

BIOMEDICAL AND LIFESTYLE DISEASES (BioLED)



CAPABILITY STATEMENT

The modern lifestyle has contributed to an increase in incidence of many health issues including cancer, cardiovascular disease, diabetes, injury and obesity. Physical activity and diet play a major role in maintaining good health. Our mission is to conduct research which leads to the prevention and better clinical management of lifestyle diseases.

RESEARCH FOCUS

The BioLED research unit comprises a diverse range of researchers integrating the disciplines of nutrition, biomedical and physiological sciences and osteopathy, to provide a multifaceted approach to health and biomedicine. This diversity offers flexibility and the capacity to conduct laboratory research from in vitro through to animal and human models. This research platform is translated into clinical trials, which may lead to, the prevention and better clinical management of various disease states.

Our current research strengths include:

- molecular and nutritional physiology and pharmacology
- obesity
- diabetes
- muscle and exercise metabolism
- immunology and cancer
- complementary medicine
- musculoskeletal health
- infection and disease

WAYS WE CAN HELP:

CONSULTING AND RESEARCH SERVICES

We have vast research and consulting experience in collaboration with government, philanthropic organisations and industry, to take a project from concept, develop research strategies and analyse and interpret results. We have diverse research skills and vast resources with which we can carry out research to our targeted research strengths.

PARTNERSHIPS & COLLABORATIONS

We strive to develop strong relationships with industry, medical research institutes and the wider research community, and as a result many of our research projects are conducted in collaboration with collaborating partners.

FACILITIES & RESOURCES

We have access to modern research, educational, consultation and conference facilities located throughout our campuses at St Albans, Footscray, Werribee and our City campuses. Dedicated research facilities also include those at the Western Centre for Health Research and Education (Western CHRE) at Sunshine Hospital, and the Institute of Sports, Exercise and Active Living (ISEAL) at Footscray Park.

Facilities include:

- cell culture laboratories and PC2 facilities
- small animal housing and experimental facilities (eg. metabolic cages, rodent treadmills, small animal MRI, blood pressure analysis systems)
- biomedical facilities (eg. radiation, protein and gene analysis, microscopy, Bioplex analysis systems)
- cutting edge human metabolic testing facilities (eg. exercise physiology labs, altitude hotel, biomechanics labs, motor learning and skilled performance labs, sport and exercise biochemistry labs, motor control and biofeedback labs and exercise rehabilitation clinics)
- nutrition teaching clinics which enable large scale nutrition intervention research trials for investigation of weight loss/gain, meal responses, lifestyle interventions, nutraceuticals and pharmacotherapy.

TRACK RECORD AND PROFILE

Members advise various health committees and scientific research councils. Our aim is to engage with like-minded organisations to collaborate on research projects for improved health outcomes. Please visit our website to view information on our published books, book chapters and papers.

CONTACTS

Associate Professor Andrew McAinch
Leader, BioLED
Phone +61 3 9919 2019

Dr Matthew Cooke
Deputy Leader, BioLED
Phone +61 3 9919 2566

Dr Angela Fones
Project Officer, BioLED
Phone +61 3 9919 9277
Email bioled@vu.edu.au

FURTHER INFORMATION

Biomedical and Lifestyle Diseases Research Unit (BioLED)
vu.edu.au/research/bioled

Victoria University
PO Box 14428
Melbourne, Victoria 8001
Australia

Phone (general enquiries) +61 03 9919 4000
vu.edu.au

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