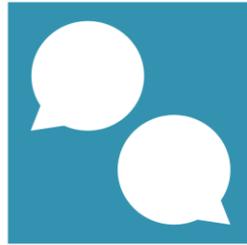


COMMONS

A forum for scientific discourse

PubMed



Post-publication discussion at PubMed

Hilda Bastian

National Center for Biotechnology Information (NCBI)

CENDI

3 March 2015

Milestones

- Developed in response to scientific community interest
- Cornerstones:
 - Authors of publications in PubMed only
 - No anonymous accounts & no pseudonyms
 - Rating of comments but not of publications
 - Post-comment moderation only
 - Creative Commons license
- Staged, evaluated piloting

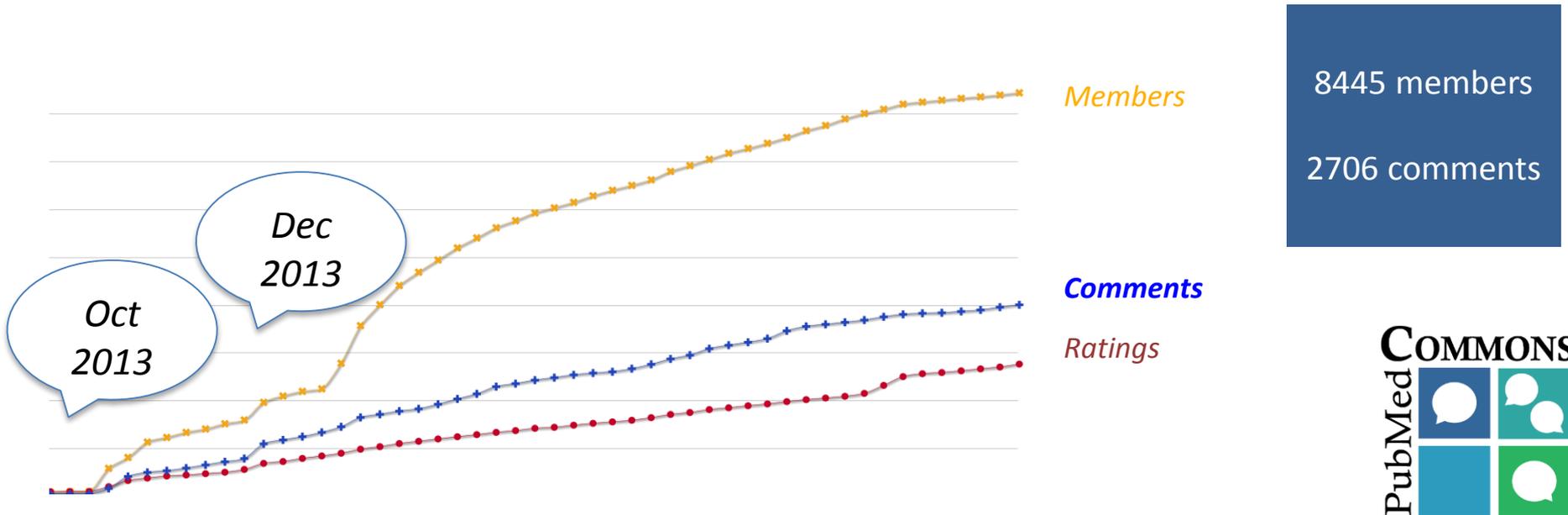
PubMed Commons Working Group

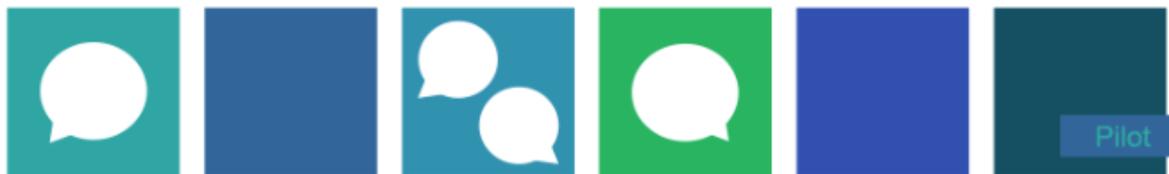
- Christopher Lee, Ph.D. (NCBI BOSC Member) *Chairperson*
 - *Professor, Dept of Chemistry & Biochemistry, UCLA*
- Lisa Bero, B.Sc., Ph.D.
 - *Professor, Dept of Clinical Pharmacy, Institute for Health Policy Studies, UCSF*
- Lane Rasberry, B.Sc.
 - *Wikipedian-in-Residence, Consumer Reports, NY*
- Ida Sim, M.D., Ph.D.
 - *Professor, School of Medicine, UCSF*
- Robert Tibshirani, B.Sc., M.Sc., Ph.D.
 - *Professor, Dept of Statistics, Stanford*
- Gary Ward, B.Sc., Ph.D.
 - *Professor, Dept of Microbiology & Molecular Genetics, U of Vermont*
- David Lipman, M.D. (NCBI) (*Executive Secretary*)



Development and use

- Pilot began 22 October 2013; comments visible to the public from 19 December 2013
- Sustainable infrastructure that minimizes potentially harmful use of the forum
- Quality of the comments is high – use of the Commons is low





PubMed Commons Blog

Introducing PubMed Commons Journal Clubs

December 17, 2014

The journal club can represent a major intellectual investment – and a long-standing form of post-publication evaluation. We're launching a new initiative to encourage journal clubs to share their discussions – right below citations in PubMed.



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PubMed Commons enables authors to share opinions and information about scientific publications in PubMed.

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Top comments now - [more about this](#)

Amantadine alleviates postoperative cognitive dysfunction possibly by increasing glial cell line-derived neurotrophic factor in rats.

Zhang J. *Anesthesiology*. 2014. [1 comment](#)

[Andrey Petrenko](#) 2015 Feb 09 00:11 a.m. (18 hours ago) 2 of 2 people found this helpful

Dr. Junfeng Zhang and colleagues have demonstrated that postoperative deterioration of rat cognitive performance in the Barnes maze could be prevented by amantadine. Amantadine ... [more](#)

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Optical imaging. Expansion microscopy.

Chen F. *Science*. 2015. [1 comment](#)

[Benoit Kornmann](#) 2015 Feb 09 04:31 a.m. (14 hours ago) 1 of 1 people found this helpful

Superresolution microscopy has become an indispensable tool in cell biology. Several approaches exist, all aimed at seeing smaller and smaller objects.

Here the approach ... [more](#)

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ComPPI: a cellular compartment-specific database for protein-protein interaction network analysis.

Veres DV. *Nucleic Acids Res*. 2015. [2 comments](#) Robert M Flight also commented

[Peter Csermely](#) 2015 Feb 09 04:54 a.m. (14 hours ago) 3 of 3 people found this helpful

Authors of the paper are happy to highlight the available additional information regarding the localization tree, manual mapping and revision, as well as the updates of the Comp ... [more](#)

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What people are reading

Trending articles - those with recent increases in activity

Last updated: February 9 6:06 p.m.

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Cell Stem Cell. 2015.

[Global cancer statistics, 2012.](#)
CA Cancer J Clin. 2015.

[Statins stimulate atherosclerosis and heart failure: pharmacological mechanisms.](#)
Expert Rev Clin Pharmacol. 2015.

[Essential role for autophagy in life span extension.](#)
J Clin Invest. 2015.

[Manipulating the gut microbiota to maintain health and treat disease.](#)
Microb Ecol Health Dis. 2015.

[Initiation of translation in bacteria by a structured eukaryotic IRES RNA.](#)
Nature. 2015.

[Therapeutic genome editing: prospects and challenges.](#)
Nat Med. 2015.

[Neighboring Gene Regulation by Antisense Long Non-Coding RNA](#)

Scientific contribution of comments

- Discussion of future research
- Interpretation of results, including implications of replications and refutations
- Generalizability and application of research results
- Enriching and updating the scientific record by author and community curation

 **“Social” Interactions around Medical Research**

Whatever journal editors may prefer, it is simply a fact that post-publication peer review can take place in any number of locations, most of which are remote from the journal-based article. The biggest holiday event on this theme has to have been the launch of PubMed Commons, which permits authors with certain qualifications to comment on PubMed abstracts. As the initial

THE LANCET

Volume 383, Issue 9913, 18–24 January 2014, Pages 267–276

Reducing waste from incomplete or unusable reports of biomedical research

Post-publication commentary

PubMed Commons will provide a long-term website for post-publication commentary and linkages. Anyone who has been an author for any item in PubMed will be able to add comments or links to any record within PubMed, with every comment getting a permalink and stable identifier.



Discuss ongoing studies & approaches

Notes further areas of interest, complementary approach to help validate conclusions

[Gary Ward](#) 2013 Dec 10 10:14 p.m. 3 of 3 people found this helpful

T. gondii, using a conditional dimerizable Cre recombinase (DiCre) system. Given essential genes can be disrupted for phenotypic characterization. In a coding proteins previously believed to be essential for parasite invasion, the case of the *myoA* knockout parasites, it would be interesting to see parasites with the myosin motor complex (e.g., as assessed by a GAP45 IP) in

ence is presented to suggest that the actin knockouts remain capable of invasion and the authors suggest that the most important defect is instead in apicoplast segregation. Have the authors attempted to isolate and maintain an *act1* knockout clone in the presence of isopentenyl pyrophosphate (IPP)? Blood-stage *Plasmodium falciparum* can survive independently of the apicoplast as long as this isoprenoid precursor is provided (Yeh *et al. PLOS Biol* [2011] 9(8): e1001138). It would be interesting to look at the *T. gondii act1* knockout's ability (or perhaps inability) to invade and invade under similar conditions.

The picture that emerges from these ground-breaking studies is that myosin A, model would posit, but that there is another previously unrecognized way for the

Posted by Gary Ward on behalf of the University of Vermont *Toxoplasma Journal* Kelsen, Shruthi Krishnamurthy, Jacqueline Leung, Pramod Rompikuntal, Luke

Reply Permalink Share Report

[Markus Meissner](#) 2014 Jan 22 07:52 a.m. 3 of 3 people found this helpful

Hello Vermont JC. Thank you for the comment and the intriguing question about the composition of the remaining motor complex in absence of MyoA and we currently perform these experiments. You might be interested in our current study, submitted as prepub (Egarter *et al.*, 2014 bioRxiv 01/2014; DOI:10.1101/001800) that addresses some of your questions. With regards to maintaining the *act1* KO in presence of IPP we planned this experiment until we were assured from experts working on the apicoplast in *Toxoplasma gondii* that IPP cannot complement apicoplast loss in this parasite (Sheiner *et al.* personal communication). I also agree with your conclusion that there must be an actin-myosin-MIC2 independent invasion mechanism and it will be very interesting to see if it plays a major role in wild type parasites as well. Future will tell.

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Was this helpful? [yes](#) | [no](#)

[Lilach Sheiner](#) 2014 Jan 22 08:24 a.m. 2 of 2 people found this helpful

Credit for IPP experiment: Boris Striepen and Carrie Brooks.

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Was this helpful? [yes](#) | [no](#)

Author replies
Provides information for preprint, notes that proposed experiment doesn't work in this parasite

Conditional genome engineering in *Toxoplasma gondii* uncovers alternative invasion mechanisms

Nature Methods 2013

Provide access to full data & code

Author links to repository where data & scripts – used to predict regulatory protein binding to RNA – can be freely downloaded



[Robert M Flight](#) 2014 Mar 17 08:37 a.m. 2 of 2 people found this helpful

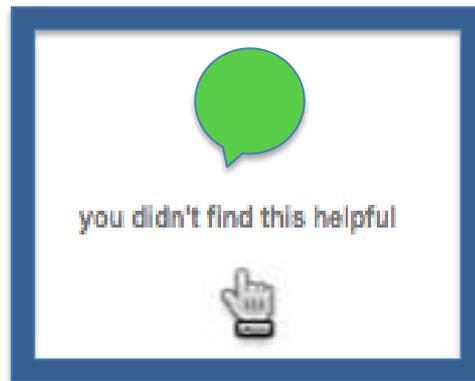
The data and scripts for the "computational analysis" providing evidence of RBP binding is available for download from [Figshare](#), and can be cited: **Flight, Robert M; J Harrison, Benjamin; C Petruska, Jeffrey (2014): CamkIV 3 UTR Binding Homology Coverage. figshare.**
<http://dx.doi.org/10.6084/m9.figshare.97560>

Reply Permalink Share Report Was this helpful? [yes](#) | [no](#)

IB4-binding sensory neurons in the adult rat express a novel 3' UTR-extended isoform of CaMK4 that is associated with its localization to axons
J Comp Neurol 2014

Infrastructure: Managing poor comments

- Most poor comments are made by a small number of members
- Persistent or extensive breach of commenting guidelines leads to suspension of membership
- Pattern of poor commenting is identified by moderation and ratings
- Commenter score reflects poor commenting and is used to minimize prominence



Top comments now - [more about this](#)

Key strategies

- Improving the profile of good comments –
 - Reducing the visibility of poor ones
- Now encouraging authors to respond to comments on their work
 - Just under 10% reply to comments
- Pilot program for journal clubs: 6 approved – more applying



[Nat Commun](#), 2014 Jun 17;5:4098. doi: 10.1038/ncomms5098.

Plasticity and redundancy among AMA-RON pairs ensure host cell entry of *Toxoplasma* parasites.

Lamarque MH¹, Roques M¹, Kong-Hap M¹, Tonkin ML², Rugarabamu G³, Marq JB³, Penarete-Vargas DM¹, Boulanger MJ², Soldati-Favre D³, Lebrun M¹.

[Author information](#)

Abstract

Malaria and toxoplasmosis are infectious diseases caused by the apicomplexan parasites *Plasmodium* and *Toxoplasma gondii*, respectively. These parasites have developed an invasion mechanism involving the formation of a moving junction (MJ) that anchors the parasite to the host cell and forms



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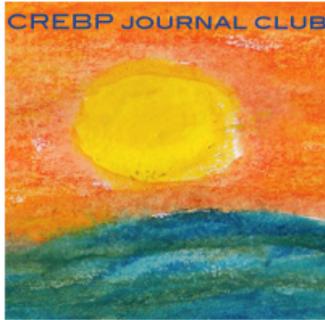


Featured comment - Feb 6

Uncovering effects? CREBP Journal Club on uses & considerations for multi-indication reviews. 1.usa.gov/15REswg #CommonsJCs #CER

CREBP Journal Club

Bond University, Australia



PubMed Commons Journal Club member since December 2014

[Paul Glasziou](#) serves as guarantor for this Journal Club.

The Centre for Research in Evidence-Based Practice (CREBP) focuses on better understanding, and more intelligently and efficiently closing, the gaps between best available evidence and current clinical practice. It is part of the School of Health and Medical Sciences at Bond University, on the Gold Coast in Australia. CREBP's journal club is held in person every fortnight, addressing either a clinical or methodological topic. Staff, students and visiting researchers participate. The outcomes of the group discussion are posted online.

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2014 Dec 17 9:26 p.m.

The new plain language summary (PLS) evaluated was substantially revised from the current one in the Cochrane systematic review, although it maintained the narrative format. We wo ...

2014 Dec 17 10:25 p.m.

Interestingly, recurrent acute otitis media (AOM) occurred more often in children originally treated with amoxicillin. However, the corresponding confidence intervals are wide and ...

2015 Jan 28 7:21 p.m.

This is a very informative and interesting paper, which highlights the utilities and caveats in the use of multiple-indication reviews. The coherent methodology of this article is ...

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COMMONS JOURNAL CLUBS

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Other than the journal club setting, how often does a paper get read critically from beginning to end by 10-12 informed readers who then discuss it at length as a group?

This kind of collective discussion is a great way to surface the strengths and weaknesses of a study and to identify connections to other work.

Professor Gary Ward
University of Vermont