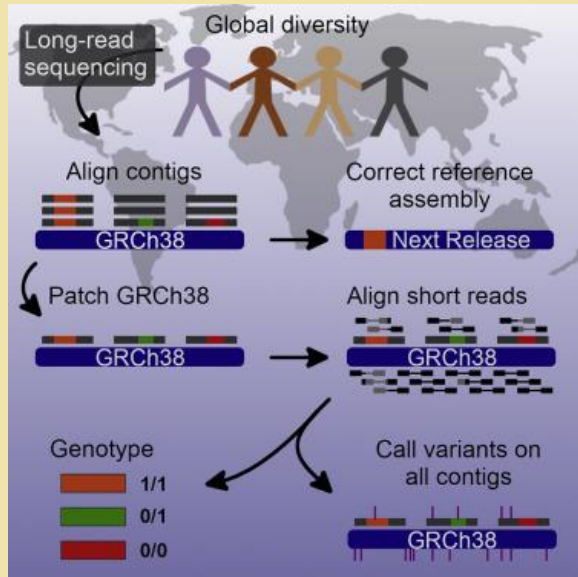


*Human reference genome serves two main functions:*

1. Substrate for DNA sequence mapping
2. Coordinate system for anchoring genome function



Audano et al, *Characterizing the Major Structural Variant Alleles of the Human Genome*, **Cell** 2019



**Inclusion of Indigenous Australian diversity in reference genome**



## Findable

- Internationally accepted standards for data directories



## Accessible

- Driven by ethical, legal and social aspects of sensitive human data
- Australian requirements unmet*



## Interoperable

- Lack of standardisation in the use of the human reference genome



## Reusable

- Lack of appropriate access control mechanisms
- Lack of validated and internationally accepted data analysis



# 1. Standardisation

- Enable FAIR use of genomics

# 2. Centralisation

- Avoid duplications
- Enable accurate reference genome utilisation

# 3. Collaboration

- Collaborative communities across nations and disciplines is the key
- Capacity and capability building
- Australian relevance in international efforts

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