BASED AT THE MALAGHAN INSTITUTE OF
MEDICAL RESEARCH IN WELLINGTON, THE
HUGH GREEN CYTOMETRY CENTRE IS

New Zealand's centre of excellence for cytometry and other research technologies.

With cutting-edge technology supported by in-house expertise, the Hugh Green Cytometry Centre offers a range of services to advance scientific research across molecular biology, biochemistry, chemistry, neuroscience and marine biology.

GENEROUSLY
SUPPORTED BY

HUGH GREEN FOUNDATION

" The Hugh Green Cytometry Centre is a world-class facility that has enabled the Cawthron Institute to improve the health of young shellfish being grown for research and commercial purposes.

Cawthron has used the centre's various platforms to characterise and better understand our fundamental physiological processes underpinning an emerging primary sector. We've also valued the expertise and wrap-around services the centre provides in terms of designing experiments, staff training and data analysis. This is a great resource for New Zealand science."

Professor Charles Eason CRSNZ, CNZM, CMInstD
Chief Executive | Cawthron Institute

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MALAGHAN
INSTITUTE
OF MEDICAL RESEARCH

For more information and pricing, contact **Kylie Price**

kprice@malaghan.org.nz
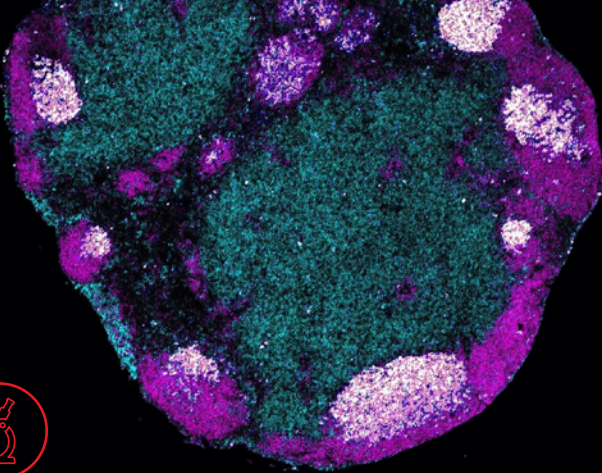+64 4 499 6914 ext 850

www.malaghan.org.nz/hgcc

ADVANCING RESEARCH THROUGH
STATE-OF-THE-ART TECHNOLOGY

The Hugh Green Cytometry Centre

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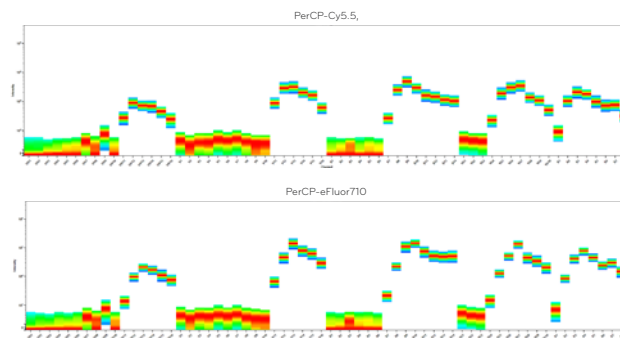OF MEDICAL RESEARCH

Bioimaging

We offer a unique pipeline from histological handling and staining to image recording and publication-ready data extraction. Using our advanced fluorescent microscopy facility and bioimaging analysis we can help you understanding cellular distributions, interactions and networks in the context of tissue sections and/or organs of interest.

Flow Cytometry and Cell Sorting

We have New Zealand's most advanced spectral and conventional flow cytometers capable of >20 parameter cytometry, to interrogate and purify particles of interest. From immune cells, nanoparticles, microalgae and bacteria to parasite eggs, if the sample can be reduced to individual particles ranging from 0.1μm-60μm we can analyse and sort them at speeds of >10,000 cells per second.
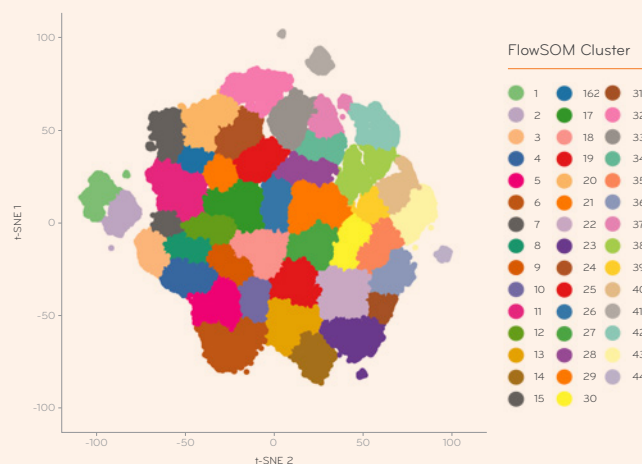
BLUE LASER EXCITABLE DYE WITH UNIQUE SIGNATURES

PerCP-Cy5.5,

PerCP-eFluor710

Training and Consultancy

With expertise in bioimaging, flow cytometry applications, high-dimensional panel design and optimisation, and cell sorting, the full power and utility of microscopy and flow cytometry is within your reach. We offer theoretical and practical training sessions for all our technology platforms, can assist with experimental design, provide data analysis, and stain and run samples for external clients.

High-dimensional Data Analysis

We use the latest high-dimensional data analysis tools, such as CITRUS, SPADE, Opt-tSNE and FlowSOM to take a systems approach to data analysis. Data mining can help reveal and characterise unique populations and cell types, changes in expression patterns and improve clinical outcome predictions.

t-SNE WITH FLOWSOM CLUSTERS

Services Available

FLOW CYTOMETRY

Biomarker detection
Immunophenotyping
Bacterial viability and counting
DNA and RNA analysis
Phosphoflow
Apoptosis
Proliferation assays
Cell cycle analysis
Mitochondrial kinetics
Cellular senescence
Flow virometry
Multiplex-bead arrays for cytokine detection
Fluorescent reporter protein expression

Fluorescence activated cell sorting (FACS)
Plant cytometry
Genomic cytometry

HISTOLOGY AND BIOIMAGING

Paraffin embedding
Microtomy
Cryomicrotomy
H&E staining
Immunofluorescence
Long-term time-lapse imaging
Fluorescent laser scanning confocal imaging
Bioimage analysis