Victorian Platform Technologies Network

A quick guide to resources for Centre for Inflammatory Diseases researchers

What is the VPTN?
The VPTN is a network of open access facilities with state-of-the-art infrastructure and capabilities to support research and innovation. The VPTN streamlines access to Victorian services and technology for industry and researchers through three online tools:

- **Platformtechnologies.org** allows you to browse, connect and engage with VPTN facilities at platformtechnologies.org. Each facility's online profile provides contact details for the technical experts and manager to help you get started with your project.
- **PlatformConnect** helps connect you with experts when you're unsure of how to reach your project's desired outcome. Post your project and then correspond with platforms who may be able to assist you.
- **ARIN** is an advanced online booking system, making it easier for researchers and industry to view, access and book instruments and services in participating VPTN facilities.

What VPTN member platforms are based at the MHTP and what services do they offer?

**MHTP Medical Genomics Facility**
The MHTP Medical Genomics Facility provides a comprehensive range of genomic technologies and expertise to accelerate research and clinical diagnosis. This facility encompasses the Gandel Charitable Trust Sequencing Centre, the ACRF Centre for Cancer Genomic Medicine, and the Single Cell Genomics Centre.

**MMI (Imaging)**
MMI is a world class imaging facility, consisting of several core laboratories at Clayton Campus, Monash Health Translation Precinct (MHTP, Clayton) and Alfred Medical Research and Education Precinct (AMREP, Prahran). MMI provides instrumentation, expertise and training in advanced light microscopy and all fluorescence modalities.

**Histology**
This facility provides expert service, advice and training for histological studies involving tissues embedded in paraffin and glycolmethacrylate. It also offers cryostat facilities for frozen specimens.
Victorian Consortium for Cell-based Therapies Biological Isolator Facilities
Custom-built biological isolator systems have been installed in the Hudson Institute of Medical Research within ISO 8 certified cleanrooms. The BioSpherix Xvivo isolators provide a sterile, fully contained environment suitable for the processing of human cells and tissue. These facilities are available to access for the manufacture of human cell-based therapies.

What about other relevant platforms in the Clayton region?

Australian Synchrotron
The Australian Synchrotron is a scientific research facility located in south-east Melbourne, Victoria, at the heart of a technology and innovation hub. Synchrotron light is advancing biological and medical research and development through macromolecular/protein crystallography and cell biology, medical microbiology, disease mechanisms, high resolution imaging and cancer radiation therapy.

Be Active Sleep Eat (BASE)
The Be Active Sleep Eat facility has been designed to advance the science of nutrition, sleep, and activity, and maximize healthy outcomes for all Australians. Through a multidisciplinary approach to optimise health and wellbeing, the team of accredited academics and professionals are pioneering the integration of nutrition, sleep, exercise physiology, and physical therapy from research into practice.

The Clive and Vera Ramaciotti Centre for Structural Cryo Electron Microscopy
The centre houses a unique $5m electron microscope (EM), which aims to transform the way we view the human immune system, and advance Australian research into diseases as diverse as cancer, malaria, diabetes, rheumatism and multiple sclerosis.

FishCore
FishCore is home to the largest zebrafish facility in the southern hemisphere. Zebrafish are important research models in regenerative medicine.

Flowcore
FlowCore is a core flow cytometry unit that provides services to researchers within Monash and the wider scientific community. Our high-speed laser technology helps researchers generate data about the size, shape, and proteins associated with cells or particles of interest.

MAXIMA
MAXIMA is a virtual and integrated institute with researchers across various departments, who are keen to work on interdisciplinary projects that require mathematical capability, and maximise the impact of research.
Micromon
This facility provides fast turnaround in a range of DNA technologies. Their core services include long-read DNA Sequencing and Next-Generation Sequencing.

Monash Animal Research Platform
MARP provides laboratory animal services from several facilities across the Clayton and Parkville campuses of Monash University and at its Gippsland Field Station.

Monash Antibody Technology Facility
MATF uses high-speed robotic platforms to produce custom-made, high-quality, high-affinity monoclonal antibodies for scientific and medical research.

Monash Bioinformatics Platform
This platform offers bioinformatics support to Monash, international biological researchers and industrial users.

Monash Biomedical Imaging
MBI is a Monash University-led group of biomedical imaging facilities across our partner organisations that include hospitals and research organisations. We facilitate imaging research in preclinical and clinical X-Ray, CT, PET, SPECT and MRI.

Monash Biomedical Proteomics Facility
Biomedical Proteomics provides a suite of fully automated mass spectrometry (MS) equipment and expertise to provide researchers with the information needed to understand the role of proteins and to help identify potential markers of disease, and targets for therapy.

Monash Gene Targeting Facility
The Monash Gene Targeting facility consists of Gene Recombineering, ES Cell and Gene Targeting and has an established track record of delivering targeting and transgenic constructs for any animal models, targeted mouse/rat ES clones and knock in/out transgenic mice or rats.

Monash Macromolecular Crystallisation Facility
This facility provides high-throughput protein crystallisation of proteins that can provide a basis for understanding protein function and the rational design of therapeutics.

Monash Protein Production Unit
PPU offers expertise in protein expression, purification and optimisation using the latest high-throughput platforms.

Monash Statistical Consulting Platform
The Monash Statistical Consulting Platform provides assistance to students, researchers and industry with statistical data analysis, forecasting models, design surveys and in-house training.
What about platforms elsewhere in Melbourne?

**Burnet ImmunoMonitoring Facility**
The Burnet ImmunoMonitoring Facility is accredited in NATA’s R&D Program and offers immunological testing and sample biobanking for vaccine manufacturers, biotechnology and pharmaceutical companies, universities, and research institutes involved in translational research and development of novel therapies. It is based at the Burnet Institute in Prahran.

**Centre for Drug Candidate Optimisation**
The CDCO is a collaborative research centre that provides drug candidate optimisation services and supports emerging drug discovery and development programs. It is based at MIPS in Parkville.

**Florey Behavioural Suite**
The Florey's world class Behavioural Phenotyping facility provides an opportunity to establish and/or expand the characterisation a vast array of rodent models. The state of the art equipment and testing capability enable both powerful and sensitive screening of rodent behaviours. It is based at The Florey Institute of Neuroscience and Mental Health.

**Melbourne Clinical And Translational Sciences Research Platform**
MCATS coordinates and facilitates the core capabilities required to expand clinical research services. This includes biostatistics (statistical methods in clinical research and encompasses the design and conduct, as well as the analysis and reporting of, of clinical trials and other quantitative research studies), economic evaluation, and health informatics (support for data organisation, collection linkage and privacy protection). It is based at The University of Melbourne.

**Monash Platforms**
For more information about Monash-based platforms you can also visit platforms.monash.edu – there are too many Monash facilities and services to list all of them in this document, but many may be of relevance to you and your research.

**Monash Health Translation Precinct**
Information about MHTP-based platforms can be found here: http://www.mhtp.org.au/index.php/facilities

---

This document is just a taster of what’s out there across Victoria to help you conduct your research.

For more information, visit www.platformtechnologies.org or get in touch with the VPTN via info@vptn.org