

OFFICE OF THE
VICE-DEAN
RESEARCH
REPORT

2021



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OVDR GUIDING PRINCIPLES

VISION

We excel at strengthening the research capacity in the College of Medicine by providing support for the research community with transparency, accountability, and equity.

MISSION

We are leaders in the development and advancement of essential initiatives that foster an equitable and transparent culture of research excellence in a premier research university in Canada. We enable meaningful health research across the College of Medicine and encourage interdisciplinary collaboration, seeking to empower and engage our faculty, staff, and students to challenge the boundaries of knowledge creation.

VALUES

- Accountability
- Inclusivity
- Transparency
- Collaboration
- Ethics
- Respect
- Professionalism
- Equity
- Excellence



WORDS FROM THE VICE-DEAN

I am pleased to introduce our third internal report, the 2021 Office of the Vice-Dean Research Report.

Although this year the SAR-CoV-2 Pandemic threw at us its latest warrior – the Omicron variant – our faculty, staff, graduate, and undergraduate students at the College of Medicine held and rallied strongly to make up for the losses, trials, and tribulations of the first year of the pandemic. The data included in this report show how resilient and determined our university community is to succeed.

The necessity of investing in health research is an imperative I have championed since coming to the University of Saskatchewan, and I am deeply proud of the variety of funding programs we offer. As a college we have decided to heavily invest in startup funding and we are delighted to recognize the incredible research successes of our talented young colleagues.

To our faculty, trainees, and students, I thank you for your work and support for health research wherever you work in Saskatchewan, Canada and internationally.



We hope you will enjoy reading this document. As always, if you have any questions or comments regarding this publication, please do not hesitate to contact us.

MAREK RADOMSKI
MD, PhD, DSc, Dhc, MPAL, FCAHS
Vice-Dean Research, College of
Medicine

ASSISTANT DEAN GRADUATE STUDIES

It is hard to believe that the 2020-21 academic year was my fifth and final as Assistant Dean Graduate Studies. When I reflect back on my term I am struck by the range of changes that have been implemented to better support our graduate and postdoctoral trainees, as well as their supervisors. Notable examples include the restructuring and expansion of the CoMGRAD scholarship program, reorganization of the Health Sciences Graduate Program and the allocation of new funding for parental leave, emergency leave, and dedicated counselling.

There is, however, always more to be done and the challenge of effective administration is that things are constantly changing. There is never a dull moment. It is on this note that I welcome the new Assistant Dean, Dr. Eriq Lukong, who is bringing new energy and perspectives to the role. It has truly been an honour and a privilege to serve our college's graduate and post-doctoral trainees and I am deeply indebted to the OVDR for all their support during my term.



RESEARCH DIRECTOR

Our OVDR family has changed a lot this year; we have seen some beloved colleagues move on to new opportunities, welcomed back friends, and welcomed new members to the team who we can already not imagine living without.

I am grateful for the opportunity to thank the wonderful team of professionals that I am lucky to work with. These people bring their skills, creativity, and ingenuity to work every day - always ready to dig in and develop the best supports for all those that we serve. For that I am forever grateful.

Looking forward, we are excited to continue building a new framework for clinical research support. With the Clinical Trial Support Unit (CTSU) moving under the umbrella of the Vice Dean Research, we aim to ensure that we meet the needs of our clinical researchers while operating efficiently and effectively as a unit.

In the following pages you will read about the many accomplishments we are proud of. I hope it excites you as much as it excites me!



RESEARCH HIGHLIGHTS

RESEARCH-ACTIVE FACULTY:

488

NUMBER OF FACULTY AWARDED PROJECTS IN 2021/2022:

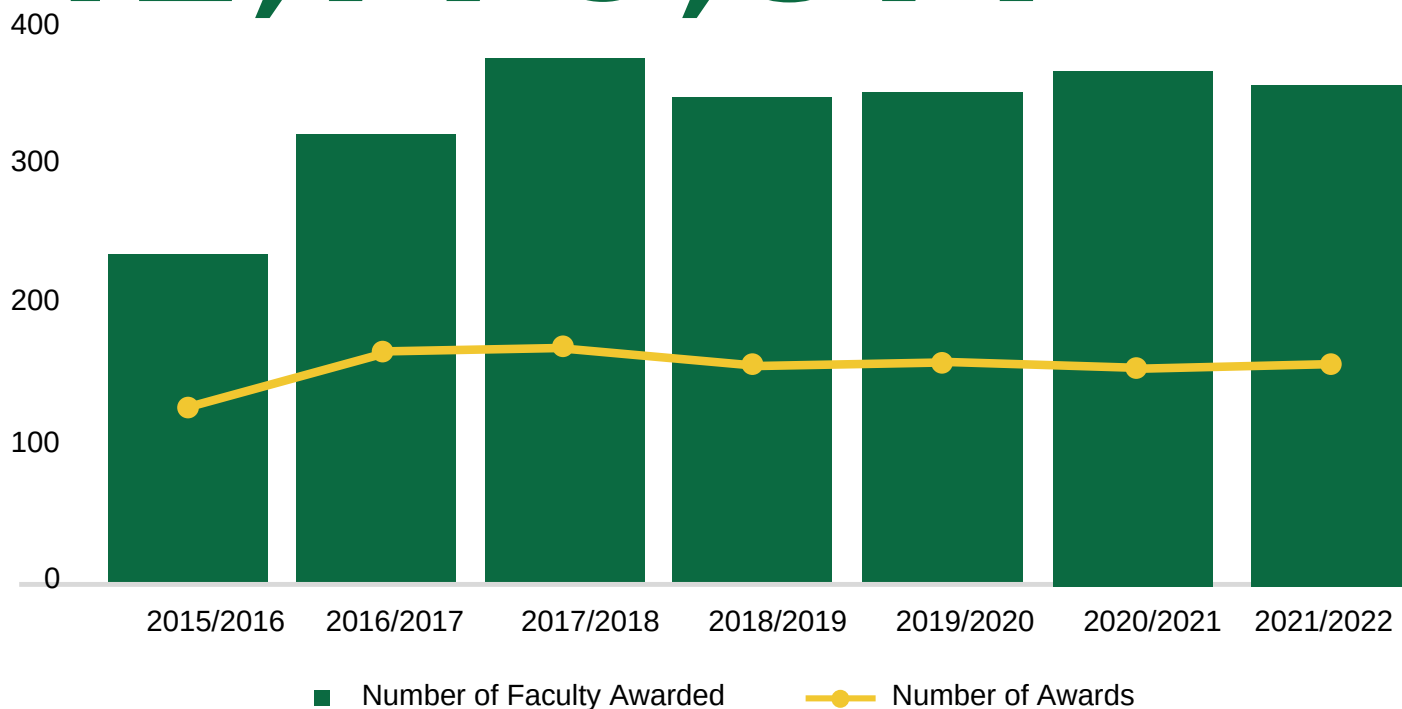
151

In the 2021/2022 fiscal year, researchers in the College of Medicine received awards totaling \$42,770,877 including \$21,559,402 in Tri-Agency funding.

For the last six years CoM researchers have maintained a consistent level of number of research projects funded as well as a consistent number of faculty receiving awards. In the 2021-2022 fiscal year 151 unique CoM researchers received 345 awards.

RESEARCH FUNDING AWARDED TO COM FACULTY IN 2021/2022:

42,770,877



THE STATISTICS

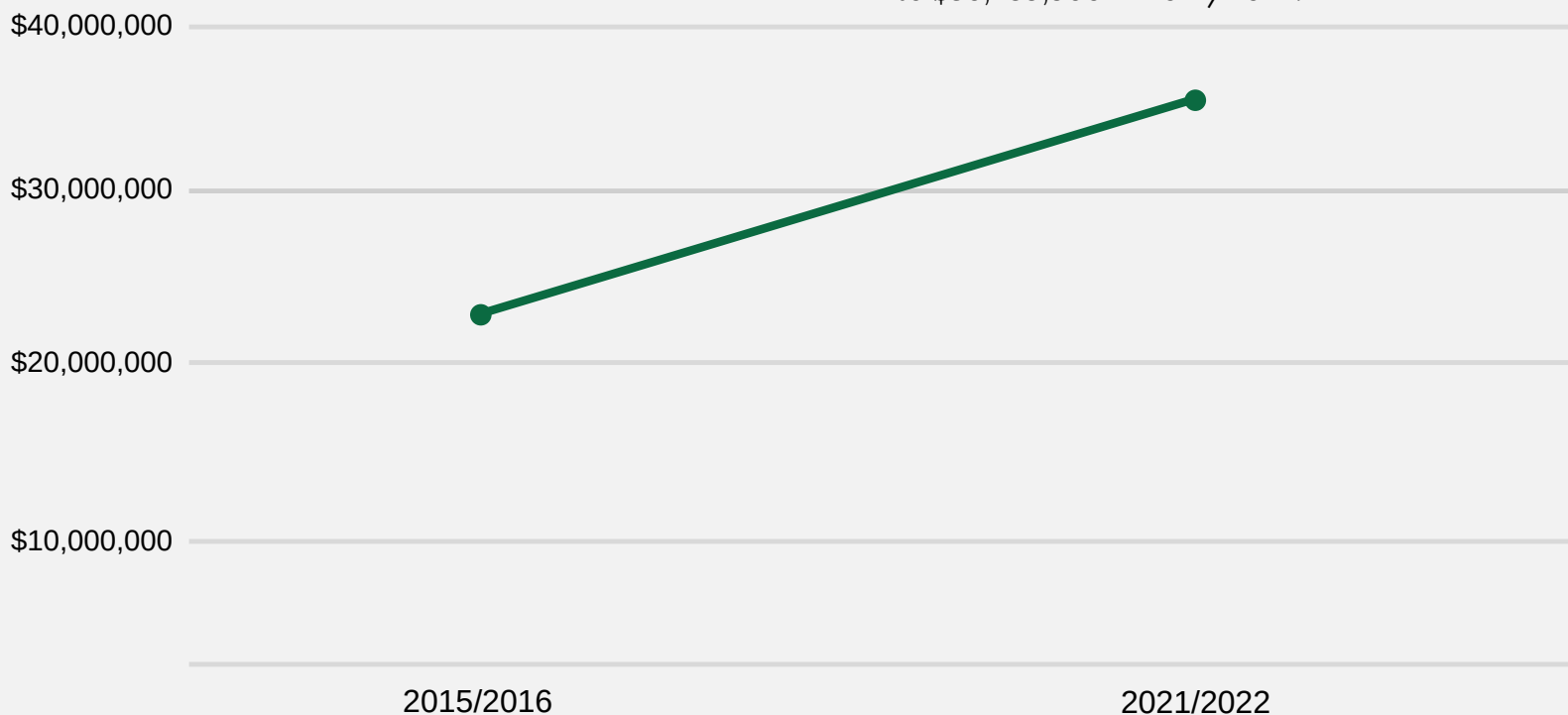
The University of Saskatchewan's College of Medicine has made significant investments in health research. Since 2016 the CoM has developed a series of initiatives to support health researchers by providing bridge funding, researcher start-up packages, seed funding, as well as trainee (undergraduate, graduate, postdoctoral) support.

The University has already realized significant return on these investments.



TOTAL REVENUE

Since 2015/2016, the college's total external research funding dollars received has increased from \$22,740,805 to \$36,489,906 in 2021/2022.



FACULTY INITIATIVES

01

**RESEARCH START-UP
FUNDING**

02

COMRAD
College of Medicine Research
Award

03

COMBRIDGE
College of Medicine Bridge
Funding

04

FAIR RESEARCH GRANT
Funding to Ameliorate
Interruptions to Research

05

**RAPID RESPONSE
COVID-19**

GRADUATE INITIATIVES

01

**EMERGENCY LEAVE GRANT
PARENTAL LEAVE GRANT
MATERNITY LEAVE
BRIDGE FUNDING**

02

COMGRAD
College of Medicine Graduate
Student Award

03

COMTA
College of Medicine Travel Award

04

**INTERDISCIPLINARY
GRADUATE
SCHOLARSHIP**

05

**MD-MSC/PHD AND MPT-
PHD MATCHING FUNDS
PROGRAM**

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PUBLICATION FUNDING

UNDERGRADUATE INITIATIVES

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**BIOMEDICAL SUMMER
RESEARCH PROJECTS**

02

DEAN'S PROJECTS
Dean's Summer Research Projects
and MD Research Experience

03

**INTERDISCIPLINARY
SUMMER RESEARCH
PROGRAM**

RESEARCH START-UP FUNDING

New researchers often require institutional support to establish productive research programs in advance of generating external research funding. Negotiated as part of the recruitment package, the OVDR accepts applications to provide funding for start-up costs and equipment for a maximum of the first three years of a new faculty members research program.

Start-up funding is a valuable recruitment incentive when seeking to attract world-class faculty members. Despite COVID-19, **five** biomedical faculty and **two** clinical faculty were recruited in 2021 with start-up assistance.

OVDR FACULTY START-UP INVESTMENT

\$9,725,329

From 2016 to December 2021, the OVDR has provided \$9,725,329 in startup funding to

35

College of Medicine faculty

\$19,722,259

Allowing faculty members to launch their research programs, having secured \$19,722,259 in external funding to date

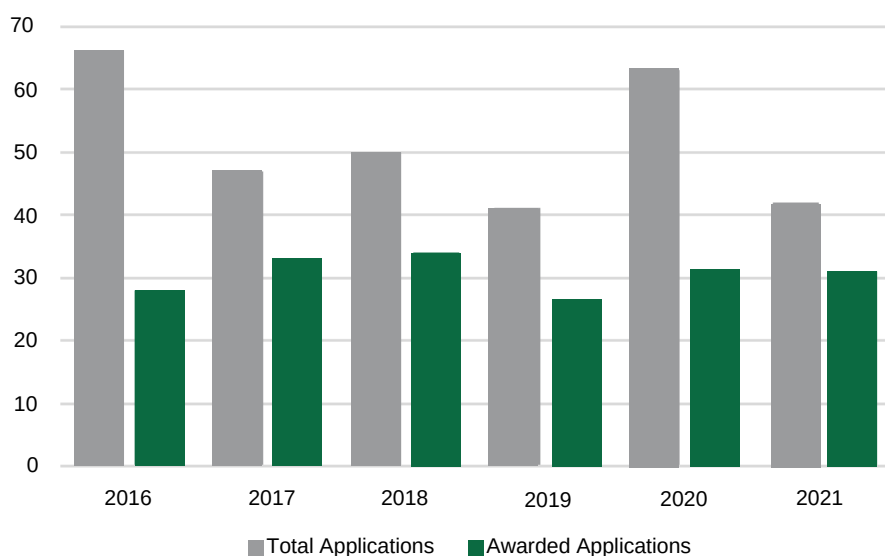
COLLEGE OF MEDICINE RESEARCH AWARD (COMRAD)

A competitive funding opportunity open to all faculty members with a primary academic appointment in the College of Medicine. The purpose of the CoMRAD is to provide seed funding for novel pilot and/or feasibility studies that will facilitate future applications to external funding sources on a provincial, national, and global level.

As 2020 and some 2021 awards are still ongoing, return on investment data is calculated from completed projects from 2016-2019.

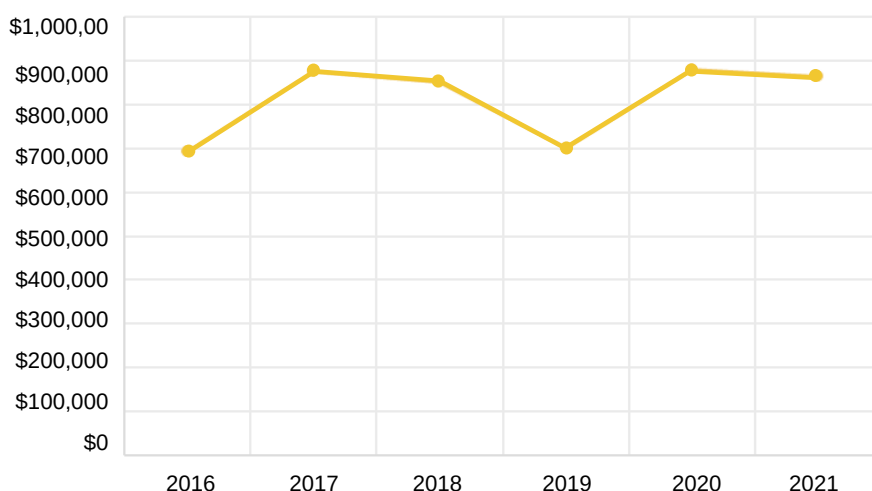
FUNDED PROJECTS

Since the initiative's initiation in 2016, the OVDR has funded 183 CoMRAD projects.



OVDR FUNDS COMMITTED

From 2016 to 2021 the OVDR committed \$4,863,363 to fund this initiative.



RETURN ON INVESTMENT

209

Submissions for external funding

—

\$19,375,193

Total external funding dollars received so far

DISSEMINATION

CoMRAD Funding has resulted in the following:

137

PUBLICATIONS

192

ABSTRACTS

170

CONFERENCE
PROCEEDINGS

96

NEW OR EXPANDED
COLLABORATIONS

91

INVITED
LECTURES

3

BOOK CHAPTERS

4

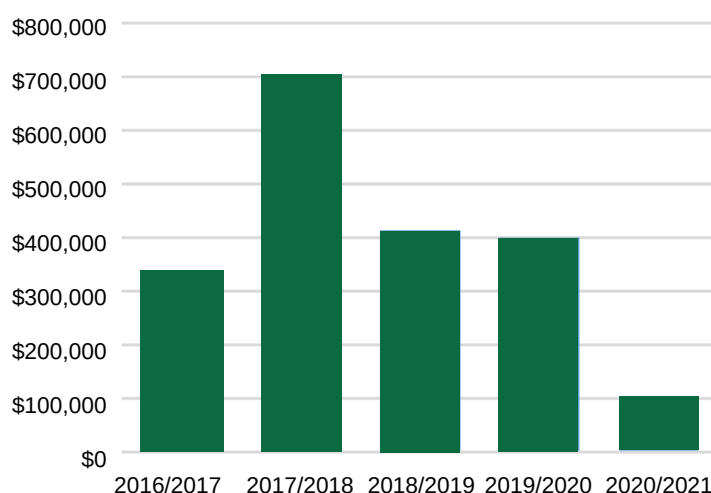
PATENTS OR
INTELLECTUAL PROPERTY

COMBRIDGE

Initiated in 2016, the CoMBRIDGE program seeks to support research excellence and encourage application for Tri-Agency funding. Based on availability, Bridge Funding can be obtained by College of Medicine faculty who received a high score in a Tri-Agency competition but were not funded to assist their re-application efforts.

FUNDED PROJECTS

The OVDR has funded 25 CoMBRIDGE projects since 2016. Twenty-four of these have supported CIHR Project Grant re-applications, and one supported a SSHRC Insight Grant.



OVDR FUNDS COMMITTED

Awarded amounts are dependent on availability of funds, competition program, and number of eligible applicants. To date, \$1,944,000 has been awarded by the CoMBRIDGE program.

RETURN ON INVESTMENT

16

To-date, the CoMBRIDGE program has facilitated 16 Tri-Agency re-submissions

—

8

Successful Tri-Agency applications, resulting in

—

\$5,374,702

Total external funding dollars

FAIR RESEARCH GRANT

The FAIR (Funding to Ameliorate Interruptions to Research) Research Grant was established in 2021 to help researchers maintain or revitalize their research programs following a leave from College of Medicine at the University Saskatchewan.

Applicants may request up to \$10,000 to contribute towards research assistance (personnel to perform data collection, analysis, etc.), travel for research purposes (conferences, workshops, etc.), publication costs, and operating expenses excluding equipment.

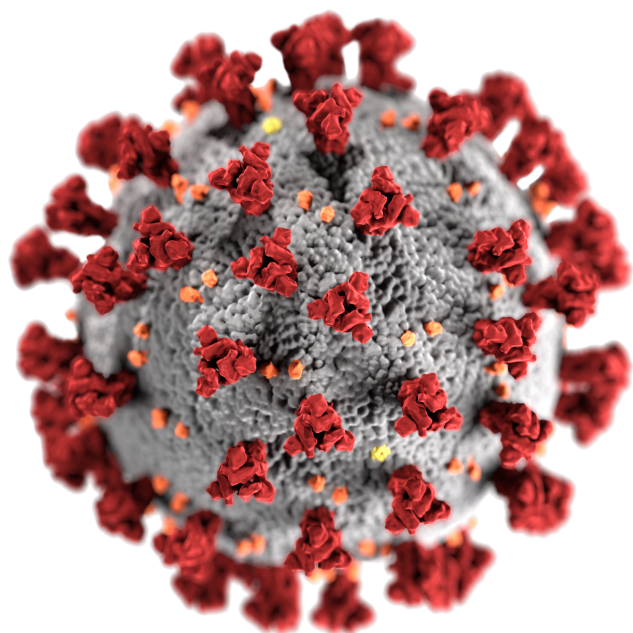
The OVDR funded 1 Fair Research Grant in it's inaugural year.

RAPID RESEARCH COVID-19

The Office of the Vice Dean Research teamed up with the Respiratory Research Centre (RRC) in 2020 and Mingling Minds in 2021 to provide funding to catalyze small-scale, time-sensitive research projects focused on contributing to the response to the COVID-19 pandemic to mitigate the spread of COVID-19 and/or its negative consequences on people and communities.

Rapid Response COVID-19 funding sought to support research projects that:

- Provide evidence to inform the clinical and public health response
- Provide evidence to inform decision-making and planning at the provincial, national and international levels
- Are highly feasible and produce timely and concrete deliverables



FUNDED PROJECTS

The OVDR and RRC funded 12 Rapid Research COVID-19 projects in 2020. The OVDR Mingling Minds partnership funded 5 projects in 2021.

OVDR FUNDS COMMITTED

The total program costs amounted to \$166,110, which were shared equally between the OVDR and the partnering organizations.

EMERGENCY LEAVE GRANT

Available once per student per academic program, College of Medicine graduate students may apply for financial assistance during a medical or compassionate leave occurring prior to the completion of the student's program.

Applicants may receive \$1000/month for up to two months.

PARENTAL LEAVE FUNDING

The College of Medicine has implemented a progressive parental leave grant program intended to support graduate students with growing families. CoM graduate students not receiving other forms of financial support may apply for financial assistance during a leave to serve as the primary care-giver immediately following the birth of a child prior to the completion of the student's program.

Since piloting this program in September 2018, four students have been granted parental leave funding.

MATERNITY LEAVE BRIDGING FUNDING

As a complement to the Parental Leave Grant, the Maternity Leave Bridging Funding initiative was introduced in 2021. The CoM recognizes that students may face delays and funding gaps during the transition to parental leave (e.g. delays in paperwork, stepping away early, etc.).

To address this issue, the Maternity Leave Bridging Funding will provide \$1,500 to students who have set up parental leave, regardless of the source of funding (e.g. CoM Parental Leave Grant, Tri-council support, etc.). This funding is payable during the first month of the planned leave or the month prior where a leave begins earlier than originally planned. There have been three students so far who have received this funding.

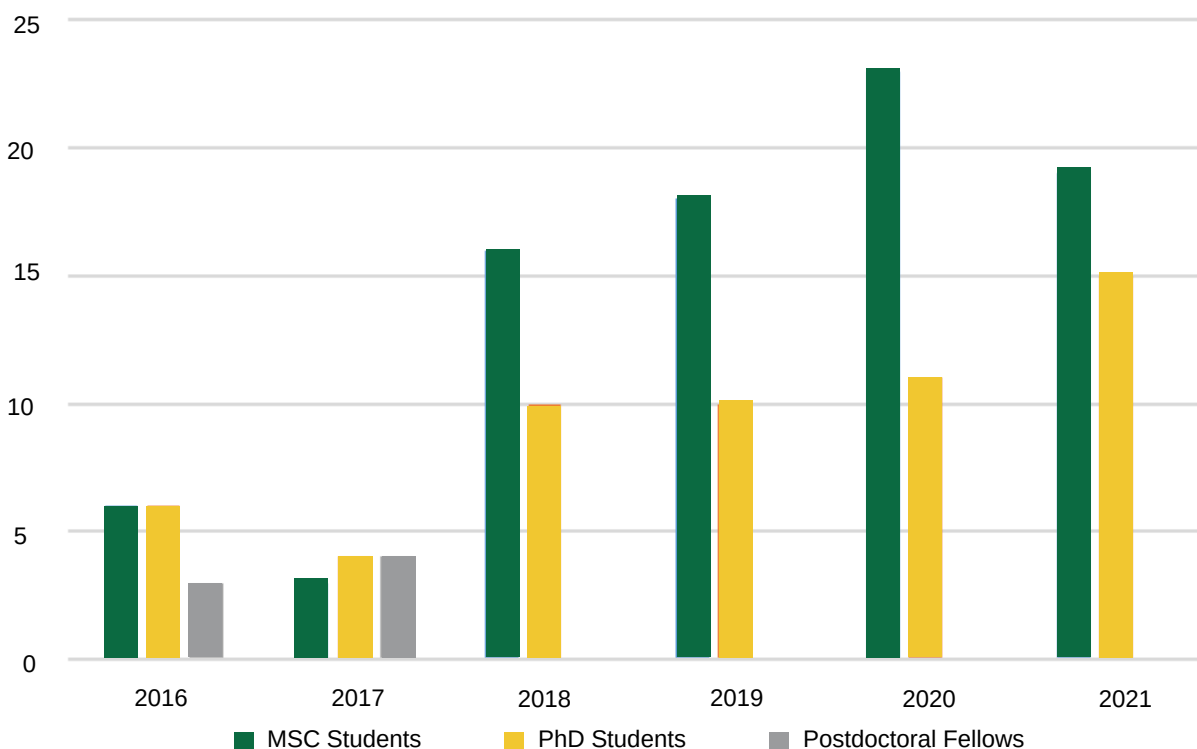
COLLEGE OF MEDICINE GRADUATE RESEARCH AWARD (COMGRAD)

The College of Medicine Graduate Research Award is a competitive funding opportunity available to College of Medicine graduate students. The purpose of the CoMGRAD is to provide support to graduate students and faculty supervisors from the College of Medicine who demonstrate a passion for research that has been, or will be, translated into advancements in science.

FUNDED TRAINEES

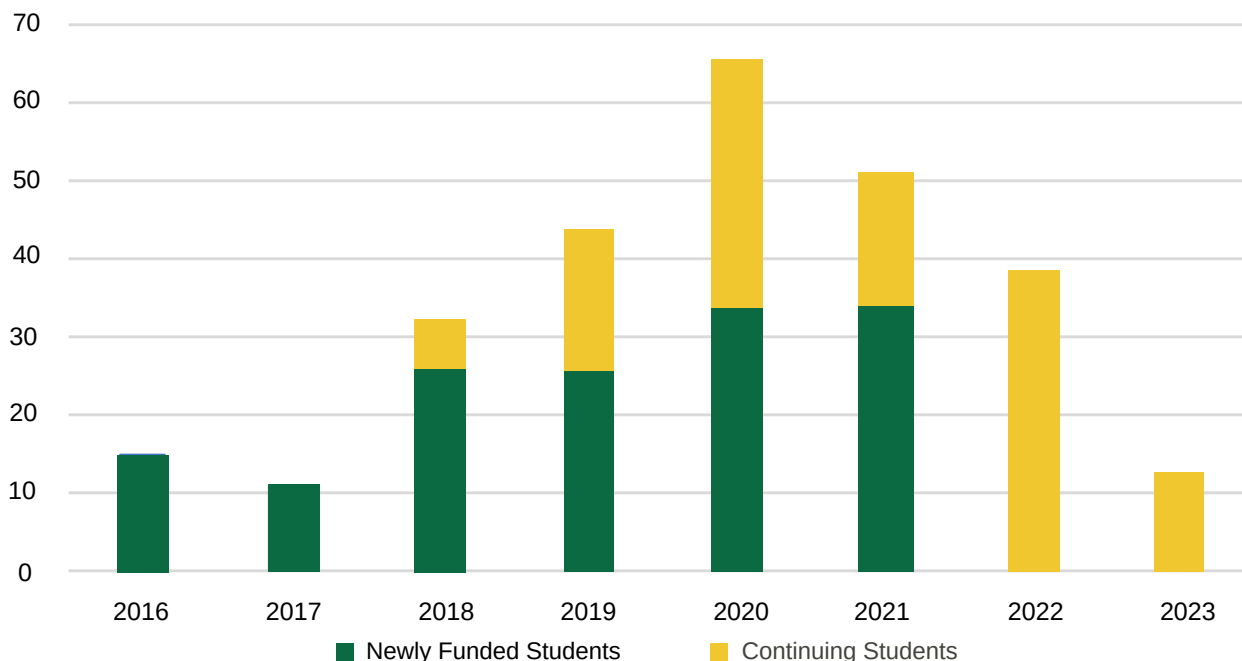
In 2018, due to fiscal constraints, the CoMGRAD guidelines were amended so the program would only support graduate students and would no longer support Postdoctoral Fellows. In order to maximize the number of students supported, the program was also revised to a cost-sharing funding model, where the faculty supervisor contributes 40% of the award value.

In 2021 we awarded 34 new CoMGRADs, 19 at the MSc level and 15 at the PhD level. To date, CoMGRAD has supported 148 graduate students and Postdoctoral Fellows.



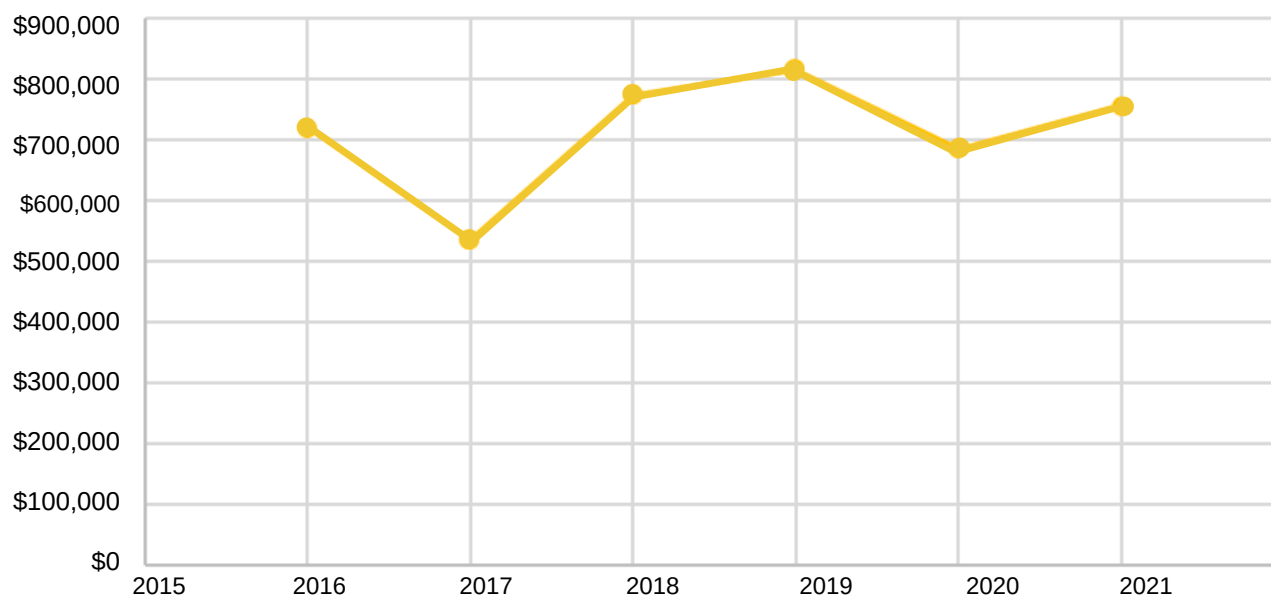
ONGOING COMMITMENT

In response to student feedback, CoMGRAD funding was modified in 2017 to provide multi-year awards. Master's students may now receive funding for up to the first two years in their program, and PhD students up to the first three years in their program.

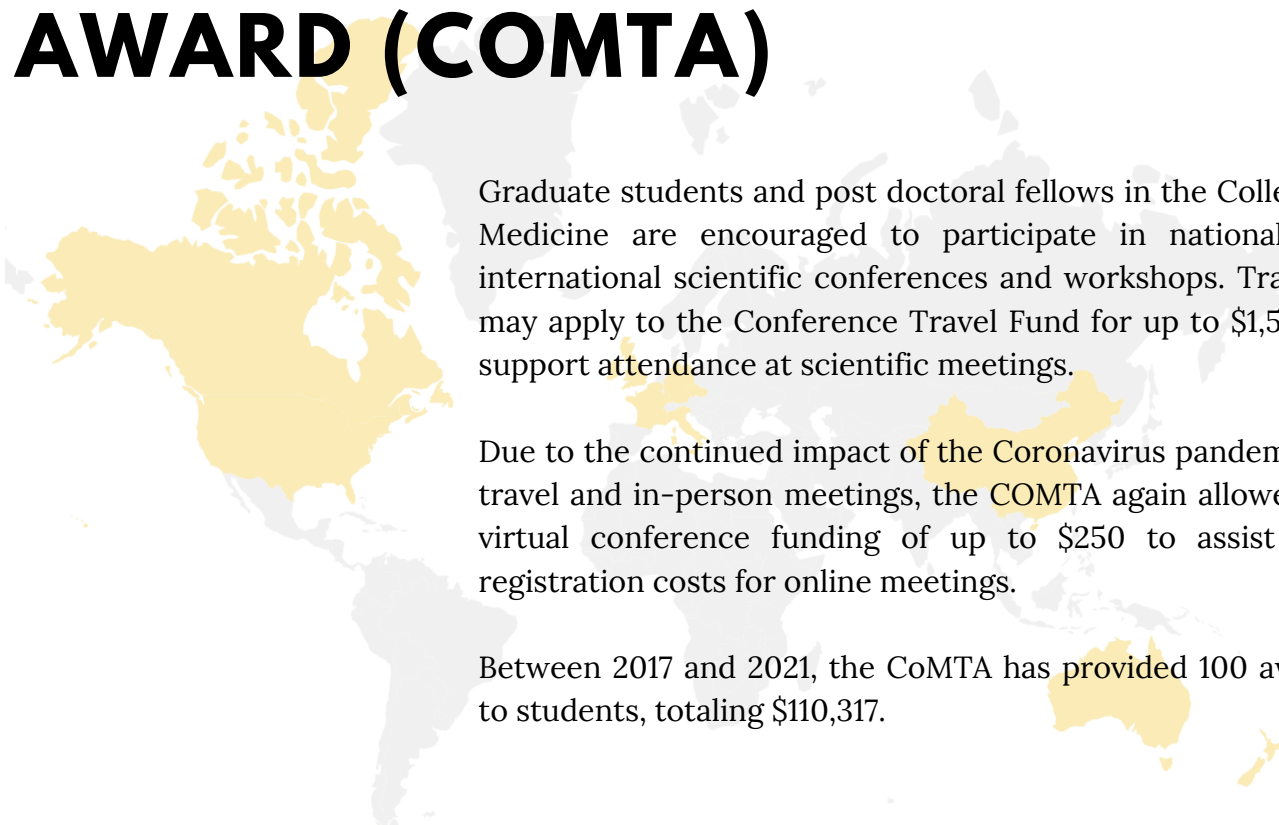


OVDR FUNDS COMMITTED

The OVDR has invested \$4,282,833 to support CoMGRAD trainees since 2016.



COLLEGE OF MEDICINE TRAVEL AWARD (COMTA)



Graduate students and post doctoral fellows in the College of Medicine are encouraged to participate in national and international scientific conferences and workshops. Trainees may apply to the Conference Travel Fund for up to \$1,500 to support attendance at scientific meetings.

Due to the continued impact of the Coronavirus pandemic on travel and in-person meetings, the COMTA again allowed for virtual conference funding of up to \$250 to assist with registration costs for online meetings.

Between 2017 and 2021, the CoMTA has provided 100 awards to students, totaling \$110,317.

RETURN ON INVESTMENT

100

CoMTA funding has helped 85 students attend scientific meetings in

—

14

Unique countries, and

—

606,788

Total kilometers travelled by our students since 2017

INTERDISCIPLINARY GRADUATE SCHOLARSHIP

The Interdisciplinary Graduate Student Scholarships (IGS) are intended to support graduate students who are conducting interdisciplinary research co-supervised by a faculty member from the CoM and a faculty member from the College of Pharmacy and Nutrition (CoPN). In 2021, the Adil Nazarali Interdisciplinary Graduate Scholarship in Neuroscience was offered as part of the competition to an applicant with a specific research focus in the area of neuroscience.

MD-MSc/PHD AND MPT-PHD MATCHING FUNDS PROGRAM

A matching funds program for MD-MSc/PhD and MPT-PhD students was established in 2021 to catalyze the training of clinician-researchers in College of Medicine. This new program provides an up-front source of funds that can be matched (up to 50%) with supervisor grant funding or scholarships which require matching funds. In 2021 we provided the 40% match of a CoMGRAD award for one MD-MSc student.

PUBLICATION FUNDING

Since 2019, the Publication funding has helped support graduate and undergraduate students, post doctoral fellows, and residents produce:

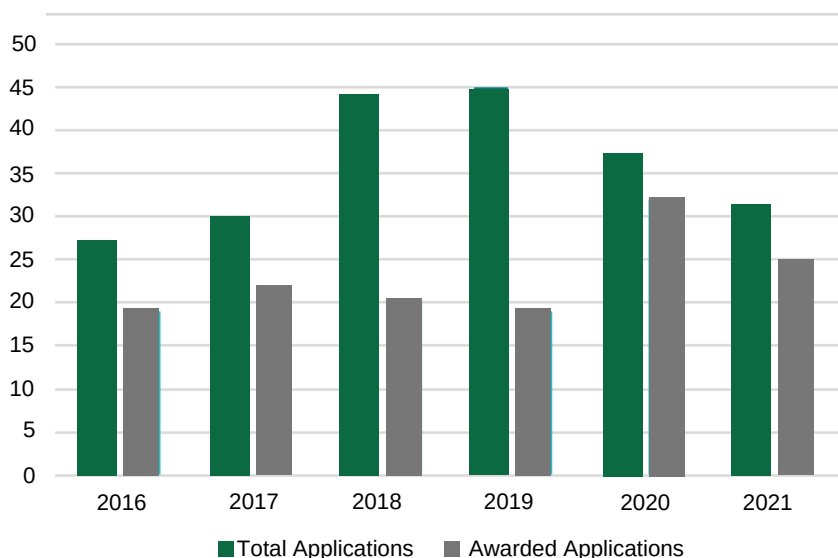
45**PUBLICATIONS IN OPEN-ACCESS JOURNALS****3.76****AVERAGE JOURNAL IMPACT FACTOR****45****PUBLICATION CITATIONS**

BIOMEDICAL SUMMER RESEARCH PROJECTS

The Biomedical Summer Student Research Program is intended to assist in the research training of our undergraduate students enrolled in the Anatomy and Cell Biology, Biochemistry, Microbiology and Immunology, Physiology, and Pharmacology programs. The intent of these awards is to give students valuable research experience and encourage students to continue on to a graduate studies program.

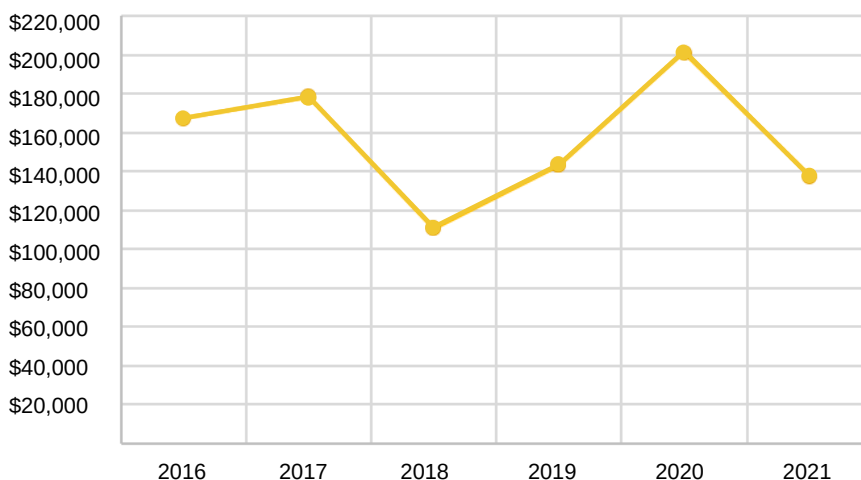
FUNDED PROJECTS

The Office of the Vice-Dean Research has supported 137 undergraduate Biomedical Summer Research Projects since 2016.



OVDR FUNDS COMMITTED

From 2016 to 2021 the OVDR committed \$939,038 to fund this initiative.



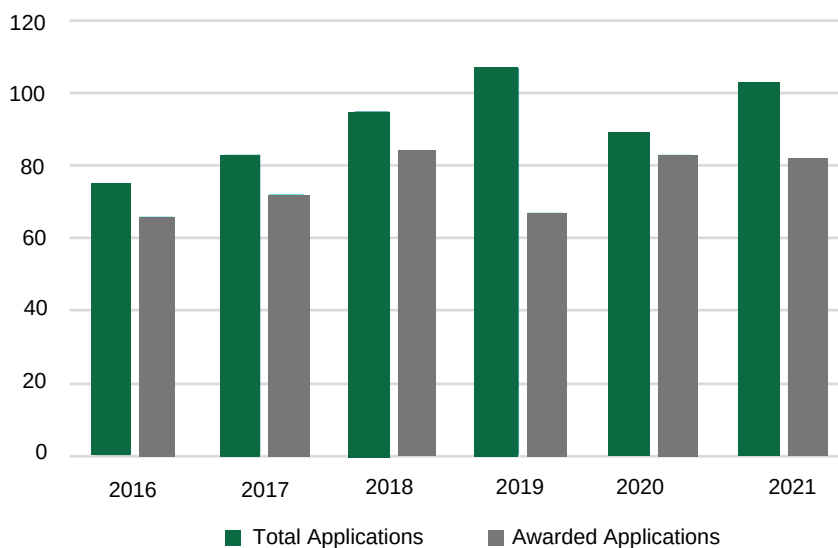
DEAN'S SUMMER RESEARCH PROJECTS

The Dean's Summer Research Projects provide undergraduate medical students with exposure to scientific research. The program is intended to ignite a passion for research in our medical students and facilitate an understanding of the vital role research plays in today's health care.

Dean's summer research students were previously paid by stipend. Due to changes made by the Canada Revenue Agency, as of 2021 all Summer Research student positions must be paid as employment therefore the pay model of this program was adjusted.

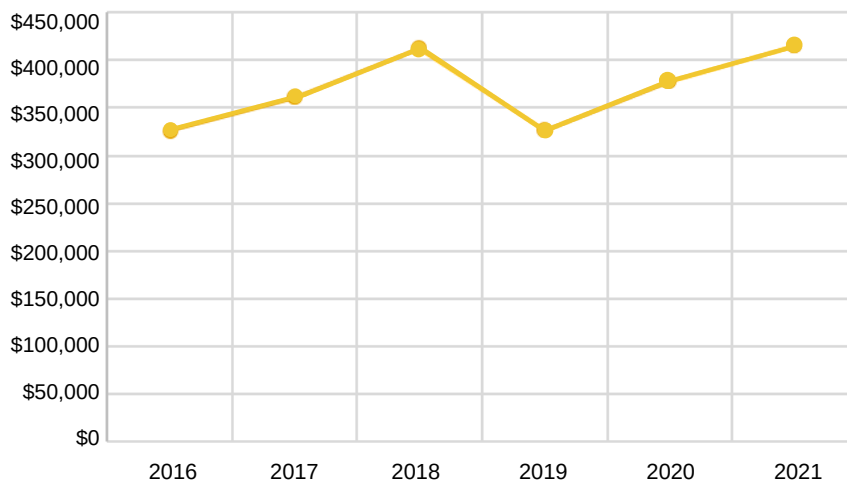
FUNDED PROJECTS

The Office of the Vice-Dean Research has supported 454 undergraduate Dean's Summer Research Projects and Experiences since 2016.



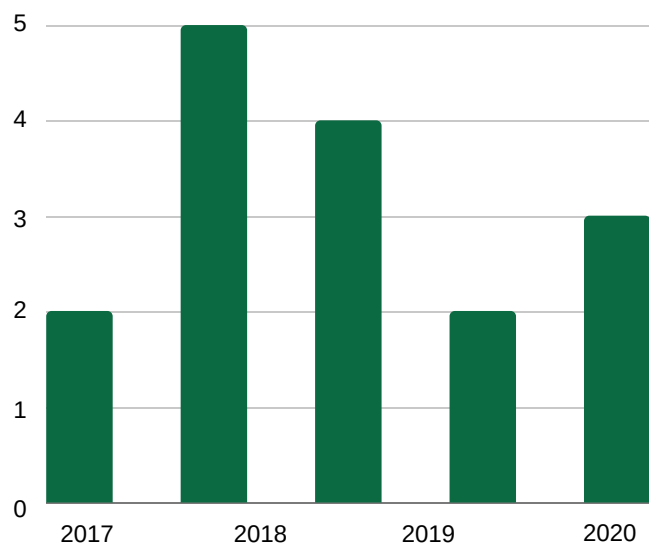
OVDR FUNDS COMMITTED

From 2016 to 2021 the OVDR committed \$2,217,926 to fund this initiative.



INTERDISCIPLINARY SUMMER RESEARCH PROGRAM

The Interdisciplinary Summer Research program, founded in 2017, provides competitive undergraduate salary awards to provide research training of summer students enrolled in either the College of Medicine or the College of Pharmacy and Nutrition, co-supervised by a faculty member from both colleges.



FUNDED PROJECTS

Fifteen interdisciplinary projects have been funded since 2017, with the total program cost of \$125,361 shared evenly between the College of Medicine and College of Pharmacy and Nutrition.

61% OF 2021 SUMMER STUDENTS REPORTED THEIR SUMMER RESEARCH EXPERIENCE MADE THEM MORE LIKELY TO PURSUE RESEARCH IN THE FUTURE

LESS
LIKELY EQUALLY LIKELY MORE LIKELY TO PURSUE RESEARCH



IN THEIR OWN WORDS...

"I truly enjoyed my research experience this summer. Having the ability to do hands-on laboratory work and apply the knowledge from my degree has been very rewarding and unforgettable."

"I really enjoyed the Dean's summer research program. It was a great opportunity to pursue research while in medical school and explore new areas of medicine."

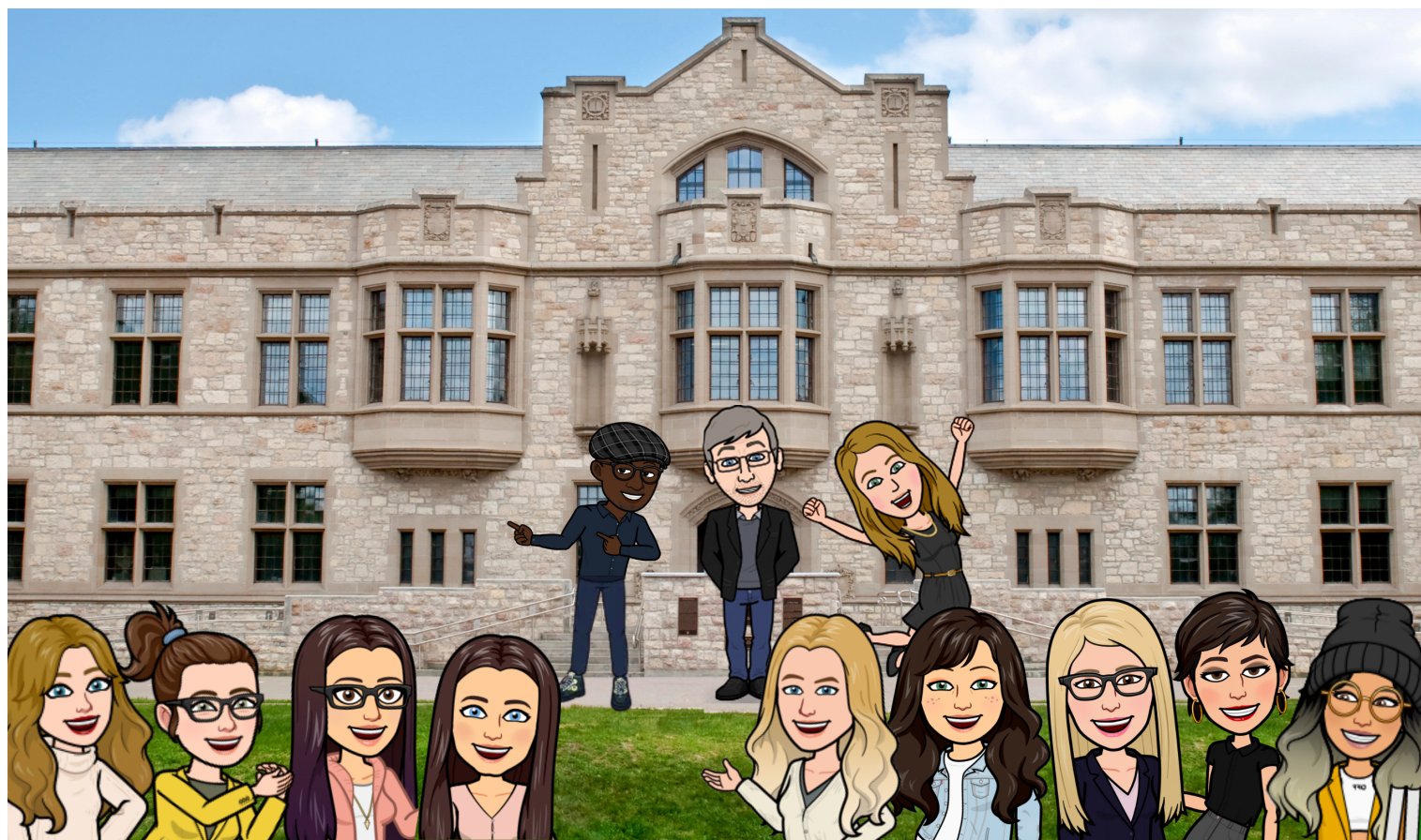
"I learned a lot about research in the short time that I was in the lab this summer. In addition to learning a significant amount of information about my subject area, I learned how to work critically, how to find solutions to problems that arise, and how to work efficiently to minimize mistakes."

"My supervisor, project manager, and the entire research group were incredibly supportive throughout the entire project. I truly felt I was a valued member of the team and was treated with the utmost respect at all times. I received so much valuable teaching and guidance throughout this project and I feel that I am coming away from this summer having learned a great deal about research."

ACKNOWLEDGEMENTS

The OVDR thanks our donors, the Tri-Agency Research Support Fund, and the College of Medicine for our funding. Our work and the consequent returns on investment to students, faculty, the College, the University, the scientific community and the public at large, are made possible only through their generosity.

The OVDR extends its thanks to Shelley-May Neufeld for preparing this report. Thank you to all our OVDR Staff, none of the incredible work highlighted in this report could happen without our talented, creative, and dedicated team.



Back Row: Kiven Erique Lukong (Assistant Dean Graduate Studies), Marek Radomski (Vice-Dean Research), Megan Truscott (Research Director) **Front Row:** Chantal Janzen (Research Financial Analyst), Shelley-May Neufeld (Research Impact Analyst), Keleigh Garcea (Project Coordinator), Alyssa Gallagher (Graduate Programs Coordinator), Sydnie Gengler (Administrative Coordinator), Sue Heffernan (Research Finance Coordinator), Whitney Duff (Clinical Research Lead), Stefany Cornea (Junior Project Coordinator), Nayoung Kim (Student Project Coordinator)

COVER ART

Laura Wu, MD Student, Year 4.
Age of Innovation.
2022.



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