

# The forgotten D of DEI



**To mark the United Nations International Day of Persons with Disabilities we have launched a collection on chemists with disabilities. Within diversity, equity and inclusion (DEI) efforts in science, this is a topic that is often overlooked.**

Since 1992, the United Nations has designated 3 December as the International Day of Persons with Disabilities. This year we mark the occasion by launching a cross-journal [collection on disability in chemistry](#). Nature Portfolio journals have embraced the need to promote diversity, equity and inclusion (DEI) issues across the many facets of the scientific workplace. There has, however, been a topic that has been somewhat forgotten when it comes to DEI conversations: chemists with disabilities.

The push for a more diverse community is not merely an attempt to adhere to new legal requirements, but can also help to drive creativity and innovation. Consider an example from outside the world of chemistry: Ben Cohen – the ‘Ben’ of the famous Ben & Jerry’s ice cream brand – has no sense of smell and very little sense of taste<sup>1</sup>. For many, this might seem a prerequisite for a job developing new foods. Instead, this led to their unique selling point – the addition of texture. Had Cohen been able to smell and taste in the same way as the majority of the population, the need for texture might not have arisen, and the world could have been left with the plain old boring ice cream of old. By actively encouraging inclusion, we provide an environment for those with different experiences and viewpoints – which can generate new ideas.

Globally, around one in six people have a disability<sup>2</sup>, accounting for over a billion people. Commonly referred to as the ‘largest minority group in the world’, this group includes those whose hearing, visual, cognitive, mobility, speech and/or neural functions are impaired. On this basis alone, it might be fair to assume that efforts to include people with disabilities in education and the workplace would be a top priority. However, when it comes to inclusion efforts in STEM, disabled scientists are all too often overlooked. This is especially true for chemistry, where the practical nature of laboratory work means that those who need additional support can feel discouraged from study, often under the pretence of safety concerns.

It is important to note that a lack of inclusion does not reflect any lack of research ability. There are many scientists who have overcome incredible barriers to their progression<sup>3</sup>, and gone on to develop some of the most useful techniques and innovative ideas that underpin modern science. However, despite these notable examples, chemistry research is a long way from reflecting the make-up

of society and we should not allow the few examples of success to fool us into thinking that barriers do not exist.

This collection is focused on those scientists for whom the barriers remain too high. The statistics are stark. In the UK, for example, only 8.4% of people working in the chemical sciences have disabilities (compared to 17.8% of the general population<sup>4</sup>). While statistics are harder to find for the rest of the world, it seems unlikely that the pattern would be much improved. In addition, the anonymity of a survey (such as those that have resulted in the above statistics) can mean people are more willing to disclose these facets of their lives.

As such, visibility of scientists with disabilities presents a further challenge. Consider your colleagues at work, your lecturers, professors, and demonstrators at university: how many have disabilities that you are aware of? If you don’t have a role model or see people who have the same background or experiences as you, in higher education, in industry or in academia, it sends a message that this isn’t a space in which you are welcome.

Revealing that you have a disability can be fraught with difficulty because each disability ‘label’ comes with certain assumptions that can be more or less relevant to the individual. As Goudreau Collison discusses in a [Comment](#), assuming the challenges and support needs of individuals based on a single label is inherently flawed. A disability is just one facet of a person’s experience and, importantly, an intersectional approach to DEI is necessary to promote the inclusion of all scientists from groups that have been historically marginalized. This is also reflected in a [Comment](#) from Jane Essex where she states: when you’ve met one disabled person, you’ve met one disabled person. Each person has different experiences, interests, strengths, and weaknesses.

Incorporating people with different experiences into our community will make it fertile ground for new ideas and innovations. By providing an environment for scientists with disabilities to thrive, and removing the barriers that limit understanding to a single, classical (often poorly accessible) method, we can develop new ways to think about our research problems. One such example is in the understanding of fundamental atomic properties and reactivity, as discussed in a [Comment](#) by Supalo, Schmid and co-workers where they conceptualize chemistry without the use of visual models. By updating the homogenous group of scientists of old, we hope for a future that better reflects the population to empower diversity in chemical approaches to tackle modern, global challenges.

In putting together this collection, we were keen to avoid a rose-tinted view – that the problem somehow has an easy fix or that there isn’t really a problem at all. The safety concerns associated with lab work are real, but are not adequate justification to prevent passionate

scientists from entering our field. Work continues to improve the accessibility of laboratories, with the development of practical alterations such as those discussed in the [Comment](#) by Namiki, in the hope that one day neither physical nor mindset barriers for disability inclusion will remain.

For real equity and inclusion, there needs to be substantial financial and time commitments from both academia and industry as well as at the various levels of education. Disability inclusion is especially challenging because of the unique and varying needs of each individual. We certainly don't have all the answers (and we probably haven't asked all the questions) but we are keen to be a venue for these types of conversations and hope that we can make

chemistry, and STEM more generally, a place that truly cares and does all it can to break down the barriers that prevent entry to our field.

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## References

1. *10 Fun Facts About Our Funky Chunks* (Ben & Jerry's Homemade, Inc., 2018); <https://www.benjerry.com/whats-new/2018/10/chunks-fun-facts>.
2. *Disability* (World Health Organization, 2023); <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>.
3. *Celebrating Scientists with Disabilities* (The Royal Society, 2023); <https://royalsociety.org/topics-policy/diversity-in-science/scientists-with-disabilities/>.
4. *Disability and Employment Statistics* (Office of National Statistics, 2023); <https://www.ons.gov.uk/aboutus/transparencyandgovernance/freedomofinformationfoi/disabilityandemploymentstatistics>.