

Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)
National Institutes of Health ([NIH](#))

Components of Participating Organizations
National Institute of General Medical Sciences ([NIGMS](#))

Funding Opportunity Title

Bridges to the Baccalaureate Program (R25)

Activity Code
[R25](#) Education Projects

Announcement Type
Reissue of [PAR-16-110](#)

Related Notices

[NOT-OD-18-009](#) - Reminder: FORMS-E Grant Application Forms and Instructions Must be Used for Due Dates On or After January 25, 2018.

[September 20, 2017](#) - Updates to Active Funding Opportunity Announcements to Prepare for Policy Changes Impacting Due Dates On or After January 25, 2018. See [NOT-OD-17-114](#).

[July 18, 2017](#) - Notice of Revised Reporting Requirement for Appointing Participants in PAR-17-210. See Notice [NOT-GM-17-013](#).

[May 10, 2017](#) - New NIH "FORMS-E" Grant Application Forms and Instructions Coming for Due Dates On or After January 25, 2018. See [NOT-OD-17-062](#).

Funding Opportunity Announcement (FOA) Number

PAR-17-210

Companion Funding Opportunity
None

Number of Applications
Applicant organizations may not submit more than one application as the Lead Institution. See [Section III. 3. Additional Information on Eligibility](#).

Catalog of Federal Domestic Assistance (CFDA) Number(s)
93.859

Funding Opportunity Purpose

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this National Institute of General Medical Sciences (NIGMS) R25 program is to support educational activities that enhance the diversity of the biomedical research workforce.

To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on **Courses for Skills Development**, **Research Experiences**, and **Curriculum or Methods Development**. A program application must include each activity, and describe how they will be synergized to make a comprehensive program.

The Bridges to Baccalaureate Program is intended to provide these activities to community college students to increase transition to and completion of Bachelor's degree in biomedical sciences.

This program requires partnerships between community colleges or other two-year post-secondary educational institutions granting the associate degree with colleges or universities that offer the baccalaureate degree.

Additionally, recruitment and retention plans are required as part of the application.

Key Dates

Posted Date
March 8, 2017

Open Date (Earliest Submission Date)
August 25, 2017

Letter of Intent Due Date(s)
Not Applicable

Application Due Date(s)
September 25, 2017; September 25, 2018, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

AIDS Application Due Date(s)
Not Applicable

Scientific Merit Review
February/March 2018, February/March 2019

Advisory Council Review
May 2018, May 2019

Earliest Start Date
July 2018, July 2019

Expiration Date
September 26, 2018

Due Dates for E.O. 12372
Not Applicable

Required Application Instructions

It is critical that applicants follow the Research (R) Instructions in the [SF424 \(R&R\) Application Guide](#) except where instructed to do otherwise (in this FOA or in a Notice from the [NIH Guide for Grants and Contracts](#)). Conformance to all requirements (both in the Application Guide and the FOA) is required and strictly enforced. Applicants must read and follow all application instructions in the Application Guide as well as any program-specific instructions noted in [Section IV](#). When the program-specific instructions deviate from those in the Application Guide, follow the program-specific instructions.

Applications that do not comply with these instructions will not be reviewed.

There are several options available to submit your application through Grants.gov to NIH and Department of Health and Human Services partners. You **must** use one of these submission options to access the application forms for this opportunity.

Use the NIH ASSIST system to prepare, submit and track your application online.

Apply Online Using ASSIST

Use an institutional system-to-system (S2S) solution to prepare and submit your application to Grants.gov and [eRA Commons](#) to track your application. Check with your institutional officials regarding availability.

Use [Grants.gov](#) Workspace to prepare and submit your application and [eRA Commons](#) to track your application.

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Part 2. Full Text of Announcement

Section I. Funding Opportunity Description

The NIH Research Education Program (R25) supports research educational activities that complement other formal training programs in the mission areas of the NIH Institutes and Centers. The over-arching goals of the NIH R25 program are to: (1) complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs; (2) enhance the diversity of the biomedical, behavioral and clinical research workforce; (3) help recruit individuals with specific specialty or disciplinary backgrounds to research careers in biomedical, behavioral and clinical sciences; and (4) foster a better understanding of biomedical, behavioral and clinical research and its implications.

The over-arching goal of this National Institute of General Medical Sciences (NIGMS) Bridges to Baccalaureate R25 program is to support educational activities that enhance the diversity of the biomedical research workforce. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on:

Courses for Skills Development: For example, advanced courses in a specific discipline or research area, clinical procedures for research, or specialized research techniques.

Research Experiences: For example, for undergraduate students: to provide hands-on exposure to research, to reinforce their intent to graduate with a science degree, and/or to prepare them for graduate school admissions and/or careers in research.

Curriculum or Methods Development: For example, to improve biomedical science education, or develop novel instructional approaches or computer-based educational tools; to provide supplemental instruction for gateway courses; to develop "CURE" courses in community college first and second year classrooms.

All educational activities must be accessible to students with disabilities, in compliance with [Section 504 of the Rehabilitation Act of 1973](#).

Background

Every facet of the United States scientific research enterprise—from basic laboratory research to clinical and translational research to policy formation—requires superior intellect, creativity and a wide range of skill sets and viewpoints.

Research shows that diverse teams working together and capitalizing on innovative ideas and distinct perspectives outperform homogenous teams. Scientists and trainees from diverse backgrounds and life experiences bring different perspectives, creativity, and individual enterprise to address complex scientific problems. There are many benefits that flow from a diverse NIH-supported scientific workforce, including: fostering scientific innovation; enhancing global competitiveness; contributing to robust learning environments; improving the quality of the researchers; advancing the likelihood that underserved or health disparity populations participate in, and benefit from, health research; and enhancing public trust.

The NIH encourages institutions to diversify their student populations and thus to enhance the participation of individuals currently underrepresented (UR) in the biomedical sciences research enterprise, as described in [NOT-OD-15-053](#).

NIGMS Interest in Diversity

The mission of the NIGMS is to support research that increases our understanding of life processes and lays the foundation for advances in disease diagnosis, treatment, and prevention. To ensure the vitality and continued productivity of the research enterprise, NIGMS provides leadership in the areas of training the next generation of biomedical scientists, enhancing the diversity of the scientific workforce, and developing research capacities throughout the country.

NIGMS seeks to enhance the pool of individuals from groups underrepresented in the biomedical workforce by providing educational and training opportunities during multiple training and career stages at varied institutions and educational settings across the country. By enhancing the pool of students from underrepresented groups pursuing advanced training in the biomedical sciences, NIGMS strives to ensure that the future generation of researchers draws from the entire pool of talented individuals, bringing different aptitudes, perspectives, creativity, and experiences to address complex scientific problems.

Need for the Program

NIH's ability to help ensure that the nation remains a global leader in scientific discovery and innovation is dependent upon a pool of highly talented scientists from diverse backgrounds who will help to further NIH's mission. However, despite advancements in scientific research, some populations have not had access to cutting-edge research and training opportunities, and do not participate fully in the biomedical sciences research workforce. These underrepresented groups include individuals from underrepresented racial and ethnic groups, individuals with disabilities, and individuals from disadvantaged backgrounds (at the undergraduate level and below), as described in [NOT-OD-15-053](#).

Currently these groups are not only underrepresented in science, technology and engineering ([NSF, 2016](#)), their underrepresentation in these fields also increases throughout the training stages. For example, students from certain racial and ethnic groups, including Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, Native Hawaiians and other Pacific Islanders currently comprise ~39 percent of the college age population ([Census Bureau](#)), but earn only ~17 percent of bachelor's degrees and ~11 percent of the Ph.D.s in the biological sciences ([NSF, 2016](#)).

Similarly, a report from the Census Bureau shows that in 2010, nearly 20 percent of the U. S. population had a disability. In 2012, the National Center for Education Statistics (NCES) reported that 11 percent of college students had a disability, and 34 percent of undergraduates with disabilities are from underrepresented racial and ethnic groups. According to the Council of Graduate Schools and statistics from NCES, in 2008 about 7 percent of all doctoral students and about 6 percent of doctoral students in health or life science programs had a disability.

Further, individuals from low income families are underrepresented in scientific careers, and have limited access to necessary science and math prerequisites at every academic level ([Civil Rights Data Collection Data Snapshot: College and Career Readiness \(2014\)](#)). Data shows that while half of all individuals from high-income families have a bachelor's degree by age 25, only 1 in 10 individuals from low-income families do. Low-income students are less likely to take a science-oriented core curriculum, and less likely to meet readiness benchmarks on college entrance exams. This can be attributed in part to data showing that nationwide, between 10-25 percent of high schools do not offer more than one of the core courses in the typical sequence of high school math and science education— such as algebra I and II, geometry, biology, and chemistry. Such educational environments predominate in communities with low socioeconomic status.

Students from underrepresented groups face a number of challenges that influence their success in obtaining a Ph.D. in the biomedical sciences. Some of these challenges include lack of adequate knowledge of academic development activities designed to improve scientific critical thinking and quantitative skills, limited access to independent bench research skills, limited/poor mentoring, and limited professional networking to successfully bridge to the next career level.

The creation of a diverse biomedical workforce requires active interventions aimed at addressing this persistent underrepresentation, as well as preventing the loss of talent at each level of educational advancement. Accordingly, several reports (see for example, [PCAST Report, 2012](#); [From College to Careers: Fostering Inclusion of Persons with Disabilities in STEM, 2014](#) -) recommended supporting programs that strive to recruit, retain, and train students from underrepresented groups who have an interest in science, technology, engineering and math as a means to effectively build a diverse and competitive scientific workforce.

The Bridges to the Baccalaureate Program provides an opportunity to develop new, or expand existing, effective institutional programs aimed at a key juncture within higher education, namely the transition from a two-year

community college program to baccalaureate degree completion in biomedical sciences. NIGMS anticipates that carefully planned interventions at this key point of the educational pathway will enhance the pool of individuals currently underrepresented in the biomedical sciences research enterprise, and ultimately contribute to NIH's ability to ensure that it remains a leader in scientific discovery and innovation.

Programmatic Approach

The proposed Bridges to the Baccalaureate Program must select and employ well-integrated strategies, rooted in education research, that provide students what they need to progress to the next stage of the science education pathway. Applications must include facets of all three activities--skills development, research experience, and curriculum or method development. NIGMS anticipates that carefully planned interventions at this key point of the educational pathway will enhance the pool of biomedical science graduates, a necessary step in enhancing the diversity of the NIH-funded biomedical workforce.

Bridges applications are intended to reflect the plans and priorities of the participating institutions as well as the collective plans and priorities of the partnerships/consortia. Participating institutions should create a partnership program, or enhance an existing program, that will focus attention and adequate resources on the institution(s) granting associate degrees and so enhance competitiveness of their science graduates and science programs. Collaborative agreements should be designed to fit the needs and situations of the institutions involved.

The Bridges to Baccalaureate Program recognizes the heterogeneity of institutional settings and institutional missions. Therefore, each application must conduct a self-assessment of each participating institution that includes baseline data on enrollment, transfer, research education experiences, and subsequent graduation of its underrepresented (UR) students in biomedical sciences. Specific aims must be based on this self-assessment and must be consonant with the purpose of the Bridges to Baccalaureate Program. The four-year partner institution must demonstrate that it has the resources needed to support Bridges students upon and after transfer, to facilitate the student's successful baccalaureate degree completion.

This FOA requires the use of multiple PD(s)/PI(s) with one PD/PI from *all* participating institutions in the application.

Goals and Outcomes: The goal of the Bridges to the Baccalaureate Program is to develop a diverse group of highly trained biomedical scientists to address the Nation's biomedical workforce needs. The short-term and intermediate-term goals of the program are to enhance the pool of students who transfer to a 4-year institution to study in biomedical sciences, and complete a baccalaureate degree, respectively. At the institutional level, the program expects that at least 70% of Bridges-supported students, upon or before graduation from the associate degree program, transfer to baccalaureate degree programs in the biomedical sciences, and at least 50% of transferring Bridges students successfully complete their baccalaureate degree in the biomedical sciences. NIGMS anticipates that Bridges grantees will improve upon these outcomes.

Research education programs may complement ongoing research training and education occurring at the applicant institution, but the proposed educational experiences must be distinct from those training and education programs currently receiving Federal support. R25 programs may augment institutional research training programs (e.g., T32, T90) but cannot be used to replace or circumvent Ruth L. Kirschstein National Research Service Award (NRSA) programs.

See [Section VIII. Other Information](#) for award authorities and regulations.

Section II. Award Information

Funding Instrument

Grant: A support mechanism providing money, property, or both to an eligible entity to carry out an approved project or activity.

Application Types Allowed

New

Renewal

Resubmission

The [OER Glossary](#) and the SF424 (R&R) Application Guide provide details on these application types.

Clinical Trial?

Clinical Trials Not Allowed for due dates on or after January 25, 2018: Only accepting applications that do not propose clinical trials

[Need help determining whether you are doing a clinical trial?](#)

Funds Available and Anticipated Number of Awards

The number of awards is contingent upon NIH appropriations and the submission of a sufficient number of meritorious applications.

Award Budget

Application budgets are limited to \$300,000 direct costs per year.

Award Project Period

The scope of the proposed project should determine the project period. The maximum project period is 5 years.

Other Award Budget Information

Personnel Costs

Individuals designing, directing, and implementing the research education program may request salary and fringe benefits appropriate for the person months devoted to the program. Salaries requested may not exceed the levels commensurate with the institution's policy for similar positions and may not exceed the congressionally mandated cap. (If mentoring interactions and other activities with participants are considered a regular part of an individual's academic duties, then any costs associated with the mentoring and other interactions with participants are not allowable costs from grant funds).

Limited program-related administrative and clerical salary costs associated distinctly with the program that are not normally provided by the applicant organization may be direct charges to the grant only when they are in accordance with applicable cost principles.

Overall, the total salary support for program administration, namely, the PDs/PIs, program coordinator(s), or administrative/clerical support is limited to 30% of the total direct costs annually. A program coordinator at the lead applicant institution is allowed as long as his/her role in the program implementation is clearly defined and significantly different from the roles of the PDs/PIs.

Support for faculty from the associate's and bachelor's institutions jointly developing new/advanced courses or updating existing courses for skills development that are critical to the competitive academic preparation of students at the associate's degree institution is allowed.

Support for peer mentors or peer supplemental course instructors who are full time third or fourth year undergraduate students at the 4-year institution or former Bridges students who have transferred to the 4-year institution, is allowed. Peer mentors are not considered part of administrative support.

Salary support for faculty mentors is *not* allowed.

Participant Costs

Participants may be paid if specifically required for the proposed research education program and sufficiently justified. Participant costs must be itemized in the proposed budget.

Because the R25 program is not intended as a substitute for an NRSA institutional training program (e.g., T32), costs to support full-time participants (supported for 40 hours/week for a continuous, 12-month period) are not allowable. Applicants may request Bridges student participant support for up to 20 hours per week during the academic year, and up to 40 hours/week during the summer at a pay rate that is consistent with the institutional pay scale.

Active Bridges student participants (referred to as "students") in good standing may receive up to two years of compensation as follows:

Salary and fringe benefits for their participation in academic year/summer research internships. The salary and fringe benefits must reflect an employee-employer relationship between the student and the institution, and be consistent with the institutional salary policies for employees in similar positions. They are paid salary plus fringe benefits, only when such benefits are provided to other employees in similar positions.

Mandatory preparation for research (e.g., research design workshops, research reporting workshops) is allowed. However, students may not earn academic credit and salary simultaneously for participating in these activities.

The two years of student support need not be consecutive, but prior approval from NIGMS program staff is required, and if approved, the returning student must be enrolled full-time at the time of re-enrollment.

A Bridges student may also receive salary support to conduct research for one of the two years at the partner baccalaureate degree-granting institution post-transfer. This support in the form of salary/wages is limited to Bridges student participants who began their post-secondary education at the associate degree-granting institution(s).

In order for the Bridges students to receive this compensation, they must meet eligibility requirements for the program and be actively participating in student-development and research education activities.

Applicants should note that salary support for Bridges students is NOT allowed for participation in academic activities (classroom, studying) or non-research activities (Bridges or otherwise-supported), e.g., group learning activities, attendance at conferences, etc.

Bridges-supported students may not concurrently hold another federally sponsored stipend or fellowship, or other federal award that duplicates Bridges support. However, concurrent with Bridges support, students may make use of federal educational loan funds and assistance under the Veterans Readjustment Benefits Act (G.I. Bill) or may receive funds from a Pell Grant, based on financial need. Such funds are not considered supplementation or compensation.

Other Program-Related Expenses

Consultant costs, equipment, supplies, travel for key persons, and other program-related expenses may be included in the proposed budget. These expenses must be justified as specifically required by the proposed program and must not duplicate items generally available at the applicant institution.

Limited program evaluation costs are allowed up to a maximum of \$3,000 for the 5-year project period. This includes salaries for evaluation consultants, if any.

Allowable travel includes the following: costs for faculty research advisors to attend national scientific meetings if the faculty member is accompanying Bridges students who are presenting at the meeting; costs for the participating faculty at the community college(s) to attend scientific conferences and workshops that are directly relevant to research experiences; costs for Bridges student travel to domestic scientific conferences; costs for travel (mileage expenses) of Bridges students to participate in special research experience activities (e.g., serve as laboratory assistants) and summer research internships if the distance between the community college and the partner baccalaureate institution is more than 50 miles (round-trip). A per diem amount for this travel may be used in accordance with institutional policies of the applicant institution.

Research supplies for Bridges students for use at the institution where research will be conducted may be requested (not to exceed \$2,000/student/year).

Laptops may be purchased to accompany relevant lab scientific equipment or for in-class data analysis. Purchase of laptops for individual, personal use is not allowed. Laptops become property of the institution.

Indirect Costs

Indirect Costs (also known as Facilities & Administrative [F&A] Costs) are reimbursed at 8% of modified total direct costs (exclusive of tuition and fees, consortium costs in excess of \$25,000, and expenditures for equipment), rather than on the basis of a negotiated rate agreement.

NIH grants policies as described in the [NIH Grants Policy Statement](#) will apply to the applications submitted and awards made in response to this FOA.

Section III. Eligibility Information

1. Eligible Applicants

Eligible Organizations

Higher Education Institutions

Public/State Controlled Institutions of Higher Education

Private Institutions of Higher Education

The following types of Higher Education Institutions are always encouraged to apply for NIH support as Public or Private Institutions of Higher Education:

Hispanic-Serving Institutions

Historically Black Colleges and Universities (HBCUs)

Tribally Controlled Colleges and Universities (TCCUs)

Alaska Native and Native Hawaiian Serving Institutions

Asian American Native American Pacific Islander Serving Institutions (AANAPISIs)

The sponsoring institution must assure support for the proposed program. Appropriate institutional commitment to the program includes the provision of adequate staff, facilities, and educational resources that can contribute to the planned program.

Institutions with existing Ruth L. Kirschstein National Research Service Award (NRSA) institutional training grants (e.g., T32) or other Federally funded training programs may apply for a research education grant provided that the proposed educational experiences are distinct from those training programs receiving federal support. In many cases, it is anticipated that the proposed research education program will complement ongoing research training occurring at the applicant institution.

Foreign Institutions

Non-domestic (non-U.S.) Entities (Foreign Institutions) **are not** eligible to apply.

Non-domestic (non-U.S.) components of U.S. Organizations **are not** eligible to apply.

Foreign components, as [defined in the NIH Grants Policy Statement](#), **are not** allowed.

Required Registrations

Applicant Organizations

Applicant organizations must complete and maintain the following registrations as described in the SF 424 (R&R) Application Guide to be eligible to apply for or receive an award. All registrations must be completed prior to the application being submitted. Registration can take 6 weeks or more, so applicants should begin the registration process as soon as possible. The [NIH Policy on Late Submission of Grant Applications](#) states that failure to complete registrations in advance of a due date is not a valid reason for a late submission.

[Dun and Bradstreet Universal Numbering System \(DUNS\)](#) - All registrations require that applicants be issued a DUNS number. After obtaining a DUNS number, applicants can begin both SAM and eRA Commons registrations. The same DUNS number must be used for all registrations, as well as on the grant application.

[System for Award Management \(SAM\)](#) (formerly CCR) – Applicants must complete and maintain an active registration, **which requires renewal at least annually**. The renewal process may require as much time as the initial registration. SAM registration includes the assignment of a Commercial and Government Entity (CAGE) Code for domestic organizations which have not already been assigned a CAGE Code.

[NATO Commercial and Government Entity \(NCAGE\) Code](#) – Foreign organizations must obtain an NCAGE code (in lieu of a CAGE code) in order to register in SAM.

[eRA Commons](#) - Applicants must have an active DUNS number and SAM registration in order to complete the eRA Commons registration. Organizations can register with the eRA Commons as they are working through their SAM or Grants.gov registration. eRA Commons requires organizations to identify at least one Signing Official (SO) and at least one Program Director/Principal Investigator (PD/PI) account in order to submit an application.

[Grants.gov](#) – Applicants must have an active DUNS number and SAM registration in order to complete the Grants.gov registration.

Program Directors/Principal Investigators (PD(s)/PI(s))

All PD(s)/PI(s) must have an eRA Commons account. PD(s)/PI(s) should work with their organizational officials to either create a new account or to affiliate their existing account with the applicant organization in eRA Commons. If the PD/PI is also the organizational Signing Official, they must have two distinct eRA Commons accounts, one for each role. Obtaining an eRA Commons account can take up to 2 weeks.

Eligible Individuals (Program Director/Principal Investigator)

Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the Program Director(s)/Principal Investigator(s) (PD(s)/PI(s)) is invited to work with his/her organization to develop an application for support. Individuals from diverse backgrounds, including underrepresented racial and ethnic groups, individuals with disabilities, and women are always encouraged to apply for NIH support.

For institutions/organizations proposing multiple PDs/PIs, visit the Multiple Program Director/Principal Investigator Policy and submission details in the Senior/Key Person Profile (Expanded) Component of the SF424 (R&R) Application Guide.

The PD/PI should be an established investigator in the scientific area in which the application is targeted and capable of providing both administrative and scientific leadership to the development and implementation of the proposed program. The PD/PI will be expected to monitor and assess the program and submit all documents and reports as required.

Applicants must designate a PD/PI from *each* participating institution (lead/grantee and partner institutions). The PD/PI of the Lead Institution must be designated as the Contact PD/PI. The PDs/PIs must have a regular full-time appointment (i.e., not adjunct, part-time, retired, or emeritus) at their respective institutions, and should have student counseling, academic administrative and/or scientific research experience. The PDs/PIs will be expected to monitor and assess the program and submit all documents and reports as required.

2. Cost Sharing

This FOA does not require cost sharing as defined in the [NIH Grants Policy Statement](#).

3. Additional Information on Eligibility

Number of Applications

Applicant organizations may NOT submit more than one application as the lead institution. A Lead Institution may also partner on one or more applications submitted by other Lead Institutions.

The NIH will not accept duplicate or highly overlapping applications under review at the same time. This means that the NIH will not accept:

- A new (A0) application that is submitted before issuance of the summary statement from the review of an overlapping new (A0) or resubmission (A1) application.

- A resubmission (A1) application that is submitted before issuance of the summary statement from the review of the previous new (A0) application.

- An application that has substantial overlap with another application pending appeal of initial peer review (see [NOT-OD-11-101](#)).

Bridges Program-Specific Considerations

The 2-year institutions in the Bridges to the Baccalaureate Program must offer programs in scientific fields that either lead to an associate degree or facilitate transfer to a baccalaureate degree program in biomedical sciences. Institutions offering both associate and baccalaureate degrees may not form partnerships within their own institution for graduates of or transfers from their own associate degree programs to enter their own Baccalaureate Programs, even if a student is moving to another department, school, or college. The program seeks to promote and enhance partnerships *between* institutions.

Each proposed Bridges to the Baccalaureate Program must consist of a partnership composed of at least two institutions, including the lead applicant institution. One must be an institution that offers the associate degree as the primary degree in the relevant (e.g., biomedical) sciences. Another institution must be a college or university granting the baccalaureate degree in biomedical sciences. Two different scenarios are anticipated for these partnerships: a) one baccalaureate degree-granting institution as the lead applicant institution partnering with one or more associate degree-granting institutions, or b) one associate degree-granting institution as the lead applicant institution partnering with one or more baccalaureate degree-granting institutions. An eligible applicant or partner institution may participate in more than one Bridges to the Baccalaureate partnership if such multiple partnerships

are strongly justified by the potential to magnify the programs' and institutions' outcomes. However, an institution may be the lead in only one Bridges to Baccalaureate grant at one time.

Program Faculty

Researchers from diverse backgrounds, including racial and ethnic minorities, persons with disabilities, and women are encouraged to participate as preceptors/mentors. Mentors should have research expertise and experience relevant to the proposed program. Mentors must be committed to continue their involvement throughout the total period of the mentee's participation in this award.

Participants

The program-supported participants will be selected by the applicant institutions. It is the responsibility of the institutions to establish the qualification of the participants before they are supported by the program. To receive salary support from the Bridges program, students must be U.S. citizens or non-citizen nationals or permanent residents and must be matriculated full-time in a biomedical field at the community college institution and subsequently at the four-year institution.

As described in Part 2, Section I, eligible participants are individuals from groups identified as underrepresented in the biomedical workforce:

A. Individuals from racial and ethnic groups that have been shown by the National Science Foundation to be underrepresented in health-related sciences on a national basis (see data at <http://www.nsf.gov/statistics/showpub.cfm?TopID=2&SubID=27>) and the report Women, Minorities, and Persons with Disabilities in Science and Engineering). The following racial and ethnic groups have been shown to be underrepresented in biomedical research: Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, Native Hawaiians and other Pacific Islanders.

B. Individuals with disabilities, who are defined as those with a physical or mental impairment that substantially limits one or more major life activities, as described in the Americans with Disabilities Act of 1990, as amended. See NSF data at http://www.nsf.gov/statistics/wmpd/2013/pdf/tab7-5_updated_2014_10.pdf.

C. Individuals from disadvantaged backgrounds, defined as:

1. Individuals who come from a family with an annual income below established low-income thresholds. These thresholds are based on family size, published by the U.S. Bureau of the Census; adjusted annually for changes in the Consumer Price Index; and adjusted by the Secretary for use in all health professions programs. The Secretary periodically publishes these income levels at <http://aspe.hhs.gov/poverty/index.shtml>.
2. Individuals who come from an educational environment such as that found in certain rural or inner-city environments that has demonstrably and directly inhibited the individual from obtaining the knowledge, skills, and abilities necessary to develop and participate in a research career.

The disadvantaged background category (C1 and C2) is applicable to programs focused on high school and undergraduate candidates.

Literature shows that women from the above backgrounds (categories A, B, and C) face particular challenges at the graduate level and beyond in scientific fields. (See, e.g., Inside the Double

Bind, A Synthesis of Empirical Research on Undergraduate and Graduate Women of Color in Science, Technology, Engineering, and mathematics <http://her.hepg.org/content/t022245n7x4752v2/fulltext.pdf>).

Section IV. Application and Submission Information

1. Requesting an Application Package

Buttons to access the online ASSIST system or to download application forms are available in [Part 1](#) of this FOA. See your administrative office for instructions if you plan to use an institutional system-to-system solution.

2. Content and Form of Application Submission

It is critical that applicants follow the Research (R) Instructions in the [SF424 \(R&R\) Application Guide](#), including [Supplemental Grant Application Instructions](#) except where instructed in this funding opportunity announcement to do otherwise. Conformance to the requirements in the Application Guide is required and strictly enforced. Applications that are out of compliance with these instructions will not be reviewed.

For information on Application Submission and Receipt, visit [Frequently Asked Questions – Application Guide, Electronic Submission of Grant Applications](#).

Page Limitations

All page limitations described in the SF424 (R&R) Application Guide and the [Table of Page Limits](#) must be followed.

Instructions for Application Submission

The following section supplements the instructions found in the SF424 (R&R) Application Guide and should be used for preparing an application to this FOA.

SF424(R&R) Cover

Follow all instructions provided in the SF424 (R&R) Application Guide.

SF424(R&R) Project/Performance Site Locations

Follow all instructions provided in the SF424 (R&R) Application Guide.

SF424 (R&R) Other Project Information Component

Follow all instructions provided in the SF424 (R&R) Application Guide with the following additional modifications:

Facilities & Other Resources. Describe the educational environment, including the facilities, laboratories, participating departments, computer services, and any other resources to be used in the development and implementation of the proposed program. List all thematically related sources of support for research training and education following the format for Current and Pending Support.

Other Attachments.

An Advisory Committee is not a required component of a Research Education program. However, if an Advisory Committee is intended, provide a plan for the appointment of an Advisory Committee to monitor progress of the research education program. The composition, roles, responsibilities, and desired expertise of committee members, frequency of committee meetings, and other relevant information should be included. Describe how the Advisory Committee will evaluate the overall effectiveness of the program. Proposed Advisory Committee members should be named in the application only if they have been invited to participate at the time the application is submitted. Renewal applications with Advisory Committees should include the names of all committee members during the past project period. Please name your file "Advisory_Committee.pdf".

Tables. The Bridges to the Baccalaureate is an institutional program and as such applicants must provide details about the institution and its setting using Data Tables 2 and 8D (<http://grants.nih.gov/grants/funding/424/datatables.htm>).

The following Tables are required for new applications:

Data Table 2. Participating Faculty Members, Undergraduate and/or Predoctoral Training Table, as applicable
Data Table 8D (Part II only). Program Outcomes: Undergraduate

The following Data Tables are required for renewal applications:

Data Table 2. Participating Faculty Members, Undergraduate and/or Predoctoral Training Table, as applicable
Data Table 8D (Part I only). Program Outcomes: Undergraduate

Please name your file as "Table X.pdf" where 'X' represents the Table number (e.g. "Table2.pdf"). filename provided for each "Other Attachment" will be the name used for the bookmark in the electronic application in eRA Commons.

SF424(R&R) Senior/Key Person Profile Expanded

Follow all instructions provided in the SF424 (R&R) Application Guide. Biosketches for all proposed preceptors/faculty must be included in this section. If a program coordinator(s) is identified include their biographical sketches.

R&R Budget

Follow all instructions provided in the SF424 (R&R) Application Guide with the following additional modifications:

Include all personnel other than the PD(s)/PI(s) in the Other Personnel section, including clerical and administrative staff.

Bridges Student Participants: State the number of Bridges students from each partner institution and the total number of Bridges students to be supported by the proposed research education program during the academic year and summer.

Participant/Trainee Support Costs: Participant/Trainee Support Costs are not applicable to the Bridges to the Baccalaureate Program. The Bridges student salaries and fringe benefits are included under section B (Other Personnel).

Travel: Include travel for Bridges students in this section.

If a program coordinator(s) is included, their duties and responsibilities must be well described in the budget.

The Bridges to the Baccalaureate Program involves two or more institutions. One of the participating institutions must be designated as the lead applicant institution and funding for the other institution(s) in the partnership must be requested via a subcontract to be administered by the applicant institution.

The following summarizes the non-allowable costs under the Bridges to the Baccalaureate Program:

Faculty research mentors' time or effort compensation

Faculty salary to supplement the actual academic-year salary, or increase the base by which the academic-year salary is calculated/established

Student participant support in the form of a "stipend" (note: "stipend" differs technically from "salary/wages," which is allowable)

Any salary support or other costs for student participants who are not from underrepresented groups, students who did not begin post-secondary education at the associate degree-granting institution(s)

Undergraduate student tuition remission

Textbooks needed for coursework required for a student participant's degree program

Incentives (including laptop computers), gifts, souvenirs or other inducements for the purpose of recruiting student participants

Costs of membership in professional organizations or subscriptions to Internet services or journals

Foreign Travel

Travel costs to/from the applicant institution for the purpose of recruiting prospective student participants

Costs of workshops or courses with a limited focus of preparation for a specific graduate admission test (e.g., GRE, MCAT, etc.)

Food and beverage costs (NOTE: Travel per diem costs provided in accordance with an institution's written travel policies to cover incidental meal expenses is permissible)

Alterations and renovations

PHS 398 Cover Page Supplement

Follow all instructions provided in the SF424 (R&R) Application Guide.

PHS 398 Research Plan Component

All instructions in the SF424 (R&R) Application Guide must be followed, with the following additional instructions:

Research Strategy

The **Research Strategy** section must be used to upload the **Research Education Program Plan**, which must include the following components described below:

Proposed Research Education Program

Program Director/Principal Investigator

Program Faculty

Program Participants

Institutional Environment and Commitment

Diversity Recruitment Plan

Plan for Instruction in the Responsible Conduct of Research

Evaluation Plan

Research Education Program Plan

Proposed Research Education Program. While the proposed research education program may complement ongoing research training and education occurring at the applicant institution, the proposed educational experiences must be distinct from those research training and research education programs currently receiving federal support. When research training programs are on-going in the same department, the applicant organization should clearly distinguish between the activities in the proposed research education program and the research training supported by the training program.

Each application must provide baseline data on enrollment, transfer and subsequent graduation of its UR students in biomedical sciences. The program outcome measures and impact on the participating institutions should be presented relative to baseline data.

Provide a brief description of the following to address the anticipated value-added of the Bridges program to participating institutions:

Results of institutional self-assessment(s) that led to identification of areas selected for improvement at the participating community college(s) and the rationale for incorporating particular courses for skills development, research experiences, and curriculum development activities into the proposed Bridges program;

The proposed developmental activities that will enable UR students to make a seamless transition from the participating community college(s) to the bachelor's degree-granting institution(s) and successfully complete the baccalaureate degree program in biomedical sciences;

How the proposed Bridges program will be integrated into any of the existing academic/student development programs, and how this program will collaborate with or complement other externally and institutionally funded student training and educational programs;

The anticipated overall impact of the proposed Bridges program to the partnership's capacity to prepare and graduate UR students for biomedical research careers.

Other Programmatic Elements:

Provide programmatic detail on the proposed developmental activities that address the needs and requirements (as identified by the institutional self-assessments) of students who are enrolled full-time at the participating community college(s) and must be designed to improve their competitiveness for transfer and completion of the baccalaureate degree in biomedical sciences. Provide a brief rationale for, and a detailed description of, each activity proposed and the role of faculty/personnel involved. Describe how each activity will contribute toward

realization of the specific aims. Discuss any perceived impediments to implementing the proposed activities and alternative strategies to achieve the specific aims.

Student development activities may include essential research education such as research design workshops, and research classroom activities that form mandatory components of the program.

In describing the proposed mentored research experiences during the academic year/summer, applicants must demonstrate that participants will have meaningful research experiences in the laboratories or research groups of investigators who are actively engaged in biomedical research and who have peer-reviewed publications. Proposed summer research experiences must be at least two consecutive months in duration.

The application should describe a system for monitoring Bridges student progress throughout the post-secondary experience, including their retention, transfer, and successful completion of the baccalaureate degree.

Applicants are encouraged to summarize what they view as especially important information contained in the data tables within the text of the application. This summary does not replace the data tables, and applicants are urged to ensure consistency between the summary and the relevant table information.

NIGMS encourages those involved in the Bridges Program (i.e., Program administrators, faculty mentors and participants, etc.) describe how they might learn about and make use of the NIGMS administered National Research Mentoring Network (NRMN).

Program Director/Principal Investigator. Describe arrangements for administration of the program. Provide evidence that the Program Director/Principal Investigator is actively engaged in research and/or teaching in an area related to the mission of NIH, and can organize, administer, monitor, and evaluate the research education program. For programs proposing multiple PDs/PIs, describe the complementary and integrated expertise of the PDs/PIs; their leadership approach, and governance appropriate for the planned project.

The PDs/PIs are responsible for ensuring that the Bridges participants are placed in a productive research environment with faculty mentors who will provide the proper guidance and instruction for the participants. In consultation with the advisory committee, if one is included, the PDs/PIs are encouraged to consider the preparation and development of an Individual Development Plan (IDP) for each participant, as well as design program activities that will further enhance the academic preparation and research skills of the participants. The PDs/PIs are also responsible for the preparation and submission of required reports (annual progress reports, changes in the program, etc.) in a timely manner.

Applicants must also describe the organization, administration, communication, and leadership succession plan for critical positions (e.g., PDs/PIs) in the administrative structure.

Applicants must also describe the organization, administration, communication, and leadership succession plan for critical positions (e.g., PDs/PIs) in the administrative structure.

Program Faculty. Researchers from diverse backgrounds, including racial and ethnic minorities, persons with disabilities, and women are encouraged to participate as program faculty. Faculty should have research expertise and experience relevant to the proposed program and demonstrate a history of, or the potential for, their intended roles.

Without repeating information provided in Biographical Sketches, provide evidence that faculty and staff have the necessary skills, knowledge and experience to conduct the proposed student development and research activities. Clearly delineate the roles and expectations of participating faculty and/or program coordinators from each institution.

Program Participants. Applications must describe the intended participants, and the eligibility criteria and/or specific educational background characteristics that are essential for participation in the proposed research education program. Identify the career levels for which the proposed program is planned.

NIGMS strongly encourages the use of IDP for graduate students (See [NOT-OD-13-093](#)). An IDP might be useful at the undergraduate level as well.

Bridges student participants are those students who will receive support in the form of salaries/wages under this program. Student participants must be full-time matriculated students during the academic year U.S. citizens or non-citizen nationals or permanent residents, and be an individual from a background nationally underrepresented in the biomedical sciences. Eligible students must be enrolled full time in a community college biomedical sciences discipline.

Describe the criteria and procedures for identification, selection and retention of students into the Bridges program.

Provide the institutional baseline data (average number over the previous five-year period) on the enrollment, transfer and graduation of students in biomedical sciences-related disciplines.

The number of community college students enrolled

The number of students transferred into a 4-year institution

The number of transferred students who completed the BA/BS degree over the previous 5-year period

The percentage of UR and non-UR students in each category.

Institutional Environment and Commitment. Describe the institutional environment, reiterating the availability of facilities and educational resources (described separately under "Facilities & Other Resources"), that can contribute to the planned Research Education Program. Evidence of institutional commitment to the research educational program is required. A letter of institutional commitment must be attached as part of Letters of Support (see below). Appropriate institutional commitment should include the provision of adequate staff, facilities, and educational resources that can contribute to the planned research education program.

Provide a brief description of the following to address the Institutional Environment:

Applicant and the partner institution(s) in the consortium, including the geographic location of partner institution(s) in the context of the lead applicant institution, and the rationale for selecting these institutions for the partnership;

Biomedical sciences-related disciplines in which associate degree programs are offered at the two-year institution(s), and the relevant curricula;

Biomedical sciences-related disciplines in which bachelor's degree programs are offered at the baccalaureate institution(s), and the relevant curricula and general degree requirements;

Current status of articulation agreement for the transfer of courses and credits from these institution(s) to the baccalaureate institution(s);

Current student development and research education programs (applicants may use the suggested format provided in *Sample Format Table A*, and insert it in this portion of the application -), as well as counseling/mentoring services (funded by the institution and by sponsoring entities) available at the applicant and partner institutions, and their successes in preparing and graduating underrepresented students.

Provide a brief description of the following to address the Institutional Commitment:

The commitment by the senior leadership of each institution in the partnership to the broader principles of diversity and to the training, education, and success of UR students in biomedical sciences;

The Bridges-supported activities (courses for skills development, research experiences, and curriculum or methods development) are expected to be institutionalized, or plans should be in place to institutionalize these activities after the second year of the grant; for progress reports, describe evidence of program elements adopted by the institution(s) more broadly;

Evidence of support for the proposed institutionalization plan from the department chair(s), dean(s) of the college(s), and/or other relevant members of the institutions' central administration;

Documentation of the financial and other support available to the Bridges students after they transfer to the partner four-year institution(s).

Progress Report (for renewal applications). For renewal applications, a detailed Progress Report must be included. Applications with more than one previous funding cycle must provide information on up to the past three consecutive funding cycles, if applicable. In the report, state the original goals and specific aims, anticipated milestones and outcomes, as well as a summary of the specific accomplishments of the Bridges to the Baccalaureate program in the context of the previous application's stated goals and objectives.

Describe the impact of the Bridges program as a result of program-supported activities in areas such as courses/curricular enhancements, faculty and student development, increases in student retention rate, improvement of student academic achievement, and increases in the number of students transferring to and successfully completing the bachelor's degree in biomedical sciences. Describe any previously funded Bridges activities that are now continuing (or will continue) on institutional funds. What courses were developed for skills development? Describe the research experiences of the participants and in which area of science. Describe the mentoring activities that have taken place. Describe what has been learned through the program evaluation and any changes made in the program as a result of the evaluation.

Applicants are encouraged to use [the NIGMS CareerTrac System](#) to provide data on student outcomes for up to 15 years, if applicable. Additionally, applicants must provide a summary of student outcomes for up to 15 years, if applicable, in the narrative of the application. The expected student outcomes include the following:

Number of total Bridges participant slots awarded in the previous funding cycle

Number of Bridges participants slots requested in the renewal application

Number of Bridges participants currently supported

Number of Bridges participants who withdrew while at the 2-year institution

Number of Bridges participants who completed the Bridges program (alumni)

Number of Bridges alumni who transferred to a 4-year institution

Number of Bridges alumni who withdrew from 4-year institution

Number of Bridges alumni who completed the baccalaureate degree program

Number of Bridges alumni who entered a postbaccalaureate program

Number of Bridges alumni who enrolled in a Master's program

Number of Bridges alumni who completed a Master's program

Number of Bridges alumni who enrolled in a PhD program

Number of Bridges alumni who completed a PhD program

Number of Bridges alumni who enrolled in an MD program

Number of Bridges alumni who completed an MD program

Number of Bridges alumni who are employed in research-related positions

Number of Bridges alumni who are employed in non-research-related positions

Recruitment Plan to Enhance Diversity:

Bridges programs are expected to offer various recruitment activities to enhance the pool of students participating in the research education experiences. Describe steps to be taken during the proposed award period regarding the identification and recruitment of research-oriented students from underrepresented groups.

Consider the success and/or failures of recruitment strategies used in the past. In particular, describe the specific efforts to be undertaken by the research education program and how these might relate to the recruitment efforts of the institution. Institutional efforts alone will not satisfy the requirement to recruit individuals from underrepresented groups.

New applications must include a description of plans to enhance recruitment, including the strategies that will be used to enhance the recruitment of trainees from underrepresented backgrounds and may wish to include data in support of past accomplishments.

Renewal applications must include a detailed account of experiences in recruiting individuals from underrepresented groups during the previous funding period. Information must be included on successful and unsuccessful recruitment strategies including aggregate information on the distribution of:

Individuals who applied for admission to the research education program,

Individuals who were offered admission to the research education program

Individuals who participated in the research education program.

For those individuals who participated in the research education program, the report should include information about the duration of education and aggregate information on the number of individuals who finished the program in good standing. Additional information on the required Recruitment and Retention Plan to Enhance Diversity is available at Frequently Asked Questions: Recruitment and Retention Plan to Enhance Diversity ([Diversity FAQs](#)).

Applications lacking a diversity recruitment plan will not be reviewed.

Plan for Instruction in the Responsible Conduct of Research. All applications must include a plan to fulfill NIH requirements for instruction in the Responsible Conduct of Research (RCR). The plan must address the five, required instructional components outlined in the NIH policy: 1) *Format* - the required format of instruction, i.e., face-to-face lectures, coursework, and/or real-time discussion groups (a plan with only on-line instruction is not acceptable); 2) *Subject Matter* - the breadth of subject matter, e.g., conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, research ethics; 3) *Faculty Participation* - the role of the program faculty in the instruction; 4) *Duration of Instruction* - the number of contact hours of instruction, taking into consideration the duration of the program; and 5) *Frequency of Instruction* – instruction must occur during each career stage and at least once every four years. See also [NOT-OD-10-019](#). The plan should be appropriate and reasonable for the nature and duration of the proposed program. Renewal (Type 2) applications must, in addition, describe any changes in formal instruction over the past project period and plans to address any weaknesses in the current instruction plan. All participating faculty who served as course directors, speakers, lecturers, and/or discussion leaders during the past project period must be named in the application.

Applications lacking a plan for instruction in responsible conduct of research will not be reviewed.

Evaluation Plan. Applications must include a plan for evaluating the activities supported by the award. The application must specify baseline metrics (e.g., numbers, educational levels, and demographic characteristics of participants), as well as measures to gauge the short or long-term success of the research education award in achieving its objectives. Wherever appropriate, applicants are encouraged to obtain feedback from participants to help identify weaknesses and to provide suggestions for improvements.

The application should describe a system for monitoring Bridges students' academic progress, including their retention, transfer, and successful completion of the Baccalaureate degree, or as long as the Bridges Program is funded. As part of this plan, applicants are encouraged to use the NIGMS CareerTrac system (<https://careertrac.niehs.nih.gov/>) to keep track of student progress (see [Section VI.3 Reporting](#), and [Section VI.4 Evaluation](#)). The CareerTrac system supports tracking of trainee accomplishments - such as fellowships, awards, employment, other education, product or policy developments, publications, funding received, posters at scientific conferences, and students mentored. CareerTrac is intended to be a tool to enable NIH staff to evaluate the effectiveness and impact of its health research education programs and to help NIH in overall coordination of its various research education programs.

Multiple PD/PI Leadership Plan

Bridges PDs/PIs should address how they will share and discharge those duties and responsibilities specific to a Bridges program including:

Selection of students

The coordination and implementation of developmental research education

Processes to coordinate efforts to prepare and submit required reports, e.g., annual progress reports, changes in program activities if any, etc.

Interactions with the program evaluator, if any, to monitor and evaluate the progress of individual program elements and the overall functioning of the Bridges to the Baccalaureate Program.

Letters of Support

A letter of institutional commitment must be attached as part of Letters of Support (see section above: "**Institutional Environment and Commitment.**")

Applications must include a Consortium Agreement letter of intent or acknowledging each institution's participation in the proposed Bridges to the Baccalaureate Program. The letter must outline each institution's respective role in administering the program, and these roles must be consistent with the goals and objectives of the proposed Bridges program. This letter is to be signed by a representative of each participating institution's central administration, and all program directors (PDs/PIs). The institutional business official's signature on the letter indicates that all parties agree with the following statement:

"The appropriate programmatic and administrative personnel of each organization involved in this grant application are aware of the NIH consortium agreement policy and are prepared to establish the necessary inter-institutional agreement(s) consistent with that policy." Information on the NIH Policy regarding consortium agreements is available at: <https://grants.nih.gov/policy/nihgps/index.htm>."

Resource Sharing Plans

Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide.

Appendix

Do not use the Appendix to circumvent page limits. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide .

PHS Inclusion Enrollment Report

Form only available in FORMS-D application packages for use with due dates on or before January 24, 2018.

When conducting clinical research, follow all instructions for completing PHS Inclusion Enrollment Report as described in the SF424 (R&R) Application Guide.

PHS Human Subjects and Clinical Trials Information

Form only available in FORMS-E application packages for use with due dates on or after January 25, 2018.

When involving NIH-defined human subjects research, clinical research, and/or clinical trials follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered "Yes" to the question "Are Human Subjects Involved?" on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or a **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed.

Delayed Onset Study: All instructions in the SF424 (R&R) Application Guide must be followed.

PHS Assignment Request Form

All instructions in the SF424 (R&R) Application Guide must be followed.

3. Unique Entity Identifier and System for Award Management (SAM)

See Part 1. Section III.1 for information regarding the requirement for obtaining a unique entity identifier and for completing and maintaining active registrations in System for Award Management (SAM), NATO Commercial and Government Entity (NCAGE) Code (if applicable), eRA Commons, and Grants.gov

4. Submission Dates and Times

[Part I. Overview Information](#) contains information about Key Dates and times. Applicants are encouraged to submit applications before the due date to ensure they have time to make any application corrections that might be necessary for successful submission. When a submission date falls on a weekend or [Federal holiday](#), the application deadline is automatically extended to the next business day.

Organizations must submit applications to [Grants.gov](#) (the online portal to find and apply for grants across all Federal agencies). Applicants must then complete the submission process by tracking the status of the application in the [eRA Commons](#), NIH's electronic system for grants administration. NIH and Grants.gov systems check the application against many of the application instructions upon submission. Errors must be corrected and a changed/corrected application must be submitted to Grants.gov on or before the application due date and time. If a Changed/Corrected application is submitted after the deadline, the application will be considered late. Add Applications that miss the due date and time are subjected to the NIH Policy on Late Application Submission.

Applicants are responsible for viewing their application before the due date in the eRA Commons to ensure accurate and successful submission.

Information on the submission process and a definition of on-time submission are provided in the SF424 (R&R) Application Guide.

5. Intergovernmental Review (E.O. 12372)

This initiative is not subject to [intergovernmental review](#).

6. Funding Restrictions

All NIH awards are subject to the terms and conditions, cost principles, and other considerations described in the [NIH Grants Policy Statement](#).

Pre-award costs are allowable only as described in the [NIH Grants Policy Statement](#).

7. Other Submission Requirements and Information

Applications must be submitted electronically following the instructions described in the SF424 (R&R) Application Guide. Paper applications will not be accepted.

Applicants must complete all required registrations before the application due date. [Section III. Eligibility Information](#) contains information about registration.

For assistance with your electronic application or for more information on the electronic submission process, visit [Applying Electronically](#). If you encounter a system issue beyond your control that threatens your ability to complete the submission process on-time, you must follow the [Guidelines for Applicants Experiencing System Issues](#). For assistance with application submission, contact the Application Submission Contacts in Section VII.

Important reminders:

All PD(s)/PI(s) must include their eRA Commons ID in the Credential field of the Senior/Key Person Profile Component of the SF424(R&R) Application Package. Failure to register in the Commons and to include a valid PD/PI Commons ID in the credential field will prevent the successful submission of an electronic application to NIH.

The applicant organization must ensure that the DUNS number it provides on the application is the same number used in the organization's profile in the eRA Commons and for the System for Award Management (SAM). Additional information may be found in the SF424 (R&R) Application Guide.

See [more tips](#) for avoiding common errors.

Upon receipt, applications will be evaluated for completeness and compliance with application instructions by the Center for Scientific Review, NIH. Applications that are incomplete or non-compliant will not be reviewed.

Post Submission Materials

Applicants are required to follow the instructions for post-submission materials, as described in [the policy](#).

Section V. Application Review Information

1. Criteria

Only the review criteria described below will be considered in the review process. As part of the [NIH mission](#), all applications submitted to the NIH in support of biomedical, behavioral, and clinical research are evaluated for scientific and technical merit through the NIH peer review system.

For this announcement, note the following:

The goal of this R25 program is to support educational activities that prepare students for successful transfer from a 2-year to a 4-year-institution followed by subsequent baccalaureate degree completion in the biomedical sciences. Access to and provision for opportunities for students to engage in meaningful research experiences and to improve upon or acquire skills necessary for successful succession to the next academic or career step is a critical component of the Bridges Program.

Overall Impact

Reviewers will provide an overall impact score to reflect their assessment of the likelihood for the project to strongly advance research education by fulfilling the goal of this R25 Education Program, in consideration of the following review criteria and additional review criteria, as applicable for the project proposed.

Scored Review Criteria

Reviewers will consider each of the review criteria below in the determination of scientific merit, and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact.

Significance

Does the proposed program address a key audience and an important aspect or important need in research education? Is there convincing evidence in the application that the proposed program will significantly advance the stated goal of the program? Is the application a logical reflection of the institutional self-assessment? Does the research plan show potential to enhance the diversity of the biomedical research workforce?

Investigator(s)

Are the PDs/PIs capable of providing both administrative and scientific leadership to the development and implementation of the proposed program? Is there evidence that an appropriate level of effort will be devoted by the program leadership to ensure the program's intended goal is accomplished? If applicable, is there evidence that the participating faculty have experience in mentoring students and teaching science? If applicable, are the faculty good role models for the participants by nature of their scientific accomplishments? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project? Will the proposed administrative structure and succession plan contribute to successful management of the program?

Innovation

Taking into consideration the nature of the proposed research education program, does the applicant make a strong case for this program effectively reaching an audience in need of the program's offerings? Where appropriate, is the proposed program developing or utilizing innovative approaches and latest best practices to improve the knowledge and/or skills of the intended audience? Adaptations of existing research education programs may be considered innovative under special circumstances, e.g., the addition of unique components and/or a proposal to determine portability of an existing program.

Approach

Does the proposed program clearly state its goals and objectives, including the educational level of the audience to be reached, the content to be conveyed, and the intended outcome? Is there evidence that the program is based on a sound rationale, as well as sound educational concepts and principles? Is the plan for

evaluation sound and likely to provide information on the effectiveness of the program? If the proposed program will recruit participants, are the planned recruitment, retention, and follow-up (if applicable) activities adequate to ensure a highly qualified participant pool? Alternatively, if the application provides opportunities for students who need additional academic support, are the proposed activities aligned to provide the support needed? Is there evidence that the design of the proposed Bridges program is based on sound institutional self-assessment of the research environment and student outcomes?

Environment

Will the scientific and educational environment of the proposed program contribute to its intended goals? Is there a plan to take advantage of this environment to enhance the educational value of the program? Is there tangible evidence of institutional commitment? Is there evidence that the faculty have sufficient institutional support to create a sound educational environment for the participants? Where appropriate, is there evidence of collaboration and buy-in among participating programs, departments, and institutions? Are adequate plans provided for coordination and communication among multiple sites? Do the partner institutions collectively provide a means to facilitate classroom undergraduate research experiences or individual lab/research group experiences either on site or at relevant off-site facilities?

Additional Review Criteria

As applicable for the project proposed, reviewers will evaluate the following additional items while determining scientific and technical merit, and in providing an overall impact score, but will not give separate scores for these items.

Protections for Human Subjects

Generally not applicable. Reviewers should bring any concerns to the attention of the Scientific Review Officer

Inclusion of Women, Minorities, and Children

Generally not applicable. Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Vertebrate Animals

Generally not applicable. Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Biohazards

Generally not applicable. Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Resubmissions

For Resubmissions, the committee will evaluate the application as now presented, taking into consideration the responses to comments from the previous scientific review group and changes made to the project.

Renewals

For Renewals, the committee will consider the progress made in the last three consecutive funding cycles, if applicable. In addition, the committee will consider the following:

Has the research education program successfully achieved its stated objectives during the prior project period(s), especially in the context of institutional baseline and NIGMS's expectations (see Section I for details)? Has there been an improvement in relation to baseline data?

Has the research education program successfully recruited the expected number of Bridges participants during the prior project period? Have the PDs/PIs effectively shaped the recruitment plan in response to recruitment outcomes?

Were the transfer of community college students and baccalaureate completion rates of past Bridges participants adequately monitored? Has the program had a strong success rate of having its participants from the 2-year institution transfer to the 4-year institution? Is the baccalaureate completion rate of past participants consistent with the stated objectives of prior project period(s)?

Has the program had a strong impact on student success and provided added value to the participating institutions? If so, how has the added value been integrated into the fabric of the participating institutions? Is there evidence toward institutionalization of Bridges funded components?

Revisions

Not Applicable

Additional Review Considerations

As applicable for the project proposed, reviewers will consider each of the following items, but will not give scores for these items, and should not consider them in providing an overall impact score.

Recruitment Plan to Enhance Diversity

Peer reviewers will separately evaluate the recruitment plan to enhance diversity after the overall score has been determined. Reviewers will examine the strategies to be used in the recruitment of individuals from underrepresented groups. The review panel's evaluation will be included in the summary statement. Plans will be rated as **acceptable** or **unacceptable**, and the summary statement will provide the consensus of the review committee.

Training in the Responsible Conduct of Research

Taking into account the specific characteristics of the proposed research education program, the level of participant experience, the reviewers will evaluate the adequacy of the proposed RCR training in relation to the following five required components: 1) **Format** - the required format of instruction, i.e., face-to-face lectures, coursework, and/or real-time discussion groups (a plan with only on-line instruction is not acceptable); 2) **Subject Matter** - the breadth of subject matter, e.g., conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, research ethics; 3) **Faculty Participation** - the role of the program faculty in the instruction; 4) **Duration of Instruction** - the number of contact hours of instruction, taking into consideration the duration of the program; and 5) **Frequency of Instruction** - instruction must occur during each career stage and at least once every four years. See also: [NOT-OD-10-019](#). The review panel's evaluation will be included in the summary statement. Plans will be rated as **acceptable** or **unacceptable**, and the summary statement will provide the consensus of the review committee.

Applications from Foreign Organizations

Not Applicable

Select Agent Research

Generally not applicable. Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Resource Sharing Plans

Reviewers will comment on whether the following Resource Sharing Plans, or the rationale for not sharing the following types of resources, are **reasonable**: 1) [Data Sharing Plan](#); 2) [Sharing Model Organisms](#); and 3) [Genomic Data Sharing Plan](#). For this R25, generally this is not applicable. Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Budget and Period of Support

Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research.

2. Review and Selection Process

Applications will be evaluated for scientific and technical merit by (an) appropriate Scientific Review Group(s) convened by NIGMS, in accordance with [NIH peer review policy and procedures](#), using the stated [review criteria](#). Assignment to a Scientific Review Group will be shown in the eRA Commons.

As part of the scientific peer review, all applications:

May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit (generally the top half of applications under review) will be discussed and assigned an overall impact score.

Will receive a written critique.

Applications will be assigned on the basis of established PHS referral guidelines to the appropriate NIH Institute or Center. Applications will compete for available funds with all other recommended applications submitted in response to this FOA. Following initial peer review, recommended applications will receive a second level of review by the National Advisory General Medical Sciences Council. The following will be considered in making funding decisions:

Scientific and technical merit of the proposed project as determined by scientific peer review.

Availability of funds.

Relevance of the proposed project to program priorities.

For renewal applications: Performance of the Bridges program in achieving its stated goals and objectives during the prior project period(s).

3. Anticipated Announcement and Award Dates

After the peer review of the application is completed, the PD/PI will be able to access his or her Summary Statement (written critique) via the [eRA Commons](#). Refer to Part 1 for dates for peer review, advisory council review, and earliest start date.

Information regarding the disposition of applications is available in the [NIH Grants Policy Statement](#).

Section VI. Award Administration Information

1. Award Notices

If the application is under consideration for funding, NIH will request "just-in-time" information from the applicant as described in the [NIH Grants Policy Statement](#).

A formal notification in the form of a Notice of Award (NoA) will be provided to the applicant organization for successful applications. The NoA signed by the grants management officer is the authorizing document and will be sent via email to the grantee's business official.

Awardees must comply with any funding restrictions described in [Section IV.5. Funding Restrictions](#). Selection of an application for award is not an authorization to begin performance. Any costs incurred before receipt of the NoA are at the recipient's risk. These costs may be reimbursed only to the extent considered allowable pre-award costs.

Any application awarded in response to this FOA will be subject to terms and conditions found on the [Award Conditions and Information for NIH Grants](#) website. This includes any recent legislation and policy applicable to awards that is highlighted on this website.

2. Administrative and National Policy Requirements

All NIH grant and cooperative agreement awards include the [NIH Grants Policy Statement](#) as part of the NoA. For these terms of award, see the [NIH Grants Policy Statement Part II: Terms and Conditions of NIH Grant Awards, Subpart A: General](#) and [Part II: Terms and Conditions of NIH Grant Awards, Subpart B: Terms and Conditions for Specific Types of Grants, Grantees, and Activities](#). More information is provided at [Award Conditions and Information for NIH Grants](#).

Recipients of federal financial assistance (FFA) from HHS must administer their programs in compliance with federal civil rights law. This means that recipients of HHS funds must ensure equal access to their programs without regard to a person's race, color, national origin, disability, age and, in some circumstances, sex and religion. This includes ensuring your programs are accessible to persons with limited English proficiency. HHS recognizes that research projects are often limited in scope for many reasons that are nondiscriminatory, such as the principal investigator's scientific interest, funding limitations, recruitment requirements, and other considerations. Thus, criteria in research protocols that target or exclude certain populations are warranted where nondiscriminatory justifications establish

that such criteria are appropriate with respect to the health or safety of the subjects, the scientific study design, or the purpose of the research.

For additional guidance regarding how the provisions apply to NIH grant programs, please contact the Scientific/Research Contact that is identified in Section VII under Agency Contacts of this FOA. HHS provides general guidance to recipients of FFA on meeting their legal obligation to take reasonable steps to provide meaningful access to their programs by persons with limited English proficiency. Please see <https://www.hhs.gov/civil-rights/for-individuals/special-topics/limited-english-proficiency/index.html>. The HHS Office for Civil Rights also provides guidance on complying with civil rights laws enforced by HHS. Please see <http://www.hhs.gov/ocr/civilrights/understanding/section1557/index.html>; and <https://www.hhs.gov/civil-rights/for-providers/laws-regulations-guidance/index.html>. Recipients of FFA also have specific legal obligations for serving qualified individuals with disabilities. Please see <http://www.hhs.gov/ocr/civilrights/understanding/disability/index.html>. Please contact the HHS Office for Civil Rights for more information about obligations and prohibitions under federal civil rights laws at <https://www.hhs.gov/ocr/about-us/contact-us/index.html> or call 1-800-368-1019 or TDD 1-800-537-7697. Also note it is an HHS Departmental goal to ensure access to quality, culturally competent care, including long-term services and supports, for vulnerable populations. For further guidance on providing culturally and linguistically appropriate services, recipients should review the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care at <http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53>.

In accordance with the statutory provisions contained in Section 872 of the Duncan Hunter National Defense Authorization Act of Fiscal Year 2009 (Public Law 110-417), NIH awards will be subject to the Federal Awardee Performance and Integrity Information System (FAPIIS) requirements. FAPIIS requires Federal award making officials to review and consider information about an applicant in the designated integrity and performance system (currently FAPIIS) prior to making an award. An applicant, at its option, may review information in the designated integrity and performance systems accessible through FAPIIS and comment on any information about itself that a Federal agency previously entered and is currently in FAPIIS. The Federal awarding agency will consider any comments by the applicant, in addition to other information in FAPIIS, in making a judgement about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 45 CFR Part 75.205 "Federal awarding agency review of risk posed by applicants." This provision will apply to all NIH grants and cooperative agreements except fellowships.

3. Reporting

When multiple years are involved, awardees will be required to submit the [Research Performance Progress Report \(RPPR\)](#) annually. Continuation support will not be provided until the required forms are submitted and accepted. Programs that involve participants should report on education in the responsible conduct of research and complete a [Training Diversity Report](#), in accordance with the [RPPR Instruction Guide](#).

Applicants must submit Data Table 8D: Program Outcomes: Undergraduate (Part I.), in Section G.1 of the Research Performance Progress Report (RPPR). Sample and table description can be found at <http://grants.nih.gov/grants/forms/data-tables/forms-d.htm>. In addition, applicants should provide a summary of student participant outcomes in Section G.1 of the RPPR, and are encouraged to use [Sample Format Table 1](#) (Part B) for that purpose.

The Federal Funding Accountability and Transparency Act of 2006 (Transparency Act), includes a requirement for awardees of Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards issued in FY2011 or later. All awardees of applicable NIH grants and cooperative agreements are required to report to the Federal Subaward Reporting System (FSRS) available at www.fsr.gov on all subawards over \$25,000. See the [NIH Grants Policy Statement](#) for additional information on this reporting requirement.

Failure by the grantee institution to submit required forms in a timely, complete, and accurate manner may result in an expenditure disallowance or a delay in any continuation funding for the award.

In accordance with the regulatory requirements provided at 45 CFR 75.113 and Appendix XII to 45 CFR Part 75, recipients that have currently active Federal grants, cooperative agreements, and procurement contracts from all Federal awarding agencies with a cumulative total value greater than \$10,000,000 for any period of time during the period of performance of a Federal award, must report and maintain the currency of information reported in the System for Award Management (SAM) about civil, criminal, and administrative proceedings in connection with the award or performance of a Federal award that reached final disposition within the most recent five-year period. The recipient must also make semiannual disclosures regarding such proceedings. Proceedings information will be made publicly available in the designated integrity and performance system (currently FAPIIS). This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010

of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available. Full reporting requirements and procedures are found in Appendix XII to 45 CFR Part 75 – Award Term and Conditions for Recipient Integrity and Performance Matters.

Other Reporting Requirements

The institution must set up an eRA Commons account for each participating Bridges student who will receive a salary. PDs/PIs should work with their organizational officials to ensure that student accounts are created. Once a student has an eRA Commons ID, the PDs/PIs are required to report students with one month or more training in the progress report (RPPR).

An appointment or reappointment may begin any time during the budget period, but not before the budget period start date of the grant year. Appointment of new participants is not allowed during no-cost extensions.

DO NOT use xTrain to appoint Bridges student participants.

See Guide Notice [NOT-GM-14-118](#) for more information about appointing students and using the [NIGMS CareerTrac System](#), which is used for tracking student outcomes.

A final progress report and the expenditure data portion of the Federal Financial Report are required for closeout of an award as described in the [NIH Grants Policy Statement](#).

4. Evaluation

In carrying out its stewardship of human resource-related programs, the NIH or its Institutes and Centers will periodically evaluate their R25 research education programs, employing the measures identified below. In assessing the effectiveness of its research education investments, NIH may request information from databases, PDs/PIs, and from participants themselves. Where necessary, PDs/PIs and participants may be contacted after the completion of a research education experience for periodic updates on participants' subsequent educational or employment history and professional activities.

Upon the completion of a program evaluation, NIH and its ICs will determine whether to (a) continue a program as currently configured, (b) continue a program with modifications, or (c) discontinue a program.

In evaluating this research education program NIGMS expects to use the following evaluation measures:

Aggregate number and demographic characteristics of participants

Educational level of participants

Subsequent educational/career progress, including:

Enhanced student engagement in research as reflected by authorship on peer-reviewed papers and presentations at scientific conferences

Number and percentages of undergraduate (UG), UR students who bridged and transfer from 2-yr institution to 4-yr bachelor's degree granting institution

Enhanced student participation and competitiveness in applying for and receiving research fellowships, scholarships, or other awards

Number and percentages of UG, UR students who complete BS/BA degrees in biomedical sciences

Completion of BS/BA degrees in biomedical sciences by gender, race/ethnicity, disability and disadvantaged background

Number and percentages of UG, UR alumni who enroll in an advanced degree or post-baccalaureate program

Number and percentages of UG UR alumni who complete advanced degrees in biomedical sciences by gender, race/ethnicity, disability and disadvantaged background

Number and percentages of UG, UR alumni who enter the biomedical workforce and at what stage in their academic career (after associate degree completion, BS completion, etc.)

Content of courses for skills development

Effectiveness of the new curricula or methods assessed by skills/competencies gained compared to existing curricula or methods

Innovations in course structure, student advising, group learning, and teaching methods

Dissemination and/or adoption of the new curricula or methods

New knowledge or skills acquired

Section VII. Agency Contacts

We encourage inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

Application Submission Contacts

eRA Service Desk (Questions regarding ASSIST, eRA Commons registration, submitting and tracking an application, documenting system problems that threaten submission by the due date, post submission issues)

Finding Help Online: <http://grants.nih.gov/support/> (preferred method of contact)

Telephone: 301-402-7469 or 866-504-9552 (Toll Free)

[Grants.gov Customer Support](#) (Questions regarding Grants.gov registration and submission, downloading forms and application packages)

Contact Center Telephone: 800-518-4726

Email: support@grants.gov

GrantsInfo (Questions regarding application instructions and process, finding NIH grant resources)

Email: GrantsInfo@nih.gov (preferred method of contact)

Telephone: 301-710-0267

Scientific/Research Contact(s)

Mercedes Rubio, Ph.D.

National Institute of General Medical Sciences (NIGMS)

Telephone: 301-594-3900

Email: mercedes.rubio@nih.gov

Peer Review Contact(s)

Stephanie Constant, Ph.D.

National Institute of General Medical Sciences (NIGMS)

Telephone: 301.594.3663

Email: stephanie.constant@nih.gov

Financial/Grants Management Contact(s)

Lori Burge

National Institute of General Medical Sciences (NIGMS)

Telephone: 301-451-3781

Email: burgeL@nigms.nih.gov

Section VIII. Other Information

Recently issued trans-NIH [policy notices](#) may affect your application submission. A full list of policy notices published by NIH is provided in the [NIH Guide for Grants and Contracts](#). All awards are subject to the terms and conditions, cost principles, and other considerations described in the [NIH Grants Policy Statement](#).

Authority and Regulations

Awards are made under the authorization of Sections 301 and 405 of the Public Health Service Act as amended (42 USC 241 and 284) and under Federal Regulations 42 CFR Part 52 and 45 CFR Part 75.

[Weekly TOC for this Announcement](#)
[NIH Funding Opportunities and Notices](#)



Department of Health
and Human Services (HHS)



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