Government of **Western Australia**
North Metropolitan Health Service
Sir Charles Gairdner Osborne Park Health Care Group

Sir Charles Gairdner Hospital and Osborne Park Health Care Group

Human Research Ethics Committee

Project Summaries for Approved Projects

April to June 2023 Quarter

Project summaries for proposals approved by the SCGOPHCG Human Research Ethics Committee – April to June 2023 quarter.

The material contained in this document is made available to assist researchers, institutions, and the general public in searching for projects that have ethics approval from the SCGOPHCG HREC. It contains summaries of projects approved in the April to June 2023 quarter.

Project Title	Subarachnoid Haemorrhage Aneurysm Rerupture Prediction and Patient Expressed Result Study 1 - Investigating the Utility of Published Predictive Scoring Systems
Coordinating Principal Investigator	Dr Arosha Dissanayake
Institution	Sir Charles Gairdner Hospital
Approval Date	05 April 2023
This is a retrospective study testing of the utility of three published re-bleed prediction scoring systems for ultra-early pre-treatment re-bleed prediction following aSAH using a 1:3 matched case-control study design. The resultant report will adhere to 2021 Strengthening. The Reporting Of Cohort, Cross-Sectional and Case-control Studies in Surgery (STROCSS) guidelines.	

Project Title	Peak. A phase 3 randomized, open-label, multicenter clinical study of CGT9486+Sunitinib vs Sunitinib in subjects with locally advanced, unresectable, or metastatic gastrointestinal stromal tumors
Coordinating Principal Investigator	Dr Joanne Tonkin
Institution	Sir Charles Gairdner Hospital, Alfred Health, Bankstown Hospital
Approval Date	06 April 2023

This is a phase 3, randomized, open-label, multicenter clinical study of CGT9486+Sunitinib vs Sunitinib in subjects with locally advanced, unresectable, or metastatic gastrointestinal stromal tumours.

This study has three parts: Part 1a, Part 1b, and Part 2. A total of approximately 388 participants will participate in this part (Part 2) of the study. All parts of the study include 3 periods, including Screening (up to 28 days), Treatment (from the first dose of study drug until disease progression, death, unacceptable toxicity, or withdrawal of consent, whichever occurs first), and Post-treatment Follow-up periods.

In Part 2 of the study, subjects will be randomized 1:1 to receive either CGT9486 at the selected dose from Part 1a + sunitinib 37.5 mg QD (experimental group) or sunitinib 37.5 mg QD alone (control group).

Project Title	Helicobacter pylori colonisation in the oral environment: a pilot clinical study with samples from dental plaque and oral mucosa
Coordinating Principal Investigator	Dr Eng Guan Chua
Institution	Sir Charles Gairdner Hospital
Approval Date	23 April 2023

Helicobacter pylori is a gram-negative, microaerophilic, helical-shaped gastric pathogen bacterium estimated to be present in 50% of the global population. It is known to cause acute and chronic gastritis, peptic ulcer disease and gastric cancer. While it has been shown that this bacterium is most likely acquired by one during childhood via vertical transmission, the exact transmission route for H. pylori is yet to determined.

The oral-oral route has been suggested as one of the possible ways for transmitting H. pylori infection. Over the past two decades, while different detection methods including bacterial culture, PCR and immunohistochemistry had been used in past studies for the detection of H. pylori in dental plaque, oral mucosa, saliva and root canal samples, significant discrepancies between the findings of these studies have been observed and no conclusion could be reached for the presence of H. pylori in human oral environment as well as a favourable site for colonisation.

Therefore, to gain a better understanding on the presence of H. pylori in the oral cavity, both the UWA Dental School and Nobel Laureate Prof. Barry Marshall’s research group will work together to trace this bacterium in the oral samples of both symptomatic and asymptomatic H. pylori-positive individuals.

Project Title	Pipelining gene therapy for congenital aniridia
Coordinating Principal Investigator	Dr Danial Roshandel
Institution	Lions Eye Institute
Approval Date	27 April 2023

In this project, we aim to correct the underlying mutation in patient-derived stem cells and turn the gene-corrected stem cells into differentiated corneal epithelial stem cells. Upon success, the product can be translated into preclinical and clinical studies by transplanting the differentiated cells onto the patient's eye to correct the epithelial stem cells. Since the cells used in this method are derived from the same individual, there will be no risk of graft rejection. Also, the gene-editing approach used here can be used to correct other ocular abnormalities of patients with congenital aniridia in future studies.

Project Title	Optimizing Prognosis Prediction in Malignant Mesothelioma; External Validation of a Clinical Prediction Model (MesoPro)
Coordinating Principal Investigator	Dr Wee Loong Chin
Institution	Sir Charles Gairdner Hospital
Approval Date	01 May 2023

This is an international multi- cohort study for broad validation in an international cohort, all in patients with malignant mesothelioma treated with systemic therapy. Model discrimination will be accessed by use of Harrell's C statistic (C statistics). Furthermore, we will validate imputation models to handle real-time missing predictors. The EORTC risk score will also be calculated for these patients for direct comparison. The categorical net reclassification improvement (NRI) was used to quantify whether the MesoPro score was superior to the EORTC risk score and the CALGB risk score.

Project Title	ISC-TEAM: Integrative Supportive Care Trial to Enhance physical Activity in Malignant pleural effusion
Coordinating Principal Investigator	Dr Carolyn McIntyre
Institution	Sir Charles Gairdner Hospital
Approval Date	05 May 2023

Our pleural research program is the first to incorporate dietetics, exercise, and psychology focused research in Malignant pleural effusion (MPE). Our research has shown that functional impairment, nutritional impairment, psychological distress, and physical inactivity are common and associated with poor outcomes in MPE. Our preliminary data shows that we can improve some of these health outcomes with individual interventions (like exercise training). However, for the best outcome, accessible services aimed at prevention and management of malnutrition, care of psychological well-being and targeted exercise prescription are required.

The proposed ISC-TEAM trial will randomise 100 patients to receive standard clinical care or integrative supportive care through a multidisciplinary program of dietetics, exercise physiology, and psychology over 12-weeks.

The ISC-TEAM (Integrative Supportive Care Trial to Enhance physical Activity in Malignant pleural effusion) trial will evaluate the effects of a multidisciplinary supportive care program aimed at improving patients' ability to engage in daily physical activities. We will also evaluate the effects on quality of life, malnutrition risk and psychopathology. This trial provides, for the first time, the structure and feasibility of a multidisciplinary team model addressing consumer-driven priorities of care for patients with MPE.

Project Title	Investigation into patient and staff perspectives of a home test for peritonitis in patients on peritoneal dialysis
Coordinating Principal Investigator	Dr Aron Chakera
Institution	Sir Charles Gairdner Hospital, Fiona Stanley Hospital, Royal Perth Hospital
Approval Date	09 May 2023

Peritoneal dialysis (PD) is a cost-effective treatment for end stage kidney disease and the only option for many people in remote locations. Peritonitis-infection in the abdomen-is the

major complication of PD and remains the main reason for treatment failure and mortality. Outcomes from peritonitis are improved with early recognition and commencement of specific antimicrobial therapy. Currently, confirmation of infection is slow and requires access to specialised laboratory services for sample analysis.

In order to determine the optimum implementation of the H-NGAL test into routine clinical practice it is necessary to know the perspectives of both patients and clinicians on it's appropriate use and application, and their understanding of the risks and benefits of the test. This will enable FMC to develop the product to be fit for purpose and inform clinicians on the types of education and counselling that patients may require in order to conduct the test safely and accurately.

To investigate this will conduct a cohort study of patients receiving PD in a single jurisdiction (Western Australia) managed through the Western Australian Department of Health, in partnership with FMC. The broad aim of the study is to undertake a quantitative investigation into the preferences of PD patients for different methods of point-of-care testing for peritonitis, and a qualitative investigation into the likely impact of the H-NGAL test on patient quality of life and acceptability of the test to clinicians.

Project Title	Multiple Myeloma and Exercise - Exploring patient perceptions of enablers and barriers to engaging in exercise and physical activity
Coordinating Principal Investigator	Mrs Gillian Gregory
Institution	Sir Charles Gairdner Hospital
Approval Date	11 May 2023

This qualitative study will explore determinants of behaviour related to participation in structured exercise and daily physical activity in adults with a diagnosis of multiple myeloma (MM). This will be achieved using a qualitative description approach to conduct in-depth semi-structured interviews using open ended questions with adults with a diagnosis of MM. Questions will be shaped using the Capability, Opportunity, Motivation and Behaviour (COM-B) model1. The interviews will either be one on one, in groups, face to face or via telehealth, guided by the participant's preference. Questions explore enablers and barriers to structured exercise and daily physical activity as well as preferences of types of exercise, intensity of exercise, modes of exercise and locations of exercise.

Project Title	Regional Ventilation Evaluation of Abnormalities of the Lung in Cystic Fibrosis (ReVEAL-CF Study)
Coordinating Principal Investigator	Associate Professor Siobhain Mulrennan
Institution	Sir Charles Gairdner Hospital
Approval Date	22 May 2023

The purpose of this study is to assess the utility of XV technology to detect and quantify regional ventilation abnormalities in CF. In addition, we plan to compare XV outputs with other standard and specialized PFTs and imaging. CF patient cohort is likely to benefit from this technology given the relative ease of assessing lung function compared to conventional techniques, where the latter present issues including being effort-dependent (especially for PFTs) and exposure to higher radiation dose (chest CT).

We hypothesize that XV LVAS will be better able to detect regional ventilation defects in the lungs of people with CF than standard PFTs or CT imaging. At this time, XV LVAS has not been assessed in people with CF. It is anticipated that XV LVAS reports will provide valid and clinically useful quantification of ventilation when compared to standard of care lung function assessments. Additionally, XV LVAS may be more sensitive than standard PFTs, which provide a global, rather than regional, assessment of lung function.

Project Title	Enhancing the Hospital Environment for aphasia Care and Recovery (EnhanCeR): A basket Bayesian Optimal Phase IIa adaptive clinical trial of aphasia intervention
Coordinating Principal Investigator	Dr Sarah D'Souza
Institution	Osborne Park Hospital
Approval Date	01 June 2023

Osborne Park Hospital has >140 stroke admissions annually. Aphasia is a language impairment which affects a third of stroke survivors. Aphasia has negative consequences for accessing healthcare, relationships, social participation, capacity to work and quality-of-life. Patients with aphasia have an increased risk of experiencing an adverse event in hospital than patients without communication impairments. These adverse events are expensive and avoidable. Early aphasia therapy is the mainstay of intervention5 but accounts for only 33% of

recovery at 26-weeks post-stroke6 indicating there are other undetermined factors that enhance recovery.

Objectives: Determine the promise an individually tailored Communication Enhanced Environment7 in a patient-centred goal driven paradigm for improving aphasia recovery and goal attainment8 to justify further investigation in a seamless Phase IIb-III clinical trial.

Project Title	Allo-antibody in transplant recipients: is this the missing link in the risk of heart disease?
Coordinating Principal Investigator	Dr Wai Lim
Institution	Sir Charles Gairdner Hospital, Fiona Stanley Hospital, Royal Perth Hospital
Approval Date	01 June 2023

Gene compatibility at the human leukocyte antigen (HLA) complex between donors and patients is the standard triage test for immunological risk in kidney and SPK transplantation in Australia. An incremental number of HLA-mismatches, representing greater gene incompatibility is associated with a greater risk of premature allograft loss, driven primarily by the development of de novo (i.e. newly formed) abnormal proteins (known as de novo anti-HLA antibody or dnDSA) against the donor genes and acute rejection. One prior sudy has shown a potential link between these dnDSA and elevated risk of major adverse cardiovascular event (known as MACE) in kidney transplant recipients, possibly related to the generalised inflammatory response that often accompany the development of dnDSA and acute rejection. This excess inflammatory response will therefore cause damage to endothelial cells, the principal cell type in the heart and donor kidney, resulting in MACE and kidney transplant dysfunction, respectively. The overall arching objective of this program of work is to define the causal pathways of MACE in kidney and SPK transplant recipients.

This will be achieved through examining a potential causal association between dnDSA, inflammation and development of MACE in kidney and SPK transplant recipients using instrumental variable (IV) estimation, a statistical method that has been shown to infer causality in observational studies.

Project Title	Performance of classification criteria to identify systemic lupus erythematosus patients for research in Western Australia: a retrospective cohort study.
Coordinating Principal Investigator	Mr Warren Raymond
Institution	Sir Charles Gairdner Hospital
Approval Date	01 June 2023

This study will validate the classification criteria for SLE against clinician-reported diagnoses for a cohort of SLE patients managed at Sir Charles Gairdner Hospital. This assessment will produce overall and sub-group estimates of sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV).

This is an audit of SLE patients attending a large metropolitan tertiary teaching hospital located in Perth, Western Australia. We age- and gender-matched (1:1) SLE patients to non-SLE patients attending the Immunology Outpatient Clinic for the purposes of calculating Specificity and Negative Predictive Values. Patients were excluded if they had insufficient clinical documentation (i.e. n<1 outpatient letters or discharge summaries of SLE-related hospitalisations), no information in the medical, or laboratory information on iSoft Clinical Manager.

Project Title	Realist evaluation of integrated primary health care for adults in Western Australia who have experienced homelessness
Coordinating Principal Investigator	Miss Susan Taylor
Institution	Department of Health - St Patrick's Community Support Centre
Approval Date	08 June 2023

The aim of this project is to understand proposed enablers of accessible and integrated primary health care for people facing homelessness, including concierge services, outreach services, and processes supporting integration in an existing homeless health care setting in the Perth metropolitan area.

Project Title	Regional Integration of Prescriber-Oriented Susceptibility Tests for ESKAPE group bacteria
Coordinating Principal Investigator	Dr Tim Inglis
Institution	PathWest – WACHS, PathWest - QEII
Approval Date	09 June 2023

This project will validate a flow cytometer assisted antimicrobial susceptibility test (FAST) method that has been shown to improve the accuracy and speed of antimicrobial susceptibility testing (AST). Rapid diagnosis and treatment are pivotal in life-threatening infections, and appropriate prescribing is not only essential for effective treatment but also reduces the propagation of antimicrobial resistance.

The project will use expended samples from routine AST testing taking place in Pathwest, with priority on samples from the ESKAPE group (comprising Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa and Enterobacter spp). We will use the FAST method to both identify the pathogen and determine antibiotic sensitivity. Results from the FAST method will be compared to results from routine AST testing to determine accuracy of the test and time saved to results.

Project Title	Clinical epidemiology, characteristics, and outcomes of patients with systemic lupus erythematosus managed at Sir Charles Gairdner Hospital
Coordinating Principal Investigator	Mr Warren Raymond
Institution	Sir Charles Gairdner Hospital
Approval Date	15 June 2023

This is a retrospective chart review of SLE patients (n>250) managed at Sir Charles Gairdner Hospital (SCGH), a metropolitan tertiary centre in Perth, Western Australia across from 1st January 2011 to most recent. SLE patients will be identified by the Finance & Business Department using ICD-10 codes to identify those managed at SCGH. SLE patients were defined as those with a clinical diagnosis of SLE, which had to have been managed at ≥2 outpatient visits (documented by a specialist on outpatient visit letters); and, needed to have met either the American College of Rheumatology (ACR97) 8, Systemic Lupus International

Collaborating Clinics (SLICC2012) 9, or the ACR-European Alliance of Associations for Rheumatology (EULAR2019) 10 classification criteria for SLE. Lupus nephritis (LN) was defined as a clinical diagnosis (on the basis of positive autoimmune serology and increasingly abnormal protein: creatinine, and/or haematuria) or with renal biopsy histopathology findings of Class 2 - 5 disease as per the International Society of Nephrology/Renal Pathology Society (ISN/RPS) classification 11; and, discoid or subacute SLE were diagnosed clinically or on the basis of skin-biopsy findings 12, 13.

Project Title	Accuracy and Feasibility of Abbreviated MRI in High-Risk Breast Cancer Screening
Coordinating Principal Investigator	Dr Nathalie Falkner
Institution	Sir Charles Gairdner Hospital
Approval Date	29 June 2023

Are all sequences currently performed for high-risk screening MRI necessary? Can we reduce the time and cost associated with MRI by eliminating non-contributory sequences? This study aims to retrospectively compare the outcomes and recall rates from interpretation of abbreviate MRI studies compared to their existing reports to determine the comparative accuracy and feasibility of using the abbreviated protocol compared with the full protocol.

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