2018-2023

RESEARCH PRODUCTIVITY

REPORT

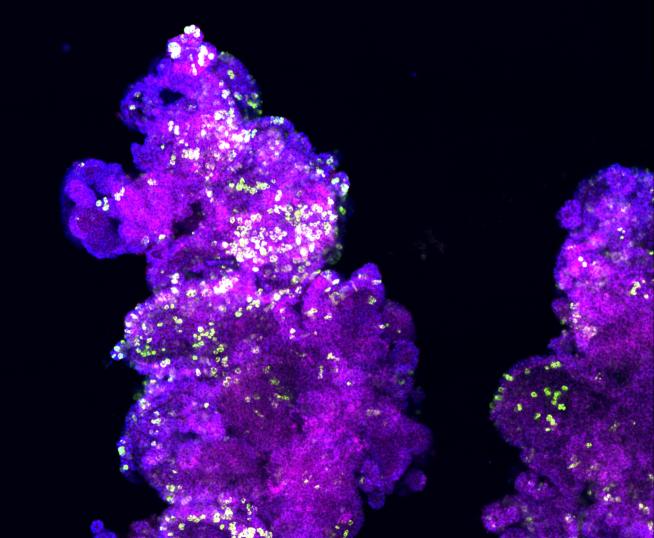


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Executive Summary

From the Vice-Dean

This is our fifth report describing research output of the University of Saskatchewan College of Medicine. The data were captured, analyzed, and presented by Ms. Shelley-May Neufeld, Research Impact Analyst in the Office of the Vice-Dean Research.

This report focuses on research-active faculty in the CoM and provides bibliometrics and funding data displayed first by college and then divided by department/division/school. The data is presented in descending order by number of research-active faculty per department/division/school. All information is up to date as of July 7, 2023.

The College of Medicine would like to express our greatest thanks and congratulations to all faculty who contributed to this research output.

Methodology and Definitions

Research-Active Faculty

This report includes data from **487** identified research-active faculty from **17** departments, schools and divisions. Faculty are considered research active if they have received research funding, published a peer-reviewed publication or have their published works cited (accessible on a current, public <u>Google Scholar</u> profile) within the 5-year window of this report.

Awarded Research Funding, Research Projects Awarded and Number of Faculty Awarded

Research Funding and Research Projects Awarded data presented in this report were collected from the University of Saskatchewan Data Warehouse and <u>UView</u> Portal. Data are restricted to funding administered through the University of Saskatchewan and include fiscal years 2019/20 through 2022/23. University of Saskatchewan fiscal years run from May 1 to April 30.

Research Funding and Research Projects Awarded include awards, sub-transfers, travel awards, and awards from other institutions where CoM faculty are a Co-Investigator. Number of Projects Awarded is the total number of new research projects awarded for a fiscal year, whereas Number of Faculty Awarded is the total number of individual faculty members that received research awards.

Bibliometrics: Publications, Citations and H-index

Bibliometrics are research productivity indicators based on scientific publications, used to highlight research productivity and impact. The OVDR recognizes that the bibliometrics used in our analysis do not encompass all research output and do not include such important contributions as community engagement, changes to policy or clinical practice guidelines.

Publication and Citation findings presented throughout this report are derived from Google Scholar profiles of CoM research-active faculty. The report focuses on 5-year publication and citation metrics, quantified on an annual basis by calendar year: January 1 to December 31.

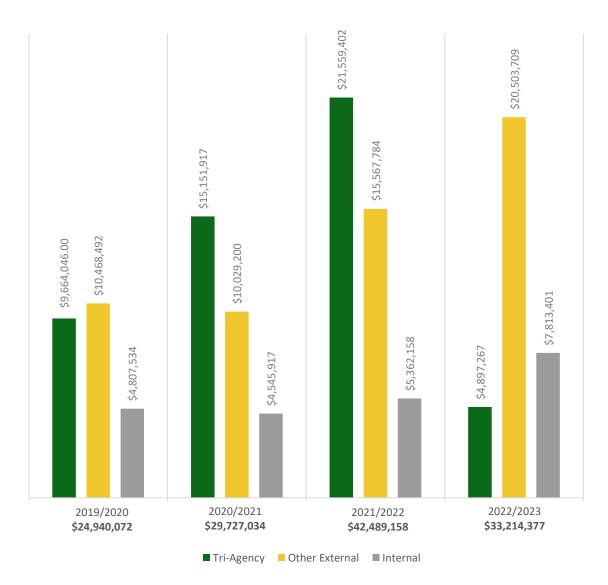
1. College of Medicine

1.1 Research Funding

In the 2022/2023 fiscal year, researchers in the College of Medicine (CoM) received awards totaling \$33,214,337. Included in this total are \$4,897,267 dollars in Tri-Agency funding, \$20,503,709 in other external funding and \$7,813,401 in internal funding.

While overall funding awarded has declined from the 2022/2023 fiscal year, this funding is comparable to pre-pandemic funding (\$30 and \$31 million in 2017/2018 and 2018/2019 respectively), and represents a large increase compared to the years that were most affected by the pandemic (2019/2020 and 2020/2021).

Figure 1.1: College of Medicine Awarded Research Funding



While the dollar value of tri-agency awards was significantly smaller in the 2022/2023 fiscal year compared to 2021/2022, the number of tri-agency grants awarded in 2022/2023 outpaced the previous year by ten (69 tri-agency awards in 2022/2023 vs 59 in 2021/2022).

1.2 Research Projects Awarded

The 2022/2023 fiscal year saw College of Medicine researchers receive an increased number of awards (+63) and individual faculty awardees (+30) compared to 2021/2022. In 2022/2023, **184** CoM researchers received **419** awards.

450 400 350 300 250 200 150 100 50 0 2019/2020 2020/2021 2021/2022 2022/2023 Number of Awards Number of Faculty Awarded

Figure 1.2: College of Medicine Research Projects Awarded

1.3 Publications & Citations

College of Medicine researchers published **1,193** publications in 2022, a return to pre-pandemic publication levels.

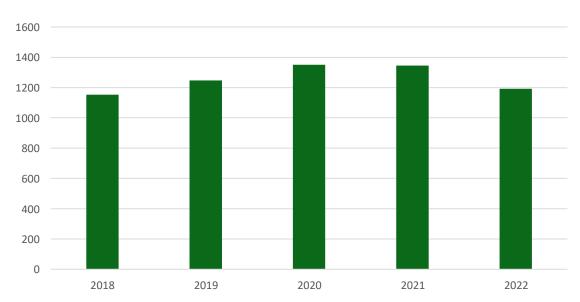
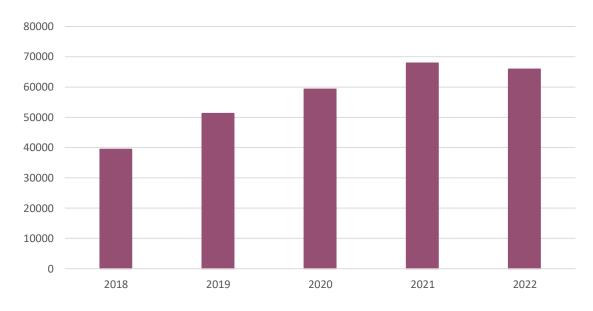


Figure 1.3: College of Medicine Annual Publication Count

College of Medicine research works were cited **65,952** times in 2022. Figure 1.4 shows a slight reduction in citations from 2021, however an overall ascending citation trend from 2018 remains.

Figure 1.4: College of Medicine Annual Citation Count



In 2022/2023, the OVDR identified 487 active researchers within the College of Medicine.

2. Department of Medicine

2.1 Research Funding

In the 2022/2023 fiscal year, the Department of Medicine saw an increase in awarded dollars. Departmental researchers were granted a total of **\$7,058,663**.

\$5,000,000 \$4,500,000 \$4,000,000 \$3,500,000 \$3,000,000 \$2,500,000 \$2,000,000 \$1,500,000 \$1,000,000 \$500,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023 ■ Tri-Agency ■ Other External ■ Internal

Figure 2.1: Department of Medicine Research Funding

2.2 Research Projects Awarded

Department of Medicine researchers were granted a total of **93** new awards in the 2022/2023 fiscal year. The number of individual faculty award recipients has remained relatively stable, with **34** awardees in 2022/2023.

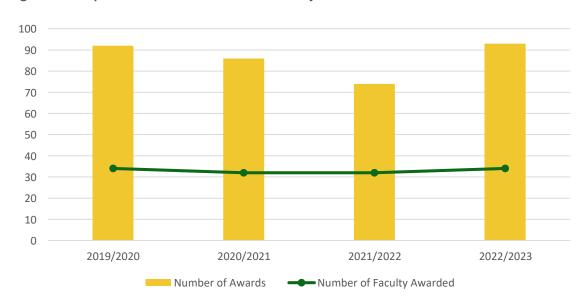


Figure 2.2: Department of Medicine Research Projects Awarded

Faculty within the department produced 344 publications in 2022.

Figure 2.3: Department of Medicine Annual Publication Count

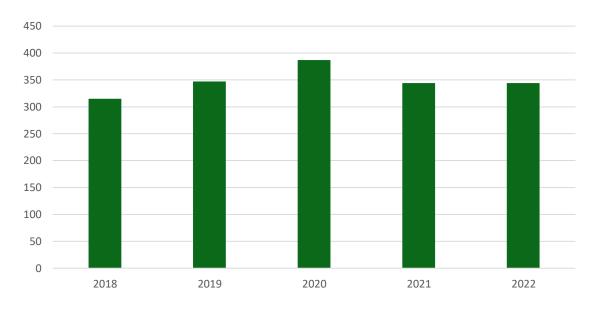
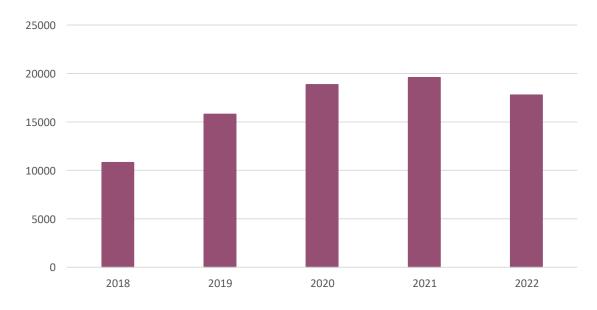


Figure 2.4 shows citation counts for Department of Medicine faculty. Departmental publications were cited **17,786** times in 2022.

Figure 2.4: Department of Medicine Annual Citation Count



This report included **84** research-active faculty from the Department of Medicine.

3. Department of Surgery

3.1 Research Funding

In the 2022/2023 fiscal year, the Department of Surgery saw an increase in awarded dollars. Departmental researchers were granted a total of **\$1,786,308**.

\$1,400,000 \$1,200,000 \$1,000,000 \$800,000 \$600,000 \$200,000 \$200,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 3.1: Department of Surgery Research Funding

3.2 Research Projects Awarded

In 2022/2023 Department of Surgery faculty were granted **23** awards. The number of individual faculty award recipients has remained relatively stable, with **14** individual award recipients in 2022/2023.

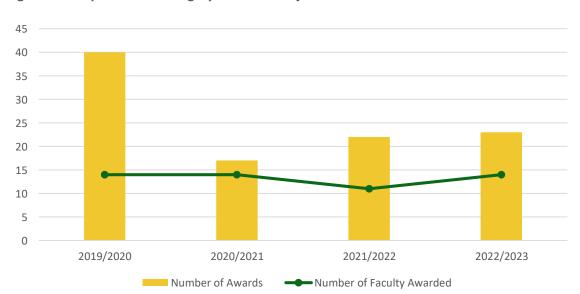


Figure 3.2: Department of Surgery Research Projects Awarded

Faculty within the department produced **101** publications in 2022.

Figure 3.3: Department of Surgery Annual Publication Count

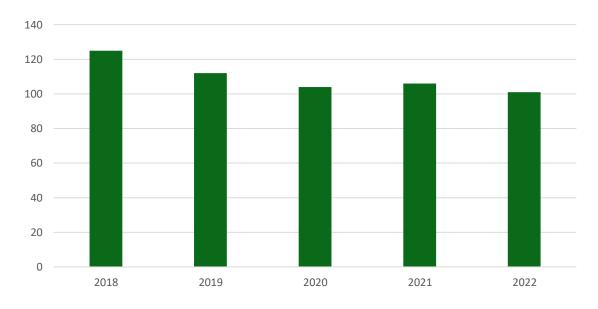
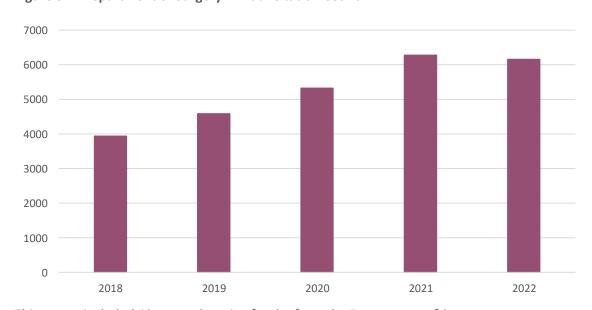


Figure 3.4 shows citation counts for Department of Surgery faculty. Departmental publications were cited **6,161** times in 2022.

Figure 3.4: Department of Surgery Annual Citation Count



This report included **49** research-active faculty from the Department of Surgery.

4. Department of Pediatrics

4.1 Research Funding

In the 2022/2023 fiscal year, the Department of Pediatrics saw an increase in awarded dollars. Departmental researchers were granted a total of **\$1,821,223**.

\$1,200,000 \$800,000 \$600,000 \$200,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 4.1: Department of Pediatrics Research Funding

4.2 Research Projects Awarded

In 2022/2023 Department of Pediatrics faculty were granted **34** awards, received by **16** individual award recipients.

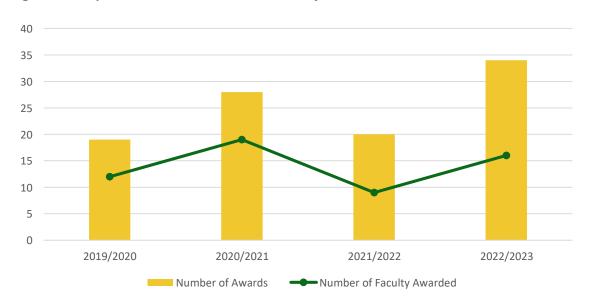


Figure 4.2: Department of Pediatrics Research Projects Awarded

The Department of Pediatrics produced **56** publications in 2022.

Figure 4.3: Department of Pediatrics Annual Publication Count

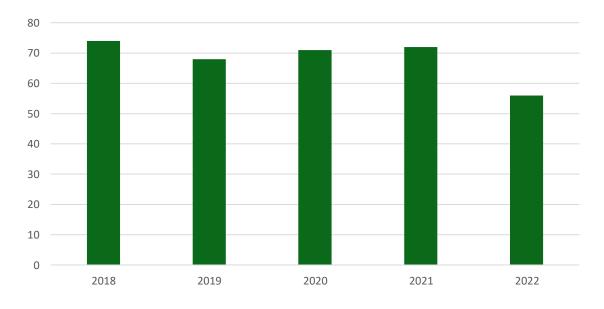
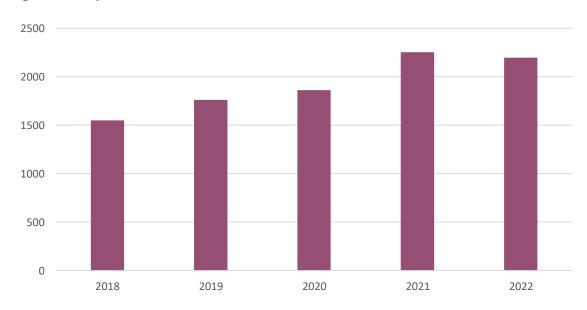


Figure 4.4 shows citation counts for Department of Pediatrics faculty. Departmental publications were cited **2,192** times in 2022.

Figure 4.4: Department of Pediatrics Annual Citation Count



This report included **47** research-active faculty from the Department of Pediatrics.

5. Division of Oncology

5.1 Research Funding

In the 2022/2023 fiscal year, the Division of Oncology saw an increase in awarded dollars. Departmental researchers were granted a total of \$6,142,433.

\$7,000,000 \$5,000,000 \$4,000,000 \$3,000,000 \$1,000,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 5.1: Division of Oncology Research Funding

5.2 Research Projects Awarded

Division of Oncology faculty were granted **39** awards in 2022/2023, displaying an increasing trend since 2019/2020. The number of unique faculty award recipients increased this year, with **17** individual awardees in 2022/2023.

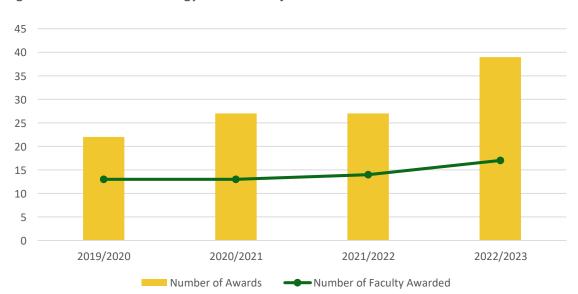


Figure 5.2: Division of Oncology Research Projects Awarded

The division produced 99 publications in 2022.

Figure 5.3: Division of Oncology Annual Publication Count

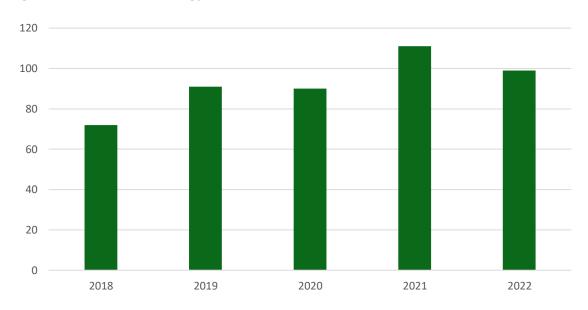
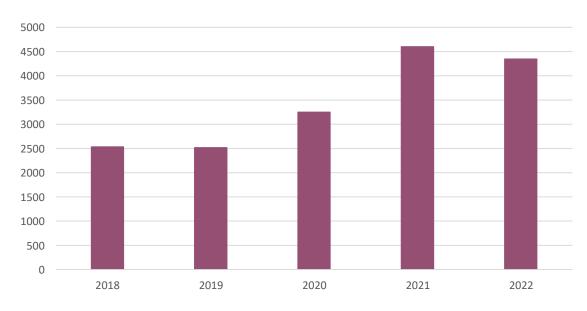


Figure 5.4 shows citation counts for Division of Oncology faculty. Division publications were cited **4,348** times in 2022.

Figure 5.4: Division of Oncology Annual Citation Count



This report included **44** research-active faculty from the Division of Oncology.

6. Department of Biochemistry, Microbiology and Immunology

6.1 Research Funding

In the 2022/2023 fiscal year, the Department of Biochemistry, Microbiology and Immunology saw an increase in awarded dollars. Departmental researchers were granted a total of \$4,965,524.

\$3,000,000 \$2,500,000 \$1,500,000 \$1,000,000 \$500,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 6.1: Department of Biochemistry, Microbiology and Immunology Research Funding

6.2 Research Projects Awarded

Department of Biochemistry, Microbiology and Immunology faculty were granted **56** awards in 2022/2023, displaying an increasing trend since 2019/2020. The number of individual faculty award recipients has remained relatively stable, with **15** awardees in 2022/2023.

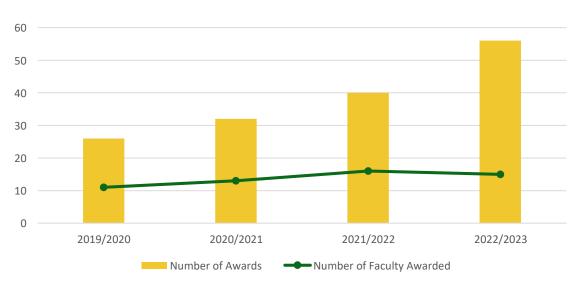


Figure 6.2: Department of Biochemistry, Microbiology and Immunology Research Projects Awarded

Faculty within the department produced 68 publications in 2022.

Figure 6.3: Department of Biochemistry, Microbiology and Immunology Annual Publication Count

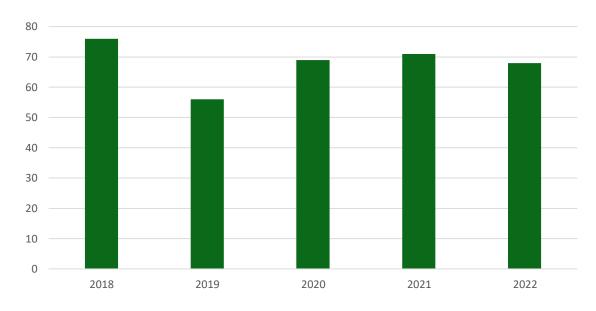
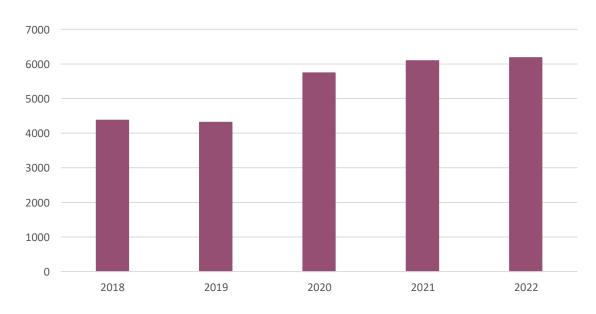


Figure 6.4 shows citation counts for Department of Biochemistry, Microbiology and Immunology faculty. Departmental publications were cited **6,184** times in 2022.

Figure 6.4: Department of Biochemistry, Microbiology and Immunology Annual Citation Count



This report included **34** research-active faculty from the Department of Biochemistry, Microbiology and Immunology.

7. Department of Academic Family Medicine

7.1 Research Funding

In the 2022/2023 fiscal year, Department of Academic Family Medicine researchers saw an increase in awarded dollars. Departmental researchers were granted a total of \$502,853.

\$300,000 \$250,000 \$150,000 \$100,000 \$50,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 7.1: Department of Academic Family Medicine Research Funding

7.2 Research Projects Awarded

Department of Academic Family Medicine faculty were granted **9** awards in 2022/2023, continuing an increasing trend since 2019/2020. The number of unique faculty award recipients increased as well, with **6** individual awardees in 2022/2023.

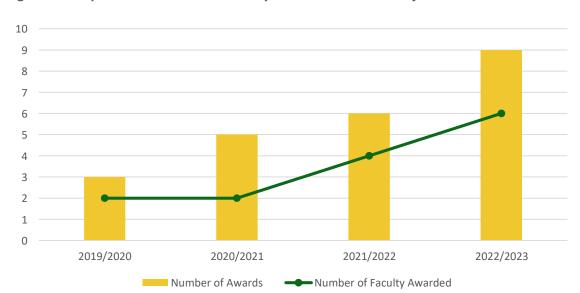


Figure 7.2: Department of Academic Family Medicine Research Projects Awarded

Faculty within the department produced 49 publications in 2022.

Figure 7.3: Department of Academic Family Medicine Annual Publication Count

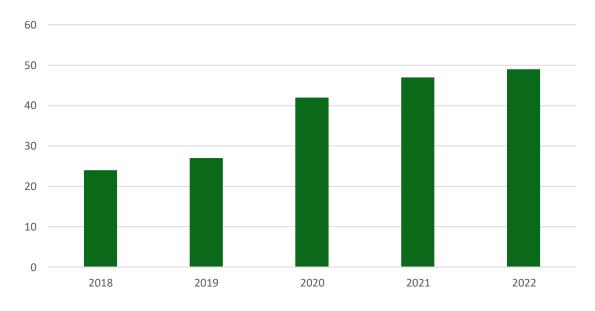
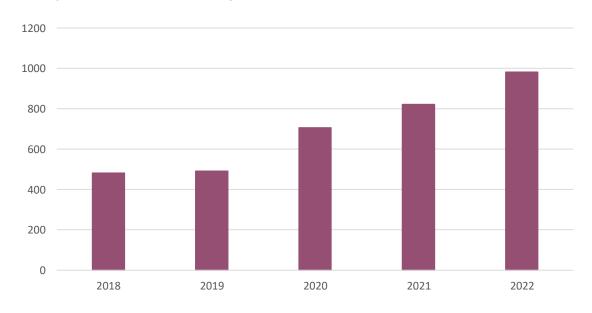


Figure 7.4 shows citation counts for Department of Academic Family Medicine faculty. Departmental publications were cited **982** times in 2022.

7.4: Department of Academic Family Medicine Annual Citation Count



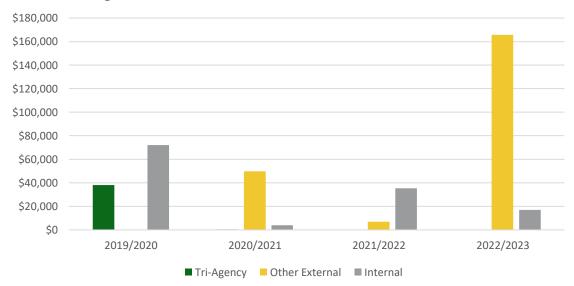
This report included **31** research-active faculty from the Department of Academic Family Medicine.

8. Department of Anesthesiology, Perioperative Medicine and Pain Management

8.1 Research Funding

In the 2022/2023 fiscal year, the Department saw an increase in awarded dollars. Departmental researchers were granted a total of \$182,826.

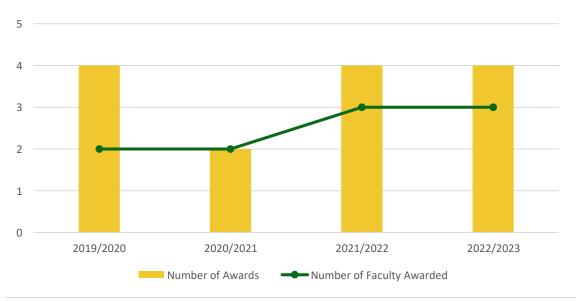
Figure 8.1: Department of Anesthesiology, Perioperative Medicine and Pain Management Research Funding



8.2 Research Projects Awarded

Department of Anesthesiology, Perioperative Medicine and Pain Management researchers were granted a total of **4** new awards, received by **3** individual award recipients.

Figure 8.2: Department of Anesthesiology, Perioperative Medicine and Pain Management Research Projects Awarded



Faculty within the department produced 11 publications in 2022.

Figure 8.3: Department of Anesthesiology, Perioperative Medicine and Pain Management Annual Publication Count

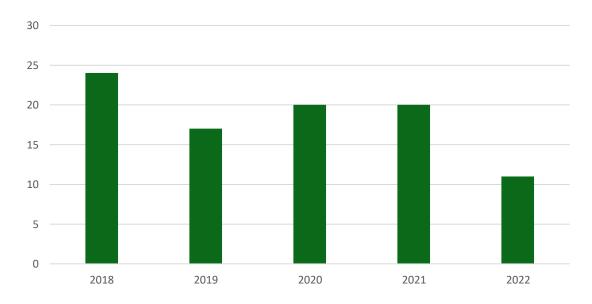
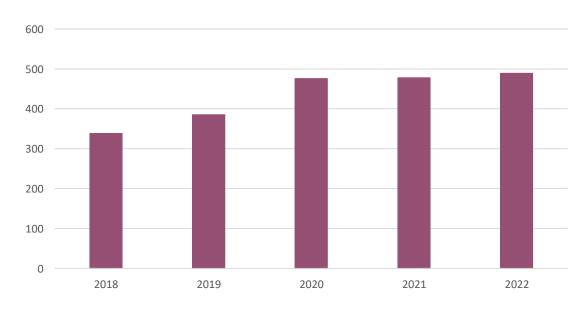


Figure 8.4 shows citation counts for Department of Anesthesiology, Perioperative Medicine and Pain Management faculty. Departmental publications were cited **489** times in 2022.

Figure 8.4 Department of Anesthesiology, Perioperative Medicine and Pain Management Annual Citation Count



This report included **33** research-active faculty from the Department of Anesthesiology, Perioperative Medicine and Pain Management.

9. Department of Anatomy, Physiology and Pharmacology

9.1 Research Funding

In the 2022/2023 fiscal year, Department of Anatomy, Physiology and Pharmacology researchers were awarded a total of \$3,680,464.

\$3,000,000 \$2,500,000 \$1,500,000 \$1,000,000 \$500,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 9.1: Department of Anatomy, Physiology and Pharmacology Research Funding

9.2 Research Projects Awarded

In 2022/2023 Department of Anatomy, Physiology and Pharmacology faculty were granted **41** awards, received by **19** individual award recipients.

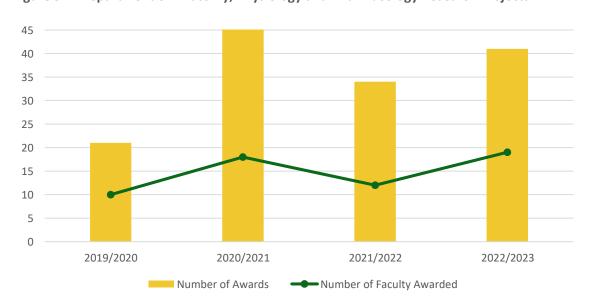


Figure 9.2: Department of Anatomy, Physiology and Pharmacology Research Projects

Faculty within the department produced 78 publications in 2022.

Figure 9.3: Department of Anatomy, Physiology and Pharmacology Annual Publication Count

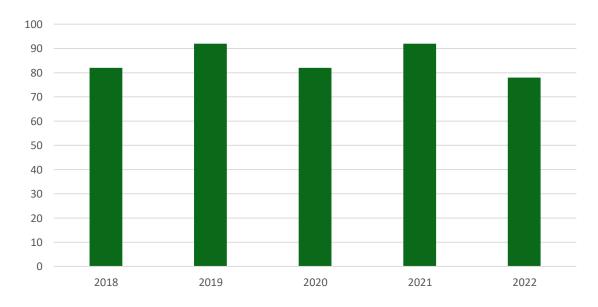
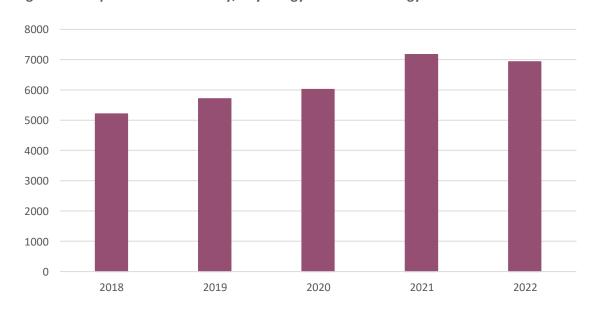


Figure 9.4 shows citation counts for Department of Anatomy, Physiology and Pharmacology faculty. Departmental publications were cited **6,934** times in 2022.

Figure 9.4: Department of Anatomy, Physiology and Pharmacology Annual Citation Count



This report included **30** research-active faculty from the Department of Anatomy, Physiology and Pharmacology.

10. Department of Pathology and Laboratory Medicine

10.1 Research Funding

In the 2022/2023 fiscal year, the Department of Pathology and Laboratory Medicine saw an increase in awarded dollars. Departmental researchers were granted a total of \$1,850,307.

\$2,000,000 \$1,800,000 \$1,400,000 \$1,200,000 \$800,000 \$600,000 \$400,000 \$200,000 \$200,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 10.1: Pathology and Laboratory Medicine Research Funding

10.2 Research Projects Awarded

In 2022/2023 Department of Pathology and Laboratory Medicine faculty were granted **15** awards, received by **9** individual award recipients.

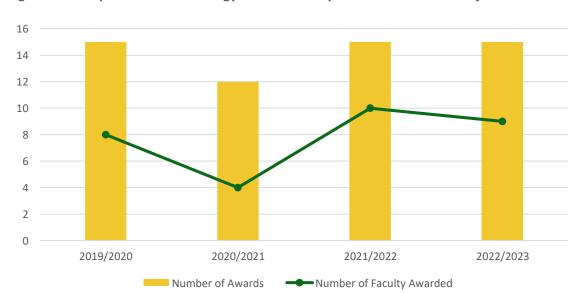


Figure 10.2: Department of Pathology and Laboratory Medicine Research Projects Awarded

Faculty within the department produced 56 publications in 2022.

Figure 10.3: Department of Pathology and Laboratory Medicine Annual Publication Count

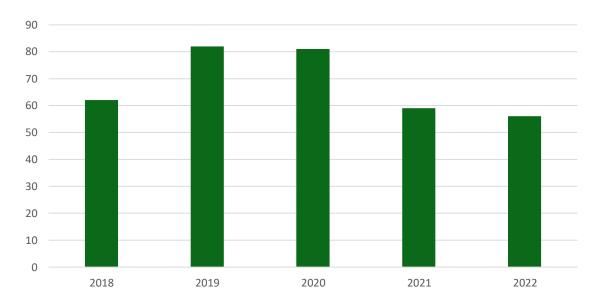
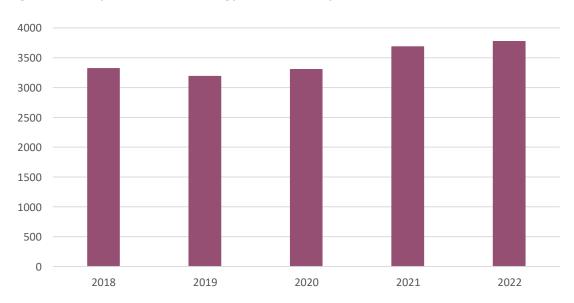


Figure 10.4 shows citation counts for Department of Pathology and Laboratory Medicine faculty. Departmental publications were cited **3,773** times in 2022.

Figure 10.4: Department of Pathology and Laboratory Medicine Annual Citation Count



This report included **26** research-active faculty from the Department of Pathology and Laboratory Medicine.

11. Department of Community Health and Epidemiology

11.1 Research Funding

In the 2022/2023 fiscal year, Department of Community Health and Epidemiology researchers were awarded a total of **\$2,137,096**.

\$5,000,000 \$4,500,000 \$4,000,000 \$3,500,000 \$3,000,000 \$2,500,000 \$2,000,000 \$1,500,000 \$1,000,000 \$500,000 \$0 2019/2020 2020/2021 2022/2023 ■ Tri-Agency ■ Other External ■ Internal

Figure 11.1: Department of Community Health and Epidemiology Research Funding

11.2 Research Projects Awarded

Researchers in the Department of Community Health and Epidemiology were granted **32** awards in 2022/2023, received by **12** individual awardees.

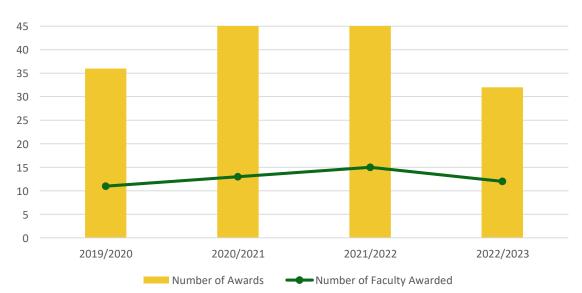


Figure 11.2: Department of Community Health and Epidemiology Research Projects Awarded

Faculty within the department produced 124 publications in 2022.

Figure 11.3: Department of Community Health and Epidemiology Annual Publication Count

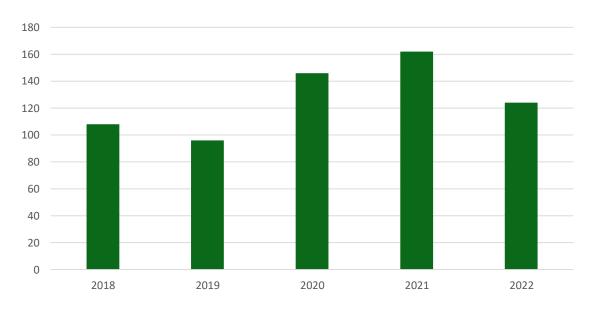
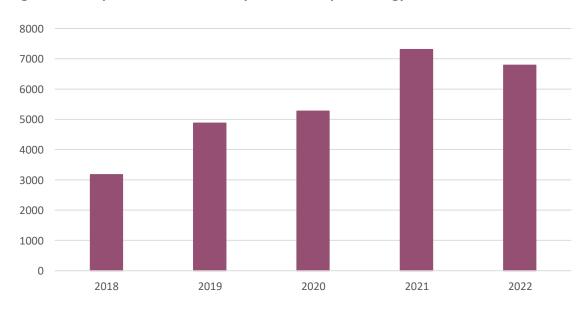


Figure 11.4 shows citation counts for Department of Community Health and Epidemiology faculty. Departmental publications were cited **6,788** times in 2022.

Figure 11.4: Department of Community Health and Epidemiology Annual Citation Count



This report included **27** research-active faculty from the Department of Community Health and Epidemiology.

12. Department of Emergency Medicine

12.1 Research Funding

In the 2022/2023 fiscal year, Department of Emergency Medicine researchers were awarded a total of **\$41,488**.

\$1,400,000 \$1,200,000 \$1,000,000 \$800,000 \$600,000 \$200,000 \$200,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 12.1: Department of Emergency Medicine Research Funding

12.2 Research Projects Awarded

In 2022/2023 Department of Emergency Medicine faculty were granted **3** awards, received by **2** unique faculty members.

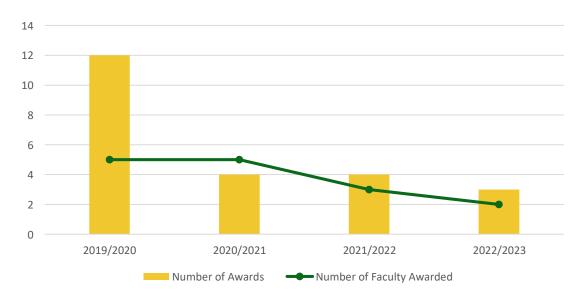


Figure 12.2: Department of Emergency Medicine Research Projects Awarded

Faculty within the department produced **30** publications in 2022.

Figure 12.3: Department of Emergency Medicine Annual Publication Count

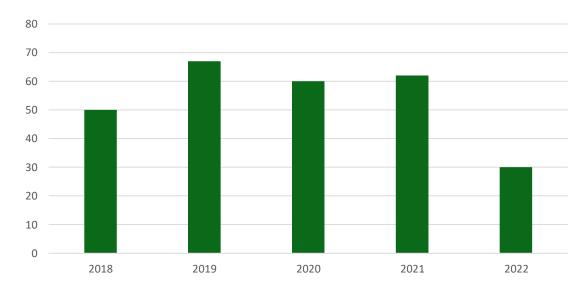
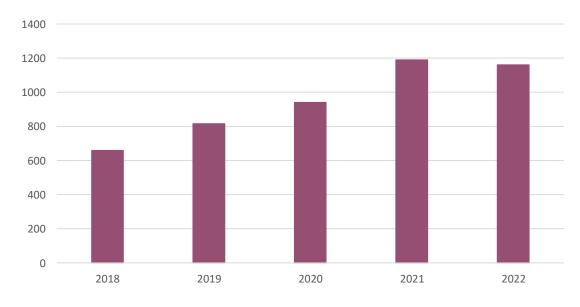


Figure 12.4 shows citation counts for Department of Emergency Medicine faculty. Departmental publications were cited **1,161** times in 2022.

Figure 12.4: Department of Emergency Medicine Annual Citation Count



This report included **14** research-active faculty from the Department Emergency Medicine.

13. Department of Psychiatry

13.1 Research Funding

In the 2022/2023 fiscal year, Department of Psychiatry researchers were awarded a total of \$680,339.

\$1,200,000 \$800,000 \$600,000 \$200,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 14.1: Department of Psychiatry Research Funding

13.2 Research Projects Awarded

Department of Psychiatry faculty were granted **27** awards in 2022/2023. The number of unique faculty award recipients increased this year, with **13** individual awardees in 2022/2023.

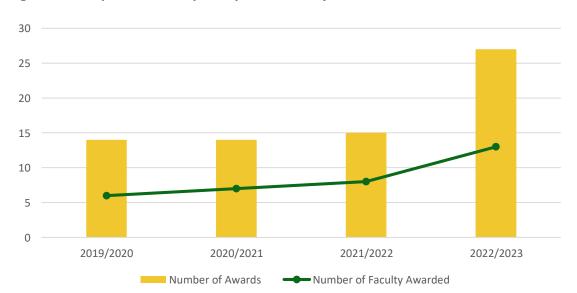


Figure 13.2: Department of Psychiatry Research Projects Awarded

Faculty within the department produced 66 publications in 2022.

Figure 13.3: Department of Psychiatry Annual Publication Count

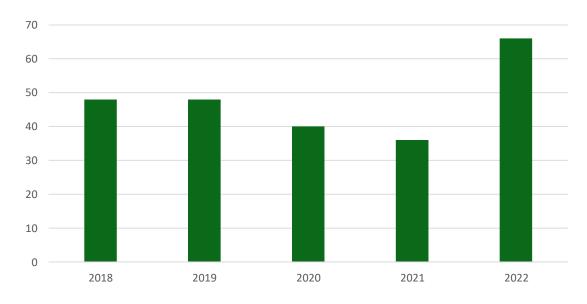
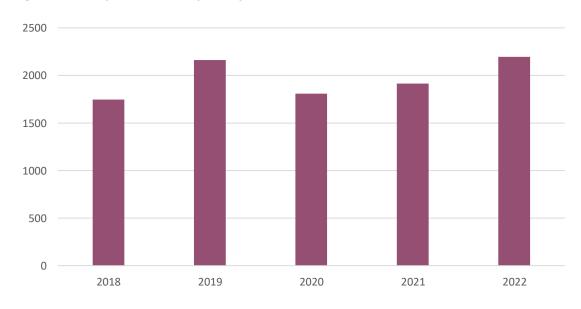


Figure 13.4 shows citation counts for Department of Psychiatry faculty. Departmental publications were cited **2,195** times in 2022.

Figure 13.4: Department of Psychiatry Annual Citation Count



This report included **15** research-active faculty from the Department of Psychiatry.

14. Department of Obstetrics and Gynecology

14.1 Research Funding

In the 2022/2023 fiscal year, Department of Obstetrics and Gynecology researchers were awarded **\$59,700**.

\$60,000
\$50,000
\$40,000
\$30,000
\$20,000
\$10,000
\$0
2019/2020
2020/2021
2021/2022
2022/2023

Figure 14.1: Department of Obstetrics and Gynecology Research Funding

14.2 Research Projects Awarded

Department of Obstetrics and Gynecology faculty were granted **5** awards in 2022/2023. The number of unique faculty award recipients increased this year, with **3** individual awardees in 2022/2023.

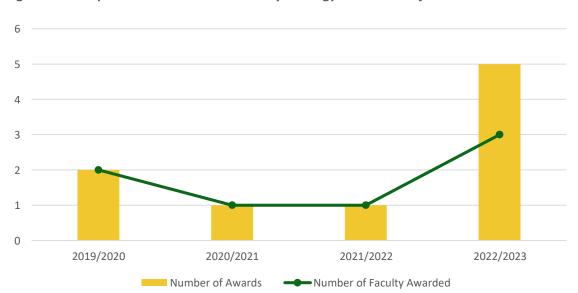


Figure 14.2: Department of Obstetrics and Gynecology Research Projects Awarded

Faculty within the department produced 16 publications in 2022.

Figure 14.3: Department of Obstetrics and Gynecology Annual Publication Count

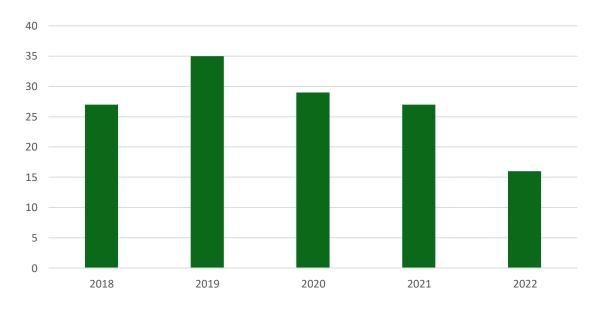
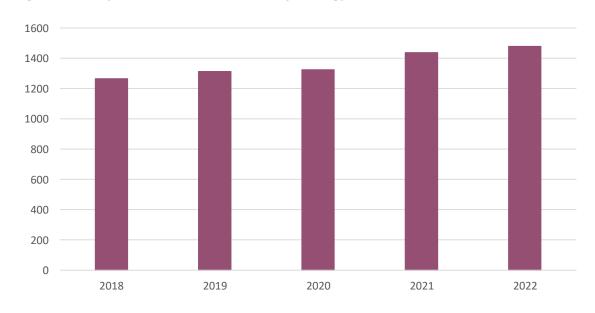


Figure 14.4 shows citation counts for Department of Obstetrics and Gynecology faculty. Departmental publications were cited **1,478** times in 2022.

Figure 14.4: Department of Obstetrics and Gynecology Annual Citation Count



This report included **14** research-active faculty from the Department of Obstetrics and Gynecology.

15. Department of Medical Imaging

15.1 Research Funding

In the 2022/2023 fiscal year, Department of Medical Imaging researchers were awarded a total of \$404,094.

\$1,200,000 \$800,000 \$600,000 \$200,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 15.1: Department of Medical Imaging Research Funding

15.2 Research Projects Awarded

In 2022/2023 Department of Medical Imaging faculty were granted **10** awards, received by **5** awardees.

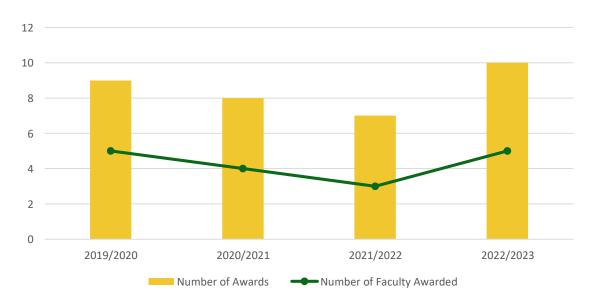


Figure 15.2: Department of Medical Imaging Research Projects Awarded

Faculty within the department produced 43 publications in 2022.

Figure 15.3: Department of Medical Imaging Annual Publication Count

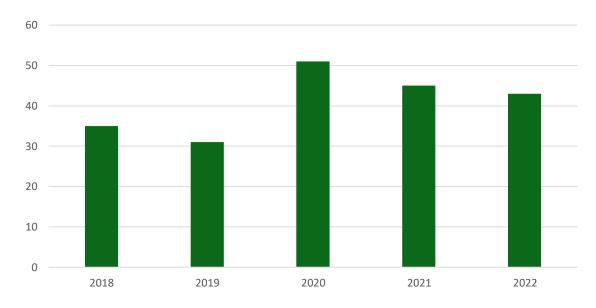
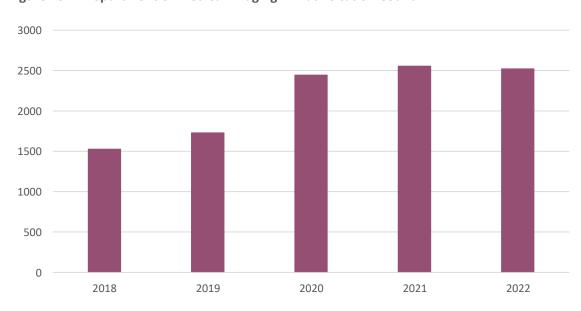


Figure 15.4 shows citation counts for Department of Medical Imaging faculty. Departmental publications were cited **2,521** times in 2022.

Figure 15.4: Department of Medical Imaging Annual Citation Count



This report included 14 research-active faculty from the Department of Medical Imaging.

16. School of Rehabilitation Science

16.1 Research Funding

In the 2022/2023 fiscal year, School of Rehabilitation Science researchers were awarded a total of \$890,661.

\$900,000 \$700,000 \$600,000 \$400,000 \$200,000 \$100,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 16.1: School of Rehabilitation Science Research Funding

16.2 Research Projects Awarded

In 2022/2023 Department of School of Rehabilitation Science faculty were granted **17** awards, received by **8** individual award recipients.

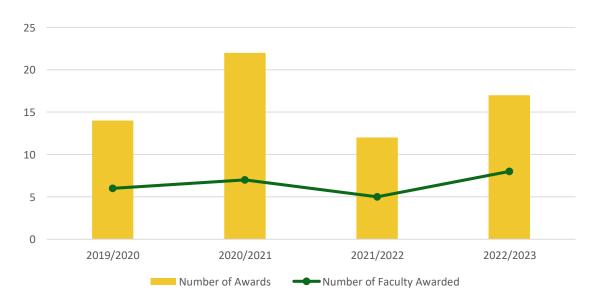


Figure 16.2: School of Rehabilitation Science Research Projects Awarded

The School of Rehabilitation Science produced 44 publications in 2022.

Figure 16.3: School of Rehabilitation Science Annual Publication Count

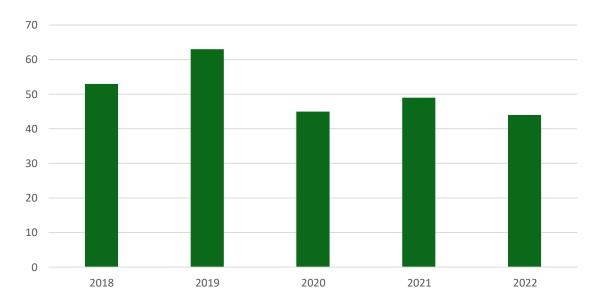
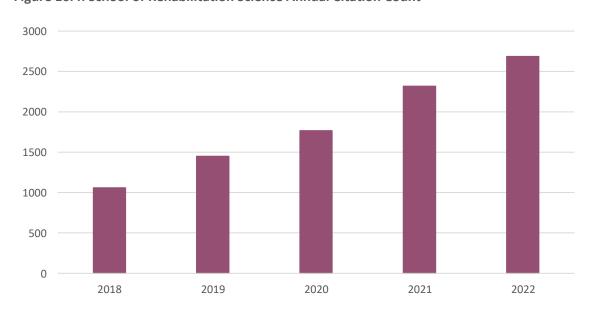


Figure 16.4 shows citation counts for School of Rehabilitation Science faculty. School publications were cited **2,687** times in 2022.

Figure 16.4: School of Rehabilitation Science Annual Citation Count



This report included **14** research-active faculty from the School of Rehabilitation Science.

17. Department of Physical Medicine and Rehabilitation

17.1 Research Funding

In the 2022/2023 fiscal year, Department of Physical Medicine and Rehabilitation researchers were awarded a total of **\$9,377**.

\$700,000 \$500,000 \$400,000 \$300,000 \$100,000 \$0 2019/2020 2020/2021 2021/2022 2022/2023

Figure 17.1: Department of Physical Medicine and Rehabilitation Research Funding

17.2 Research Projects Awarded

In 2022/2023 Department of Physical Medicine and Rehabilitation faculty were granted ${\bf 1}$ award, received by ${\bf 1}$ awardee.

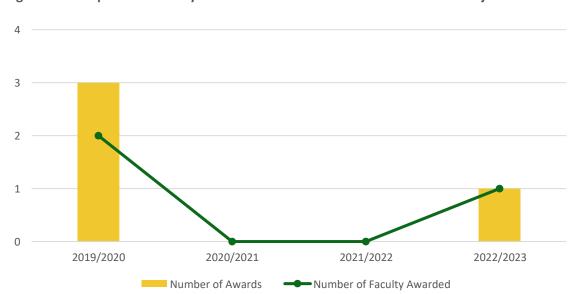


Figure 17.2: Department of Physical Medicine and Rehabilitation Research Projects Awarded

Faculty within the department produced **7** publications in 2022.

Figure 17.3: Department of Physical Medicine and Rehabilitation Annual Publication Count

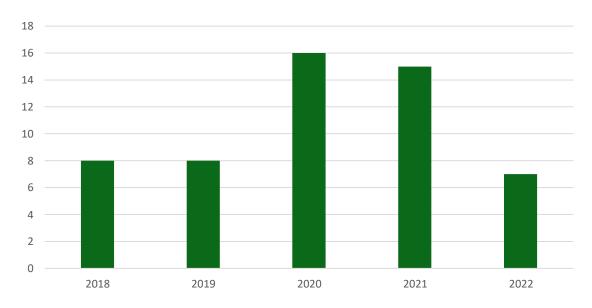
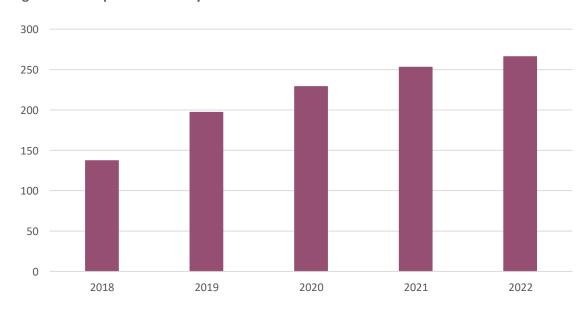


Figure 17.4 shows citation counts for Department of Physical Medicine and Rehabilitation faculty. Departmental publications were cited **266** times in 2022.

Figure 17.4: Department of Physical Medicine and Rehabilitation Annual Citation Count



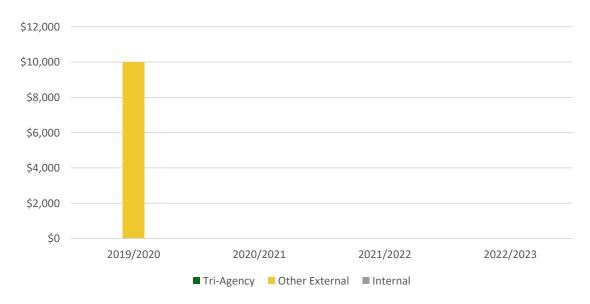
This report included **6** research-active faculty from the Department of Physical Medicine and Rehabilitation.

18. Department of Ophthalmology

18.1 Research Funding

In the 2022/2023 fiscal year, Department of Ophthalmology researchers were awarded \$0.

Figure 18.1: Department of Ophthalmology Research Funding

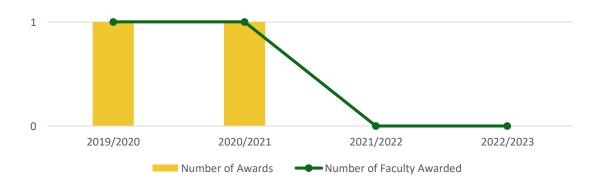


18.2 Research Projects Awarded

In 2022/2023 Department of Ophthalmology faculty received **0** awards.

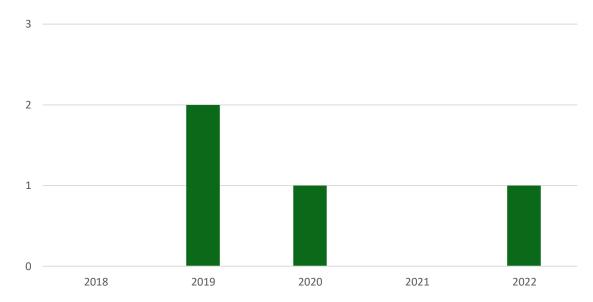
Figure 18.2: Department of Ophthalmology Research Projects Awarded

2



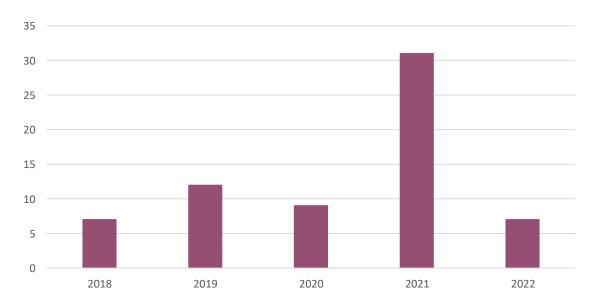
Faculty within the department produced **1** publication in 2022.

Figure 18.3: Department of Ophthalmology Annual Publication Count



Department of Ophthalmology publications were cited **7** times in 2022.

Figure 18.4: Department of Ophthalmology Annual Citation Count



This report included **3** research-active faculty from the Department of Ophthalmology.

