

EDITORIAL

Training Tomorrow's Neuroscientists Today

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This extensive issue of the *Journal of Undergraduate Neuroscience* features a wide variety of articles that collectively represent the wide range of topics that are subsumed under our journal's mission to provide a forum dedicated to undergraduate neuroscience education. Today, the undergraduate education in neuroscience occurs within a societal context and timeline extending from the years of primary to secondary and post-secondary education; and in separate opinion articles in this issue, Harley discusses the ways high school students can contribute in our laboratories, while Brownell, Price and Steinman examine the need undergraduate and graduate students share with faculty and post-doctoral researchers to communicate with the general public about science. The neuroscience that is widely distributed via the popular press can also be found in this issue, via Cecala's review of Barrett's *Beyond the Brain: How Body and Environment Shape Animal and Human Minds*.

Both laboratory- and classroom-based approaches to innovation in the undergraduate neuroscience curriculum feature prominently in this issue. Ferragamo examines an insect model in laboratory exercises that focus on the temporal aspects of stimulus-evoked potentials; in another article by Dagda et al., crickets provide the model for introductory exercises in neurophysiology. Budget conscious instructors (who isn't one?) will find many avenues to round out laboratory experiences in economically-challenged institutions; Newman and Newman, for example, provide us with an article about Metaneuron, which is free to use. Holloway discusses a new take on a tried-and-true classroom demonstration; and Dabrowski et al. give us a laboratory exercise for a basic neuron equivalence circuit.

In the classroom, case studies, mock-grant proposals and poetry can all be found in this issue. Pollack and Korol contribute an article on the use of Haiku as a mechanism to help students further their understanding of neuroscience. Itagaki reports on successes with mock grant reviews in advanced neuro and cell biology courses; and Kennedy discusses the application of case study approaches to the neuroscience classroom. Bodnar et al. examines the use of pain and pleasure to convey neuroscience principles in general education courses, and Harrington reports on the changes that he has observed in students' beliefs following the completion of a biological psychology course. Stuart pursues the theme of one of our opinion articles with details about developing presentation skills in neuroscience students. Kreitzer and Malchow take education out of the classroom to collaborative efforts between primarily-undergraduate institutions with major research institutions, and Yu takes students out of the classroom and into the community, examining one method

for delivering experiential learning to neuroscience undergraduates.

The world in which *JUNE* and *FUN* exists today is astonishing different than the one either of these ventures were conceived in. In that same time, exponential increases in the number of methodological approaches, what is considered neuroscience and neuroscience-relevant content, and the level of public interest have all occurred. The very nature of our understanding of what neuroscience *is*, and what a neuroscientist *does*, is a matter of debate. Undergraduate neuroscience education is no different. The articles that comprise this issue provide a snapshot of the world of neuroscience education as we currently know it. Preparing undergraduate students for the world they will help create-- and come to lead, through greater literacy in neuroscience-relevant coursework and activities is an ever-expanding task. The demands of that education, and the people who have taken it on as their life's mission are the heart and soul of the Faculty for Undergraduate Neuroscience and its' flagship journal, *JUNE*. As neuroscience becomes increasingly popular and we see enrollments in our individual courses, concentrations, minors and majors swell in number, delivering on the promise we have made can be a challenge. But take heart, and find comfort in this issue of *JUNE*. In an ever-expanding world of undergraduate neuroscience education, these authors stand beside you, offering help and insights to aid you in training tomorrow's neuroscientists today.

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