

RFA on Efficacy of Interventions to Promote Research Careers

RESEARCH ON INTERVENTIONS THAT PROMOTE RESEARCH CAREERS: SOCIAL AND BEHAVIORAL SCIENTISTS WANTED

The National Institute of General Medical Sciences (NIGMS) is seeking social and behavioral scientists to support research that will test assumptions regarding existing or potential interventions that are intended to increase the preparedness for careers in biomedical and behavioral research, "with a particular interest in those interventions specifically designed to increase the number of underrepresented minority students entering in careers in biomedical and behavioral research." The proposed research, however, need not be restricted to underrepresented minority students. Applications are due October 22, 2007.

The request for applications (RFA) RFA-GM-08-005 is recognition by the National Institutes of Health (NIH) that there is a significant under-representation of minority scientists engaged in biomedical and behavioral research. To redress this disparity a number of programs have been instituted over the past 30 years. The programs, according to RFA, have supported three main types of objectives: 1) increasing the participant pool generally by stimulating students' interest at multiple stages, starting as early as middle school; 2) retaining the participant pool via remediation, support services such as tutoring and financial aid, bridging program, and activities designed to motivate; and 3) strengthening the participant pool via acquisition of knowledge, academic enrichment and development of skills deemed important for success as a scientists.

The RFA notes that while these objectives and interventions are generally held to be necessary and sufficient, the specifics of their implementations are based on implicit assumptions, such as: 1) when students are provided the opportunity to engage in state-of-the-art biomedical and behavioral research, with appropriate facilities, support and mentorship, their appetite will be whetted to enter careers in such research; and 2) once focused, they will show improvement in academic and other skills need to be successfully pursue a research center in these fields. It is acknowledged, that to date, the assumptions underlying these interventions have generally not been systematically analyzed. Neither have the interventions been subjected to rigorous research.

The funding opportunity is designed to support research that will test explicitly identified assumptions and hypothesis that undergird existing or potential interventions intended to increase interest, motivation and preparedness for careers in biomedical and behavioral research, with a particular interest in those interventions specifically designed to increase the number of underrepresented minority students' careers in biomedical and behavioral research.

Relevant questions include but are not limited to:

- Are some characteristics of a student (e.g., skills, preparation, and knowledge) more determinative in career choice?
- Are some characteristics more subject to intervention?
- Can an optimum window for intervention be identified either by student age or level of maturity?
- Can behavior pattern for critical for a successful biomedical/behavioral research career be taught effectively?
- Does the choice of a research career lead to an increased academic focus and a corresponding increase in performance?
- Can the influence of mentors or other role models be measured, linked to outcome and modified?
- Can specific forms of teaching, styles of pedagogy and mentoring be identified that lead to the pattern of student engagement that leads to biomedical/behavioral research career?

- Do research experiences (including collaborations at majority institutions) positively affect career choice; and what are the principles components?
- With respect to the decision to enter (or remain) in research career, can the influence of peers, family, community and economics be distinguished, measured, linked to outcome and modified?

The RFA encourages collaboration among natural, behavioral and social scientists, and other appropriate experts, as needed. A desirable outcome of the proposed research would be the identification of new principles that would inform practice. The RFA, however, is not designed to support evaluation of existing programs. It will, on the other hand, support individuals and possibly multi-site multidisciplinary research grants. To foster rigor, validity, generalizability, and integration of these elements, a collaborative effort among researchers, program administrators, educators, psychologists, sociologists, biostatisticians, and/or economists, etc., as appropriate, is encouraged.

NIGM's Division on Minority Opportunities in Research sponsored through the National Academies' a two-day workshop on "Understanding Interventions that Encourage Minorities to Pursue Research Careers: Major Questions and Appropriate Methods," on May 3-4, 2007 (see Update, May 28, 2007)