

Genomics and Society Working Group

National Advisory Council for Human Genome Research September 19th, 2022

Stephanie Malia Fullerton, DPhil Professor and Interim Chair, Department of Bioethics & Humanities

GSWG Mission

- Provide NACHGR advice on short- and long-term planning and priority setting for genomics and society activities at NHGRI, particularly the ELSI Research Program
- > Provide input about:
 - ELSI research priorities <<<
 - Appropriate balance between investigator-initiated and programinitiated research
 - Best use of limited budgetary and staff resources

Current GSWG Members



Chair: Malia Fullerton, DPhil



Kyle Brothers, M.D., Ph.D



Shawneequa Callier, J.D., M.A



Stephanie Russo Carroll DrPH, MPH



Marsha Michie, Ph.D.



Gabriel Lázaro-Muñoz, Ph.D., J.D.



Lisa Parker, Ph.D.



Holly Landrum Peay, Ph.D., M.S.



Beth Tarini, M.D., M.S.



Genevieve Wojcik, Ph.D.

Reminder: May 2021 GSWG Report

- > Challenges at the intersection of science and society
- > Genomics community has more work to do in reckoning with the legacy of race & racism
- > ELSI community is well-positioned to identify and address these challenges as they touch on genomics



Steven Joffe, M.D., MPH

Today: Emerging ELSI Research Priorities

- > Social Determinants of Health (SDOH)
- > Health equity
- > Structural factors and social justice
- > Gene and environment interaction research
- > Genomics beyond healthcare

ELSI Priority: Social Determinants of Health

- > Inclusion of SDOH in genomics research is a scientific issue first and foremost, with related ethical, legal and social implications
- Improving work on SDOH must involve:
 - Understanding how and why studies of complex traits might avoid genomic determinism
 - Ongoing extensive community interaction and engagement, and
 - Developing sustained partnerships with SDOH researchers
- Forthcoming NASEM report on population descriptors will identify related methods and challenges to be considered

ELSI Priority: Health Equity

- > Questions asked today are similar to those asked decades ago
 - Action is needed now to ensure that genomic studies generate knowledge that will benefit diverse patients and communities
- > While enhanced workforce diversity is important, genomics cannot rely solely on people from underrepresented groups to break down research and translational barriers

> Review criteria that address health disparities and health equity as explicit outcomes of genomic research will be critical

ELSI Priority: Structural Factors and Social Justice

- > Structural factors and structural racism continue to be important challenges for both ELSI and genomics
- > ELSI Research Program areas have been reorganized to highlight research areas related to Sociocultural Values and Genomics at the Institutional and System Level

> To better address these areas, ELSI must attract more scholars and fields with expertise in structural inequities and justice theory

ELSI Priority: Gene and Environment Research

- > Genomic ELSI often focuses on individual's risks and benefits while environmental sciences focus on community level
 - As genomics moves into population health, we need to think about populationlevel ELSI, and learn from environmental studies
 - Groups that have been previously harmed, minoritized, and/or abused in research are as concerned about harms to groups as to individuals
- > ELSI can help guide the robust inclusion of community members as researchers
 - This may require new funding models ensuring community members are involved in all aspects of research, including study design, implementation, dissemination

ELSI Priority: Genomics Beyond Health

- Genomics research has expanded beyond traditional (healthfocused) applications, e.g., sociogenomics, forensic uses
 - Appropriate, indeed essential, for ELSI research community to engage with nonhealth applications
 - Simultaneously, care should be taken to not let 'easy villains' distract us from broader structural concerns

> ELSI can work with and support the rest of the genomics community in combating misinformation

Conclusions

- > ELSI research has an important role to play in guiding efforts to address ongoing structural inequities in genomics research
- Priority should be given to population-level analyses, including responsible incorporation of SDOH, sustained community involvement in research, and consideration of health equity
- > Broadening ELSI expertise to include new perspectives will be key



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