


SIGMA XI  
THE SCIENTIFIC RESEARCH SOCIETY

 National Undergraduate  
Research Assessment Initiative

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# Goal

- Comprehensive study of the status of URE in the United States
  - Who is doing it?
  - What is the impact?

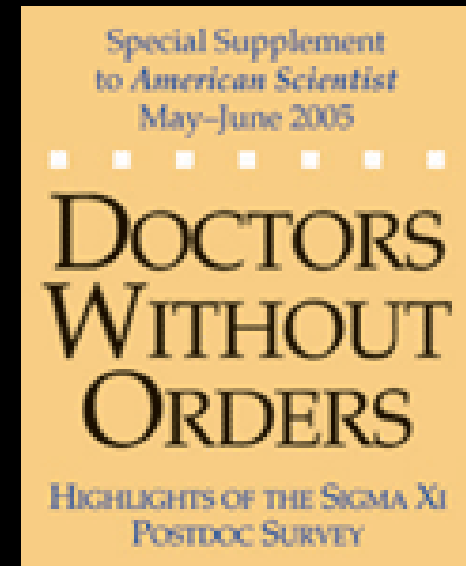
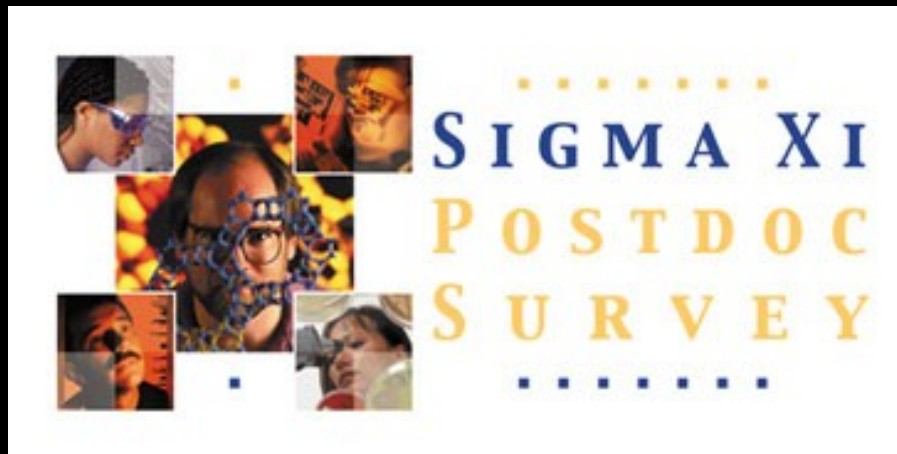


# Outcomes

- What do we expect to find?
- How will we use the data?



# Modeled after



# Limitations to current studies

- Inadequate Match Group
- Limited Participant Pool
- Short-term in duration



- **Inadequate “Match Group”**
  - Most collect data post URE
  - Few pre and post URE
  - What about other experiential learning opportunities?
- Limited Participant Pool
- Short-term in duration



- Inadequate Match Group
- **Limited Participant Pool**
  - Mostly Juniors and Seniors
  - Accepted into externally funded programs
  - Summer URE
- Short-term in duration



- Inadequate Match Group
- Limited Participant Pool
  
- **Short-term in duration**
  - Immediately after or within a few months of experience



# Why Sigma Xi?

- Interest in STEM education
- Successful Doctors without Orders
- Can help us overcome limitations of current studies
  - Chapter structure
    - 520 chapters on variety of campuses
    - Over 60,000 members





## National Undergraduate Research Survey

- **Over come “Match group” issues**
  - Chapter liaisons to identify 1:1 match
    - G.P.A., major, concentration





# National Undergraduate Research Survey

- **Overcome “Limited Participant Pool”**
  - Query students
    - engaged in URE in variety of ways
      - Course credit, volunteer, funded
    - from a variety of campuses
      - Community college, MSI, PUI, Regional, Research 1
    - who engaged in variety of research venues
      - Teaching hospitals, field museums





## National Undergraduate Research Survey

- **Overcome “Short term duration”**
  - Corporate Sponsorship will allow us to track participants long term



# Measure

- Affect of URE on things such as
  - Retention
  - Post baccalaureate education plans
  - Learning gains
    - Increased G.P.A.? Course selection?
  - Contribution to research mentor's research program



# Methods

- Likert survey
- Annual SRC
- Chapter liaisons
  - Also asked to provide institutional data



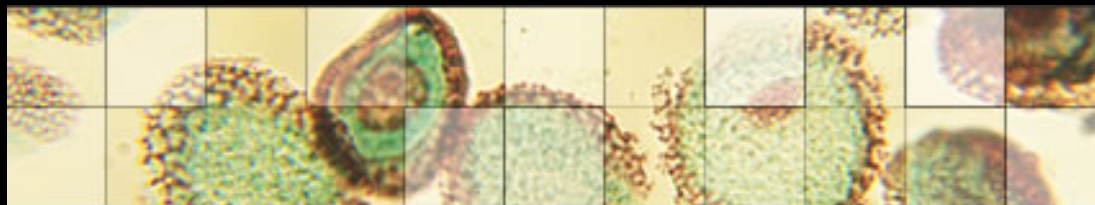
# Timeline

- Fall 2007-Spring 2008
  - Identify funding source(s)
- Summer 2008-Summer 2009
  - Pilot study
- 2009-2012
  - Full implementation



# Task Force

- Mary Crowe, UNC Greensboro
- Roger Harris, Sigma Xi
- Lon Kauffman, University of Illinois at Chicago
- Bill Klemm, Texas A&M
- Anne MacLachlan, University of California Berkeley



# Advisory Panel

- George Barthalmus  
NCSU
- Marjorie Campbell  
Stillman College
- Paul Klenk, Duke
- Diana Lizarraga, UC  
Berkeley
- Greg Llacer, Harvard
- Charles Lytle, NCSU
- Gary May, Georgia  
Tech
- Shiv Gaglani,  
Harvard
- Ed Stashko, OTS
- Gary Ybarra, Duke

