Undergraduate Medical Student Research Programs

Please note: Both programs host numerous similarities but there are marked differences. These are indicated within the document.

The BScMed and Med II Summer Research programs offered by the Associate Dean, Research within the Faculty of Medicine gives medical students an opportunity to engage in original research, either in the basic or clinical sciences; or in community health and epidemiology, under the supervision of a member of the Faculty as well as a co-supervisor from the University of Manitoba. The specific aim is to:

• Develop skills at research design, hypothesis testing, and critical evaluation of data and effective communication of results

• Discover whether they would like to continue as a researcher, either through continuing into a formal graduate program during or after medical school or as a clinician researcher

• Expand their clinical skills through a one-half to one full day/week clinical placement

Who Can Apply to the Programs?

The BScMed program is open to all medical students who have completed their first year of medicine at the University of Manitoba. There is an option for the Shantou Exchange Program and International/Canadian within the BScMed program only.

The MED II Summer Research Program is open to University of Manitoba medical students who have completed the second year of medicine.

B.Sc.(Med) Program: course summary and process

Student participation and remuneration: The program is active during the summer recess between Years I and II and Years II and III of the Undergraduate Medical Degree program. Generally all of the students who enter the program complete the requirements for the B.Sc.(Med) Degree, which is awarded upon receipt of the M.D. degree. Most projects are conducted at the Bannatyne Campus of the University of Manitoba, although some projects may be based in or include field work in rural or northern Manitoba. Only under exceptional circumstances will students be considered to undertake projects at an educational facility other than the University of Manitoba.
All students receive stipendiary support, presently $5000.00 / summer. Students must be in good academic standing in the regular MD program in order to enrol and continue in the BScMed program. The University assesses the tuition fee for the BScMed program. There is no registration fee for the MED II Summer Program although the University may levy fee’s that are associated with enrolment in any course.

Once registered, withdrawal from the program is at the discretion of the BScMed Director. Permission must be granted. The course is graded as PASS/FAIL.

**Med II Summer Research Program: course summary and process**

**Student participation and remuneration**: The one year program is active during the summer recess between Years II and III of the Undergraduate Medical Degree program. Generally all of the students who enter the program complete the requirements program. Most projects are conducted at the Bannatyne Campus of the University of Manitoba, although some projects may be based at St. Boniface Research Centre.

All students receive stipendiary support, presently $5000.00 for the 13 week summer term. Students must be in good academic standing in the regular MD program in order to enrol and continue in the program. There is no tuition fee for this course although the University may levy fee’s associated with enrolment in any program.

Once registered, withdrawal from the program is at the discretion of the Director. Permission must be granted. The course is graded as PASS/FAIL only.

**Choosing Your Research Project for either program**

Students may initiate a research project proposal by approaching an eligible supervisor/researcher independently. The application process is the same (explained below).

Alternatively, they may select a project submitted by a researcher through the following process:

- In early August through early September, a faculty-wide call solicits research projects from prospective supervisors for both programs.
- Those who wish to submit a proposal for consideration are required to provide a title as well as a 250-word abstract outlining the project within the distributed electronic form. Projects for the MED II Summer Research program will be structured for the 1 term of 13 weeks.
- These are compiled and made available to the students from the Faculty of Medicine on the BScMed and the MED II Summer websites.
- Students then select projects from the portfolio of abstracts, and contact the supervisor. The student and supervisor will discuss and/or meet to determine suitability of the project for the student and whether the project is actually available.

Once the student and supervisor are matched, they complete the formal application. The research proposal includes the rationale for the project, the hypothesis to be tested, a brief review of the relevant literature, the experimental approach, and methods of data analysis. A clear statement of the actual work to be undertaken by the student is required. Information regarding the research background of the supervisor is required. It is expected that the student will have primary responsibility for the preparation of the application.
The UGMRC (Undergraduate Medical Research Committee) committee then reviews the BScMed and the MED II Summer Research applications. Each application is assigned to two committee members who make recommendations. The project is either approved or approved pending modification as recommended by the committee. In the review process, emphasis is given not only to the scientific merit of the proposed research but also to its feasibility for the student in the time available. Proposals that are unsuccessful in the first round are re-reviewed after appropriate modification.

A clinical exposure component is integrated with the existing research component of the BScMed Program with the exception of external/international students. Clinical exposure is recommended but not mandatory for the MED II Summer Research students.

The appropriate University of Manitoba Research Ethics Committee must review and approve all projects. Some projects, however, which are purely laboratory based, may not require ethics approval and a statement from the Supervisor stating that Ethics Approval is not required must be submitted with the proposal. In addition, for those projects that require Ethics approval, the statement from the Ethics Committee indicating that approval is granted, must be submitted with the proposal, or alternatively, must be submitted shortly after the submission. It is the responsibility of the supervisor to apply for ethics approval. Both student and supervisor must provide proof of CORE training. This is a requirement of the University of Manitoba as well as an integral training component of the program. Failure to obtain approval in a timely fashion may delay the start of the project and payment of the student’s stipend.

**Year 1 Program Timeline (both programs):**

1. August/September: Solicitation of project titles from the faculty
2. September/October: Undergraduate Medical Research Program Director meets with first and 2nd year medicine classes to outline the program.
3. September/October: Project titles are circulated to the students.
4. Late November: Deadline for submission of the completed application.
5. Mid-January: Committee meets to review the applications.
6. Late December: Deadline for student applications.
7. April: Deadline for ethics approval to program office
8. Late May - late August (13 weeks which includes two weeks of paid vacation): First summer of work for the BScMed and start of the one term MED II Summer Research program.
9. Third week of August: Completion of the MED II Summer Research Program - students join in the Undergraduate Medical Student Research Symposium whereas the students present their research orally for examination by the UGMRC (Undergraduate Medical Research Committee).
At the conclusion of the first summer’s work, the supervisor must provide a written assessment of the student’s performance for the BScMed as well as the final evaluation by the supervisor for the MED II Summer Research Program. The evaluation forms are posted online. Students must remain in good standing within the Faculty at all times to remain in the programs.

BScMed - From their first summer’s work, students are invited to apply for the Awards provided by the MMSF (call for applications usually early January). The successful students will be awarded at the annual ‘Celebration of the BScMed Program and Joe Doupe Lecture’ in September.

Year 2 (BScMed only)

1. Late May - late August (13 weeks with two weeks of paid vacation): Second summer of work.

2. August: Deadline for submission of the final written report. Extensions will not be granted. Projects not submitted by the deadline will not be considered. Deadline is advertised on the website.

3. Third week of August: Undergraduate Medical Student Research Symposium where the student presents orally for examination.

Final Student Evaluation Process

Required for completion of the BScMed and the MED II Summer Research Programs

- Written Report
- Oral Presentation
- Supervisor Final Evaluation
- Student Evaluation of program

Student - Written Report – deadline set by program office

The written report is prepared in the form of a submission of a scientific paper with specific criteria. The structure is located on the respective program websites within the ‘document library’. There are small differences between the program requirements.

Oral Presentation

The oral presentations are made in at the Undergraduate Medical Student Research Symposium in August. BScMed presentations will be 10 minutes in length with 8 minutes for questions/answers. Two minutes will be allocated for podium turnover. MED II presentations will be 10 minutes in length with 5 minutes for questions.

Questions will be entertained from the examiners, members of the prize committee and the audience at large. The format is to follow that of a true scientific symposium, and the 10 minute presentation time will be strictly adhered to.

Evaluation

Performance in the program is graded on a pass/fail basis. If a student fails to achieve a passing grade based on the written and oral presentations, he/she is provided with an opportunity to make revisions.
and re-submit the thesis and/or re-do the oral examination. A student who fails to make the necessary revisions receives a failing grade. In the event of a failure, the student may request a review of the evaluation by the Committee on Academic Standing and if this fails to resolve the disagreement, by the Faculty Appeals Committee.

For students, who, for reasons of illness or circumstances beyond his/her control, cannot complete the program within the allotted time frame, can be offered the opportunity to make the oral presentation at the Undergraduate Medical Student Research Symposium the following summer. In the latter instance, the student is not eligible to compete for the various awards offered at the conclusion of the program.

**Online Application Process**

*DEADLINE: Normally end of November but will be announced.*

- The application form is to be completed online.

All projects must receive approval as appropriate from one of the two Research Ethics Boards (REBs) at the Bannatyne Campus (or at the institution where the research will be conducted) no later than early April or they will not qualify for their respective programs. All information about Ethics submissions and the Research Ethics Boards can be found at: [http://umanitoba.ca/faculties/medicine/ethics/index.html](http://umanitoba.ca/faculties/medicine/ethics/index.html). Ethics approval is the sole responsibility of the supervisor although student involvement is expected from a training standpoint.

It is mandatory that both student and supervisor complete the on-line Course in Human Research Protection Program (CHRPP). Please note that this is a university-wide requirement. Both student and supervisor must submit the Certificate of Completion by April as this required of all researchers who submit research for review and approval by the REBs. To access CHRPP directly, go to [http://www.chrpp.ca/homepage/MAN](http://www.chrpp.ca/homepage/MAN) and enter your University affiliated e-mail address as your user ID and create a password.

Each project application will be reviewed by two reviewers and then reviewed by the Undergraduate Research Program Committee to ensure that the project will be feasible for the student within the respective time frames.

**Stipendary Funders:**

Stipendary support for students in the **BScMed** program is almost entirely externally funded. We gratefully acknowledge the support of our funders. Please visit the [BScMed website](http://www.bscmed.ca) for details.

The **MED II** Summer Research Program is funded entirely by the Dean’s Office, Faculty of Medicine. There is a maximum enrolment cap of 20 within this program. These funds are used to provide stipendary support for the student alone. All research costs are born by the supervisor from either research grants or departmental funds.

**Governance; Admission and Award Selection:**

**The Undergraduate Medical Research Committee**: This committee is chaired by the **BScMed** Director with members drawn from various departments of the Faculty. Its task is to evaluate the research proposals, approve for admission, advisement and award selection. The committee evaluates all **BScMed** and **MED II** Summer Research matters.