Securing Trust & Transparency in Peer Review

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http://pre-val.org/
@PeerReviewEval
PRE: Origins & Milestones

- **2009**
  - PRE-score first conceived

- **Jan. 2014**
  - Acquired by Striatus - development begins

- **April 2014**
  - Partner with Aries
  - Partner with RW

- **Sept. 2014**
  - Partner with RW

- **Oct. 2014**
  - Partner with ORCID
  - Partner with HighWire

- **Nov. 2014**
  - EAB formed
  - Development & testing complete

- **Jan. 2015**
  - JBJS journals adopt PRE-val

- **April 2015**
  - ADA journals adopt PRE-val
  - ScholarOne solution in place
Current perception of peer review…

Academic journal retracts articles over 'peer review ring' with bogus scholars

Journal of Vibration and Control says 60 articles published over last four years cited academics with 'assumed identities'

Publisher discovers 50 manuscripts involving fake peer reviewers

BioMed Central has uncovered about fifty manuscripts in their editorial system that involved fake peer reviewers, Retraction Watch has learned.

‘CRAP’ paper accepted for publication

Publishers withdraw more than 120 gibberish papers

Conference proceedings removed from subscription databases after scientist reveals that they were computer-generated.
Current perception of peer review...

Science’s Big Scandal: even legitimate publishers are faking peer review
*Slate*, April 2015

**Academic Journals: The Most Profitable, Obsolete Technology in History.**
*Huffington Post*, December 2014

**This is What Happens When No one Proofreads a Paper.**
*Slate*, November 2014

*The Corruption of Peer Review is Harming Scientific Integrity.* Wall Street Journal, July 2014

**Academic Fraudsters Put Publishers’ Worth in Spotlight.**
*Financial Times*, July 2014

**Is the Peer Review Process for Scientific Papers Broken?**
*Time Magazine*, April 2014
Still the cornerstone of scholarly communication, but could use some work...

Almost all researchers (91%) believe that their last paper was improved as a result of peer review.

Most (84%) believe that without peer review there would be no control in scientific communication.

93% of science authors consider quality of peer review when deciding where to publish.

78% of OA authors prefer traditional, rigorous peer review.

Most (69%) researchers are satisfied with the current system of peer review but only a third think that the current system is the best we can do.

Sources: Sense About Science; Taylor & Francis; CIBER Research; NPG/Palgrave Macmillan Author Insights survey
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Overview of PRE-val

**PRE-val is the only service to provide independent, third-party verification of the peer review process at the journal and article level.**

PRE-val leverages metadata provided directly from the manuscript tracking system (ScholarOne, Ed. Manager, etc.) to:

1. Confirm that a paper has undergone peer review in the manner advertised
2. Parse and display information related to the peer review process

Confirmation is provided and information is displayed via the PRE-val badge
http://jbjs.org/content/97/7/544

http://diabetes.diabetesjournals.org/content/current

http://www.preval.org/demo/ada_63_7/diabetes.diabetesjournals.org/content/63/7/2196.html
Elevated S-Adenosylhomocysteine Levels Alter Adipocyte Function and Corresponding Changes in Adipocyte Expression and Activation Marks

Sherry Ngo, Xiaoling Li, Renelle O'Neill, Chandrakanth Bhoothpur, Peter Gluckman and Allan Sheppard

Abstract

Maternal deficiencies in micronutrients affecting one-carbon metabolism before and during pregnancy can influence metabolic status and the degree of insulin resistance and obesity of the progeny in adulthood. Notably, maternal and progeny plasma S-adenosylmethionine (SAH) levels are both elevated after vitamin deficiency in pregnancy. Therefore, we investigated whether this key one-carbon cycle intermediate directly affects adipocyte differentiation and function. We found that expansion and differentiation of murine 3T3-L1 preadipocytes in the presence of SAH impaired both basal and induced glucose uptake as well as lipolysis compared with untreated controls. SAH did not alter preadipocyte factor 1 expression. This is the first study to demonstrate that vitamin deficiency-induced increases in SAH levels can impair adipocyte function in vitro.
Info about peer review process:
• Rounds of review
• Roles participating
• Method of review

Other measures of screening quality:
• COPE member?
• Plagiarism screening?
• Use of ORCID?

Optional info:
• Reviewer comments
• Reviewer names
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• Work closely with Expert Advisory Board to ensure PRE continues to meet needs of community
• Continue to work with ORCID to combat identity theft and peer review rings
• Collaborate with Sense about Science and others to improve education and training
• Serve a role in validating reviewer activity for deans and tenure boards
• Work with PEERE and others to drive scientific understanding and establish minimum standard
• Continue to explore PRE-score with help of EAB and Early Adopters
Thank You!

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