

DIVISION OF TRAINING, WORKFORCE DEVELOPMENT, AND DIVERSITY (TWD)

TWD programs foster the training and development of a strong and diverse biomedical research workforce. The division funds research training, career development and diversity-building activities through a variety of programs at the undergraduate, graduate, postdoctoral, faculty and institutional levels.

<https://www.nigms.nih.gov/Training>

Dr. Alison Gammie, TWD Division Director

PREDOCTORAL TRAINING BRANCH

Dr. Shiva Singh, Branch Chief

Bridges to the Baccalaureate (R25) | [PAR-16-110](#); Mercedes Rubio, Patrick Brown

The goal of this program is to promote the successful completion of baccalaureate degrees by students from groups that are underrepresented in the biomedical sciences. The strategy is to support comprehensive science education and research-readiness student development programs that help diverse students at community colleges transition to baccalaureate degree programs at research-intensive partner institutions.

FY2017: NIGMS supported **39** institutions with **627** slots.

Bridges to the Doctorate (R25) | [PAR-16-109](#); Patrick Brown

This program's goal is to promote the successful completion of doctoral degrees by students from underrepresented groups. The strategy is to support comprehensive science education and research-readiness student development programs that help diverse students in M.S. degree programs transition to Ph.D. degree programs at research-intensive partner institutions.

FY2017: NIGMS supported **15** institutions with **92** slots.

NIH Common Fund Initiative: Enhancing the Diversity of the NIH-Funded Workforce

Building Infrastructure Leading to Diversity (BUILD) (U54) | [RFA-RM-13-016](#); Anissa J. Brown and Desiree Salazar and Richard Okita; Consortium contact: Alison Gammie. BUILD is a set of experimental training awards designed to implement and study innovative and effective approaches to engaging and retaining students from diverse backgrounds in biomedical research and preparing students to become future contributors to the NIH-funded research enterprise.

FY2017: BUILD supported **10** primary institutions, along with their funded (**41**) and unfunded (**42**) research and pipeline partner institutions.

Individual Predoctoral National Research Service Award (NRSA) (F30/F31) Fellowships | [PA-16-309](#); Oleg Barski; Veerasamy Ravichandran; Darren Sledjeski; Anissa Brown | [PA-16-308](#); Anissa Brown and Patrick Brown | [PA-16-306](#); Kenny Gibbs

NIGMS predoctoral fellowships promote fundamental, interdisciplinary and innovative research training and career development leading to independent scientists who are well prepared to address the nation's biomedical research needs. Fellowships are available for Ph.D. and M.D.-Ph.D. or other dual-degree students, as well as to promote diversity in health-related research. The strategy is to provide support to outstanding predoctoral students to obtain individualized, mentored training leading to the Ph.D. and M.D.-Ph.D. or other dual-degree.

FY2017: NIGMS supported **128** F31s (**55** diversity; **73** parent) and **14** F30s.

Initiative for Maximizing Student Development (IMSD) (R25) | [PAR-17-040](#); Veerasamy Ravichandran, Sailaja Koduri

The goals of IMSD are to increase the number of undergraduate and graduate students from underrepresented groups who complete Ph.D. degrees and enter the research workforce, and also to enhance the diversity of students in awardee institutions' Ph.D. programs. The strategy is to provide institutional grants for research training and developmental activities at research-intensive institutions.

FY2017: NIGMS supported **49** institutions (**494** undergraduates and **365** doctoral scholars).

Institutional Predoctoral National Research Service Award (NRSA) (T32) | [PA-16-152](#); 12 Program Officers

The goal of the T32 program is to enhance the quality of comprehensive research education and career development activities that prepare graduate students for the biomedical research workforce. The strategy is to enhance institutional curricular programs and research training in 12 scientific areas plus integrated medical scientist (M.D.-Ph.D.) training.

FY2016: NIGMS supported **3,001** trainees in **279** programs at **105** institutions.

MARC Undergraduate Student Training in Academic Research (U-STAR) (T34) | [PAR-17-068](#); Sailaja Koduri, Luis Cubano

The goal of this program is to increase the nation's pool of students from underrepresented groups who have the research experience and science preparation to matriculate and succeed in biomedical Ph.D. programs. The strategy is to support institutional programs of academic and research education, including 2 years of support of honors juniors and seniors and at least one summer research experience at a research-intensive institution.

FY2017: NIGMS supported **57** institutions and **541** trainees.

Postbaccalaureate Research Education Program (PREP) (R25) | [PAR-14-076](#); Michael Bender, Kenneth Gibbs

The goals of PREP are to increase the number of baccalaureates from underrepresented groups who go on to Ph.D. degree programs, and also to enhance the diversity of students in awardee institutions' Ph.D. programs. The strategy is to support institutional programs that provide extensive research training and academic preparation at research-intensive institutions through 1- to 2-year research apprenticeships.

FY2017: NIGMS supported **34** institutions with **190** scholars.

Research Initiative for Scientific Enhancement (RISE) (R25) | [PAR-16-361](#); Anissa Brown, Luis Cubano

The goal of RISE is to increase the number of students from underrepresented groups who complete the Ph.D. degree. The strategy is to support research education programs at institutions with significant student populations from underrepresented groups. These programs may include undergraduate-, M.S.- or Ph.D.-level trainees.

FY2017: NIGMS supported **50** institutions with **1003** scholars (**671** undergraduates, **122** M.S., **210** Ph.D.).

POSTDOCTORAL TRAINING BRANCH	Dr. Michael Sesma, Branch Chief
<p>Career Development Awards K08; PA-16-191; K23; PA-16-198; PA-11-009; K25; PA-16-194; Michael Sesma; Alison Cole; Sarah Dunsmore; Rochelle Long; Scott Somers</p> <p>The K08 Mentored Clinical Scientist and the K23 Mentored Patient-Oriented Research awards support individuals with M.D. degrees through mentored research career development experiences in anesthesiology, clinical pharmacology, trauma and burn injury or wound healing. The K25 Mentored Quantitative Research Development Award supports investigators from quantitative science and engineering disciplines who seek to focus on questions of health and disease.</p> <p>FY2017: NIGMS supported 25 K08 awards in 22 institutions, 18 K23 awards in 16 institutions, and 0 K25 awards.</p>	
<p>Individual Postdoctoral National Research Service Award (NRSA) (F32) PA-16-307; 10 Program Officers</p> <p>Postdoctoral fellowships support advanced and specialized training in basic and/or clinical research through an intensive, mentored research project experience that encourages the development of independence, innovation and creativity in a highly productive research setting.</p> <p>FY2017: NIGMS supported 381 F32 awards in 80 institutions.</p>	
<p>Institutional Postdoctoral National Research Service Award (NRSA) (T32) PA-16-152; Alison Cole; Richard Okita; Susan Haynes; Scott Somers</p> <p>Institutional training programs support research training for clinician-scientists in four clinically relevant research areas within the mission of NIGMS: anesthesiology; clinical pharmacology; medical genetics; and trauma, burn and peri-operative injury. Trainees receive at least 2 years of research training in basic, clinical and/or translational science areas and engage in activities to promote research career development.</p> <p>FY2016: NIGMS supported 8 medical genetics, 10 clinical pharmacology, 16 anesthesiology, and 17 trauma programs; with 207 trainees.</p>	
<p>Institutional Research and Academic Career Development Award (IRACDA) (K12) PAR-16-103; Jessica Faupel-Badger</p> <p>IRACDA supports postdoctoral training to prepare for independent research and teaching careers in academia, and strengthens and modernize science educational offerings at partner institutions with significant enrollments of students from underrepresented groups. Postdoctoral scholars are supported for a 3-year mentored research, teaching and career development experience in a research-intensive institution and regional, primarily teaching institutions with significant underrepresented student populations.</p> <p>FY2017: NIGMS supported 20 programs and 189 scholars.</p>	
<p>Innovative Programs to Enhance Research Training (IPERT) (R25) PAR-17-070; Michael Sesma</p> <p>The goal of this program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical research needs. The strategy is to fund activities with a primary focus on courses for skills development, structured mentoring activities and outreach programs.</p> <p>FY2017: NIGMS supported 21 IPERT awards in 21 institutions.</p>	
<p>NIH Common Fund Initiative: Enhancing the Diversity of the NIH-Funded Workforce</p> <p>Coordination and Evaluation Center (CEC) (U54) RFA-RM-13-015; Michael Sesma; Consortium contact: Alison Gammie</p> <p>The CEC coordinates consortium activities and evaluates the efficacy of the training and mentoring approaches developed by BUILD and NRMN awardees in order to disseminate effective approaches to the broader research and mentoring communities.</p> <p>FY2017: One CEC award to coordinate and evaluate interventions across the consortium.</p>	
<p>National Research Mentoring Network (NRMN) (U54) RFA-RM-13-017; Mercedes Rubio; Consortium contact: Alison Gammie</p> <p>NRMN is developing a national network of motivated and skilled mentors from various disciplines linked to mentees across the country--from both BUILD and non-Diversity Consortium institutions--for individuals at the undergraduate to early career faculty levels and spanning biomedical disciplines relevant to the NIH mission. It will develop and disseminate best practices and training opportunities for mentors, and networking and professional development opportunities for mentees.</p> <p>FY2017: One NRMN award, which includes 4 core partner institutions and over 100 partner institutions and organizations.</p>	
<p>National Research Service Awards (NRSA) for Individual Senior Fellows (F33) PA-16-310; Michael Sesma</p> <p>These fellowships are intended to support experienced investigators seeking opportunities to undertake short periods of mentored research training that will allow them to redirect, revitalize or restart a research program upon returning to their home institutions.</p> <p>FY2017: NIGMS supported 0 individuals.</p>	
<p>Pathway to Independence Award (K99/R00) PA-16-193; Oleg Barski, Paula Flicker; Stephen Marcus; Michael Sesma; Dorit Zuk</p> <p>The goal of this program is to shorten and facilitate the transition from a postdoctoral researcher to an independent investigator capable of leading a research team. The strategy is to support highly promising postdoctoral researchers in 2-year mentored research positions followed by 3 years of independent research support when the grantee obtains an independent position.</p> <p>FY2017: NIGMS supported 33 K99 awards in 21 institutions; and 34 R00 awards in 30 institutions.</p>	
<p>Research on Interventions Portfolio (R01) RFA-GM-14-013 Mercedes Rubio (R35) RFA-GM-17-002 Mercedes Rubio, Jessica Faupel-Badger, Michael Sesma. The goal of this program is to understand the social and behavioral factors that increase the interest, motivation and preparedness of students from underrepresented groups for biomedical research careers. The strategy is to support research that tests assumptions about these factors and that can inform and guide new, evidence-based interventions for research training.</p> <p>FY2017: NIGMS supported 6 R01 awards in 5 institutions. NIGMS Supported 2 R35 in 2 institutions.</p>	
<p>Research Supplements to Promote Diversity in Health-Related Research (Admin Supp.) PA-16-288; Desireé Salazar</p> <p>This program employs the research project grant as the platform for intensive mentored research experiences within the scope of the grant during the continuum from high school to the postdoctoral level. The goal is to increase the nation's pool of students from underrepresented groups by preparing them to continue their training in biomedical research.</p> <p>FY2017: NIGMS supported 142 awards; 72 new and 70 continuing awards.</p>	
<p>Research Supplements to Promote Re-Entry into Biomedical and Behavioral Research Careers (Admin Supp.) PA-16-289; Desireé Salazar</p> <p>This program employs the research project grant as the platform for intensive, mentored research experiences that facilitate re-entry and the establishment of a full-time, independent research career for individuals at the postdoctoral or early faculty level who have high potential to re-enter an active research career after taking time off to care for children or parents or to attend to other family responsibilities.</p> <p>FY2017: NIGMS supported 3 awards.</p>	