

# STANFORD 

School of
Humanities and Sciences


Londa Schiebinger John L. Hinds Professor of History of Science

Director, Gendered Innovations in Science, Medicine, Engineering, and Environment

# Gendered Innovations <br> in Science, <br> Health \& Medicine, <br> Engineering, and <br> Environment 

| What is Gendered |
| :--- |
| Innovations? |
| SEX \& GENDER ANALYSIS |
| Methods |
| Terms |
| Checklists |
| CASE STUDIES |
| Science |
| Health \& Medicine |
| Engineering |
| Environment |



## POLICY



Stem Cells: Analyzing
Sex

Osteoporosis
Research in Men: Breaking the Gender Paradigm



HIV Microbicides:
Formulating Research
Questions \& Analyzing
Academic Disciplines

Why Gendered Innovations?

## "Gendered

 Innovations" employs methods of sex and gender analysis to create new knowledge.
## Gendered Innovations...

- How can we harness the creative power of sex and gender analysis for innovation and discovery. Does considering gender add a valuable dimension to research? Does it take research in new directions?
genderedinnovations.stanford.edu


## Definition of Terms

- SEX: biological qualities; male/female/intersex
, GENDER: cultural attitudes \& behaviors; masculine $\longleftrightarrow$ feminine
genderedinnovations.stanford.edu/terms.html


## THREE FIXES

1. FIX THE NUMBERS OF WOMEN
2. FIX THE INSTITUTIONS
3. FIX THE KNOWLEDGE

## FIX THE KNOWLEDGE

## Doing Research Wrong Costs Lives and Money

- Between 1997 and 2000, 10 drugs were withdrawn from the U.S. market because of life-threatening health effects-8 of those showed greater severity in women (GAO, 2001).


## Doing Research Right Saves Lives and Money

## U.S. WHI Hormone Therapy Trials

- Each $\$ 1$ spent, returned $\$ 140$
- Health Improvements * 76,000 fewer cases of cardiovascular disease * 126,000 fewer breast cancer cases * 145,000 more quality-adjusted life years
* However: 263,000 more osteoporotic fractures

Joshua A. Roth et al., Annals of Internal Medicine (2014) 60, 9:594-602.

## Continue to Gendered Innovations

- Machine Translation:
http://genderedinnovations.stanford.edu/casestudies/nlp.html
- Osteoporosis Research in Men: http://genderedinnovations.stanford.edu/casestudies/osteoporosis.html
- Policy:
http://genderedinnovations.stanford.edu/policy_la nding.html

