

The Distinction in Research (DIR) program is intended to recognize Rutgers Robert Wood Johnson Medical School students, who plan research project in different areas of medical, basic, behavior, and social sciences research. Students who are accepted into this program and who fulfill the requirements listed below will receive diplomas at Commencement stating that they have graduated with "Distinction in Research".

## **Procedure for Admission to the Program**

### **1. Select Mentor.**

The student selects a mentor within or outside the Rutgers RWJMS and formulates a research project under the guidance of the mentor. Please visit "[DIR Mentorship Program](#)" that may help you to find research mentor within our medical school.

### **2. Complete Application Form.**

Application forms are available in the Student Affairs Office, the Office of Research and Sponsored Programs, and on-line on the Student Affairs web site. Please visit [Program Application](#) on DIR website. Students are encouraged to begin the application process of the original research project in the spring semester of their first year or during the summer between their first and second years prior to AUGUST 01 or MARCH 01 in advance of the DIR Committee meetings. All students must submit their application to the program no later than MARCH 1 of the year before the student's anticipated graduation (typically the spring of the 3rd year). Research projects initiated during the student's fourth year, completed prior to application, and submitted in fulfillment of any other degree cannot be used for DIR application.

### **3. Submit Research Proposal.**

The application is in the form of a research proposal divided into two Parts: Research Plan and Student role in research project including timeline.

#### **PART I – Research Plan (up to 7 pages)**

**A. Abstract** (not more than 150 words)

**B. Introduction/Background/Significance**

**C. Hypothesis to be tested** (include the rationale leading to the hypothesis)

**D. Specific Aims**

**E. Preliminary data** (not required, provide only if obtained by the student)

**F. Research plan**

**G. Methods** (methodologies, experiments, inclusion and exclusion criteria, sample size calculation, data presentation, and statistical analysis)

**H. Human Subjects Research**

- i. Human subject involvement and characteristics
- ii. Sources of materials
- iii. Potential risks
- iv. Recruitment and informed consent
- v. Protection against risk

**I. References**

## **Part II – Student Role and Timeline (up to 2 pages)**

### **A. Research Team** (including names, titles, and roles of others)

### **B. Student Role**

- i. Description of activities and time spent in sample preparation, data generation or data collection (e.g. specific laboratory experiments)
- ii. Description of the nature of the contact with human subjects, if applicable (e.g. student conducting interviews, student preparing survey instruments, student analyzing data received from another source).
- iii. Description of training activities or formal coursework that student might engage in while participating in DIR (other than medical school coursework), if applicable.
- iv. Include amount of time student expects to spend on all of these activities

### **C. Timeline of Research Project**

- i. Experimental design and optimization
- ii. IRB preparation and approval, if applicable
- iii. Human subject participant selection and enrollment, if applicable
- iv. Data collection and analysis
- v. Preparation of final report/publication

### **D. Human Subjects/Animal proposed work.**

- i. Current status of human subjects (IRB) or animal (IACUC) approval for proposed work, if required (see DIR *Program Application*).

## **4. Mentor Letter** (on letterhead).

It must describe or confirm the following:

- i. the student’s role in the proposed research project
- ii. the scientific merit of the project
- iii. the significance of the applicant’s contribution to the development of the research project
- iv. the applicant’s commitment to completing the project within the proposed time frame
- v. plans for reporting the results and student’s authorship

It is expected that the student will carry out the majority of the experiments him/herself and will take primary responsibility for writing the manuscript. In the case where the student contributes to a multi-investigator project precluding first authorship, then the student may submit a written research report for evaluation, as described under “Requirements.”

## **5. Student CV** (CV/resume format)

## **6. Mentor (s) CV** (CV/resume format)

## **7. Application Format.**

Applications must be written by the student and should be no longer than a total of 9 single-spaced pages for both Parts I and II. Documents should have minimum one inch margins and a type font size >11. All documents must be submitted in electronic format (PDF preferred) and hard copies of the signed mentor letter and application must be sent to the Office of Research and Sponsored Programs.

## 8. Review and Approval.

The Rutgers Robert Wood Johnson Medical School DIR Parent Committee will make the final decision as to whether a student's proposal is acceptable. Applicants can expect to be notified of the decision following review of the student's research proposal in the August or March meetings of the DIR committee.

## 9. Application Revision.

Students whose applications are not accepted by the DIR committee will have the opportunity to revise their applications in response to specific criticisms and resubmit for reconsideration.

## Procedures During the Course of the DIR Program

1. Once a student is accepted into the program, the student will be assigned a DIR Student Advisory Committee (DIR SAC) consisting of their mentor, a member of the DIR Parent Committee (the DIR Liaison) and a third RWJMS faculty member appropriate to the scientific area to provide guidance and feedback. Students may suggest members from the RWJMS faculty to sit on the DIR SAC.
2. The student should meet with this committee within 1 month of acceptance into the program, document the meeting on the DIR SAC Initial Meeting Form, and submit the completed form to the Office of Research and Sponsored Programs. This meeting will ensure that the student is aware of the requirements of the program and provide scientific feedback to assist the student in completing the DIR program. Meetings should be "in-person", if possible, although other arrangements can be made with the consent of the DIR SAC.
3. Students **must** keep their DIR Liaison advised of their progress while in the DIR program by updating their DIR Liaison at least **twice** per year. Students must meet (either in person, by phone, or by email) with their DIR Liaisons in advance of the March 01 **and** the August 01 deadlines each year. *It is the student's responsibility to contact the DIR Liaison prior to the August 01 and March 01 deadlines.* If the DIR Liaison cannot confirm this contact and the student's ongoing progress, the student may be dropped from the program. It should be noted that while there is no appeals process, difficulties meeting these deadlines may be discussed with the DIR Liaison prior to the August 01 or March 01 deadlines.
4. In addition to keeping their DIR Liaison informed of their progress, students conducting multi- year projects must meet at least annually with their full DIR SAC. Students may document this meeting using the DIR SAC Interim Meeting Form, which should be submitted directly to **Dr. Anna Petrova, Chair, DIR Committee at [petroran@rwjms.rutgers.edu](mailto:petroran@rwjms.rutgers.edu)** once completed. We urge students to meet with their SACs at regular intervals (at least once per year) in advance of either the **March 1<sup>st</sup> or August 1<sup>st</sup>** DIR deadline. This will allow students to receive valuable scientific feedback on their DIR projects from faculty experts and ensure students make adequate progress to complete the program requirements in a timely fashion.
5. It is expected that all research conducted by Rutgers RWJMS students is in compliance with all federal, state, local and university laws, policies, and guidelines. Students must provide both their DIR SAC and the Research Office with the appropriate documentation of all required approvals for their research, such as IRB and IACUC protocol approvals. Students will not be able to earn the DIR designation if the Research Office cannot confirm that the research was conducted under required approvals.

## Requirements for Successful Completion of the Program

1. Students are expected to produce a suitable final written product in order to graduate with the DIR designation.

This product can take one of the following forms:

- a) An accepted peer-reviewed journal article with the student as first author
  - b) A submitted peer-reviewed journal article with student as first author (with a copy of the letter of submission to the journal)
  - c) A written report (15-20 pages, single spaced) written by the student which includes an expanded literature review and research methods, results and discussion section.
2. Once the project is complete and the above documents are in hand, the written product along with the mentor letter must be submitted to the DIR SAC for review. The student must meet with the DIR SAC to review the work and complete the SAC Final Evaluation Form. In the case of a written report, the DIR SAC will decide if the report qualifies the student for graduation with Distinction in Research. In some cases, the student may be asked to modify the written work before the DIR SAC will accept it and sign the SAC Final Evaluation Form. The final DIR SAC meeting should be “in person”; however, other arrangements can be made upon the consent of the student’s DIR SAC.
  3. An electronic copy of the final written product, the mentor letter and a hard copy of the signed completed SAC Final Evaluation Form must be submitted to the Office of Research and Sponsored Programs by March 01 or August 01 to be considered for final approval by the DIR Parent Committee. Note that to graduate with the DIR designation, students must submit all written products, letters and the fully-executed SAC Final Evaluation Form by March 01 of their graduation year.

## Recognition of Achievement

1. Students in the DIR program will have this distinction noted in their Medical Student Performance Evaluation (MSPE) letter **if** they have fulfilled the program requirements prior to **August 1st** (pending approval by the DIR Parent Committee) of their graduation year. The student will earn the designation, "Distinction in Research". This will be indicated on the Commencement Program and noted on the student’s diploma. DIR students will also be recognized at the Graduation and Awards banquet.
2. Students who fulfill all of the requirements by March 1st (pending approval by the DIR Parent Committee) of their graduation year will earn the designation, "Distinction in Research". This will be indicated on the Commencement Program and noted on their diploma. Students will also be recognized at the Graduation and Awards banquet. This is an exciting opportunity for students to receive recognition for creativity and originality. This research experience is a valuable educational component especially for an academic or clinical medicine career.

\*\*Several elements of this document were adapted from the Mount Sinai Medical School Web Site with the kind permission of Dr. Karen Zier, Associate Dean for Student Research at the Mount Sinai School of Medicine.