

# Neurophotonics

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## **Three Senior Editors Join *Neurophotonics* at the Start of Its Third Year**

David Boas



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*Neurophotonics* started publishing its first papers online two years ago on May 28, 2014. It has been an exciting two years watching our community embrace our new journal and watching the growth of our field. This is a good time to reflect back on what has been accomplished over the last two years. But first, to help guide the continued evolution of *Neurophotonics* into the future, it is my pleasure to introduce the addition of three senior editors, Professors Karl Deisseroth, Atsushi Miyawaki, and Xiaowei Zhuang, who will help ensure that the journal is impacting the full breadth of the field of neurophotonics. Professor Deisseroth published the first paper demonstrating optogenetic control of neurons that is continuing to drive a revolution in the neurosciences because of its power in enabling scientists to precisely control the excitation and inhibition of specific cells within the neural circuitry. Professor Miyawaki is driving science forward by enabling more detailed investigation of functioning cellular processes through the advancement of novel fluorescent probes. Professor Zhuang is a pioneer in super-resolution microscopy, having led the development of stochastic optical reconstruction microscopy (STORM) and its continued advancement for 3-D imaging of living cells and deep tissue imaging. I am very grateful to have them as part of the editorial board, and look forward to working with them to further develop our journal.

*Neurophotonics* has published 104 papers (excluding editorials and news items). These papers capture the breadth of our field. Some of the top downloaded papers spanning the scope of our journal include:

- For optogenetic control of cellular behavior—“Programmable wireless light-emitting diode stimulator for chronic stimulation of optogenetic molecules in freely moving mice” by Hashimoto et al., and “Optrodes for combined optogenetics and electrophysiology in live animals” by Dufour and De Koninck.
- For photoacoustic methods—“Photoacoustic brain imaging: from microscopic to macroscopic scales” by Yao and Wang.

- For optical reporters—“Fast calcium sensor proteins for monitoring neural activity” by Badura et al.
- For methods to investigate cellular energetics—“Single-cell imaging tools for brain energy metabolism: a review” by San Martín et al.
- For novel microscopic methods—“Review of quantitative phase-digital holographic microscopy: promising novel imaging technique to resolve neuronal network activity and identify cellular biomarkers of psychiatric disorders” by Marquet et al.
- For noninvasive methods of measuring and imaging brain function and physiology—“Diffuse correlation spectroscopy for measurement of cerebral blood flow: future prospects” by Buckley et al.
- For methods to investigate neuroglial and vascular physiology—“Wide-field *in vivo* neocortical calcium dye imaging using a convection-enhanced loading technique combined with simultaneous multiwavelength imaging of voltage-sensitive dyes and hemodynamic signals” by Ma et al.
- For clinical and translation applications—“Neuropharmacological effect of atomoxetine on attention network in children with attention deficit hyperactivity disorder during oddball paradigms as assessed using functional near-infrared spectroscopy” by Nagashima et al.
- For super-resolution nanoscopic methods—see the papers being published in the upcoming special section.

In addition to these original research papers and reviews, *Neurophotonics* is publishing tutorials as well as news and comment items. Tutorials provide an opportunity for authors who have developed or perfected an important tool or method to document how others can utilize the approach for their own research. The published tutorials will have tremendous impact in our rapidly advancing field, which is highly dependent on the development, advancement, and dissemination of new tools. News and comment pieces are being published, recognizing that the breadth of our field and the rapid advancements require this special category to permit the dissemination of information about recent workshops, advances, and opportunities. Two tutorials and four news and comment items have been published to date, and more are being solicited. Please let me know if you have a tutorial or news and comment item in mind that would be appropriate for *Neurophotonics*.

All papers published in *Neurophotonics* are now indexed in PubMed. Further, the articles are now also being indexed in the Thomson Reuters Emerging Sources Citation Index (ESCI). ESCI is a precursor to the Science Citation Index (SCI), which generally requires a more lengthy evaluation of the journal before its inclusion in SCI. Inclusion in these databases ensures that the work published is readily visible to those searching the databases. All of these milestones are being achieved according to the schedule that any new journal can expect. The next big milestone along this front will be to achieve a journal impact factor. This generally requires a minimum of two full years of published papers for generating citations on which the impact factor is based. As such, we will have to wait a little bit longer to achieve that milestone.

## Editorial

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However, the published papers are receiving a lot of download activity through the *Neurophotonics* website, which is a strong indication that they are reaching their audience and impacting scientific advancement. Further, a search of Google Scholar confirms that a number of the published papers are already having impact as evidenced by a healthy and growing number of citations.

I'd like to call attention to our special sections. In the next issue, Vol. 3, Issue 3, we have a special section on "[Clinical Near-Infrared Spectroscopy and Imaging of the Brain](#)," guest edited by Marco Ferrari, Joseph P. Culver, Yoko Hoshi, and Heidrun Wabnitz. In Vol. 3, Issue 4, we have a special section on "[Super-resolution Microscopy of Neural Structure and Function](#)," guest edited by U. Valentin Nägerl and Jean-Baptiste Sibarita. Please take a look at these issues to browse the many original research and review papers covering the advances in each of those two domains. We recently

announced the call for papers for the second installment in our series recognizing [Pioneers in Neurophotonics](#). This upcoming special section will honor Amiram Grinvald for his leadership in inventing, developing, and employing optical methods to study the living central nervous system. I personally plan to submit to this special section because of the impact his work with intrinsic optical signals of brain function had on the trajectory of my own research career. Indeed, the impact of his discoveries has been exceptionally broad, touching perhaps thousands of scientists, and as a result I expect that guest editors Ron Frostig and Carl Petersen will be busy organizing a very special section indeed!

**David Boas**  
Editor-in-Chief