An Undergraduate Journal for Neuroscience

Introduction

Undergraduate education in North America has been changing to include the expectation of an authentic research experience. However, while students increasingly participate in primary research, they rarely have the follow-up experience of writing, submitting, and then publishing their findings. Having the opportunity to write and review manuscripts would provide more complete and authentic research training. The journal IMPULSE (http://impulse.schc.sc.edu) was created to fill this need.

IMPULSE is an online, international journal for research reports and reviews from student neuroscientists, typically 17-23 yrs old. Started in 2003 (Soc. Neu. Abs. 22:23-3; first issue 2004, Soc. Neu. Abs. 20:26-8), it shifted to rolling submission and annual archiving in 2005 (Soc. Neu. Abs. 31:20.19), and since 2006 (2007 Soc. Neu. Abs. 32:26.13), 33:26.13). The IMPULSE review team members are from around the world, helping promote student appreciation for scientific translation and global communication skills. All submissions are written by postbaccalaureate (but not graduate) students; peer review is by an international review team made up of undergraduate students from over 15 universities overseen by the Faculty Advisors.

Neuroscience faculty may find the journal a useful mechanism to mentor undergraduate students through an authentic publishing experience of writing, submitting, and reviewing. Further, faculty can use the manuscript review process and work with IMPULSE review-student teams at their institution as a method to teach experimental design, scientific writing, ethics in communications, etc. (see course suggestions in JUNE Spring 2006 Vol.4 (4) http://www.funjournal.org/results.asp?issueid=199). This collaboration between students and Faculty Advisors promotes understanding of and commitment to the review process. Since successful publishing is a critical component of a scientific career, it should also be a part of a complete science education. Current evidence from student reviewers suggests that refereeing manuscripts is valuable in career choices and success; this observation is anecdotal at present, but studies are in process to assess the impact of IMPULSE team membership on students who participated in the first five years of IMPULSE.

Recent growth for the journal has included listing with the Directory of Open Access Journals, the creation of additional Reviewer Training Sites at Middlebury College (Kim Cronise, Faculty Advisor) and Appalachian State University, and initiation of website use assessment with GoogleAnalytics.

Supported by the South Carolina Honors College and the Department of Pharmacology, Physiology and Neuroscience, School of Medicine at the University of South Carolina, The Department of Psychology at Middlebury College, and the Helen Horner Program at Appalachian State University.

January 2003

M. Wilkinson recruited to find the new journal along with A. Autry, L. Helmick, and S. Rowsani. Peer reviewers recruited; IMPULSE logo and website created; IMPULSE presented at 1st SYNAPSE meeting.

July 2003

Website opened for submissions for first issue.

Fall 2003

IMPULSE debuted at Society for Neuroscience meeting (Soc. Neu. Abs. 29:25.3).

July 1, 2004

First issue posted online.

Fall 2004

IMPULSE presented at SIN (Soc. Neu. Abs. 30:28.6).

Spring 2005

First editorial team transition; C. Warren 2nd EIC.

Fall 2005


Spring 2006

Redesign of IMPULSE website for rolling publication: IMPULSE presented at the 2nd SYNAPSE meeting.

Fall 2006

Publicity committee created; ISSN # request completed. 2006 issue presented at SIN (Soc. Neu. Abs. 32:26.13).

Spring 2007

IMPULSE presented at 3rd SYNAPSE meeting; second editorial transition completed, B. Goodlett 3rd EIC.

Summer 2007

IMPULSE presented at 7th IBRO World Congress of Neuroscience in Melbourne, Australia, by B. Goodlett.

Fall 2007


Winter 2007

IMPULSE invited to join Directory of Open Access Journals; second Reviewer Training Site opened at Middlebury College with Dr. Kim Cronise joining as a Faculty Advisor to IMPULSE.

Spring 2008

IMPULSE presented at 4th SYNAPSE meeting.

Summer 2008

A. Walton becomes 4th EIC. Third Reviewer Training Site opened at Appalachian State Univ, Helen Horner Program (backup website created); IMPULSE presented at 6th FENS Forum in Geneva, Switzerland by A. Walton.