National Cancer Institute

The Science of Team Science

Assessing the Value of Transdisciplinary Research

Welcome!

Bethesda, MD
October 30-31, 2006

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Cancer Institute

Introduction

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NCI Conference on the Science of Team Science: Assessing the Value of Transdisciplinary Research

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Burgeoning Interest in Studying and Facilitating Cross-Disciplinary Collaboration

Substantial Investments in Team Science Initiatives Have Been Made Over the Past Three Decades

Private Foundations:

- MacArthur Foundation Networks in Mental Health and Human Development (1980-present)
- Robert Wood Johnson Foundation Tobacco Policy and Active Living Research Programs (2000-present)
- NAS/Keck Foundation Initiative to Transform Interdisciplinary Research (2003-present)

Large-Scale Initiatives to Promote Cross-Disciplinary Collaboration in Research, Training, and Translation

Public Agencies:

- NIH Roadmap Initiative, 2003-present
- NIH Office of Portfolio Analysis and Strategic Initiatives (OPASI), 2006-present
- NIH Clinical and Translational Science Centers, 2006-present
- NSF Science of Science Policy Initiative, 2006-present
- NCI Transdisciplinary Research and Training Initiatives
  - TTURC, CECCR, CPHHD, and TREC Centers, 1999-present
  - Cancer Care Outcomes & Surveillance Research Consortium
  - Breast Cancer Surveillance Consortium
  - Cancer Genetics Network

The “Great Team Science Debate”

- Given the enormous complexity of our most vexing social, environmental, and public health problems, efforts to foster collaboration among scientists trained in different fields is an essential strategy for ameliorating these problems

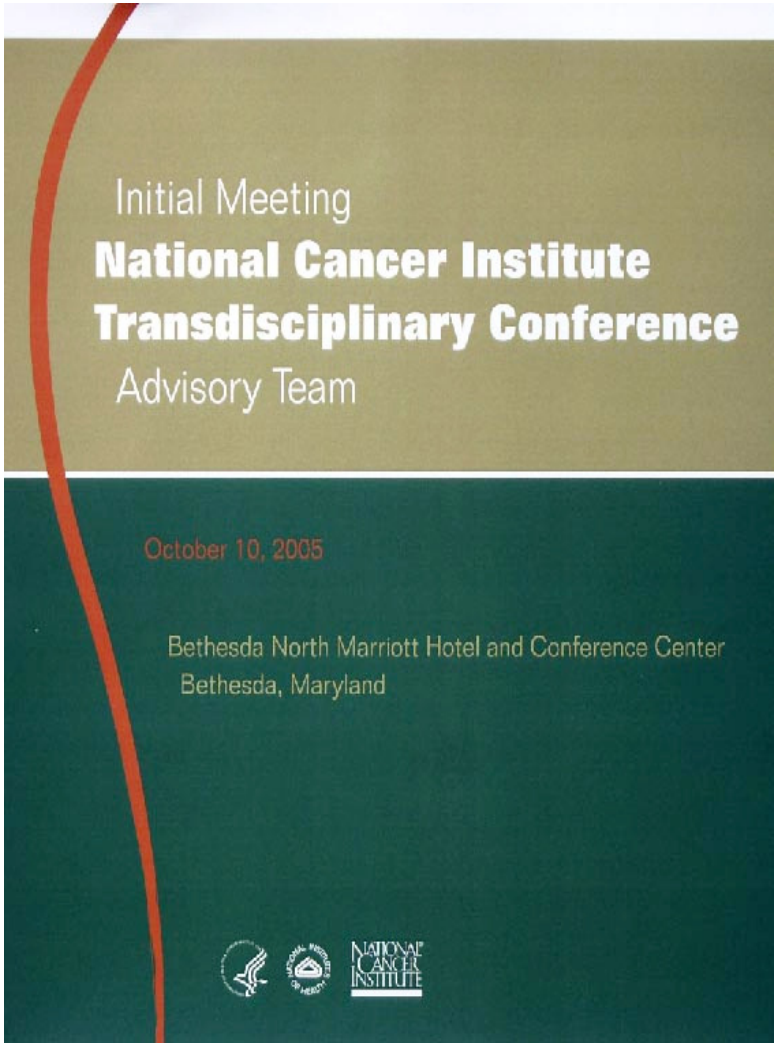
- Yet, critics contend that the scientific and societal value to team initiatives relative to smaller-scale unidisciplinary projects has been overstated, and that

- Team science initiatives draw scientists into collaborative centers and teams who otherwise might be more productive working independently or as co-investigators on smaller scale projects (such as NIH RO1 grants)

Earlier Conferences on Facilitating Cross-Disciplinary Research and Training

- The National Research Council Conference on Interdisciplinary Research (1990)
- The National Academy of Sciences Conference on Bridging Disciplines in the Brain, Behavioral, and Clinical Sciences (2000)
- The National Institutes of Health Bioengineering Consortium Symposium on Catalyzing Team Science (2003)
- The National Academy of Sciences Convocation on Facilitating Interdisciplinary Research (2004)

Meeting of the NCI Transdisciplinary Conference Advisory Team, October 2005



- *Intent was to build upon and go beyond issues addressed in earlier scholarly meeting and publications in the Science of Team Science (STS) field*
- *Brought together 30 scholars in the field of transdisciplinary science and training*
- *Examined gaps in existing knowledge about the functioning of transdisciplinary teams and priorities for future research*
- *Participants developed a working agenda for the NCI Science of Team Science Conference to be held in October 2006*

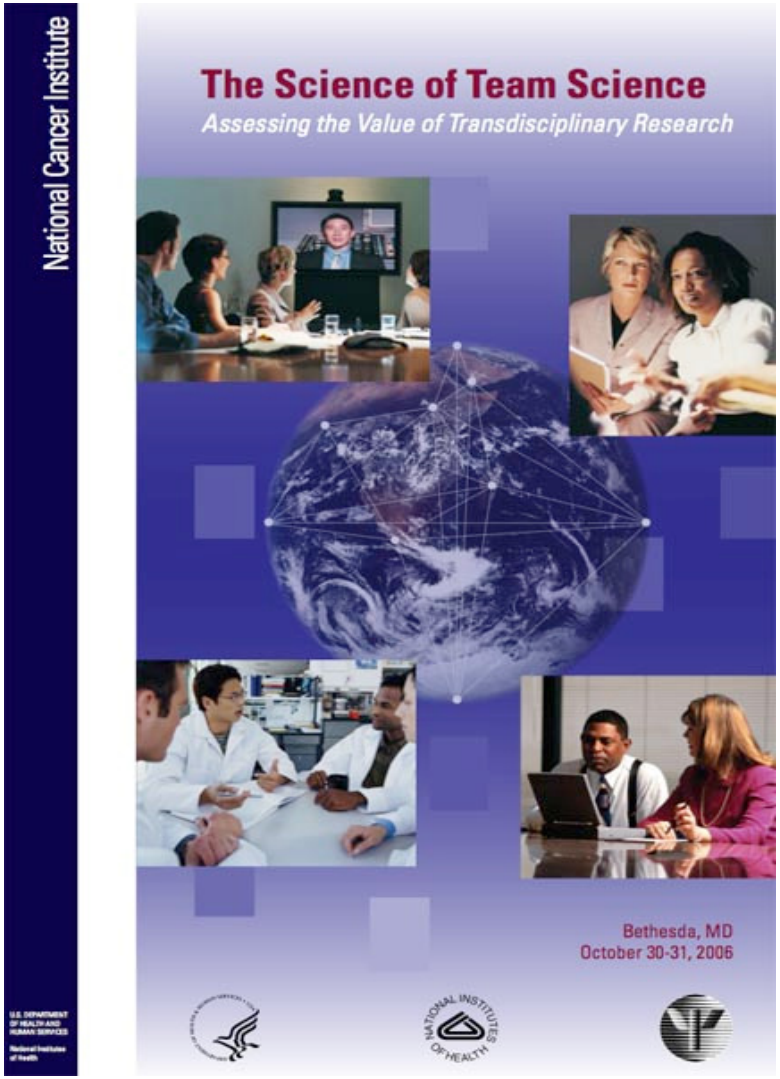
High-Priority Directions for the STS Field

- Develop integrative conceptualizations of TS processes and outcomes from a cross-disciplinary and international perspective
- Implement TS initiatives selectively and strategically--toward “smarter science”
- Examine the impact of interpersonal processes and leadership styles on scientific collaboration
- Create cyber-infrastructures that support scientific collaboration

High Priority Directions for the STS Field

- Conceptualize and measure distinctive features of cross-disciplinary training
- Translate TS into effective clinical, community health, and policy initiatives
- Improve the transfer of knowledge across TS initiatives and evaluation studies
- Take into account the systemic contexts of TS initiatives and their evaluations

2006 NCI Conference on the Science of Team Science: Assessing the Value of Transdisciplinary Research



Conference Aims:

- *Generate scholarly papers, posters, panels, and informal discussions that address cutting edge issues in the science of team science*
- *Review state of the art knowledge about the antecedents, processes, and outcomes of transdisciplinary team science and training programs*
- *Identify methods and metrics presently available for evaluating transdisciplinary collaboration in large scientific initiatives*
- *Identify priorities for future research and opportunities for implementing research findings to enhance TD collaboration in scientific, training, clinical, and health policy contexts*

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