



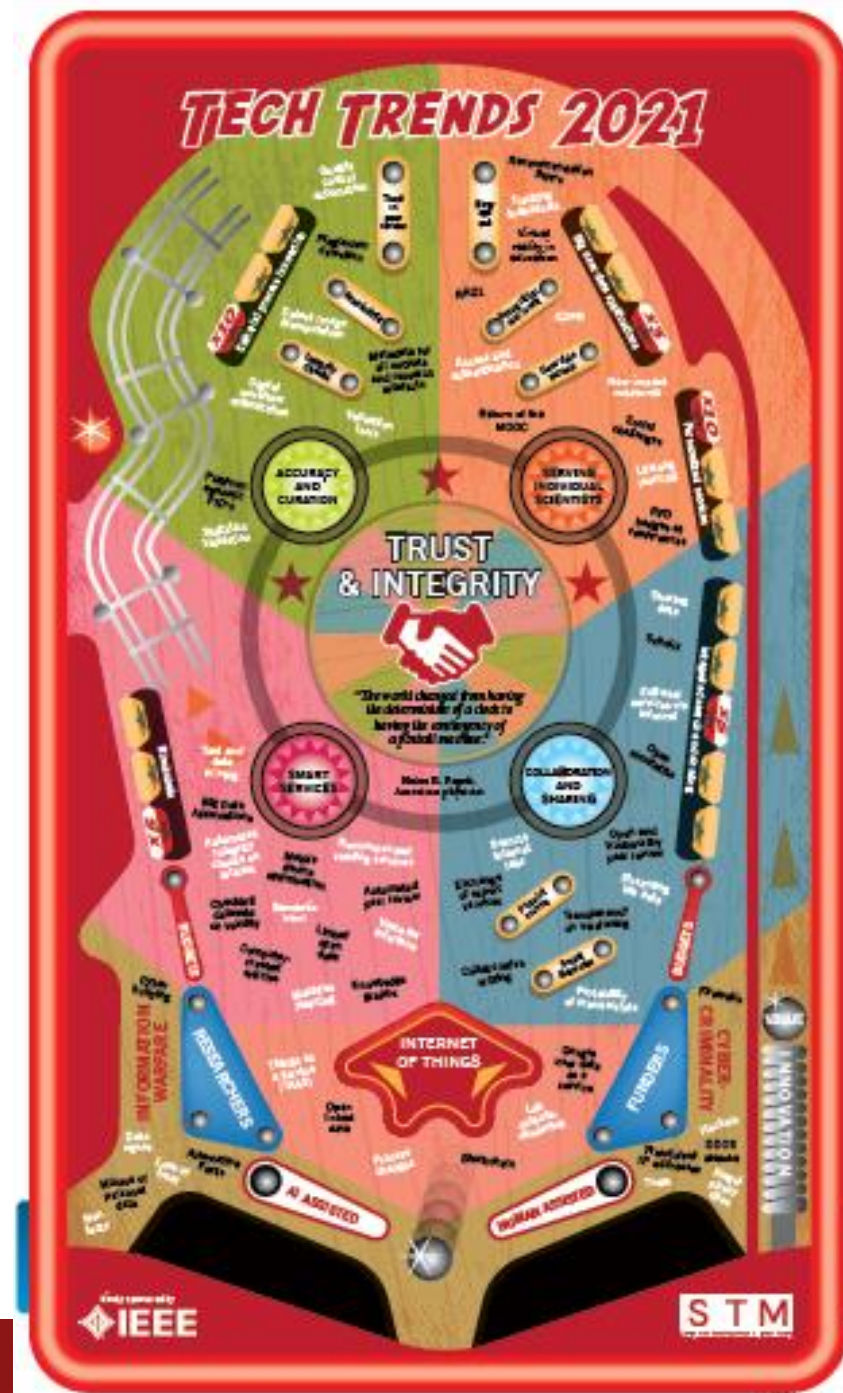
**HighWire**

# **Fixing Friction In the Workflow**

**John Sack  
Founding Director  
HighWire Press  
December 2017**



# Friction Points, ...and the Fixes



Editorial Workflow

Support:

Impact & Usage  
Vizors

Mobile Device  
Optimization:

Quick Abstracts



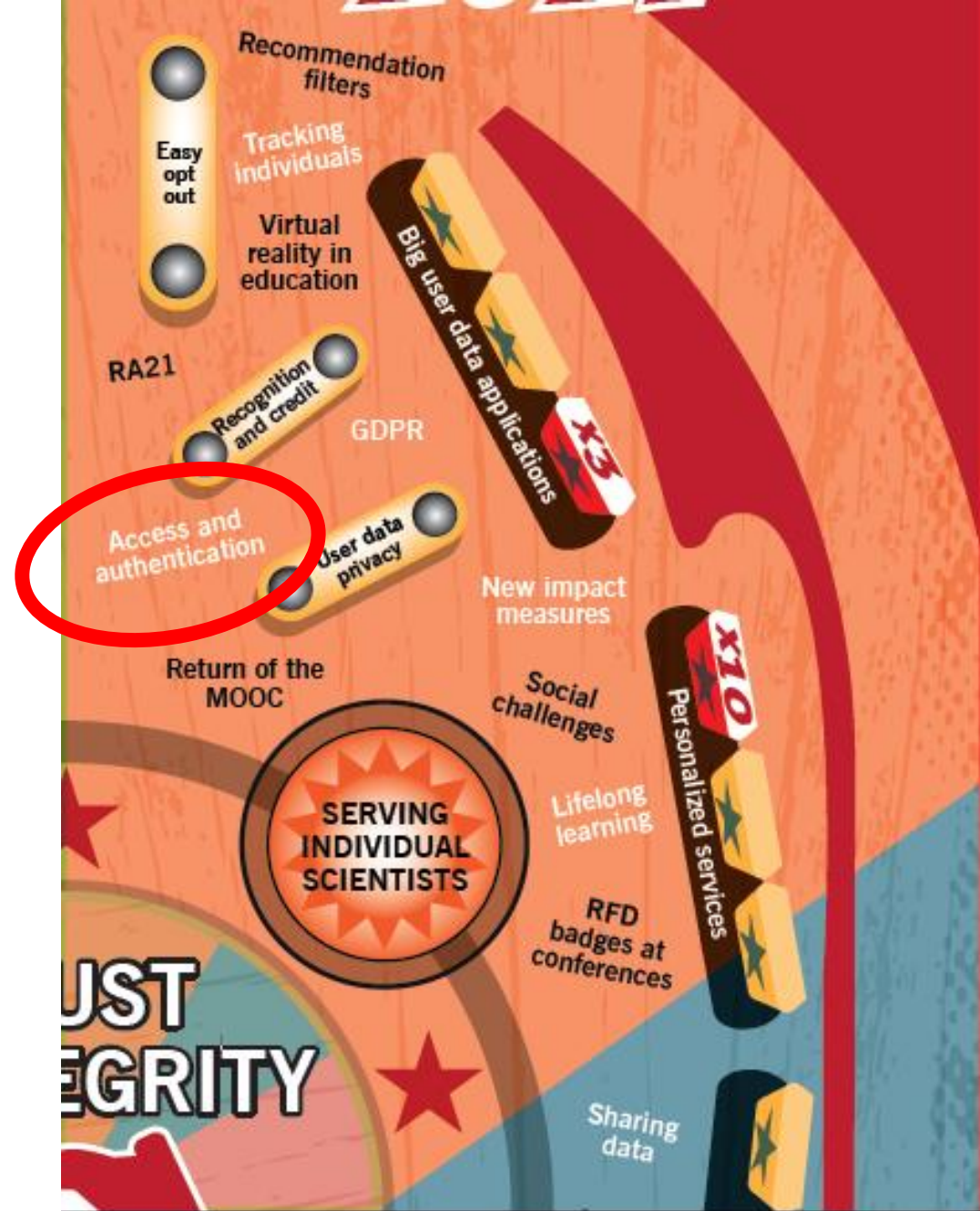
Access and  
Authentication:  
**CASA**

Portability of  
Manuscripts:  
**MECA**

Preprint  
Servers:  
**bioRxiv,  
medRxiv**

# Serving Individual Researchers: Access & Authentication

- Problem: Off-campus access is awful
- Solution: CASA
- **CASA**: “Campus-Activated Subscriber Access”
- Google Scholar “ports” a user’s access rights from on-campus to off-campus
- Complements RA21
  - Acts at a different point in the workflow
  - Easier than Sci-Hub: “It just works!”
- Implemented by 3 platforms now
  - Not proprietary
  - 35-40% Scholar-referral increase



# Serving Individual Researchers: CASA

- Today's on-campus user experience:  
Google Scholar highlights the copies available to the subscriber

## [β-catenin is required for specification of proximal/distal cell fate during lung morphogenesis](#)

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# Serving Individual Researchers: CASA

*Seamless off-campus access delivered by automatically associating users to institutions.*

1

## Record affiliation on-campus



User visits Google Scholar



Scholar looks up Subscriber Links



Affiliation recorded

2

## Propagate affiliation off-campus



User visits Google Scholar



Scholar looks up recorded affiliations



CASA token shared



Decrypt CASA token



Authenticate & authorize

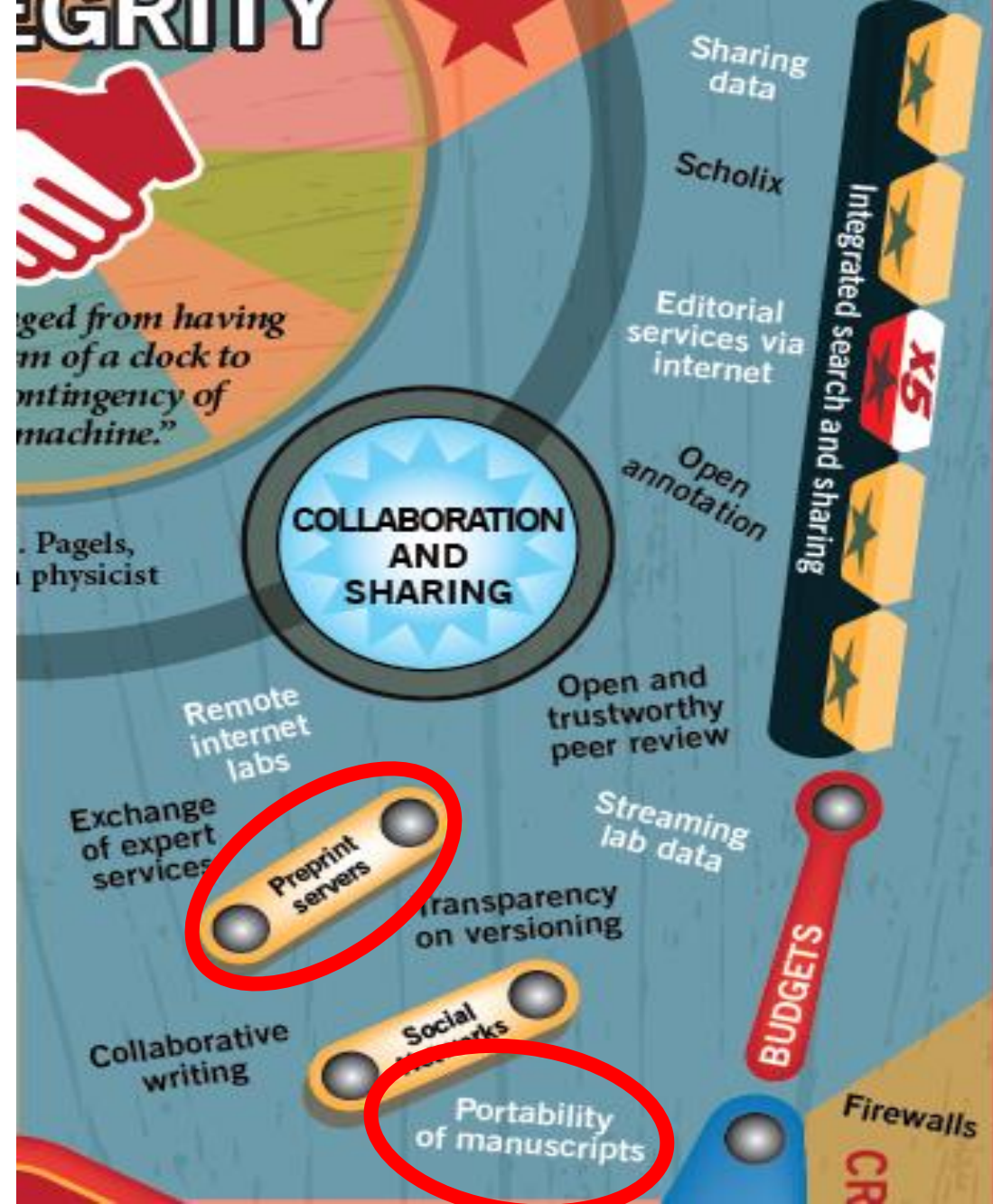
3

## Enable access



# Collaboration & Sharing: Portability of Manuscripts Preprint Servers

- MECA
  - Manuscript Exchange Common Approach
- bioRxiv
- medRxiv



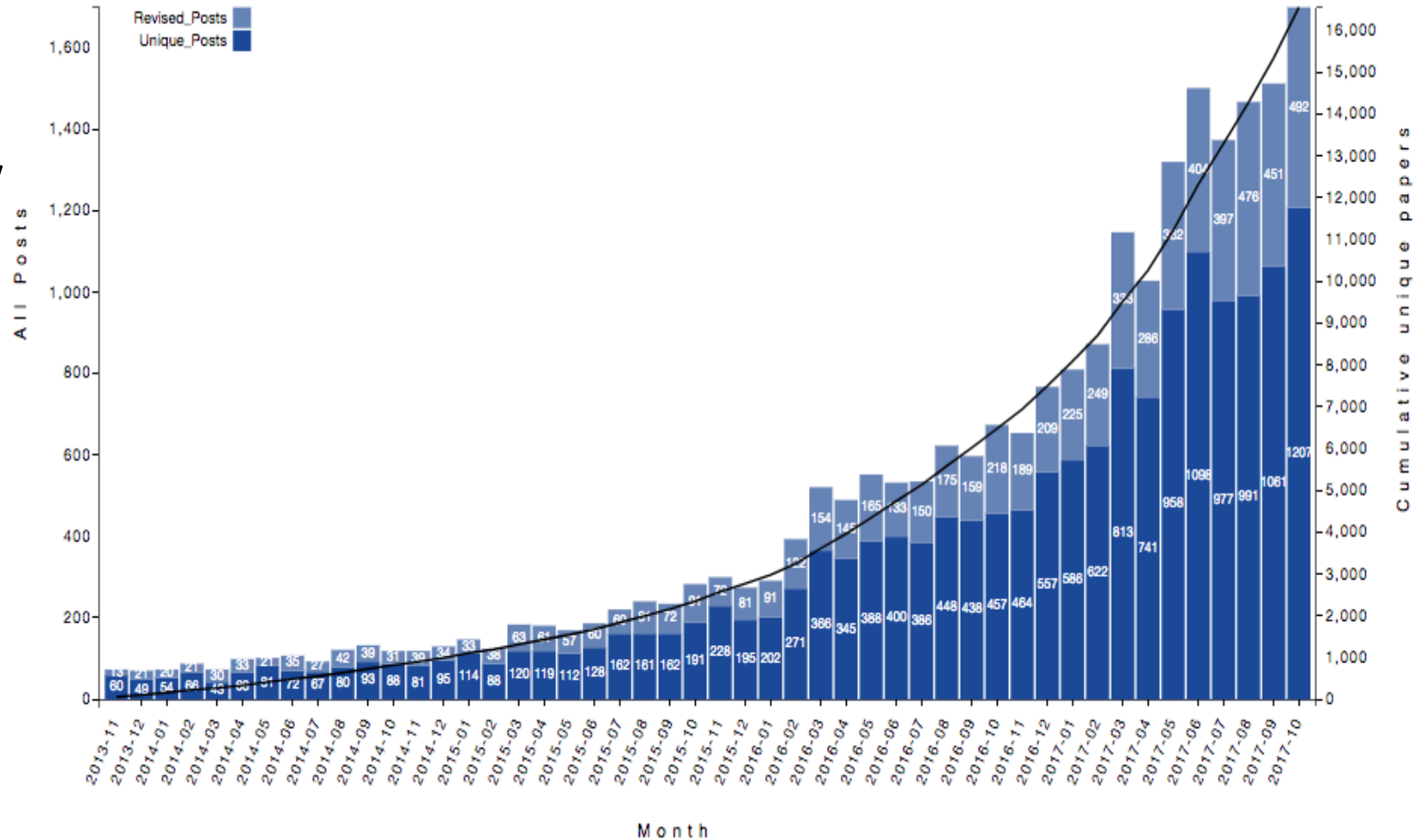
# Collaboration & Sharing: Portability of Manuscripts

- Problem: Burden on authors to enter and re-enter meta/data with each new submission of an mss
- Solution: Enable portability across different systems via agreed best practices, initially across five system operators, in these areas:
  - Vocabulary, Packaging, Tagging, Peer Review, Transfer Information, Identity, Transmission
- **MECA**: Manuscript Exchange Common Approach
  - [www.manuscriptexchange.org](http://www.manuscriptexchange.org), info@manuscriptexchange.org



# Collaboration & Sharing: Preprint Servers

- Problem: Time lag to publication
- Solution: Enable pre-review sharing
- **bioRxiv**: HighWire is implementation partner to Cold Spring Harbor Labs & Chan Zuckerberg Initiative
  - Late 2013 launch
- **medRxiv**: HighWire is implementation partner to Cold Spring Harbor Labs & others tbd
  - Early 2018 launch



# Smart Services: Mobile-device Optimization

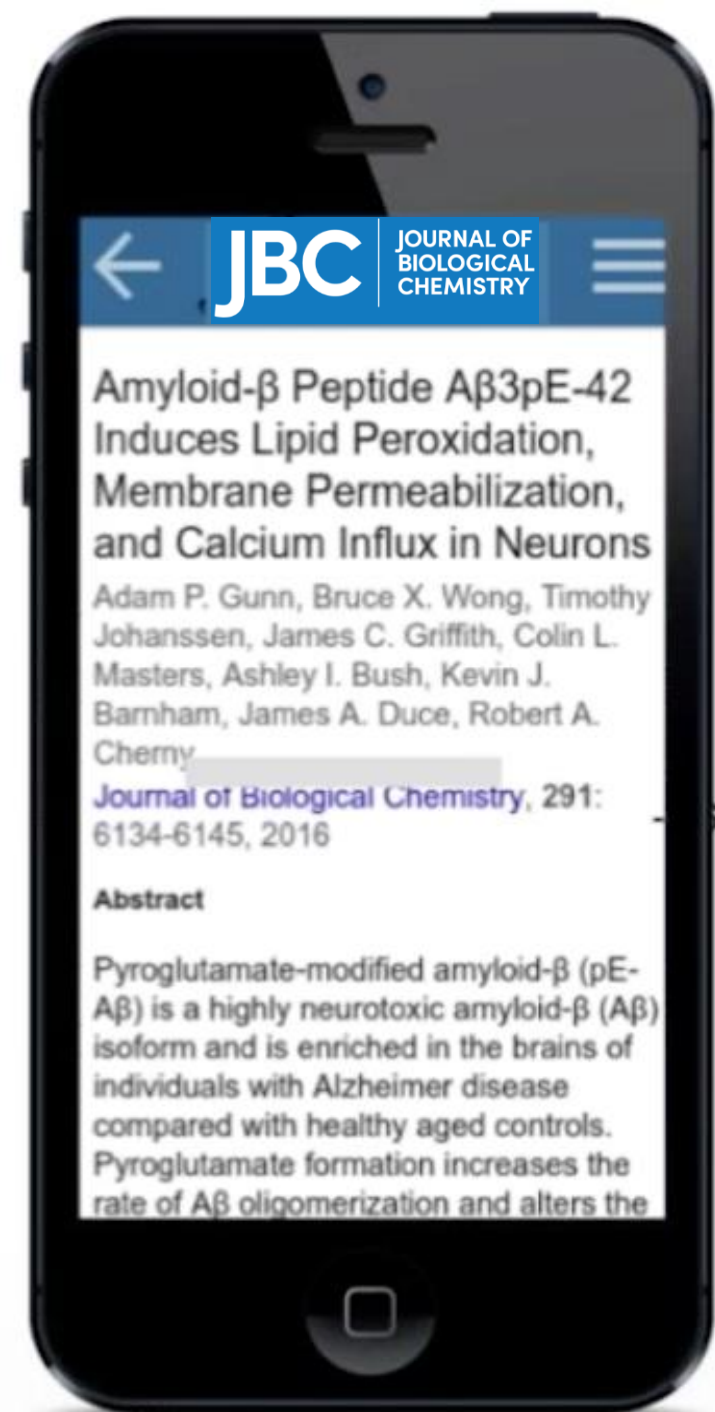
- “Quick Abstracts”  
in Google Scholar



Smart Services:

# Mobile-device Optimization

- Problem: For Google: Only 10% of scholarly search traffic is mobile, but 50% of general web-search is; slow response in heavy-weight scholarly sites
- Solution: Lighter-weight response to abstract display enabling mobile search/filter workflow
- “**Quick Abstracts**” in Google Scholar
  - Google Scholar presents the abstract based on metadata supplied by publisher
  - With publisher branding and links



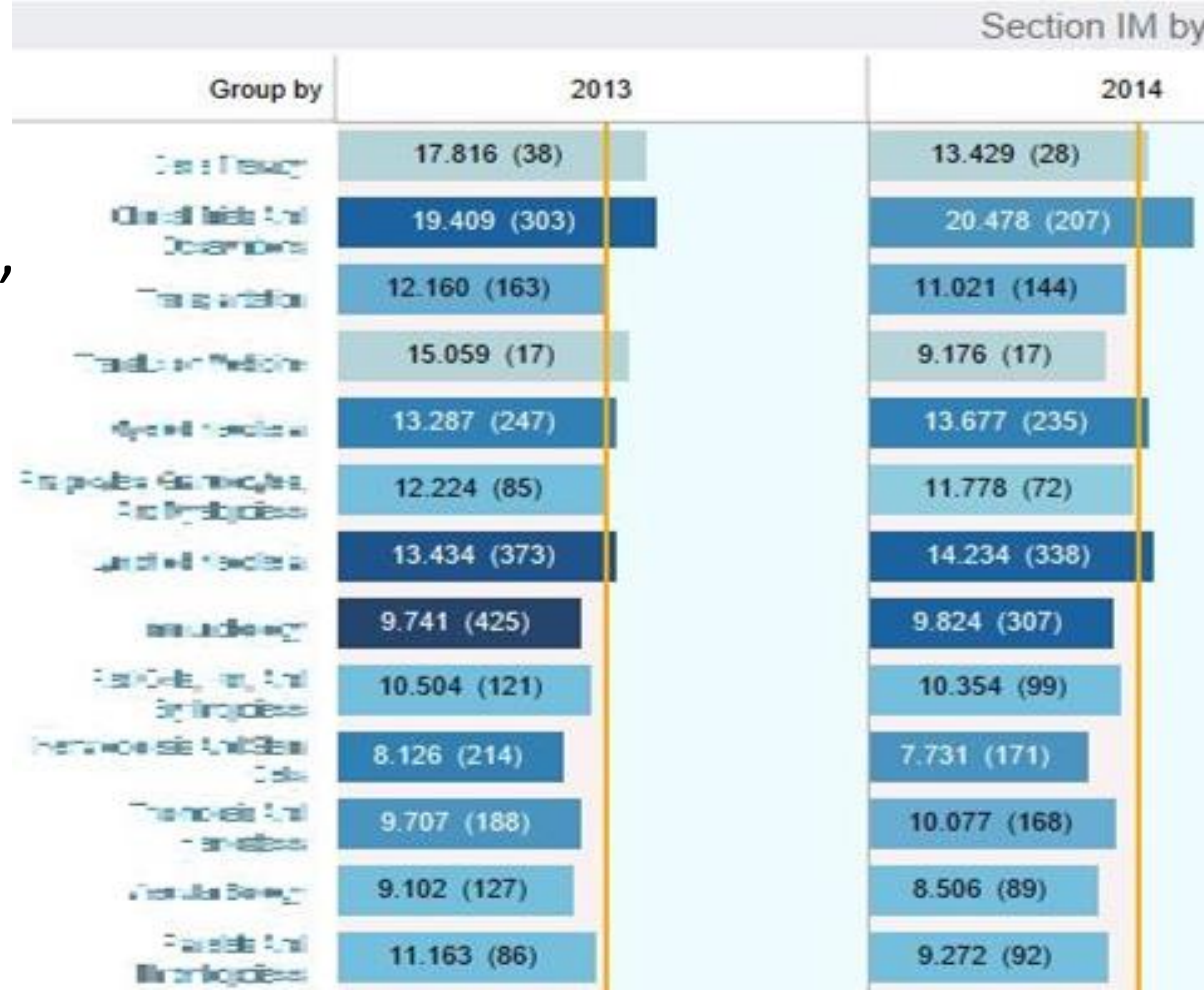


## Accuracy & Curation: Editorial-process Innovation

- “Evidence-based Publishing”
  - Impact Vizor
  - Usage Vizor

# Accuracy & Curation: Editorial-process Innovation

- Problem: New journals, new editors, new questions about what is and isn't working, and scientists want to see the data. But citation data is long-delayed, hard to interpret and integrate
- Solution: "Evidence-based publishing" Fast data sources, visualized and integrated: **Impact Vizor, Usage Vizor**
- **Impact Vizor** uses Scopus & Crossref citation sources for speed and completeness, plus integrates private article metadata that has meaning to editors
  - Dozens of publishers, including non-HighWire-hosted customers



# Visualizations in Impact Vizors' Viewers

Total Published 2,283 (61%)

By Published Journal  
 Color By  
 Total Citations



Measure By  
 Cites

Journal: Blood, Article Volume: (All), Article Issue: (All), TOC Section: (All), Collection: (All), Editor: Null, Open Access: No, Custom: Null, Article DOI

Article Date of Publication: 1/1/2014 to 12/31/2014, Citation Date: 1/1/2015 to 9/24/2015

Hot Articles

Article Brief	TOC Section	Collection	Cites / Month	Cites
Idelalisib, an inhibitor ... Brown, J. R. 3-10-2014	Clinical Trials And Observations	Free Research Articles	2.9	50
Antibody-modified T cells... Maus, M. V. 2-27-2014	Antibody Derivatives As New Therapeutics For Hematologic Malignancies	Free Research Articles	2.7	48
Clonal evolution and clin... Lundberg, P. 1-28-2014	Myeloid Neoplasia	Free Research Articles	1.3	24
Idelalisib, a selective I... Flinn, J. W. 3-10-2014	Clinical Trials And Observations	Free Research Articles	1.4	24
Current concepts in the d... Lee, D. W. 5-29-2014	How I Treat	How I Treat	1.5	23
TET2 mutations predict re... Bejar, R. 8-19-2014	Myeloid Neoplasia	Free Research Articles	2.1	23

% Articles by Cites per Year



Click on a bar to view the list of articles below.

< Rejected Article Tracker

Section > Performance Analyzer

< Hot Article (& Object) Tracker

Advance > Correlator of Citations & Usage

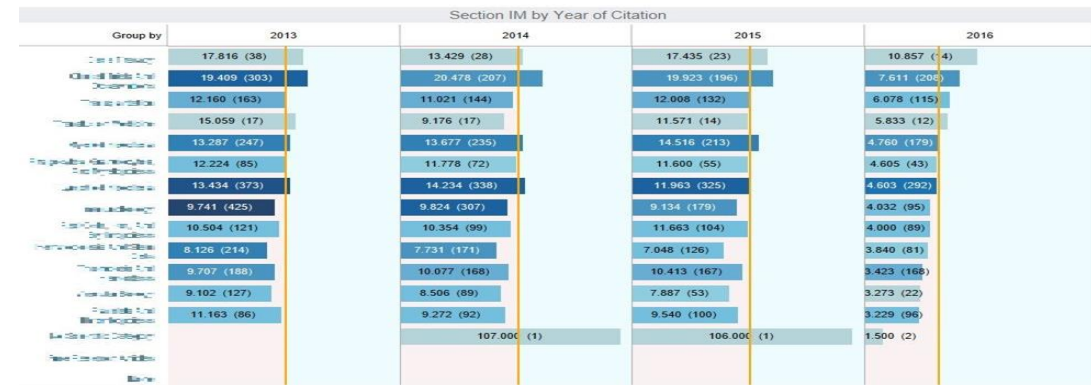
< Citation Distribution Surveyor

Cohort > Comparator

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TOC Section: All, Collection: All, Editor: All, Custom: All, Custom #2: All, Custom #3: All

Section IM by Year of Citation



Mendeley Saves / Article, Cites / Article, 36 months Usage from Publication / Article

Article Brief	Mendeley Saves / Article	Cites / Article	36 months Usage from Publication / Article
The gut microbiota and host health: a new clinical... Marchesi, Julian R. 9-2-2015	520.0	217.0	46,496.0
Infographic: The training-injury prevention parado... Gabbett, Tim 1-12-2017	429.0	1.0	655.0
A microbial signature for Crohn's disease... Pascal, Victoria 2-7-2017	380.0	11.0	15,810.0
Safety in numbers: more walkers and bicyclists, sa... Jacobsen, P.L. 7-21-2015	304.0	4.0	559.0
Monitoring the athlete training response: subjecti... Saw, Anna E. 9-9-2015	298.0	39.0	27,867.0
Isometric exercise induces analgesia and reduces l... Rio, Ebonee 5-15-2015	290.0	26.0	27,784.0
How much is too much? (Part 1) International Olymp... Soltgard, Torbjorn 8-17-2016	287.0	24.0	54,315.0
Infographic: International Olympic Committee conse... Soltgard, T. 8-17-2016	254.0	1.0	763.0
Tendon neuromuscular training: changing the way we ... Rio, Ebonee 9-25-2015	248.0	8.0	52,495.0

Published Articles from your Rejected Manuscripts, Cites from your Rejected Manuscripts

