ACS Chemical Neuroscience

Editorial

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Visual Inspiration and Cover Art

An intelligently conceived book, *Visual Strategies* by Felice Frankel and Angela DePace[1] guides scientists and engineers, seasoned and burgeoning alike, in creating effective visual representations. *Visual Strategies* provides information about basic graphic design principles, lushly illustrated with real-world exemplars. The book itself is beautifully designed (Sagmeister Inc.) and filled with explanations for how to produce powerful visual representations of data from human brain mapping to astronomy.

Visual Strategies is oriented toward users, divided into a color-coded and tabbed set of strategies for deconstructing, designing, and reconstructing data representations. Topics include Form and Structure, Process and Time, Compare and Contrast, Case Studies, and Interactive Graphics. "Before" and "after" images are used to illustrate principles. Readers find themselves leafing through the book, stopping to look at representative transformations that catch their eye, then perusing the principles underlying the redesign. One of the reasons the book works is that it invites nonlinear exploration with nested levels of information. Another key to its success is that it draws upon the breadth of experience of its authors, particularly Frankel, who is an author, science photographer, and research scientist at MIT's Center for Materials Science and Engineering.

Shortly after my copy arrived, I spotted another at the home of colleagues whose research focuses on human brain imaging. We found ourselves and other dinner partners in media arts and nanoscience debating which data transformations worked better. Interestingly, we were not always in agreement about what we found most effective. This aspect is another strength of *Visual Strategies*; it speaks individually to readers to cultivate unique interpretations of how design principles can improve their data representations.

Human beings are visual creatures. Approximately half of our cortex is devoted to visual information processing. By visualizing scientific concepts and findings, we enable readers to synthesize and to understand complex data and their interpretations. In doing so, we also have the opportunity to convey the beauty of the world we explore. In the case of *ACS Chemical Neuroscience*, this is a world of neurons and their hierarchical organization, endogenous molecules that underlie neuronal function, and molecules designed by us to modify function.

We now invite authors to submit images for cover art from manuscripts under consideration for publication in *ACS Chemical Neuroscience*. Journal covers have long been forums for highlighting papers from each issue. The first *ACS Chemical Neuroscience* author-contributed cover appeared on the June 2012 issue (http://pubs.acs.org/action/showLargeCover?issue=366642040). This striking image of colocalized Orphan G-protein-coupled receptor 50, Nogo-A, and DAPI in embryonic mouse cortex accompanies an article by Ellen Grünewald and co-workers.[2] The cover of the July 2012 issue features a graphic illustration designed by Katie Ris-Vicari and M. Foster Olive highlighting a review on *Neurochemical and Neurostructural Plasticity in Alcoholism*.[3]

We welcome your suggestions for cover images and hope you find inspiration in the scientific design principles artfully conveyed in *Visual Strategies*.

PHOTO CREDIT: DAVID COHEN

Discussing *Visual Strategies* (left to right): Paul Weiss, Susan Bookheimer, Mark Cohen, Anne Andrews, and Victoria Vesna.

Anne M. Andrews, Associate Editor

REFERENCES

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(2) Grünewald, E., Tew, K. D., Porteous, D. J., and Thomson, P. A. (2012) Developmental expression of Orphan G protein-coupled receptor 50 in the mouse brain. *ACS Chem. Neurosci.* 3, 459−472.

(3) Gass, J. T., and Olive, M. F. (2012) Neurochemical and neurostructural plasticity in alcoholism. *ACS Chem. Neurosci.* 3, DOI: 10.1021/cn300013p.

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