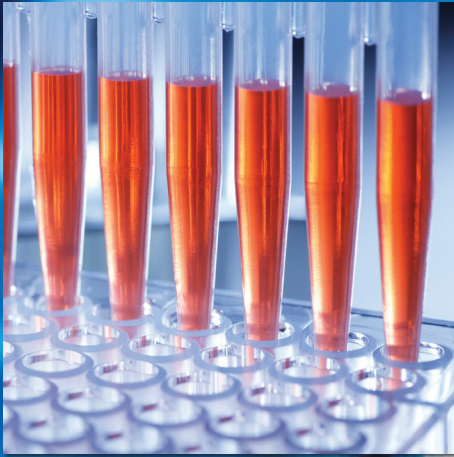


LIFESTYLE-ASSOCIATED DISEASES

A RESEARCH PROGRAM OF THE CENTRE FOR CHRONIC DISEASE



CAPABILITY STATEMENT

Modern lifestyle contributes to an increase of many health issues including cardiovascular disease, diabetes, injury, obesity and the loss of skeletal muscle and bone function and mass. 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-associated diseases.

THE CENTRE FOR CHRONIC DISEASE

The Centre for Chronic Disease (CCD) focuses on the physiological, psychosocial, cultural and economic aspects of chronic diseases. From basic findings through to translational research, it addresses the urgent need for research, action and intervention to reduce the burden of these pervasive diseases.

The Centre works with and educates the wider community about lifestyle-associated diseases to improve quality of life and reduce the burden of chronic diseases.

RESEARCH FOCUS - LIFESTYLE-ASSOCIATED DISEASES

The Lifestyle Associated Diseases (LAD) research program in the Centre for Chronic Diseases 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
- cardiovascular disease
- complementary medicine
- musculoskeletal health.

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 AND 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 external 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, whole muscle and single muscle fibre function analysis, Seahorse flux analyzer, 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)
- human nutrition research laboratories 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 publications.

CURRENT RESEARCH PROJECTS INCLUDE:

- Role of angiotensin in appetite/obesity and cardiovascular regulation
- Exploration of the metabolic basis for skeletal muscle dysfunction, toxicity and disease
- Role of endocannabinoids, dietary fats and GPCRs in obesity and diabetes
- Understanding the role of inflammation in homocysteine induced blood vessel disease
- Impact of natural products and nutritional lipids on chronic disease
- Understanding the neurophysiological mechanisms of manual therapy
- Compression garment efficacy in the management of chronic health conditions.

CONTACT

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FURTHER INFORMATION

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