

FOURTH YEAR ELECTIVE TITLE Molecular Medicine		COURSE NUMBER MED 9600	LOCATION ROBERT WOOD JOHNSON MEDICAL SCHOOL
ELECTIVE DIRECTOR Emine Ercikan Abali, PhD Debabrata Banerjee, PhD	ELECTIVE FACULTY RWJMS Faculty	ELECTIVE CONTACT EMINE ERCIKAN ABALI, PHD RWJMS BIOCHEMISTRY R-527 Piscataway	CONTACT INFO PH. 732-235-3911 FAX 732-235-4783 ABALIEM@RWJMS.RUTGERS.EDU
BLOCKS AVAILABLE #9	DURATION/WEEKS MIN: 3 MAX: 4	HOURS PER WEEK 40	STUDENTS MAX: 12
LECTURES/SEMINARS YES	OUTPATIENT NO	INPATIENT NO	HOUSESTAFF NO
NIGHT CALL NO	WEEKENDS NO	LAB NO	EXAM REQUIRED NO

OVERALL EDUCATIONAL GOAL OF ELECTIVE

The goal of the Molecular Medicine course is to introduce students to basic ideas of biomedical research, to provide a strong foundation and understanding to the skills involved in evaluating the research literature and presenting data, and to the interplay between the research laboratory and the problems of clinical medicine. Upon completion of this course students will be able to:

OBJECTIVES

- I. Patient care
Students must be prepared to provide patient care that is compassionate, appropriate, and effective.
- II. Medical knowledge
Students must be able to demonstrate integration and application of knowledge in the basic sciences towards proposing a Phase 1 clinical study. Students will analyze scientific findings in pursue of finding applications in medicine. *Measurement/Evaluation:* Faculty observation in small group discussions and subjective evaluation of proposal by faculty and members of scientific review board members.
- III. Practice-based learning and improvement
Students must be able to interpret data from basic sciences and evaluate them for their application in medicine. Students will interact with classmates to find medical applications based on the findings from basic sciences. Students must practice the principles of cooperative team learning with classmates during presentations and group discussions. *Measurement/Evaluation:* faculty observation in small groups; peer evaluation.
- IV. Interpersonal and communication skills
Students must be able to demonstrate team behavior by their participation in the process of writing Phase 1 clinical trial proposal and demonstrate effective communication skills by presenting scientific papers and defending their written proposal to their peers. *Measurement/Evaluation:* Faculty observation, feedback and peer evaluation.
- V. Professionalism
Students must be able to demonstrate standards of professionalism, including respect, honesty, reliability and responsibility, in interactions with faculty, staff, peers, and patients. *Measurement/Evaluation:* professionalism form

VI. Systems-based Practice

Students will be able to function effectively in teams and within a larger organizational structure. They must demonstrate an awareness of the larger context & system of health care and of the resources available within the system to provide optimal care to individual patients and groups. Finally, students must demonstrate awareness of current barriers to health care and of the various strategies designed to assist patients in gaining access to care.

BRIEF DESCRIPTION OF ACTIVITIES

For the physicians of this century it is becoming increasingly important to have a better understanding of biomedical research since many of diagnostic testing, and disease screening are molecular in nature. This course will use selected topics in molecular medicine such as: diabetes, autism, inflammation and host response, cardiovascular diseases, obesity, cancer, drug resistance and stem cell to provide students the skills involved in evaluating scientific literature and presenting data and introduce the students how research is translated from bench to bedside. Students are expected to read and critique papers related to biomedical research, make oral presentations of the corresponding papers and participate in the discussion of each topic. Furthermore, students will be required to write a proposal to be submitted to the Scientific Review Board (SRB) members for evaluation. These proposals will involve writing a clinical trial based on biomedical research and pre-clinical data. The length of the course will be one month with 3-4 lectures/presentations per week in addition to time dedicated for self-studying in preparation for the articles that will be discussed in class and in writing a proposal for SRB. Evaluation will be based on fulfilling course requirements mentioned above.

METHOD OF STUDENT EVALUATION

Quality and level of participation of individual students and quality of the proposal trial will be evaluated jointly by participating faculty.

Are there any prerequisites for this elective? No

Is this elective available to third year medical students as well? Yes