EDITORIAL Innovation in Neuroscience Education for Diverse Student Populations

Raddy L. Ramos

Department of Biomedical Sciences, New York Institute of Technology, College of Osteopathic Medicine, Old Westbury, NY 11568.

Since the publication of its first issue in 2002, JUNE has been the most trusted source of scholarship and innovation in neuroscience education including pedagogy, curriculum, instructional resources and methods, assessment, mentoring, and faculty development. As undergraduate neuroscience education has grown in the US and abroad, JUNE has been there every step of way. In fact, JUNE has no-doubt played an important role in the growth of neuroscience education through its mission of being an open-access journal with rigorous peer-review and modest publication fees. For example, we know that JUNE's global readership have taken what they've read in JUNE articles and implemented those new methods or best practices in their own classrooms or teaching labs, which has translated into meaningful change for their students and institution. Likewise, we know that faculty and administrators have used JUNE articles as important resources to create de novo undergraduate neuroscience programs at their home institutions, providing new academic and research opportunities for their students. Finally, we know that JUNE authors have used their published manuscripts as valuable parts of their successful tenure, promotion, and reappointment portfolios. Thus, JUNE has played roles in the creation of new faculty positions, professional opportunities, and avenues for advancement for neuroscience researchers and educators. in addition to directly impacting students and the broader educational landscape.

For all the reasons described above. I am honored to serve as the new editor-in-chief (EIC) at JUNE and for the support I have received from past EICs, the JUNE editorial board, and the Faculty for Undergraduate Neuroscience (FUN) community. In my role as EIC, I will work collaboratively with all these groups and the JUNE readership to ensure that JUNE maintains its status as the premier neuroscience education journal with rigorous peerreview and high-quality articles. As undergraduate neuroscience education continues to change, JUNE must be ready to adapt and change when necessary as well as recognize when to stay the course. The editorial board and I are well equipped to make the correct decisions to ensure a successful future for JUNE during my tenure as EIC.

I am also honored to present the first issue of JUNE completed during my tenure. This issue would not exist without the excellent manuscripts submitted by our authors, the peer-review of manuscripts by our editorial board and ad hoc reviewers, the guidance of past EICs, and the diligent work of our editorial assistant, Rachael Murdock. This issue is representative of the scholarship our readers expect from JUNE and features articles with new innovative resources and methods for neuroscience lab courses using invertebrates (Pollak et al., 2019), mouse models (Quinan et al., 2019) and undergraduates (Segawa, 2019) as well as a perspective article on approaches to teach principles of neurophysiology (Crisp, 2019) and a case study article on the history of neuroanatomy (Mitrano, 2019). The title to this editorial is reflective of several articles in this issue that relate to targeting neuroscience outreach diverse student populations as well as two articles that remind us about the diversity of students in our classrooms and teaching labs. In three articles, we learn how educators and undergraduates collaboratively engage in outreach to bring neuroscience education to three different student populations including preschool (Brown et al. 2019), middle school (Vollbrecht et al., 2019) and high school (Colpitts et al., 2019), which has an impact on the target audience as well as those engaged in the outreach. In an article by Gaudier-Diaz et al. (2019), we learn about undergraduate neuroscience majors beyond their test scores, lab reports or final grades, and instead we learn more about their psycho-social profiles. Finally, Diniz & Sita (2019) describe their efforts to bring the same high-impact educational experience in neuroanatomy to a student with visual impairment. I am confident that there are many articles (if not all) in this issue of JUNE that will be of interest to our readership.

Although we believe that all JUNE articles are outstanding. JUNE Editor's Choice Awards are selected by the editorial board and recognize two particularly exceptional articles found in each volume. I extend my congratulations to Dr. Bruce Johnson and colleagues who are the winners of the Vol. 16 Outstanding Neuroscience Laboratory Article Award for their article entitled, "Muscle Spindles and Our Sense of Physical Self: Kinesthetic Illusions of Limb Position and Posture" (Schiller et al., 2018). I congratulate Dr. Alo Basu and colleagues who are winners of the Vol. 16 Outstanding Neuroscience Pedagogy Article Award for the article entitled, "An Integrative Approach to STEM Concepts in an Introductory Neuroscience Course: Gains in Interdisciplinary Awareness" (Basu et al., 2017).

I wish my FUN colleagues and all JUNE readers a relaxing and/or productive summer season.

REFERENCES

Brown AR, Egan M, Lynch S, & Buffalari D (2019) Neuroscience

and Education Colleagues Collaborate to Design and Assess Effective Brain Outreach for Preschoolers. J Undergrad Neurosci Educ 17(2):A159-A167.

- Basu AC, Mondoux MA, Whitt JL, Isaacs AK & Narita T (2017) An Integrative Approach to STEM Concepts in an Introductory Neuroscience Course: Gains in Interdisciplinary Awareness. J Undergrad Neurosci Educ 16(1):A102-A111.
- Colpitts KN, Seymour KP, & Harris Bozer AL (2019) Development of an Introductory Neuroscience Teaching Experience for Undergraduates with a Low-Cost Neuroscience Summer Academy. J Undergrad Neurosci Educ 17(2):A125-A129.
- Crisp K (2019) Models for Spiking Neurons: Integrate-and-Fire Units and Relaxation Oscillators. J Undergrad Neurosci Educ 17(2):E7-E12.
- Diniz GB, Sita LV (2019) Development Of Low-Cost Tactile Neuroanatomy Learning Tools For Students With Visual-Impairment. J Undergrad Neurosci Educ 17(2):A156-A158.
- Gaudier-Diaz MM, Sinisterra M, & Muscatell KA (2019) Motivation, Belongingness, and Anxiety in Neuroscience Undergraduates: Emphasizing First Generation College Students. J Undergrad Neurosci Educ 17(2):A145-A152.
- Mitrano DA (2019) Two Scientists Share Nobel Prize for the First Time! A Case Study Developed for Exploring the History of Neuroanatomy. J Undergrad Neurosci Educ 17(2):C1-C5.
- Pollak DJ, Feller KD, Serbe E, Mircic S, & Gage GJ (2019) An

Electrophysiological Investigation Of Power-Amplification In The Ballistic Mantis Shrimp Punch. J Undergrad Neurosci Educ 17(2):T12-T19.

- Quinan V, Dugar A, Bauer D (2019) Long Term Potentiation in Mouse Hippocampal Slices in an Undergraduate Laboratory Course. J Undergrad Neurosci Educ 17(2):A111-A118.
- Schiller B, Colgan W III, Calderon B & Johnson BR (2018) Muscle Spindles and Our Sense of Physical Self: Kinesthetic Illusions of Limb Position and Posture. J Undergrad Neurosci Educ 16(3):A282-A288.
- Segawa JA (2019) Hands-on Undergraduate Experiences Using Low-Cost Electroencephalography (EEG) Devices. J Undergrad Neurosci Educ 17(2):A119-A124.
- Vollbrecht PJ, Frenette RS, Gall AJ (2019) An Effective Model for Engaging Faculty and Undergraduate Students in Neuroscience Outreach with Middle Schoolers. J Undergrad Neurosci Educ 17(2):A130-A144.

Address correspondence to: Raddy L. Ramos Department of Biomedical Sciences, New York Institute of Technology, College of Osteopathic Medicine, Old Westbury, NY 11568. Email: rramos02@nyit.edu

Copyright © 2019 Faculty for Undergraduate Neuroscience

www.funjournal.org