

ABSTRACT: 2013 ELAM Institutional Action Project Poster Symposium

Project Title: Transforming Human Health through Translational Collaborative Research

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Stanford University is one of the foremost academic Institutions in the U.S. and worldwide with superb expertise in all disciplines. Traditional academic silo organization has been recognized as one of the major impairments for interdisciplinary research and advancing innovation and led, among others, to the creation of 5 Institutes of Medicine in the SoM to facilitate the translation of research into improved clinical care and the BioX program that encompasses 56 departments in 5 schools in interdisciplinary research into problems of fundamental importance in the biosciences.

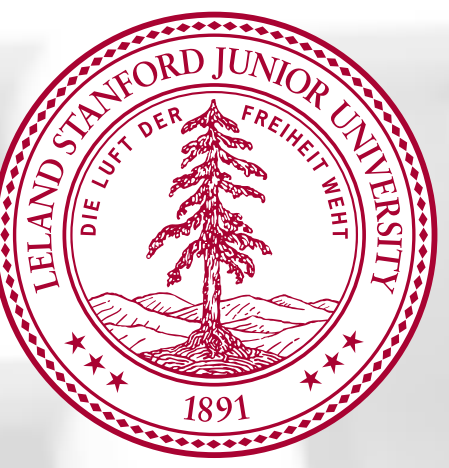
Similarly, one of the major strengths of Stanford University are the independent institutes, laboratories and centers under the auspices of the Vice Provost and Dean of Research, Dr. Ann Arvin. A number of these have strong expertise in areas relevant to global human health and care delivery, such as:

- Stanford Woods Institute for the Environment
- Center for Advanced Study in the Behavioral Sciences
- Stanford Center on Longevity (SCL)
- Stanford Center at Peking University (SCPKU)
- Freeman Spogli Institute for International Studies at Stanford (FSI)
- [Stanford Humanities Center](#)
- [Stanford Institute for Economic Policy Research](#) (SIEPR)

They provide significant support for interdisciplinary research at Stanford, involving hundreds of faculty members; administrative, research and technical staff members; and students at all levels. These units play a critical role in the Stanford mission of creating and sharing knowledge. The purpose of this project is to foster innovation by breaking down academic boundaries and bringing together collaborative teams of experts and students between these Institutes and Stanford School of Medicine (SoM) to address major societal issues related to human health nationally and internationally. Given the change of focus in health care and many funding agencies on new models in care delivery, translation of research, disease prevention and change in human behavior, leveraging the expertise and infrastructure of the Institutes and creating a structure for interdisciplinary collaboration with the SoM at multiple levels could have the synergy effect that will establish Stanford as the leader in innovation relating to the socio-economic impact of preservation of human health.

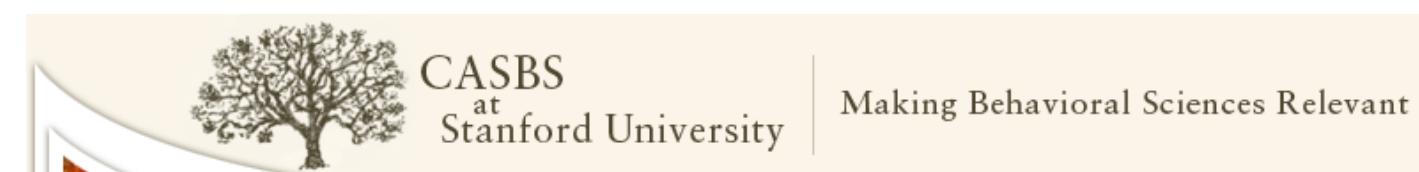
COLLABORATING ACROSS DISCIPLINES TO ADVANCE HUMAN HEALTH

Sabine Girod, MD, DDS, PhD, FACS & Ann Arvin, MD, Vice Provost of Research



Introduction

Stanford University has a long tradition of supporting multidisciplinary collaborations to study problems of human health and well-being. From the pioneering research of bioscientists, clinicians, engineers and informaticians at Bio-X and the Institutes of Medicine to the study of aging, hazardous waste management, pandemic migration, and the health effects of poverty, climate change and poor governance within Stanford's independent labs and policy research institutes under the Dean of Research, multidisciplinary research at Stanford engages hundreds of faculty members, administrative and research staff, and students at all levels.



Given the change of focus on new models of health care delivery, translational science, disease prevention and change in human behavior, this project envisages the development of a strong and dynamic cross-campus framework for multidisciplinary collaborations on human health in which medical school faculty team up with colleagues in the independent labs to generate new thinking and creative solutions for the world's persistent and debilitating health problems.

Collaborative Research Opportunities

The independent labs and policy research institutes under the Vice Provost and Dean of Research have varying degrees of involvement with the School of Medicine, including jointly appointed faculty, ongoing research partnerships, and cross-disciplinary teaching and training activities. These can serve as the foundation for pursuing research opportunities in the following areas:

- Behavioral intervention for eating disorders modification, obesity, pain management, prevention of diabetes, habit formation, exercise
- Aging mind and mobility
- Environmental impacts on human health, food security, and water safety
- Biosecurity, starvation, and disease
- Economic development, governance, and health outcomes
- Health care delivery in settings of extreme poverty/conflict



Strategic Goals

The **objectives** of this initiative are:

1. To promote multidisciplinary research collaborations among faculty from the School of Medicine, the independent labs and the policy research institutes aimed at problems of human health;
2. To provide Stanford students at all levels the opportunities to learn and train in multidisciplinary research settings;
3. To raise awareness among faculty of collaborative opportunities aimed at tackling human health problems.

Proposed Plan

In consultation with faculty leaders at the School of Medicine and the independent labs, it appears that the optimal mechanism for stimulating collaboration among investigators is to make grants available for early-stage multidisciplinary research projects. Similar models for multidisciplinary project funding include the BioX grants, the Woods' Environmental Venture projects and FSI's Global Underdevelopment Action Fund.

Multidisciplinary Team Grants

The proposed grants program would fund multidisciplinary teams of at least two principal investigators each — one from the School of Medicine and the other from an independent lab or policy research institute. Projects would be outcomes oriented and involve Stanford students at all levels. Grantees would be asked to present their projects in a new seminar series designed to share their innovative research with the academic community and to raise awareness of collaborative opportunities among faculty across campus.

Resource Requirements

Grant awards would be in the \$20-\$30,000 range to allow for funding of multiple projects. To have critical impact, an initial budget to fund 10 projects annually would be proposed. The seminar series would be scheduled during the year following the first round of grants.

Selection Committee

A selection committee would include faculty both from within and outside the University to ensure quality and avoid conflict of interest. In particular, junior and clinical faculty or faculty unaffiliated with the independent labs and policy research institutes should be incentivized to build new collaborative teams around a research problem and apply.

