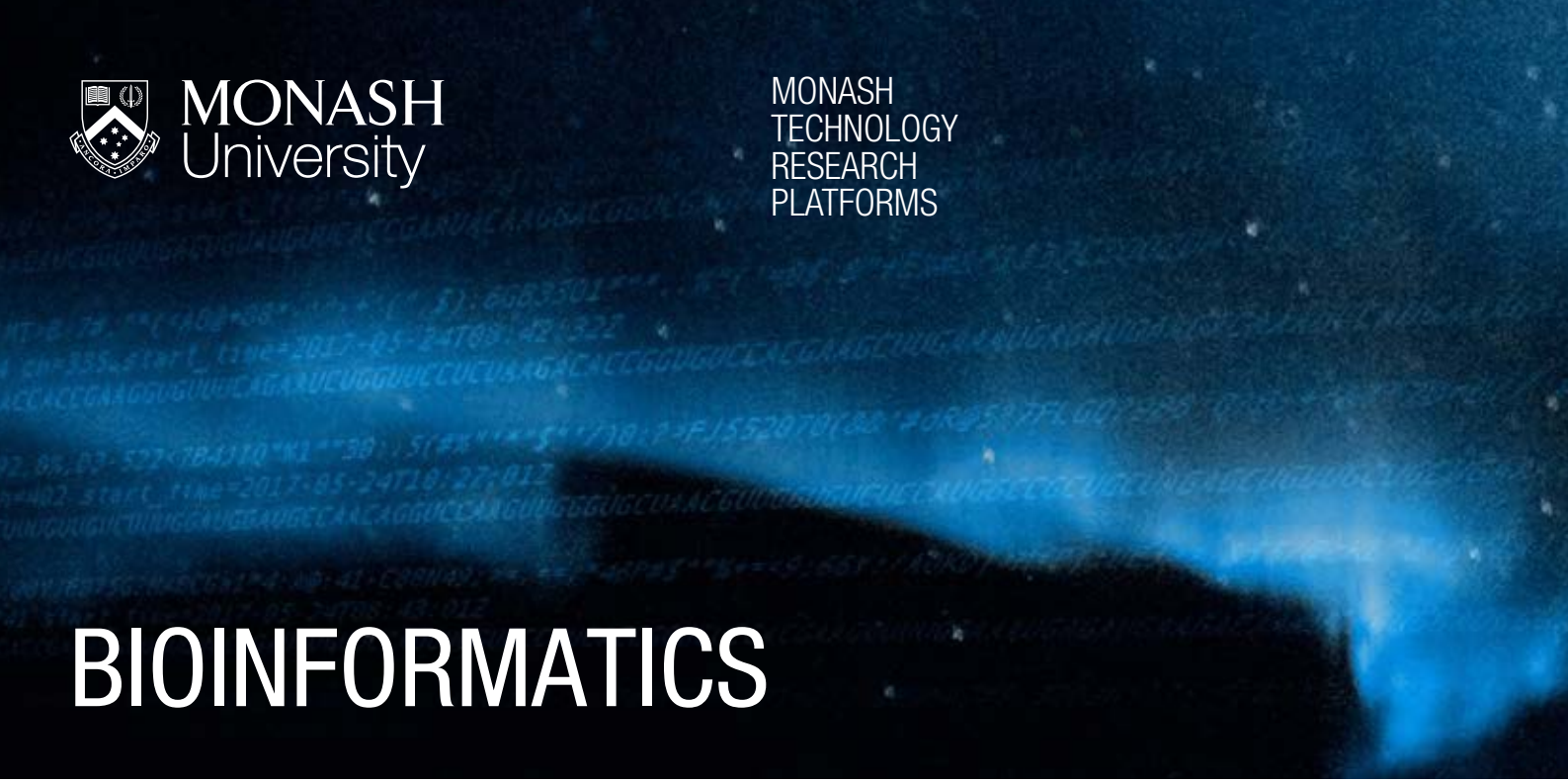
MONASH University

MONASH
TECHNOLOGY
RESEARCH
PLATFORMS



BIOINFORMATICS

The Monash Bioinformatics Platform is a hub for the network of bioinformaticians who support the university and its affiliates. We have a core group with expertise in cutting-edge computational techniques in areas such as genomics, proteomics and structural biology. We have various arrangements for engaging with research projects on a short or long term basis. We are always available for consultation on experimental design and analysis and collaborate with groups around Monash on specific research projects. We're also a partner in technical training and infrastructure development.

DATA ANALYSIS CAPABILITIES

We have Bioinformatics and data analysis capabilities in the genomics and proteomics areas including but not limited to:

- Advice on 'omics experimental design
- Bulk and single cell RNA-seq
- ChIP-seq / ATAC-seq
- Variant analysis
- Microbiome profiling
- Methylation analysis
- Genotyping by Sequencing
- Whole-genome assembly and annotation
- High throughput profiling of the proteome
- Studying protein structures
- Custom analysis pipeline development

EXPERTISE

The Monash Bioinformatics Platform assists researchers to make sense of the huge data sets now generated in the biological sciences. We are a hub for the bioinformatics community at Monash and affiliated organisations.

We encourage researchers to meet with us before starting an experiment. Come and present your research to our group, so we can give you ideas and insight into where advanced bioinformatics capabilities may help. Over the last few years, we have collaborated with research groups to provide analysis for various projects.

We also facilitate hands-on training seminars over a wide range of technical topics.

WORKING WITH US

- Consultancies
- Collaborative research
- Training

SPECIALIST SERVICES

Bioinformatics describes a variety of computational, mathematical and statistical capabilities that assist the analysis and interpretation of biological information. This often takes place at the DNA, RNA and protein levels.

Bioinformatics support
A bioinformatician within the platform can partner with researchers to provide an in-depth understanding and expertise over the length of a research project. A basic level of service is also available, with bioinformaticians available to consult over experimental design or by providing preliminary data processing and analysis.

Training
Hands-on training is provided to researchers in conjunction with partners such as Bioplatforms Australia. Topics include various bioinformatics analysis techniques (e.g. RNAseq) as well as programming languages such as R and Python.

Technology
Bioinformaticians at Monash University have access to a wealth of high performance compute, cloud compute, storage and data visualisation technologies. A range of bioinformatic tools are maintained by the platform and are freely available.

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