Toward evidence-based strategies
for improving diversity, equity, and inclusion in science

My name is Dan Larremore. I am an associate professor at CU Boulder's BioFrontiers Institute and Department of Computer Science, where my group studies academic faculty, from faculty hiring networks and prestige, to the socioeconomic roots of the professoriate and the impacts of parenthood on academic careers.

It's my great pleasure to serve as moderator for today's kickoff panel.

DEI initiatives and efforts are common, particularly in the science and science-related fields that are studied by the Metascience community.

While much of the *motivations* for today's DEI efforts are rooted in observation, evidence, and generations of advocacy and organizing, many of the *interventions* to improve DEI are rooted in theory.

This panel asks, broadly: how do we as a Metascience community — a community interested in a more scientific understanding of how our communities work, discover, and thrive — move toward an evidence-based practice?

Today's panelists approach this question from complementary perspectives. While you can read their *full* bios and accolades in the program, I want to introduce each by briefly mentioning the way they approach today's topic.

Dr. Catherine Alfano draws on deep experience in the field of cancer research and behavioral interventions, including randomized controlled trials.

Dr. Hannah Rubin brings together complementary backgrounds in philosophy and evolutionary game theory, studying not only individuals, but teams and collaborations.

Prof. Jordi Goodman also studies teams, but with the unique perspective of a legal scholar and former patent prosecutor, probing the ways that intellectual property and underrepresentation intersect and interact.

Order of events: each panelist will share a small portion of their work, spanning the first half of our time together today. I'll then ask a few questions of my own before opening the floor to audience questions.

With that please join me in welcoming our first presenting panelist, Dr. Catherine Alfano.

Questions

Unanticipated consequences, whether positive or negative in outcome, can arise in any study — particularly those where we test an intervention or treatment in a complex system with its own intrinsic or endogenous dynamics. Given that modern science *is* a complex social system, what do we know about unintended consequences of DEI efforts, and how can we as "Metascientists" position ourselves well to observe them?

This question targets Catherine as the first respondent (re remediation).

DEI — there are three things here. And, sometimes 4 or 5 when we include Belonging or Justice. In Metascience research, do we give each of these three equal attention and effort? Does one of these stand out as needing more research focus than it currently gets?

This question targets Jordi as the first respondent (re definitions and redirecting the question).

We often study DEI in science through a quantified "bottom line", whether that's funding, awards, papers, or citations. But, one can immediately impugn *any* of these quantitative measures. As researchers, what do we risk by using these quantitative but imperfect lenses?

This question targets Hannah as the first respondent (re qualitative evidence is also evidence; notes about forcing people into inequitable collaborations, self-undermining)