

## Medicinal Chemistry

- Graduate studies in medicinal chemistry involve applying the knowledge of chemistry to research associated with therapeutically useful compounds. This research includes the design and synthesis of new classes of therapeutic agents, the chemical modifications of existing drugs leading to an improved therapeutic effect, the correlation of the chemical structure of a drug with its pharmacological activity, the development and improvement of techniques used in the analysis of therapeutic agents, and the study of how chemical properties affect drug distribution and metabolism.
- A plan of study in medicinal chemistry would emphasize courses in chemistry (analytical, biological, medicinal, organic and physical) with support courses in natural products chemistry, pharmacology, and pharmaceuticals.
- Specific thesis or dissertation research projects would be dependent upon the mutual interest of the student and the major professor.

Faculty with interests in Medicinal Chemistry:

- Dr. Ronald A. Hill, Associate Professor of Medicinal Chemistry
- Dr. Khalid El Sayed, Assistant Professor of Medicinal Chemistry
- Dr. Seetharama Jois, Assistant Professor of Medicinal Chemistry

## Required Courses for Medicinal Chemistry

Chemistry 407 **OR** Chemistry 541 & 542

Chemistry 551 and 552

Pharmacy 409

Pharmacy 566 and 568

Pharmacy 500

Pharmacy 531

Pharmacy 539

Pharmacy 552

Pharmacy 569

Pharmacy 599 **OR** Pharmacy 699

Instrumental Analysis

Biochemistry

Medicinal Chemistry II

Advanced Medicinal Analysis

Molecular Structure & Function of Proteins

Synthetic Medicinals

Special Topics

Seminar

Concepts in Drug Design

Thesis Research/Dissertation Research