UMDNJ Robert Wood Johnson Medical School
MD/PhD Program 07-08

Program Policies and Administration

A Joint Initiative with Rutgers, The State University of New Jersey and the Graduate Program in Molecular Biology at Princeton University in conjunction with the UMDNJ Graduate School of Biomedical Sciences

<table>
<thead>
<tr>
<th>Item</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Mission:</td>
<td>2</td>
</tr>
<tr>
<td>Program Curriculum:</td>
<td>2</td>
</tr>
<tr>
<td>Student Rotations:</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory selection for the Ph.D.:</td>
<td>4</td>
</tr>
<tr>
<td>Return to M3:</td>
<td>4</td>
</tr>
</tbody>
</table>

Program Committees:

- Admissions Committee: 4
- Curriculum Committee: 5
- Advisory Committee: 5
- Steering Committee: 6
- Recruitment Committee: 6
- Symposium Committee: 6

C²alc “Clinical Continuity a la carte” 7

Forms:

- Rotation Form: 9
- Rotation Final Form: 10
- Laboratory Rank Form: 11
- Laboratory Acceptance Form: 12
Program Mission

The mission of the UMDNJ Robert Wood Johnson Medical School (RWJMS) MD/PhD Program is:

1. To train the next generation of physician scientists to advance biomedical research and medical therapy, and to provide service to our communities;

2. To promote the interdisciplinary research training necessary to capitalize on growing scientific opportunities;

3. To support the unique career paths and address the challenges of the students in the MD/PhD program;

4. To foster a community of researchers, teachers, and clinical scientists conducive to the training of program students.

Program Curriculum

The curriculum of the MD/PhD program is designed to provide a foundation in the core areas of modern medicine, while allowing flexibility to meet the specialized research and training needs of the students, which range from basic science to applied clinical research. The core courses focus on fundamentals of research science, dissection of the scientific literature, and ethics. These requirements also provide students with opportunities to develop presentation skills.

Required courses:

*Topics in translation of research to medicine: Fall M1 (1 credit)*

This is an integrated seminar and literature course in the application of research to biomedical problems.

*Ethical Conduct of Scientific Research: Spring M1 (M2 or PhD years by permission) (1 credit)*

This is a once a week course covering a broad range of topics essential to the proper conduct of research.

Medical school courses (M1 and M2) co-listed as graduate courses are transferred to the graduate program upon advisor selection and program assignment. Final course requirements for the PhD are determined by the graduate program of the student. The choice of graduate program is based on the affiliation of the students’ mentor. Unless extraordinary circumstances arise and by permission of the MD/PhD program director and the Graduate School Deans of both institutions involved, the program will be from the institution where the faculty member holds their primary appointment and in their primary graduate program.

Additional program requirements:

*The MD/PhD Program Symposium.*
All students are required to attend the Annual MD/PhD Program Symposium unless specifically excused by the program director. Students are invited to present their research in any year of the program, but are required to make presentations in all PhD years.

*The MD/PhD colloquia*

This is a required series of monthly meetings covering a variety of essential topics including grantsmanship, research presentations, career development, specific research topics such as statistics, science policy, and community service projects. It also includes an annual presentation by an alumni speaker.

*USMLE Part 1 and PhD phase requirements*

Students are required to take Part I of the USMLE at the end of M2 and before initiating the PhD phase. Students in the PhD phase are also required to hold an annual meeting with the research mentor and thesis committee. Students must complete the qualifying examination required by their graduate program within 1 year of taking USMLE part I.

*Annual Student Meetings:*

Students are required to meet at least annually with the program director or one of the two program liaisons. M1 students meet as a group and individually upon request, all other students have individual meetings, which can be arranged by phone for M3 and M4 students.

*Student Laboratory Rotations:*

1. All incoming students are strongly encouraged to perform a laboratory rotation in the summer before their M1 year. All students are strongly encouraged to rotate at more than 1 institution. A rotation is mandatory in the summer between M1 and M2. Three options are available such that at least 2 and possibly 3 rotations can be completed before M2 is completed.

   All students must complete two (2) rotations. They can either be:

   * Two 7 to 8 week summer rotations, one in the summer before MS1 and one between MS1 and MS2. Rotations can be shorter with permission (minimum 5 weeks).

   *One in the spring of MS1, and one in the summer between MS1 and MS2. The spring rotation must start by the last week of January and include approximately 2 half-days per week in the lab (excluding exam weeks) and 3 weeks full-time at the end of the semester. Due to logistical issues this rotation can only be performed on the Piscataway or New Brunswick campus. The summer rotation is 5 to 6 weeks long. Students taking the spring/summer rotation option cannot be RWJMS Peer Mentors without permission of the MD/PhD program director.

   *Two 5 to 6 week rotations in the summer between MS1 and MS2. Students taking this rotation option cannot be RWJMS Peer Mentors without permission of the MD/PhD program director.
*Rotations after M2 (if needed) require the approval of the Rotation Advisory Committee and the Program Director. If 2 rotations were already performed at the same school, the third rotation MUST be at a different institution.

2. The policies of the graduate or MD/PhD program can limit the number of students rotating in a particular lab or school and can limit the number of students that can be accepted into a single lab. Students are strongly encouraged to rotate at different institutions to broaden their experiences and to allow for optimal matches at the end of MS2.

Protocol for rotating at RWJMS, Rutgers or Princeton

The student must complete a Rotation Approval Form, have it signed by the mentor and a member of the Rotation Advisory Committee, preferably by the representative of the school where they are performing their rotation. The completed and signed form must then be submitted to the program administrator.

A completed Rotation End Form must be submitted with 3 weeks of the end of the rotation. The student should complete the top half of the form describing briefly the work in the rotation. The mentor should fill out and sign the bottom of the form and submit it directly to the program administrator (RWJMS V-01).

Laboratory selection for the Ph.D.:

Following the second (or third) rotation in the fall of M2, each student will rank order laboratories for his/her Ph.D. thesis research. The student should discuss the feasibility of joining the laboratory with each rotation mentor before beginning the rotation. In order to ensure a balanced distribution of the students between RWJMS-GSBS, Rutgers and Princeton campuses, each student will rank order their laboratory choices and submit the list to the Academic Affairs Committee via the program administrator by September 15 of the MS2 year. The Academic Affairs Committee will approve the match of all students with their laboratories. Upon approval, the student and advisor must complete the laboratory selection form (appendix), which specifies the graduate program the student will enter and document the stipend support for the student during the PhD years. The form must be forwarded to the Office of the MD/PhD Program by November 1 of the second year of medical school unless a post-M2 rotation is approved. In addition a statement from the student justifying his/her lab choice may be required in some programs.

Return to M3:

Students are to inform their program director/campus liaison in the fall of the year before they anticipate completing their PhD requirements and returning to the M3 year. All students who anticipate a return to the M3 year in the next 12 to 16 months will meet on a regular basis with the program director and an Assistant/Associate Dean for Student Affairs to go through the stages of return, required training and to assure appropriate clinical continuity experiences are occurring. In
order to return to the M3 year, students must defend their PhD thesis and submit all the requirements to their graduate school. Students who fail to complete this requirement will not receive the financial support from the MD PhD program until the MD PhD Program administrator has received confirmation all the PhD graduation requirement are met.

**Program Committees:**
Program committees serve to assure the highest standards for the MD/PhD program, encourage student participate in program functions, and to help students develop leadership skills. The committees serve roles in assuring program growth in faculty participation, scientific disciplines and interdisciplinary science. The committees also provide external feedback to the program director and assessment of program components.

**Admissions Committee:**
The role of the UMDNJ Robert Wood Johnson Medical School MD/PhD Admissions Committee is to identify the most promising physician scientists for admission into the MD/PhD program. The committee will strive to achieve a balanced and diverse student body. The committee will consist of faculty members representing the 3 member institutions, appointed by the director of the MD/PhD program. Membership will reflect the diverse graduate programs, departments and scientific opportunities available to potential students. The Associate Dean of Admissions, RWJMS, will serve ex officio on the committee. One student representative will be appointed to the committee.

The committee will be chaired by the director of the MD/PhD Program and staffed by the program administrator. The committee will meet at a minimum monthly during peak admission season. The Program Director and Associate Dean of Admissions, RWJMS will pre-screen all applications prior to presentation to the committee. Committee members have the option to review all files, and can forward candidates for consideration for an interview. Students selected for an interview will be interviewed by a minimum of 2 members of the committee and at least 1 member of the RWJMS MD admissions committee.

**Curriculum Committee:**
The role of the UMDNJ Robert Wood Johnson Medical School MD/PhD Program Curriculum Committee is to ensure a rigorous curriculum for all students in the MD/PhD program. The committee will regularly access national trends in physician scientist education and identify if any curriculum changes are required. The curriculum will focus on integrating the competencies required of physicians and scientists and remain cognizant of the specific needs of program students. The committee will review the curriculum annually, assess evaluations of all required program courses, and review specific requests for a deviation from the requirements of the program. Members of the committee may also be asked to serve as liaisons between students and programs in cases where questions arise as to the transfer of M1 and M2 courses toward graduate degrees and to recommend faculty to participate in the MD/PhD program courses or the colloquia. The committee will also review and recommend clinical experiences during the PhD years. The committee will consist of faculty members representing the 3 member institutions, appointed by the director of the MD/PhD Program. Two student representatives will be appointed to the committee.
Advisory/Academic Affairs Committee:

The role of the UMDNJ Robert Wood Johnson Medical School MD/PhD Program Advisory Committee is to provide independent advising to program students in the period prior to choosing a PhD mentor and during the transition back to the M3 year. This committee and its members do not replace the role of the mentor or the thesis committee, but support students in the unique aspects of the MD/PhD program. Advisory committee members are not, however, excluded from membership on the thesis committees of program students. The committee consists of liaisons for each of the three member institutions. Liaisons are appointed by the program director with input from the Steering Committee. The program director or the director's designate serves as the liaison for UMDNJ RWJMS. An RWJMS MD/PhD faculty member from New Brunswick also serves on the committee. At least one Assistant/Associate Dean of Student Affairs, RWJMS will serve on the committee to assist in mentoring during the transition to the clinical years of medical school.

Steering Committee:

The role of the UMDNJ Robert Wood Johnson Medical School MD/PhD Program Steering Committee is to oversee all aspects of the program. The committee will meet annually and review recruitment activities, admissions, curriculum changes, and inter-university issues. The committee members will be called upon by the program director to recommend faculty for membership to committees and to participate in courses or the colloquia. The steering committee will approval all faculty that apply for membership in the program.

Membership

<table>
<thead>
<tr>
<th>Membership</th>
<th>MD/PhD program director</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 clinical faculty, RWJMS</td>
</tr>
<tr>
<td></td>
<td>1 basic science faculty, RWJMS</td>
</tr>
<tr>
<td></td>
<td>Sr. Associate Dean for Research RWJMS</td>
</tr>
<tr>
<td></td>
<td>Associate Dean of the Graduate School, UMDNJ GSBS Piscataway</td>
</tr>
<tr>
<td></td>
<td>Princeton University Liaison</td>
</tr>
<tr>
<td></td>
<td>Rutgers University Liaison</td>
</tr>
</tbody>
</table>

Recruitment Committee:

The role of the UMDNJ Robert Wood Johnson Medical School MD/PhD Recruitment Committee will be to assist in recruiting an outstanding and diverse student body. Committee members will supplement the admissions committee for interviewing applicants, host dinners for students during the MD/PhD interview days, and if appropriate, travel to other institutions or meet with local undergraduate programs to promote the program. The committee will consist of faculty members representing the three member institutions, appointed by the director of the MD/PhD program. A minimum of three student representatives will be appointed to the committee.

Symposium Committee:

The UMDNJ Robert Wood Johnson Medical School MD/PhD Symposium Committee aims to promote
the exchange of scientific ideas among program students and faculty and to provide an opportunity for students to develop speaking skills and learn the logistics of meeting planning and organization. Accordingly, program students and faculty participate in an annual symposium. The Symposium Committee will consist of a minimum of three appointed student representatives and the program administrator. Faculty members can be appointed by the director of the MD/PhD program following recommendation by the program students.

**C²alc “Clinical Continuity a la carte”**

Once a student enters the PhD phase of the MD/PhD program, the question arises as to how to maintain the “clinical contact” and assure a smooth transition back to the M3 year. As such, the MD/PhD program offers an “a la carte” selection of opportunities to fit the unique interests, needs and locations of our students. Students do not exercise ALL of these options, but select the best ones for their specific stage of the PhD. The choice can also change from year to year. All students that anticipate returning to the M3 year must declare their intention during their August meeting with the program leadership, in preparation for the more structured transition year program (including meetings with student affairs, OSCE, CPR, scheduling). The C²alc options are below, and we welcome student suggestions.

1. **Cognitive skills tutoring**
   WHAT: Serve as a tutor.
   WHY: A way to review the M1 and M2 material
   HOW: Contact Dr. Norma Saks at: saks@umdnj.edu or 732-235-4129
   [http://www2.umdnj.edu/cogskweb/](http://www2.umdnj.edu/cogskweb/)

2. **Physical Diagnosis tutoring**
   WHAT: Serve as a tutor
   WHY: A way to review clinical skills
   HOW: Contact Dr. Carol Terregino at: terregca@umdnj.edu

3. **M1 Integrated Cases Facilitator**
   WHAT: Serve as a facilitator for one (or more) of the M1 integrated cases. This includes attending the faculty prep sessions, attending the panel discussion and facilitating the small group.
   WHY: A way to review the M1 material and gain teaching skills
   HOW: Contact Dr. Will Zerhing at: zehrinwa@umdnj.edu or 732-235-4480

4. **PCM mentor contact**
   WHAT: Shadow your PCM mentor or contact them to help identify a mentor for shadowing
   WHY: A way to review clinical skills and use the contact of a person that know you well.
   HOW: Contact your M1/M2 mentor.

5. **Promise clinic or other service learning**
   WHAT: Serve in one of the service learning clinics
   WHY: A way to review clinical skills
   HOW: Apply to these programs, for more info see: [http://rwjms.umdnj.edu/hiphop/](http://rwjms.umdnj.edu/hiphop/)

6. **Interim OSCEs**
   WHAT: Complete an OSCE
   WHY: A way to review clinical skills and receive objective feedback
   HOW: Contact Dr. Carol Terregino at: terregca@umdnj.edu
7. **Local Shadowing**
WHAT: Shadow a physician in your area, and for New Brunswick students this includes CINJ and at Princeton includes The University Medical Center at Princeton
WHY: A way to review clinical skills and experience a specific area before choosing clinical electives.
HOW: Options include contacting our clinical program faculty (contact Perry for an updated list).
RWJMS MD/PhD PROGRAM ROTATION FORM

Prior to starting your rotation the student must obtain signatures from both the Professor in whose laboratory they will be rotating as well as the member of the advisory committee from the host institution. The form is to be submitted to Perry Dominguez in Room V-01, RWJMS Piscataway. If there are any questions contact Dr. Terri Goss Kinzy, Program Director (Rm. 709 RWJMS Research Tower Piscataway, kinzytg@umdnj.edu). Once student rotations are complete each student will rank order their laboratory choices and final selections will be facilitated by the advisory committee. Students will enter the laboratory following the end of the second year of medical school. The PhD stipend, tuition and health benefits will be the responsibility of the research mentor. If there are questions concerning the laboratory rotation feel free to contact any of the Liaisons.

Student Name: _________________________________________

Lab Rotation # ________

Dates of rotation
________________________________________________________

Name and Department of the Professor in whose laboratory you will be rotating:
________________________________________________________

Location of Laboratory:
________________________________________________________

University    Campus    Room/building

Laboratory Telephone #: _____________________

Approved by Professor in whose laboratory student is rotating
________________________________________________________

Signature

Approved by advisory committee member for the host institution of the rotation.

________________________________________________________

Signature

**Student’s current residence address:**

________________________________________________________

________________________________________________________

Cell #: ____________________     Home Tel #: ____________________
RWJMS MD/PhD PROGRAM ROTATION END FORM

Name: ____________________________ Mentor: _______________________
Institution: _______________________________ Rotation number: __________

Student summary of rotation experience (please limit to ½ page)

_______________________________________________________________________

Faculty summary of rotation and comments:

_______________________________________________________________________

Signature

The completed form must be submitted by the rotation mentor to Perry Dominguez, V-01 UMDNJ RWJMS/GSBS no later than 3 weeks after the end of the rotation.
# RWJMS MD/PhD PROGRAM LAB RANKING FORM

Student Name: ____________________________

<table>
<thead>
<tr>
<th>Rank</th>
<th>Faculty member</th>
<th>Institution</th>
<th>Department</th>
<th>Graduate program (if known)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments to the advisory committee:

If the student requests the option to perform an additional rotation, please explain below.

Signature ____________________________ Date _____________

The completed form must be submitted to Perry Dominguez, V-01 UMDNJ RWJMS/GSBS no later than September 15.
At the end of the second year of medical school studies, each student is required to enroll in a graduate program based in the university in which the thesis advisor holds their primary appointment. This form must be forwarded to the Perry Dominguez, MD/PhD program office, by November 1 of the second year of medical school unless a post-M2 rotation is required.

I, ______________________will serve as Thesis Advisor for ______________________

(Advisor’s Name)              (Student’s Name)

and he/she will follow the course curriculum of _________________________________.

(Name of Graduate Program)

I will begin supporting the student as of ____________ at the stipend of ___________.

(Date not later than Aug. 1)  (Amount)

I understand that program guidelines regarding Graduate Assistantship require the stipend stipulated in the program Memorandum of Understanding, tuition and full insurance benefits must be paid by the mentor for the duration of the PhD. Additionally, I understand the requirements for student participation in the MD/PhD program such as but not limited to the MD/PhD Symposium, monthly MD/PhD colloquia, annual meetings with the Program Director or their designate, annual thesis committee meetings, timely completion of the qualifying examination, and clinical experience.

The source of funding for this student is: ___________________________________________.

(i.e. - NIH, NSF, Name of source)

Signature of Advisor: __________________________________________________________

Student's current home address: __________________________________________________

__________________________________________________

-------------------------------------------------------------------------------------------------------------------

Student's Current Univ: _____________________  Univ. Affil. of Advisor: ____________________

Student's Current Program: __________________  New Program selected: _____________________

(if applicable)

Transfer of Univ. required:    yes _______                                               no  ________

Area below to be filled out by MD/PhD Program Office - Do not write below line