

(Alt)Metrics in practice: effective analysis and application of modern research metrics

Catherine Williams
CMO, Altmetric

EAHIL 2016, Seville, Spain

Are you lookin' at me?








- Articles
- Books
- Clinical trials
- Datasets
- Images
- Posters
- Artwork
- Reports
- Grey literature
- Other outputs



**5 million
research
outputs**



**47,000 new
mentions a
day**

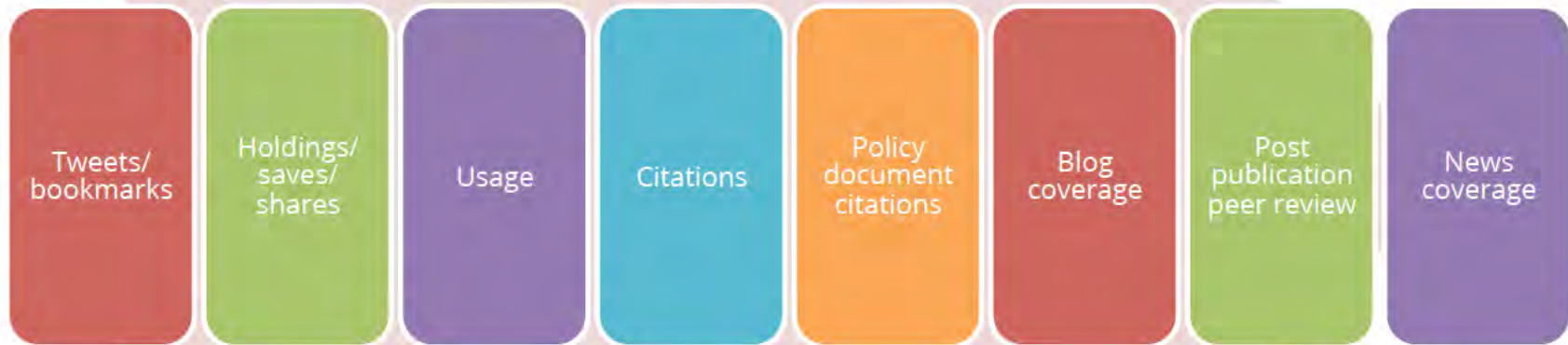


**Over 75,000
outputs
shared online
each week**



Altmetrics can be ANYTHING that can be tracked digitally

- Article may or may not have been read
- Many potential readers but few actual
- Cost-light (er)



- Article more likely to be read
- Cost-heavy (ier)
- Readers = practitioners (?)
- Actionable (?)

Articles

26,958,808
mentions

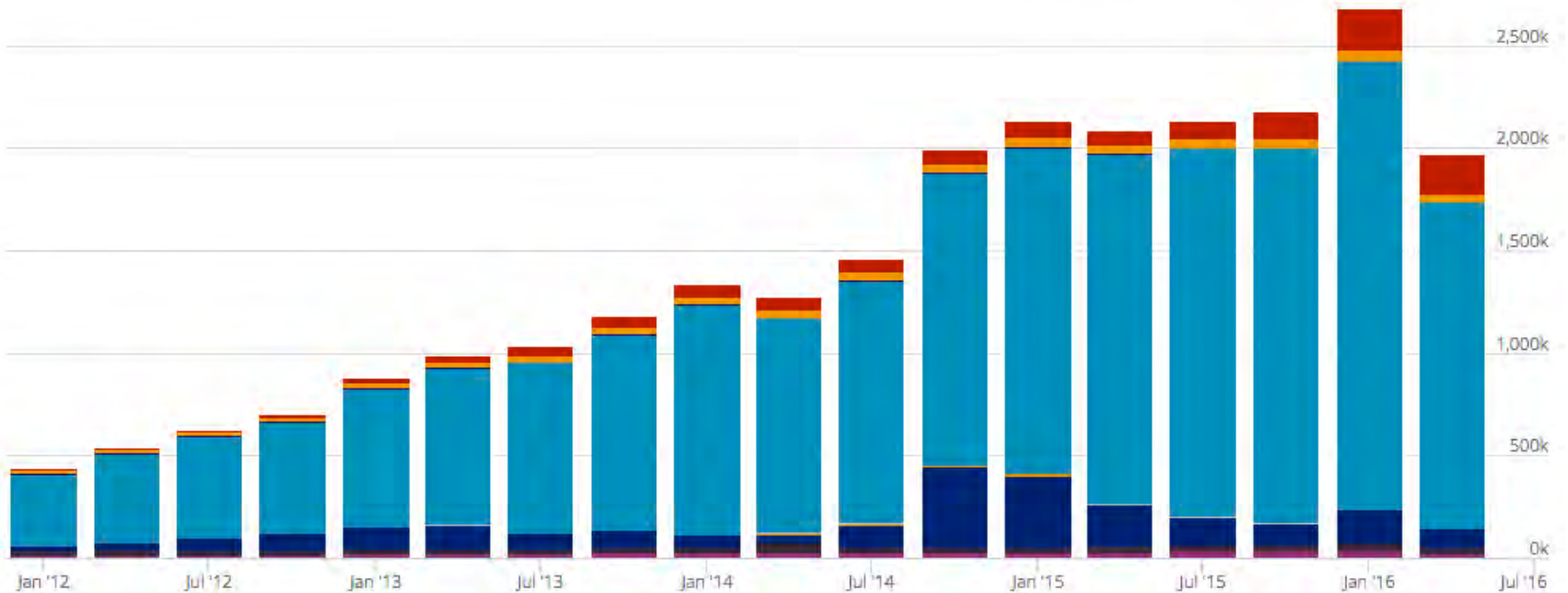
6,344,041
research outputs

5,035,684 (79%)
research outputs with mentions

15
sources

Zoom 1 month 3 months 6 months 1 year All time

From Jan 1, 2012 To Jun 3, 2016



Datasets

61,377
mentions

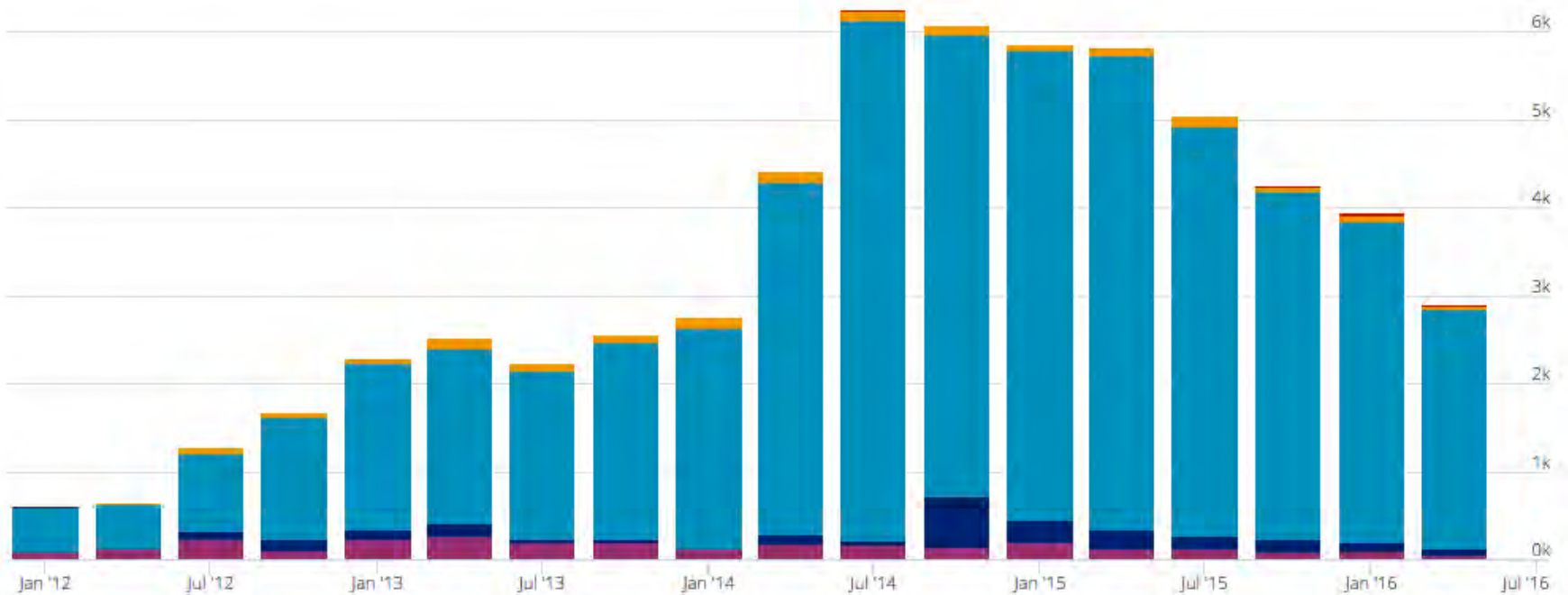
19,380
research outputs

14,389 (74%)
research outputs with mentions

13
sources

Zoom 1 month 3 months 6 months 1 year All time

From Jan 1, 2012 To Jun 3, 2016



Clinical Trials

50,719
mentions

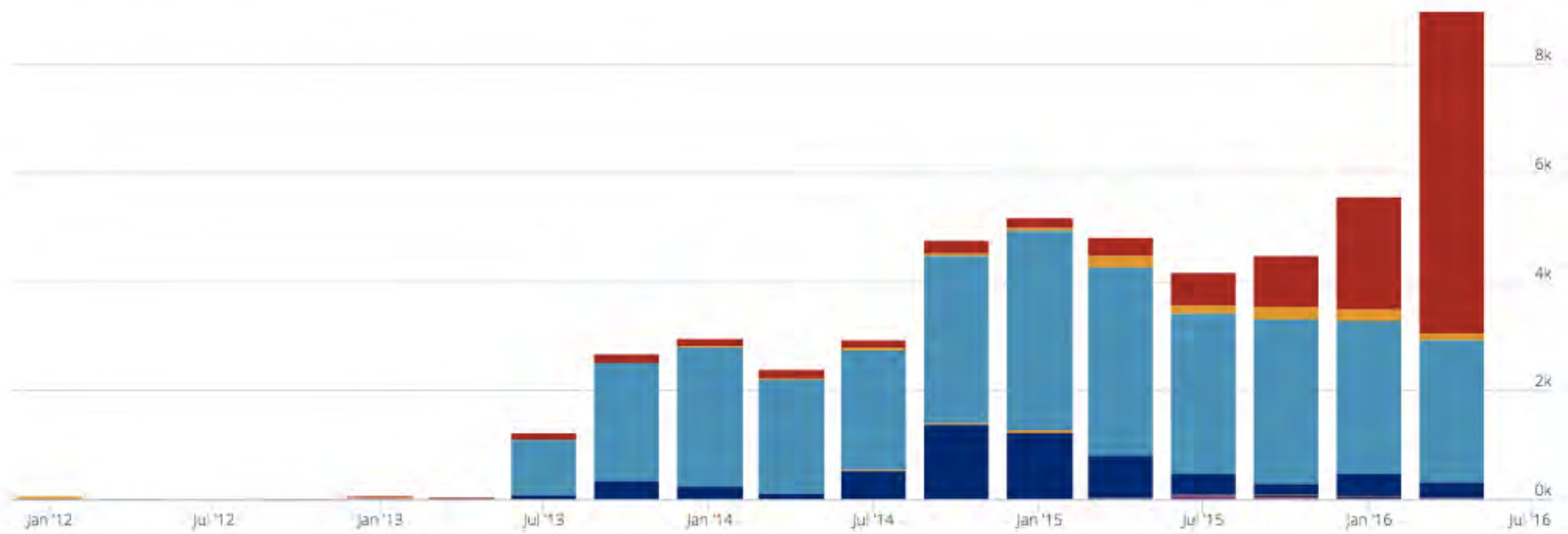
14,233
research outputs

13,776 (97%)
research outputs with mentions

9
sources

Zoom 1 month 3 months 6 months 1 year All time

From Jan 1, 2012 To Jun 8, 2016



Altmetrics facilitate *monitoring* and amplification

- WHERE are audiences going for information?
- What are they saying?
 - Misinformation? Questions? Confusion?
- How are they engaging with clinical trials, research publications, datasets?
- How do channels correspond with behavior?
- What research should you be sharing where?







A. H. Bhrawy
Beni Suef University

How can I find the list of Impact Factor 2015?

Topics

Journal Impact Factor



METRICS AND ANALYTICS, OPEN ACCESS

As PLOS ONE Shrinks, 2015 Impact Factor Expected to R

POSTED BY PHIL DAVIS · FEB 2, 2016 · 10 COMMENTS

FILED UNDER IMPACT F

5 more Frontiers Journals re impact factors

Posted on June 23, 2015 by Michelle Ponto in Journal News and Rel



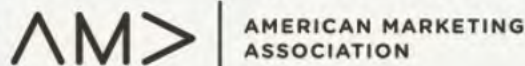
ANNUAL REVIEWS RANKINGS IN THOMSON REUTERS JOURNAL CITATION REPORTS®

2015 Release of Journal Citation Reports® (Source: 2014 Web of Science Data)

The 2015 Edition of the Journal Citation Reports® (JCR) published by Thomson Reuters provides a complete and comprehensive overview of journal impact and influence metrics from 2014 data. The report includes more than 11,000 journals in 237 disciplines from 82 countries. The Impact Factor ranking system is based upon the number of times an article is cited during the previous two years.

Download Annual Reviews 2015 Ed

See our full list of published journal



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- Engagement
- Digital
- Global
- Marcom
- Channels:
- Membership
- Events/Training
- Career
- Community
- Multimedia

2015 Impact Factor Reports: Great Year for AMA Journals

AMA journals rank among the top publications in marketing, according to the Thomson Reuters 2015 Journal Citation Reports which include impact factors for the year 2014:

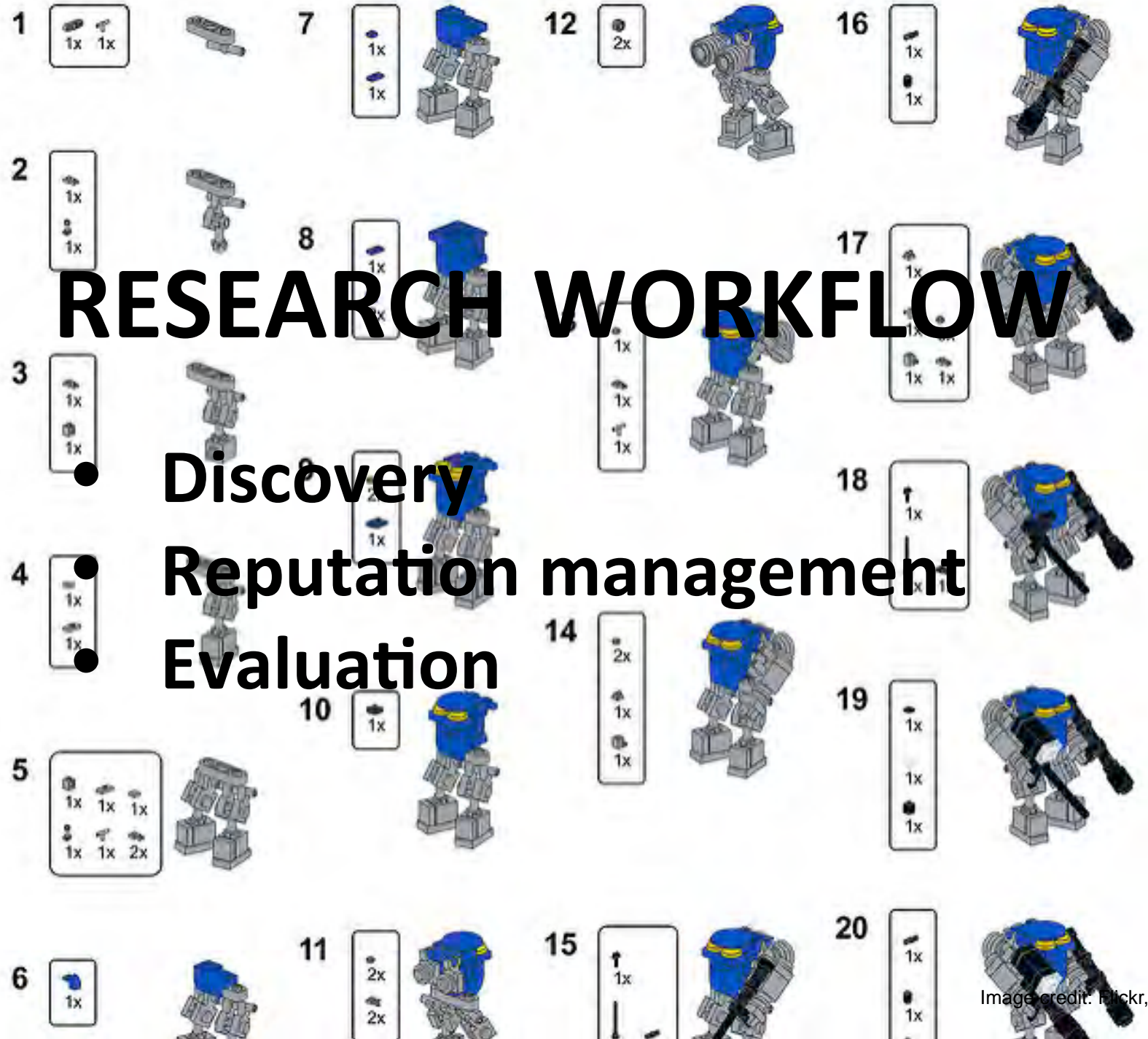
- *Journal of Marketing* - Impact factor: 3.9

Journal Citation Reports (JCR) include more titles: Frontiers in Molecular Neuroscience, Frontiers in Immunology

Annual Review of:	Rank
Analytical Chemistry	1
Analytical Chemistry	1
Animal Biosciences	4
Animal Biosciences	28
Anthropology	4
Astronomy and	1

RESEARCH WORKFLOW

- Discovery
- Reputation management
- Evaluation





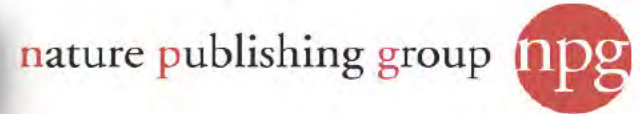
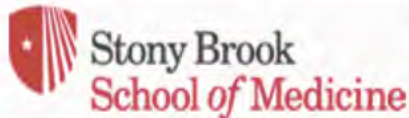
ELSEVIER



MAX-PLANCK-GESELLSCHAFT



WILEY



*Who is doing all
this talking?*

Government and NGO's

Non-profits

Patient and advocacy groups

Professional practitioners

Scholars

General public

“ ”

Trial record 6 of 12 for: PERSEUS
◀ Previous Study | Return to List | Next Study ▶

PERSEUS: Preliminary Efficacy and Safety of Cenicriviroc in Adult Subjects With Primary Sclerosing Cholangitis

This study is currently recruiting participants. (see [Contacts and Locations](#))

ClinicalTrials.gov Identifier:
NCT02653625

Verified April 2016 by Tobias Thoenes, MD

Sponsor:
Tobira Therapeutics

PERSEUS: Preliminary Efficacy and Safety of Cenicriviroc in Adult Subjects With Primary Sclerosing Cholangitis

Information:
Tobira Therapeutics

Overview of attention for clinical trial study record



Full Text

Purpose

This is a single-arm study to assess changes in liver function tests and quality of life in adult subjects with primary sclerosing cholangitis (PSC) who are treated with cenicriviroc (CVR) compared to placebo.

About this score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by

- 69 news outlets
- 7 tweeters

What is this page?

SUMMARY | News | Twitter

So far, Altmetric has seen 8 tweets from 7 users, with an upper bound of 3,565 followers.

WHendrix @Hendrix3W
RT @PSCPartners: Tobira dosed the first PSC ptnt in proof-of-concept study. @EASLEdu @HealioHep <https://t.co/kGAXuqTgV>
28 Apr 2016

PSC Partners @PSCPartners
Tobira dosed the first PSC ptnt in proof-of-concept study. <https://t.co/kGAXuqTgV> <https://t.co/obv...>
26 Apr 2016

Liver Immunology @BirminghamLiver
RT @PSCPartners: New Tobira study enrolling. #ClinicalTrials @RareDiseases <https://t.co/obv...>
13 Jan 2016

PSC PARTNERS SEEKING A CURE

TWEETS 1,381 | FOLLOWING 568 | FOLLOWERS 647 | LIKES 411

PSC Partners @PSCPartners
PSC Partners is a volunteer organization that provides research, education, and support for people with PSC, one of many [#rarediseases](#) that affects the [#liver](#).
pscpartners.org
Joined April 2012

Tweets | Tweets & replies | Media

Pinned Tweet
PSC Partners @PSCPartners · May 28
[#PSCPartners2016](#) World experts, Collaboration, Friendship, Fun! Come to Yale U, June 24-26. bit.ly/1UYIwmt
Julianne Vaeichek, Joanne Hatchett, Tawny Blum and Laura Bradbury

Who to follow · Refresh · View all

- ANAQUA** @Anaqua
Follow
- Jakub Pawlowicz** @JPawlowicz
Follow
- Twitter** @twitter
Follow

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Broad-Spectrum Antiviral Therapeutics

Todd H. Rider, Christina E. Zook, Tara L. Boettcher, Scott T. Wick, Jennifer S. Pancoast, Benjamin D. Zusman

Published: July 27, 2011 • <http://dx.doi.org/10.1371/journal.pone.0022572>

489
Save

29
Citation

Article

Authors

Metrics

Comments

Related Content

Mentioned by

- 33 news outlets
- 12 blogs
- 1 policy source
- 235 tweeters
- 20 Facebook pages
- 4 Wikipedia pages
- 93 Google+ users
- 10 Redditors
- 1 research highlight platform

Broad-Spectrum Antiviral Therapeutics

Overview of attention for article published in PLoS ONE, July 2011

SUMMARY

News

Blogs

Policy documents

Twitter

Facebook

Wikipedia

So far, Altmetric has seen 1 policy document that refer



Prediction for biological hazards

UK Government (GOV.UK)
GOV.UK is a central website that covers all
All policy papers and research publications

Prediction of biological hazards

Angela R McLean, Rowland R Kao and Sarah J Gurr

27 November 2012

Report produced for the Government Office of Science, Foresight project 'Improving Disaster Anticipation and Resilience'

657

About this score

In the top 5% of all research outputs scored by Altmetric

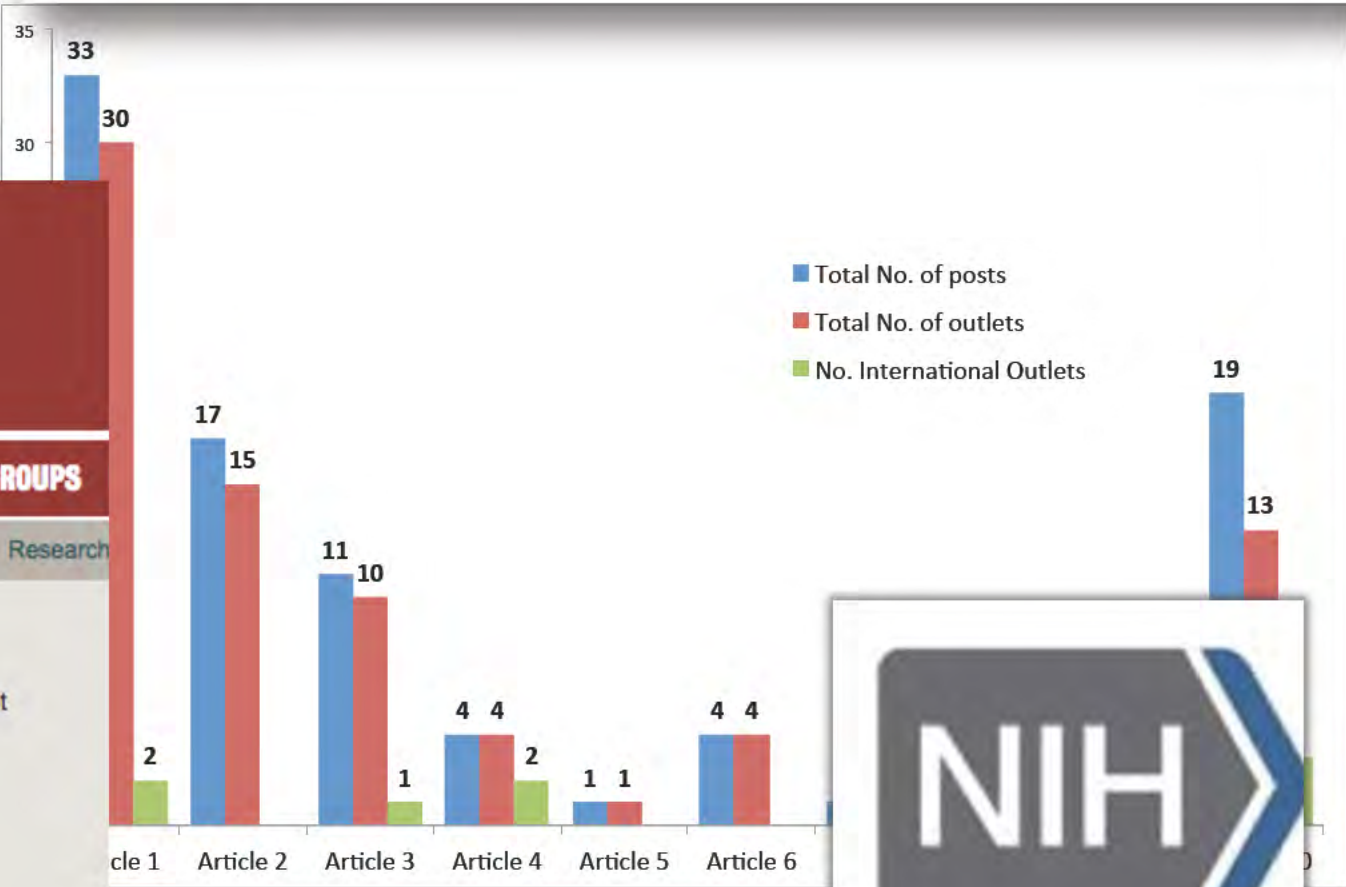
MORE...

*How are people
using altmetrics?*



All mentioned articles

Summary report	Articles	Activity	Journals	Save this workspace		API
All mentions 2,933	News 118	Blogs 153	Policy documents 3	Twitter 2,213		
Facebook 317	Google+ 57	Research highlights 34	Reddit 33			
Video 5						



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LONDON

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Professor Terrie Moffitt: [Biography](#) [Research](#)

Professor Terrie Moffitt
Chair in Social Behaviour and Development
Start date at Kings: 1/01/97

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United Kingdom
Telephone: +44 (0)20 7848 0936

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Max Krummel, PhD



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[NIH Awarded Grants](#)

Websites

- [Lab Website](#)
- [Profile at pathology.ucsf.edu](#)
- [Biological Imaging Development Center](#)
- [Professional Website](#)

Publications

Publications listed below are automatically derived from MEDLINE/PubMed and other sources, which might result in incorrect or missing publications. Researchers can [login](#) to make corrections and additions, or [contact us for help](#).

[List All](#) | [Timeline](#)

1. Headley MB, Bins A, Nip A, Roberts EW, Looney MR, Gerard A, Krummel MF. Visualization of immediate immune responses to pioneer metastatic cells in the lung. *Nature*. 2016 Mar 24; 531(7595):513-7. PMID: 26982733.
 View in: [PubMed](#) [Altmetric](#) 63
2. Krummel MF, et al. ... on, search strategies and mechanisms. *Nat Rev Immunol*. 2014 Oct; 14(10):641-50. PMID: PMC4869523.
3. Berman J, et al. Pollack JL, Erle DJ, Barczak A, Rosenblum MD, Daud A, et al., Wolf DM, Krummel MF. Dissecting the tumor myeloid niche: myeloid cells are antigen-presenting cells critical for T cell immunity. *Cancer Cell*. 2014 Jul 14; 26(1):101-13. PMID: PMC4254577 [Available on 11/10/15].
4. Gérard A, Patino-Lopez G, Beemiller P, Nambiar R, Ben-Aissa K, Liu Y, Totah FJ, Tyska MJ, Shaw S, Krummel MF. Gérard A, Patino-Lopez G, Beemiller P, Nambiar R, Ben-Aissa K, Liu Y, Totah FJ, Tyska MJ, Shaw S, Krummel MF. Detection of rare antigen-presenting cells through T cell-intrinsic meandering motility, mediated by Myo1g. *Cell*. 2014 Jul 31; 158(3):492-505. PMID: 25083865.
 View in: [PubMed](#) [Altmetric](#) 6
5. Krummel MF, Friedman RS, Jacobelli J. Modes and mechanisms of T cell motility: roles for confinement and Myosin-IIA. *Curr Opin Cell Biol*. 2014 Oct; 30:9-16. PMID: 24905977; PMCID: PMC4178009 [Available on 10/01/15].
 View in: [PubMed](#), [PubMed Central](#)

- Picked up by 3 news outlets
- Blogged by 1
- Tweeted by 57
- On 2 Facebook pages
- Highlighted by 1 platforms
- 120 readers on Mendeley
- 1 reader on CiteULike

[See more details](#) | [Close this](#)

Altmetrics Donut of the Month

Want to find out more about Altmetrics? Click [here](#).



Mentioned by

- 23 news outlets
- 2 blogs
- 126 tweeters
- 5 Facebook pages

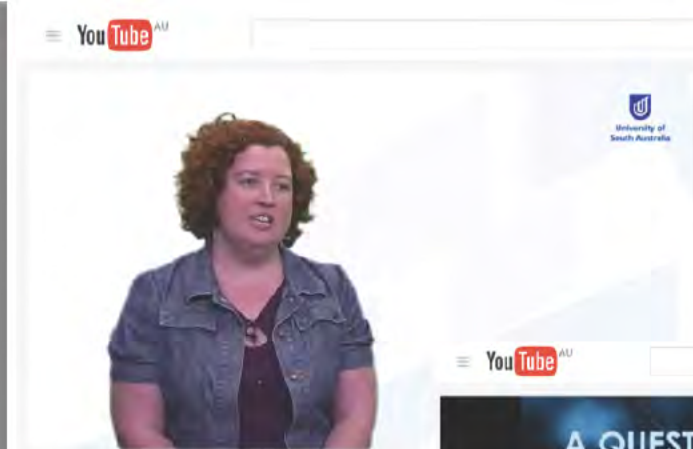
Readers on

- 35 Mendeley

Altmetric Donut of the Month:






This month we feature Dr Agne
[Zealand: a cross-country price](#)

To see more information about
2,626 outputs from *Lancet Onc*



Talking Papers - Dr Siobhan Banks

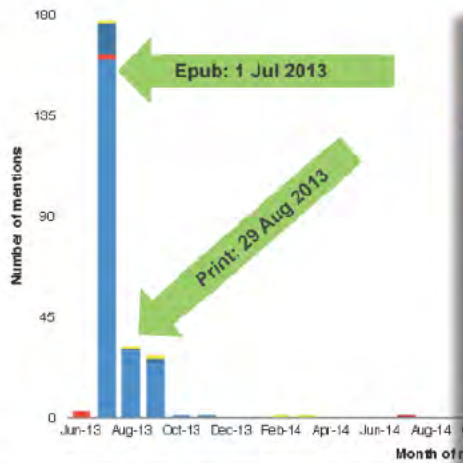


Common variants associated with plasma triglycerides and risk for coronary artery disease Nature Genetics	Hypponen, Elna Tuulikki	1	44	45	29,648	
New loci associated with birth weight identify genetic links between intrauterine growth and adult height and metabolism Nature Genetics	Hypponen, Elna Tuulikki	1	27	29	29,648	
Causal Relationship between Obesity and Vitamin D Status: Bi-Directional Mendelian Randomization Analysis of Multiple Cohorts PLoS Medicine	Hypponen, Elna Tuulikki	1	61	75	14,000	
Genome-wide meta-analysis identifies 11 new loci for anthropometric traits and provides insights into genetic architecture Nature Genetics	Hypponen, Elna Tuulikki	1	52		29,648	
Associations of maternal 25-hydroxyvitamin D in pregnancy with offspring cardiovascular risk factors in childhood and adolescence: Findings from the avon longitudinal study of parents and children Heart	Hypponen, Elna Tuulikki	1	3	4	6,023	

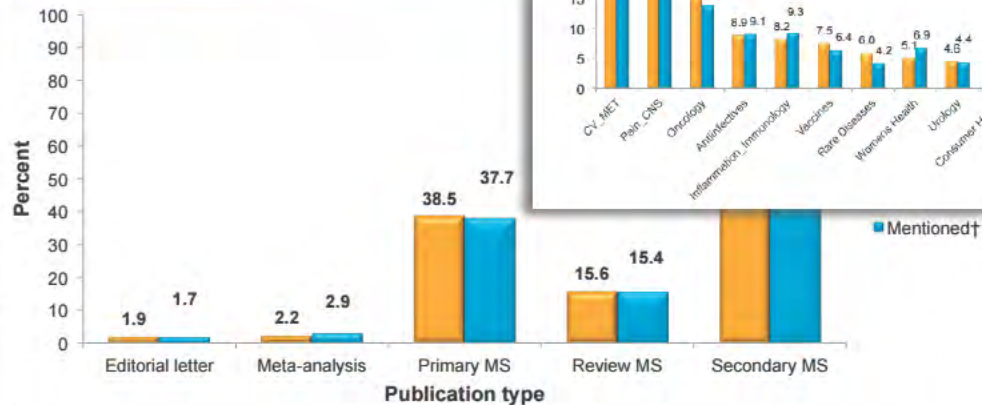
Assessing Industry-sponsored Medical Publications using Alternative Metrics

Catherine Skobe
 Director, Publications Management
 Pfizer

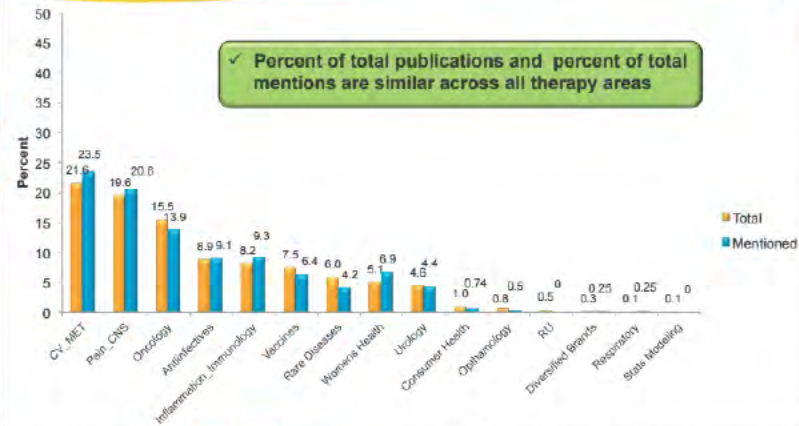
Oral Apixaban for the Treatment of Acute Venous Thromboembolism [NEJM]



Percentage of Manuscripts



Percentage of Manuscripts by Therapy Area



Inform strategic decision making

Identification of new areas of research and in-licensing opportunities

External attention to key therapeutic areas

What are people saying about our science?

Who are the best up and coming talents in a particular area of research?

Discover mentions of research in difficult-to-locate policy documents

Create alerts and reporting across all available clinical trials

Facilitate historical timelines to support competitor benchmarking

Key take-aways

- Data should be auditable, transparent, consistent
- A complement, not a replacement for traditional metrics, and not just for articles
- Many areas in the research workflow where they can be applied
- A key to understanding your audiences
- Speed of online dissemination and discussion makes them essential
- Librarians play a vital role in championing best practice!



Questions?