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Introduction to Papers from the FUN 2008 Macalester Workshops

Proceedings of the 2008 Faculty for Undergraduate Neuroscience Workshops at Macalester College, St. Paul, MN, July 17 to July 20, 2008

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This JUNE volume contains contributions from presenters at the Mellon Neuroscience Workshop and the Faculty for Undergraduate Neuroscience (FUN) Workshop, produced by the FUN Committee on Education and co-sponsored by Project Kaleidoscope (PKAL), entitled: "The Undergraduate Neuroscience Education: Interactions, Interdisciplines, and Curricular Best Practices." These workshops took place in July 17-20, 2008 and were hosted by Eric Wiertelak at Macalester College. We also include several invited contributions that reflect the spirit of the FUN workshops from FUN members who could not attend. Although this volume is not a complete compendium of all workshop presentations, most are represented here. Some presenters were unable to submit papers for this issue. We refer you to the National Science Foundation website (www.nsf.gov) for an up-to-date description of science education funding (presented by Terry Woodin, twoodin@nsf.gov), and the Brain-Exchange Education and Mentorship Networks (BEEMNET) and National Kids Judge! Neuroscience Partnership websites (http://beemnet.org/, http://www.kidsjudge.org/) for more information on important outreach programs (described by Deborah Colbern, President and Scientific Director of BEEMNET and Founder and Director of Kids Judge!). Other presentation material was published previously (Grisham et al., 2008; Johnson et al., 2007; Lewis, 2006), and is not repeated here. The 2005 ANDP Survey of Neuroscience Graduate, Postdoctoral and Undergraduate Programs, organized by Ed Stricker of the University of Pittsburgh, was summarized at the FUN workshop by Mike Kerchner, and the full details can be found at www.andp.org/surveys/reports/index2005.htm. Gary Dunbar's and others' workshop entertainments are better left to less formal venues. Institutional participants also presented their personal team statements for improving neuroscience education at their colleges and universities. These statements, the full schedule of the 2008 FUN/PKAL Workshop at Macalester College, and other educational material related to the FUN workshops can be found at http://www.pkal.org/documents/UndergraduateNeuroscienceEducationWorkshop.cfm.

We lead off the workshop articles paying homage to Jeanne Narum (Ramirez and Wiertelak), the bundle of creative energy behind PKAL, who received the FUN Lifetime Achievement Award in 2008 for her contributions to undergraduate neuroscience education. Next, the following articles focus on creative approaches to day-to-day undergraduate neuroscience teaching: courses which promote interdisciplinary perspectives for non-majors (Mead), and students with varied educational backgrounds (Lafer-Sousa and Conway; Wichlinski), digital self-study tools for learning brain anatomy (Jenks), digital laboratory experiences with research data (Grisham), simulation software tutorials to understand cellular neurobiology (Stuart), project oriented experiences for the introductory neuroscience lab (Chase and Barney), a perspective from laboratory instructors participating in a suite of neuroscience laboratory courses in a liberal arts setting (Hauptman and Curtis), and new student laboratory software in the public domain for sophisticated data acquisition and analysis (Lott et al.). The series follows with reports on web-based teaching resources, including an overview (Korey), and a new project in collaboration with the Society for Neuroscience (SfN; Olivo). Important neuroscience outreach activities of SfN are summarized (McNerney et al.). The next two papers address our junior FUN faculty members more directly. A workshop discussion on teaching practices and sharing wisdom with FUN "elders" is summarized (Dickinson), and an important funding program designed to help junior faculty initiate student research in their laboratories is described (Ramirez and Tonidandel). Thoughtful practical suggestions based on recent faculty experience are offered for those considering new teaching/research facilities (Muir and Van Wylen). We began to wrap up the volume with a progress report on JUNE and its evolution as our prime resource for undergraduate neuroscience education (Dunbar et al.). We end the series of articles with a reflective note reminding us of the importance of fostering the creativity of all members of our society for advancing understanding of the mind (Whittaker and Akers).

We thank Eric Wiertelak and his students for their onsite organization that kept the program running smoothly, Macalester College for its generous support and for opening its facilities to us, and the Mellon Foundation for funding the Mellon Neuroscience Workshop. We take this opportunity to appreciate the FUN sponsors in 2008 who directly and indirectly supported the FUN workshop. Special thanks to the Grass Foundation (www.grassfoundation.org) for our student travel award endowment, Sinauer Associates (www.sinauer.com) for their long-term commitment to FUN, ADInstruments

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For those of you not able to attend the July 2008 workshops at Macalester College, we hope this volume gives you a sense of the excitement and inspiration we experienced, and the innovative intellectual and practical ideas we took home. For those of you who did attend, we present this volume as a reminder and refreshment of our teaching community's spirit. We look forward to the next FUN summer workshop, presently in the planning stage, to be held at Pomona College in 2010.

REFERENCES

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