





CALL FOR APPLICATIONS NIH K12 Faculty Scholar Program in Implementation Science (NHLBI)

Important Dates:

Letter of Intent (LOI) Due	March 1, 2019, 5PM - Submit as single pdf to Dr. Ranjit Singh: rs10@buffalo.edu
Invitation for Full Application	March 15, 2019
Full Application Due	May 15, 2019, 5PM - Submit as single pdf to Dr. Ranjit Singh: rs10@buffalo.edu
Finalists Interview	June 2019
Earliest Start Date	September 1, 2019

A. Overview

This UB Faculty Scholar Program in Implementation Science is an institutional research career development (K12) program funded by NHLBI (K12HL138052). It is jointly directed by Dr. John Canty (NHLBI-funded translational scientist) and Dr. Ranjit Singh (Director, Primary Care Research Institute). Dr. Katia Noyes (Division Chief, Health Services Policy & Practice) is the K12 Director of Curriculum. The program supports mentored research and career development for faculty scholars in dissemination and implementation (D&I) research to address the complex process of bridging research and practice in real-world settings. Mentored research must focus on heart, lung, blood, or sleep (HLBS) disorders and/or their risk factors. This career development opportunity should lead to research independence in D&I research. Candidates selected as K12 Scholars must hold a research or health-professional doctoral degree and commit a minimum of 75% of full-time professional effort to mentored D&I research and career development focused on HLBS disorders for a period of 2 to 3 years. The award can provide up to \$100,000 in salary and \$30,000 in research support annually to each scholar.

Specifically, D&I research is the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into real-world settings. Outcomes include acceptability, affordability, appropriateness, cost, feasibility, fidelity, penetration, and sustainability of the intervention in the specific context. This K12 Research Career Development Program addresses: (1) the need to accelerate the pace at which proven effective clinical interventions move from the laboratory to practice settings and communities; and (2) an inadequate investigator workforce to accelerate the pace of translation from scientific discovery into practice.

Therefore, this program is not focused on traditional explanatory science (left end of the diagram below) that tests interventions under ideal conditions, but rather on how to translate confirmed evidence into practice by patients, providers, or health systems under usual conditions. K12 Scholars will be exposed to a variety of methods, theories, models, frameworks, and analytic techniques, including Pragmatic clinical trials (right end of the diagram), the

Consolidated Framework for Implementation Research (CFIR), the RE-AIM framework for evaluation, Cost-effectiveness analysis, Mixed methods evaluation, Normalization Process Theory (NPT), and Community Based Participatory Research (CBPR), among others.

The goal of the program is to provide training and mentorship to establish a

Explanatory Trial

Can an intervention work
under ideal conditions?

NIH Collaboratory

Rethinking Clinical Trials

Health Care Systems Research Collaboratory

strong foundation in D&I research, enhancing the faculty scholar's ability to conceptualize and think through D&I research problems and employ novel approaches to improve implementation outcomes, leading to independent research funding.

B. Program Requirements

- 1) Applicants must define and conduct a translational (D&I) research project in "real world" settings with a focus related to heart, lung, blood, and sleep (HLBS) diseases and conditions.
- 2) Applicants must identify a multidisciplinary mentoring team with extensive clinical and/or translational research experience, where at least one of the members is willing to serve as the primary research mentor.
- 3) The primary research mentor(s) should have sufficient independent research support in an area related to the K12 Scholar's research proposal to cover the costs of the proposed research project that exceed the scholar's research funds provided by the K12 award. In case the mentor(s) does not have sufficient funding in research grants and/or is awaiting award of a competitive renewal, a letter of support from the Department Chair or School Dean committing to cover the difference in excess costs will be acceptable.
- 4) Applicants must commit 75% (9 calendar months) of full-time effort on research activities and career development activities associated with the K12 Scholar Program. The remaining 3 months' effort can be divided among research, clinical and teaching activities consistent with the proposed goals of the Mentored Career Development Award Program.
- 5) Preference will be given to novel approaches to reducing health disparities in clinical populations and/or applicants with experiences and/or attributes aimed at increasing diversity in the clinical and translational workforce. This includes, but is not limited to having lived or worked in diverse and/or socioeconomic disadvantaged environments, overcoming physical impairments, and/or being a member of a group(s) traditionally underrepresented in this discipline.

C. Applicant Eligibility

- 1) Applicant must have a research or health-professional doctoral degree or its equivalent, i.e., MD, MD/PhD, DO, DDS, DMD, PharmD, DNP, or PhD.
- 2) All candidates must be US citizens, naturalized citizens, or permanent residents. Individuals on temporary or student visas are not eligible.
- 3) We anticipate that awardees will be tenure-track Assistant Professors within a health-related Department or School associated with UB. Faculty currently on a non-tenure track (e.g. Clinical Assistant, or Clinical Associate) will be required to develop a plan (approved by their Chair and Dean) to switch to the tenure track as soon as possible.
- 4) Scholars may not be or have been a PD/PI on an R01, R29, U01/U10, subproject of a Program Project (P01), Center (P50, P60, U54) grant, or individual mentored or non-mentored career development award (e.g., K01, K08, K22, K23, K25, K99/R00).
- 5) Applicants *are still eligible* for the K12 Scholar award if they had support on an NRSA grant (F or T) or have been PI of an NIH small grant (R03 or R21).
- 6) Appointed K12 Scholars are strongly encouraged to apply for individual mentored K awards (e.g. K07, K08, K22, and K23) or R awards (R01, R21, R03) during the first year. Any plans to submit such an application between the K12 award application date and potential start date must be disclosed. If successful in obtaining a K or R award the K12 Scholar appointment will be considered complete and the salary funding will then be received from the individual K or R grant award.

D. Letter of Intent – due by March 1st, 2019, 5pm.

The Letter of Intent (LOI) package should submitted as a single PDF via email to Dr. Ranjit Singh (rs10@buffalo.edu) by March 1, 2019 at 5pm.

The LOI package should include the following items (1-5):

- 1) LOI Cover Page (1 page limit)
 - Name of Applicant and affiliation
 - Name of Primary Mentor (and any co-mentors) and affiliation
 - Title of K12 Project
 - Career Development Goals (number & briefly describe)
 - Research Project Description (brief specific aims & relevance to D&I research in real world settings)
- 2) Applicant Biosketch (new NIH-Style, under Research Support include pending)
- 3) Primary Mentor Biosketch (new NIH-Style)
- 4) Any Co-Mentor Biosketches (new NIH-Style)
- 5) Signed Eligibility Statement: I attest that I comply with the K12 award eligibility conditions (as described under section C above).

After review of the above, selected applicants will be invited to submit a full proposal – see timeline on first page for details.

E. Review Criteria for Invited Full Proposals

Scored Review Criteria

For those candidates invited to submit Full Proposals, reviewers will consider each of the following review criteria to assess the proposal's quality and potential for career progression in implementation science.

Candidate

- Does the candidate have the potential to develop as an independent researcher in T4 translational science?
- Are the candidate's prior training and research experience stage appropriate for this award?
- Is the candidate's academic, clinical (if relevant), and research record of high quality?
- Is there evidence of the candidate's commitment to meeting the program objectives to become an independent implementation scientist?
- Do the reference letters address the above review criteria, and do they provide evidence that the candidate has a high potential for becoming an independent investigator?

Career Development Plan/Career Goals and Objectives

- What is the likelihood that the plan will contribute substantially to the scientific development of the candidate and lead to scientific independence?
- Are the candidate's prior training and research experience appropriate for this award?
- Are the content, scope, phasing, and duration of the career development plan appropriate when considered in the
 context of prior training/research experience and the stated training and research objectives for achieving
 research independence?
- Are there adequate plans for monitoring and evaluating the candidate's research and career development progress?
- Is the career development plan appropriate in its content, scope, duration, and phasing for the candidate's stated career development goals?

Research Plan

- Is there a strong scientific premise for the project?
- Has the candidate presented strategies to ensure a pragmatic and unbiased approach, as appropriate for the D&I work proposed?
- Are the proposed research question, design, and methodology of significant scientific, technical merit, and relevance to real world settings?
- Is the research plan relevant to the candidate's research career objectives?
- Is the research plan appropriate to the candidate's stage of research development and as a vehicle for developing the research skills described in the career development plan?

Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)

- Are the qualifications of the mentor(s) in the area of the proposed research appropriate?
- Does the mentor(s) adequately address the candidate's potential and his/her strengths and areas needing improvement?
- Is there adequate description of the quality and extent of the mentor's proposed role in providing guidance and advice to the candidate?
- Is the mentor's description of the elements of the research career development activities, including formal course work adequate?
- Is there evidence that the mentors, consultants, and/or collaborators have previous experience in fostering the development of independent investigators?
- Is there evidence of the mentor's current research productivity and peer-reviewed support?
- Is active/pending support for the proposed research project appropriate and adequate?
- Are there adequate plans for monitoring and evaluating the career development awardee's progress toward independence?
- Does the mentor provide an appropriate plan that addresses the candidate's training needs, and that is likely to foster the candidate's continued development and transition to independence?