University of Virginia
Biomedical Sciences Graduate Program

2018-2019 Graduate Program Handbook
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**Cover art** compliments of Riley Hannan, Tori Osinski, and Kathryn Michels.

A link to this document will be posted each year on the BIMS website http://bims.virginia.edu/current-students/information-and-resources/
Introduction to Biomedical Sciences Graduate Programs

Mission Statement
The goal of our graduate training programs is to provide students the necessary knowledge, intellectual capabilities, and technical skills to conduct outstanding state-of-the-art research in a wide range of exciting biological and biomedical areas.

What is BIMS?
The Biomedical Sciences (BIMS) Graduate Program at the University of Virginia is a vibrant interdisciplinary graduate program committed to training PhD candidates in becoming the next generation of scientific leaders. We achieve this goal through an immersive curriculum designed to provide students with fundamental scientific skills and exceptional research training. The BIMS program provides students with the flexibility to tailor an independent program of didactic coursework to support their developing research interests. In parallel, we offer students a broad spectrum of research opportunities, provided in partnership with the School of Medicine, Graduate School of Arts and Sciences, and School of Engineering and Applied Sciences at the University of Virginia.

BIMS students have the opportunity to train under world-renowned scientists who are committed not only to scientific discovery, but also to mentoring and teaching. The BIMS graduate program integrates four educational elements to providing rigorous training to students in the biomedical sciences:

Formal course work
Our students follow a curriculum that includes an immersive 12-week core course and more specialized advanced topic electives. These courses are designed to inspire students to develop into creative and analytical scientific thinkers through intensive training in scientific principles, data analysis, experimental design, and problem-solving skills.

Laboratory research
Independent research is at the core of the BIMS graduate program. Students have the opportunity to select from hundreds of faculty mentors whose research programs span a diverse array of scientific disciplines. Again, flexibility is an integral part of our program; students rotate with 3 faculty members of their choosing prior to selecting a mentor/thesis lab. Collaboration amongst UVA researchers is the rule rather than the exception, providing our students with unique training opportunities that are not found elsewhere.

Participation in the broader research community
Research retreats, topical symposia and seminar series, student research days, colloquia, research-in-progress meetings, and multi-institutional regional conferences supplement the formal course work and research activities of our students. Through many of these activities, students learn about cutting edge research that is being performed throughout the world from
leaders in the field. Our students are also encouraged to participate in community outreach opportunities, where they learn to communicate science to a broader public and act as role models to younger students in the community.

**Exposure to clinical/translational aspects of disease**

Students in the BIMS graduate program are provided numerous opportunities to gain exposure to clinical and translational aspects of disease. These include frequent interactions with our clinical faculty, who teach in our formal courses and routinely serve as either co-mentors or members of student thesis advisory committees. Additionally, our students have the opportunity to attend organ-based “tumor boards” and infectious disease conferences that form part of the clinical enterprise of the School of Medicine. Finally, they have the option to rotate through clinical pathology laboratories to learn about diagnosis and monitoring of human disease.
BIMS Administration

Associate Dean of Graduate and Medical Scientist Programs
Amy Bouton  ahb8y@virginia.edu  434-924-2513

Assistant Dean for Graduate Research and Training
Janet Cross  jvc5b@virginia.edu  434-243-9401

School of Medicine Basic Science Department Chairs

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<tr>
<th>Name/Contact Information</th>
<th>Department</th>
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<tbody>
<tr>
<td>Anindya Dutta</td>
<td>Biochemistry and Molecular Genetics</td>
</tr>
<tr>
<td>Fred Epstein</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Doug DeSimone</td>
<td>Cell Biology</td>
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<tr>
<td>Kodi Ravichandran</td>
<td>Microbiology, Immunology, and Cancer Biology</td>
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<tr>
<td>Chris Moskaluk</td>
<td>Pathology</td>
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<tr>
<td>Doug Bayliss</td>
<td>Pharmacology</td>
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<tr>
<td>Lukas Tamm</td>
<td>Molecular Physiology and Biological Physics</td>
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<td>Jony Kipnis</td>
<td>Neuroscience</td>
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# Directors of Graduate Studies (DGS)

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**BIMS Admissions Committee**

*Chair: Amy Bouton, Associate Dean*
- Roger Abounader (Co-Chair, Admissions Cluster 2)
- Janet Cross (Diversity Recruiting)
- Chris Deppmann (Co-Chair, Admissions Cluster 5)
- Alban Gaultier (Co-Chair, Admissions Cluster 5)
- Thurl Harris (Co-Chair, Admissions Cluster 3)
- Joel Hockensmith (Co-Chair, Admissions Cluster 1)
- Brant Isakson (Co-Chair, Admissions Cluster 3)
- Barbara Mann (Co-Chair, Admissions Cluster 4)
- Bob Nakamoto (Co-Chair, Admissions Cluster 1)
- Lucy Pemberton (Co-Chair, Admissions Cluster 4)
- Ann Sutherland (Co-Chair, Admissions Cluster 2)

**BIMS Steering Committee**

*Chair: Amy Bouton, Associate Dean*

*Ex officio – Lesley Thomas*
- Paula Barrett (Pharmacology); 6/30/21
- Alban Gaultier (Neuroscience); 6/30/21
- Kim Kelly (Biomedical Engineering); 6/30/21
- Scott Vande Pol (Pathology) 6/30/21
- Herve Agaisse (Microbiology, Immunology and Cancer Biology); 6/30/19
- Bill Pearson (Biochemistry and Molecular Genetics); 6/30/19
- Ignacio Provencio (Neurosence Graduate Program); 6/30/19
- Vic Laubach (Representative from Clinical Department); 6/30/19
- Peter Kasson (Biophysics); 6/30/20
- Avril Somlyo (Physiology); 6/30/20
- Bettina Winckler (Cell Biology); 6/30/20
- David Parichy (Representative from College of Arts and Sciences); 6/30/20
BIMS Curriculum Committee

Chair: Janet Cross, Assistant Dean
- Xiaowei Lu (Cell Biology); 6/30/21
- Swapnil Sonkusare (Physiology); 6/30/21
- Brooke Sauder (Student Representative); 6/30/20
- Tim Bender (Microbiology, Immunology and Cancer Biology); 6/30/19
- Bimal Desai (Pharmacology); 6/30/19
- Basel Al-Barghouthi (Student Representative); 6/30/19
- Mark Beenhakker (Neuroscience Graduate Program); 6/30/20
- Mike McConnell (Biochemistry and Molecular Genetics); 6/30/20
- Owen Pornillos (Biophysics); 6/30/20

BIMS Academic Progress and Achievement Committee

Chair: Janet Cross, Assistant Dean
- Chris Deppman (NGP)
- Thurl Harris (Pharmacology)
- Brant Isakson (Physiology)
- Joel Hockensmith (Biochemistry and Molecular Genetics)
- Bob Nakamoto (Biophysics)
- Jason Papin (Biomedical Engineering)
- Lucy Pemberton (Microbiology, Immunology and Cancer Biology)
- Ann Sutherland (Cell Biology)
Academic Programs and Requirements

Student Progression Timeline

Figure 1 (next page) illustrates the academic timeline for years 1 and 2 of the typical BIMS student. Students may enroll in up to four total modules each semester, but only two concurrently. The mentor and/or other academic advisor (First Year Advisor or Director of Graduate Studies) should be consulted when selecting coursework. The dates provided for the second year are based on the published 2018-19 UVa academic calendar and are subject to minor modification. Occasionally, a student may find it necessary to complete a fourth rotation. That option is not included in the figure, but would begin immediately following the end of Rotation 3 on the standard timeline. Likewise, students who are unable to start in early July and complete a rotation before the Core Course (BIMS 6000) begins in August would do their third rotation at this point.
Typical First Year

- **July**: Rotation 1
- **August**: Rotation 2
- **September**: Rotation 3
- **October**: Dissertation Research
- **November**: Dissertation Research
- **December**: Dissertation Research

Typical Second Year

- **July**: Modules: F1
- **August**: Modules: F2
- **September**: Modules: S1
- **October**: Modules: S2
- **November**: Modules: S1
- **December**: Modules: S2
Advising and Mentoring

First Year Academic Advising

First year students will be assigned a single faculty member, typically an admissions cluster chair, for advising prior to and during the first year. First year students should consult with their assigned advisor and/or other faculty regarding selection of rotations and dissertation lab. The assigned advisor will connect with program leaders and/or other faculty if they lack appropriate scientific expertise in the student’s area of interest. They will also work together with Core Course in Integrative Biosciences (CCIB) course directors to monitor performance and develop remediation plans if necessary.

Dissertation Committee

The dissertation committee will consist of not fewer than four BIMS-approved mentors, one of whom must hold a primary appointment outside of the student’s department/program. This individual serves as a Dean’s representative for the School of Medicine. Once the minimum requirements have been met, additional committee members from within the University or from other institutions may be added; however, individuals from other institutions may not serve as the Dean’s representative.

Each of the basic biomedical sciences degrees listed later in this section has specific committee requirements that are listed on respective department/program websites.

Responsible Conduct of Research

Honor System

The Honor System at the University of Virginia is student-run; the Honor Committee is comprised of Student Representatives from each of the ten Schools and the College and Graduate School within the University academic system. An honor offense is any intentional act of lying, cheating, or stealing warranting permanent removal from UVA. All students at the University of Virginia are expected to refrain from dishonorable conduct. Incoming BIMS students receive an introduction to the Honor System at the Core Course in Integrative Biosciences (CCIB) Orientation and are required to take Research Ethics (BIMS 7100) in their first year. [http://www.virginia.edu/honor/](http://www.virginia.edu/honor/)

Office of Research Integrity

UVA policy requires that you report suspected research misconduct to the Vice President for Research. However, students should seek guidance from the Associate Vice President for Research, Dr. David Hudson, who serves as the Research Integrity Officer (RIO) at UVa. An informal discussion with the RIO may help clarify whether the suspected behavior meets the definition of research misconduct. If it does, the RIO will refer you to other officials with responsibility for resolving the problem. It is difficult to report misconduct by a superior or supervisor; however, the Research Misconduct Policy states that individuals who report allegations of misconduct or of inadequate institutional response thereto must be protected
with regards to the terms and conditions of their employment or other status at the University of Virginia, and requires that UVA protect the privacy of those who report misconduct in good faith, to the maximum extent possible.

**BIMS Research Ethics Course**

All BIMS students are required to enroll and fully participate in the Research Ethics (BIMS 7100) course during the Spring semester of their first year. The course is taught by expert faculty from the University community, using lectures and team-based learning to discuss ethical issues and the responsible conduct of research. Responsible Conduct of Research retraining is required for individuals who have not received formal training in four years.

**Coursework**

**BIMS Core Course**

The Core Course in Integrative Biosciences (CCIB; BIMS 6000) is a 12-week course designed to expose first-year BIMS students to the fundamentals of biomedical science. Specifically, the course structure includes traditional lectures as well as small and large group activities that unite the cognitive and behavioral learning that must be mastered for successful matriculation. Students are expected to utilize the assigned text (Alberts, et al. Molecular Biology of the Cell, 6th ed.) as a reference and are assigned journal readings as primary literature in preparation for lectures. Small and large group activities include exercises in a lab setting, critical discussion of journal readings, and solution of various problems (i.e. constructing and deconstructing components of experimental design, etc.). The course is split into two sections, the first taking place from mid-August to late September and the next beginning in mid-November and ending in mid-December. Students are assessed through a variety of short quizzes, writing assignments, and problem sets. A final oral exam is administered at the end of the course.

**Modular Courses**

Advanced topical courses in BIMS are scheduled as 6-week modules in the Fall and Spring terms (courses and modules are not typically offered in the Summer Session). Modules are listed in the Course Schedule in SIS for two periods each semester. Modules offered in the Fall semester are intended for 2nd year and advanced students (post-qualifying); modules may not be taken concurrently with the BIMS Core Course (BIMS 6000; CCIB). Otherwise, up to four BIMS modules can be taken each semester, with a limit of two per period/session (see timeline in previous section).

The schedule matrix of BIMS modules, including course descriptions, can be found online at https://docs.google.com/spreadsheets/d/13IrVaPzD5P2gVMJi2uKnOYXonZs4BT10vZcNoJbs-nc/edit?usp=sharing. Please notice the tabs along the bottom.
Courses Across Grounds

BIMS students are eligible to take courses in the School of Medicine and in many cases, other UVa Schools anytime during their tenure as a graduate student. Students interested in these opportunities must have permission of their mentor prior to enrolling, and may need to seek permission of the course instructor and/or School.

Course Registration

BIMS students are required to be enrolled full-time (12 hours Fall/Spring, 6 hours Summer) throughout the entire PhD program.

https://sisuva.admin.virginia.edu/psp/epprd/EMPLOYEE/EMPL/h/?tab=PAPP_GUEST

From the SIS home page, please select the link entitled, “SIS HELP”. You can watch a short demo (video) or view a printable guide (PDF) on enrollment. These resources will show you how to enroll in classes and provides details regarding adding, dropping, editing and swapping classes.

If you have difficulty with registration, please contact your BIMS Administrator.
Grading in the BIMS Graduate Program

Letter grades are given in the core course (BIMS 6000), most advanced courses and modules, and some colloquia. The following set of grade symbols is used by the School of Medicine for BIMS students: A+ (4.0), A (4.0), A- (3.7); B+ (3.3), B (3.0), B- (2.7), C+ through F (0.0). Topical courses (i.e., colloquia and lab rotations) and non-topical research can also be graded Satisfactory/Unsatisfactory (S/U).

According to BIMS regulations, a grade of B- is the lowest satisfactory grade for graduate credit. Furthermore, students must maintain a grade point average of at least 3.0 each academic year in order to be considered as making satisfactory progress toward a degree. A grade of C or U (Unsatisfactory) is considered a failing grade.

All students should be aware that although the grade of B- is adequate for general academic credit, it is considered a marginal grade for pre-doctoral students in the BIMS Program. Thus, the grade of B- (or lower) in one or more courses, especially in the first year, will be viewed as an indicator of less than satisfactory progress in the doctoral program and could result in probation and/or suspension.

All students are strongly encouraged to review their academic records at least once a year to confirm that all courses and directed research hours are listed appropriately (to include grades). Courses and directed research hours (topical or non-topical) with no grade or a grade of IN (incomplete) are changed to failing grades after one semester. Grades on the student’s official record at graduation are final and cannot be altered after the degree is conferred.
Degree Requirements

School of Medicine

In order to receive a Ph.D. in the School of Medicine BIMS programs, students must complete a minimum of 72 hours of graduate credit. A minimum of 24 of the 72 credit hours must be graded (scale A, B, etc.) coursework. Graded credit hours include the required core course (BIMS 6000; 10 credits), advanced topical coursework modules, topical research (i.e., BIMS 8995), some colloquia and journal clubs and lab rotations. Those courses for which letter grades are assigned (vs. those that are graded as Satisfactory/ Unsatisfactory (S/U)) are clearly indicated in SIS.

Students must register for a minimum of 12 credit hours each fall and spring semester, and 6 credit hours of research during the summer. Beginning with the Spring semester of year one, students should work closely with their mentor, director of graduate studies (DGS), first year advisor, and potentially training grant director to determine which additional modules are required and/or may be beneficial.

Additional information regarding academic regulations for the BIMS Graduate Program can be found online in the UVa Graduate Record.
http://records.ureg.virginia.edu/content.php?catoid=46&navoid=3376

BIMS-Affiliated Degree Granting Programs

Degree and program requirements listed in this section are subject to change. Students should check with their Director of Graduate Studies prior to course registration to determine if changes have been made.

Biochemistry

https://bmg.med.virginia.edu/graduate-program/bmg-degree-requirements/

The backgrounds of students admitted to the program are diverse, and the program attempts to educate all students up to a level of basic understanding in several areas deemed fundamental to modern biochemistry and molecular genetics. In addition, it is hoped that students will become more expert in areas related to their research, thus gaining a measure of confidence. It is likely that most students would have had (or would make up remedially) calculus, physical chemistry, general chemistry, organic chemistry, physics, genetics, and several courses in biology. They will then be required to satisfy the following departmental requirements:*
**Required courses**

- 24 hours (12 credits each semester of first year)
- BIMS 6000 Core Course in Integrative Biosciences
- BIMS 7100 Research Ethics
- Minimum of two additional BIMS modules or affiliated science courses (minimum of 4 credits total). School of Medicine guidelines require that these two modules must be graded.

Journal Club (aka Biochemical Literature) and Colloquium (aka Seminar) – attendance is required following mentor selection and for the duration of the student enrollment in the BMG program.

**Qualifying Exam**

The student will prepare a research proposal and defend it orally before his or her proposal committee. This exam will be open to the faculty only. The student will be advanced to candidacy for the Ph.D. degree upon a satisfactory performance in this exam.

- **Function:** to review the student's ability to formulate a research problem and to design a research program aimed at elucidating the problem. A general questioning period will be included on subjects determined by the committee.

- **Timing:** Must be completed by the beginning (September) of the third academic year. Only special circumstances should modulate this deadline. The proposal is presented to the three member proposal committee.

- **Format:** The basic elements of a formal faculty research grant proposal should be present. These elements would include: Background and Significance; Specific Aims; and Experimental Design and Methods. The format of the following granting agencies would be appropriate: NIH, NSF, ACS, etc. Unlike most faculty grant proposals, there is no requirement for preliminary results or supporting data from the student. The proposal must contain ideas/hypotheses that are new and untested.

**Biomedical Engineering**

[http://bme.virginia.edu/graduate/index.html](http://bme.virginia.edu/graduate/index.html)

**Required courses**

Students are required to complete twenty-four (24) graded credit hours of coursework, plus two Elective Educational Experiences, including:*  
- BME 6101 Physiology I for Engineers  
- BME 6102 Engineering Physiology II  
- BME 6310 Computation and Modeling  
- BME 6311 BME Measurement Principles
In addition, students are required to satisfy two EEE. Students in the MD/PhD program or with a prior MS or ME degree in engineering may count some of their prior coursework towards these requirements.

*Students in the MD/PhD program or with a prior MS or ME degree in engineering may count some of their prior coursework towards these requirements.

Qualifying Exam
The Comprehensive (or Qualifying) Examination is required by the School of Engineering and Applied Science and all doctoral engineering students must take the exam (see UVA Graduate Record for general guidelines). Students intending to take the Comprehensive (Qualifying) Examination must complete the PhD Plan of Study and turn it in to the Graduate Program Coordinator for review by the Graduate Program Committee. This should be done no later than May 1 of the year that the student plans to take the comprehensive exam. The purpose of this exam is to determine whether the student is able to comprehend and integrate a body of advanced knowledge, and is capable of original research. The student’s ability to think, formulate, and present ideas is also evaluated. All students should take the Comprehensive Examination between the second and fourth semester of graduate study. Students may elect to take the Comprehensive Exam as early as the second semester. Delayed examination is subject to the approval of his or her Doctoral Advisory Committee. Passage is required to continue the PhD program. The oral examination will consist of a set of integrative questions (typically three) that have been prepared by the student’s Doctoral Advisory Committee and provided to the student one week in advance of the oral examination. The questions will be based upon the individual’s program of study, and include some aspects relevant to the anticipated thesis topic. The student may research the questions to develop his or her answers in the week prior to the oral examination. The student will provide an oral answer to each of these questions and, at the discretion of the Doctoral Advisory Committee, further defend the answers.

Defense of Dissertation Proposal
The PhD candidate is expected to complete the dissertation proposal no later than 12 months after the Comprehensive Examination. The written dissertation proposal is submitted to the Advisory Committee one week before the scheduled oral dissertation proposal examination which consists of a public oral presentation during which the student highlights the existing knowledge and the proposed new study. This will be followed by a private question and answer period with the Doctoral Advisory Committee.

Biophysics
https://med.virginia.edu/biophysics-program/the-phd-in-biophysics/

Required courses
- BIMS 6000 Core Course in Integrative Biosciences
- BIMS 7100 Research Ethics
- BIOP 8201/8301 Biophysics Principles I and II
• BIOP 5050 Biophysical Literature: students will be required to attend the Biophysics and Physiology journal club throughout their graduate careers.
• 10 credits of electives, which may include most BIMS modules, CHEM 5224 or CHEM 5430.
• Students entering with a Master’s degree will have the same requirements as other students, but courses already taken can be used to fulfill the requirements, if relevant.

**Qualifying Exam**
Students are expected to write and orally defend the thesis proposal by September 1 at the beginning of the third year. If the student enters with a Master’s degree, they are expected to write and orally defend the thesis proposal by January 1 of the second year. For a complete description of the thesis proposal and other details for the program, see the full description of the Requirements for the Ph.D. in Biophysics.

**Cell Biology**
[https://med.virginia.edu/cell-biology/cell-biology-phd/ph-d-degree-requirements/](https://med.virginia.edu/cell-biology/cell-biology-phd/ph-d-degree-requirements/)
Courses that are considered to be an essential foundation for research in the field are required. Selection of other advanced modules can be tailored to the particular student’s background and research interests. Selections should be made in consultation with the mentor and DGS.

**Required courses**
• BIMS 6000 Core Course in Integrative Biosciences
• BIMS 7100 Research Ethics
• CELL 8101 Introduction to Animal Development
• CELL 8301 Advanced Topics in Cell Biology
• CELL 8450 Effective Science Writing for Grants and Fellowships
• CELL 5950 Journal Club (each term that they are enrolled in the PhD program)
• Electives – a minimum of 4 credits are required from any affiliated science. Electives can be selected to enhance dissertation research or meet requirements set by specific NIH Training Grant programs.

**Qualifying Exam**
The second year culminates in the qualifying exam, in which students are evaluated both on a written document and an oral exam for advancement to candidacy for the Ph.D. degree. For a complete description of the exam format, please see the full program description. Upon completion of the required coursework and successful advancement to candidacy, students may also elect to obtain an M.S. in Biological & Physical Sciences.
Experimental Pathology


The Department of Pathology offers a Ph.D. in Experimental Pathology through its program titled, Molecular and Cellular Basis of Disease (MCBD). Students experience a unique interface among clinical, medical, and basic science realms, while they pursue research designed to elucidate the mechanisms of disease processes and cultivate the skills necessary to perform translational research.

Required courses

The first year will consist of the Core Course in Integrative Biology, Research Ethics, and Topical Research, along with appropriate modular coursework. After selecting a mentor and joining the MCBD Program, students complete coursework, begin their research, and prepare for the qualifying exam. The typical course of study offers numerous opportunities to experience the close interactions between basic scientists and clinical practitioners that foster translational research. These opportunities include both didactic, classroom-based activities and more individualized interactions with faculty through clinical rotations.

Required Coursework

- BIMS 6000 Core Course in Integrative Biology
- BIMS 7100 Research Ethics
- PATH 8050 Colloquium in Human Disease Research
- PATH 8060 Rotation in Diagnostic and Interventional Medicine
- PATH 8130 Topics in the Molecular Basis of Human Disease I
- PATH 8140 Topics in the Molecular Basis of Human Disease II
- PATH 8460 Seminars in Human Disease and Molecular Medicine
- Electives: Each student must take electives in order to satisfy the 24 graded credit requirement. Electives may consist of any BIMS or Affiliated Science courses 5000 level and above. Specific coursework may be required based on your training grant rules.

Additional opportunities are available for students to supplement their training activities throughout their time in the MCBD program. Examples include workshops to define the concepts and processes involved with patents/intellectual property, and to develop skills necessary for grant writing/review. Students are expected to participate in the Pathology Departmental Seminar and the Pathology Research Progress Report series throughout their time in the program. In addition, they are encouraged to participate in the Journal Club, but are no longer required to attend once they have completed two semesters of the course for credit and advanced to candidacy.

Qualifying Exam: Written and oral components

Students are required to complete a written exam, similar in style to an NIH grant proposal, detailing the student’s research plan. Students are required to submit written copies of this proposal to their respective Graduate Committee members two weeks prior to the qualifying exam.
The oral Qualifying Exam for the MCBD Program is a successful defense of the thesis project before the student’s Graduate Committee. Students must meet this requirement by June 30th, at the end of the student’s second year. Upon completion of the required coursework and successful advancement to candidacy, students may also elect to obtain an M.S. in Biological & Physical Sciences.

**Requirement for Graduation**

Graduation requirements include a written thesis, a closed oral defense of the document and research conclusions, and a public oral defense (seminar presentation). Students are expected to publish their findings in high quality peer-reviewed journals appropriate for the student’s field of study. At least one first author research paper describing original work must be accepted for publication before final defense of the dissertation.

**Microbiology**

[http://mic.med.virginia.edu/graduate-studies/](http://mic.med.virginia.edu/graduate-studies/)

The student’s course selection will be made to fulfill MIC PhD and NIH training program requirements.

**Required courses**

- BIMS 6000 Core Course in Integrative Bioscience (Fall semester)
- BIMS 7100 Research Ethics (Spring semester)
- Four advanced BIMS modules (At least 2 of these must be MIC specific modules – below)
- MICR 8006 Colloquium in Microbiology where primary literature is read, presented, and discussed with classmates and faculty. (Spring semester)
- Attendance at the weekly MIC Departmental Seminars – Seminars are held on Wednesday afternoons at 4:00 pm. Attendance of all students in program is expected, and is required for first and second years.
- Committee Meeting Requirement: Students are required to have at least one committee meeting every 12 months to remain in good academic standing and this is especially important now that the Individual Development Plan (IDP) is in place.

**MIC Specific Modules:**

- MICR 8040 Fundamentals in Cancer Biology
- MICR 8042 Advanced Topics in Cancer
- MICR 8044 Cancer Signaling and Therapeutics
- MICR 8200 Building Blocks of the Immune System
- MICR 8202 Integration and Diversification of the Immune System
- MICR 8204 Current Topics in Immunology
- MICR 8341 Biological Threats and Public Health
- MICR 8400 Molecular Principles of Bacteriology and Virology
- MICR 8401 Microbial Pathogenesis
- MICR 8402 Microbial Pathogenesis Proposal Preparation
- MICR 8410 Advanced Topics in Virology
**Qualifying Exam**

Toward the end of the second year, each student must prepare a written document and orally defend the detailed research proposal in the form of a "qualifying exam." Ph.D. candidates are required to successfully prepare and defend the proposal before July 1st of the second year in order to remain in good standing as a Ph.D. candidate, and to continue receiving financial support from the Department. MSTP students are required to successfully prepare and defend the proposal before Oct. 1st of the second grad-year. One of the faculty with a primary microbiology appointment (not your mentor) should serve as the chairperson or first-reader of the committee.

**First-Author Publication**

Each MIC student is expected to have a sufficient body of work, that includes at least one first-author, peer-reviewed and accepted research publication prior to the private defense of the dissertation with the thesis committee. While a student may seek permission from his/her Dissertation Committee to begin writing the final dissertation prior to formal acceptance of the paper (such as a time when a submitted manuscript is under review or being revised), the private defense cannot occur before formal acceptance of the manuscript. Any exceptions to this rule must be applied for in writing by the Mentor to the MIC Academic Advisory Committee after gaining prior approval from the student’s Dissertation Committee.

**Neuroscience Graduate Program**

[www.neurograd.virginia.edu](http://www.neurograd.virginia.edu)

The program is designed to encourage involvement in research at every stage. In the first year, students choose among the faculty to conduct at least three laboratory rotations. These rotations serve as the basis for choosing an advisor for the student’s dissertation research in the second half of the first year. The first-year course requirements are designed to first provide students with strong foundational knowledge in neuroscience. This includes a core course in Neuroscience that covers molecular, developmental, systems and behavioral neuroscience. The later part of the first year prepares students for their PhD research immediately after selecting a lab by having them delve into concentration-based courses that focus on Molecular & Developmental Neuroscience, Synapses and Circuits, Neuroimmunology or an Independent Development Plan based curriculum. Each concentration is composed of different required courses. Completion of all coursework requirements usually occurs by the second year.

In the second year, students are expected to pass the major area paper, be advanced to candidacy, and continue work on projects that may be a portion of their Ph.D. dissertation. Completion of the requirements for the Ph.D. are contingent on successful presentation and defense of a written dissertation proposal, an oral presentation of dissertation work before the Neuroscience Graduate Program, a written dissertation, and successful defense of the dissertation. The candidate’s dissertation research must constitute an original and significant contribution to the field and is to be fully presented in the candidate’s dissertation. The dissertation work must be of a quality acceptable for publication in a recognized, peer-reviewed scientific journal.
The students’ program of courses is developed through close consultation with their faculty advisor and their graduate advisory committee. Attention is placed on flexibility in the program. Each student’s program is tailored to meet individual needs and interests.

Neuroscience Graduate Program Coursework

Required courses

First Year Spring
- NESC 8080 - Neuroscience Graduate Student Seminar Series
- NESC 8000 - Foundations of Neuroscience
- NESC 8020 - Seminar in Neuroscience
- NESC 9998 - Non-Topical Research, Preparation for Doctoral Research

Each student must also choose from and complete coursework for one of the following concentrations during the first year spring term:

Molecular & Developmental Neuroscience
- NESC 9010 - Molecular Neuroscience
- NESC 9012 - Methods in Molecular, Cellular & Developmental Neuroscience

Synapses and Circuits
- NESC 9020 - Foundations of Cellular Neurophysiology
- NESC 9022 - Tools for Modern Neurobiology

Neuroimmunology
- MICR 8200 - Building Blocks of the Immune System
- MICR 8202 - Integration and Diversification of the Immune System
- NESC 7010 - Foundations of Neuroimmunology

Second Year Fall
- NESC 8010 - Seminar in Neuroscience
- NESC 8080 - Neuroscience Graduate Student Seminar Series
- NESC 9999 - Non-Topical Research

Second Year Spring
- BIMS 8382 - Introduction to Biomedical Data Science
- NESC 8020 - Seminar in Neuroscience
- NESC 8080 - Neuroscience Graduate Student Seminar Series
- NESC 9999 - Non-Topical Research
- BIMS 7100 - Research Ethics

Students must continue to attend and participate in NESC 8010 Seminar in Neuroscience and NESC 8080 Neuroscience Graduate Student Seminar Series throughout their graduate career.
Qualifying Examination (Area Paper)
At the end of the second year of graduate work the students are expected to complete the requirements for advancement to candidacy. In particular, the core course work must be completed, a major area paper must be written and the Qualifying Exam must be taken. The purpose of the Qualifying Exam is to evaluate the student on intellectual capabilities that are not revealed by formal course work and success in laboratory research. In essence, the exam and its antecedents are to examine the student's ability to synthesize information from original sources, identify the critical questions/problem areas, criticize existing work in a creative fashion, and propose experiments that would resolve the remaining issues.

The Dissertation Proposal
The dissertation proposal itself has two parts. The first part should represent an introduction to the research area, a presentation of the outstanding problems, and an historical perspective indicating the importance of the work. It should in fact represent the first chapter of the dissertation. This introduction may represent a part of the document prepared for advancement to candidacy if appropriate, or may evolve from that document. The second portion of the dissertation proposal should describe in detail the specific experiments to be carried out, anticipated results, and possible interpretations. The defense of the proposal will involve an evaluation of the student's grasp of the problem area, their research methodology, and their understanding of the possible interpretations of any data that may be obtained.

The Dissertation and Defense
The dissertation defense is constituted in two required parts, a public dissertation seminar (should be attended by the members of the dissertation committee and is open to all members of the University of Virginia and the community as a whole) and a private dissertation defense (must be attended by the members of the dissertation committee).

Pharmacology
http://pharm.virginia.edu/current-students/
The Ph.D. program in Pharmacology is designed to provide students with training in the Pharmacological Sciences and prepare them for a career in modern biomedical research. Our program begins with two years of didactic course work. This includes the required BIMS core coursework, advanced coursework in Pharmacology, and courses from the allied sciences (e.g., cell biology, biochemistry, genetics, physiology, microbiology, anatomy, and medicinal chemistry). The first year, as an undeclared Biomedical Sciences (BIMS) student, includes rotation through three research laboratories and completion of the BIMS core course work. Near the end of first year, each BIMS student will choose a mentor and declare a degree department. During the second year of study, Pharmacology students will complete the required course work and prepare for the qualifying examination.
**Required courses**

All Pharmacology students* are required to take the following courses:

- BIMS 6000 – Core Course in Integrative Bioscience
- BIMS 7100 – Research Ethics
- BIMS 8380 - Basics of Study Design and Practical Statistics
- PHY 8040 – Physiology A
- PHY 8041 – Physiology B
- PHAR 7010/7020 – Pharmacology Seminar
- PHAR 8110/8120 – Pharmacology Journal Club
- PHAR 9001/9002 – Survey of Pharmacology, Parts 1 & 2
- PHAR 9003 – Molecular Targets
- PHAR 9004 – Discovering Drugs
- 2 elective modules – two 2-credit Biomedical Sciences course modules or Affiliated Science courses 5000 level and above

**Program Participation**

After declaring Pharmacology as their degree program, students are expected to maintain active participation in Graduate Program Activities at all times. This includes, but is not limited to, continued participation in weekly Journal Club and Department Seminars, as well as the annual Department Research Retreat. Students are expected to exhibit qualities of good lab citizenship at all times. After Advancing to Candidacy, students are required to have dissertation Committee Meetings at least twice a year, usually in January and July. The student’s progress must be documented by the Committee on the Committee Meeting Progress report form, which should be submitted to the Pharmacology Graduate Office immediately following the Committee Meeting.

*MSTP students are exempt from several course requirements. Please consult with the Pharmacology Graduate Advisor.

**Qualifying Exam**

At the end of the second year of study, students are required to prepare and defend a qualifying examination. The Advancement to Candidacy Exam must be completed no later than July 15 of the summer following the second year of graduate study. Exam applications are due April 1 (in the second year, spring semester). The Advancement to Candidacy Exam is comprised of two parts: a grant-style written document, or proposal, and an oral examination/defense of this document. Five Examination Committee members (three Pharmacological Sciences Training Grant Preceptors and two Pharmacology Graduate Committee Members) selected by each student in consultation with his or her mentor will evaluate both parts of the exam. The Graduate Committee will make the final decision concerning each student’s eligibility for Advancement to Candidacy in the Ph.D. program. Advancement to Candidacy is based on each student’s overall performance in the program, including research rotations, coursework, participation in department and program activities, and the results of the qualifying exam.
Physiology

https://med.virginia.edu/physiology-biophysics/graduate-program/

Physiology is the translational science that integrates nearly every discipline; from pharmacology to pathology, including biochemistry and structural biology. The UVA PhD in Physiology has a long tradition of training some of the most internationally renowned scientists, and our program reflects this with both custom training to your research project, and a rigorous training program.

**Required Courses**

- BIMS 6000 Core Course in Integrative Biology
- BIMS 7100 Research Ethics
- PHY 8040 Physiology A
- PHY 8041 Physiology B
- PHAR 9001/9002 – Survey of Pharmacology, Parts 1 & 2
- At least two more graduate level modules (6 weeks) offered within the Department of Physiology are required. This is usually PHY 8052 - Vascular Biology A and PHY 8053 - Vascular Biology B but any graduate course in an allied science can be substituted, or from the possible additional courses listed below. Allied science courses must be taken for a grade (not S/U or audit)

**Additional courses:**

- PHY 8100 - Extreme Physiology
- PHY 8201 - Biophysical Principles I
- PHY 8301 - Biophysical Principles II

**Qualifying Exam**

The student is required to write and defend, an extensive review of a topic that is not directly associated with their anticipated research. The review should be given to members of the committee 2 weeks before the oral defense. The qualifier committee will have at least 2 members from the Department of Molecular Physiology, with a minimum of 3 tenure-track faculty. The Director of Graduate Studies (DGS) in Molecular Physiology will choose the committee members. Qualifiers will occur within 3 months of May of the second year into graduate studies at UVA.
NIH-sponsored Training Programs

Within the overall BIMS structure, there are a variety of NIH-sponsored training programs that provide opportunities for advanced study and intellectual community after Year-1. Appointments to a training grant are awarded based on a combination of the student’s undergraduate record and performance during the first year of graduate school. Typically, students are nominated for training grant positions at the end of Year-1 in late April, and selections are made by late May.

Individual training programs have eligibility requirements and expectations for student participation in programmatic activities beyond those that have been stipulated as part of the BIMS and degree granting programs. The following is the list of training program opportunities, including specific requirements for each. Students should check with the relevant training program director prior to course registration to determine if changes have occurred since the publication of this handbook (July 2018).

http://bims.virginia.edu/nih-sponsored-training-programs/

Training Program Nomination Process

The nomination process opens in April every year with a deadline in early May. Faculty mentors affiliated with each NIH training program (preceptor appointments vary according to research initiatives in the mentor’s lab) are sent instructions by e-mail and work with eligible students (typically 1st and 2nd year) to secure the requisite nomination materials.

**Tips to help students navigate this process:**

- Develop a curriculum vitae (CV) in consultation with your mentor.
- Rotation evaluations are submitted on your behalf as part of the nomination packet (unless prohibited by the evaluator).
- Many training programs require letters of support from faculty other than your mentor – as part of your professional development, you should begin cultivating relationships with a number of faculty within and outside your research area early in your first year.
- Most NIH training programs require a statement of purpose or description of your intended research. While it is impossible to write this statement until you have selected a lab for dissertation research, practicing this skill early and seeking feedback will be beneficial.
Training Program Requirements

Information listed in this section is subject to change.

Biomedical Data Sciences Training Program

http://bme.virginia.edu/bds/index.html

Director
Jason Papin jap8r@virginia.edu

We aim to prepare the next generation of scientists and engineers to address the monumental challenge of multi-type biomedical big data manipulation, analysis, and interpretation. We propose a curriculum and a set of programmatic activities to create an interdisciplinary training ground wherein teams of students will work across key disciplines, benefit from a true co-mentoring and interdisciplinary environment, and develop the technical and leadership skills necessary to succeed as independent scientists making groundbreaking new discoveries enabled by biomedical big data.

Appointed trainees are required to take the following:
Course 1: Biomedical Big Data Computational Foundations (sufficient computational background must be demonstrated by all trainees who opt out of this requirement)
- CS 5014 – Computation as a Research Tool

Course 2: Big Data Analytical Tools (one class selected from the following list; a related course may be petitioned to satisfy this requirement)
- SYS 6018 – Data Mining
- CS 6316 – Machine Learning
- STAT 6021 – Linear Models for Data Science
- STAT 6440 – Introduction to Bayesian Methods
- STAT 6190 – Introduction to Mathematical Statistics

Course 3: Biomedical Big Data Domain-Specific Training and Applications (one class selected from the following list; a related course may be petitioned to satisfy this requirement)
- BME 8315 – Biological Network Modeling
- BIOC 8145 – Bioinformatics & Functional Analysis of Genomes
- ECE 6782 – Digital Image Processing
- SYS 6581 – Big Data in Health Research
- BIOL 7230 – Bioinformatics and Functional Genomics
- CS 6501 – Topics in Computer Vision

Course 4: Big Data Experimental Design and Reproducibility (Required of all trainees)
- BME 7370 – Quantitative Biological Reasoning
Course 5: **BIMS 7100** – Research Ethics. NIH requires that all fellows on NIH training grants receive instruction in the responsible conduct of research; a related course may be petitioned to satisfy this requirement.

*Trainees are required to attend and present at the following:*
- Monthly Collaborative Foundations Lunches
- Annual NIH Big Data to Knowledge Conference
- Biomedical Big Data Jamboree/ Hackathon
- Big Data Visualization Workshop

**Biotechnology Training Program**

[http://faculty.virginia.edu/biotech/Home.html](http://faculty.virginia.edu/biotech/Home.html)

*Director*
Gordon Laurie [gwl6s@virginia.edu](mailto:gwl6s@virginia.edu)

In conjunction with coursework, BTP appointees participate in seminars hosting industry leaders and biweekly Journal Club meetings. Whether you aspire to academia or industry, the Biotech Training Program promotes firsthand knowledge of how basic science discoveries are commercialized.

*Required Coursework*
- CELL 8401 The Essentials of Translational Science
- BIMS 7100 Research Ethics
- BIMS 8380 Basics of Study Design and Practical Statistics (not required if BIMS 8382 has been successfully completed)

*Externship*
Required practical experience in a private company setting; 2-3 months

**Cancer Training Program**


*Director*
Amy Bouton [ahb8y@virginia.edu](mailto:ahb8y@virginia.edu)

*Appointed trainees are required to take the following:*
- MICR 8040 Fundamentals in Cancer Biology
- MICR 8044 Cancer Signaling and Therapeutics
- MICR 8042 Advanced Topics in Cancer
- BIMS 7100 Research Ethics
It is recommended that students also take at least one additional module from the following list:

- BIOC 8012 Chromatin I
- BIOC 8014 Chromatin II
- PATH 8300 Tumors and the Immune System

**Cardiovascular Training Program**

[http://training.cvrc.virginia.edu](http://training.cvrc.virginia.edu)

*Director*

Gary Owens [gko@virginia.edu](mailto:gko@virginia.edu)

**Appointed trainees are required to take the following:**

- PHY 8052: Vascular Biology A
- PHY 8053: Vascular Biology B
- PHY 8040: Physiology A
- PHY 8041: Physiology B
- CVRC Seminars
- Cardiovascular Research - theory, practice and methodology
- CVRC Research in Progress
- BIMS 7100 Research Ethics

**Cell and Molecular Biology Training Program**


*Director*

Todd Stukenberg [pts7h@virginia.edu](mailto:pts7h@virginia.edu)

The Cell and Molecular Biology Training Grant appointment is usually for two years, but is dependent upon the student and mentor participating in the various programmatic activities.

**Appointed trainees are required to:**

- Attend the CMB data dinners
  - Write an abstract and send it to Debbie Sites
  - Work on talk with faculty coach
- Include a member of the steering committee on committee
- Attend two “Medical Center Hours” per year
- Participate in the CMB Hike
- Participate in the CMB retreat in the Spring
• Complete the following coursework
  – Advanced Topics in Cell and Molecular Biology (CELL8301 )
  – Effective Science Writing for Grants and Fellowships (CELL 8450)
  – Introduction to Biomedical Data Science (BIMS 8382)
  – BIMS 7100 Research Ethics

Global Biothreats Training Program

http://www.medicine.virginia.edu/education/phd/biomedical-sciences-graduate-studies/nih-training-programs/biodefense

Director
Bill Petri wap3g@virginia.edu

Trainees are required to attend and present at the following:
  • ID & GBT Research in Progress (1st & 3rd Tuesday of month)
  • ID & GBT Journal Club (2nd Wednesday of month)
  • Annual Research Day (usually Feb or March)
  • ID/GBT seminar series (2nd and 4th Tuesdays)

Required Coursework
  • MICR 8400 – Molecular Principles of Bacteriology & Virology
  • MICR 8401 – Microbial Pathogenesis
  • MICR 8402 – Microbial Pathogenesis Proposal Preparation
  • BIMS 7100 – Research Ethics
  • MICR 8341 – Biological Threats and Public Health

Highly Recommended Coursework
  • MICR 8200 – Building Blocks of the Immune System
  • MICR 8202 – Integration and Diversification of the Immune System
  • BIMS 8380 - Basics of Study Design and Practical Statistics

Immunology Training Program

https://research.med.virginia.edu/itp/

Director
Vic Engelhard vhe@virginia.edu
Appointed trainees are required to take the following:

• MICR 8200 Building Blocks of the Immune System
• MICR 8202 Integration and Diversification of the Immune System
• BIMS 7100 Research Ethics
• MICR 8204 Current Topics in Immunology
• PATH 8280 Clinical Immunology and Immunopathology
• PATH 8300 Tumors and the Immune System
• A writing course. For most ITG trainees, the best choices are either Cell 8450-Effective Science Writing for Grants and Fellowships, or MICR 8402- Microbial Pathogenesis Proposal Preparation. If there is an alternative you wish to pursue, please consult with Dr. Engelhard.
• CIC Seminar Series (Every Monday during the academic year)
• CIC Research in Progress (Every Wednesday during the academic year)
• CIC Summer Journal Club (Every Wednesday during the summer semester)

Infectious Diseases Training Program

https://med.virginia.edu/infectious-diseases/fellowship-education/id-fellowships-phd/

Director
Bill Petri wap3g@virginia.edu

Trainees are required to attend and present at the following:

• ID & GBT Research in Progress (1st and 3rd Tuesdays of month)
• ID & GBT Journal Club (2nd Wednesday of month)
• Annual Research Day (usually Feb or March)
• ID/GBT seminar series (2nd and 4th Tuesdays)

Required Course work:

• MICR 8400 - Molecular Principles of Bacteriology & Virology
• MICR 8401 - Microbial Pathogenesis
• MICR 8402 - Microbial Pathogenesis Proposal Preparation
• BIMS 7100 - Research Ethics

Highly Recommended Courses:

• MICR 8200 - Building Blocks of the Immune System
• MICR 8202 - Integration and Diversification of the Immune System
• MICR 8341 - Biological Threats and Public Health
• BIMS 8382 – Introduction to Biomedical Data Science
• BIMS 8380 - Basics of Study Design and Practical Statistics
Molecular Biophysics Training Program

https://med.virginia.edu/biophysics-program/

Director
Bob Nakamoto  rkn3c@Virginia.EDU

Required Course work:
• BIOP 8201/8301 - Biophysics Principles I and II
• BIOP 5050 - Biophysics and Physiology Journal Club
• An advanced biophysics or structural biology course
• BIMS 7100 - Research Ethics

Trainees are required to attend and present at the following:
Students will be required to attend the Biophysics and Physiology journal club, retreat and seminars throughout their graduate careers.

Pharmacology Training Program

https://pharm.virginia.edu/pstg/

Director
Kevin Lynch  krl2z@virginia.edu

Students appointed to the Pharmacology Training Program are required to attend and actively participate in the Pharmacology Journal Club (Tuesdays at noon) and the Pharmacology Seminar Series (Thursdays at 9:30 a.m.) during their term of appointment. PSTG trainees are also required to matriculate in:
• BIMS 7100: Research Ethics
• BIMS 8380 – Basics of Study Design and Practical Statistics
• At least one Pharmacology Course Sequence (Either PHAR 9001 and 9002, Survey of Pharmacology, Part 1 and Survey of Pharmacology, Part 2 or PHAR 9003 and 9004, Molecular Targets and Discovering Drugs) either prior to or during their term of appointment.
Financial Support

Stipend/Health Subsidy/Tuition
All BIMS graduate students are assured support for all years of doctoral study and research, contingent upon satisfactory progress in the program. For academic year 2018-2019, such support is based on a twelve-month award of $30,500, full payment of tuition and fees, and a health insurance subsidy. Student support at UVA is provided either as a stipend or wage, depending on the source of funding. First-year students and students on training grants generally receive stipends once/month and taxes are not withheld. If a student is not supported by a training grant, she/he generally receives wages as a graduate research assistant with funds derived from the research grants of her/his mentor. In this case, they are paid every two weeks and taxes are withheld.

Health Subsidy
All students are required to have health insurance. The University of Virginia has contracted with Aetna to provide health insurance for students. The premium for this coverage is paid directly through Student Financial Systems and is considered a health subsidy. Students are also free to elect outside coverage, but then would have to pay for it themselves. Additional information about the policy and coverage details can be found on the UVa Student Health website: http://studenthealth.virginia.edu/insurance

Questions regarding parent/spouse plans or other related issues should be directed to your BIMS administrator.

Withholding Taxes
Stipends:
For US citizens, state and federal taxes ARE NOT withheld from monthly fellowship stipend payments (method used for first-year rotation students, training grants and NRSA individual fellowships), so a W-2 WILL NOT be issued. Reporting fellowship income to the Internal Revenue Service is the responsibility of the student and it is up to the student to contact a tax advisor. International students must see Logan Hobbs, in Compliance and Immigration Services, to learn more about their tax status.

Wages:
State and federal taxes ARE withheld from bi-weekly wage payments that are processed through payroll in UVA Human Resources. The amount of withholding is determined by the number of Federal and State exemptions claimed on withholding forms. The Federal withholding form (W-4) must be completed online through the Integrated System Self-Service module. The State withholding form (VA-4) is a paper document obtained from your BIMS Administrator. W-2s are mailed at the end of January. If you elect to receive your W-2 electronically, it will be available earlier in the month of January.
Financial Resources

- Student Financial Services  [http://sfs.virginia.edu/](http://sfs.virginia.edu/)
- UVa Law School student volunteers and UVa Human Resources have partnered to provide free assistance to members of the University community who earn $50,000 or less annually. An email will be sent to students each spring about this service.
- Logan Hobbs is a Foreign National Tax Advisor at UVA and he is an invaluable resource for international students regarding tax matters. [lhobbs@virginia.edu](mailto:lhobbs@virginia.edu), 924-1377.
BIMS and School of Medicine Awards

Student Awards

Michael J. Peach Award

Michael J. Peach, Ph.D. joined the UVA faculty in 1968, where he made a major contribution to our understanding of the regulation of blood pressure and the treatment of cardiovascular disease. He was a Professor of Pharmacology and UVA Medical School's Associate Dean for Research. His research on hypertension was recognized throughout the world. While he died at a very young age, Dr. Peach mentored 17 graduate students and 25 postdoctoral fellows. His influence did not stop there, however. He had the unique ability to bring people together as colleagues in science and he put a great deal of energy into interacting with clinicians. He enjoyed helping others with their work and providing constructive criticism. His colleagues were amazed by his knowledge, his thought process, and his ability to provide direction. He had great skill in forming groups that were able to accomplish much more as a team than they could as individuals. As a memorial to Michael Peach, an annual award is given to a graduate student each year who embodies enthusiasm for research and the principles of sharing and collaboration, which were central to Dr. Peach’s approach to science and medicine. The recipient receives a merit stipend and has his or her name placed on an award plaque displayed in the Graduate Programs Office in UVA's Pinn Hall.

Jill E. Hungerford Prize in Biomedical Sciences

The Jill E. Hungerford, Ph.D. Prize in Biomedical Sciences was created by Jill’s parents after her life was tragically cut short by cancer at the age of 34. By doing so, their goal is to nurture in others that same dedication to science that they saw in Jill. Jill earned her doctorate in physiology in 1995 from UVA, where her research focused on smooth muscle cell development in the walls of blood vessels. In 1997, Jill left UVA to continue her research at Yale University, where she concentrated on developmental biology of the cardiovascular system, especially integrating vascular physiology to define the fundamental relationships between structure and function in the developing vessel wall. Jill was a committed and passionate researcher, constantly seeking to broaden our scientific knowledge. In addition to her scientific achievements, Jill consciously worked to become a positive role model for other young women in science. The Jill E. Hungerford, Ph.D. Prize is awarded annually to a doctoral student at Graduate Biosciences Research Day. The recipient receives a merit stipend and has his or her name placed on an award plaque displayed in the Graduate Programs Office in UVA's Pinn Hall.

Robert R. Wagner Fellowships

The Robert R. Wagner Fellowship was established in 1997 by Dr. Robert R. Wagner and his wife Mary to provide fellowships to graduate students in the basic sciences in the School of Medicine. These fellowships are awarded on a competitive basis to rising 3-5th year BIMS students, and include full support for the student, a one-time $1,000 stipend bonus, and $1,000 toward professional development.
Faculty Awards

Robert J. Kadner Award for Outstanding Graduate Teaching

Purpose: This award was established in honor of Robert J. Kadner, PhD, Norman J. Knorr Professor of Microbiology, who served as the senior founding Chair of the Academy of Distinguished Educators until his death in August of 2005. Robert Kadner devoted his 35-year career at the University of Virginia to the pursuit of outstanding teaching, training and mentorship of graduate students, postdoctoral fellows and young faculty. This award recognizes faculty in the School of Medicine who have made outstanding and long-standing contributions to teaching and mentoring PhD candidates and/or postdoctoral fellows with MD or PhD degrees pursuing careers in basic and/or clinical laboratory research.

Who is eligible? Nominees must be faculty members of the School of Medicine with a rank of Associate Professor or above, who are engaged in basic or clinical laboratory research, been a faculty member at University of Virginia for at least 5 years, and demonstrate a strong commitment to teaching in both the classroom and laboratory setting. Faculty members who have received the Kadner Teaching Award within the last 3 years are not eligible.

Who may nominate? The primary nominator must be a graduate student, postdoctoral fellow, or clinical fellow.

For more information on nominating a faculty member, please see: http://faculty.med.virginia.edu/facultyaffairs/honors/deans-office-awards/kadner-award/

Dean’s Excellence in Teaching Award

This award recognizes faculty who excel in teaching students, exhibiting excellence in the classroom, laboratory mentoring, as a small group discussion leader, course director, and/or mentor. Who may nominate? Any student may nominate one fulltime faculty member.

For more information on nominating a faculty member, please see: http://faculty.med.virginia.edu/facultyaffairs/honors/deans-office-awards/teaching-excellence-award/
Graduation and Diploma Presentation

The University of Virginia confers degrees in December, August, and May; however, graduation exercises at the University of Virginia are held only in May. Students who complete degree requirements for August and December of the immediate preceding calendar year may participate in graduation and diploma presentation ceremonies in May (i.e., August and December 2018 can march in May 2019). BIMS hosts one of many diploma presentation ceremonies held the weekend of Final Exercises (UVA’s term for graduation). Students who matriculate through the Biomedical Engineering, and Biology programs have the option of attending the relevant separate ceremony in lieu of the BIMS ceremony. Additional information is posted online.

http://www.virginia.edu-finals/

Graduation Requirements and Procedures for Completing the PhD Degree

All students must follow the procedures and guidelines established by the School of Medicine BIMS program regarding the application for graduation, final defense and dissertation submission. The established basic requirements for the Doctor of Philosophy can be found online: http://bims.virginia.edu/current-students/steps-to-graduation/
Student Life

Student Organizations

Graduate Biosciences Society (GBS)
The Graduate Biosciences Society (GBS) comprises the graduate students in biomedical sciences degree-granting programs.

Mission Statement
The purpose of the GBS shall be to enrich the academic, professional, service, and social aspects of graduate student life for those who fall under its membership. The purpose of the GBS Executive Council shall be to represent and promote the interests of the GBS and to foster the relationship between the GBS members and the University administration, faculty, alumni, and students, as well as the outside bioscience community. The Council shall strive to create a fellowship amongst the bioscience disciplines represented by its membership. The Council shall accomplish this fellowship by promoting engagement and collaboration between these disciplines through academic, professional, social, and service opportunities.

2018-2019 Executive Council
President – Rebecca Stanhope rls9an@virginia.edu
Vice President – Allison Palmer ap7ta@virginia.edu
Treasurer – Brittany Martinez bam2cg@virginia.edu
Secretary – Faith Karanja fwk3bu@virginia.edu

Examples of GBS events and activities
• Orientation welcome picnic
• Regular happy hours
• Small question and answer events with faculty members (Faculty Chats)
• GBS-sponsored faculty poster session
• Career panels and biotech site visits
• Spring symposium
• Service activities
• Newsletter with professional and academic information

How to get involved
Each spring we hold elections for the executive council, and ask for volunteers to become involved as department representatives, GBS4 coordinators, or be members of the publicity, social, or academic and professional committees. We also ask for committee volunteers in the Fall and first year representatives at the start of the academic term in the Spring.
http://www.medicine.virginia.edu/education/more/graduate-biosciences-society
https://www.facebook.com/uvagbs https://www.linkedin.com/groups/3284883
Women in Medical Sciences (WIMS)

Women in Medical Sciences at UVA is an organization made up of graduate students and post docs who support and promote the advancement of women in medical sciences. We sponsor events that help everyone (including men!) become better people and scientists, but we also provide a safe space to talk about women's issues in our field.

2018-2019 Executive Council
Co-Presidents – Tiffany Wang and Jennifer Pearson  ttw2ws@virginia.edu
jmp7kb@virginia.edu
Academic Chair – Doris Wong  dw2vr@virginia.edu
Outreach Chair – Kate Moosic  kbm4dd@virginia.edu
Social Chair – Claire Ruddiman  car9rp@virginia.edu
Secretary/Treasurer – Breanna Brenneman  brb2ty@virginia.edu

Examples of WIMS activities
• The WIMS 4-miler team raised money for breast cancer therapy and had a great run
• Women in Science Stories: a lunchtime seminar series that brings together women from academics and industry to discuss their paths and struggles in science
• Social/happy hour once per semester
• Elementary School Outreach: WIMS visits Red Hill Elementary School 3-4 times per year to do interactive experiments
• Participate in local science fairs and exhibitions
• Pioneered the GSASC Parental Leave policy
• Fill Christmas stockings with our Stocking Drive for teenage girls
• Habitat for Humanity Build Days at least once per semester
• Lots of other fun events!

How to get involved
We are always excited to have new members, so please reach out to us if you are interested in being a part of WIMS. To hear more about WIMS activities, join the WIMS listserv: https://lists.virginia.edu/sympa/info/women_sci

Website:  http://wimsuva.wix.com/wims-uva.

Facebook:  WIMS @ UVA https://www.facebook.com/wimsuva?ref=aymt_homepage_panel
Activities

Intramural sports
More information is available at: http://www.virginia.edu/ims/

UVA sporting events
Students get into UVA sporting events for free with their student ID. Visit their website for a list of home games: http://www.virginiasports.com

Local venues and events
GBS has a compiled a list of restaurants, local events, and other activities to check out in Charlottesville and the surrounding area. As first years, you should all receive this list. If you missed it, feel free to contact any of the GBS executive chairs or the Service & Outreach committee to get a copy. See you around C’ville!
Appendix A: First Year BIMS Academic Schedule (2018-19)

July 2  Preferred start time for first year BIMS students

July 2-Aug 15  FIRST ROTATION

July 9 (noon)  Introduction to summer activities (lunch will be served; MR5, room 1041)

July 12-August 9  Core Course Summer Prep, (Th 5:45-7 PM) (Thursday, July 12, July 19, July 26, Aug 2, Aug 9)

July 10-August 14  Meet the Faculty (breakfast will be served; MR5, room 1041) (T/Th 9-10:30 AM)

July 30 (5:00-7:30)  Carter Immunology Center Reception for Incoming Students (MR6-3706)

Aug 16-17  CORE COURSE ORIENTATION

August 17  Picnic (sponsored by GBS) – BEC Courtyard (4PM)

Aug 20-Sept 28  CORE COURSE (Blocks 1-6, polarity)  No class

Sept 3 (Labor Day)  No class

August 24  Faculty poster session (sponsored by GBS) followed by reception (3-5PM)

Oct 1-Nov 9  SECOND ROTATION

October 24  CCIB Guest lecture (required activities)

Nov 12-Dec 6  CORE COURSE (Blocks 7-10)

Nov 21 - 25  Thanksgiving Break

Dec 7-Dec 13  Reading Days

Dec 14  End-of-Course Oral Exam (Core Course)

Dec 15-Jan 1  Christmas Break

Jan 2-Feb 8  THIRD ROTATION

Feb 11-Mar 22  MODULES (S-1)  Spring 1 final exams March 25-26

Mar 27-May 7  MODULES (S-2)  Spring 2 final exams May 8-10
<table>
<thead>
<tr>
<th>Period</th>
<th>Modules (F-1)</th>
<th>Fall 1 final exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 4-Oct 15</td>
<td></td>
<td>October 16-17</td>
</tr>
<tr>
<td>Oct 22-Dec 7¹</td>
<td><strong>MODULES (F-2)</strong> (no class Nov. 20-25)</td>
<td>Fall 2 final exams December 11-13</td>
</tr>
<tr>
<td></td>
<td><em>¹Skipping the week of November 19 for Thanksgiving week</em></td>
<td></td>
</tr>
<tr>
<td>Feb 11-Mar 22</td>
<td><strong>MODULES (S-1)</strong></td>
<td>Spring 1 final exams March 25-26</td>
</tr>
<tr>
<td>Mar 27-May 7</td>
<td><strong>MODULES (S-2)</strong></td>
<td>Spring 2 final exams May 10-12</td>
</tr>
</tbody>
</table>
### Appendix B: Seminars, Journal Clubs, RIPS

#### Department Seminar Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 am</td>
<td></td>
<td></td>
<td></td>
<td>Pharmacology</td>
<td></td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Pathology Research in Progress/Journal Club (alternating weeks)</td>
<td>Experimental Pathology Clinical Seminars</td>
<td>Cell Biology</td>
<td>Biochemistry and Molecular Genetics</td>
<td>Biology Cancer Center 12:30-1:30 Cardiavascular Research Center BIG Seminar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pharmacology Journal Club</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 pm</td>
<td></td>
<td></td>
<td></td>
<td>Chemical Engineering</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>4:00 pm</td>
<td>Beirne B. Carter Center for Immunology Research</td>
<td>Neurosciences Graduate Program</td>
<td>Microbiology, Immunology, and Cancer Biology</td>
<td></td>
<td>Chemistry</td>
</tr>
<tr>
<td></td>
<td>Molecular Physiology and Biological Physics</td>
<td>Infectious Diseases and Global Biothreats 2nd &amp; 4th Tues</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Department Seminar Links

- Biochemistry and Molecular Genetics  
- Biomedical Engineering  
  http://bme.virginia.edu/seminar/index.html
- Infectious Diseases and Global Biothreats  
- Microbiology, Immunology, and Cancer Biology  
  https://mic.med.virginia.edu/news-events/seminars  
  https://research.med.virginia.edu/cic/events/cic-seminar-series/
- Neuroscience  
  http://neurograd.virginia.edu/seminars-calendars
- Pharmacology  
  https://pharm.virginia.edu/news-and-events/seminar-series/

2018-2019 Distinguished Lectures

Biochemistry and Molecular Genetics Annual Symposium – May 8, 2018  
https://bmg.med.virginia.edu/2018-annual-bmg-symposium/

Robert J. Kadner Distinguished Lecture in Microbiology – Oct. 12, 2018  

Beirne B. Carter Lectures  
- Fall:  Beirne Carter Annual Lecture - October 16, 2018  
- Spring:  Carter Symposium

Biotechnology Training Program Biennial Symposium - Nov. 9, 2018  
http://faculty.virginia.edu/biotech/Seminars.html

Joseph Larner Memorial Lecture in Pharmacology – Thurs, Nov. 15, 2018  
https://pharm.virginia.edu/news-and-events/seminar-series/

GBS Symposium and Awards Ceremony – Fri, March 15, 2019
Department Seminar Contacts

Beirne B. Carter Center for Immunology Research:  Shawn Wood  sww2p@virginia.edu

BIG Seminar:  Taylor Groves  tng@virginia.edu

Biochemistry and Molecular Genetics:  Nancy Rush  nr9b@virginia.edu

Biology:  Myron Ballard  mab6hh@virginia.edu

Biomedical Engineering:  Keisha Jones-Tibbs  kj3e@virginia.edu

Cancer Center:  Jane Heblich  eh6k@hscmail.mcc.virginia.edu

Cardiovascular Research Center:  Hope Gravely  hg3p@virginia.edu

Cell Biology:  Rachel Silski  rls9ha@virginia.edu

Chemical Engineering:  Vickie Faulconer  vsf6m@virginia.edu

Chemistry:  Cindy Knight  csk3a@virginia.edu

Experimental Pathology:  Karen Clark  kgc8u@virginia.edu

Microbiology, Immunology, and Cancer:  Regina Seitz  rmm5m@virginia.edu

Molecular Physiology and Biological Physics:  Abigail Platten  acp9e@virginia.edu

Neuroscience Graduate Program:  Nadia Cempré  Nab4q@virginia.edu

Pharmacology:  Antoinette Reid  adw2n@virginia.edu
## Department & Interdisciplinary Program RIPS and Journal Clubs

<table>
<thead>
<tr>
<th>Event</th>
<th>Day/Time</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology Research Progress Report (PRPR)</td>
<td>Second and Fourth Monday of the month 12:00PM</td>
<td>Michael Kidd&lt;br&gt;<a href="mailto:mwk2c@virginia.EDU">mwk2c@virginia.EDU</a></td>
</tr>
<tr>
<td>Pathology Journal Club</td>
<td>First and Third Monday of the month 12:00PM</td>
<td>Michael Kidd&lt;br&gt;<a href="mailto:mwk2c@virginia.EDU">mwk2c@virginia.EDU</a></td>
</tr>
<tr>
<td>Cell Biology Data Club Dinner</td>
<td>First Monday of the month 5:30PM</td>
<td>Danielle Dacrema&lt;br&gt;<a href="mailto:dfd8hf@virginia.edu">dfd8hf@virginia.edu</a> and&lt;br&gt;Chris Bott&lt;br&gt;<a href="mailto:cjb2ma@virginia.edu">cjb2ma@virginia.edu</a></td>
</tr>
<tr>
<td>Biochemistry Journal Club</td>
<td>Tuesday 12:00 PM</td>
<td>Sanchita Bhatnagar&lt;br&gt;<a href="mailto:sb5fk@virginia.edu">sb5fk@virginia.edu</a> and&lt;br&gt;Michael Guertin&lt;br&gt;<a href="mailto:mig7y@virginia.edu">mig7y@virginia.edu</a></td>
</tr>
<tr>
<td>Pharmacology Journal Club</td>
<td>Tuesday 12:00PM</td>
<td>Antoinette Reid&lt;br&gt;<a href="mailto:adw2n@virginia.edu">adw2n@virginia.edu</a></td>
</tr>
<tr>
<td>Microbiology Colloquium</td>
<td>Tuesdays 12:00-1:00 and Fridays 3:30-5:00</td>
<td>Lucy Pemberton&lt;br&gt;<a href="mailto:lfp2n@virginia.edu">lfp2n@virginia.edu</a></td>
</tr>
<tr>
<td>Infectious Diseases and Global Biothreats Research In Progress (RIP)</td>
<td>First and third Tuesday of the month at 4:00PM</td>
<td>Barb Mann&lt;br&gt;<a href="mailto:bjm2r@virginia.edu">bjm2r@virginia.edu</a></td>
</tr>
<tr>
<td>Neuroscience Student Seminar Meeting of the M.I.N.D.S.</td>
<td>Tuesday 5:00PM</td>
<td>Nadia Cempré&lt;br&gt;<a href="mailto:nab4g@virginia.edu">nab4g@virginia.edu</a></td>
</tr>
<tr>
<td>Neuroscience Journal Club</td>
<td>See Neuroscience calendars</td>
<td>Nadia Cempré&lt;br&gt;<a href="mailto:nab4g@virginia.edu">nab4g@virginia.edu</a></td>
</tr>
<tr>
<td>Immunology Research In Progress (RIP)</td>
<td>Wednesday 12:00PM</td>
<td>Peggy Morris&lt;br&gt;<a href="mailto:pem7f@virginia.edu">pem7f@virginia.edu</a></td>
</tr>
<tr>
<td>Cancer Research Journal Club</td>
<td>Second and Fourth Thursday of the month 12:00 PM</td>
<td>Roger Abounader&lt;br&gt;<a href="mailto:ra6u@virginia.EDU">ra6u@virginia.EDU</a></td>
</tr>
<tr>
<td>Molecular Physiology and Biological Physics Journal Club</td>
<td>First and third Fridays of the month at 12:00PM</td>
<td>Bob Nakamoto&lt;br&gt;<a href="mailto:rkn3c@virginia.edu">rkn3c@virginia.edu</a></td>
</tr>
<tr>
<td>Infectious Disease and Global Biothreats Journal Club</td>
<td>Second Wednesday of the month 12:00PM</td>
<td>Barb Mann&lt;br&gt;<a href="mailto:bjm2r@virginia.edu">bjm2r@virginia.edu</a></td>
</tr>
<tr>
<td>Cell Biology Journal Club/RIP</td>
<td>Thursday, 1:00PM</td>
<td>Mary Hall&lt;br&gt;<a href="mailto:mth8n@virginia.edu">mth8n@virginia.edu</a></td>
</tr>
</tbody>
</table>
Appendix C: Things to consider when choosing a mentor

Choosing the right lab for your thesis is a complex process. You will be considering issues that vary widely, including mentorship, the general research topic, specific potential projects, funding in the lab, and the personality fit between you, the PI, and the lab. In order to help, current BIMS students have drafted some questions they considered, advice they received, and papers they read.

Questions to ask yourself when deciding on a mentor

These questions are important to consider on your own and can serve as good topics of discussion with your first year advisor, potential mentors, the faculty member leading your recruitment cluster, your Assistant and Associate Dean, DGS, or any other faculty member you developed a rapport with through your classes. Take advantage of the faculty you have available to you – they were once graduate students, too!

Lab-Specific Questions

• What size lab am I most interested and comfortable working in?
• Which lab structure would I like to work in (post-doc : undergraduate : graduate student ratio, for example)?
• Do I thrive with a very involved, ‘hands-on’ mentor, or do I want more freedom to explore the science on my own?
• Do I want daily interactions with my mentor, or will weekly meetings suffice? Do I want a mentor with an open-door policy or do I prefer more email communication?
• Who would I like to be my direct supervisor and how many mentors do I want within the lab (PI, post doc, co-mentorship with multiple PIs)?
• How do I feel about the potential projects in the lab? Are these topics I am passionate about and will be interested in a few years down the line? Is this the type of research I am most interested in conducting (clinical, animal vs cell work, computational modeling, etc)?
• Would I like to directly mentor undergraduates, and would this be a possibility in my future laboratory?
• Is intensive collaboration or co-mentorship an option I am interested in?
• Do I want to write grant applications for external funding through organizations (AHA, NSF, NIH, etc)?
Other Graduate Experience Questions

- Are extracurricular activities either encouraged or discouraged in the lab, and is this important to me? Do I want to participate in outside activities such as the Graduate Biosciences Society (GBS) or other student citizenship organizations (Women in Math and Science, tutoring, Relay for Life, etc)?
- Is the opportunity to do formal teaching (as a co-lecturer or teaching assistant) important to me? Likewise, is formal mentoring of other students important to me?

Advice from BIMS students to our first year colleagues

Discussing the Lab Funding Situation – This is a tricky topic to navigate. While it may feel uncomfortable discussing a lab’s funding with a PI, it is important to know the funding climate of your future lab. The best approach is to be straightforward and polite in asking about funding, specifically for you and your project. Most PIs will understand why you are asking and will readily provide information. In some cases, the funding may be uncertain, and it is up to you to decide if this is a risk you are willing to take. In addition, this is a conversation you are encouraged to have with your first year advisor.

Considering Lab Dynamics – The most important parts of your PhD training are your mentorship and the research toolbox you are building. Your primary concern should be finding a lab in which you have positive, productive mentorship and can maximize your research potential. However, your lab is your place of employment for the next few years; feeling comfortable and in an environment that is a good fit for you is also important. Many students suggest talking to current lab members (perhaps even outside of the lab, over coffee) about the lab’s dynamics and the mentoring style of the PI. Keep in mind, though, there will always be people who are difficult to get along with and people frequently rotate in and out of a lab.

Advice from the literature

This review covers multiple topics, including choosing a laboratory, choosing a mentor, and defining what an “ideal project” means to you. Also includes a cartoon on various types of PIs.

This is a nice article on how to approach graduate school, with advice on how to perceive your training.

See a list of BIMS faculty at: http://bims.virginia.edu/our-faculty/
Appendix D: Student Services on Grounds

Maps of Grounds: www.virginia.edu/webmap
Other University Maps and Info: www.virginia.edu/Map

Aquatic and Fitness Center
450 Whitehead Road
Charlottesville, VA 22903
Phone: 434-924-3793
Website: http://recsports.virginia.edu/?q=aquatic-and-fitness-center
Map: www.virginia.edu/webmap/HStadiumHereford.html; Building 4

Claude Moore Health Sciences Library
PO Box 800722
Charlottesville, VA 22908
Phone: 434-924-5444
Hours: www.hsl.virginia.edu/admin/general/hours.cfm
E-mail: hslref@virginia.edu
Website: www.hsl.virginia.edu
Map: www.virginia.edu/webmap/BHealthSciences.html; Building 6

Counseling and Psychological Services (CAPS)
Elson Student Health Center
400 Brandon Avenue
PO Box 800760
Charlottesville, VA 22908-0760
Phone (Daytime M – F): 434-243-5150
Phone (After hours and weekend crisis assistance): 434-972-7004
Fax: 434-243-6693
Website: http://studenthealth.virginia.edu/caps

Department of Dentistry
1222 Jefferson Park Avenue, 2nd floor
PO Box 800740
Charlottesville, VA 22908
Phone: 434-924-1774, 434-243-6378
Website: https://med.virginia.edu/dentistry/
Map: www.virginia.edu/webmap/BHealthSciences.html; Building 14
ID Badge Services (Health System)
*Students in the School of Medicine need a Health System ID badge, not a student ID badge.
  West Complex Room 1205
  1300 Jefferson Park Avenue
  Charlottesville, VA 22908
  Phone: 434-924-2391
  Fax: 434-924-1286
  M – F 8:30 AM – 4:15 PM
  E-mail: idservices@virginia.edu
  Website: http://www.virginia.edu/idoffice/obtainid.html
  Map: www.virginia.edu/webmap/BHealthSciences.html; Building 34

Information Technology Services
  2015 Ivy Road
  Charlottesville, VA 22904
  Help Desk Phone: 434-924-4357, 866-469-4866
  Help Desk E-mail: 4help@virginia.edu
  Website: its.virginia.edu/

Intramural-Recreational Sports
  Phone: 434-924-3791
  Fax: 434-924-3858
  E-mail: imrecsports@virginia.edu
  Website: http://recsports.virginia.edu/intramural-sports

Memorial Gymnasium
  210 Emmet Street, South
  Charlottesville, VA 22903
  Phone: 434-924-6204
  Website: http://recsports.virginia.edu/?q=memorial-gymnasium
  Map: www.virginia.edu/webmap/ACentralGrounds.html; Building 24

North Grounds Recreation Center
  510 Massie Road
  Charlottesville, VA 22901
  Phone: 434-924-7380
  Website: http://recsports.virginia.edu/?q=north-grounds-recreation-center
  Map: http://www.virginia.edu/webmap/ENorthGrounds.html; Building 20
Parking and Transportation
1101 Millmont Street (behind Barracks Road Shopping Center)
PO Box 400000
Charlottesville, VA 22904-4000
Phone: 434-924-7231
Fax: 434-924-3980
Hours: M – F 7:30 AM – 5 PM
E-mail: parking@virginia.edu, transportation@virginia.edu
Website: www.virginia.edu/parking
Map: www.virginia.edu/webmap/DRoute29North.html; Building 9
University Transit Service Website: www.virginia.edu/parking/uts/index.html
TransLoc (real-time bus locations): http://uva.transloc.com/

University Registrar
Carruthers Hall, South Entrance
1001 N Emmet Street
Charlottesville, VA 22903-4833
Mailing Address
PO Box 400203
Charlottesville, VA 22903-4203
Phone: 434-924-4122
Fax: 434-924-4156
Transcripts, Certifications, Diplomas, SIS Help Line: 434-924-4122
E-mail: ureg@virginia.edu
Website: www.virginia.edu/registrar/
Map: www.virginia.edu/webmap/DRoute29North.html; Building 1

Services for Students with Disabilities
Learning Needs and Evaluation Center/Disability Services Office
Elson Student Health Center
400 Brandon Avenue
PO Box 800760
Charlottesville, VA 22908-0760
Phone: 434-243-5180
TTY: 434-243-5189
Fax: 434-243-5188
Website: http://sdac.studenthealth.virginia.edu/

Slaughter Recreation Center
505 Edgemont Road
Charlottesville, VA 22903
Phone: 434-982-5101
Website: http://recsports.virginia.edu/?q=slaughter-recreation-center
Student Financial Services
Carruthers Hall
1001 North Emmet Street
PO Box 400204
University of Virginia
Charlottesville, VA 22904-4204
Phone: 434-982-6000, 866-391-0063
Fax: 434-924-7636, 434-982-5203
Hours: M – F 8 AM – 5 PM (T 10 AM – 5 PM)
E-mail: faid@virginia.edu
Website: www.virginia.edu/financialaid/
Map: www.virginia.edu/webmap/DRoute29North.html; Building 1

Elson Student Health Center
As graduate students with Aetna health insurance, we have access to a multitude of basic health services for free or very little cost. Examples of these include: vaccines, gynecology, family planning, psychological counseling, short courses of antibiotics, minor infections, wart treatment, basic cardiovascular screening, etc.
400 Brandon Avenue (corner of Brandon Ave. and Jefferson Park Ave.)
PO Box 800760
Charlottesville, VA 22908-0760
Phone: 434-924-5362
After hours emergency, call the Charlottsville-Albemarle Rescue Squad at 911 or answering service 434-297-4261 (care providers on call)
Hours: Fall & Spring Semesters: M – F 8 AM – 5:00 PM
Summer and January Sessions and Breaks: M – F 8 AM – 4:30 PM
E-mail: studenthealth@virginia.edu
Website: www.virginia.edu/studenthealth

UVA-WorkMed
1910 Arlington Boulevard
Charlottesville, VA 22903
Phone: 434-243-0075
Fax: 434-243-0078
Hours: M – F 8 AM – 4:30 PM (closed 12 – 1 PM Fridays)
E-mail: jzs@virginia.edu (Jonathon Schuch, M.Eng, P.E., Director)
Website: https://www.medicalcenter.virginia.edu/occupational-health/uva-workmed-location-hours-of-operation.html
Appendix E: Forms

Rotation Evaluation
Rotation evaluations are completed by the rotation mentor at the conclusion of each rotation and stored in the student’s permanent file. These evaluations are typically included in training grant nomination materials.

BIMS Mentor and Degree Declaration Form
This form is completed at the conclusion of the final rotation during the Spring Semester of the 1st year.

BIMS Reimbursement Policies for Students
This document outlines the procedures that must be followed when students request reimbursement for travel or meals.
# BIMS Laboratory Rotation Evaluation

**BIMS Student**  
______________________________

**Rotation Mentor**  
______________________________

**Date Submitted**  
______________________________

**Dates of Rotation**  
______________________________

## Evaluation

<table>
<thead>
<tr>
<th>Skill</th>
<th>Excellent</th>
<th>Good</th>
<th>Acceptable</th>
<th>Needs Improvement</th>
<th>Unable to Assess</th>
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<tbody>
<tr>
<td>Bench skills</td>
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<td>Ability to design well-controlled experiments</td>
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<td>Ability to interpret data</td>
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<td>Rotation talk and/or lab meeting presentation</td>
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<td>Detailed, accurate, &amp; current lab notebook</td>
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<td>Communication Skills</td>
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<td>Ability to organize facts and ideas</td>
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<td>Motivation</td>
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<td>Reliability</td>
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<td>Ability to handle stress</td>
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<td>Ability to interact well with colleagues</td>
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<td>Ability to function independently</td>
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</table>
Attended and participated in lab meetings. □ [None] □ [Some] □ [Most] □ [All]  
Attended appropriate seminars. □ [None] □ [Some] □ [Most] □ [All]  
Read and discussed relevant research in current journals, etc. □ [None] □ [Some] □ [Most] □ [All]

Please answer the following questions – response boxes allow unlimited text.

1. Briefly describe the assigned rotation project and progress achieved.

2. Based on your observations, evaluate this student’s ability to begin and progress through dissertation research to completion of the PhD.
   a. Describe strengths of this student’s research and abilities.
   b. Describe weaknesses of this student’s research and abilities.

3. Briefly specify skills/behaviors this student should focus on to improve potential.

4. Comments regarding participation.

5. Overall evaluation / additional comments.

Grade □ [A+] □ [A] □ [A-] □ [B+] □ [B] □ [B-] □ [C]

Review
Have you held an exit interview with the student? □ [Yes] □ [No]

Signature:

Rotation Faculty Advisor – electronic accepted or just type your name

Please submit the completed, signed form to the appropriate BIMS administrator. This document will be placed in the student’s permanent file. Lab rotation evaluations are used as supporting documentation for training grant nominations (unless requested otherwise).
### BIMS Mentor and Program Declaration Form

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
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<tbody>
<tr>
<td>Student Name:</td>
<td>____________________________________________</td>
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<tr>
<td>Computing ID:</td>
<td>____________________________________________</td>
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<tr>
<td>Mentor (primary):</td>
<td>____________________________________________</td>
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<tr>
<td>Department/Program from which you will receive your degree:</td>
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Please obtain the signatures of the following individuals:

<table>
<thead>
<tr>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student (Print)</td>
<td>Signature</td>
</tr>
<tr>
<td>Primary Mentor (Print, see Note 1)</td>
<td>Signature</td>
</tr>
<tr>
<td>Secondary Mentor (if applicable)</td>
<td>Signature</td>
</tr>
<tr>
<td>Director of Graduate Studies (Print)</td>
<td>Signature</td>
</tr>
<tr>
<td>Chair (Dept of Mentor’s Primary Appt) (see Note 2)</td>
<td>Signature</td>
</tr>
</tbody>
</table>

**NOTE 1:** In signing this form, the **Mentor** accepts responsibility for overseeing the student’s academic and research progress, and for providing and/or negotiating funding for the student until he/she completes the Ph.D. degree or leaves the University due to insufficient academic progress, transfer, or voluntary departure from the program.

**NOTE 2:** In signing this form, the **Chair** of the department from which the mentor holds his/her primary appointment acknowledges that the department will be responsible for financial support of the student should funding from the mentor become unavailable.

After all signatures have been collected, please return this form to your BIMS Administrator.
The following guidelines are designed to help inform students requesting reimbursements from the Graduate Programs Office of our policies and to speed up the process so that the reimbursements can be made in a timely fashion. All student reimbursements will continue to be processed through Oracle.

1. **Meal Reimbursements**

   The following BIMS meal reimbursement policy is offered as guidance to students who host meals. The guidelines allow for effective recruiting while reflecting positively on our programs and minimizing our potential liability.

   Please note that UVa policy requires an [alcohol approval](https://uvapolicy.virginia.edu/policy/STU-001) in advance for each individual event at which alcohol is available and students/recruits are present. The approval can be requested by any person with a UVa computing ID at [http://vpsa.virginia.edu/alcohol](http://vpsa.virginia.edu/alcohol).

   a. Recruiting meals:
      
      i. Please provide an ITEMIZED ORIGINAL receipt to your BIMS administrator.
      
      ii. A description of the meal (name of restaurant, attendees, reason for meal, date) is required for reimbursement. If there are fewer than 10 participants, the name and affiliation with the University is required. If there are more than 10 participants, the number per group will suffice (e.g. 10 faculty, 2 staff, 20 students, 20 recruits).
      
      iii. If tape is used, please tape receipts only on their edges, as the print can dissolve under the adhesive on some receipts.
      
      iv. Reimbursement will be for BIMS faculty/staff/students/recruits only; spouses/significant others may attend but their meals will not be reimbursed.
      
      v. Maximum meal reimbursements:
         
         - Breakfast – avg of $16/person (before tax and tip)
         - Lunch – avg of $17/person (before tax and tip)
         - Dinner – avg of $31/person (before tax and tip). This includes appetizer, entrée, drink, and dessert.
      
      vi. The ratio of students to recruits should be no higher than 1 UVa student to 1 recruit unless permission is granted by BIMS administrator in advance.
      
      vii. Reimbursement will be for one drink per person for dinner only (no alcohol at breakfast or lunch). Total alcohol cost cannot exceed 25% of the total meal cost (before tax and tip). The UVa alcohol approval form must be attached to reimbursement request.
i. The maximum tip that will be reimbursed by the GPO is 20% of untaxed food and beverage cost.

ii. If recruits are taken to a winery or brewery, one tasting per person can be reimbursed by the GPO.

b. Guest speakers - The dinner limit is increased to the average of $46/person (before tax and tip). Approval for reimbursement must be obtained from the BIMS administrator prior to the event.

2. Travel Reimbursements

Receipts are required.

a. Airfare/train and other public transportation – please submit a copy of the itinerary showing ECONOMY and total cost. If the flight does not return directly to the point of origin or is multi-city due to personal stopovers, UVA will only reimburse the cost of a round trip flight back to the point of origin unless the final destination/multi-city trip is less expensive – documentation showing the cost of a round trip ticket must be provided.

b. Reimbursable travel-associated costs are as follows: actual cost of meals up to Procurement limits (no alcohol for students/recruits), airport parking, luggage (1 bag each way) and cab/bus/shuttle.

c. Personal vehicle mileage – reimbursement will be provided for a round trip from point of origin to UVa (unless the final destination is closer), UNLESS air or train fare would be less expensive.