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## LETTERS

# Imposter syndrome threatens diversity

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As higher education institutions adopt admissions and hiring policies that promote diversity and inclusion, they must also implement policies to acknowledge and combat the feelings of self-doubt known as imposter syndrome. Those with imposter syndrome have an innate fear of being discovered as a fraud or non-deserving professional, despite their demonstrated talent and achievements (1). Imposter syndrome has been found to be more prevalent in high achievers (2, 3), women (3), and underrepresented racial, ethnic, and religious minorities (4–7). If institutions and departments don't take steps to allay these fears, the science pipeline could suffer.

By constantly downplaying their own accomplishments, those suffering from imposter syndrome may sabotage their own career (4). At the societal level, imposter syndrome may explain the higher drop-out rates of women and minorities from the science, technology, engineering, and mathematics pipeline (3, 11).

To effectively increase diversity, institutions must address imposter syndrome by increasing the visibility of the problem, providing access to mental health coaching, and implementing supportive organizational policies. Professors, principal investigators, and peers should encourage students and fellow scientists to focus on factual evidence regarding their academic performance and to set realistic expectations. Open discussions about imposter syndrome at the institutional level should put a name to these feelings and normalize them as common experiences rather than pathologizing them (3). Group peer mentoring can allow mentees to gradually transition into mentors, building their self-confidence as they become independent scientists (12). Institutions should provide training for mentors to help them recognize the negative consequences of the imposter syndrome. Finally, outreach programs to high schools should make students aware of imposter syndrome to help them identify and overcome it as they pursue their own education and careers.

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