

LAY ABSTRACT

TITLE: The use of race terms in epigenetics research: considerations moving forward

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There is a field of science called epigenetics. It studies how our environment - like the air we breathe or the stress we feel - can change how our genes work. Epigenetics explains how different genes become more or less active in response to cues from the environment.

Sometimes, scientists see that one group of people is sicker than another, and they may find that the sicker group differs by “race” from the healthy group and then conclude that race explains the sickness. However, this is misleading and does not show how the world around us can affect our health.

In this paper, the researchers explain that it is time to change how we investigate race and health. Scientists should look beyond just race and more broadly at people’s environments and experiences that affect their health. For example, living in a neighborhood with more pollution or dealing with unfair treatment (discrimination) can physically change a person’s body.

The researchers suggested four ways to make research better. **Think Twice:** Scientists should ask themselves why they are using race in their study, so they don't accidentally repeat old, harmful ideas. **Team Up:** Biology experts should work with social scientists to measure things like how unfair rules in society affect people's health. **Be Clear:** Researchers need to be honest and open about how they grouped people in their

studies. **Focus on the Cause:** Instead of just saying a health gap exists, scientists should investigate how things like racism - not just biology - cause these gaps.