Inclusive Excellence in STEM education: one funder’s perspective

Presented By
Sarah Simmons
Assistant Director, Science Education
Howard Hughes Medical Institute
Diversity can be the key to finding solutions:

1. ...the field depends on groups of problem-solvers.

2. ...the field benefits by adding different perspectives, interpretations, tools.

3. ...the problem is difficult and when there is a large number of problem-solvers.

Diversity defines our future

U.S. total population (x10^7)

% U.S. population minorities

Persons, in millions

non-Hispanic White

all minorities

Public K-12 Students

% minorities

hhmi Howard Hughes Medical Institute
HHMI Science Education

Developing Scientists
Undergraduate and Graduate Programs

Sustained scientific excellence depends on the development of future scientists who come from all backgrounds and who are provided opportunities to actively learn in an inclusive environment. HHMI is committed to supporting these efforts through thoughtful investment in individuals, programs and initiatives.

Education Forward
The advancement of science depends on the development of scientific thinking skills and values in every citizen, including students who will become scientists.
U.S. PhDs

Biology

Natural Sciences

Biology PhDs:
270 URGs (7.5%)  2001
553 URGs (10.2%)  2010

Natural Sciences PhDs:
441 URGs (7.2%)  2001
775 URGs (9.2%)  2010
dx/dt: achieving parity

U.S. population

Science Ph.D.s

1970 1990 2010 2030 2050 2070 2090 2110

2100
Changing the system

Gilliam Fellows
HHMI Professors
Science Education Alliance (SEA)
Converging neurons in the central region of a fruit fly brain visualized using a method that randomly labels cells. Cell bodies, inputs, and outputs of several different cell types are highlighted.

*Image from Tanya Wolff et. al.*
Thank You

Questions?