

The importance of gender diversity in neuroscience research

In this blog post, Professor Tara Spire-Jones (she/her) highlights how the lack of gender representation in neuroscience research is limiting medical progress:

I've been thinking a lot lately about the importance of considering gender in neuroscience research. My day job is a dementia researcher. Our group is trying to understand the brain changes that cause Alzheimer's disease and related neurodegenerative conditions in order to effectively prevent or treat them. We always include sex as a variable in our analyses whether we're looking at donated human brain tissue or animal models, but for humans, we do not have any information about gender as this is not routinely collected by the tissue banks we access.

It turns out, it's not just our lab that has this problem. I recently wrote an editorial on the topic of gender in neuroscience research in my journal *Brain Communications* and, while reading about the topic, found some disturbing data about the lack of inclusion of trans and nonbinary people in medical research which is contributing to health disparities. An analysis of over 20,000 clinical trials concluded that many medical fields, including neurology, had a serious underrepresentation of women in clinical trials. Further, the authors state:

Despite the high rates of sex reporting in the ClinicalTrials.gov registry, a meaningful analysis of the

representation of gender was not possible because of the small number of clinical trials that included and reported on nonbinary genders or transgender health, highlighting a need for greater inclusion of gender diversity in medical research. A standardized system that includes all sexes and genders, including transgender and nonbinary genders, in reporting is necessary to improve health for all. The relative absence of the gender nonbinary and transgender community from clinical trials limits medical progress for these communities.

I discussed some of these data in a webinar with the UK Dementia Research Institute.

In addition to the need for research inclusive of all genders, in my field we have a lack of representation of gender diversity among researchers. We need all of the best minds to solve neuroscience challenges like dementia. One shining star in this respect was Prof Ben Barres, who sadly died a few years ago. Ben was a transgender neuroscientist who was an inspiration and advocate for diversity in neuroscience. I highly recommend his book, *Autobiography of a Transgender Scientist*.

I'm very proud of the Staff Pride Network for supporting our local LGBT+ scientists, whose successes are a reminder that everyone deserves to be included in neuroscience!

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- [Learn more about Tara's research](#)