

PRIDE Protocol

The primary goal of Programs to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE) (see [RFA-HL-14-022](#)) Summer Institutes (SIs) is to support research experiences, courses for skills development, and mentoring activities for "research-oriented" junior faculty and transitioning postdoctoral scientists who are underrepresented in the biomedical sciences, to further develop their research skills and gain experience in advanced methods and experimental approaches in basic and applied sciences relevant to the National Heart, Lung, and Blood Institute (NHLBI).

Ultimately, the enhanced skills to be gained will allow program participants to improve their career development as faculty members and scientists, and successfully compete for external funding for scientific research in the biomedical, behavioral, clinical, and social sciences. Multiple independent Summer Institutes of the PRIDE programs provide research experiences, courses for skills development, and mentoring activities to promising junior faculty and transitioning postdoctoral candidates.

Each Summer Institute designed, organized, and implemented a Summer Institute program that was open nationwide to individuals from backgrounds underrepresented in the biomedical sciences. The Summer Institutes promoted the mentorship and scientific career development of selected candidates or mentees who demonstrate specific interest in the pursuit of research in NHLBI mission relevant areas. NHLBI mission relevant areas can be found in its strategic plan:

http://www.nhlbi.nih.gov/about/strategicplan/documents/SP_Summary.pdf.

The Summer Institute programs were designed to enhance and develop research careers by providing mentorship and advice on research design, skills and methodologies, strategies to prepare research grants, and tips for success in obtaining external funding in research related to HLBS disorders.

Summer Institutes offered research experiences in one of the following NHLBI mission-relevant areas (i.e. heart, lung, blood, or sleep disorders, or HLBS-relevant health disparities research). Each Summer Institute focused on only one topic area and addressed the scientific career development needs of the selected mentees.

PRIDE Time Line

The training program consisted of three components. The **first component** was an initial summer session lasting from 10-28 days. This component could be divided into more than one segment with mentees participating in multiple segments. The segments may involve classroom, laboratory and/or field research activities. The program must also include instruction on unique issues faced by researchers from underrepresented backgrounds in conducting research and obtaining funding. Other topics for consideration include segments on reviewing manuscripts or participating in grant review committees.

The second component was mentoring and networking activities throughout the academic year following the summer program. This component required a minimum commitment of 5% FTE for both mentees and mentors. A mentorship committee was developed for each Summer Institute mentee, tailored to the research pursuits of the mentee with an array of areas of expertise pertinent to the mentee's intended career development. This committee should consist of experienced or senior faculty from the mentee's institution, from the Summer Institute, and/or from other thought leaders nationally with appropriate expertise. Mentoring could be online, by telephone, and/or in-person. Mentoring activities could include areas such as assistance with career goals, with research design and statistical analysis, with external funding, and with proposal development. At least one in-person mid-year meeting was held either during

intervals between semesters, in conjunction with a conference, or a three-day weekend during the winter, or at another appropriate time and location. At the mid-year meeting, additional mentoring activities occurred, such as identification of appropriate grant mechanism and funding agencies, and/or review and feedback on draft research concepts or applications. Mentoring activities may also include a visit to the laboratory or research site of a mentor during the academic year.

The third component was a follow-up session held the following summer as a continuation of the first component of the program. It may be of a different duration than the first summer program. This second part of the program was held either at one location for all mentors and mentees or each mentee could attend a summer session at the laboratory of their mentor(s). Activities could include developing and writing a grant application, holding a mock study section meeting, additional coursework on relevant topic areas, and/or focused mentoring.

Evaluations

- An independent Coordination Core worked with each Summer Institute to develop a unified and robust evaluation protocol across the entire PRIDE program to ensure common measures and reporting. The evaluation protocol included evaluation of both mentees and mentors, assessed the effectiveness of the program in terms of the mentees' perceptions of the curriculum and conduct of the program, as well as evaluated longer-term impact, as measured by mentees' success in receipt of external funding from government agencies or private foundations.
- The desired outcome of the PRIDE program is that each mentee would submit a grant application focusing on a HLBS disorder within 2 years of completing the program. Evaluation is ongoing to permit evidence-based modification of the program or specific activities of the program (e.g., changing recruitment strategies).
- Follow-up assessment was continued on an annual basis for up to 10-years post training.
- Data collection
 - Data collection was via web survey.
 - Baseline data collected during the application process included various demographic information such as contact information, current faculty position and institution, race/ethnicity/disability status, research interests, prior education and training. This information formed the demographics baseline database.
 - Program effectiveness was rated by the participants during each of the 2 summer sessions.
 - Longitudinal follow-up information was collected from participants on an annual basis. Follow-up information primarily included updates on outcomes such as grant submissions and awards, publications, faculty promotions and tenure, and other awards and honors.
 - Additional information concerning mentee research self-appraisal and feedback on mentoring was collected.
- Grants data collection
 - Grants were downloaded from NIH RePorter and other private grant agencies such as Robert Wood Johnson Foundation (RWJF), American Heart Association (AHA), and Patient Centered Outcomes Research Institute (PCORI).
 - In order to be included in this database, the mentee must be the investigator of record for the award (i.e., Principal Investigator), the award must be verified from the website of the granting institution.
 - Awards were verified against the mentee's curriculum vita and/or the associated university.
- Publications data collection
 - Publications were downloaded from the SCOPUS database.
 - Publications were verified against the mentee's curriculum vita and/or the associated university.