

## PHARMACOLOGY PROGRAM REQUIREMENTS

<https://pharmacology.weill.cornell.edu/ph-d-program-pharmacology/course-requirements>

In the first year, students are **REQUIRED** to complete a core curriculum that includes the following courses:

### Quarter I:

**PHAR 5012 01**      **Essential Principles of Pharmacology** (*One week introduction to Pharmacology*)  
Dr. Charles Inturrisi, Director along with other Pharmacology Faculty

**PHAR.5005.01**      **Principles of Pharmacology I: Chemical Biology**  
Dr. Anthony Sauve and Dr. Minkui Luo, Co-Directors

**NEUR 5005 01**      **Next-Gen Methods For Neuroscience and Pharmacology**  
Dr. John Wagner (Neuroscience), Director, Dr. Michael Kharas, Course Co-Director

**PHAR.5001.01**      **Critical Analysis of the Scientific Literature in Pharmacology**  
Dr. Samie Jaffrey and Dr. Steven Gross, Co-Directors

**MANDATORY COURSE:**      **Tri-Institutional Course - (Responsible Conduct of Research, RCR)**  
(course is taken at MSKCC, your coordinator will help you register)

### Quarter II:

**PHAR.5006.02**      **Principles of Pharmacology II: Signal Transduction**  
Dr. Samie Jaffrey and Dr. Steven Gross, Co-Directors

**NEUR.5005.01**      **Next-Gen Methods For Neuroscience and Pharmacology**  
Dr. John Wagner (Neuroscience), Director, Dr. Michael Kharas, Course Co-Director

**PHAR.5001.01**      **Critical Analysis of the Scientific Literature in Pharmacology**  
Dr. Samie Jaffrey and Dr. Steven Gross, Co-Directors

### Quarter III:

**PHAR.5007.03**      **Principles of Pharmacology III: Principles and Systems Pharmacology**  
Dr. Roberto Levi and Dr. Lonny Levin, Co-Directors

**PHAR.5002.03**      **Molecular Neuropharmacology I: Genes, Drugs and Behavior**  
Dr. Miklos Toth, Director, Dr. Karin Hochrainer, Co-Director

**PHAR.9501.03**      **Pharmacology Seminar Series - Annual Registration Required**  
Dr. Arleen Rifkind, Director

### Quarter IV:

**PHAR.5008.04**      **Principles of Pharmacology IV: Molecular Pharmacology of Cancer**  
Dr. Yueming Li and Dr. David Scheinberg, Co-Directors

**PHAR.5011.03**      **Neuropharmacology II: Neuropeptides and Pain and Drugs of Abuse**  
Dr. Charles Inturrisi, Director

**PHAR.9501.03**      **Pharmacology Seminar Series - Annual Registration Required**  
Dr. Arleen Rifkind, Director

### ELECTIVES- 2<sup>nd</sup> year and beyond:

Students will also complete one 2-quarter elective and a 1-quarter required course titled, **Quantitative Biology by course director, Dr. Jason Banfelder by June of their second year.** The 2-quarter elective must be selected from the following:

**PHAR.5009.01**      **Fundamental Immunology (Qtrs. I and II)**  
**PHAR 5014 03**      **Molecular Genetics (Qtrs. I and II)**  
From Bench to Bedside: Business Fundamentals for Entrepreneurial Scientists (Qtr. I)  
Drug Development Course: FROM MOLECULE TO PRESCRIPTION (Qtr. 3 & 4)

**\*\*If you wish to request to take an elective not listed, you must email the program director & coordinator regarding this request\*\***