

GUARDIANS – Advancing human genomics research in Australia

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Building foundations for human genomics digital research infrastructure and innovation in Australia - funded by NCRIS through Bioplatforms Australia.

Why GUARDIANS?

The proliferation of human genomics datasets in Australia holds untapped research potential, but data remains difficult to access for the benefit of biomedical research. GUARDIANS will address this national predicament over the next 4 years by:

- Building infrastructure using tools and frameworks aligned with international best practice including GA4GH standards and ELSI considerations in the Australian context
- Providing technical expertise and national infrastructure in alignment with the NCRIS Roadmap¹ and NAGIM Implementation Recommendations²
- Extending on the HGPP's outcomes³ to help researchers discover, access and analyse human genomics research data stored in Australia.

How will we do this?

As a partnership of 9+ of Australia's leading human genomics research organisations and research infrastructure providers, GUARDIANS will deliver across key areas of national need:

-  Multiple data commons supporting flagship collections
-  Foundations for a national human genome repository
-  Trust and identity solutions for human genome research
-  Innovation pilots for future step changes
-  Technical expertise, leadership, support and training

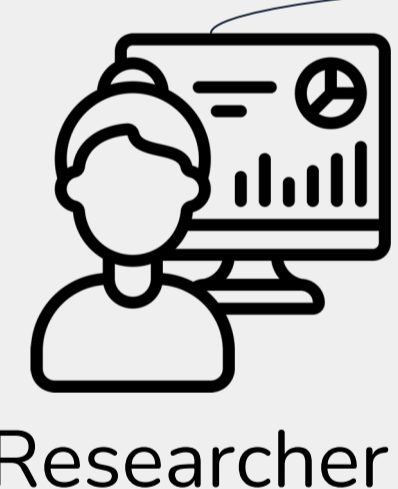
A future user journey in Australian human genomics research

EXPLORE



Data storage infrastructure

REGISTER



Researcher

Login with 1 set of credentials

Registration

REQUEST

I like that I can see the study and publications then register and request access for the datasets. I'm going to apply for access to Data cohort A.

Submit data access application

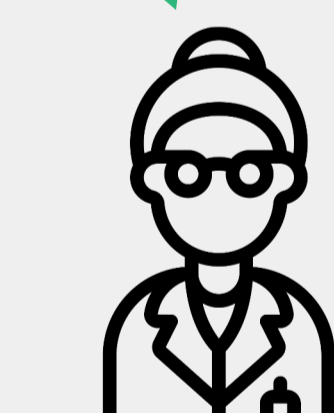
This application looks complete and is compliant with our platform policies.



Data Access Committee

ACCESS

Based on this application, I am comfortable sharing my data for the intended research purposes.



Data Custodian

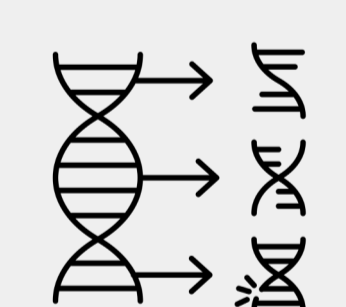
Data access approved

ANALYSE



Researcher

This data is exactly what I needed for my research. I have moved it to the platform where my preferred tools are available. I can't wait to perform some analysis.



Study-specific data & compute capability

More on human genomics informatics

Discover our full range of human genomics activities
biocommons.org.au/human-genome-informatics-initiative



Opportunities and stay in touch

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¹ NCRIS Roadmap education.gov.au/national-research-infrastructure/2021-national-research-infrastructure-roadmap

² NAGIM australiangenomics.org.au/wp-content/uploads/2021/06/NAGIM-Implementation-Recommendations-Overview_April-2023.pdf

³ HGPP (Human Genomes Platform Project) biocommons.org.au/hgpp

