

University of Montana

ScholarWorks at University of Montana

University of Montana Course Syllabi

Open Educational Resources (OER)

9-2002

PHAR 615.01: Molecular Pharmacology

Unknown

University of Montana - Missoula

Follow this and additional works at: <https://scholarworks.umt.edu/syllabi>

Let us know how access to this document benefits you.

Recommended Citation

Unknown, "PHAR 615.01: Molecular Pharmacology" (2002). *University of Montana Course Syllabi*. 1259.
<https://scholarworks.umt.edu/syllabi/1259>

This Syllabus is brought to you for free and open access by the Open Educational Resources (OER) at ScholarWorks at University of Montana. It has been accepted for inclusion in University of Montana Course Syllabi by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.

MOLECULAR PHARMACOLOGY (PHAR 615): 3 CR./FALL 2002

Scheduled Meetings: Most weeks we will meet Monday at 2:10 P.M. in SB 270; there may be occasions when the day, time, and room will change.

Reading Resources: Most reading will be from the primary literature, from selected reviews in the secondary literature, and from student searches of those sources. However, **Principles of Drug Action** (Palmer Taylor) is available and assignments will be made from it for those desiring a textbook. The book, however, is not able to present all the topics of interest to us.

Grading: This interactive course will be graded based upon active student involvement. Thus, evaluation will be based on discussion and oral presentation:

- | | | |
|----|---|-----|
| 1. | Weekly involvement in discussions | 25% |
| 2. | Oral presentations (about every 3 rd week) | 75% |

Nature of Course: We will emphasize drug action at the molecular level. To a large degree this means drug-receptor system dynamics; however, some drugs exert effects at other than "classical" receptors, so attention will be paid to enzymes, membrane effects, etc. Some of the main themes are: receptor biophysical chemistry; receptor theory and models; kinetics of drug receptor and transporter systems; molecular pharmacology of hormone receptors; nitric oxide systems; oxidative processes; cell death; molecular modeling. Methods applicable to these areas will be discussed, as will projections of future prospects in these fields.

Tentative Topics of Coverage:

Sept. 16	Overview of drug action and signal transduction	David Freeman
Sept. 23	Physical chemistry of drug- receptor action	Keith Parker
Sept. 30	Receptor Models	Keith Parker
Oct. 7	G proteins	Keith Parker
Oct. 14	Student presentations	Keith Parker
Oct. 21	Nitric oxide/anti-oxidants	Chuck Eyer
Oct. 28	Student presentations	Chuck Eyer
Nov. 4	Neuroscience Meeting	
Nov. 11	Insulin Receptors	Craig Johnston
Nov. 18	Student Presentations	Craig Johnston
Nov. 25	Molecular Modeling	John Gerdes
Dec. 2	Perspective	Keith Parker
Dec. 9	Student Discussion	Keith Parker