ie3

Inclusive Excellence

Building institutional capacity for student belonging

hhmi | Howard Hughes Medical Institute

The Howard Hughes Medical Institute (HHMI) announces the Inclusive Excellence initiative's third competition (IE3). These grants are helping US colleges and universities build their capacity to effectively engage students from all backgrounds throughout their undergraduate years, especially those students who belong to groups underrepresented in science. The new competition builds upon what is being learned from the Inclusive Excellence community, at present comprising the 57 schools awarded grants through the first two competitions (hhmi.org/IE). In the IE3 competition, HHMI expects to award grants to up to 30 schools. Each grant will provide $1 million over five years and will not be renewable.

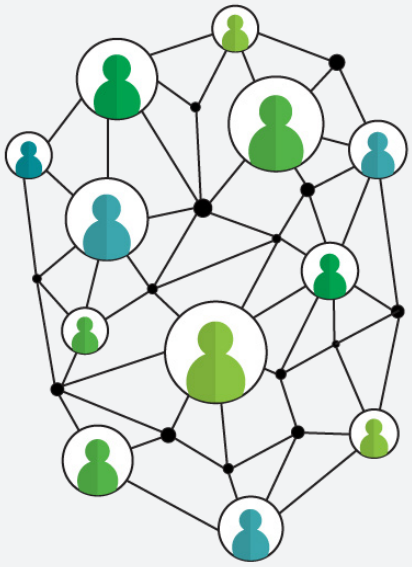
hhmi.org/IE
IE@hhmi.org

Our goal

The dynamic demographics of the US population present a historic and compelling opportunity for our nation. All students, regardless of where they come from and where they are going, deserve a meaningful and positive experience in science through which they will better understand and engage in scientific thinking and discovery. The quality of that experience is the responsibility of the faculty and administrators who play an essential role in defining an institution's culture.

The HHMI Inclusive Excellence initiative fosters a learning community of college and university faculty and administrators who are engaged in the process of increasing their institution's capacity for inclusion of all students, especially students who belong to groups underrepresented in the sciences. Each school in the community commits to learning through reflection, sharing what is being learned, listening to feedback, and supporting other members of the community.

Schools awarded grants in this competition will join the Inclusive Excellence community. Each grantee college or university will:



- Develop an understanding of its institutional context and define what "inclusive excellence" means to the institution;
- Identify the institutional barriers to inclusion and equity;
- Support serious efforts to engage all faculty in making meaningful contributions to the institution's growth in capacity for inclusion;
- Build a context-specific theory of change with measurable milestones, establish meaningful methods to assess progress, and use evidence to continuously inform program design and implementation;
- Continuously reflect on how the activities supported by the grant influence institutional values, rewards systems, the campus environment, and progress toward genuine capacity building;
- Actively participate in the Inclusive Excellence learning community.

The challenge and the opportunity

Today, the majority of people coming to college intending to study science are what, a generation ago, were called "non-traditional" students. This new majority includes students who begin at a two-year school and transfer to a four-year university, students who are first in their family to attend college (first-generation students), and persons who identify as belonging to racial, ethnic, socioeconomic, and other groups underrepresented in science.

The new majority presents the nation with an enormous opportunity. A college or university that aspires to excellence works continuously to foster an environment that encourages all of its students and faculty to find creative solutions to important problems. Creativity and innovation emerge from divergent perspectives, and the benefits of having a diverse group of problem solvers increase as the problems become more complex. The many strengths arising from the diversity of our students represent an incredible potential benefit to higher education, science, and the nation.

“Creativity and innovation emerge from divergent perspectives, and the benefits of having a diverse group of problem solvers increase as the problems become more complex.”

The good news is that the students coming to college wanting to study in the STEM disciplines already reflect the dynamic diversity of the nation. But we have not yet found ways for many of these students to succeed in STEM. Nationally, a student beginning college at a two-year institution has a five-fold lower probability of finishing the baccalaureate than a student who begins at a four-year school. A first-generation student has a three-fold lower probability of finishing the baccalaureate than a student from a family with at least one college graduate. And a student from an underrepresented group has a two-fold lower probability of completing the STEM baccalaureate than a student who identifies as white or Asian American.

Inclusive excellence

Diversity is necessary for excellence, but it is not sufficient. Without inclusion, diversity is an empty gesture. Inclusion describes the students’ feeling of affirmation and agency. Inclusion means that the students feel that they belong, that they can be successful, that their contributions are valued, and that the school expects them to be successful. A college or university can aspire to excellence only if inclusion is at the core of its identity.

“A college or university can aspire to excellence only if inclusion is at the core of its identity.”

Inclusive excellence is an institutional stance of commitment to the process of continuous examination and learning, and not an end point. Inclusive excellence requires the institution to embrace a growth mindset, and to reject deficit-based approaches to “fixing the student.” Inclusive excellence is context-specific and so must be defined locally. Working toward inclusive excellence requires continuous reflection and learning, which is accelerated through honest dialogue with others engaged in similar work.

The faculty are central to Inclusive Excellence

The faculty have the leading role in establishing the campus culture for inclusion. They are the main point of contact between the student and the institution. They are responsible for creating the curriculum and deciding the content and pedagogy of individual courses. They interact with students in the classroom, the research lab, and as advisers and mentors. And faculty have a major responsibility for establishing the criteria by which faculty are evaluated and promoted.

Therefore, institutional change through faculty commitment to learning is at the core of the Inclusive Excellence initiative. Beginning with the pre-proposal and carrying through to the final proposal, applicants will describe the processes by which faculty will develop their understanding of inclusive excellence and learn the skills to create a more inclusive environment. The faculty are central to this work and must commit to cultivating an inclusive institutional stance. For true institutional transformation, it is essential that the responsibility for advancing inclusive excellence expand from a few individuals to many champions.

> “For true institutional transformation, it is essential that the responsibility for advancing inclusive excellence expand from a few individuals to many champions.”

Effecting change: focusing on a specific challenge

This initiative challenges institutions to begin with faculty learning and then to apply that learning to a specific challenge. In this competition, the proposer will select one of three challenges on which to focus, based on the priority their institution has identified. These three challenges emerge from what is being learned by the present Inclusive Excellence community and represent areas that will benefit from further attention.

- **Meaningful evaluation of effective and inclusive teaching**
  Effective teaching is a major element in faculty review, yet the criteria and indicators for effective and inclusive teaching are seldom articulated, and few institutions have contextually relevant validated measures of effective and inclusive teaching. We encourage schools to take on the challenge of developing, implementing, and assessing approaches to measure the extent to which an instructor’s teaching is effective and inclusive, and then develop procedures by which the teaching assessment will inform faculty practices, including promotion and tenure decisions.

- **The content of the introductory science experience**
  Too often, “gateway” into science really means “weeding out” from science, and this perspective is a barrier to inclusion. In the last several years, significant attention has been given to the way we teach (e.g., active learning, “flipped”

classrooms, peer-led team learning). However, we haven't paid as much attention to *what we teach*, and revising the content of the introductory experience lags far behind improvements in pedagogy. Despite efforts to improve introductory courses, there remains the important challenge of curating and designing the specific content of introductory courses and labs, including careful consideration of prerequisites and desired learning outcomes. We encourage schools to take on the challenge of developing, implementing, and assessing a new introductory science curriculum built on core competencies and active learning that are congruent with inclusive learning.

- **Effective partnerships between two- and four-year institutions** Nationally, more than half of all STEM baccalaureate degree recipients have had some experience at a two-year institution, and nearly half of all STEM students begin at a community college. Yet for many, the experience is misaligned, impersonal, and haphazard. What institutional changes need to take place to build a transfer process that is seamless and inclusive? It is the responsibility of the four-year institutions to improve themselves and be ready to support all of the students who arrive on their campuses, so that all students have the opportunity to succeed. We encourage four-year institutions to take on the challenge of creating, implementing, and assessing genuine partnerships with two-year schools to accomplish this goal.

In the pre-proposal, the school will choose one of these challenges as the focus of its proposal.

Connecting the dots: theory of change

The ultimate goal of the initiative is to effect large and lasting change in the school's capacity for inclusion. Thus, it is important for the institution to develop its theory of change within the particular context of the campus. How will the activities supported by the grant be designed to result in lasting institutional capacity change? And how will the institution measure its progress toward inclusion in an ongoing manner?

Institutional commitment

Adopting an inclusive excellence stance requires the commitment of the whole institution. Among the several ways by which the school can demonstrate its commitment, here are three:

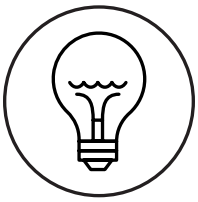
- **Alignment with current programs.** Planning a new grant proposal for the Inclusive Excellence initiative is an important opportunity to synergize with existing campus efforts to achieve diversity, equity, and inclusion. By building on effective current activities, the new program can represent a significant advance for the institution. Engaging the entire campus in defining its shared vision and cultivating distributed leadership is integral to capacity building.

- **Selection of the HHMI program director.** The program director plays a critical role in managing the complex dynamics of establishing the new program and negotiating how it will fit into the evolving institutional environment. The institution has the responsibility of selecting a program director who will bring not only experience in research, education, and grant administration, but also the strong interpersonal relationship skills required of a collaborative leader who cultivates authentic shared ownership of the program.

- **Sharing the financial responsibility**. It is important that the institution signal its commitment to the HHMI program. While grant funds may be used for various programmatic costs – e.g., hiring new personnel to administer the program, faculty stipends, course releases, facilitated workshops, course materials, and small equipment – HHMI funds cannot be spent on the salaries of the program director and other members of the core leadership team who are already employed by the school.

This competition

The IE3 competition comprises several steps, as summarized here:



Intent to apply

July 31, 2019

Purpose: (i) confirm eligibility of the institution, (ii) register for the IE3 competition, and (iii) identify the person who will lead the development of the pre-proposal, proposal, and program. Only one intent to apply per eligible institution is allowed. The person identified in the intent to apply as the program director is the only person from the applying institution who will be provided access to the pre-proposal module. The program director contact can be changed prior to the pre-proposal deadline. Schools are encouraged to submit the intent to apply before July 31, 2019.

Eligibility

To be eligible to participate in the IE3 competition, the institution must be a not-for-profit, accredited, four-year college or university in the United States that confers four-year baccalaureate degrees in one or more of the natural sciences. Representatives from one of the more than 1,400 eligible institutions will be able to access the intent to apply when they log into HHMI Pathway.

To access the intent to apply online form, go to HHMI Pathway pathway.hhmi.org. Log in with existing credentials or register as a new user, follow the link under the New Competition Application, and select Apply on the table of open competitions. Instructions on how to work in HHMI Pathway can be found at hhmi.org/IE.

Pre-proposal

January 14, 2020

Purpose: assess the readiness of the institution to engage in the Inclusive Excellence initiative. In the pre-proposal, the applying institution will describe what it aspires to become in the context of inclusivity, identify the challenge on which it proposes to focus, and provide the reviewers insights about the readiness of the institution and the persons who will lead the project. The pre-proposal will be due January 14, 2020. The pre-proposals will be reviewed by experts in science and science education with expertise in institutional transformation and diversity and inclusion. Based on their recommendations, HHMI will invite schools with promising pre-proposals to become finalists in the IE3 competition.

Finalist workshop

August 5-7, 2020 and August 10-12, 2020

Finalists will work in cross-institutional groups to discuss each school's ideas for their theory of change. A small team from each finalist institution will be invited in late spring 2020 to participate in one of two workshops – August 5-7, 2020, and August 10-12, 2020. Program directors and key members of the leadership team committed to being part of HHMI's Inclusive Excellence initiative should save those dates now.

Finalist proposal

December 1, 2020

Purpose: provide details on implementation of the project including the theory of change and how progress will be assessed. The finalist proposal will be due December 1, 2020. Proposals will be reviewed by experts in science and science education with expertise in institutional transformation and diversity and inclusion.

Based on their recommendations, HHMI will select the IE3 cohort of grantee institutions and announce the new awards in late spring 2021.

Bibliography

The following publications and websites are intended to serve as a starting point for institutions that wish to increase their knowledge about the research that informs this program announcement. This is not a comprehensive list of references.

- Bauerle, Cynthia et al. *Vision and Change in Undergraduate Biology Education: A Call to Action*. Report. American Association for the Advancement of Science, 2011.
- Brownell, Sara E et al. "BioCore Guide: A Tool for Interpreting the Core Concepts of Vision and Change for Biology Majors." *CBE – Life Sciences Education* 13, no.3 (Summer 2014): 200-11. doi:10.1187/cbe.13-12-0233.
- Chen, X. (2005). *First Generation Students in Postsecondary Education: A Look at Their College Transcripts (NCES 2005–171)*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing
- National Academies of Sciences, Engineering, and Medicine. 2016. *Barriers and Opportunities for 2-Year and 4-Year STEM Degrees: Systemic Change to Support Students' Diverse Pathways*. Washington, DC: The National Academies Press. https://doi.org/10.17226/21739
- National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. 2011. *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads.* Washington, DC: The National Academies Press. 10.17226/12984.
- Gurin, Patricia, et al. "The Educational Value of Diversity." In Defending Diversity: Affirmative Action at the University of Michigan, 92-188. University of Michigan Press, 2004. doi: 10.3998/mpub.17844

- Haynes, C. et al. “Learning Communities and Institutional Transformation.” *Learning Communities Journal 2*, no. 2 (2010): 149-67.
- Jackson, Susan E., and Aparna Joshi. “Work Team Diversity.” In *APA Handbook of Industrial and Organizational Psychology*, 651-86. Vol. 1. Building and Developing the Organization. Washington, DC: American Psychological Association, 2011.
- Kets, Willemien, and Alvaro Sandroni. “Challenging Conformity: A Case for Diversity.” *Social Science Research Network*, September 11, 2016. doi: 10.2139/ssrn.2871490
- National Science Foundation (NSF), and National Center for Science and Engineering Statistics. *Women, Minorities, and Persons with Disabilities in Science and Engineering*. Special Report. Alexandria, VA: NSF, 2019. 19-304.
- Page, Scott E. *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*. Princeton University Press, 2007.
- Schneider, Carol Geary. “Making Excellence Inclusive: Liberal Education and America’s Promise.” *Liberal Education* 100, no. 4 (Fall 2014). Association of American Colleges & Universities.
- Senge, Peter. *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York, NY: Doubleday/Currency, 1990.
- Skomsvold, Paul, Alexandria Walton Radford, and Lutz Berkner. *Six-Year Attainment, Persistence, Transfer, Retention, and Withdrawal Rates of Students Who Began Postsecondary Education in 2003-04*. Report no. 152. Institute of Education Sciences, National Center for Educational Statistics, 2011.

ie3 inclusive excellence

hhmi Howard Hughes Medical Institute

hhmi.org/IE
IE@hhmi.org