

PROJECT SUMMARY

Since the 1970s, many programs and interventions have been implemented to encourage more women to enter science careers. While parity with men has been achieved in the early stages of training for some fields, progress has been very uneven, with the least progress being made in the professorate. Although many factors have been proposed as likely contributors to this slow progress, most focus on barriers preventing professional advancement. However, an equally plausible explanation is that a steadily rising number and fraction of young women, including those from underrepresented groups, see themselves as perfectly capable of succeeding in an academic career, but are choosing not to pursue it. In order to design interventions to support and promote the rise of women in academic science careers, it is essential that the relative contributions of persistent barriers and active career decision-making be determined. No studies have systematically attempted to determine if the low rate of progression of women into academic science careers is due to inadequate preparation, persistent discrimination, or active decisions of young women not to pursue this career path. In the proposed longitudinal study, interview-based qualitative research methods will be used to reveal the career decision-making of young women by accomplishing the following Specific Aims: 1) Determine the processes and criteria young women are using to make career decisions in the biomedical sciences, especially related to academic careers, as they progress from undergraduate into PhD training, comparing students with different ethnicities in women's colleges, colleges and universities with strong Women in Science (WIS) programs, Historically Black Colleges and Universities, and other colleges and universities; 2) Compare the career decision-making processes of these women with a broad and diverse sample of men in these schools, and women and men in NIGMS-sponsored MARC, RISE, IMSD and PREP programs; 3) Compare how activities of programs for women (WIS) and those for underrepresented minorities (MARC, RISE, IMSD and PREP) influence students' perceptions of and interest in academic careers; 4) Determine if themes previously shown to predict students likely to enter biomedical PhD programs hold equally for URM and other women, and men, in this broader sample of students; 5) Determine the degree to which refinement of career decisions can be explained by Social Cognitive Career Theory, with a focus on how sex role socialization processes affect beliefs, attitudes and self concepts which in turn affect motivation, choices and behaviors especially for women. This research will expand and complement an ongoing study of similar questions in students supported by NIGMS minority student development programs. Together, they will provide an unparalleled understanding of the career decision-making processes of young scientists and how interventions and supportive environments affect their decisions.

PUBLIC HEALTH RELEVANCE

A steadily rising number and fraction of young women enter college with an interest in science; the number entering and completing biomedical PhD programs now often outnumber men. Yet, their progression into faculty positions that utilize their talents, especially as role models and mentors for future generations of students, continues to lag far behind men. The unique perspectives of women in deciding upon priorities for research and approaches to research are also essential. Thus, it is critically important to fully understand the basis for this loss of talent and the investment in their scientific and professional development. The proposed research will study one aspect of this problem, the decision-making processes of young female scientists, to determine what has to be done differently to increase their participation, success and rise to leadership positions among university life science faculty.