



The Center for eHealth
Innovation and Process
Transformation



Interdisciplinary research to transform health care delivery

Creating a Successful NSF Grant Proposal

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University of Massachusetts Medical School
Mass. College of Pharmacy and Health Sciences



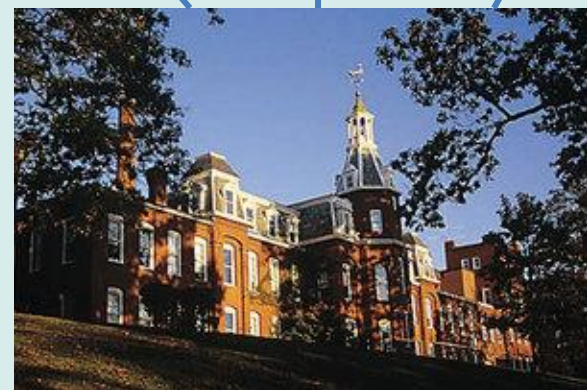
VA New England Healthcare System



Gateway Park Life Sciences and Bioengineering Center

WPI Approach:

- Problems that Matter
- Theory and Practice
- Innovation and Entrepreneurship
- 3-course Jr and Sr Projects, Graduate Projects



Worcester Polytechnic Institute



Clinical Partners





“My” NSF Grants

NSF Program & Amt	Focus of the Work	Faculty and Student Team
SES-Innovation and Organizational Change \$300K	Organizational change after Enterprise Systems implementation	2 MIS, 1 Org Behavior, 1 grad student
DUE \$75K	Developing enterprise system decision making modules for engineering and business UGs	1 MIS, 1 Ind Eng, 1 Acct, UG students
SBE-Human and Social Dynamics \$750K	EHR/PHR systems as agents of change	WPI: 2 MIS, 1 Ind Eng, 1 ME, 1 grad student 4 clinical partners (2 intern'l)
CISE-Smart Health and Wellbeing, \$1.2M Recommended for funding	Developing a smartphone app for pts w diabetes, incl. algorithms for wound image analysis. Usability and clinical testing of the app.	Med Sch: 2 MD, 2 PhD, 2 post-docs WPI: 2 MIS, 1 ECE, 1 CS, 2 ECE/CS grad, UG students

SES – NSF Division of Social and Economic Sciences in Directorate for Social, Economic, and Behavioral Sciences (SBE)

DUE – NSF Division of Undergraduate Education in Directorate for Education and Human Resources (EHR)

CISE – NSF Directorate of Computer & Information Science & Engineering

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Finding an NSF Program

Problem: There is not a home program in NSF for MIS, IS, or Medical Informatics

Solution:

- Search for cross-cutting (interdisciplinary) NSF programs
- Build an interdisciplinary team (beyond Business & Medical Schools)
- Write an interdisciplinary proposal

Proposal Topic: The topic/problem should be:

- Of interest to a broad community of reviewers
- Relevant to the CFP (not just in a few paragraphs)

Budget:

- Adequately fund the entire team
- Fund students (NSF's mission includes education)

Tie to NSF's mission:

- Educational mission: Fund students; Tie results to course and curriculum improvements
- Broader impacts: Include minorities, women, and students; Address problems of societal value

Creating a successful NSF proposal is a learning process

- Talk to your NSF program officer
 - By phone or in-person
 - Ask about elements of successful proposals
- Have a successful researcher read your proposal
- Spend enough time writing and revising to produce an excellent proposal
- Don't give up after an unsuccessful initial submission
 - Listen carefully to your program officer, then revise and re-submit
- Learn by:
 - Being a co-PI (not the PI) as an assistant professor
 - Serving as a NSF reviewer

Learn to create successful NIH and AHRQ proposals

- Issue: Missions and Rules for NIH and AHRQ are very different from NSF
- Solution: Work with medical school professors who have been successful

NIH – National Institutes of Health

AHRQ – Agency for Healthcare Research and Quality