



## **MD with Thesis**

### **Overview**

The M.D. with Thesis Program offers a unique opportunity to NJMS medical students to conduct original research of excellent quality during their Medical School training. The student is expected to devote one year exclusively to independent research that is Laboratory, Clinical or Population based. The additional year of research experience will provide students the opportunity to study a certain subject in depth. The Program is specifically designed for a rigorous development in scientific thinking, including a thorough understanding of research methodology and scientific writing. The program is highly suited to students who plan a career in Academic Medicine.

The M.D. with thesis program will be administered through the Office of the Senior Associate Dean for Research in conjunction with the Office of Education. The program will be operated by a Committee consisting of representative Faculty members from basic and clinical sciences departments and overseen by Dr. Salgame, Director of Graduate Medical Research Program.

The committee is responsible for selection of students and mentors to the program. Student Selection will be based on the following criteria:

1. Academically strong students.
2. Students from the Summer Biomedical Research program.
3. Students with previous Research experience.

### **Program Goal and Learning Objectives**

The overall goal of the program is to provide medical students an opportunity to acquire research skills and foster independent scientific thinking. The specific objectives are- i) The student obtains training in research skills and critical thinking formulation of a hypothesis, designing experiments that will allow for testing of the hypothesis, and critical evaluation of data; ii) The student learns the art of communicating scientific findings- Oral and written.

### **Program Structure**

Students will undertake the research year between the 2<sup>nd</sup> and 3<sup>rd</sup> year of Medical School. By exception, the research year can also be scheduled for other times after consultation with the *MD with Thesis Committee* and the Associate Dean for Student Affairs. Students can apply to the Program any time during their first year in Medical School. In order to be eligible for participation in the program, the student must be in good academic standing. A student may not participate in the program if he/she has experienced academic difficulty or has unremediated, incomplete or failing grades. A maximum of five students will be accepted into the Program each year. Upon acceptance into the program, the student picks a research mentor and submits a description of the proposed research to the committee for approval. Research mentors have to be registered in the Program and approved by the Program Committee.

### **Thesis Committee**

The program director, in consultation with the thesis mentor, will select a thesis advisory committee consisting of the mentor, a member of the *MD with Thesis Committee* and two additional members. The mentor serves as the chair of the thesis advisory committee, but is not a voting member. The member from the *MD with Thesis Committee* will serve as the coordinator between the Administrative Assistant of the Program and the thesis advisory committee for maintaining the official record of the meetings and progress of the student. The thesis advisory committee advises the student throughout the Research year and will meet formally at least twice during this time.

### **Student Evaluation**

At the end of the research year, the student is expected to have completed a research project and submitted a written thesis to the committee. Upon approval of the thesis by the thesis advisory committee, the student schedules a time for defense of the thesis. The second thesis committee meeting can serve as the thesis defense. The examination will consist of an oral presentation of the research proposal, and will be followed by specific questions from the committee pertaining to areas in the written proposal. The defense is meant to give the students a platform to gain experience in presentation of scientific data in a clear and lucid form. The students will also present their research work as a Poster presentation that will be organized in conjunction with the Summer Student Research Symposium. Although not mandatory, the students are encouraged to work with their mentor to submit papers for publication in peer-reviewed journals. Upon successful completion of the thesis and satisfactory defense, the students will graduate with an **MD degree with Distinction in Research**.

In addition to the Research project, the student is also expected to participate in the following Core curriculum:

1. Lectures (2-3 on the following Topics -instruction in research methods; Literature review and synthesis).
2. Attendance at Departmental Seminars.
3. Attendance at Departmental Journal Clubs.

### **Stipend and Academic Rules**

The students may receive a stipend during the Research year subject to available funding by the Research Mentor. During the research year the student will be enrolled in the NJMS Scholars Program. The student will not be charged tuition during the research year, however, student fees will be assessed. Each student must remain in good academic standing in order to remain enrolled in the research program. With the permission of their Research mentor and the Associate Dean for Students Affairs, students may cross-enroll in courses offered by GSBS or SPH. Participation in the Research Program and/or cross-enrolled coursework cannot fulfill any requirements for degree in the Doctor of Medicine degree program.

For further information regarding the program you can contact the Program Director-

*Padmini Salgame PhD*

*Professor, Department of Medicine*

*Director, MD/PhD Program*

*& Graduate Medical Research Program*

*Email [salgampa@njms.rutgers.edu](mailto:salgampa@njms.rutgers.edu)*

*Tel (973) 972-8647*