We have sequenced well over 500 transcriptomes/genomes, and routinely use Galaxy Australia, powered by the GVL, for many bioinformatics processes. It is easy to use, has high computational power, a sophisticated support structure and enables global collaboration through straightforward data sharing. We greatly appreciate the service.”

- Dr Fabio Cortesi and Prof Justin Marshall, Queensland Brain Institute

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A CRITICAL COMPONENT OF AN AUSTRALIAN BIOINFORMATICS COMMONS

Reproducible bioinformatics
A key BYO data platform identified in the planned Australian Bioinformatics Commons.
Industrialised computational capability using a variety of computational backends.
Provide highly-curated workflows for common bioinformatics data and analyses: short, long, hybrid genome assembly; annotation; transcriptomics, metagenomics, proteomics and metabolomics analyses; data visualisation.

FAIR data
Connected to high-value global (core) datasets, and national datasets such as the NCRIS-funded BPA Framework Datasets.
Unambiguously-described reference genome data for comparative analyses and tools.
Enabling collaborative research through simple-to-use data, workflow, and tool sharing mechanisms.
Hosting highly-curated industry-standard and bespoke data analysis workflows for routine use by NCRIS-supported facilities (e.g. Metabolomics Australia)

Command-line or workflow analysis
Supporting data-intensive bioscience through workflow-based analysis system.
Supporting bioinformatics-intensive research through command-line tools, combined with well-curated data and compute resources
Increased transparency through downloading underlying code for tools invoked through graphical user interfaces for re-use on other computational systems.

Internationalisation
Facilitating borderless research.
One of 3 key partners curating the global UseGalaxy initiative.
Enhancing productivity by enabling seamless data, tool and workflow exchange across Europe, USA and Australia.
Fostering opportunities for Australian researchers to build collaborations and undertake high-impact research with international collaborators.

Training and skill enhancement
Increasing use of digital infrastructure by bioscience researchers through upskilling in bioinformatics tools and methodologies for entry level and advanced users.
Providing a platform for bioinformatics training in undergraduate courses.

2018 investment
775k 2018 NCRIS investment
767k 2018 partner co-investment