A common international model for medical education typically routes students directly to medical school following secondary education, often precluding research opportunities. Their student colleagues in the U.S., who are interested in neurosciences pursue many different majors and co-curricular opportunities prior to medical school that help extend their understanding of the scientific foundations of clinical practice. Serving as a reviewer for IMPULSE, a journal designed for undergraduate students, is an example of such educational advancement. Medical students from the University of the Free State (South Africa) have shown that it is possible to take time in medical school to prepare students to join IMPULSE and benefit from that experience. Faculty there have been monitoring a team of neuroscience-focused clinical students for the past six years, and they and individual medical students from around the world report that the opportunity to review original research papers and learn how to evaluate neuroscience manuscripts is a valuable addition to their neuro-career-related data. From an author survey report at SFN/NS in 2013/2014 indicated that 95% of respondents felt the experience improved their writing skills. Over 75% felt it improved their literature research skills, while 93% felt it improved their article reading skills. Nearly 28% of these students were in M.D. or B.B. programs, while a further 25% were in Ph.D. programs after their IMPULSE experience.

The journal IMPULSE was started in the spring of 2003, with the first issue posted in 2004. A total of twelve issues have been archived, one per year. The current, 2016 issue is the thirteenth. The journal has evolved from a once-per-year posting reviewed by students at a single institution, to rolling review and posting by students worldwide representing fourteen institutions. The first issue was reviewed by 14 students from three countries and two continents, with a single Faculty Advisor and Reviewer Training Site (RTS). The 2013 issue posted with over 100 student reviewers representing over 80 institutions in six countries and four continents. Many of these students were members of the 14 RTSs, one of which was in South Africa. The rest of the Reviewers were individuals who simply wished to have the experience and applied to join as independent reviewers. They were assigned to an RTS team and sent their individual reviews to the Associate Editor from that RTS. Each RTS had its own Associate Editor, who compiled the team's review, and a Faculty Advisor who oversaw and taught about the reviewing process. The most recent RTS to be added (2014) was from the University of North Carolina.

Creating a Reviewer Training Site at any institution is easy and does not require any special application process. There are no costs, and the manner of involvement is flexible and up to each Faculty Advisor at each RTS. Some choose to offer a course for new Reviewers, some work with a campus neuroscience club, while others just focus on a group of students doing research in their laboratory. All that is needed to start an RTS at an institution is a faculty member willing to take on the role of the Faculty Advisor (see list at right of current Facs), and a few students willing to be Reviewers, one of whom will become the Associate Editor for that RTS. The process works very fluidly, with submissions being forwarded by the Executive Associate Editor to all of the RTS Associate Editors, who then distribute the manuscript to their RTS Review Team for review. A cycled, single review from each RTS is returned to the EAE, and a final, unified compiled review by the Executive Editor for return to the authors, usually within 4-5 weeks. The first page of two articles on how IMPULSE can be used in classes and teaching are shown below (from the online Journal of Undergraduate Neuroscience Education).