

(Based on the www.aamc.org/gradcompact)

Mentoring and Training Agreement

A Compact Between Biomedical Graduate Students and Their Research Advisors

Pre-doctoral training in the biomedical sciences entails a formal education in a specific or interdisciplinary field, an apprenticeship in which the graduate student trains under the supervision of one or more investigators who are qualified to fulfill the responsibilities of a mentor and understand the necessity of teamwork and collaborations. A positive mentoring relationship between the pre-doctoral student and the research advisor is a vital component of the student's preparation to become, not only an independent and successful research scientist, but also an effective mentor and science communicator to future graduate students, professional peers, or the general public.

Individuals who pursue a biomedical graduate degree are expected to take responsibility for their own scientific and professional development. Faculty who advise students are expected to fulfill the responsibilities of a mentor, including the provision of scientific training, guidance, instruction in the responsible conduct of research and research ethics, and financial support. Being a mentor requires time-commitment for the student's overall training growth. A successful mentor provides the graduate student a scientific and professional role model. In addition, the advisor offers encouragement as the graduate student prepares an individual development plan and facilitates the experiences and professional skills essential for a broad set of career paths.

(Modified from the American Association of Medical Colleges.)

Core Tenets of Pre-doctoral Training

Institutional Commitment

Institutions that train biomedical graduate students must be committed to establishing and maintaining high-quality training programs with the highest scientific and ethical standards. Institutions should work to ensure that students who complete their programs are well-trained and possess the foundational skills and values that will allow them to mature into independent scientific professionals of integrity. Institutions

should provide oversight of the graduate curricula, length of study, program integrity, stipend levels, benefits, career guidance, grievance procedures, and other matters relevant to the education of graduate students (e.g., consideration of, preparation for, and exposure to various career paths). Additionally, they should recognize and reward their graduate training faculty. With changing and diversified biomedical workforce needs, institutions should recognize the necessity of faculty development around multiple career paths for trainees and provide opportunities for faculty to acquire such skills and experiences. Additionally, institutions should also foster an environment that is diverse and inclusive.

Program Commitment

Graduate programs should endeavor to establish graduate training programs that provide students with the skills necessary to function independently in a scientific setting by the time they graduate. Programs should strive to maintain scientifically relevant course offerings and research opportunities. Programs should establish clear parameters and timelines for outcomes assessment and closely monitor the progress of graduate students during their course of study.

Quality Mentoring

Effective mentoring is crucial for graduate school trainees as they begin their scientific careers. Faculty mentors must commit to dedicating substantial time to the graduate students to ensure their scientific, professional and personal development. A relationship of mutual trust and respect should be established between mentors and graduate students to foster healthy interactions and encourage individual growth. Effective mentoring should include teaching the scientific method, providing regular feedback in the form of praise and constructive criticism to foster individual growth, teaching the “ways” of the scientific enterprise, and promoting students’ careers by providing appropriate opportunities. Additionally, good graduate school mentors should be careful listeners, actively promote and appreciate diversity, possess and consistently exemplify high ethical standards, recognize the contributions of students in publications and intellectual property, and have a strong record of research accomplishments and financial support.

If the mentor or mentee feels as if the other is not providing quality mentoring, a functional work environment, or educational communication, resources are available to discuss these issues.

Provide Skills Sets and Counseling that Support a Broad Range of Career Choices

The institution, training programs, and mentor should provide training relevant to academic, industrial, and research careers that will allow their graduate students to appreciate, navigate, discuss, and develop their career choices. Effective and regular career guidance activities should be provided and encouraged, including exposure to academic and non-academic career options. These guidance activities may include: career workshops, seminars, conferences, external internships or fellowships, and other departmental or institutional events.

Commitments of Graduate Students

- **I acknowledge that I have the primary responsibility for the successful completion of my degree.** I will be committed to my graduate education and will demonstrate this by my efforts in the classroom and the research laboratory. I will maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards. I acknowledge that I am responsible for knowing and following through on all deadlines and requirements needed to graduate.
- **I will meet regularly with my research advisor and provide him/her with updates on the progress and results of my activities and experiments.** I will keep a thorough and accurate laboratory notebook, which will demonstrate my creativity and experimental input into the project and overall goals of the lab.
- **I will work with my research advisor to develop a thesis/dissertation project.** This will include establishing a timeline for each phase of my work. I will strive to meet the established deadlines and understand that major and minor changes may occur in response to scientific challenges.
- **I will work with my research advisor to select a thesis/dissertation committee.** I will commit to meeting with this committee at least annually (or more frequently, according to program guidelines). I will be responsive to the advice and constructive criticism from my committee.
- **I will be knowledgeable of the policies and requirements of my graduate program, graduate school, and institution.** I will commit to meeting these requirements, including teaching responsibilities and attending institutional or program events.
- **I will attend and participate in laboratory meetings, seminars and journal clubs that are part of my educational program.** I will be attentive and supportive of presentations given by my peers and will provide constructive criticism to help their graduate development.

- **I will comply with all institutional policies, including academic program milestones.** I will comply with both the letter and spirit of all institutional safe laboratory practices and animal-use and human-research policies at my institution. I will comply with all additional training and/or courses required for experimental procedures or protocols.
- **I will participate in my institution's Responsible Conduct of Research Training Program and practice those guidelines in conducting my thesis/dissertation research.** I understand that these training programs are required by national institutions and government organizations to ensure institutional compliance with national regulations.
- **I will apply Rigor and Reproducibility to my research.** I understand that the application of rigor to the experimental design, methodology, analysis, interpretation, and reporting of results ensures robust and unbiased data. I will ensure the reproducibility of my results by being meticulous in my methods and documentation.
- **I will be a good lab citizen.** I will agree to take part in shared laboratory responsibilities and will use laboratory resources carefully and frugally. I will maintain a safe and clean laboratory space. I will be respectful of, tolerant of, and work collegially with all laboratory personnel.
- **I will maintain a detailed, organized, and accurate laboratory notebook. I will back up my data regularly and send analyzed and raw data to my mentor.** I am aware that my original notebooks and all tangible research data are the property of my institution but that I am able to take a copy of my notebooks with me after I complete my thesis/dissertation. I will be as transparent as possible with all data obtained from experiments and analyses.
- **I will discuss policies on work hours, sick leave and vacation with my research advisor.** I will consult with my advisor and notify fellow lab members in advance of any planned absences. I understand that some experiments or laboratory maintenance may require my presence on institutional holidays; however, these holidays are considered voluntary, not mandatory. The following dates are considered institutional holidays; however, it is in the student's best interest to

inform his/her mentor of a leave of absence.

Fall Semester:

Labor Day (first Monday of September)

Thanksgiving Holiday (fourth Thursday and Friday of November)

Winter Holiday (December 24th and 25th)

New Year's (December 31st and January 1st)

Spring/Summer Semester:

Martin Luther King Jr. (third Monday of January)

Spring Recess (one week in March; highly recommended to ask permission)

Memorial Day (the last Monday of May)

Independence Day (July 4th)

- **I will discuss policies on authorship and attendance at professional meetings with my research advisor.** I will work with my advisor to submit all relevant research results that are ready for publication in a timely manner prior to my graduation. I will communicate effectively with my advisor to discuss what data can be presented or disclosed in presentations or professional meetings.
- **I acknowledge that it is primarily my responsibility to develop my career following the completion of my doctoral degree.** I will seek guidance from my research advisor, career counseling services, thesis/dissertation committee, other mentors, and any other resources available for advice on career plans.
- **I will communicate openly about requesting a Leave of Absence with my mentor and other administrative members.**

Commitments of Research Advisors

- **I agree to assign the graduate student a personalized project for his/her thesis dissertation.** I will avoid sharing projects amongst graduate students and other laboratory members to ensure that my student can grow as an independent researcher. I will avoid splitting the graduate student among too many unrelated projects that may detract from the primary goal of the graduate student, to complete their dissertation work.
- **I am dedicated to the success of the long-term career of the graduate student.** I will be committed to the education and training of the graduate student as a future member of the scientific community.
- **I am committed to the research project of the graduate student.** I will help to plan and direct the graduate student's project, set reasonable and attainable goals, and establish a timeline for completion of the project. I recognize the possibility of conflicts between the interests of externally funded research programs and those of the graduate student and I will work to minimize any interference with the student's pursuit of his/her thesis/dissertation research.
- **I agree to meeting one-on-one with the student on a regular basis.** These meetings can follow the open-door policy or a scheduled appointment. Mentors should meet with their students a minimum of twice a month. Students will also discuss with the mentor anticipated publication, anticipated meeting attendance, expected year of graduation, career goals and other research activity, class, or training needed before next job. I will review the student's IDP annually to ensure that we are progressing towards the student's goals for the future.
- **I am committed to creating an environment in which the student can discuss and explore career opportunities and paths that match their skills, values, and interests and be supportive of their career path choices.** *I will be open to discuss all career and professional goals with the student, and I will not try to persuade the student to only pursue a particular career that I solely see fit for him/her.*

- **I am committed to providing financial resources, as appropriate or according to my institution's guidelines, in order for the graduate student to conduct thesis/dissertation research.** If my student wishes to apply for external funding by pursuing competitive grants, fellowships or scholarships, I will facilitate the application and write the mentor section of the fellowship.
- **I will be knowledgeable of and guide the graduate student through the requirements and deadlines of his/her graduate program, as well as those of the institution, including teaching requirements and human resources guidelines.** I will not impede the graduate student's growth or deadlines for my personal gain. I will respect the graduate students needs to attend classes, study for exams, and work on program-related activities that may interfere with productivity in the lab.
- **I am willing to help the graduate student select a thesis/dissertation committee with full understanding that the final choice belongs to the graduate student.** I will assure that this committee meets at least annually (or more frequently, according to program guidelines) to review the graduate student's progress and future directions. I understand that the function of this committee is to help the student complete the doctoral research, and I will respect the ideas and suggestions of my colleagues on the committee.
- **I am committed to promoting the training of the graduate student in the professional skills needed for a successful career. These skills include, but are not limited to, oral and written communication, grant writing, management and leadership, collaborative research, responsible conduct of research, teaching, and mentoring.** I will encourage the student to seek opportunities to develop skills in other areas, even if these opportunities are not specifically required by the student's program. I will also encourage the graduate student to seek input from multiple mentors.
- **I will expect the graduate student to share common laboratory responsibilities and utilize resources carefully and frugally.** I will ensure the graduate student has the tools and equipment

needed to carry out experiments.

- **I agree to not force the graduate student to perform tasks that are unrelated to his/her training program and professional development.** I will only request that students learn and implement techniques that are within the scope and time frame of their thesis project.
- **I will abide by the Authorship Policy of the University of Miami Miller School of Medicine and will discuss authorship policies regarding papers with the graduate student.** I will acknowledge the graduate student's scientific contributions to the work in my laboratory, and I will work with the graduate student to publish his/her work in a timely manner prior to the student's graduation. I will be transparent with the graduate student about authorship and scientific contributions for research papers, oral/poster presentations, or other scientific materials. *Any changes in authorship must be discussed with all parties involved in the manuscript (i.e. persons who contributed to the conception of ideas, editing of manuscript, experiments performed, etc.) and discussed with an unbiased third party (such as the ombudsperson) if there should be any conflict.*
- **I agree to discuss intellectual policy issues with the student with regard to disclosure, patent rights and publishing research discoveries.**
- **I pledge to encourage the graduate student to attend at least one scientific/professional meeting a year and make an effort to secure and facilitate funding for such activities.**
- **I agree to provide career advice and be supportive/assist in finding a position for the graduate student following his/her graduation.** I will provide honest letters of recommendation for his/her next phase of professional development. I will also be accessible to give advice and feedback on career goals.
- **I am committed to providing for every graduate student under my supervision an environment that is intellectually stimulating, emotionally supportive, safe, and free of harassment. I will allow the student to go to a physician and/or counseling during working**

hours, if needed, understanding that UM health and counseling hours overlap with time expected to be in the laboratory. I understand that UM graduate students must use the Coral Gables health facility for all related medical or counseling appointments, which will influence overall time of absence, and I understand UM student clinics only provide weekday appointments.

- **Throughout the graduate student's time in my laboratory, I pledge to be supportive, equitable, accessible, encouraging, and respectful.** I will foster in the graduate students professional confidence and encourage critical thinking, skepticism and creativity. I will be respectful of the student's personal holidays and abide by the institution's designated holidays. I will demonstrate respect for all graduate students *as individuals* without regard to gender, race, national origin, religion, disability or sexual orientation, and I will cultivate a culture of tolerance among the entire laboratory.
- **I acknowledge that I cannot make working on the following holidays mandatory, per University rules:** the student may work on these holidays only by choice.

Fall Semester:

Labor Day (first Monday of September)

Thanksgiving Holiday (fourth Thursday and Friday of November)

Winter Holiday (December 24th and 25th)

New Year's (December 31st and January 1st)

Spring/Summer Semesters:

Martin Luther King Jr. (third Monday of January)

Spring Recess (lasts for one week in March; must ask permission)

Memorial Day (the last Monday of May)

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Mentoring Agreement

Graduate training at the University of Miami Miller School of Medicine relies on a mentoring relationship between the student and one or more members of the faculty who share similar research interests. It is important that both mentor and student have a shared understanding of the expectations that come from this relationship.

The Mentor-Mentee Compact states common commitments to which mentors and graduate students are expected to adhere. The mentor and mentee should review and sign this document. In addition, the mentee should also discuss the items below with their mentor before joining the research group. These talking points are meant to facilitate a discussion about mutual expectations for the duration of the relationship. The mentee should summarize and type up a hard copy of the final decisions, and have the agreement signed and dated by their mentor, co-mentor(s), program director, and themselves.

1. What are the policies for work hours (regular week/weekends/holidays)?
2. If I need to take time off (vacation/appointment/religious holliday/etc.), how far in advance does the mentor need to know?
3. Are there other members of the group (other students, techs, etc.) that would be available to take care of my project resources (mice, cell lines, incoming samples and data) if needed?
4. How often will we meet? When and where will meetings take place? Who is responsible for arranging meetings?
5. What the preferred method of communication? How soon is a response expected?
6. How much time am I given to write my thesis? If I take time away from the bench, will I still be paid?
7. What does the mentor expect every week in terms of productivity?
8. Will the mentor take time to discuss post-grad career? Are internships allowed?
9. What additional expectations/concerns/requests does the mentor have?
10. What additional expectations/concerns/requests does the student have?

We, the faculty mentor, co-mentors, and student agree to enter into a mentoring relationship based on the commitments identified above.

_____ Date: _____ Student

_____ Date: _____ Primary mentor

_____ Date: _____ Co-mentor

_____ Date: _____ Program Director

After all signatures are obtained, copies of the document will be distributed to each person identified above.