

## Cultures of Excellence

The *HHMI-NCPRE Labs That Work...For Everyone* program is designed to support cultures of excellence in research.

Our premise is that excellence is more than what is done, it also encompasses how work is done. This means: exceptional science done ethically, in inclusive working environments with positive interpersonal dynamics, and in ways that develop and support lab members to build productive, meaningful careers. Research groups do not only produce data and results: they also reproduce and sustain themselves as effective ongoing collaboratives, which in turn builds and contributes to the talent pool of the research community.

Culture refers to how groups of people work and live, and it is shaped by underlying values and norms. At work, that includes communication styles and the tone set by leadership, as well as expectations around how tasks are performed, including work hours and processes, and the degree to which inclusiveness is fostered. Concepts of “excellence” differ, leading to cultures with varying emphases on collaboration versus competition, autonomy versus independence, and guidance and development for doctoral students on their way to becoming scientific leaders.

**Our premise is that excellence is more than *what* work is done, it also encompasses *how* work is done: with rigor, reproducibility, inclusion, and integrity.**

As labs work to recruit and support the development of talent from diverse populations, the elements of what works to motivate and engage those members’ best abilities and insights, what makes them feel part of a lab culture, what promotes their professional growth – and what helps retain them as active participants – have also expanded. We are becoming more aware of how some traditional aspects of lab culture, which might have produced excellent results from the participants who constituted them, are less effective (or even counterproductive) when those populations change. “A culture of excellence” means broadening our pool of talent, adapting standards and methods of operation to suit the needs of the participants, and taking advantage of their diverse perspectives and insights to enhance the productivity and creativity of the research.

Many attributes of creating a culture of excellence are not intuitive, especially around uses of power and authority. People with authority can inadvertently silence or harm those with less power through not understanding the effects of their words and actions. This is exacerbated when those of less power occupy environments that are unwelcoming to them. Closely related to this dynamic, doctoral students and early stage researchers often enter this competitive environment with high levels of anxiety and insecurity. Power dynamics, combined with fear of failure, intersect to reduce levels of trust among members of the group, and also results in increased individual stress for many.

Culture is a manifestation of how individuals behave—and this means that culture is not something fixed or given, but rather is something that groups can create, or change. Building cultures of excellence requires acknowledging power dynamics and building trusting relationships between individuals and within groups, as well as forming habits that can help build careers.

