

EDITORIAL

*Ishi no ue ni mo san nen**: Warming to the Changing Face of Neuroscience and Neuroscience Education

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The start of a new academic year and the changing seasons brings more than Autumn color. At the *Journal of Undergraduate Neuroscience*, the Fall issue now also reflects back on the past year of neuroscience publishing, with a review section that features numerous book reviews. Harrington contributes two reviews; Koch's *Consciousness: Confessions of a Romantic Reductionist* and Gazzanaga's *Tales from Both Sides of the Brain*. Kalat looks at Thompson's *Waking, Dreaming, Being*, while Lom examines Denis Le Bihan's *Looking Inside the Brain: The Power of Neuroimaging*. Melvin reviews *The Synapse: Structure and Function*, edited by Pickel and Segal. Rounding out the review section, Harrington returns once more in this issue, leading a cohort of coauthors to examine what truly are amazing papers in neuroscience. The issue features 11 regular articles, which collectively display the breadth and depth of current best practices in undergraduate neuroscience education. Crisp et al. and Nichols provide separate articles detailing exercises in computational neuroscience; one paper-and-pencil, one using MATLAB. Nesbit describes how we may record caudal photoreceptor and optic nerve responses in crayfish; Schlaepfer and Wessel contribute labs examining the electrophysiology of paramecia. Mitchell takes on the topic of data mining with undergraduates, while Watson makes use of snack cakes to drive home lessons in basic neuroanatomy. In classroom exercises, the range of neuroscience education is truly represented well. Service learning is examined by Fox in the pursuit of developing civic-minded neuroscientists, while Gliddon and Cridge make use of drug legislation to engage neuroscience students with society. Stevens examines the cognitive neuroscience of sign language to develop critical thinking skills, and Pollock makes use of memoir to give students a view into the minds of those affected by addiction. Meitzen returns some of us to the lessons of Tinbergen's four questions, and examines this for a new cohort of young neuroscientists. Last but not least, this issue's major contributor Harrington muses on the years to come in neuroscience when the remaining luminary neuroscience researchers of today are no longer with us.

Over the past three years, I've had the good fortune to serve the undergraduate neuroscience community as the Editor-in-Chief of *JUNE*. In that time, I've worked with 271 authors and coauthors-- and more than twice as many reviewers-- to see 97 regular articles, 19 reviews and 14 editorials and opinion articles make their way toward publication. Each of these articles, reviews, and editorials are available not only at the *JUNE* website, but also at

PubMed Central, alongside all the past articles of *JUNE*, as we accomplished the long sought after goal of PubMed indexing. In the past three years, we also expanded the review section of *JUNE* to better cover the ever-widening variety of books, textbooks and media resources produced each year by the neuroscience community. As the Fall 2015 issue published, many will also notice a new look to the *JUNE* website, which has been completely rebuilt to withstand the evolving nature of the internet and electronic publishing.

While I have sat in this position and seen these events come to pass, I have not sat alone. We, the undergraduate neuroscience education community and its technological allies made these things happen. The editorial and review boards of *JUNE*, who participated in reviews and in contributing articles of their own. The new members of these boards who have stepped up to serve the neuroscience community. The committed officers and Executive Committee of FUN who provided strong support for *JUNE*. FUN Webmaster Robert Cailin-Jageman, who was always ready to lend whatever assistance he could. Fern Duncan, *JUNE*'s copyediting and production coordinator, who does more than anyone to bring each issue to its final form. And the helpful staff of our web host, who have redeveloped our website for us, the staff at NIH and PubMed Central, who make *JUNE* more visible to readers world-wide, and the technical staff of Data Conversion Laboratories, who partner with us in maintaining compliance with the National Library of Medicine tagging requirements -- together we sit, bringing each issue of *JUNE* to life.

While neuroscience coursework at some institutions has been in existence for decades, the recent growth of neuroscience education programs around the globe is nothing less than phenomenal—neuroscience is hot on campus, and indeed also in the popular press. The popularity of neuroscience as an undergraduate major, minor or concentration is such that some schools find that neuroscience is now their students' number 1 choice — and this popularity shows no sign of decreasing or leveling off. The breadth of the field is continually expanding, and with it come new members from across many disciplines, warm to the attraction of interacting with the growing neuroscience community. The range of articles that make up this issue of *JUNE* display some of the reach of neuroscience today, calling for still more to sit beside us to participate in, and witness all of what the neuroscience will come to be tomorrow.

Whatever the changing face of neuroscience looks like

tomorrow, *JUNE* will be a part of it, and like neuroscience education itself, will continue to evolve and grow. Speaking for myself, I know that from my years of leading *JUNE*, I have warmed to the changes that are happening in the scope of what neuroscience now means to society, and I can think of 271 authors that I have to thank for this. It has been a privilege to serve as Editor for these years. I look forward to sitting beside Bruce Johnson, as he assumes the post of Editor-in Chief with the Spring 2016 issue, and I move to the position of Senior Editor. We're also delighted at *JUNE* that Editorial Board member Raddy Ramos has agreed to step into the Associate Editor position that Bruce has served in these past few years. Finally, many thanks to Gary Dunbar for serving these past years as my Senior Editor, and to all the members of

the *JUNE* Editorial Board for their contributions.

Welcome to a new day at *JUNE*: a new website, new leadership and the Fall 2015 issue. We did it. Bruce, we've got your seat all warmed up for you. Ganbare.

*= Literally, sit on the rock for three years; a Japanese proverb that means with perseverance much can be accomplished.

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