

# Data Governance and Access: International Perspective

Yann Joly, McGill University,  
Montreal, Canada



**McGill**



# Outline

## Disclosure:

- Co-lead GA4GH Regulatory and Ethics Work Stream (REWS), GA4GH
- Director (PI), Genetic Discrimination Observatory (GDO)



Digital health applications and the need for global governance



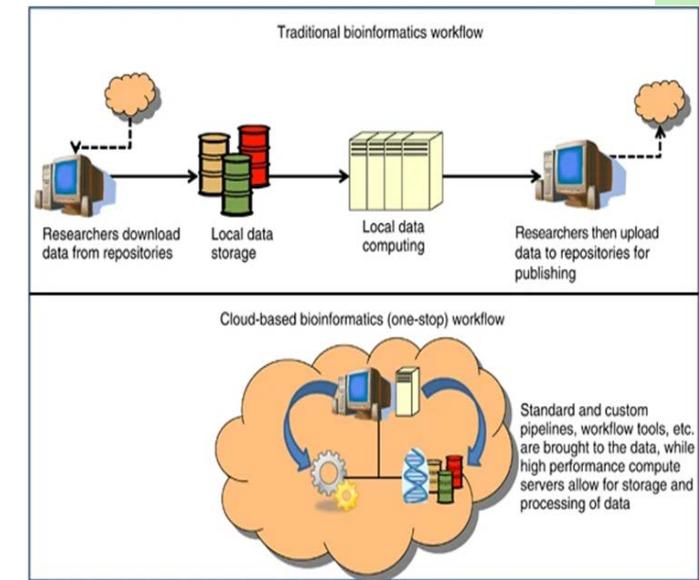
Global Alliance for Genomics and Health (GA4GH)



Genome Discrimination Observatory (GDO)

# Digital health applications and the need for global governance

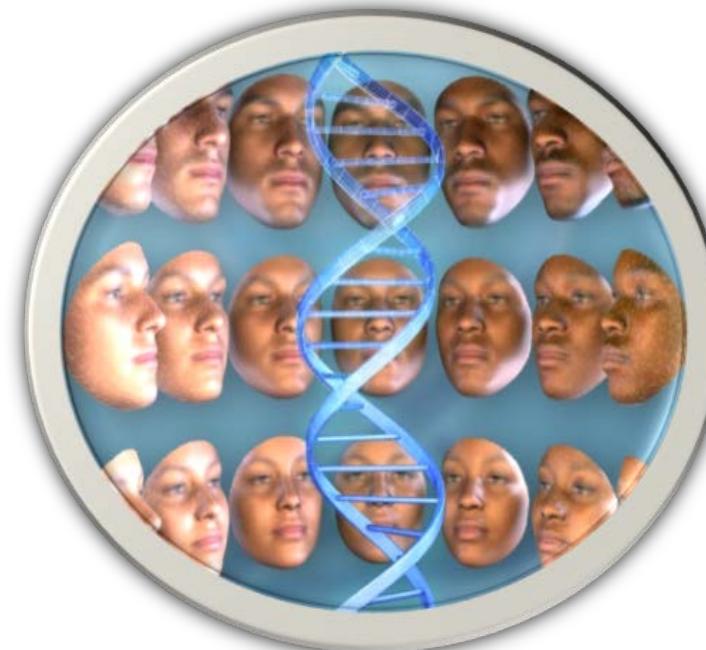
- ❑ Data intensive applications require vast quantity of data to train algorithms, identify interesting correlations, validate findings, etc.
- ❑ International collaborations offer new hope to resolve challenges of rare cancer subtypes
- ❑ Cancer initiatives have gotten increasingly international in nature. For example, the ICGC 25K (2007-2017), created a genetic database that comprises genetic and health data from 17,000 cancer patients from 76 research projects in 17 countries.
- ❑ Advent of cloud computing using geographically dispersed data centers



# Digital health applications and the need for global governance

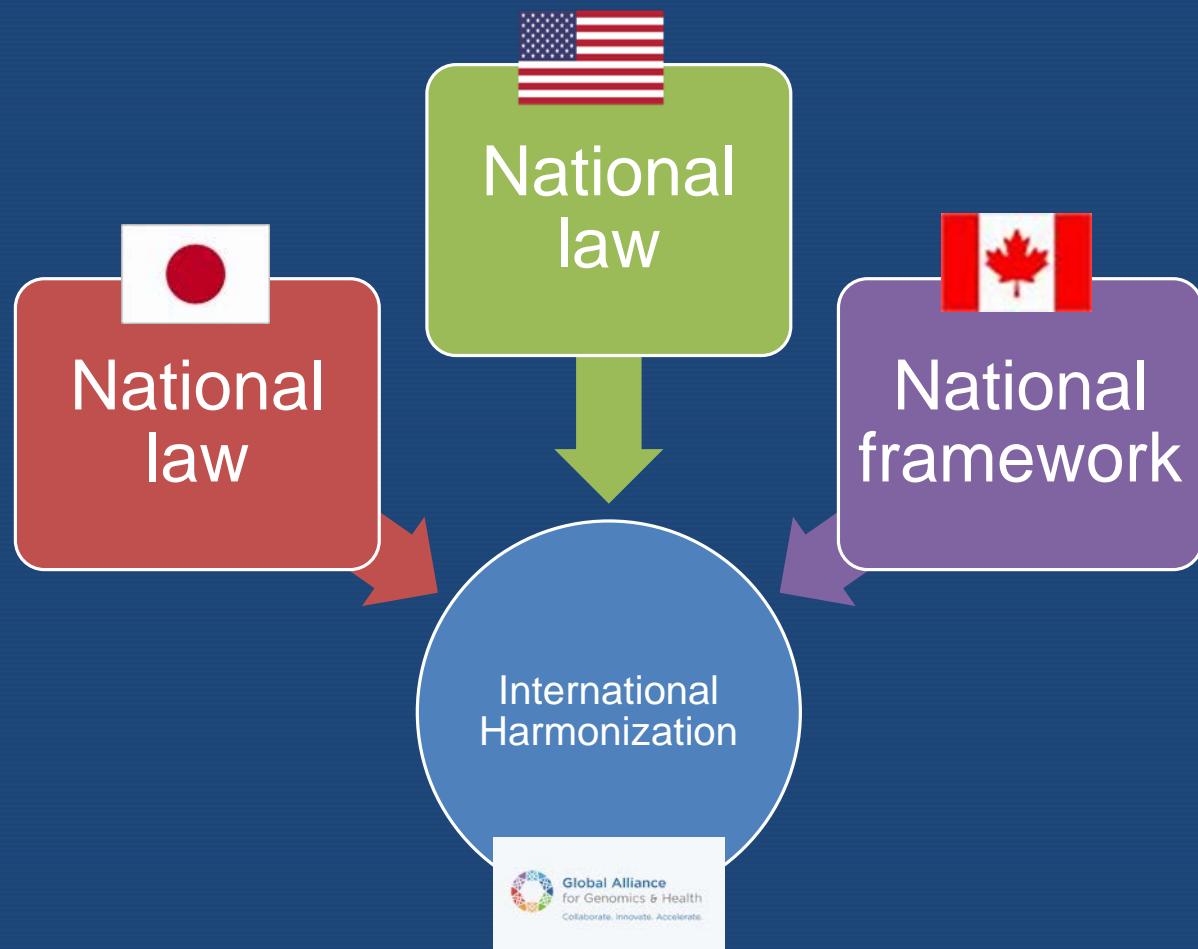
Coherence and predictability!

- ❑ Incentive- rewards
- ❑ Data protection
- ❑ Ethics approval
- ❑ Liability and exclusions
- ❑ Regulatory approval



# Digital health applications and the need for global governance

## Retrospective



## Prospective

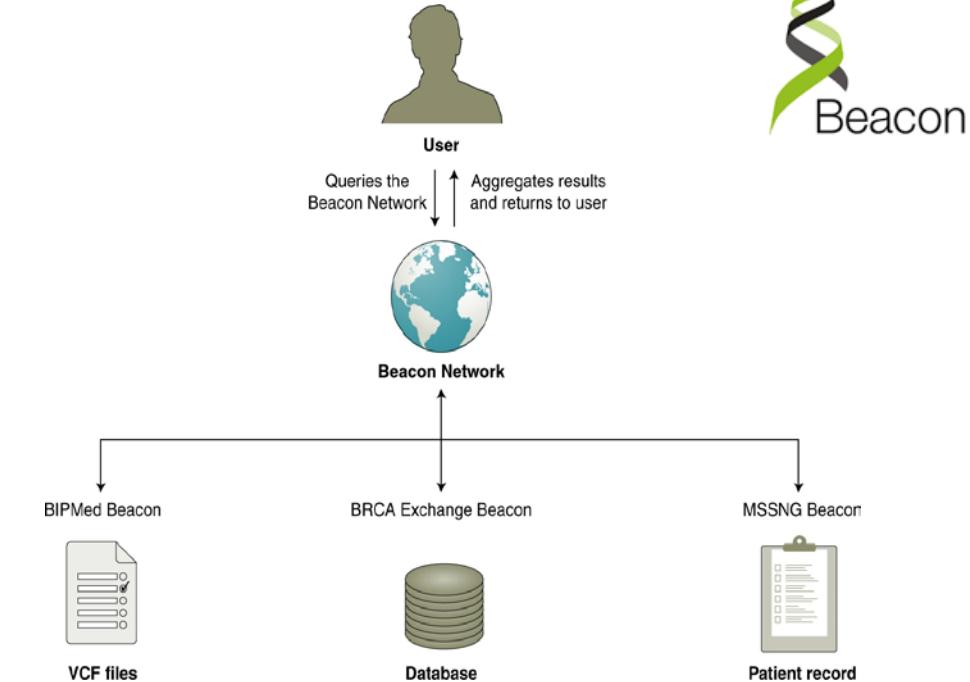


# Global Alliance for Genomics and Health (GA4GH)

- The Beacon Project
- The BRCA Challenge
- Guidelines and standards



**Global Alliance**  
for Genomics & Health  
Collaborate. Innovate. Accelerate.



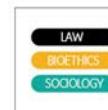
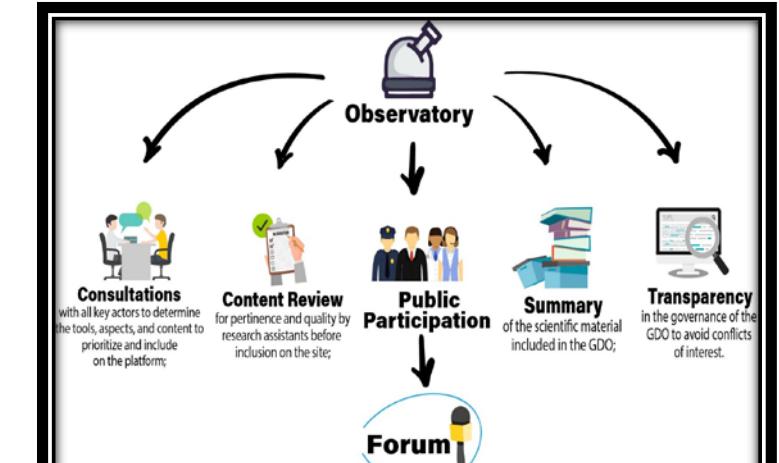
Fiume M. et al. Nature  
Biotechnology, (37) 2019

# The Genetic Discrimination Observatory (GDO)

- The Genetic Discrimination Observatory (GDO) is a unique network of researchers and other stakeholders dedicated to researching and preventing discrimination based on genomic and other predictive health data worldwide

## Tools:

- Report a case (direct to participant features that enables the reporting of genetic discrimination incidents)
- World views (international meta analysis of data on GD, regularly updated by local experts)



# Acknowledgements

- ❑ PERSPECTIVE I & I Project (GDO)
- ❑ Jacques Simard (GDO)
- ❑ Gratien Dalpé (GDO)
- ❑ Hortense Gallois (GDO)
- ❑ Ted Dove (GA4GH, GDO)
- ❑ GA4GH

