

# Enhancing Education in Genetic Privacy



## Challenge:

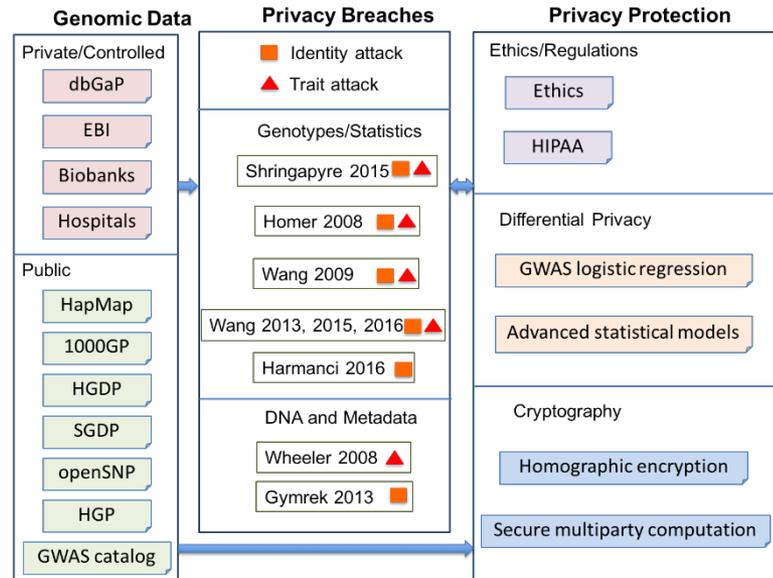
- How to educate genetic privacy from both technical and regulatory perspectives in precision medicine?
- How to carry out and enhance education activities of genetic privacy in both CS and bioinformatics?

## Solution:

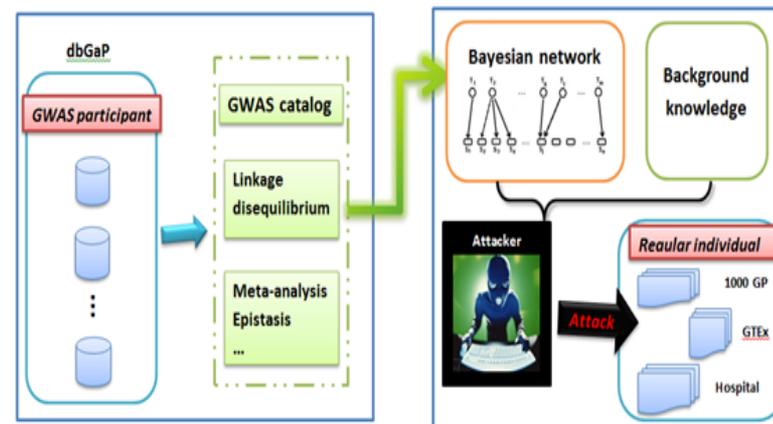
- Develop an education framework for genetic privacy protection by integrating cutting-edge research into research
- Design course modules, hands-on projects, and a Web-portal for research and education in genetic privacy

An overview of human genetic privacy. Shi X, Wu X. Ann N Y Acad Sci. 2016 Sep 14. doi: 10.1111/nyas.13211.

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**Fig 1. An Overview of Genetic Privacy Breaches and Protection Methods**



**Fig 2. A Bayesian Network Framework for Potential Genetic Privacy Infringement**

## Scientific Impact:

- Provide a first comprehensive set of education strategies in genetic privacy that are integrated with interdisciplinary research
- Fill the gap between the growing concern of genetic privacy and the limited educational resources in genetic privacy

## Broader Impact:

- Contribute significantly to the limited knowledge and resources in genetic privacy education
- Develop and propagate open standards, technical guidelines, and education opportunities to promote the share and openness of genomic data for social good