

# **Biomedical Science Program Student Handbook**

*The University of Toledo  
College of Medicine and Life Sciences  
2023-2024*

<b>Table of Contents</b>	<b>Page</b>
Welcome	4
COMLS Mission, Vision, & Values	4
Introduction to Biomedical Science Program	5
Bioinformatics	5
Cancer Biology	6
Medical Microbiology & Immunology	7
Molecular Medicine	7
Neuroscience & Neurological Disorders	7
BMSP Core Curriculum	8
Academic Standards	9
Graduate Research Assistantship	9
Mentored Research	9
UTCOMLS Core Tenants of Graduate Training	11
PhD Advisory Committee	11
PhD Qualifying Exam	12
Master’s Advisory Committee	13
Graduate Forms	13
Dissertation & Public Defense	13
Course Registration	14
Student Expectations	14
Student Code of Conduct & Policies	15
Title IX	15
Rocket Card	16
Key Control & HSC Card Access	16
Parking	16
Campus Security	16
Travel Awards	17
Vacation, Holiday, & Sick time	17
Student Health Care & Health Insurance	18
Health Risks to Graduate Students in Science Research	18

Ohio State Residency	19
Financial Aid	19
Graduate Student Organization	19
The health science campus	20
Valuable Website	20
Campus Resources	21
People	22
Appendix	
Commitments of Graduate Students	24
Commitments of Research Advisors	25
6 month committee meeting report	27

## Welcome

On behalf of the University of Toledo College of Medicine and Life Sciences, I welcome you to the Biomedical Science Program. I am glad that you have chosen the University of Toledo as the place for your graduate research training in biomedicine.

The advantages of a graduate degree in Biomedical Science from the University of Toledo include cutting edge research in biomedical sciences, close interaction with research faculty, and preparation for careers in academia, government, or biomedical industries.

This handbook provides information and guidelines specific to you, as graduate students within the Biomedical Science Program. Additional information can be found on the [Biomedical Science Program website](#).

Please take time to review the information in this student handbook carefully. If you have any questions or concerns do not hesitate to contact me.

I look forward to getting to know you and providing any advice or assistance you may seek as you embark on this exciting scientific journey into biomedical science research as a career for yourself.

### **Kandace Williams, PhD**

Professor, Department of Cell & Cancer Biology

Senior Associate Dean of College of Medicine and Life Sciences Graduate Programs

Mulford Library Rm 121

419.383.4135

Kandace.Williams@utoledo.edu

## **UToledo College of Medicine & Life Sciences Mission, Vision, & Values**

### **Mission**

The mission of The University of Toledo College of Medicine and Life Sciences is to improve health in the communities and region we serve. We do this by educating excellent clinicians and scientists, by providing patient centered and high-quality care and by producing nationally recognized research in focused area.

### **Vision**

The University of Toledo College of Medicine and Life Sciences, with its partner ProMedica, is nationally recognized for education and focused research, and regionally distinguished for comprehensive clinical care.

### **Values**

Both statements above reflect the College's core values of professionalism, service, diversity, collaboration and discovery.

### **Accreditation**

University of Toledo College of Medicine and Life Sciences Graduate programs are accredited by the Higher Learning Commission of the North Central Association of Colleges and

Schools, specific COMLS clinical programs also require accreditation by discipline-specific accrediting agencies. The official letter confirming the university’s status of affiliation with the Higher Learning Commission can be found on the website of the [Office of Assessment, Accreditation, and Program Review](#) as well as information regarding individual program accreditations and endorsements.

## Introduction to Biomedical Science Program

The Biomedical Science Program is an umbrella program containing 5 different research training tracks. These tracks offer MD/PhD, PhD, (Master of Science in Biomedical Science (MSBS), Professional Science Master’s (PSM) degrees and/or certificate. See the table below for the degrees offered in each track.

<b>BMSP Track</b>	<b>Degree(s) Offered</b>
Bioinformatics (BIOI)	MD/PhD, PhD, MSBS, PSM, Certificate in Bioinformatics and Biomarkers
Cancer Biology (CAB)	MD/PhD, PhD
Medical Microbiology and Immunology (MMI)	MD/PhD, PhD, MSBS
Molecular Medicine (MOME)	MD/PhD, PhD, MSBS
Neuroscience and Neurological Disorders (NND)	MD/PhD, PhD

## Bioinformatics

The Bioinformatics (BIOI) and Bioinformatics and Proteomics/Genomics (BIPG) tracks are PhD and Master’s of Science in Biomedical Science (MSBS) training tracks respectively, affiliated with the Neuroscience Department, and are designed to provide training in the rapidly developing interface between computer science and life sciences. Both PhD and MSBS students follow well-defined curriculum that includes core courses, journal club, seminars, dissertation or thesis research projects, and electives in their area of interest. Students in all degree tracks are trained in the theory, methods and applications of bioinformatics, proteomics, genomics, and biomarker research. Graduates with such training are in high demand as personalized medicine becomes more integrated into the clinic. BIPG studies can be an independent degree or a certificate or can be conducted within one of the above BSMP tracks.

The program in Bioinformatics and Proteomics/Genomics (BIPG), along with the Ohio Center of Excellence for Biomarker Research and Individualized Medicine (BRIM) at the University of Toledo, also offers a Certificate that can be earned either alone or in association with the Doctor of Philosophy (PhD) or Doctor of Medicine (MD). The Biomarkers and Bioinformatics (BRIM) Certificate Program introduces students to the rapidly growing fields of bioinformatics, proteomics and genomics, and provides a core knowledge of analytical approaches used in these fields. It is particularly valuable for PhD students whose research would be strengthened by expertise in bioinformatics. Upon completion of the program, students will be prepared to utilize biomarker research and bioinformatics techniques and be able to interact with specialists in a range of biomedical sub-disciplines.

Professional Science Master (PSM) provides students advanced training in science, as well as highly valued business skills. PSMs prepare students for science careers in academia, biomedical industry, or government where workforce needs are increasing rapidly. PSM programs are characterized by

“science-plus,” combining rigorous study in science or mathematics with skills-based coursework in management, policy, or law. Our students have a real-world internship in a business or public sector enterprise, instead of the more typical thesis research project.

## **Cancer Biology**

The Cancer Biology (CAB) track, affiliated with the Cell and Cancer Biology Department, fosters young scientists to become cutting-edge researchers who understand the molecular and genetic basis of cancer and the knowledge to develop improved therapies for human cancer. Students in the Cancer Biology track develop scientific thinking and laboratory skills to approach cancer research questions in ways that are highly relevant to improving human health. Graduates of the Cancer Biology program move on to become successful scientists and leaders in academic, government, and industrial settings.

The CAB program faculty research interests and areas of expertise are:

- Control of tumor cell growth and death
- Signal transduction
- Mechanisms of cancer cell motility and chemotaxis
- Invasion and metastasis
- Molecular genetics of cancer risk
- Influence of tumor microenvironment on cancer progression and metastasis
- Protein trafficking
- Epigenetic regulation of oncogenes and tumor suppressor genes
- Chromatin remodeling and mechanisms of DNA repair
- Nitric oxide signaling alterations in cancer cells
- Adipogenesis and pre-adipocyte/adipocyte functions; Role of adipokines in cancer

## **Medical Microbiology and Immunology**

The Medical Microbiology and Immunology (MMI) track, affiliated with the Department of Medical Microbiology and Immunology, educates and trains graduate students for careers investigating the microorganisms that are relevant to human health, the mechanisms by which the immune system overcomes infections, maintenance of immune homeostasis (compared to immune disorders), as well as investigations to prevent the rejection of transplanted organs and tissues.

Our translational research efforts are aimed at more rapidly moving fundamental research findings from bench to bedside. Faculty initiatives focus on acute and persistent microbial infections (bacterial and viral), development of new vaccines and therapeutics, discovering how host immune components/cells sense and clear microbial infections, understanding complex functions of immune cells and proteins, and understanding immune responses that lead to transplant organ/tissue rejection.

The MMI faculty are internationally recognized and have a strong record of graduate student and postdoctoral fellow mentoring. Faculty research interests include:

- Studies to understand individual microbes (bacteria, viruses, or fungi), including those relevant to biodefense, with particular emphasis on their biology, bioinformatics, genetic regulation, pathogenesis, and evolution
- Host responses to infection that can contribute to disease prevention or to autoimmune diseases such as asthma, lupus and rheumatoid arthritis

- Development, differentiation and activation of the innate and adaptive immune systems
- Novel approaches to vaccine and therapeutic development
- Mechanisms to prevent organ/ tissue transplant rejection

Facilities within the Department provide state-of-the-art technologies for Live Cell Imaging, Luminex Multiplex Cytokine Detection, Bioinformatics and Genomics Analyses, and Flow Cytometry. The Department of MMI at the UTCOMLS is dedicated to the fight against infectious pathogens that remain a major cause of human diseases and to the study of defective or excessive immunity that is a cause of many other disorders, including cancer, autoimmune disease, and allergic disease.

## **Molecular Medicine**

The Molecular Medicine (MOME) track is affiliated with the Department of Physiology and Pharmacology. The MOME track provides the necessary tools to pursue an independent career in biomedical sciences. The program encompasses a unique interdisciplinary approach to train students to conduct research in the underlying molecular mechanisms of diseases that have a profound impact on human health.

The program draws on faculty research strengths in physiological ‘-omics’ of complex traits, systems biology, model organism genome editing including CRISPR/Cas9 technology, metabolism, microbiota and immunological contributions to precision medicine, cardiac, vascular and renal physiology and pharmacology, endocrinology, exercise physiology, reproductive physiology and skeletal physiology. The MOME faculty members are not only from its associated department, the Department of Physiology and Pharmacology, which includes the [Center for Hypertension and Precision Medicine](#) (CHPM) and the Center for Diabetes and Endocrine Research, but also from other departments including the Departments of Medicine, Orthopedics, and Urology. Several faculty members are leaders in reputed National and International organizations such as the American Physiological Society, American Heart Association, the American Diabetes Association, and the American Society of Nephrology. The MOME program offers degrees of Doctor of Philosophy (PhD) and Master’s of Science in Biomedical Science (MSBS). The program also offers these graduate degrees in combination with the Medical Degree (MD) that is offered by the medical school.

In summary research in the MOME track encompasses a wide spectrum of topics including; cardiovascular disease, including hypertension, endothelial dysfunction, heart failure and ischemic heart disease, diabetes, obesity, genetic diseases, infertility, renal failure, gastrointestinal inflammation and osteoporosis.

## **Neuroscience and Neurological Disorders**

The Neuroscience and Neurological Disorders track is affiliated with the Neuroscience Department. The combination of molecular biology and genetics with modern neuroanatomical techniques is transforming both our ability to examine and to understand the nervous system. Ongoing research by the faculty in the Neurosciences and Neurological Disorders graduate program is providing insights into neurotransmission, sensory system function, development and plasticity of the nervous system, regeneration and repair following neural damage, the basis of neural disease, and behavior. As one of four biomedical science degree programs in the University of Toledo, College of Medicine & Life Sciences, the Neurosciences and Neurological Disorders program is an interdisciplinary course of studies

whose primary goal is to train students for independent, creative careers in biomedical research and/or teaching.

Nationally recognized, NIH-funded Neuroscience faculty who serve as research mentors are drawn from a number of departments including:

- Neurosciences
- Neurology
- Physiology and Pharmacology
- Otolaryngology
- Psychiatry
- Radiation Therapy

Modern, state-of-the-art research laboratory and core facilities are available through the program and these participating departments.

The primary goal of the doctoral program in Neurosciences and Neurological Disorders is to train students for independent, creative careers in research and/or teaching.

## Biomedical Science Program (BMSP) Core Curriculum PhD

All students enroll in a first-year core curriculum that is designed to provide a foundation of knowledge for cutting edge research. The first- year curriculum provides students with a comprehensive overview of molecular and cellular biology, systems pathophysiology, modern research methodology, and statistical analysis. In addition, students complete laboratory rotations to identify a major advisor.

***\*Students in Bioinformatics have a slightly different first year curriculum.***

### First Year Core Curriculum (CAB, MOME, MMI, NND)

<u>Fall Semester:</u>		<u>Credits</u>	<u>Grade</u>
BMSP 6330	CPRA* in Proteins	2	letter
BMSP 6340	CPRA in Genes and Genomes	2	letter
BMSP 6360	CPRA in Cell Membranes	2	letter
BMSP 6380	Methods in Biomedical Sciences	2	letter
BMSP 6390	Mentored Research (PI Parade & one 7 wk lab rotation)	1	S/U
<b>Total</b>		<b>9</b>	
<u>Spring Semester:</u>			
BMSP 6350	CPRA in Cell Biology and Signaling	3	letter
BMSP 6470	Systems Pathophysiology	4	Letter
BMSP 6390	Mentored Research (two 7 wk lab rotations)	1	S/U
Track-Specific Journal Club		1	letter or S/U
<b>Total</b>		<b>9</b>	
<u>Summer Semester:</u>			
BMSP 7320	Statistical Methods	3	letter
INDI 6020	On Being a Scientist	1	S/U
Research in "Your Track" and/or Electives		1-2	S/U
<b>Total</b>		<b>6</b>	

\*CPRA = Current Problems and Research Approaches



Each track has specific upper-level courses that are required, including didactic courses, journal club, seminars, and research.

Students should consult the [graduate catalog](#) for MSBS and track specific curriculum requirements.

## **Academic Standards**

A complete list of academic regulations can be found in the [Graduate Catalog](#). Students in the BMSP must have a minimum cumulative GPA of 3.0 to graduate. A grade of C is the minimum passing grade for graduate courses. Therefore, any graduate course in which a grade below “C” or grade of “U” was earned will not be used to fulfill graduation requirements.

## **Graduate Research Assistantship**

All PhD students receive a graduate school tuition waiver, living stipend, and health insurance while enrolled as full-time graduate students, as long as they are making timely progression towards their degree. Students must maintain a cumulative 3.0 GPA for all graduate courses. Students must complete new hire paperwork prior to their first semester for their living stipend. The tuition waiver covers 9 credit hours for fall semester, 9 credit hours for spring semester, and 6 credit hours for summer semester at this time. The student is responsible for all general fees.

The COMLS Graduate Studies Coordinator will contact students to complete any necessary paperwork associated with tuition waivers and stipends. Master level students funding is determined on an individual basis.

## **Mentored Research**

All biomedical students must register for Mentored Research. This course is designed to provide training in biomedical research techniques and approaches while the student rotates through different research labs to identify a research mentor. Master’s students complete two; seven-week lab rotations while PhD students complete three; seven-week lab rotations. Students are strongly encouraged to consider these rotations very seriously. Both the faculty and you are interviewing for a very important and in-depth part of your training. If the faculty is not a good ‘fit’ for you, you are not required to choose this faculty as your mentor. If you do not show up promptly, work hard on your given project, attend lab meetings, be respectful and ask questions during your time in the lab, this faculty is under no obligation to choose you as an advisee.

During the first part of Fall semester of year 1, individual faculty will provide a 20 - 30-minute presentation on the research projects conducted in each of their labs and the significance of their work in a given field; this is often referred to as the PI Parade. All new students are required to attend these presentations. Students must complete their required rotations (two for MS; three for PhD) with faculty in the track they have been accepted into. Students who wish to do additional rotations may do rotations outside of his/her track. A student may be required to switch tracks if their chosen mentor’s research focus is in another track.

### **Process for Identifying Research Rotation Laboratories:**

- After the completion of all the faculty seminars (PI Parade), students will interview with potential faculty advisors in laboratories they wish to rotate through. PhD students should

interview with at least six faculty/labs; MS students should interview with at least three faculty/labs.

- During the interview, the student and faculty should discuss the research project for the rotation. At the end of the interview, the student should obtain the faculty's signature.
- After completing the interviews, the student will rank the rotation choices and turn the list in to the COMLS Graduate Programs Office (Mulford Library 120)
- COMLS Graduate Programs Office staff will then contact faculty members to verify that they are willing to host a student and prepare a schedule of all student rotations.
- In cases where there are an excess number of students for rotation positions in a laboratory, *the faculty member* will decide which students will rotate in his/her lab.
- If a laboratory is not available to a student, the next available laboratory on the student's list will be scheduled for the rotation.
- Lab rotations must be completed within the track in which the student belongs. Only after completing 3 rotations (2 for MSBS) may a student look for a lab outside their initial track if they do not find a suitable mentor within the track.

#### **Grading Policy for Research Rotations:**

- The course is graded Satisfactory/Unsatisfactory (S/U).
- The faculty mentor of the rotation will determine whether the student's effort was Satisfactory or Unsatisfactory during the rotation.
- At the start of the rotation, the faculty member and student should discuss the requirements for a Satisfactory grade.
- When the rotation is completed, the course director will obtain the student grade from the faculty and turn in the grade to the Registrar.
- If the student receives an Unsatisfactory grade in any one research rotation, that student must undergo an additional rotation with another faculty and earn a Satisfactory grade before selecting a dissertation or thesis advisor.
- Students must complete all weeks of the lab rotation to receive a Satisfactory grade.

#### **Process for Final Matching of Students with Faculty Advisors (mentors):**

- Upon completion of the rotations, the students will rank their rotation laboratories for final alignment with a faculty mentor.
- Beginning with the first choice on the student list, the course director will inquire with the faculty to determine whether the faculty member is willing to become major faculty advisor for the interested student.
- If yes, the student and advisor are aligned and should complete the [GRAD form](#), including the signatures of the Track director and advisor's Chair, and turn the completed form into the Senior Associate Dean of COMLS Graduate Programs office (MLB 121). This form should be completed within the first month of joining the lab, although the student's committee may be added at a later date (see below).
- If the faculty member is unwilling to become advisor for the student, the course director will move down to the student's next choice for mentor.
- In cases where a faculty member is selected by more than one student, *the faculty member* will determine which student(s) he/she will choose.
- Students need to keep in mind that all rotations should be completed by the end of the spring semester if possible. It is important to align with a major advisor and lab to progress through the program in a timely manner.

All students must identify a major advisor by the end of the Spring or first part of summer semester of the first year of training in order to continue in the program. The advisor/advisee decision is a mutual one and is agreed upon by both the student and the faculty member.

## **UTCOMLS Core Tenants of Graduate Training**

Graduate training entails both formal education in a specific discipline and 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. A positive mentoring relationship between the graduate 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 to future graduate students.

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. The faculty advisor also performs a critical function as a scientific role model for the graduate student.

A relationship of mutual trust and respect should be established between mentors and graduate students to foster healthy interactions and encourage individual growth. The guiding principles, known as the *Compact Between Graduate Students and Their Research Advisors*, are intended to support the development of a positive mentoring relationship between the graduate student and their research advisor.

This compact should be discussed and signed by the graduate student and advisor soon after the student begins dissertation/thesis research. Once each student is placed in their major advisor's lab, each faculty and student will be given the Core Compact to go over together so that there is a clear understanding of expectations for both. This is a word document so additional expectations can be added or removed.

***The UT COMLS Core Tenets of Graduate Training: Compact Between Graduate Students and Their Research Advisors Compact can be found in the appendix of this handbook and will be sent to graduate student and advisor once faculty advisor to the student is identified.***

If a situation arises in which the student or advisor believes additional advice/intervention would be beneficial, the Track Director should be the first contact. If the Track Director or you require further input, the Department Chair and/or Senior Associate Dean for COMLS Graduate Programs should be contacted. **A student cannot change his/her advisor without first meeting with the Senior Associate Dean for COMLS Graduate Programs and giving a reason. What the reason is dictates the next steps to take.**

## **PhD Advisory Committee**

A student should assemble a Dissertation Committee (student advisory committee) within the first semester after joining a faculty mentor's lab. The Committee is responsible for assisting the student with their research project and progress through the PhD side of the program. The Committee also administers the Qualifying Exam (see below) and serves as the decision-making body during the Dissertation Defense when the student presents and defends her/his research as a final requirement for

the PhD. Hence it is important the committee contains individuals knowledgeable in the student's research area.

Membership of the Dissertation Committee should be determined in consultation with the student's major advisor. A **minimum of five faculty members** is required and inclusion of an extramural member(s) is possible if appropriate but is not a requirement. Not all committee members need to be members of the Track in which the student has chosen to concentrate, but typically, most will be. All members must be Graduate Faculty as determined by the UT Graduate Council. If not, then the requested member of the committee must submit a Graduate Faculty Membership Application and curriculum vitae, to the UT Graduate Council Graduate Faculty membership committee for approval prior to appointment to the advisory committee. When committee members are identified, they should agree to serve by signing the committee page of the student's [GRAD form](#), which will be placed in the student's electronic file. Occasionally members of the Dissertation Committee must resign, usually because of a move to another institution or retirement. In those cases, the minimal number of five members must be maintained by the addition of another faculty member.

The student is required to meet with the Committee at least once per 6 months to provide a progress report on the research project. The Committee also will determine when the student has generated sufficient data to begin writing the dissertation and scheduling its defense. A [committee form](#) should be completed and turned into the track director after each meeting. **It is the student's responsibility to schedule the 6 month meetings and to bring the [committee form](#) to the meeting.**

## PhD Qualifying Exam

PhD students are required to pass a [Qualifying Examination](#) as graduate students by the end of their second Fall semester in graduate school. The purpose of the Ph.D. Qualifying Examination (QE) is to determine the student's scientific reasoning by his/her ability to form a clear hypothesis, establish specific aims designed to test the validity of the hypothesis and to develop relevant experimental approaches with appropriate positive and negative controls to critically test the stated specific aims. The student is NOT expected to have significant preliminary results of their own. The purpose of the QE is NOT to defend the student's dissertation, but rather their knowledge of the correct scientific approach to developing and investigating biomedical hypotheses., and their critical thinking skills to defend their approach and broader scientific questions, if required. Timely completion of the exam is important, as the student cannot register for dissertation credits until this exam is successfully passed and the student is an official Candidate for the Doctoral Degree.

Prior to the scheduling of the examination, the GRAD and Plan of Study forms and establishment of the Dissertation Committee must be completed.

The QE consists of a written R21 grant proposal followed by an oral presentation of the proposal and questioning session with the student's QE Committee. The QE committee should consist of the student's Advisory Committee, except for the student's major advisor, plus a Graduate Faculty Representative\* outside of the committee. The written portion must be written solely by the student. The oral exam includes questions that probe the breadth and depth of basic knowledge and critical thinking skills of the candidate, including past course work. A grade of Pass or Fail will be determined by the Committee based on the written and oral portions. The Committee is also responsible for determining the topic for the research proposal. Successful completion of the Qualifying Examination requires a unanimous pass vote of the Committee members. **To ensure fairness of proceedings, a Graduate Faculty Representative, at Associate Professor level or higher, who is not on the student's committee must**

**attend the qualifying exam.** The completed [Report of the Qualifying Examination Form](#) must be sent to the Senior Associate Dean, College of Medicine and Life Sciences Graduate Programs, along with a pdf of the written portion of the QE. If the student fails the exam, it may be repeated at the discretion of the student's Graduate Committee.

After passing the Qualifying Examination, the student is now a Candidate for PhD and eligible to register for Dissertation Research in their research track to complete the remainder of their research activity as a graduate student. A minimum of 30 credits of Dissertation Research are required for graduation. Students must be registered for at least one credit during the semester in which they defend their dissertation.

## **Master's Advisory Committee**

Membership of the thesis committee should be determined in consultation with the student's faculty mentor. A master's thesis committee must consist of a minimum of three members, all of whom must be listed as graduate faculty. The major advisor must be a full graduate faculty member. An expert from outside the University may also serve as one of the three advisory committee members upon recommendation of the committee chair. The request, along with the Graduate Faculty Membership Application and curriculum vitae, must be submitted to the Graduate Council Graduate Faculty membership committee for approval prior to appointment to the advisory committee.

## **Graduate Forms**

All required forms can be found on the [College of Graduate Studies website](#).

**Plan of Study:** Students must complete the [Plan of Study for the Doctoral Degree form; Plan of Study for the Master's degree form](#) (POS) that outlines the courses to be taken throughout graduate training. This should be completed within one semester after the student joins a faculty mentor's lab. If this form is not submitted within the first year, the College of Graduate Studies will withhold the students' tuition waiver and stipend. This form must be submitted before the student is permitted to take the Qualifying Examination.

The student must complete all required courses in the Biomedical Science Program and in the individual track, and all courses on the Plan of Study, to graduate. Amended POS's are accepted but required courses must still be taken.

**Graduate Research Advisory Committee Approval and Assurances (GRAD Form):** Once it has been decided which faculty lab a student will be working in during the duration of their PhD studies the [GRAD form](#) will need to be completed. This form should be completed within the first month of joining a faculty's lab.

**Report of the Qualifying Exam:** The [Report of the Qualifying Exam form](#) is completed when the students completes their Qualifying exam.

## **Dissertation (PhD) or Thesis (MSBS) & Public Defense**

Typically, after four or five years of intensive research activity, the PhD student has accumulated enough data to write the dissertation in preparation of its defense and completion of the PhD degree. MSBS students usually take 2-3 years to defend their thesis. The go-ahead to write and defend the

dissertation or thesis is determined by the student's Faculty Committee. The College of Graduate Studies has instructions and formatting guidelines for PhD dissertations and thesis that can be found on the [College of Graduate Studies Thesis and Dissertation Preparation site](#). **Students must send their committee a copy of their dissertation no later than 2 weeks before their public announcement; must have committee approval to send less than 2 weeks prior. The advisor must proof the dissertation prior to the committee receiving it.** The dissertation is ultimately uploaded and stored electronically to [OhioLINK](#) where it is accessible worldwide through the internet.

**Defense Acceptance & Intellectual Protection form:** The [Defense Acceptance & IP Protection form](#) is completed when the student and advisor have determined a defense date. This form must be shared with the Associate Dean of COMLS Graduate Studies ([Kandace.Williams@utoledo.edu](mailto:Kandace.Williams@utoledo.edu) (ML 121) so a public announcement can be made for the defense. This also alerts COMLS Graduate Programs office that the student is nearing the end of their PhD work.

**Approval of Dissertation:** The [Approval of Dissertation form](#) or [Approval of Thesis form](#) is completed after a student has successfully completed and defended their dissertation or thesis.

## Course Registration

Students will receive registration notifications via their university of Toledo emails. Students may register for classes online by accessing the **myUT** portal. To login to the myUT portal, students enter their UTAD username and password. The myUT portal allows students to register for classes and print a bill or class schedule.

Students are responsible for registering for classes on time. Incomplete or inappropriate registration can impact stipend distribution and result in the student paying late fees. If a student needs to withdraw from a class or make any changes to their course schedule after the registration date, please notify your advisor. Tuition waivers will cover 9 credit hours for fall and spring semesters and 6 credit hours for summer semester. Once a student reaches 90 total credit hours (45 for MSBS) may be asked to only register for 1 credit hour each semester.

## Student Expectations

**Outside Employment:** Full time graduate students are expected to devote their professional effort to completion of the degree requirements. Students are expected to be on campus, attend class, and be active participants in their lab and Track/Departmental activities. Employment outside of UToledo is not advised. Any outside employment must be approved by the students Advisor and COMLS Graduate Programs office must be notified for reduction of stipend support.

**Class Etiquette:** As a courtesy to the faculty and your fellow students cell phones should not be used and should be put away during class. If you need to use the phone for any reason, please step into the hall.

**Evaluations:** All core courses will have faculty and course evaluations. Students are expected to complete these evaluations. Evaluations are administrated through Qualtrics, all responses are anonymous.

**Lab/Online Trainings:** Students will be assigned various trainings through Vector and the UToledo test bank. Students are expected to complete all assigned trainings before the deadline. Lab Safety, Animal Safety, and Biosafety trainings must be complete before lab rotations begin.

Students are expected to act in a professional manor. Unprofessional behavior may result in disciplinary action. Academic dishonesty will not be tolerated. *See the section below on policies.*

## **Student Code of Conduct & Policies**

All UToledo students are required to follow the University of Toledo [Student Code of Conduct](#). In addition, COMLS students are to follow College of Medicine and Life Sciences policies. A full list of COMLS policies can be found on the [University Policy website](#).

Notable policies:

Policy [3364-81-22 College of Medicine & Life Sciences: Professionalism, Disciplinary Action, and Due Process/Appeals for COMLS Graduate Programs](#).

[Policy 3364-77-01 Graduate Student Academic Dishonesty](#)

[Policy 3364-70-21 Integrity in Research and Procedures for Investigating Allegations of Research misconduct](#).

## **Title IX**

The University of Toledo does not discriminate in its employment practices or in its educational programs or activities on the basis of sex/gender. The University of Toledo also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internally or externally. Reports of sexual harassment and discrimination questions regarding Title IX, and concerns about noncompliance should be directed to the Title IX Coordinator. For a complete copy of the policy or for more information, please contact the Title IX Coordinator at [titleix@utoledo.edu](mailto:titleix@utoledo.edu) or the Assistant Secretary of Education within the [Office for Civil Rights \(OCR\)](#). Complaints or notice of alleged Title IX policy violations, or inquiries about or concerns regarding Title IX policy and procedures, may be made internally to:

Vicky Kulicke, Director Title IX and Compliance & Title IX Coordinator  
Office of Title IX and Compliance  
(419) 530-4191  
[titleix@utoledo.edu](mailto:titleix@utoledo.edu)  
<https://www.utoledo.edu/title-ix/>

A person may also file a complaint with the appropriate federal, state, or local agency within the time frame required by law. Depending upon the nature of the complaint, the appropriate agency may be the federal Equal Employment Opportunity Commission (EEOC), Office for Civil Rights (OCR) of the U.S. Department of Education, the Department of Justice:

Office for Civil Rights (OCR)  
U.S. Department of Education

400 Maryland Avenue, SW  
Washington, D.C. 20202-1100  
Customer Service Hotline #: (800) 421-3481  
Facsimile: (202) 453-6012  
TDD#: (877) 521-2172  
Email: [OCR@ed.gov](mailto:OCR@ed.gov)  
Web: <http://www.ed.gov/ocr>

## Rocket Card

Your Rocket card is the official University of Toledo identification card which includes your photo, your name, and your university affiliation. As a student your Rocket Card gives you access to your academic buildings, computer labs, Library, the Student Recreation Center, Student Medical Center and other services on campus. If you lose or damage your rocket card you will be subject to a replacement fee. Please see the [Rocket Card webpage](#) for additional information.

## Key Control & HSC Card Access

UToledo Police Department is authorized to issue university keys to faculty, staff, graduate assistants, students, and individuals with an authorized relationship and requiring key access to university facilities. Key control is located on the HSC with campus police in Mulford Library basement.

[http://www.utoledo.edu/depts/police/HSC\\_Card\\_Access.html](http://www.utoledo.edu/depts/police/HSC_Card_Access.html)

The UToledo Health Science Campus has a card access system. Please check with your department regarding access areas and authorization procedures.

## Parking

All HSC medical and graduate students are charged for parking. If you wish to park your vehicle on campus you will need a parking permit. For parking permit rates and for more information visit [Parking and Transportation Services](#).

## Campus Safety

The Safety and Health Department has a comprehensive plan to develop, implement and monitor programs of environmental and occupational safety and health as necessary to protect the health and safety of faculty, staff, students and campus visitors, and to provide compliance with applicable regulations. This department is located in Mulford Library, Room 011 on Health Science Campus and in Transportation Center, Rooms 1200 A-D on the university's main campus.

The Rave Guardian App informs all students, faculty, and employees about emergencies. More information on the Rave app and for the UT's Police department website [University of Toledo Police \(utoledo.edu\)](http://UniversityofToledoPolice.utoledo.edu).

On campus incidents involving theft of personal possession(s) as well as bodily and/or property damage arising from University related maintenance issues should be reported as soon as possible to the University of Toledo Police (Main Campus 419-530-2600; **Health Science Campus 419-383-3700**). Note: Reporting of such incidents does not automatically grant coverage under the University's insurance. Any threat of physical violence or actual attack should be communicated to the Toledo



Police by calling 911. Suspicious behavior or circumstances should be immediately reported to **UT Police at 419-530-2600 (x2600)**.

Most students feel safe on campus at all times of the day or night, but reasonable precautions should be taken. Lab doors should be locked when the lab is empty and when one is there at night. Further, after dark, individuals should walk in pairs through the parking lot and around campus. Also, Campus Police is happy to provide an escort upon request.

## Travel Awards

All graduate students enrolled at the University of Toledo are automatically members of the Graduate Research Association (GSA) and thus eligible for travel funding. Students are eligible for travel funding up to a specific amount per academic year (July 1- June 30). The total amount of funding students are eligible for is based on the activity of the individual in the GSA. (Active members receive different funding \$ than inactive members.) For more information on GSA travel funds please see the [Graduate Student Association](#) webpage.

## Vacation, Holiday, and Sick time

Vacation for the first year Predoctoral and premasters in the Biomedical Science Program is limited to two distinct time periods during the academic year and major holidays. The first is the time between the last day of classes of the fall semester and the first day of classes of the spring semester (traditionally known as the “winter break”). The second vacation period is the entire week of Spring Break as defined by the official UToledo academic calendar.

Starting the Monday following the last day of classes of the spring semester of their first year, students will be expected to be in laboratory rotations, or have started to work in the laboratory of their selected major advisor.

Predoctoral and Premasters, after their first year in the Biomedical Science Program, will be entitled to a total of 2 weeks (10 days) of paid vacation per 12-month year, while on stipend. This time is to be arranged in advance with the major advisor via the [time off request form](#). If additional time off is required, this is to be arranged with the major advisor and the Senior Associate Dean of COMLS Graduate Programs and the student’s stipend will be withheld accordingly. *Students who matriculated before fall 2023 are grandfathered into the 3 week vacation policy.*

Major single-day holidays that employees have off are also extended to graduate students. Students should consult their PI regarding winter break, not all labs are able to fully shut down due to ongoing experiments.

Sick days - notification to the major advisor by the student who is sick is mandatory at the start of the day that the student will not be in the lab. If the student remains ill at home for more than 3 days, then a doctor’s note is required.

Students may not “bank” vacation days from one year to the next, or holidays for future use. Vacation time is based on a 12-month rolling year. For example, if a student uses their entire 10 days of vacation in December, their year period will be until November of the following year before they are eligible for paid vacation time.

Advisors and/or students who have questions regarding time off should consult the Senior Associate Dean of COMLS Graduate Programs or COMLS Graduate Programs office staff.

## **Student Health Care & Health Insurance**

University Health Services (UHS) encompasses services for student health, employee health and acute illness care, occupational medicine and workman's compensation.

Appointments are scheduled through Family Medicine located in Glendale Medical East building across from the HSC campus by calling (419) 383-3777.

**For emergency or after-hours visits go directly to the University of Toledo Medical Center Emergency Department or call 911.**

UHS provides full-service care for **students** including:

- Illness visits
- Occupational exposures (i.e. needle stick injury)
- Physical examinations and immunizations to fulfill requirements for individual programs of study as well as requirements for foreign travel
- Well woman examinations including immunizations and routine contraceptive care
- Prescription management
- Mental health and counseling services through Harbor Symmetry Wellness (Emergency Mental Health services 24 hours a day 7 days a week 419-475-5338)
- Allergy injections

UToledo graduate students, undergraduate students and medical students who have a valid student ID badge and whose general fees are paid to/received by UToledo are eligible for services at UHS.

Students are required to have health insurance. Some students may still qualify to be on their parents' plans. In this case, the student can waive the University's student health insurance by logging in to the [myUT portal](#) and under the Student Tab/My Toolkit, My Registration selecting Health Insurance – Change or Waive then following the prompts and submitting required additional information. **The College of Medicine will cover health insurance for all PhD Biomedical Science Program degree-seeking students (unless the student opts out of UToledo coverage).** This will be applied directly to the student's accounts. International students are automatically enrolled if registered for 1 or more credit; Domestic students are automatically enrolled when registered for 6 or more credit hours. Supplemental dental and vision coverage is available as well as dependent coverage. Students will be responsible for any supplemental or dependent coverage. Further information about student health services and health insurance can be found on the [Student Health and Wellness page](#).

## **Health Risks to Graduate Students in Science Research**

It is the graduate student's responsibility to incorporate safe working practices into one's research. The University of Toledo is required to follow OSHA and EPA Regulations. One should work with one's mentor to ensure proper training for any work involving biological/infective hazards, radioactive compounds/isotopes, and animals. The student's mentor **MUST** obtain the appropriate approvals before a student can actively participate in research projects involving these hazards, even if only for a lab rotation. Please visit the [Environmental Health and Radiation Safety department webpage](#) for specific information.

## Ohio State Residency

The PhD program usually takes 5-6 years and during that time students become part of the Toledo community. For that reason, domestic students are strongly encouraged to apply for Ohio Residency (if they are not already) once living in Ohio for 12 months.

More information on applying for Ohio Residency can be found on the [Registrar's webpage](#).

## Financial Aid

To be eligible for federal financial aid a student must be enrolled in an eligible degree seeking program, maintain required enrollment and show academic progress.

As a graduate student, you must be enrolled and attend at least half-time graduate level credit hours each semester to be eligible for federal loans (BMSP students are full-time). For graduate/professional students, if you intend to enroll in undergraduate or mixed level courses, it could affect your eligibility for federal financial aid. Tuition will not be paid for undergraduate courses for BMSP graduate students.

Non-U.S. citizens are not eligible for financial aid from the U.S. federal government. Some private lenders may provide loans if the student has a sponsor in the United States who is willing to sign the loan for the student.

Acceptance of any Fellowships, Scholarships, Waivers or Awards could affect other financial aid or student loans. You are strongly encouraged to contact the Office of Financial Aid to inform them of acceptance of any awards.

For more information about the Office of Financial Aid please see the following web page: <http://www.utoledo.edu/financialaid/hsc/>

University Finance Brochure

[https://www.utoledo.edu/offices/treasurer/finance\\_brochures.html](https://www.utoledo.edu/offices/treasurer/finance_brochures.html)

Treasurer's Office

<http://www.utoledo.edu/offices/treasurer/>

Rocket Solution Central

<http://www.utoledo.edu/rsc/>

## Graduate Student Organizations

The **Graduate Student Association (GSA)** is a UToledo – wide organization that strives to voice the concerns of graduate students, representing over 4,000 graduate students at The University of Toledo, while also providing funding to subsidize travel to conferences and symposiums. The GSA represents the diverse graduate student community as a whole meeting with the Graduate Council, a body of Deans & UT Faculty, weekly. The GSA also organizes social events both on and off campus, to help graduate students develop social and professional contacts across all of the University's colleges.

For complete information, please visit the [Graduate Student Association Website](#).

The [College of Medicine and Life Sciences Council of Biomedical Graduate Students \(CBGS\)](#) consists of officers and representatives from all of the BMSP tracks.

The overall purpose of the Council is to facilitate discussion amongst graduate students pertaining to any issue that may affect graduate life; to represent graduate student interests before the UT-COMLS faculty, GSA (our main campus counterparts), and administration; and to organize events and activities specifically for graduate student life. All BMSP students are encouraged to participate in CBGS as track representative or executive committee member.

Annual events organized by the CBGS include:

- Graduate Student Picnic - A summer social event for new and current students
- Career Forum - Held in autumn to help guide students for career decisions
- Graduate Research Annual Forum - Held in late winter to allow students to showcase their research and get helpful advice from faculty and fellow students, and access to an internationally renowned Key Note speaker invited each year.  
2<sup>nd</sup> year and above students are required to participate in the Graduate Research Annual Forum in either a poster or oral presentation.

## **The Health Science Campus:**

**3000 Arlington Ave Toledo, OH 43606**

The Biomedical Science Program is located on UToledo's health science campus.

The [Mulford Library](#) provides resources, services, and facilities to support your success in graduate school. The library is located in the Mulford Library Building, with the library entrance on the fourth floor. Our recent renovations have created a clean, professional place in which to study. Much of the study space is designed for individual study; collaborative learning spaces are available on the sixth floor north. Three conference rooms are available for student use when the rooms are unscheduled. PCs and printers are available on all three floors. The library's current hours are available on the library's web page. When the library is closed, there is designated study space in the AEC, located in the basement of the building. Library Staff are available to help you with providing searching tips and techniques, guidance on conducting literature searches, EndNote training and troubleshooting, and other information needs. Mulford provides anytime-anywhere access to our electronic resources: textbooks, databases, scholarly journals, educational resources, and clinical care information tools. See the College of Medicine and Life Sciences LibGuide for electronic books, journals, textbooks, and software arranged by foundational science and clinical specialties. At our service desk on the fourth floor, Windows laptops, dry-erase markers/erasers, small whiteboards, phone chargers, headphones, bone and skull boxes, and reserve materials are available for checkout.

The [Academic Enrichment Center \(AEC\)](#) provides academic support services for students in the Health Science professional programs by facilitating student engagement and collaboration, fostering self-directed learning, and providing resources which contribute to student academic success.

## **Valuable Websites**

The information within this Biomedical Science Graduate Student Handbook is superseded by information in the University of Toledo (UT) General Catalog and UT Policy Website.

University of Toledo General Catalog

<http://www.utoledo.edu/catalog/>

Biomedical Science Program

[Biomedical Science Graduate Program - The University of Toledo \(utoledo.edu\)](#)

COMLS Research

[College of Medicine and Life Sciences - Research \(utoledo.edu\)](#)

College of Graduate Studies

<http://www.utoledo.edu/graduate/>

Academic Calendar

[Academic Calendar \(utoledo.edu\)](#)

## Other Additional Campus Resources

Resources	Contact Information		Location
<a href="#">Academic Testing Center</a>	419.383.4436		Center for Creative Education
<a href="#">COMLS Diversity Resources</a>	419.383.3438		Mulford Library 105
<a href="#">Disability Services</a>	419.530.4981		Rocket Hall* 1820
<a href="#">HSC Food Pantry</a>	419.530.5923		HEB 112
<a href="#">Student Services HSC Financial Aid</a>	<a href="mailto:HSCstudentservices@utoledo.edu">HSCstudentservices@utoledo.edu</a> 419.383.3600		Mulford Library 1044
<a href="#">Rocket Solution Central</a>	<a href="mailto:rocketsolutioncentral@utoledo.edu">rocketsolutioncentral@utoledo.edu</a> 419.530.8700	Various UToledo Services (bill pay, parking, registrar)	Rocket Hall*
<a href="#">Counseling Center</a>	419.530.2426		University Health Center*
<a href="#">Student Health and Wellness</a>	419.383.5000	Telehealth & In person care	Ruppert 0013
<a href="#">Technology Support Services</a>	<a href="mailto:ithelpdesk@utoledo.edu">ithelpdesk@utoledo.edu</a> 419.383.2400		
<a href="#">Office of International Student &amp; Scholar Services</a>	419.530.4229		Snyder Memorial*
<a href="#">Recreational Center</a>	419.530.3700	Exercise classes Pool	Student Recreation Center*
Morse Center			Dowling Hall

<a href="#">Office of Student Advocacy and Support</a>	<a href="mailto:rocketresponse@utoledo.edu">rocketresponse@utoledo.edu</a> 419.530.2471		Student Union 2521*
<a href="#">Eberly Center for Women</a>	<a href="mailto:ecwomen@utoledo.edu">ecwomen@utoledo.edu</a> 419.530.8570		Tucker Hall*
<a href="#">Career Services</a>	<a href="mailto:careerservices@utoledo.edu">careerservices@utoledo.edu</a> 419.530.4341	Job Searching, Interviewing, CV Prep	Student Union*
<a href="#">HSC Security Office</a>	<a href="mailto:utpolice@utoledo.edu">utpolice@utoledo.edu</a> 419.383.2600	Lost & Found HSC Access cards	Mulford basement

\*Offices are located on UToledo's Main campus

\*\*Hours may vary for campus resources. Please check resource website for most up to date information.

## People

### **Kandace Williams, PhD**

Senior Associate Dean of College of Medicine and Life Sciences Graduate Programs

[Kandace.Williams@utoledo.edu](mailto:Kandace.Williams@utoledo.edu)

### **Allison Spencer, M.Ed**

Administrator, COMLS Graduate Programs

[Allison.Spencer@utoledo.edu](mailto:Allison.Spencer@utoledo.edu)

### **Paige McVay**

Graduate Coordinator, COMLS Graduate Programs

[Paige.McVay@utoledo.edu](mailto:Paige.McVay@utoledo.edu)

### **Xiaohong Li, PhD**

Cancer Biology Track Director

[Xiaohong.Li@utoledo.edu](mailto:Xiaohong.Li@utoledo.edu)

### **Kevin Pan, PhD**

Medical Microbiology & Immunology Track Co-Director

[Kevin.Pan@utoledo.edu](mailto:Kevin.Pan@utoledo.edu)

### **Travis Taylor, PhD**

Medical Microbiology & Immunology Track Co-Director

[Travis.Taylor@utoledo.edu](mailto:Travis.Taylor@utoledo.edu)

### **Jennifer Hill, PhD**

MOME Track Director

[Jennifer.Hill@utoledo.edu](mailto:Jennifer.Hill@utoledo.edu)

### **Arun Anantharam, PhD**

Neurosciences and Neurological Disorders Track Director

[Arun.Anantharam@utoledo.edu](mailto:Arun.Anantharam@utoledo.edu)

**Sadik Khuder, PhD**

Bioinformatics & Biomarkers Co-Track Director

[Sadik.Khuder@utoledo.edu](mailto:Sadik.Khuder@utoledo.edu)

**Rammohan Shukla, PhD**

Bioinformatics & Biomarkers Co- Track Director

[Rammohan.Shukla@utoledo.edu](mailto:Rammohan.Shukla@utoledo.edu)

## Appendix

# ***Compact Between Graduate Students and Their Research Advisors***

## **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 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 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.
- **I will work with my research advisor to select an Advisory/Supervisory committee.** I will commit to meeting with this committee at least every six months. I will be responsive to the advice of and constructive criticism from my committee.
- **I will be knowledgeable of the policies of my graduate program, graduate school, and institution.** I will commit to meeting these policies. See [https://www.utoledo.edu/policies/academic/college\\_of\\_medicine/](https://www.utoledo.edu/policies/academic/college_of_medicine/)
- I will be specifically knowledgeable of the COMLS Policy Number 3364-81-22 that describes disciplinary action and due process/appeals pertaining to unprofessional behavior for all COMLS graduate programs, including BMSP. The purpose of this policy is to outline the procedures that the COMLS and COGS will use to address conduct that violates the standards applicable to graduate students, as well as procedures for appealing adverse decisions.
- As well, all students at the University of Toledo are responsible for understanding and complying with University of Toledo policies regarding professionalism and academic integrity. Applicable policies include, but are not limited to 3364-77-01 Graduate Student Academic Dishonesty, 3364-30-04 Student Code of Conduct, 3364-70-02 Responsible Conduct of Scholarship and Research, and 3364-81-04-017-02 Professionalism and Related Standards of Conduct As scientists-in-training or health care professionals-in-training, COMLS graduate students are held to the highest standards of professionalism, and have a number of professional responsibilities that they are obligated to uphold. A failure to comply may result in disciplinary action.
- **I will be knowledgeable of the requirements of my graduate program, graduate school, and institution.** I will commit to meeting these requirements.
- **I will attend and participate in laboratory meetings, seminars and journal clubs that are part of my educational program.**
- **I will comply with all institutional safety 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 participate in my institution's Responsible Conduct of Research Training Program (On Being A Scientist) and practice those guidelines in conducting my thesis/dissertation research.**
- **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 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 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 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 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 plan such as <http://myidp.sciencecareers.org/>.

## Commitments of Research Advisors

---

- **I will be committed to the life-long mentoring 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 will be 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 will not let these interfere with the student's pursuit of his/her thesis/dissertation research.
- **I will be committed to meeting one-on-one with the student on a regular basis.**
- **I will be committed to providing financial resources for the graduate student as appropriate or according to my institution's guidelines, in order for him/her to conduct thesis/dissertation research.**
- **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 human resources guidelines.**

- **I will help the graduate student select a thesis/dissertation committee.** I will assure that this committee meets at least every six months to review the graduate student’s progress. I will provide critical comments on proofs of the graduate student’s dissertation/thesis prior to submission to the student’s committee.
- **I will lead by example and facilitate the training of the graduate student in complementary skills needed to be a successful scientist, such as oral and written communication skills, grant writing, lab management, animal and human research policies, the ethical conduct of research, and scientific professionalism.**
- **I will expect the graduate student to share common laboratory responsibilities and utilize resources carefully and frugally.**
- **I will not require the graduate student to perform tasks that are unrelated to his/her training program and professional development.**
- **I 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 discuss authorship on manuscripts containing experimental results generated by the graduates student prop to submission for scientific peer review and publication.
- **I will discuss intellectual policy issues with the student with regard to disclosure, patent rights and publishing research discoveries.**
- **I will encourage the graduate student to attend scientific/professional meetings and make an effort to secure and facilitate funding for such activities.**
- **I will provide career advice. I will advise the student on employment opportunities in both the academic and private sector.** 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 will provide for every graduate student under my supervision an environment that is intellectually stimulating, emotionally supportive, safe, and free of harassment.**
- **Throughout the graduate student’s time in my laboratory, I will be supportive, equitable, accessible, encouraging, and respectful.** I will foster the graduate student’s professional confidence and encourage critical thinking, skepticism and creativity.

Our signatures below indicate that we (student and advisor) have discussed and agree on the principles contained in this document. It is clearly understood by both of us that this is not a legal binding contract, but rather as a guide for a successful professional relationship during the student’s doctoral training and beyond.

\_\_\_\_\_  
Advisor’s Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Student’s Signature

\_\_\_\_\_  
Date

## Training Program 6-month Committee Meeting Report

Trainees are expected to schedule and meet with their committee every 6 months.

Student Name: \_\_\_\_\_  
 Student Signature: \_\_\_\_\_  
 Date of Meeting: \_\_\_\_\_  
 Committee Chair: \_\_\_\_\_  
 Major Advisor: \_\_\_\_\_  
 QE expected and/or actual date(s): \_\_\_\_\_  
 Tentative Dissertation Title: \_\_\_\_\_

Committee Chair should fill in the required elements of this worksheet.

At the end of the meeting, the trainee should exit while the committee discuss the trainees progress, fill in the ranking sheet and add any additional goals below.

*At the conclusion of the committee meeting, the student will return and be given a copy of this worksheet. Also, this will be given to major advisor & copied to track director, or administrative assistant, to keep on record.*

Explanation of rankings:

- ✓ **Exceed Expectation:** Student goes above and beyond normal expectations of graduate work.
- ✓ **Meets Expectations:** student meets the requirements.
- ✓ **Somewhat Meets Expectations:** Student meets some of the requirements but has a limited understanding in some areas. Student needs to work on an aspect of the project.
- ✓ **Does Not Meet Expectations:** Student has no understanding of requirements or area of research.

	Exceeds Expectations	Meets Expectations	Somewhat Meets Expectations	Does Not Meet Expectations
Student demonstrates an understanding of research project.				
Student has formed a good hypothesis and experimental plan.				
Student is making progress toward gathering experiment results.				
Student is making progress towards publications.				
Overall				

The committee and trainee agreed on the following goals/research priorities:

- 1.
- 2.
- 3.

Additional Comments/feedback:

**Committee Members Present:**

Name	Signature	Date

(Major Advisor)

Name	Signature	Date

(Committee Chair)

Name	Signature	Date