

Methodology for developing a yearly list of The Ottawa Hospital's Top Research Papers

There is much debate about how to judge the quality and importance of research papers. For this exercise, we focused on citations and Journal Impact Factor because these are easily available and applicable to all types of studies.

For citations, we looked at papers from 2016, 2017 and 2018, recognizing that older papers would be favoured. Assuming we do this every year, newer papers will have a better chance of being recognized in subsequent years. We don't have an efficient way to normalize for publication month, so we accept that papers published earlier in the year will have an advantage over those published later.

We also decided to group different kinds of papers in different categories, so that we could highlight a wider breadth of research. We chose to highlight the top five papers in each of the following categories:

- **Discovery:** This includes all basic science papers led or co-led by a researcher with a primary appointment at The Ottawa Hospital. Some of these papers may be translational in nature and may involve analyzing patient samples, but we included them in "discovery" if most of the research was lab-based as opposed to clinical.
- **Clinical:** This includes clinical trials, cohort studies, database studies etc. led or co-led by a researcher with a primary appointment at The Ottawa Hospital.
- **Reviews, methods and policy:** This includes systematic reviews, meta-analyses, descriptive reviews, consensus statements, guidelines, policy papers and research methodology papers led or co-led by a researcher with a primary appointment at The Ottawa Hospital.
- **Co-authored studies:** This includes any kind of paper with a co-author from The Ottawa Hospital that was not led or co-led by The Ottawa Hospital.

Other notes:

- The data was obtained through affiliation search using Web of Science on March 5, 2019.
- For 2016 and 2017, the data underwent additional verification as part of The Ottawa Hospital Academic Medical Organization (TOHAMO) process. This is the same data used for overall research performance metrics. It includes articles, reviews, proceedings, editorials, letters and meeting abstracts. 2018 data will be verified in the coming year.
- We defined "led or co-led" to mean first author, last author, corresponding author or Co-Principal Investigator on the grant that funded the research. This last category (Co-PI) can't be obtained from Web of Science, so we will have to rely on the researchers to let us know about these through the verification process. Additionally, papers must have at least one Scientist or Investigator with a primary appointment at The Ottawa Hospital as an author to be included.
- The list references the first, last, corresponding and co-leading authors from The Ottawa Hospital, for TOH-led papers (and Co-PIs if known). For co-authored papers, we've included all authors from The Ottawa Hospital.
- For the 2018 list based on Journal Impact Factors, we also reviewed papers that we had done media releases or news stories on, to see if anything had been missed in the Web of Science search.

- There may be some inconsistency in dates, as Web of Science is slowly moving towards including e-publication dates rather than waiting for the print edition. In future years, we will make sure to take this into account.
- If you think we may have missed a top paper on this list, please email Jenn Ganton at jganton@ohri.ca and Gilda Villareal at gwillareal@ohri.ca. We will verify the Journal Impact Factor and citation data using Web of Science and add to the list if appropriate.