Policies and Procedures

Graduate Programs in Biochemistry, Microbiology and Immunology. University of Saskatchewan

July 12th, 2021

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## 1. Introduction

The Biochemistry, Microbiology and Immunology (BMI) Department offers both M.Sc. and Ph.D. degrees. The purpose of this manual is to provide additional information concerning these programs which may not be available on the College of Graduate and Postdoctoral studies (CGPS) web site (see https://cgps.usask.ca/policy-and-procedure/index.php ) or the Departmental web site (https://medicine.usask.ca/students/graduateprograms/programs.php\#DepartmentofBiochemistryMicrobiologyImmunology).

## 2. Application and admission

Prospective students interested in BMI should learn about the department, its research activities, and the availability of opportunities by visiting its web site at: $\underline{\text { https: } / / m e d i c i n e . u s a s k . c a / b m i / p r o g r a m s . p h p \# G r a d u a t e D e g r e e P r o g r a m s . ~ T h i s ~ s i t e ~ a l s o ~ p r o v i d e s ~ a ~}$ list of "research-active" faculty.

## [a] Eligibility

M.Sc. admission requires a Baccalaureate (or equivalent) from a college or university of acceptable standing, and equivalent to the degree at this university with a specialization in BMI or a related discipline. A cumulative weighted average of at least $75 \%$ ( U of S grade system equivalent) is the minimum standard. (Students with a lower average may be accepted under exceptional circumstances).

Ph.D. admission requires a Master's degree, or equivalent, from a recognized university in an academic discipline relevant to the proposed field and a cumulative weighted average of at least $80 \%$ (U of S grade system equivalent) In order to assess the quality of the student's M.Sc. degree the BMI Graduate Committee will review the thesis and/or any published papers. If the M.Sc. is not deemed to be equivalent, then the applicant must enroll as a M.Sc. student and take a Ph.D. qualifying exam within the first 2 years (see regulations for this below).

If English is not your native language, you must arrange for a certified result of the "Test of English as a Foreign Language" (TOEFL) or International English Learning Test Score (IELTS) to be sent directly to us. Note that our department requires a minimum score of 90 (TOEFL, with a minimum of 20 in each area) and 6.5 (IELTS, with a minimum of 6.5 in each area). For those who are unable to get access to TOEFL or IELTS exams, alternative English language exams recognized by the CGPS are acceptable. Please visit the above web site for more information https://grad.usask.ca/admissions/admissionrequirements.php\#Englishlanguageproficiencyrequirements .

## [b] How to apply

1. If you intend to apply to the BMI graduate program, it is required that you first find a faculty member in our Department who will agree in advance to being your research supervisor (assuming that all other conditions are met). Please contact those individuals whose research you find interesting. Applications can be made at any time.
2. Once you have identified a faculty member who is willing to be your supervisor, you will have to formally apply to the graduate program through the CGPS. The graduate studies application fee is $\$ 90 \mathrm{CDN}$ and is NOT refundable. Completion of CGPS's online application form requires that original academic transcripts and formal proof of English
proficiency be provided.
3. Once the BMI Department has recommended admission to CGPS, the CGPS will need to approve the admission and issue an offer of admission before you can begin your studies."

Although students may apply to enter our graduate program at any time, the university calendar year begins in September and graduate classes are offered either in September (Term 1 ) or in January (Term 2). The first round of the Dean's Scholarship is due on December $1^{\text {st }}$ but in any event, complete applications must be received by February 1 in order to be considered for scholarship funding beginning the following September. North American applicants should apply a minimum of 4 months prior to anticipated start date, while due to visa processing, international applicants should apply a minimum of 6 months prior to your anticipated start date.

## 3. Graduate program

## [a] Minimum program requirements

At the beginning of the program, the student in consultation with the supervisor will prepare a research proposal that will be submitted to the graduate advisory committee to assess its suitability (Guidelines in Sharepoint site). A new graduate student should have the first Advisory Committee meeting within four months after registration to establish a Program of Studies (POS) outlining the research, ethics requirements, course work, and committee members

For both M.Sc. and Ph.D. programs the major requirement for continuation in the program is progress in all components. This includes progress in course work, research, written and oral presentation skills, and thesis writing. If, at any time, the supervisor, committee chair or any other member of the student's advisory committee has reason to believe that progress is not satisfactory then a committee meeting should be called immediately to discuss and address the issue(s).

Course work: For the M.Sc. program the student must take 9 credit units consisting of graduate level (800) courses with a $70 \%$ cumulative grade point average, with no individual mark being below $60 \%$. The committee may recommend additional courses at any level in order to bolster a student's knowledge in perceived areas of weakness and/or to complement the research program.

For the Ph.D., no graduate level (800) courses are required. In some cases, additional courses may be recommended by the student's committee to bolster a student's knowledge in perceived areas of weakness and/or to complement the research program. (Note: It may be beneficial for students to take several 800 level courses to increase their chances of winning scholarships but a cumulative gpa of $80 \%$ is required with no individual mark being below 70\%).

Graduate Student seminars: Graduate students are required to present one seminar each year on their research progress as part of a graduate seminar course (BMI990). Yearly registration and attendance in BMI990 is required throughout the graduate program.

Research progress: Progress in research will be assessed by the committee annually on the basis of a short but formal presentation and by submission of a progress report to the advisory committee at least one week before the scheduled committee meeting. The written report should contain a brief overview of relevant background, hypotheses,
objectives, experimental methods, results and future plans. A list of references is required. The report should also include a list of courses completed and those remaining to be taken, and achievements (e.g., publications, conferences and awards) during the past year.

The students should address the questions raised in previous meeting(s) in their progress report. It is the responsibility of the supervisor to make sure that the questions previously raised have been addressed. (A section "issues to be addressed prior to next meeting" will be added to the minutes to help address this problem)

Please remember to follow the guidelines (see Sharepoint site). The report is not supposed to be a mini-thesis so the introduction should be brief (maximum 4 pages, 1.5 spacing). The committee is trying to assess the progress in the last year so it is helpful to start the results with a brief overview of the previous results. Please make it absolutely clear which are the new results.

The Progress report should be submitted to the supervisor in early April at least 3 weeks before the meeting date for a thorough review and suggested revisions should be made before it is submitted to the members of the committee at least 7 days before the meeting date. If the guidelines are not followed it will be returned to the student for revision and the meeting will be rescheduled. The main committee meeting will usually be held in May.

In addition, there will be a second, shorter meeting in November at which the student will again present a short talk and an addendum to the progress report (submitted by November $1^{\text {stt }}$ ) which only describes progress in the last 6 months. (maximum 2 pages, 1.5 spacing, + figures).

Presentation skills: Oral communication skills will be assessed on the basis of the talks to the committee as well as the formal seminar presentations. Written communication skills will be assessed on the quality of the initial proposal and the subsequent progress reports. If required, the committee should expect to see a significant improvement in both oral and written abilities as the student progresses through the program. (Note: Many language courses are available on campus particularly for foreign students and the advisory committee should recommend these when deficiencies are noted or difficulties are encountered. Information can be found at :https://students.usask.ca/international/\#InternationalStudentandStudyAbroadCentre

Student progress with respect to course requirements and other exams will be discussed during the meeting. At the end of the meeting, the student MAY be asked to leave the room for the Committee to discuss relevant issues. The Chair of the committee should provide a written report of the meeting to be sent to the Committee members for review, then the Graduate Secretary for data entry, submission to CGPS and filing. If necessary, the Chair may delegate a Committee member to take scientific minutes to be communicated to both Committee members and the student. The written minutes of the meeting will be made available to the Supervisor, Grad Chair and the graduate student through PAWS (online).

Thesis writing: (See Sahrepoint guidelines and section [3f] below) In general, it should require between 3 to 4 months to write the thesis. Progress should be monitored initially by the supervisor with guidance from the committee if there are delays. Students should understand that the thesis must be approved, first by the supervisor, second by the advisory committee chair and finally by the committee before being sent to the external examiner. Each step takes time, usually a minimum of three weeks, and revisions may be required at each step. Even after the thesis defence, major revisions may be required. Therefore, PLEASE allow 3-4 months after submission of the thesis to the supervisor before accepting another appointment or leaving the country!

When the student has finished or nearly finished their research, an Advisory Committee meeting will be held at which the student will present major experimental data to be included in the thesis along with a draft Abstract and Table of Contents to the committee members. The committee members will discuss the proposed thesis content and indicate their approval for the preparation of the thesis. This committee meeting will be independent of the student's mandatory annual committee meeting, although it may take place concurrently. (If deemed reasonable the discussion can also take place by email). Three possible outcomes may arise from this meeting:

- The student is given unconditional permission to write thesis.
- The student is given permission to write thesis pending completion of certain set(s) of experimental data.
- The content is deemed insufficient for writing the thesis and additional experimental data are required for the Committee to review the progress.

Once a student has begun writing the thesis, it is in the student's as well as the department's interest that the writing and defense proceed efficiently. Recognizing that the mode of interactions between supervisors and students varies considerably, the following guidelines are expected to be adhered to once a complete draft of the thesis is in the hands of the supervisor.

- Review of a first complete draft by the supervisor; four weeks.
- Review of a second complete draft by the Advisory Committee; three weeks.
- Review of a third draft by the Advisory Committee; two weeks (optional)
- Review by the External examiner; three weeks (M.Sc..) or six weeks (Ph.D.)

Students should take account of these timelines when planning the final preparation and defence of their thesis. For example, once the thesis draft is ready for submission to the Advisory Committee, the student can expect a time lag of a minimum of $3+2+4$ weeks (a total of 8 to 10 weeks) before the date of the defense, the last four weeks being required for the reading of the thesis by the external examiner for M.Sc. and Ph.D. theses respectively.

## [b] Duration

In general, it is expected that a M.Sc. should be completed in 2.5 to 3 years. Extension beyond 5 yrs requires the permission of CGPS. For completion of a Ph.D. the time frame is longer, between 4.5 to 6 years. Extension beyond 6 yrs requires the permission of CGPS. Students can request a leave of absence due to health or compassionate reasons. It is important to make arrangements with your supervisor and chair of the advisory committee well in advance if possible. The CGPS also has to approve all leaves.

## [c] Teaching

All students are encouraged to amass as much teaching experience as possible.
As part of the program, all students will be expected to demonstrate in lab courses. This includes helping the undergraduates in the lab one afternoon/week as well as marking lab report and/or assignments. In addition, the BMI Department offers several online courses in which graduate students may participate by acting as mentors and leading small-group discussions.

All students without external funding will be expected to do up to 120 hrs of TA service
to the Department. Students with a partial scholarship (e.g. CoMGrad) have to do up to 60 hrs and students with full scholarship (e.g. NSERC) have to do up to 40 hrs of TA service. This service will reduce the supervisors' share of their stipend. Any amount beyond those hours would be a stipend to the student but requires mutual agreement between the supervisor and student.

It is expected that time spent teaching/demonstrating will not come at the expense of the student's research.

## [d] Transfer from M.Sc. to Ph.D and qualifying exam.

Some students may seek permission from their supervisor and Advisory Committee to transfer from a M.Sc. program to a Ph.D. program before completing the requirements of the M.Sc. program, and without preparing and defending a M.Sc. thesis. This option is normally reserved for students who are doing very well in the M.Sc. program as demonstrated by a well developed research project that can form the basis for a Ph.D. and who show great promise for success at the Ph.D. level as demonstrated by above average written and oral communication and demonstration of critical thinking skills. M.Sc. students who have completed at least 9 credits of graduate coursework, with a grade point average of $80 \%$ or higher with no mark below $70 \%$ may seek permission to transfer to the $\mathrm{Ph} . \mathrm{D}$. program as early as one year after entering the program but must do so before the end of their second year. M.Sc. students who have been in the program more than two years will not be permitted to transfer to the Ph.D. program. M.Sc. students must also pass a qualifying exam (see below). If the student fails the qualifying exam on the first try then a second exam can be given within 3 months. However, a second failure automatically disqualifies a student from transferring directly to a Ph.D. program. Final approval to transfer from the M.Sc. program to the Ph.D. program is given by the CGPS if the student meets the eligibility requirements.

The Ph.D. qualifying exam is an oral exam and is designed to test the student's general scientific knowledge in two subject areas which are preselected by the supervisor and Advisory Committee after consultation with the student. The BMI Graduate Affairs committee will appoint two BMI faculty members to be examiners. Each examiner will provide a short list, often 2-3 references (research article and/or review article) related to the subject, with a few sample questions to focus the students' preparation for the oral examination.

The choice of topics may include, but are not limited to the following broad areas:
Genetics and physiology including cancer.
Molecular and cellular biology.
Immunology.
Microbiology and infectious diseases.
Virology.
Protein structure and function.
Nucleic acid structure and function.
Metabolism.
The examination will take place three weeks after the student receives all references and sample questions. The examination questions will be related, but not limited, to the references provided. The purpose of the examination is to assess the student's ability to synthesize scientific knowledge, to analyze the experimental data, and to apply the knowledge to critical thinking. The examination will be a maximum of 3 hours.

The examination Committee consists of the two subject examiners and normally the Chair of the advisory committee. After the oral examination is complete, the Committee will discuss and vote Pass or Fail on each subject. If a student fails one or both subjects, she/he may request a second examination on the failed subject(s). The examination will take the same format and take place within 3 months.

Please note that the student's supervisor is not allowed to attend this exam. It is expected that time spent preparing for the exam will not come at the expense of the student's research.

Once the student has passed the qualifying exam and has transferred to the PhD program, he/she must submit a PhD program of study. A committee meeting including required new members must take place to approve the student's Program of Study.
[e] Ph.D. comprehensive exam
All candidates for the Ph.D. degree are required to pass a comprehensive examination. This examination is usually on topics cognate to the candidate's field of research and is used as a means of judging whether the individual has a mature and substantive grasp of the discipline as a whole. A comprehensive knowledge of the subject will not only help to validate the $\mathrm{Ph} . \mathrm{D}$. student as an expert in the general field of choice, but will also complement research activity in the specific area under investigation. Normally, the comprehensive exam should be held within 2-3 years of admission into the Ph.D. program or transfer from the M.Sc. program but before submission of a Table of Contents and formal "Permission to write". (see below). The comprehensive exam will be scheduled 60 days in advance and will consist of a written and oral examination conducted by the Advisory Committee.

There are two formats:

1. Question based.

Each Advisory Committee member will provide two questions related to the student's research interest to the Committee Chair, who will assemble them into 8 questions and pass them on to the student. The student's written response to each question will be submitted to all the Committee members three weeks after receiving the questions and the oral examination will then take place one further week later.
2. Grant proposal.

The Advisory Committee will decide a subject area related to the student's research interest in consultation with the student. Once the subject has been approved, the student will have up to three weeks to prepare the proposal and distribute it to the Advisory Committee. The format of the grant proposal will be that required for NSERC as found on the current NSERC website, and comprised of the Summary of Research Proposal and Research Proposal sections (i.e. 5 pages plus references and figures). The student's written response to each question will be submitted to all the Committee members three weeks after receiving the questions and the oral examination will then take place one further week later.

The oral examination involves all the Advisory Committee members and questions will be related, but not limited, to the written response or grant. After oral examination, the student will be asked to leave the room and the Advisory Committee members will discuss and vote for both written and oral components of the examination. Written comments on the examination may be provided to the student by the Chair.

Only upon successful completion of the comprehensive examination at an appropriate time during the program is a student permitted to continue scholarly activity towards the Ph.D. degree. The comprehensive examination may be repeated once with the permission of the Dean of CGPS. The results of all comprehensive examinations must be reported to the CGPS. A
second failure will result in the student being required to withdraw from the program. This failure may be appealed to the Graduate Academic Affairs Committee on substantive or procedural grounds.
[f] Preparation and thesis defense. (See "Progress in thesis" for time line and guidelines); When a student and his or her Supervisor believe that the research work is complete, the student must ask the Advisory Committee for permission to write a thesis. This request can be made at any time. A table of contents together with an abstract must be sent to the advisory committee for approval. The Advisory Committee must satisfy itself that the quantity and quality of the research is adequate, and that the student has a good grasp of his or her own work in relation to the existing knowledge base in the area of specialization. For the PhD . degree, the student should have published at least one substantive first author paper directly connected to the major focus of the thesis work. If no papers have been published, the student and supervisor must provide the advisory committee with clear evidence that there is a path to publication in the near future i.e a submitted paper or a preprint in BioRxiv.

The Advisory Committee will either grant permission to stop research and concentrate on data analysis and thesis preparation or specify additional research work that must be carried out.

Theses may be produced in either the traditional style or the 'manuscript' style, which consists of a manuscript, or cohesive series of manuscripts, written in a style suitable for publication in appropriate venues. If the manuscript format is used, transition chapters need to be added in between the manuscripts (as required by CGPS).

A final oral defense of the M.Sc. thesis will be conducted with an Examining Committee that includes the members of the Advisory Committee plus an External Examiner who is a member of another Department of the University, and who has not been a member of the student's Advisory Committee and is approved beforehand by the CGPS. The Examining Committee for a M.Sc. defense will be chaired by the Chair of the Advisory Committee.

A final oral defense of the Ph.D. thesis will be conducted with an Examining Committee that includes the members of the Advisory Committee plus an External Examiner from outside the University and approved beforehand by the CGPS. A designate of the Dean of CGPS acts as Chair of the Examining Committee at a Ph.D. defense.

Both the M.Sc. and Ph.D. thesis defense are in the form of an oral examination, up to three hours in length. Immediately before the oral thesis defense, the student will present a 45 minute open seminar on the thesis work, to satisfy the final requirements for BMI 990 The seminar is followed by a closed question and answer defense of the thesis work.

## 4. Administration of the program

## [a] Departmental Graduate Affairs committee

The general functions of the Graduate Affairs Committee of the Department of BMI are to administer the graduate programs, to ensure that each graduate student fulfills the requirements necessary for an advanced degree in BMI, and to ensure that the standards of the Departmental graduate program are maintained.

## [b] Supervisor

The supervisor is the faculty member directly responsible for overseeing your research. The selection of a supervisor should be completed by mutual agreement among student, supervisor and the Department. The supervisor must be a faculty member of the CGPS and should be familiar
with the rules and procedures of the department, the CGPS and those of the university. Both student and supervisor are responsible for ensuring that all CGPS and departmental regulations and requirements are observed and met.

## [c] Advisory committee

The Advisory Committee for each graduate student functions to approve the Program of Study (course work and research program) as well as to ensure that the student satisfies all of the requirements of the Graduate Program in BMI. Major changes in the student's program requires the approval of the Advisory Committee. The Advisory Committee also provides a source of information and counsel for graduate students. In this way, the graduate student will be exposed to a variety of opinions and ideas and can obtain help from individuals with particular expertise required for some aspect of the research project. Members of the Advisory Committee are also available for consultation concerning problems in situations where the student does not wish to approach their supervisor. If a conflict arises between the supervisor and the student, the supervisor should attempt first to resolve any problems informally with the student. If informal discussion does not lead to a resolution, then the Graduate Chair and advisory committee should be consulted. If this is not successful, then the Dean of Graduate and Postdoctoral Studies will be consulted. Similarly, if the student encounters problems then he/she should contact the chair of the advisory committee who will advise accordingly.

The Advisory Committee is composed of the Supervisor (and any Co-Supervisor), a Chair, and other faculty members of this or other departments, chosen by the Graduate Chair and the Supervisor. At least one of the other faculty members must be from BMI. The minimum number of members of a M.Sc. Advisory Committee is three. The minimum number of members of a Ph.D. Advisory Committee is five, including at least one member from another, cognate department. A Supervisor and a Co-Supervisor count as one member in terms of voting.

The Advisory Committees will meet regularly in May of each year to receive the Annual Progress Report from each graduate student. A second shorter meeting will also be required in November. The Advisory Committee may also meet at any other time at the request of the graduate student, the Supervisor, the Chair of the Advisory Committee, or the Chair of the Graduate Program Committee.

## [d] Student/supervisor agreement

See document in Sharepoint

## 5. Financing graduate school

## [a] Sources of funding

Supervisors are responsible for ensuring that each graduate student receives a stipend which meets a minimum departmental standard. Currently, departmental minimums are $\$ 19,000$ per year for M.Sc. students and $\$ 24,000$ per year for $\mathrm{Ph} . \mathrm{D}$. students. Termination of funding cannot be made unilaterally by the supervisor and requires a meeting of the advisory committee. In the absence of any scholarships or bursaries, this stipend will usually come from research grants held by the Supervisor. However, it is beneficial for both the student and the Supervisor if some or all of the support for the student is derived from scholarship or assistantship funds. Support from extramural sources generally provides a higher stipend than support from intramural (University of Saskatchewan) sources. In particular, a student who wins a scholarship (e.g. CoMGrad, Sask. Innovation or federal funding) will have their minimum stipend increased as follows:

| Category | Unmatched amount of award | Award to student |
| :--- | :--- | :--- |
| Bronze | $\$ 0$ to $\$ 10,000$ | $30 \%$ of award |
| Silver | $\$ 10,000-\$ 18,000$ | $\$ 3,000+20 \%$ of remainder |
| Gold | $>\$ 18,000$ | $\$ 4,600+10 \%$ of remainder |

In this way, both the student and supervisor benefit.

## Notes:

1. Examples:

An MSc. student awarded an unmatched ComGrad of $\$ 11,000$ would receive $\$ 3,200$ on top of their standard $\$ 19,000$ to total $\$ 22,200$. The supervisor would benefit by $\$ 7,800$. (Calculation: $\$ 11,000-\$ 10,000=$ $\$ 1,000 . \$ 1,000 \mathrm{X} 20 \%=\$ 200 . \$ 3000+\$ 200=\$ 3,200$.)

A PhD. student awarded an unmatched ComGrad of $\$ 14,000$ would receive $\$ 3,800$ on top of their standard $\$ 24,000$ to total $\$ 27,800$. The supervisor would benefit by $\$ 10,200$. (Calculation: $\$ 14,000-\$ 10,000=$ $\$ 4,000 . \$ 4,000 \mathrm{X} 20 \%=\$ 800 . \$ 3000+\$ 800=\$ 3,800$.)

An MSc. student awarded an unmatched NSERC $\$ 17,500$ would receive $\$ 4,500$ on top of their standard $\$ 19,000$ to total $\$ 23,500$. The supervisor would benefit by $\$ 13,000$. (Calculation: $\$ 17,500-\$ 10,000=$ $\$ 7,500 . \$ 7,500 \mathrm{X} 20 \%=\$ 1,500 . \$ 3000+\$ 1,500=\$ 4,500$.)

A PhD. Student awarded an unmatched NSERC of $\$ 21,000$ would receive $\$ 4,900$ on top of their standard $\$ 24,000$ to total $\$ 28,900$. The supervisor would benefit by $\$ 16,100$. (Calculation: $\$ 21,000-\$ 18,000=$ $\$ 3,000 . \$ 3,000 \times 10 \%=\$ 300 . \$ 4,600+\$ 300=\$ 4,900$.)

A Ph.D. student receiving an unmatched $\$ 20,000$ SIF would receive $\$ 4,800$ on top of their $\$ 24 \mathrm{~K}$ to total $\$ 28,800$ and the supervisor would benefit by $\$ 15,200$. (Calculation: $\$ 20,000-\$ 18,000=\$ 2,000 . \$ 2,000 \mathrm{X}$ $10 \%=\$ 200 . \$ 4,600+\$ 200=\$ 4,800$.

A PhD. Student awarded a Canada Scholarship (Doctoral) with an unmatched value of $\$ 37,000$ would receive no top-up (except for $\$ 4,00$ from CGPS, see below). The supervisor would benefit by $\$ 24,000$.
2. These stipends are subject to the conditions of the award; for example, some fellowships cannot be held simultaneously, [b] devolved funds are not included i.e. only the supervisor benefits, [c] stipends will revert to the base line if the fellowship is terminated.
3. Students who are awarded an NSERC or CIHR get an automatic $\$ 6,000$ from CGPS in addition to the top-up outlined above.
4. As of Spring 2020, the fees charged for graduate programs are expected to increase but the details are not yet available. As well, it is anticipated that some of these increases will be off-set by automatic bursaries to students who maintain an $80 \%$ average. Faculty are well aware of the potential hardships that fee increases may cause and therefore, these minimum stipends will be reviewed annually.

## Special case of CSC students.

The CSC PhD scholarship funding (currently $\$ 19,200 /$ annum) requires the supervisor to pay the tuition of the student (in addition to topping up the salary to $\$ 24 \mathrm{~K}$ as per departmental
guidelines). Therefore, CSC students will be excluded from the above top-up stipend policy that is in place for other external scholarships.

Departmental Assistance.
The Department awards scholarships in August, adjudicated by the Graduate Program Affairs Committee in consultation with the head. These scholarships are supported by devolved University Graduate Scholarship funds, devolved College of Medicine Graduate Scholarship funds, and departmental funds. Further information can be found in the appendix.

## Financial assistance from the College of Medicine.

A limited number of Graduate Teaching Fellowships and Graduate Teaching Assistantships are awarded by the College of Medicine. Applications are submitted through the departmental Graduate Program Affairs Committee.

A limited number of Graduate Research Fellowships are awarded by the College of Medicine. Applications are submitted through the departmental Graduate Program Affairs Committee.

The Arthur Smyth Memorial Scholarship is available through the College of Medicine. These awards are intended for especially meritorious students who are nearing the end of a Ph.D. program. Applications are submitted through the departmental Graduate Program Affairs Committee.

CoMGrad scholarships are awarded biannually. Submission dates and application forms will be circulated to students when available.

## Financial assistance available from the College of Graduate and Postdoctoral Studies

The CGPS offers the Dean's Scholarship for especially meritorious students. Preference is given to students entering the first year of a Ph.D. program, although entering M.Sc. students are also eligible. Several application deadlines occur in the first few months of each calendar year. Applications are submitted through the departmental Graduate Program Affairs Committee.

From time to time, the CGPS announces the availability of Graduate Service Fellowships, which involve payment for various tasks or services within the University of Saskatchewan. Students who are receiving major support from other sources are ineligible, so it is unlikely that our graduate students will be able to take advantage of this program.

The Saskatchewan Innovation and Opportunity Graduate Scholarship is offered for graduate students conducting research in specific priority areas. Eligible current students will be invited to apply online. The department will also be invited to nominate a restricted number of external applicants each year. www.saskatchewan.ca/residents/education-and-learning/scholarships-bursaries-grants/scholarships/saskatchewan-innovation-and-opportunityscholarship

## Financial assistance available from extramural sources

A. National Science and Engineering Research Council (NSERC). Students (Canadian citizens and residents) may apply for M.Sc. or Ph.D. level awards to support their studies. Generally, students must be working in a NSERC-funded laboratory to be eligible for these awards. Application guidelines, materials and instructions are available at: https://www.nserc-crsng.gc.ca/Students-Etudiants/index_eng.asp (available to Canadian
residents only)
B. Canadian Institutes for Health Research (CIHR). Students (Canadian citizens and residents) may apply for M.Sc. or Ph.D. level awards to support their studies. Generally, students must be working in a CIHR- funded laboratory to be eligible for these awards. Application guidelines, materials and instructions are available at (click 'funding opportunities'): https://cihr-irsc.gc.ca/e/37788.html (available to Canadian residents only)
C. A wide variety of additional intramural and extramural awards are available, most of which are directed towards particular areas of study or particular categories of applicants. Students are strongly encouraged to explore the opportunities available. A comprehensive list of additional scholarship opportunities is maintained by the CGPS at: https://grad.usask.ca/funding/scholarships.php
https://grad.usask.ca/funding/international-scholarships.php

## [b] Travel funds

Students are encouraged to go to conferences. Approximately $\$ 1500$ may be available from the College of Medicine and $\$ 350$ (Canadian) or $\$ 550$ (international) from the University at least once during the program.

## BMI Graduate Application Checklist

## __ Application Form Online at https://grad.usask.ca/admissions/how-to-apply.php

Three Recommenders - provide 3 email addresses into the online application
_ Curriculum vitae/résumé
_ Handwritten statement of research interest/research experience
_ $\$ 90$ Canadian application fee paid on line
Required, but sent separately
$\qquad$ Sealed, Official versions of all transcripts
Official English Test Results

Applications are submitted online only.

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