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The Role of Diversity Equity and Inclusion in Shaping the Future of Science

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In an era of unprecedented global challenges, the geosciences must reflect the diversity of the world it seeks to understand and protect. This presentation delves into the critical importance of Diversity, Equity, and Inclusion (DEI) within the geosciences and STEM fields, examining how systemic inequities hinder scientific advancement and proposing actionable strategies to address them (Casad et al., 2021; Kuchynka et al., 2022) . By employing an intersectional perspective, as articulated by Kimberlé Crenshaw (2015), this work highlights how overlapping identities, such as race, gender, and socioeconomic status, shape access and opportunities in science. These inequalities are not only failures in decision-making but significant structural barriers to the innovation needed to address pressing issues like climate change, resource sustainability, and planetary resilience.

For instance, a cornerstone of the STEM disciplines, face significant challenges in recruiting and retaining talent from underrepresented groups. Disparities in access to education, funding, and professional opportunities disproportionately affect women, minorities, and first-generation scholars, limiting the field's potential. Research shows that diverse teams outperform homogeneous ones in problem-solving and innovation (Welpe & Boes, 2015). Thus, the presentation will discuss the following:

1. **Addressing Implicit Bias in Hiring and Recruitment**: Fair and transparent pathways for diverse talent.
2. **Mentorship Programs for Early-Career Scientists**: Supporting first-generation scholars.
3. **Intersectional Approaches to Retention**: Creating a culture of belonging.
4. **Equity in Research Funding**: Ensuring equitable access to resources.

The session also seeks to inspire institutions to take actionable steps and reflect on the diversity and complexity of the Earth itself.

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