

Highlighting the contributions of Minority Serving Institutions to neuroscience

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Minority Serving Institutions (MSIs) are recognized for their unique place in higher education because of their service to minority populations in the United States. MSIs includes Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions that are either 4-year or 2-year institutions. In the pool of associate, baccalaureate, and graduate degrees conferred to historically excluded populations, these universities and colleges are overrepresented in their matriculation of minority students. As such MSIs are uniquely suited to increase the representation of minority groups in neuroscience research and other academic STEM careers (National Academies of Sciences, Engineering, and Medicine, 2019; Toldson, 2019). While the majority of MSIs do not offer formal neuroscience undergraduate or graduate degree programs, in particular neuroscience doctoral programs, these institutions are able to engage students in neuroscience research. MSIs serve as an important training environment for exposing exceptional undergraduates to state-of-the-art neuroscience research, serving as a stepping-stone for these students to matriculate in competitive neuroscience doctoral programs. Moreover, while increasing URM student accessibility to higher education and success is an important goal of the MSIs, with an emphasis on undergraduate teaching in most MSIs, the faculty at these MSIs also are actively engaged in rigorous and innovative neuroscience research. The goal of this special issue is to highlight the contributions of MSIs in neuroscience, in both enhancing workforce diversity and the pursuit of scientific knowledge.

To start this special issue, we have included the reflections of neuroscientists who received training at an MSI and have continued their contribution to the field as researchers, clinicians, and teachers (Grillo et al., 2021). There are also two commentaries on

the efforts within academic (Harrington, 2021) and governmental institutions (Jones et al., 2021) to improve diversity in the workforce. While there are many neuroscience laboratories at MSIs, herein we are representing various technical approaches and thematic interests, including basic science discoveries in dopaminergic signaling (Formisano et al., 2021) as well as potentially translatable studies on the impact of sex on drug-induced behavioral maladaptations (Maldonado-Devincci et al., 2021) and neurobiological underpinnings (Carcoba et al., 2021). Finally, potential pharmacologic (Burton et al., 2022) and behavioral interventions (Marrero-Cristobal et al., 2021) for reversing neurotoxic insults to the nervous system are presented. Altogether, these studies are examples of the potential for MSIs to make significant contributions to advances in the neuroscience disciplines, through both training opportunities for historically excluded individuals, as well as through the production of a body of information that expands the scientific enterprise.



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Special Note: We and the editors would like to send out our heartfelt condolences to the family and friends of Dr. Harbinder Singh Dhillon, who passed away shortly after the acceptance of his work enclosed. Harb was an outstanding researcher who made significant contributions to our understanding of how genes control learning and behavior. His research used the simple model systems *Drosophila* (fruit fly) and *C. elegans* (a nematode worm) to understand how the genes that modulate neurotransmitter release influence development and adult behavior. He will be greatly missed by his family, colleagues, and former mentees. A fund has been setup with the Delaware State University Foundation to establish an endowed scholarship in his name: <https://www.desu.edu/dr-hs-dhillon-memorial-scholarship-fund>

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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