically offered occasionally
Toxicology is a multidisciplinary science that combines chemistry, physiology, and pharmacology to determine the potential harm of substance exposures from the environment, abused in addictive behaviors, or are over-ingested. This elective is designed to introduce students to the fields of both classical toxicology and environmental (ecotoxicology) toxicology. Toxicology is traditionally known as the science of poisons and examines the effects of drugs or poisons on human health. Environmental toxicology focuses on how environmental contaminants such as radioactive metal, heavy metals, pesticides, halogenated aromatic compounds, environmental endocrine disruptors, and pharmaceuticals and personal care products effect the environment and human health. Students will learn how toxicology investigations and methods are used to understand how human systems respond to toxic chemicals. Topics to be discussed include pharmacodynamics, pharmacokinetics, mechanisms of action and adverse effects of over-ingested substances, drug overdoses, poisonings, polypharmacology of the elderly, and environmental based toxicities.
Grading: SOM Graded
Repeatable for additional credit: No

FDNMD-ML 4078 Basic and Translational Research (2 Credits)
Typically offered Fall and Spring
This two-week Intro to Basic and Translational Research elective is devoted to training students in the basic techniques of molecular biology and their application to the study of various ongoing research. The student will be expected to complete a thorough review of the literature in relevant areas of study. The student will learn basic statistical analysis and data presentation, maintain a laboratory notebook with records of experiments and clear, concise, and informative notes. Attendance at lectures and laboratory meetings will be required.
Grading: SOM Graded
Repeatable for additional credit: No

FDNMD-ML 4079 Basic and Translational Research (4 Credits)
Typically offered Fall and Spring
This four-week Basic and Translational Research elective is designed to train and engage students in the basic techniques of molecular biology and their application to the study of various ongoing research. The student will be expected to complete a thorough review of the literature in relevant areas of study. The student will learn basic statistical analysis and data presentation, maintain a laboratory notebook with records of experiments with clear, concise, and informative notes. Attendance at lectures and laboratory meetings will be required. Utilizing the basic techniques learned and developed throughout the first week of rotation, the student will design and present a specific research project under the supervision of Dr. Reiss. This project may utilize several of the following techniques: cell culture, polymerase chain reaction, immunoblotting and microscopy. The student will conduct the experiments for this project and obtain data for analysis and presentation. Students are strongly encouraged to begin plans and preparation for their research projects in advance of the elective.
Grading: SOM Graded
Repeatable for additional credit: No