Are Scholars Getting Enough Attention?

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Director of Library Services
Memorial Sloan Kettering Cancer Center
January 2015

Understanding Altmetric Scores
Talking points

- Defining altmetrics
- Content providers & Altmetric
- MSK Altmetric badge integration
- Altmetric – their future plans
- The future (as I see it!)
I am *not* a subject expert – just very interested!
Defining altmetrics

“the study of scholarly impact measures based on activity in online tools and environments”

(Priem, Groth, and Taraborelli 2012)
Traditional metrics

- Citation counts to an author’s paper
  - Web of Science
  - Scopus
  - Google Scholar
- Impact of the scholarly journal
  - Journal Citation Reports
- $h$-index
  - measures both the productivity and impact of the published work
  - Number of an author’s papers that have been cited at least $h$ times by other publications
Background info

- Declaration of Research Assessment (DORA)
- NISO Alternative Assessment Metrics (Altmetrics) Initiative

http://am.ascb.org/dora/  http://www.niso.org/topics/tl/altmetrics_initiative/
Where are we seeing Altmetric?
As of 1/8/2015, cited one time (WOS)
Others offering Altmetric scores

HighWire offers Altmetric integration to publishers

Altmetric is now on board for all Wiley journals

Graham Woodward
Associate Marketing Director, Author Marketing

Tags: alternative metrics, Altmetric, authors, citation, digital news, Graham Woodward, metrics, social media, technology, Wiley news
Altmetrics is the study and use of non-traditional scholarly impact measures that are based on activity in web-based environments. As scholarship increasingly moves online, these metrics track associated interactions and activity to generate fine-grained data, allowing researchers and policy makers to create a higher resolution picture of the reach and impact of academic research.

Altmetrics research seeks to build and track a rich, holistic image of impact on diverse audiences (general public as well as scholars) and monitors diverse types of engagement with scholarship, including viewership, discussion, bookmarking, and recommendation, along with traditional citation.

The *PLOS ONE* Altmetrics Collection gathers an emerging body of research to seed further study and use of altmetrics. As an ever-growing collection, it aims to continually cover a range of subjects including statistical analysis of altmetrics data sources; metric validation, and identification of biases in measurements; validation of models of scientific discovery/recommendation based on altmetrics; qualitative research describing the scholarly use of online tools and environments; empirically-supported theory guiding altmetrics' uses, and other research relating to scholarly impact in online tools and environments. The Collection is open to all authors who wish to submit research in these areas.

Articles are presented in order of publication date and new articles will be added to the Collection as they are published. Further information on altmetrics can be found at altmetrics.org.

**Collection Citation:** Altmetrics Collection (2012) PLOS Collections: [http://www.ploscollections.org/altmetrics](http://www.ploscollections.org/altmetrics)
Library partnered w/ Altmetric

- Altmetric was founded in 2011 by Euan Adie
- Reached out to him late 2012
- Focus on enhancing Synapse
- Started with the altmetric badge (http://api.altmetric.com/ embeds.html)
Synapse – https://synapse.mskcc.org
CD19-targeted T cells rapidly induce molecular remissions in adults with chemotherapy-refractory acute lymphoblastic leukemia

Journal Article


Abstract: CD19-targeted T cells rapidly induce molecular remissions in adults with chemotherapy-refractory acute lymphoblastic leukemia. Adults with relapsed B cell acute lymphoblastic leukemia (B-ALL) have a dismal prognosis. Only those patients able to achieve a second remission with no minimal residual disease (MRD) have a hope for long-term survival in the context of a subsequent allogeneic hematopoietic stem cell transplantation (allo-HSCT). We have treated five relapsed B-ALL subjects with autologous T cells expressing a CD19-specific CD23/CD3ζ second-generation dual-signaling chimeric antigen receptor (CAR) termed 19-28ζ. All patients with persistent morphological disease or MRD+ disease upon T cell infusion demonstrated rapid tumor eradication and achieved MRD− complete remissions as assessed by deep sequencing polymerase chain reaction. Therapy was well tolerated, although significant cytokine elevations, specifically observed in those patients with morphologic evidence of disease at the time of treatment, required lymphotocic steroid therapy to ameliorate cytokine-mediated toxicities. Indeed, cytokine elevations directly correlated to tumor burden at the time of CAR-modified T cell infusions. Tumor cells from one patient with relapsed disease after CAR-modified T cell therapy, who was ineligible for additional allo-HSCT or T cell therapy, exhibited persistent expression of CD19 and sensitivity to autologous 19-28ζ T cell-mediated cytotoxicity, which suggests potential clinical benefit of additional CAR-modified T cell infusions. These results demonstrate the marked antitumor efficacy of 19-28ζ CAR-modified T cells in patients with...
Synapse now includes Altmetric scores.

Introduced July 1, 2014!

Anatomy of a donut

- Click on “see more details”
- Color coded to quickly identify sources
- Tab views to drill down
- Receive alert when paper is mentioned
- Weighted scores
CD19-Targeted T Cells Rapidly Induce Molecular Remissions in Adults with Chemotherapy-Refractory Acute Lymphoblastic Leukemia

This page gives you high level statistics from Altmetric for the article below and the first 100 items from each source (click here to see everything that has been collected).

So far Altmetric has seen 27 stories from 21 outlets.

Score in context
Is one of the highest ever scores in this journal (ranked #8 of 1,425)

Engineered immune cells battle acute leukaemia
Modified T cells seek out and destroy blood cancer. Nature News doi: 10.1038/nature.2013.12643...
CD19-Targeted T Cells Rapidly Induce Molecular Remissions in Adults with Chemotherapy-Refractory Acute Lymphoblastic Leukemia

Twitter attention

The data shown were collected from the profiles of tweeters who shared this article. Click here to find out more about how the information was compiled.

Geographical breakdown

<table>
<thead>
<tr>
<th>Country</th>
<th>As %</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>28%</td>
</tr>
<tr>
<td>GB</td>
<td>4%</td>
</tr>
<tr>
<td>CA</td>
<td>2%</td>
</tr>
<tr>
<td>JP</td>
<td>2%</td>
</tr>
<tr>
<td>AU</td>
<td>2%</td>
</tr>
<tr>
<td>IT</td>
<td>1%</td>
</tr>
<tr>
<td>BR</td>
<td>1%</td>
</tr>
<tr>
<td>SE</td>
<td>1%</td>
</tr>
<tr>
<td>ID</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>12%</td>
</tr>
<tr>
<td>unknown</td>
<td>40%</td>
</tr>
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</table>

Tweeter demographics

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
<th>As %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of the public</td>
<td>46</td>
<td>64%</td>
</tr>
<tr>
<td>Scientists</td>
<td>15</td>
<td>21%</td>
</tr>
<tr>
<td>Practitioners (doctors, other healthcare</td>
<td>7</td>
<td>9%</td>
</tr>
<tr>
<td>Science communicators (journalists,</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>bloggers, editors)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Our next steps

Synapse Works

- No identifiers
- Identifiers
- Altmetric scores

<table>
<thead>
<tr>
<th>Year</th>
<th>No identifiers</th>
<th>Identifiers</th>
<th>Altmetric scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1764</td>
<td>505</td>
<td>304</td>
</tr>
<tr>
<td>2011</td>
<td>1731</td>
<td>535</td>
<td>545</td>
</tr>
<tr>
<td>2012</td>
<td>1321</td>
<td>877</td>
<td>1112</td>
</tr>
<tr>
<td>2013</td>
<td>1298</td>
<td>655</td>
<td>1357</td>
</tr>
<tr>
<td>2014*</td>
<td>1068</td>
<td>603</td>
<td>1356</td>
</tr>
</tbody>
</table>
Increase in attention

Altmetric Mentions

- Q&A
- Pinterest
- LinkedIn
- Video
- Reddit
- Research highlights
- Google+
- Weibo
- Facebook
- Twitter
- Peer reviews
- Policy documents
- Blogs
- News

Years:
- 2010
- 2011
- 2012
- 2013
- 2014
Altmetric & ORCID

Altmetric ORCID Profile

What is the wider social impact of your research? Now you can find out – just enter your ORCID profile in the box below, and we’ll find out who’s talking about your research - and what they’re saying.

Show my profile

http://altmetric-orcid-profiles.herokuapp.com/
My online “attention”

As the Library Director, my team and I support the Center’s mission by providing the latest published information and customized services, workshops, and information sessions, ensuring excellent customer service for our Library user community. We provide content and negotiate institutional subscriptions for a cost-effective and focused collection that complements the research and medical activities of our constituents. Most of the published literature and information we provide is delivered via our Library Website (https://library.mskcc.org). Developing a cutting-edge Library is an ongoing activity as well as establishing strong Library partnerships with both MSK departments and external Libraries. Developing communication and marketing activities to inform our users about all Library initiatives is essential for growth and success.

Published works
- Library as Place: Why Our Users Still Come!
- Nine Steps to a Systematic Review Service
- Public Access, Open Access: Outlining Key Differences.
- Data management: Librarians or science informationists?
  10.1038/490343d
  The Future of Research Libraries - April 1 - 3, 2012
  10.1080/00048623.2010.10721474
- The Clinical Medical Librarian Program: The Memorial Sloan-Kettering Experience
  10.1080/15323269.2011.611432

Altmetric stats

...as of 1/7/2015
Which academic research caught the public imagination in 2014?

At Altmetric, we track who’s saying what about academic papers. Here, we take a look back at 2014, with a review of the 100 papers that received the most attention online - and the conversations that happened around them.

You can find out more about how we collect data and put this list together on our blog.

1. Experimental evidence of massive-scale emotional contagion through social networks
   - Kamer AD, Guillery JE, Hancock JT
   - Journal: Proceedings of the National Academy of Sciences of the United States of America
   - Category: Psychology and Cognitive Sciences
   - Institutions: Facebook Inc., University of California - San Francisco, Cornell University

   Score of attention: 5044
   - 301 news stories
   - 130 blog posts
   - 380 tweets
   - 10 peer reviews
   - 4 weibo posts
   - 342 Facebook posts
   - 115 Google+ posts
   - 14 Reddit posts
   - 1 Research highlight platform
   - 4 videos

2. Variation in Melanism and Female Preference in Proximate but Ecologically Distinct Environments
   - Columier ZW, Bautista-Hernández CE, Morkø S ...
   - Journal: Ethology
   - Institutions: Centro de Investigaciones Científicas de las Huastecas "Aguazul", Universidad Autónoma del Estado de Hidalgo, Universidad Juárez Autónoma de Tabasco (UJAT) ...

   Score of attention: 43
   - 4 news stories
   - 4 weibo posts
Altmetric Explorer for librarians

Top Articles by Mentions in all Sources

<table>
<thead>
<tr>
<th>Rank</th>
<th>Mentions</th>
<th>Score</th>
<th>Title</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>898</td>
<td>296</td>
<td>Comparative Performance of Private and Public Healthcare Systems in Low- and Middle-Income Countries: A Systematic Review</td>
<td>PLoS Medicine</td>
</tr>
<tr>
<td>2</td>
<td>787</td>
<td>241</td>
<td>Acupuncture for Chronic Periodontal Patient Data Meta-analysis</td>
<td>Archives Of Internal Medicine</td>
</tr>
<tr>
<td>3</td>
<td>283</td>
<td>274</td>
<td>Comprehensive molecular portraits of human breast tumours</td>
<td>Nature</td>
</tr>
<tr>
<td>5</td>
<td>251</td>
<td>278</td>
<td>Safety and Tumor Responses with Lembrikizumab (Anti-PD-1) in Melanoma</td>
<td>New England Journal Of Medicine</td>
</tr>
<tr>
<td>6</td>
<td>239</td>
<td>221</td>
<td>Nivolumab plus Ipilimumab in Advanced Melanoma</td>
<td>Nature</td>
</tr>
<tr>
<td>7</td>
<td>212</td>
<td>166</td>
<td>Crizotinib versus Chemotherapy in Advanced-Positive Lung Cancer</td>
<td>Nature</td>
</tr>
<tr>
<td>13</td>
<td>152</td>
<td>232</td>
<td>Integrated genomic characterization of endometrial carcinoma</td>
<td>Nature</td>
</tr>
<tr>
<td>14</td>
<td>148</td>
<td>130</td>
<td>Prostate cancer mortality at 11 years of follow-up.</td>
<td>Nature</td>
</tr>
<tr>
<td>15</td>
<td>141</td>
<td>89</td>
<td>A physical sciences network characterization of non-tumorigenic and metastatic cells</td>
<td>Scientific Reports</td>
</tr>
<tr>
<td>16</td>
<td>140</td>
<td>194</td>
<td>The Cancer Genome Atlas Pan-Cancer analysis project</td>
<td>Nature Genetics</td>
</tr>
<tr>
<td>17</td>
<td>131</td>
<td>145</td>
<td>Safety, Activity, and Immune Correlates of Anti-PD-1 Antibody in Cancer</td>
<td>Cancer Research &amp; Treatment Genetics</td>
</tr>
<tr>
<td>18</td>
<td>110</td>
<td>108</td>
<td>Abraxolose In Metastatic Prostate Cancer without Previous Chemotherapy</td>
<td>New England Journal Of Medicine</td>
</tr>
<tr>
<td>19</td>
<td>105</td>
<td>84</td>
<td>American Cancer Society lung cancer screening guidelines</td>
<td>JCO: A Cancer Journal For Clinicians</td>
</tr>
<tr>
<td>20</td>
<td>73</td>
<td>111</td>
<td>Comprehensive molecular characterization of clear cell renal cell carcinoma</td>
<td>Nature</td>
</tr>
<tr>
<td>21</td>
<td>69</td>
<td>198</td>
<td>Evaluation of DNA from the Papenfuse Test to Detect Ovarian and Endometrial Cancers</td>
<td>Science Translational Medicine</td>
</tr>
<tr>
<td>22</td>
<td>63</td>
<td>48</td>
<td>Transforming Epidemiology for 21st Century Medicines and Public Health</td>
<td>Cancer Epidemiology, Biomarkers &amp; Prevention</td>
</tr>
<tr>
<td>23</td>
<td>52</td>
<td>94</td>
<td>Central Prophylactic Mastectomy for Breast Cancer: Addressing Peace of Mind</td>
<td>JAMA: Journal Of The American Medical Association</td>
</tr>
<tr>
<td>24</td>
<td>49</td>
<td>105</td>
<td>Comprehensive genomic characterization of squamous cell lung cancers</td>
<td>Nature</td>
</tr>
<tr>
<td>25</td>
<td>47</td>
<td>58</td>
<td>Tumour microenvironment elicits innate resistance to RAF inhibitors through HGF secretion</td>
<td>Nature</td>
</tr>
</tbody>
</table>
Altmetric Explorer for institutions

https://www.youtube.com/watch?v=24zSZwaG4pg
The future

- Is it possible to include other scholarly formats to better understand total research & scientific contributions?
- Could we redefine what is the scholarly record?
- Could Altmetric scores predict highly cited papers?
- How should institutions evaluate and assess a researcher’s impact and productivity?
How do we get involved?

- Share info about Altmetrics – show your authors the attention they’re receiving
- Embed Altmetrics training in existing workshops about measuring research impact
- Add article level metrics to your institutional repository
- Collection development support
- Identify collaboration opportunities
Join Altmetrics
Impact metrics road map

A collection of selected websites, resources, tools, apps, and Twitter handles, to help you navigate the impact metrics landscape. The sources below include traditional as well as recently developed metrics. Links have been organized under specific categories.

One of the many challenges faced by scholars is to demonstrate their value and impact within their field of expertise and study. In addition, institutions look for ways to measure the intellectual output of their researchers as part of their overall performance evaluation process. This information can also help an organization’s leadership with making critical decisions in which research areas to support or build and contribute insights to strategic planning. Alternatively, identifying high impact research papers can help single out key players in a specific discipline and create possible networking opportunities for those breaking into the field.

The "Impact Metrics Road Map" was developed to showcase key websites that deal with a variety of available measurement tools or point the reader to interesting initiatives. This map serves as a starting place for those with a recent interest in this area and may also be of interest to seasoned scholarly communication librarians. Traditional approaches/tools to measuring research impact are listed as well as Altmetrics (Attention Metrics), which are quickly developing due to the popularity of social media and the ever expanding digital environment.

Pick the category you like to get started!

**Author Focus**
- [http://hlwiki.slais.ubc.ca/index.php/Author_impact_metrics](http://hlwiki.slais.ubc.ca/index.php/Author_impact_metrics)
- [https://beckercasey.west.edu/impact-assessment/model](https://beckercasey.west.edu/impact-assessment/model)
- [http://www.ascb.org/igoridora](http://www.ascb.org/igoridora)
- [http://orcid.org/](http://orcid.org/)
- [http://www.ndrl.ie/myri](http://www.ndrl.ie/myri)
- [http://www.snowballmetrics.com](http://www.snowballmetrics.com) (Institutional)
- [http://isihighlycited.com/](http://isihighlycited.com/)

**Journal Focus**
- [http://thomsonreuters.com/journal-citation-reports](http://thomsonreuters.com/journal-citation-reports)
- [http://www.eigenfactor.org/](http://www.eigenfactor.org/)
- [http://journalprices.com/](http://journalprices.com/)

**Bibliographic & Works Management Tools**
- [http://www.citeulike.org/](http://www.citeulike.org/)
- [https://www.zotero.org/](https://www.zotero.org/)
- [https://delicious.com/](https://delicious.com/)
- [https://fiqshare.com/](https://fiqshare.com/)
- [http://fs1000.com/posters](http://fs1000.com/posters)
- [http://www.slideshare.net/](http://www.slideshare.net/)

**Reference Linking & Citation Analysis**
- [http://scholar.google.com/](http://scholar.google.com/)
- [http://www.harzing.com/pop.htm](http://www.harzing.com/pop.htm)
- [http://fs1000.com/prime/about/whatis/factors](http://fs1000.com/prime/about/whatis/factors)
- [http://top25.sciencedirect.com/archive/co](http://top25.sciencedirect.com/archive/co)

The MLA Scholarly Communication Committee is providing this road map to inform, educate, and serve as a starting point to key websites about impact Metrics, a timely topic in scholarly communications and publishing. To recommend other relevant links or categories, contact Mary Langman, Director, Information Issues and Policy, Medical Library Association.

Questions? thoughts?

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