SYNOPSIS OF RESEARCH ACTIVITIES
IN THE FACULTY OF MEDICINE
UNIVERSITY OF TORONTO
AND ITS AFFILIATED
TEACHING HOSPITALS

April 1, 2017 - March 31, 2018

http://medicine.utoronto.ca/research/research-resources

Based on RIS data snapshot: January 8, 2019 at 1044hrs
Version 1: January 18, 2019
About this Report

In 2012 the Faculty of Medicine Research Office (Office of the Vice-Dean for Research, Faculty of Medicine) ceased its publication the hardcopy version of the Synopsis of Research Activities of the Faculty of Medicine and Affiliated Hospitals. In its place, is this abbreviated report – available online – consisting of only the most requested Tables and Graphs.

This report’s introductory pages have been reformatted to be screen-friendly (landscape orientation) but the tables and graphs have been retained in pdf format for ease of printing for those who desire a paper copy.

As always we would like to acknowledge the support of Departmental Chairs, Research Directors and UofT/Hospital Research Administrators for providing information on research activities.

We would like to thank collectively the numerous individuals who have contributed in one way or another to producing this report. We look forward to your continued support for next year’s report.
TERMS OF REFERENCE

Research funding is summarized in the Synopsis by department and by research location of the principal investigator.*

The following guidelines are used to collect research funding information and assign funds in the research database:

- Research funding information is collected from administration offices located on the University of Toronto campus and at the affiliated teaching hospitals for grants and awards received during the period April 1, 2017- March 31, 2018.

- Information is collected on investigators who hold a Faculty of Medicine appointment.

- These data are assigned to a principal investigator as identified by the grant application.

- An investigator’s research funding information is linked to their primary departmental affiliation and to a primary research location as identified on the grant application.

- Under exceptional conditions, funds may be assigned to a department in which a principal investigator holds a cross appointment.

- This summary includes only research grants captured in the University’s Research Information System (RIS) and starting with the 2016-17 report, CFI/MRI awards are represented as a separate source category (column).

- Research funding that remains unexpended during a given report period is not carried forward to subsequent reports.

- The data used to generate this report (unless otherwise indicated) was based on an RIS ‘by-Location’ Report download (data snapshot) initiated at 1044hrs of January 8, 2019..

- All calculations were done using validated programs in SAS statistical Software version 9.4

* In practice, research funds are administered through the departments of all investigators, both principal and co-investigator, involved in a research project. The resource allocation contained in this summary may differ from departmental reports.
### Table 1

**FACULTY OF MEDICINE - UNIVERSITY OF TORONTO**  
Summary of Department Research Funding vs Sponsor in THOUSANDS of Dollars  
April 2017 - March 2018

| DEPARTMENT                                      | Total   | CIHR    | NSERC   | NCIC    | CAN    | MOH    | HSFO/C  | SSHRC   | INDUS   | OTHER   | CFI/MRI | # of Awards |
|------------------------------------------------|---------|---------|---------|---------|--------|--------|---------|---------|---------|---------|---------|-----------|-------------|
| **BASIC**                                       |         |         |         |         |        |        |         |         |         |         |         |           |             |
| Donnelly Centre (f/c BBDMR)                     | 27,452  | 8,559   | 331     | 245     | 0      | 0      | 0       | 0       | 4,834   | 13,264  | 220     | 134      |            |
| Biochemistry                                    | 26,819  | 7,817   | 1,419   | 397     | 0      | 0      | 0       | 0       | 200     | 689     | 11,412  | 4,885    |            |
| Biomat & Biomed Eng                             | 2,123   | 537     | 114     | 0       | 0      | 0      | 0       | 47      | 27      | 1,399   | 0        | 45        |            |
| Immunology                                      | 13,325  | 5,532   | 229     | 246     | 0      | 0      | 0       | 0       | 837     | 6,298   | 184     | 209      |            |
| Medical Biophysics                              | 77,647  | 15,670  | 1,280   | 1,056   | 0      | 0      | 0       | 85      | 2,249   | 51,010  | 6,298   | 722      |            |
| Molecular Genetics                              | 85,132  | 22,848  | 2,142   | 238     | 0      | 0      | 0       | 202     | 6,004   | 43,440  | 10,257  | 743      |            |
| Nutritional Sciences                            | 6,181   | 2,973   | 153     | 0       | 15     | 0      | 25      | 488     | 2,527   | 0       | 138      |           |            |
| Pharmacology                                    | 5,885   | 1,552   | 141     | 0       | 0      | 182    | 0       | 310     | 3,701   | 0       | 180      |           |            |
| Physiology                                      | 20,951  | 7,807   | 732     | 0       | 0      | 0      | 408     | 940     | 10,801  | 261     | 311      |           |            |
| **SUB-TOTAL**                                   | 265,515 | 73,295  | 6,541   | 2,182   | 15     | 182    | 967     | 0       | 16,378  | 143,852 | 22,105  | 3,964    | 2,814      |            |
| **CLINICAL**                                    |         |         |         |         |        |        |         |         |         |         |         |           |             |
| Anesthesia                                      | 8,114   | 1,918   | 0       | 0       | 0      | 80     | 15      | 0       | 928     | 5,135   | 39       | 149       |            |
| Family & Community Medicine                     | 17,010  | 2,171   | 0       | 0       | 0      | 7,139  | 0       | 0       | 305     | 7,395   | 0        | 145       |            |
| Lab. Medicine & Pathobiology                    | 31,358  | 7,015   | 329     | 542     | 0      | 0      | 216     | 0       | 1,824   | 21,431  | 0        | 500       |            |
| Medical Imaging                                 | 8,224   | 543     | 120     | 157     | 0      | 0      | 99      | 767     | 6,161   | 377     | 127      |           |            |
| Medicine                                        | 195,149 | 32,249  | 324     | 1,289   | 711    | 1,604  | 3,943   | 0       | 44,905  | 108,587 | 1,537    | 2,437     |            |
| Obstetrics & Gynaecology                        | 6,154   | 1,897   | 30      | 192     | 0      | 0      | 0       | 438     | 3,598   | 0       | 68        |           |            |
| Occupational Therapy                            | 10,506  | 956     | 97      | 0       | 0      | 0      | 56      | 227     | 229     | 8,941   | 0        | 316       |            |
| Ophthalmology And Vision Sci                    | 7,826   | 245     | 178     | 0       | 0      | 0      | 0       | 526     | 6,877   | 0       | 115      |           |            |
| Otolaryngology                                  | 2,238   | 304     | 0       | 0       | 0      | 0      | 0       | 157     | 1,760   | 17      | 36       |           |            |
| Paediatrics                                     | 66,198  | 14,801  | 122     | 0       | 0      | 106    | 222     | 0       | 6,311   | 44,331  | 304      | 969       |            |
| Physical Therapy                                | 5,118   | 1,985   | 138     | 0       | 35     | 280    | 40      | 3       | 2,617   | 20      | 294      |           |            |
| Psychiatry                                      | 58,482  | 9,409   | 90      | 24      | 0      | 22     | 94      | 157     | 2,246   | 44,526  | 1,913    | 471       |            |
| Radiation Oncology                              | 50,232  | 1,410   | 88      | 157     | 0      | 0      | 0       | 1,395   | 47,182  | 0       | 254      |           |            |
| Speech-Language Pathology                       | 2,697   | 181     | 81      | 0       | 0      | 10     | 0       | 105     | 406     | 1,881   | 33       | 150       |            |
| Surgery                                         | 69,071  | 10,294  | 360     | 650     | 0      | 67     | 409     | 4,932   | 50,457  | 1,902   | 933      |           |            |
| **SUB-TOTAL**                                   | 538,377 | 85,378  | 1,957   | 3,011   | 711    | 9,063  | 5,335   | 529     | 65,372  | 360,879 | 6,142    | 6,964     |            |
| Other                                           | 17,194  | 1,027   | 422     | 0       | 0      | 270    | 0       | 2,958   | 12,147  | 370     | 502      |           |            |
| **TOTAL**                                       | 821,086 | 159,700 | 8,920   | 5,193   | 726    | 9,515  | 6,302   | 529     | 84,708  | 516,878 | 28,617   | 10,280    |            |
| **GRAND TOTAL**                                 | 821,086 (x $1000) |       |         |         |        |        |         |         |         |         |         | 10,280    |            |

1 Starting in 2016-17, CFI and MRI funding, previously excluded from Departmental totals is now displayed as a separate sponsor category.  
2 Excludes $22,529,907 from the Federal Indirect Costs Program awarded to affiliate hospitals.
<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>Total</th>
<th>CIHR</th>
<th>NSERC</th>
<th>NCIC</th>
<th>CAN</th>
<th>MOH</th>
<th>HSFO/C</th>
<th>SSHRC</th>
<th>INDUS</th>
<th>OTHER</th>
<th>CFI/MRI 3</th>
<th># of Awards</th>
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<td>62</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3,581</td>
<td>43</td>
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<tr>
<td>Holland Bloorview</td>
<td>5,973</td>
<td>690</td>
<td>105</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>75</td>
<td>329</td>
<td>4,741</td>
<td>0</td>
<td>33</td>
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<tr>
<td>Centre for Addiction and Mental Health</td>
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<td>7,122</td>
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<td>0</td>
<td>0</td>
<td>7,264</td>
<td>0</td>
<td>45</td>
<td>2,080</td>
<td>30,044</td>
<td>1,913</td>
<td>275</td>
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<tr>
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<td>2,052</td>
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<td>0</td>
<td>106</td>
<td>902</td>
<td>0</td>
<td>8,793</td>
<td>97,883</td>
<td>14,614</td>
<td>1,729</td>
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<tr>
<td>Sinai Health System - Mt. Sinai Hospital</td>
<td>56,062</td>
<td>15,094</td>
<td>381</td>
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<td>0</td>
<td>0</td>
<td>161</td>
<td>0</td>
<td>6,262</td>
<td>32,686</td>
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<td>458</td>
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<td>St. Michael's Hospital</td>
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<td>357</td>
<td>2</td>
<td>693</td>
<td>250</td>
<td>658</td>
<td>20</td>
<td>7,906</td>
<td>29,505</td>
<td>1,158</td>
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<td>Sunnybrook Health Sciences Centre</td>
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<td>18</td>
<td>200</td>
<td>2,033</td>
<td>0</td>
<td>10,518</td>
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<td>7,094</td>
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<td>893</td>
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<td>234</td>
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<td>54</td>
<td>36,405</td>
<td>203,942</td>
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<td>Women's College Hospital</td>
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<td>0</td>
<td>220</td>
<td>3,089</td>
<td>0</td>
<td>86</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2,080</td>
<td>8,502</td>
<td>0</td>
<td>95</td>
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<td><strong>SUB-TOTAL</strong></td>
<td>703,513</td>
<td>120,428</td>
<td>4,644</td>
<td>4,305</td>
<td>711</td>
<td>9,245</td>
<td>5,729</td>
<td>194</td>
<td>74,593</td>
<td>457,374</td>
<td>26,290</td>
<td>7,010</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>UofT Campus</td>
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<td>888</td>
<td>15</td>
<td>270</td>
<td>573</td>
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<td>10,115</td>
<td>59,487</td>
<td>2,326</td>
<td>3,267</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>821,086</td>
<td>159,701</td>
<td>8,918</td>
<td>5,193</td>
<td>726</td>
<td>9,515</td>
<td>6,302</td>
<td>529</td>
<td>84,708</td>
<td>516,878</td>
<td>28,616</td>
<td>10,280</td>
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<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>821,086</td>
<td>(x $1000)</td>
<td>10,280</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

1 Research at other affiliated institutions: For a breakdown see Table 4.1
2 Research at other locations other than UofT Campus and affiliates.
3 Starting in 2016-17, CFI and MRI funding, previously excluded from hospital totals is now displayed as a separate sponsor category.
Table 4.1
FACULTY OF MEDICINE - UNIVERSITY OF TORONTO
Summary of Other Hospitals / Institutes vs Sponsor (Funding Source) in THOUSANDS of Dollars
April 2017 - March 2018

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>Total</th>
<th>CIHR</th>
<th>NSERC</th>
<th>NCIC</th>
<th>CAN</th>
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<th>INDUS</th>
<th>OTHER</th>
<th>CFI/MRI</th>
<th># of Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute For Work &amp; Health</td>
<td>169</td>
<td>169</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>North York General Hospital</td>
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</tr>
<tr>
<td>Ontario Agency For Health Protection And Promotion</td>
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<td>0</td>
<td>138</td>
<td>0</td>
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<tr>
<td>Ontario Institute For Cancer Research</td>
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<td>1,309</td>
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<td>33</td>
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<tr>
<td>Trillium Health Partners</td>
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<td>0</td>
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<td>0</td>
<td>188</td>
<td>926</td>
<td>0</td>
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<tr>
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<tr>
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<td>1817</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>2080</td>
<td>8502</td>
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</table>
Figure 1
FACULTY OF MEDICINE - UNIVERSITY OF TORONTO
Comparison of Research Funding By Sponsor Source: 1987 to 2018

- Total Research Funding Trendline
  (until 2012, excluded CFI)
- Other Sources Proportion
- Industry Proportion
- CIHR Proportion

Two Departments dissociate from the Faculty of Medicine
2013-14: School of Public Health
2014-15: Health Policy, Mgmt & Eval
FACULTY OF MEDICINE - UNIVERSITY OF TORONTO
Proportion of Total 2017-18 Funding by Department

Donnelly Centre
Biomat & Biomed Eng
Family & Comm Med
Immunology
Lab. Medicine & Pathobio
Medical Biophysics
Medical Imaging
Medicine
Molecular Genetics
Paediatrics
Otolaryngology
Ophthalmology
Occupational Therapy
Obstetrics & Gynaecology
Nutritional Sciences
Physiology
Pharmacology
Physical Therapy
Paediatrics
Speech-Language Patho
Radiation Oncology
Surgery
Anesthesia
Biochemistry

9
FACULTY OF MEDICINE - UNIVERSITY OF TORONTO
Total Research Dollar Distribution by Location of Research for 2017-18

- University Health Network
- Hospital for Sick Children
- Sinai Health System - Mt. Sinai Hospital
- St. Michael's Hospital
- Sunnybrook Health Sciences Centre
- Holland Bloorview Centre for Addiction and Mental Health
- UofT Campus
- Other Hospitals
- Women's College Hospital
- Baycrest Centre for Geriatric Care

10
Ten-Year Trends By Department in Millions of Dollars

- **Donnelly Centre (f/c BBDMR)**
- **Biochemistry**
- **Biomat & Biomed Eng**
- **Immunology**
- **Medical Biophysics**
- **Molecular Genetics**
Ten-Year Trends By Location in Millions of Dollars

Baycrest Centre for Geriatric Care

Holland Bloorview

Centre for Addiction and Mental Health

Hospital for Sick Children

Sinai Health System - Mt. Sinai Hospital

St. Michael's Hospital
Research at non fully-affiliated institutions: IWH, NYG, OAHPP, OICR, THP
2017-18 includes data collection from NYG, OICR and THP
IWH - Institute for Work and Health
NYG - North York General
OAHPP - Ontario Agency for Health Protection and Promotion
OICR - Ontario Institute for Cancer Research
THP - Trillium Health Partners

Note that vertical axes are scaled to each individual location.