

EDITORIAL

Convening the Undergraduate Neuroscience Education Community in a Period of Rapid Change: Insights from the FUN 2020 Summer Virtual Meeting

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"The history of evolution is not one of stately unfolding, but a story of homeostatic equilibria, disturbed...by rapid and episodic events of speciation."

—Eldredge and Gould (1972), from *"Punctuated equilibria: an alternative to phyletic gradualism"*

In March 2020, American higher education was confronted with the challenge of continuing operations under global pandemic conditions. As institutions shifted to remote learning, the adverse socioeconomic and health impacts of the pandemic fell disproportionately on vulnerable groups, including those historically excluded from higher education. The killing of George Floyd in police custody on May 25, 2020 brought about a summer of protests and consciousness-raising led by the Black Lives Matter movement. Educators were called to address long-standing racial/ethnic inequities in access and opportunity within higher education with new or renewed commitment as these issues came to a new level of crisis. When future educators look back on the 2020s, will they see it as an era of rapid change? How is an organization like FUN called to drive innovation and change toward the realization of inclusive excellence in higher education?

AN IMPETUS TO CONVENE

While the COVID-19 pandemic disrupted our personal, professional, and social norms, the FUN listserv was active with questions from the FUN community on how to switch to online teaching and where to locate practical resources. Seeing this activity, a subset of the FUN Workshop Committee felt an urgent need for the FUN organization to convene the community to communicate, collaborate, and celebrate neuroscience education, while helping members prepare for online teaching. With the support of the full Workshop Committee and the FUN Executive Board, at the end of May, the FUN 2020 Summer Virtual Meeting (SVM) Planning Committee conceptualized an online experience. This process began with the structure of the canceled 25th anniversary FUN Workshop that was to be held at Davidson College on the theme of "Best Practices for Rigor, Respect, Responsibility, and Outreach," which had been crafted chiefly by Dr. Eric Wiertelak (Macalester College), Dr. Julio Ramirez (Davidson College), and Dr. Bruce Johnson (Cornell University).

Given the pandemic's exacerbation of long-standing inequities in higher education, the SVM planning committee felt that further enhancing the diversity, equity, and inclusion

(DEI) theme was necessary in recognition of the needs of FUN members and their students, especially those from historically excluded racial and ethnic groups. The SVM consisted of three virtual meeting days (July 30 to August 1, 2020) convened under the thematic title, "Teaching, learning, and mentoring across distances," a nod to the physical and social distances that marked the moment. Sessions alternated between three critical themes: (1) Diversity, Equity and Inclusion, (2) What works in remote teaching, and (3) Online lab resources. The program included pedagogy-focused talks from throughout the undergraduate neuroscience community, updates on existing teaching resources that had already benefited many faculty in their transitions to online teaching, and presentations identifying new inclusive pedagogical approaches to the neuroscience classroom.

BROADENING ACCESS

To boost access to community resources for FUN members new and old, the registration fee was applied to cover membership dues and waived for current members. The FUN 2020 SVM was generously supported by AD Instruments and Backyard Brains, as well as private donations from many FUN members. The meeting ultimately included over 300 unique registrants, with over 40 talks and poster presentations. A variety of presentation formats included a keynote address from Dr. Mays Imad (Pima Community College) on Trauma Informed Pedagogy (Imad, 2022), a poster session, socials, information sessions with funding Program Directors Dr. Marguerite Matthews (NIH) and Dr. Ellen Carpenter (NSF), and working sessions to discuss neuroscience core concepts (Chen et al., 2022) and competencies (Figure 1). The FUN SVM opening session started off extremely well with 215 virtual attendees. Ultimately, 339 unique attendees participated in some part of the FUN 2020 SVM.

During the sessions, the virtual chat room was alive with greetings among colleagues new and old, joyous banter, and of course, copious sharing of resources. Many participants shared their appreciation of this virtual collaborative space that was accessible equitably to all FUN members. With the expert support of Dr. Robert Calin-Jageman, who had just overseen the transition of the FUN website to the new platform, the SVM presentations were posted online for a year following the event, further boosting access for FUN members.

Access to presentation and publication opportunities was

FUN 2020 Summer Virtual Meeting

Total attendees: 339

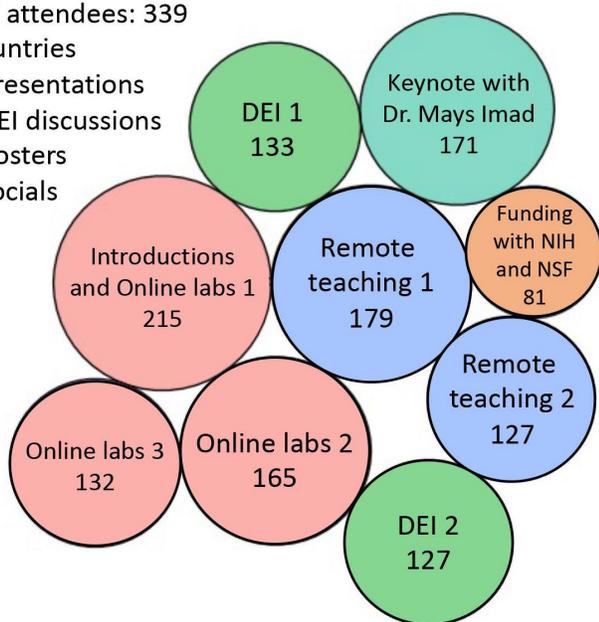
5 countries

30 presentations

10 DEI discussions

19 posters

12 socials



Session Themes (attendance in bubble)

Diversity, Equity and Inclusion Online labs Remote teaching

Figure 1. Diagram of the variety of sessions during the FUN 2020 SVM. Numbers and circle size indicate the virtual attendance at each session, and the colors indicate the session themes. The top left list shows the number of countries represented, and the total numbers of presentations, discussions, posters, and socials.

also broadened, through an open call for talks of various durations, posters, and themed socials. With the help of Dr. Bruce Johnson, many of the presenters originally booked for the in-person workshop were re-engaged for the SVM program, and nimbly adapted their content both for the online presentation format, and in many cases, for implementation in online or remote formats. The open call elicited a large response from FUN members. Accordingly, more than half of the articles in this special issue of JUNE are from authors who responded to the open call and found their way to disseminating their work through a variety of presentation formats. Thus, a large degree of interest in sharing pedagogical work has been revealed among the FUN membership, which should be facilitated by future FUN programming. A limited honorarium program was introduced to support individual or group presentations that included presenters from historically excluded racial/ethnic groups who were not previously members of FUN. Continued funding for such a program would help to ensure that much-needed diverse perspectives are represented among presenters as well as promote diversification of the FUN membership.

SOME TECHNOLOGICAL LEAPS

After the framework of the FUN 2020 SVM was established, the planning committee searched for platforms with the capacity to host a large audience and which were easily accessible by all FUN members. Zoom, the most widely

used virtual platform with flexible settings for host privileges and interactive tools, became the first choice for the main meeting sessions. To simulate the informal interaction of in-person focus workshops and poster presentations, the SVM planning committee adopted Padlet, a free online collaboration tool, as the format for poster presentations and social workshops. These choices aimed to maximize equitable accessibility to the virtual meeting and foster small group discussions. Regrettably, the planning committee was unable to incorporate captioning technology in our meeting sessions as it was not readily available on Zoom at the time, and we had not accounted for this aspect of accessibility in our planning. As a result, this critical accessibility element was largely missing, but for a few presenters who utilized captioning technology directly enabled from their presentation software (e.g., Dr. Ashley Juavinett, UCSD). This oversight exemplifies the diverse needs of our members, which should be taken into account, broadly, in all future FUN event planning.

A CALL FOR TRANSPARENCY, HISTORIES, AND ARCHIVES

Given the increased flexibility and low cost of the SVM format, an important push was made possible, to increase transparency in presenter recruitment and draw presenters and attendees from across a wider spectrum than historically recruited to FUN workshops. This push resulted in a large number of presenters new to FUN, and also a large range of ideas and approaches not historically covered at FUN pedagogical workshops. The broad range of ideas offered at the SVM animated the FUN base and new social connections were formed. Thanks to the diversity of content, most attendees left with ideas that could be implemented into online or hybrid classes or labs in the rapid manner necessary for effective teaching in the fall. Following 25 years of successful FUN pedagogical workshops, the unique experience of the FUN 2020 SVM highlights a need for histories. What critical elements of design and implementation made the historical workshops so successful? What elements of the SVM were relevant for the summer of 2020, when a virtual meeting was a novelty and a challenge, and what elements should be taken as lessons for the future? How will the funding model change to prioritize inclusion?

The abundance of useful teaching concepts and tools shared during the meeting was such that attendees started unofficial catalogs of resources, which was ultimately followed by a more formal archive on the FUN website, through which easy access to all talks remained in place for FUN members for a year. Traditionally, special issues of JUNE such as this one have been the main way to disseminate the proceedings of FUN pedagogical workshops, but these sharing activities revealed an acute desire among the FUN membership for more immediate resource sharing support that is not met by the organization's current archival capacity.

Notably, in a way not captured by the website archives or elsewhere in the contents of this special issue, the DEI theme of the meeting found a strong resonance with the community of attendees. The SVM took place as the nation

was soon to face a stark decline in immediate college enrollment after high school, with disproportionate declines for graduates of low income, high poverty, or high minority high schools (Causey et al., 2021). The challenges of remote teaching exposed the need to consider educational access in more intentional ways. Following the murder of George Floyd and the heightened awareness to anti-Black racism brought by the Black Lives Matter movement in the summer of 2020, many among us were seeking deeper continuing education on anti-racism and inclusive pedagogy in tandem with strategies for curricular and institutional change.

A session on the second day of the SVM, immediately following the keynote address, explored these themes through moderated discussions on DEI in introductory neuroscience courses (Dr. Alo Basu, College of the Holy Cross), retaining students from underrepresented backgrounds from the first to second year (Dr. Michelle Mynlieff, Marquette University), creating inclusive classes and programs (Dr. Michelle Tong, then at University of St. Thomas, now at Macalester College), inclusive pedagogy (Dr. Monica Linden, Brown University), students as partners (Dr. Barbara Lom, Davidson College), supporting students from underrepresented backgrounds from sophomore year to graduate school (Dr. Hewlet McFarlane, Kenyon College), first-day information sheets (Dr. Amy Jo Stavnezer, College of Wooster), features of successful pipeline programs for DEI in neuroscience (Veronica G. Martinez Acosta, University of the Incarnate Word), and shifting to a more equitable and inclusive faculty culture (Dr. Gerald Griffin, Hope College and Dr. Kimberlei Richardson, Howard University). The SVM organizers are particularly indebted to these discussion leaders for bringing attendees together to discuss challenging topics with no ready solutions.

Many of these conversations resumed later that evening in well-attended themed socials, which included a dedicated space for faculty of color to network and brainstorm (a first step toward meeting a commitment made in the first FUN statement on DEI to create safe spaces for faculty of color; Bayline et al., 2020), as well as a group that met to discuss ways to support faculty of colors as allies. Through these activities, the SVM acted as a catalyst for momentous professional development and social change within, and beginning with, the FUN community. FUN members mobilized to keep the active exchange of knowledge and resources going beyond the meeting in a variety of ways. Subsequently, the monthly virtual series FUN Final Fridays was initiated as a means to continue professional development opportunities on an accessible and sustainable basis year round. Extending the intentional focus on DEI that was woven throughout the SVM, the FUN organization now has a dedicated DEI committee, guided by a revised FUN DEI statement (Neuwirth et al., 2022), to spearhead self-study and identify key strategic initiatives for the organization.

CHANGE IN UNDERGRADUATE NEUROSCIENCE EDUCATION

Whether or not the current era of intentional effort toward

inclusive excellence will be seen decades hence as one of rapid and meaningful change is yet to be determined in the fullness of time. What metrics of representation, inclusion, and achievement will be used? There are powerful opposing forces rooted in the conventions of academia and systemic racism, sexism, and other exclusionary processes endemic to society, including the institution of higher education within it. For the organizers, the goodwill, creativity, and vitality of the FUN community had never been more heartening to see than it was in those uncertain early months of the COVID-19 pandemic at the FUN 2020 SVM. While drawing hope from the intentional efforts at self-examination and culture change that have been sustained by the FUN community and its members over the past 2 years, we recognize that the impact of our good intentions is yet to be realized. We look forward to seeing many seeds that were planted—new ideas, memberships, relationships, collaborations, and initiatives—continue to flourish and evolve in the coming years.

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