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Designing Inclusive Lab Environments: What You Need to Know

As the conversation around accessibility continues to evolve, there is growing recognition of the importance of designing lab environments that support neurodivergent individuals. (See definition, at right.) While traditional lab design has focused on functionality and efficiency, there is a compelling case for incorporating sensory-friendly features that allow users to control their environment in ways that enhance comfort, focus, and well-being: laboratory and pharma/biotech environments tend to be fields in which neurodiverse individuals (whether diagnosed as such or not) excel.

One of the most impactful ways to support neurodiverse users is by offering greater control over environmental factors such as lighting, sound, and color:

1. **Lighting.** Adjustable lighting, such as dimmable fixtures, can help accommodate individuals with light sensitivity, a common trait among neurodivergent populations. Providing users with the ability to control brightness levels can reduce eye strain and prevent sensory overload. Incorporating natural light where possible, along with task-specific lighting, can further enhance comfort and productivity.
2. **Sound.** Similarly, sound masking and blocking systems can reduce auditory distractions and create a more calming atmosphere. This is especially important in open or shared lab environments where background noise can be unpredictable and disruptive. Acoustic elements, such as sound-absorbing panels, acoustic baffles, or quiet zones, can also help create a more focused and less stressful workspace.

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What is Neurodivergence?

This term refers to natural variations in the human brain and how it processes information, thinks, learns, and behaves. It is often used to describe individuals whose neurological development and functioning differ from what is considered "typical" or "neurotypical."

This includes, but is not limited to, people with Autism Spectrum Disorder (ASD), Attention Deficit/Hyperactivity Disorder (AD/HD), Dyslexia, and other conditions.

3. **Color.** Thoughtful use of color can help support sustained attention in environments requiring a high degree of focus. Soft, muted colors such as blues, greens, and earth tones are known to be more soothing, while bright or saturated colors can be overstimulating or even triggering for some individuals.

Incorporating these features is not only feasible but often quite natural to do. Creating zones within a lab where lighting can be adjusted, or offering quiet rooms that serve multiple purposes, e.g., a space for reflection or quiet that can also be used by nursing mothers or people with religious needs, can significantly enhance the user experience. These spaces should be clearly communicated and accessible to all, reinforcing the message that the workplace is designed with everyone's comfort in mind.

Ultimately, designing for neurodivergence benefits a much wider audience. Everyone has days when they need a quieter space or a break from sensory input. By embedding these options into the design from the outset, we create environments that are not only more inclusive but also more proactive, adaptable and human-centered.

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