




The Institute

basil hetzel institute for translational health research

MONTHLY BULLETIN FOR TQEH RESEARCH COMMUNITY

# WINNING NEWS

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## THRF awards \$2.7 million in 2017 grant funding to BHI, TQEH

The Hospital Research Foundation recently announced their 2017 Grant Funding Round at the Basil Hetzel Institute for Translational Health Research (BHI), The Queen Elizabeth Hospital (TQEH).

Thanks to their generous community of donors and ticket buyers in the Hospital Research Home Lottery, the Foundation have been able to provide 2017 grant funding to South Australian Hospitals and research institutions of over \$6.0 million, targeted at finding cures and improving care for all in our community. Of this, \$2.7million has been awarded to researchers at the BHI, the Foundation's largest grant funding round to date.

According to Paul Flynn, THRF CEO, *"The applications we received this year were of an outstanding nature and I congratulate the recipients of our Translational Grant, Development Grants, Fellowships and Project Grants. This is the first year we have announced a Translational Grant, in honour of Dr Basil Hetzel AC, one of our nation's most cherished pioneers of medical research. It is Dr Hetzel's legacy, paired with the ongoing support of our community that provides the encouragement to our researchers to continue to find new treatments and ultimately cures for the heartbreaking disease affecting our loved ones."*

A summary of each of the 11 grants and fellowships is included on the following pages.

| THRF Grant                           | Recipients                                   |
|--------------------------------------|--|
| The Basil Hetzel Translational Grant | Prof Beltrame, A/Prof Zeitz, Prof Lindahl    |
| Development Grant                    | Prof Wormald, A/Prof Vreugde, Prof Prestidge |
| Development Grant                    | Prof Gowans, Dr Wijewardana, Prof Maddern    |
| Mid Career Fellowship                | Dr Danielle Taylor                           |
| Early Career Fellowship              | Dr Vasilios (Bill) Panagopoulos              |
| Early Career Fellowship              | Dr Ashish Shrestha                           |
| Project Grant                        | Prof Hill, A/Prof Rischmueller, Prof March   |
| Project Grant                        | A/Prof Ingman, Prof Evdokiou, Mr Wrin        |
| Project Grant                        | Prof Evdokiou, Prof Zannettino, Dr Blencowe  |
| Project Grant                        | Dr Hauben, Prof Voelcker, Prof Maddern       |
| Project Grant                        | Prof Mackay, Prof Adams, Prof Bean           |

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### BHI SEMINARS

**Tuesdays 1pm**  
Staff Seminars

**Wednesdays at 12pm**  
External Invited  
Speaker Seminars

**Thursdays at 9am**  
Postgraduate Student Seminars

### UPCOMING EVENTS

**Thursday 27 July**  
BHI Off the Clock

**Monday 31 July**  
SA Translational Centre  
Student Night

**Fri 4 - Sun 6 August**  
Science Alive!

**Mon 21 August**  
TQEH Research Day Abstracts Due

# BHI HUB

## From the BHI Facility Manager Kathryn Hudson

**BHI Ground Floor**  
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There were multiple positive news announcements for TQEH and research at TQEH in June. The Hospital Research Foundation's (THRF) announcement of \$2.7million funding towards the translational grant, development grants, fellowships and projects is the largest THRF grant round at this site. The state government announced \$270 million to proceed with stage 3 of TQEH redevelopment building. In addition, it was announced that TQEH will retain Cardiology, Respiratory and Cancer Care services.

At the recommendation of the BHI Management Committee, THRF have funded the purchase of three items of research equipment, an InBody 570 analyser (Aged and Extended Care Services), anaerobic chamber (Department of Gastroenterology and Hepatology, ENT Surgery) and flexible arm for the Vivascope2500 confocal microscope (Therapeutics Research Centre). The equipment has a total value \$112,150 with THRF contribution of \$86,150 from the THRF BHI 2016-17 equipment allocation and \$26,000 contribution from UniSA School of Pharmacy and Medical Sciences. We will be showcasing these items in the BHI Winning News as they are delivered.

The BHI Longest Table was again a great afternoon sharing lunch with valued colleagues and supporting THRF. Thank you to everyone who came, and for bringing a delicious array of food [see full story on page 15].

## From the BHI Communications Officer Rebecca Anderson

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**Work days: 9-3pm Tuesday - Thursday**



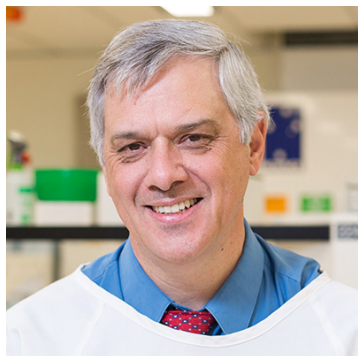
### **VOLUNTEERS NEEDED: Science Alive! 2017 - Friday 4 August - Sunday 6 August at the Adelaide Showgrounds, Wayville**

Please have a look at your calendars and see if you can spare 3 hours on one of these days to help out at the BHI booth. More information about Science Alive! is provided on page 20 of this newsletter. Friday 4 August is exclusively for school students in years 7 - 12, while the Saturday and Sunday (9-5pm) are for anyone interested in any aspect of science and technology.

If you're willing and available to volunteer please send me an email, indicating which day and time you would prefer (10-1pm, 12-3pm or 2-5pm). Thanks!

# 2017 THRF GRANTS

## The Basil Hetzel Translational Grant: \$750,000



Professor John Beltrame

### Potential Mechanisms and Treatment of Post-infarct Angina in Patients with Myocardial infarction with Non-Obstructed Coronary Arteries (MINOCA)

[Professor John Beltrame](#), Discipline of Medicine, University of Adelaide and BHI, TQEH,

**A/Professor Christopher Zeitz**, Rural and Indigenous Cardiovascular Health, University of Adelaide and CALHN &

**Professor Bertil Lindahl**, Uppsala University Hospital, Sweden

Of the 55,000 people experiencing heart attacks or myocardial infarctions (MI) in Australia each year, more than 6,000 (11%) have MINOCA – **M**ycardial **I**nfarction with **N**o **O**bstructive **C**oronary **A**rteries. This diagnosis, first defined by TQEH researchers, is often overlooked so that patients are not treated as having a cardiac condition. Furthermore when the diagnosis is made, the optimal treatment is unclear since there are no established therapies.

This project will result in better outcomes for MINOCA patients by increasing physician awareness of MINOCA, thereby improving its diagnosis and management. In addition, it is the first study to evaluate the coronary microscopic blood vessels during the acute admission, thereby providing insights into their role in the heart attack and thus a potential therapeutic target. These investigations will be conducted exclusively by CALHN staff who have the required experience and expertise in coronary blood flow studies.

Additional problems for MINOCA patients are that one third (approx. 2,000 per year) continue to experience chest pain (Post-infarct Angina) within the first 12 months (with no obvious cause or treatment) and about one quarter (approx. 1,400) experience major adverse cardiovascular events (or MACE) over a 4 year period. Since there are no blocked arteries in patients with MINOCA, balloon treatments and stents are not appropriate but whether cardioprotective medications used for conventional heart attacks are of benefit is unknown. This Translational Grant will fund a short-term “shovel-ready” MINOCA-BAT Post-infarct Angina study (**β**-blockers and/or **ACE**-Inhibitors/ Angiotensin receptor blockers **T**rial) to determine if these cardioprotective therapies are effective treatments for MINOCA patients with Post-infarct Angina. This multicentre clinical trial will be coordinated at the BHI/ TQEH by CADOSA (Coronary Angiogram Database of South

Australia) staff, in addition to Dr Rosanna Tavella and Dr Tharshy Pasupathy. The results from this trial, the first to scientifically assess two cardiac medications in patients with MINOCA, will be known by 2020. In addition, the study will form the basis of a long-term study coordinated by Professor Lindahl from Sweden, to determine if these medications prevent MACE in patients with MINOCA. Both of these pioneering studies will not only be conducted at South Australian and interstate sites but also involve international sites from Sweden, Denmark, Norway, and the UK. According to Professor John Beltrame “... *confirmation that these medications improve symptoms and/or reduce cardiac events will be a ‘game changer’ for MINOCA patients.*”

The MINOCA-BAT study is not only a key translational study for patients with MINOCA but its innovative design is a first for cardiovascular clinical trials in Australia. The study utilises a Registry-based Randomised Controlled Trial (RRCT) design, where an established clinical registry provides the framework for conducting the trial. ‘This engenders considerable cost-savings and improves study efficiency’ Professor Beltrame says, and is likely to represent the future of clinical trials. Both SWEDHEART (based in Sweden) and CADOSA are established clinical registries that capture all patients with MINOCA and are therefore ideal for this RRCT.

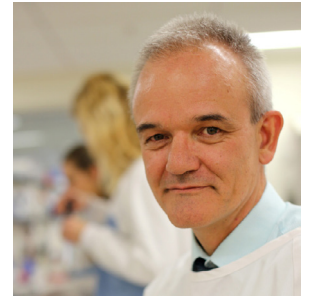
In summary, this project will translate to increased knowledge and recognition of MINOCA with evidence-based therapy for Post-infarct Angina and protection from major adverse cardiovascular events. This will benefit the 6,000 Australian patients per year suffering with MINOCA, for which there is no current guideline treatment.

# 2017 THRF GRANTS CONTINUED

## THRF Development Grant: \$200,000

### A novel formulation to prevent epidural adhesions post-laminectomy

**Professor PJ Wormald**, Department of ENT, University of Adelaide and BHI, TQEH,  
**Associate Professor Sarah Vreugde**, Department of ENT, University of Adelaide and BHI, TQEH &  
**Professor Clive Prestidge**, School of Pharmacy and Medical Sciences, University of South Australia



*Professor PJ Wormald*

A collaborative team effort between the Department of ENT at the University of Adelaide and the University of Otago in New Zealand has resulted in the development of “Chitodex (CD)” surgical gel, which uses a polymer derived from squid. The gel possesses both anti-bleeding and anti-scarring properties that are strengthened by incorporating the iron chelator/anti-oxidant Deferiprone (Def). Deferiprone is currently used for the treatment of iron-overload conditions such as Thalassemia and is therefore already regarded as safe by the FDA. Preliminary *in vitro* and *in vivo* studies have shown that Deferiprone has strong anti-scarring properties because it reduces the number of fibroblasts that migrate and proliferate at the surgical site.

This project aims to prove that Def-CD-gel can be used in a safe and efficient way to prevent epidural adhesions after spine surgery. Spine surgery is a common procedure with more than 800,000 spine surgeries undertaken each year globally with approximately 22,000 of these done in Australia (Australian Bureau of Statistics). In about 40% of cases the surgery is

unsuccessful due to severe scar formation and is termed “failed back syndrome (FBS)”. FBS results in pain and severely compromised Quality of Life, high costs to society due to high (78%) work disability, as well as a need for revision surgery in 19% of cases. A product like Def-CD-gel that reduces adhesions could significantly benefit the cost and quality of health care globally. It is worth noting that its potential use is not restricted to neurosurgery.

In this project, optimisation of the pharmaceutical composition of Def-CD-gel will be followed by preclinical studies in an established large animal model of back surgery. This will provide safety and efficacy rationale for extension of the experimentation into a human clinical pilot study. Optimisation of the gel will be carried out at the BHI by Katharina Richter, in collaboration with Professor Clive Prestidge (University of South Australia). Preclinical studies in the sheep model of laminectomy will be done by postgraduate student Dr Annika Mascarenhas.

## THRF Development Grant: \$200,000



*Professor Eric Gowans*

### The protective efficacy of a cytolytic DNA vaccine for HCV: a step towards human clinical trials

**Professor Eric Gowans**, Discipline of Surgery, University of Adelaide and BHI, TQEH  
**Dr Danushka Wijesundara**, Discipline of Surgery, University of Adelaide and BHI, TQEH &  
**Professor Guy Maddern**, Discipline of Surgery, University of Adelaide and BHI, TQEH

Around 177 million people in the world are persistently infected with hepatitis C virus (HCV) and 3-4 million new HCV infections occur each year (around 75% of these individuals live in Asia or Africa). In Australia, there are about 230,000 HCV infected individuals with approximately 10,000 new infections identified each year. Estimated health care costs in Australia are around \$252M per annum. In many patients, persistent infection results in serious liver disease. Therapy with new

generation direct acting antiviral agents (DAAs) cures a high proportion of patients, but they can be re-infected and DAA resistance may emerge as a future barrier to therapy. The prohibitive cost of DAA therapy (\$80,000 per patient) restricts access, with individuals in developing countries likely to remain untreated. This provides a reservoir for continuing transmission. Thus, an effective vaccine is necessary to control the HCV epidemic.



# 2017 THRF GRANTS CONTINUED

## Gowans, Wijesundara, Maddern *continued*

A novel HCV DNA vaccine, developed by Professor Gowans' Virology Group, elicits more robust immune responses than typical DNA vaccines. However, it is imperative to determine whether this vaccine can protect against HCV infection before human trials can commence. This research group now has access to a chimeric virus which is based on the monkey virus, GB virus-B. The chimeric virus (GBV-B/HCV) expresses several HCV proteins and mimics HCV infection. Because the HCV proteins expressed in the chimeric virus are also present in the novel HCV DNA vaccine, there is now a suitable animal model in which to examine vaccine efficacy.

To assess the efficacy of the novel HCV DNA vaccine, animals will be vaccinated with the DNA vaccine prior to being infected with GBV-B/HCV. Based on data published by the Gowans group, it is known that the vaccine will evoke cell mediated immunity

which is necessary to resolve HCV infections in humans. Specifically, this white blood cell immune response will target the non-structural (NS) HCV proteins NS2, NS3 and NS4A necessary for virus survival and propagation following infection. Once it is confirmed that the vaccine elicits the anticipated immune responses, vaccinated or un-vaccinated control animals will be injected with the stock GBV-B/HCV chimera that encodes the same HCV proteins, NS2, NS3 and NS4A. The protective efficacy of the vaccine against GBV-B/HCV chimeric virus challenge will be examined by weekly measurements of the virus load in the blood of the vaccinated and control groups for 8 weeks. A reduction in virus load in the vaccinated animals relative to the controls will indicate protection.

## THRF Mid Career Fellowship: \$420,000 (2017-2020)



### **Inequalities in Neighbourhood Accessibility: Implications for Frailty and Healthy Ageing**

**Dr Danielle Taylor**, G-TRAC Centre, School of Medicine, University of Adelaide and BHI

[danielle.taylor@adelaide.edu.au](mailto:danielle.taylor@adelaide.edu.au)

Dr Danielle Taylor will commence a 3 year mid-career fellowship with Professor Renuka Visvanathan's research group at the BHI at the end of July. She will conduct research that aims to ensure people in our community can live longer, healthier and more fulfilling lives. Dr Taylor is a health geographer and has a PhD in Geography and a Masters in Spatial Information Science, both from The University of Adelaide. She has extensive experience in the application of Geographical Information Systems (GIS) for health research having worked as a researcher and consultant in this field with the University of Adelaide since 1998, including being a co-developer of the Accessibility/ Remoteness Index of Australia (ARIA), the index used by the Australian Bureau of Statistics (ABS) to derive the Remoteness Areas classification. ARIA and its methodology has been applied to assessing the provision of health services and reporting and analysing health outcomes.

Danielle's fellowship will focus on inequalities in neighbourhood accessibility and implications for frailty and healthy ageing.

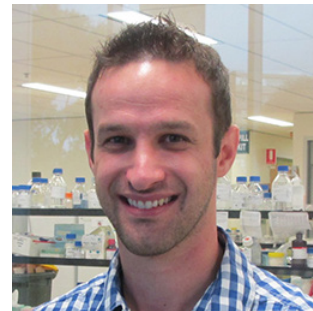
Healthy ageing is dependent on a person's 'functional ability' which comprises not only an individual's intrinsic capacity (including health status, mobility and cognition), but also influences of their environment. For individuals to achieve and maintain their highest level of functional ability, the influence of both individual and environmental factors needs to be understood and the impact of negative influences, where possible, minimised. This research will aim to understand the influence of environmental factors, as enablers or barriers to healthy ageing. It will have a particular focus on the role geographic access and locational disadvantage plays in facilitating or impeding an individual's level of functional ability. The research will also seek to develop an enhanced area level frailty risk index incorporating geographic demographic information and accessibility measures of relevance to frailty. This index can be used as a planning tool for the equitable and effective provision of health services.

# 2017 THRF GRANTS CONTINUED

## THRF Early Career Fellowship: \$240,000 (2017-2019)

### **Targeted inhibition of inflammatory peroxidases, a new therapeutic strategy against breast cancer and metastatic disease**

**Dr Vasilios Panagopoulos**, Breast Cancer Research Unit, University of Adelaide and BHI



Dr Vasilios (Bill) Panagopoulos completed his PhD in 2016 from the University of Adelaide in the Breast Cancer Research Unit, BHI, investigating new therapeutic targets for the treatment of breast cancer and metastasis. Dr Panagopoulos' research experience now spans more than ten years, focused in cancer cell biology and wound healing in both academic and private sectors. Although there have been significant improvements in the detection and treatment of localised breast cancer, patients with metastatic disease have a far worse prognosis. Upwards of 90% of deaths occur due to metastasis. These secondary tumours can be found at sites such as bone, lung, liver and brain, and are infinitely more difficult to treat than localised primary tumours. Thus, improvements in the development of new treatments will have a profound impact on outcomes for these patients.

During his PhD research Dr Panagopoulos made an important discovery identifying a group of inflammatory proteins known as peroxidases that are directly involved in promoting breast cancer growth and spread to other organs. These peroxidases instruct normal cells in and around the tumour to stimulate the formation of new blood vessels. New blood vessels are crucial for the supply of oxygen and stimulate the necessary

scaffold proteins (collagen) that support tumour growth and spread. Until this research, peroxidases had never been implicated as a therapeutic target for breast cancer development and metastasis.

Because of the therapeutic potential of this work, the Breast Cancer Research Unit has established an important collaboration with one of the largest pharmaceutical companies in the world that has developed a new and specific peroxidase blocker. This blocker is a potent, orally available, small molecule developed and tested to be extremely effective in stopping the actions of peroxidase enzymes, without the toxic side effects usually experienced by people taking chemotherapy drugs. The Foundation's Early Career Fellowship will allow Dr Panagopoulos to investigate the efficacy of blocking the actions of inflammatory peroxidases with the specific peroxidase blocker in the hope of stopping the development and spread of breast cancer. If successful, he will proceed with further collaborations with the pharmaceutical company. This research has the potential to define peroxidase inhibitors as new therapeutic agents to effectively eradicate breast cancer and metastasis.

## THRF Early Career Fellowship: \$240,000 (2017-2019)



### **The development of a novel cytolytic DNA vaccine which elicits cellular immunity to conserved viral proteins**

**Dr Ashish Shrestha**, Virology Research Group, University of Adelaide and BHI

Dr Ashish Shrestha was awarded his PhD from the School of Medicine, University of Queensland, in September 2016. He was funded by a University of Queensland International scholarship (2013-2016), and during this time received a graduate school international travel award and obtained a

position in an international training program for young investigators (International Society of Blood Transfusion, Working Party on Transfusion Transmitted Infectious Diseases, 2015). Prior to undertaking his PhD he completed a masters degree in medical microbiology (2009) and a

# 2017 THRF GRANTS CONTINUED

## THRF Early Career Fellowship: Shrestha *continued*

bachelor degree in general microbiology (2005). Ashish's fields of research and expertise include medical microbiology, public health and health services. He has worked in various sectors of microbiology including as a research scholar at the Australian Red Cross Blood Service, a medical school lecturer and a quality control officer in the pharmaceutical industry.

Ashish commenced his THRF fellowship in Professor Gowans's Virology Group at the BHI on July 3rd. His research aims to develop a universal hepatitis C virus (HCV) vaccine against the four most common HCV genotypes found globally. This builds on the patented vaccine already developed by the Gowans group, and aims to generate a cocktail of four cytolytic DNA vaccines each of which evokes a broad immune response to a different genotype of HCV. He will also examine the ability

of the existing cytolytic DNA vaccine to provide effective protection against the Zika virus (ZIKV). Zika and HCV belong to the same family of Flaviviridae viruses and have a similar genome organization, providing hope that generation of an analogous vaccine to the existing cytolytic DNA HCV vaccine is possible. Zika is an emerging disease, contracted after being bitten by an infected mosquito, which results in a non-specific illness with fever, rash, muscle and joint pain. Infected individuals can transmit the virus via infected blood or by sexual transmission. The major beneficiaries of a vaccine will be women of child-bearing age, as mothers infected during pregnancy are more likely to have children with microencephaly (small brain syndrome) for which there is no treatment.

## THRF Project Grant: \$233,118 (2017-2020)

### The Australian Arthritis and Autoimmune Biobank Collaborative (A3BC)

[Professor Catherine Hill](#), Rheumatology Unit, TQEH

**Associate Professor Maureen Rischmueller**, Rheumatology Unit, TQEH

**Professor Lyn March**, University of Sydney and Royal North Shore Hospital



*Professor Catherine Hill*

Musculoskeletal (MSK) conditions are the highest cause of health lost due to disability in Australasia (26.4% of non-fatal disease burden), with concomitant high costs associated with health care and productivity loss, yet NHMRC MSK research funding is disproportionately low in relation to this disease burden.

The Australian Arthritis and Autoimmune Biobank Collaborative (A3BC) will enable high quality musculoskeletal disease research, resulting in better patient outcomes, by:

1. Providing effective sample sizes linked with longitudinal clinical, data-linkage and "omic" data, to address specific research questions
2. Facilitating both national and international collaborations
3. Resulting in a more competitive MSK disease research funding environment.

A national "hub and spoke" network of longitudinal-collecting biobanks will be established, with extensive biospecimen collection and data linkage, from over 30 major state hospitals and clinics. Each State spoke/node will collect/store locally, under national best practice standards and oversight.

The Hospital Research Foundation grant will establish our Rheumatology Laboratory at the BHI as the South Australian node for the A3BC. This represents an important opportunity for both the Basil Hetzel Institute, and Rheumatology research at The Queen Elizabeth Hospital.

# 2017 THRF GRANTS CONTINUED

## THRF Project Grant: \$125,000 (2017-2018)



*A/Prof Wendy Ingman*

### **Breaking immune tolerance in triple negative breast cancer**

[A/Prof Wendy Ingman](#), Breast Biology and Cancer Unit, University of Adelaide and BHI  
**Prof Andreas Evdokiou**, Breast Cancer Research Unit, University of Adelaide and BHI  
**Mr Joseph Wrin**, Breast Biology and Cancer Unit, University of Adelaide and BHI

Breast cancer is the most common type of cancer in women, with over 15,000 new cases diagnosed in Australia each year. Triple negative breast cancers make up 15% of all breast cancer diagnoses. They are harder to treat than other types of breast cancer because they lack the three receptors that usually serve as targets for anti-cancer drugs. As a result, women with triple negative breast cancer have lower 5 year survival rates than women with other breast cancer subtypes.

Failure of the body's immune system to attack a threat such as a mutated cell is known as immune tolerance, and is one of the key hurdles to overcome in both treating breast cancer and preventing its recurrence. The Breast Biology and Cancer Unit (BBCU) at the BHI has identified a new biological pathway active

in breast cancer involving a protein called C1q, which can be targeted to break this tolerance. The aim of this project is to capitalise on this discovery to develop a new approach to breaking tolerance in triple negative cancer.

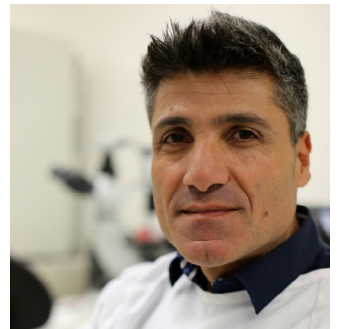
This project will explore the biological interactions between immune system cells and cancer cells that cause tolerance to breast cancer. The mechanism by which C1q acts to guide the immune system towards tolerance of cancer cells will be investigated. The BBCU will also develop an anti-C1q antibody that inhibits C1q action and that could be developed in the future as a new treatment for patients with triple negative breast cancer.

## THRF Project Grant: \$125,000 (2017-2018)

### **Using our own cancer fighting T cells to treat incompletely resected or inoperable tumours**

**Prof Andreas Evdokiou**, Breast Cancer Research Unit, University of Adelaide and BHI  
**Prof Andrew Zannettino**, Myeloma Research Laboratory, University of Adelaide and SAHMRI  
**Dr Anton Blencowe**, School of Pharmacy and Medical Sciences, University of South Australia

[andreas.evdokiou@adelaide.edu.au](mailto:andreas.evdokiou@adelaide.edu.au)



*Professor Andreas Evdokiou*

Current treatment options for solid cancers is surgical removal followed by chemotherapy and/or radiotherapy to reduce the risk of cancer coming back. Unfortunately, in many cases, surgical removal is dangerous or impractical. The size and location of the tumour, along with the need for a margin, often dictates if surgery is possible. Some cancers localise to confined spaces, or next to some crucial structure, making them dangerous to remove surgically. For other patients, complicating health problems such as heart or lung disease, or age-related concerns may limit their ability to withstand surgery, rendering them medically inoperable. Therefore, there is a real need to develop effective ways to treat incompletely resected or inoperable tumours, allowing more cancer patients to survive longer.

The Breast Cancer Research Unit (BCRU) at the BHI has developed a simple, cost effective, non-invasive, safe and pioneering approach of delivering the patient's own cancer fighting immune cells, known as cytotoxic  $\gamma\delta$  T cells, directly to the tumour site. Large numbers of these cells can be generated in the laboratory from the blood of cancer patients. Importantly, these immune cells can be frozen and used when required without losing their ability to kill cancer cells. The therapeutic concept is based on the effective delivery of these immune cells to the target site, using an injectable gel that has been developed by the BCRU. In its liquid form, the gel can be mixed with large numbers of cancer fighting cells,



# 2017 THRF GRANTS CONTINUED

## Evdokiou, Zannettino & Blencowe continued

forming an injectable mixture. Once injected into the cavity where the tumour was surgically removed or next to an existing tumour, a gel is formed, temporarily locking the cells in place. Using a mouse breast cancer model, evidence has been provided that the gel effectively supports the survival of these cancer fighting cells, keeping them in the local area of injection where they slowly drift out in large numbers to seek and effectively eliminate cancer.

The aim of this study is to demonstrate the feasibility and effectiveness of using cytotoxic  $\gamma\delta$  T cells, when delivered by injectable hydrogels, to treat localised cancer in pre-clinical cancer models. The implementation of this approach in the

clinic will maximise the success of current surgical interventions and offer an effective way to prevent relapse of resected tumours while minimising the risk of metastasis. This will ultimately result in much improved patient survival.

This project involves the collaboration between three research groups from different disciplines: cancer research led by Professor Andreas Evdokiou (BCRU, BHI), cancer biology led by Professor Andrew Zannettino (SAHMRI) and nanomedicine led by Dr Anton Blencowe (University of South Australia).

## THRF Project Grant: \$125,000 (2017-2018)

### Development of targeted nanoparticles as preventative therapy for liver metastasis

**Dr Ehud Hauben**, Surgical Science Research Group, University of Adelaide and BHI

**Professor Nicolas Voelcker**, Melbourne Centre for Nanofabrication, Monash University

**Professor Guy Maddern**, Surgical Science Research Group, University of Adelaide and BHI

[ehud.hauben@adelaide.edu.au](mailto:ehud.hauben@adelaide.edu.au)



*Dr Ehud Hauben*

As the second largest cause of malignant death in the Australian community, bowel cancer is an important medical health priority. The liver is the most common site for distant metastases from cancers arising in other organs. About 20% of all patients with bowel cancer present with liver metastases and a further 20% will develop liver metastases at a later stage, the majority of which are not suitable for surgical resection. There are no symptoms in the early stages of liver metastasis and metastases are often unresponsive to available treatment options. Therefore, there is an urgent need for reliable early risk prediction and effective preventative treatments. This project will be the first in Australia to focus exclusively on the development of novel therapeutic strategies for colorectal liver metastasis.

The Liver Metastasis Research Group at the BHI led by Dr Ehud Hauben, aims to develop a novel diagnostic and therapeutic approach for colorectal liver metastasis. As part of the Discipline of Surgery at the University of Adelaide, the group is supervised by Professor Guy Maddern and actively supported by Professor Peter Hewett, Dr Markus Trochsler and Lisa Leopardi. The group has ongoing collaborations with Dr Doan Ngo and other

BHI researchers in the Cardiovascular Pathophysiology and Therapeutics Research Group led by Prof John Horowitz. In previous research, partly funded by The Hospital Research Foundation, Dr Chandra Kirana in the group has identified molecules in samples from bowel cancer patients that represent prognostic biomarkers and potential therapeutic targets for prevention of liver metastasis.

The project team will collaborate with Professor Nico Voelcker's group, based at the Monash Institute of Pharmaceutical Sciences, that has previously demonstrated that porous silicon nanoparticles (pSiNPs) hold potential as a drug delivery vehicle for cancer therapy. As a result of this new THRF funding, a dedicated researcher will be recruited to work with existing BHI researchers, to construct and test targeted pSiNPs designed to manipulate the expression and function of selected proteins in bowel tumours and in liver tissue. This collaborative pre-clinical project aims to develop innovative and effective anti-cancer compounds for the prevention of metastasis.

# 2017 THRF GRANTS CONTINUED

## THRF Project Grant: \$72,000 (2017-2018)



*Professor Mark Mackay*

**Identification of causes of access block for short-stay and long-stay patients at TQEH, and use of simulation to formulate wait-reduction strategies**

**Professor Mark Mackay**, Health Care Management, Flinders University

**Professor Robert Adams**, The Health Observatory, University of Adelaide and BHI

**Professor Nigel Bean**, Applied Mathematics, University of Adelaide

[mark.mackay@flinders.edu.au](mailto:mark.mackay@flinders.edu.au)

Health Service redesign should be tested as rigorously as new treatments or medicines. Historically, health services have implemented changes without prior testing. Modelling and simulation improves the options that can be considered prior to implementation, thereby avoiding significant risk.

Professors Mark Mackay, Bob Adams and Nigel Bean will build on considerable overseas modelling in health system redesign and on previous local simulation modelling by

Professors Mackay and Adams at the RAH and TQEH. This project aims to identify the main causes of waiting times for short-stay and long-stay services at TQEH and subsequently propose specific and appropriate wait-reduction strategies for these services.

This research will prove, at the local level, the benefits of using modelling and simulation to improve patient flow in hospitals.

## NEWS

### CALHN appointments

On 16 June, Interim Chief Executive Officer, Jenny Richter, announced three new appointments to the Central Adelaide Local Health Network's (CALHN) Medical Services Directorate.

Dr Grant Phelps is joining CALHN as Director of Clinical Governance. Grant has interests and extensive experience in clinical leadership and engagement, clinical governance, clinical practice improvement/safety and quality and organisational governance. For the past five years Grant has held the role of Associate Professor of Clinical Leadership at Deakin University along with serving on the Royal Australasian College of Physicians board since 2012.



Dr Sally Tideman, who has been acting in Director of Medical Services role for the past 12 months, has been successfully appointed in the new role of Deputy Director of Medical Services.

**Professor John Beltrame** (photo) has been appointed Director of Research. John has over 30 years of clinical and academic experience and has held positions in Australia and overseas. John is currently a consultant cardiologist at The Queen Elizabeth Hospital as well as Michell Professor of Medicine/Deputy Head, Discipline of Medicine at the University of Adelaide.



the hospital  
research foundation

## THRF sponsors BHI researchers to attend ASMR Gala Dinner

The Hospital Research Foundation (THRF) sponsored a table of 10 BHI researchers to attend the ASMR Gala Dinner on Monday 5 June, in addition to sponsoring the ASMR scientific meeting on Wednesday 7 June. At the dinner, Ross Wishart Memorial Award finalist (and ultimate joint-winner), Dr Bill Panagopoulos, presented a short talk about his research. Postdoctoral researcher in the Therapeutics Research Centre, Dr Amy Holmes, said "It was a fabulous night and we had an interesting talk by Professor Richard Wilkinson on how equality and inequality impacts society in terms of health... For early career researchers such as myself these nights are invaluable for networking with other early career scientists, senior scientists and healthcare politicians."



*Members of the Therapeutics Research Centre who attended the ASMR Gala Dinner. (L-R Sean Mangion, Dr Amy Holmes, Dr Lydia Sandiford and Ana Macedo).*



*BHI researchers who attended the ASMR Gala dinner on a table sponsored by The Hospital Research Foundation (L-R: Ana Macedo, Sean Mangion, Dr Lydia Sandiford, Dr Amy Holmes, Dr Joanne Dollard, Vahid Atashgaran (at back), Joe Wrin, Panos Panayiotou, Chris DiFelice, Dr Lisa Cherian, Bee Pantarat and Dr Bill Panagopoulos)*

## Science in Public Workshop Panel Session



The four BHI researchers who attended the full-day Science in Public media and communications workshop, thanks to funding from The Hospital Research Foundation and the BHI, shared their experiences with other BHI researchers on Tuesday 20 June. The course involved three separate sessions, each with two journalists, from radio, TV and the print media. Dr Jo Dollard said that the course "...gave me confidence that you can do this and that my research is newsworthy."

In the photo, PhD student Clementine Labrosciano is seen practicing a radio interview with journalist Sarah Martin from Radio Adelaide. Clementine, Dr Dan Wijesundara and PhD student Joe Wrin, and Jo all found this workshop incredibly valuable and worthwhile.



## Please welcome new Staff Members

In addition to Danielle and Ashish [see THRF Grants at the start of this newsletter], please welcome the following two new staff members to the Basil Hetzel Institute.

**Zinaida Tvorogova** has begun working as a Research Assistant with Dr Chandra Kirana, in the Surgical Science Research Group at the BHI.

Zinaida graduated from Northwest State Technical University (St. Petersburg, Russia) as a Production Engineer in 2007, and worked as a research assistant at The Technical School of Science (Helsinki, Finland). She has also completed an internship in the Department of Pathology, Haarman Institute, University of Helsinki, Finland in 2014.



Level 1 (Tues-Thurs)

[zinaida.tvorogova@adelaide.edu.au](mailto:zinaida.tvorogova@adelaide.edu.au)

**Kevin Fenix** has joined the Liver Metastasis Group, led by Dr Ehud Hauben, as a research officer to work on a project grant funded by THRF. He will be investigating the role of adipokines in liver metastasis and characterising immune infiltrates in liver metastasised tumours.

Kevin recently completed his PhD with Professor Shaun McColl at the School of Biological Sciences, University of Adelaide. His research investigated the role of chemokine receptors in CD8+ T cell responses in both infection and vaccination settings.



Level 1

[kevin.fenix@adelaide.edu.au](mailto:kevin.fenix@adelaide.edu.au)

## ALUMNI NEWS



We wish the following people well in their new adventures and look forward to hearing about ongoing collaborations with researchers at the BHI.

**Joep Van Agteren** finished up at the BHI in June and has started as a researcher in the [SAHMRI Wellbeing and Resilience Centre](#), which is part of the Mind and Brain Theme. He is also continuing his work as lead researcher with [Kick.it](#), a quit-smoking program.



**Dr Aaron Sverdllov** has taken up a position as Director of Heart Failure Services Hunter region and Associate Professor in the School of Medicine at the University of Newcastle where he will be Co-director of the Cardiometabolic Laboratory.

[aaron.sverdllov@newcastle.edu.au](mailto:aaron.sverdllov@newcastle.edu.au)



**Dr Doan Ngo** has been appointed as an Associate Professor in the School of Biomedical Science and Pharmacy at the University of Newcastle where she will be Co-director of the Cardiometabolic Laboratory.

[doan.ngo@newcastle.edu.au](mailto:doan.ngo@newcastle.edu.au)



# AWARDS

## Superstar of STEM: Dr Pallave Dasari

Congratulations to [Dr Pallave Dasari](#), a postdoctoral researcher in the Breast Biology and Cancer Unit, for being named as one of 30 female scientists and technologists in the “[Superstars of STEM](#)” [Science, Technology, Engineering and Mathematics], a new initiative of Science and Technology Australia.

Pallave is one of 5 South Australian women chosen for this program that aims to “smash existing gender stereotypes” according to CEO of Science and Technology Australia, Kylie Walker and to “make a career in STEM more attractive and achievable option for young Australian women and girls.”

Over 300 applicants applied to be a Superstar, with the successful candidates to receive training and development to use social media, TV, radio and public speaking opportunities to carve out a more diverse face for science, technology, engineering and mathematics.

An article about the 5 South Australian women selected for this program was published by The Advertiser on 3 July. Find out more via the [BHI newstopost](#).



## Award winners at SA ASMR Scientific Meeting

Congratulations to [Dr Bill Panagopoulos](#) for receiving the Ross Wishart Memorial Award at the Australian Society for Medical Research (ASMR) meeting in Adelaide.

The Ross Wishart Memorial Award is given to the person who delivers the most outstanding presentation at the SA division’s Annual Scientific Meeting during Medical Research Week. It is named in memory of Ross Wishart, a scientist and long-term member of the SA ASMR committee. The research Bill presented at the ASMR meeting was conducted while he was a University of Adelaide PhD student based at the Basil Hetzel Institute (BHI). Bill is continuing his research as a postdoctoral researcher in the Breast Cancer Research Unit at the BHI.



The Therapeutics Research Centre’s [Sean Mangion](#) also received an award at the ASMR meeting, for the best poster presented by an Honours student. Sean is undertaking his honours degree through the University of South Australia under the supervision of Dr Amy Holmes and Dr Lorraine Mackenzie.

# AWARDS CONTINUED

## ACH2 meeting award winners

Two members of Professor Eric Gowan's Virology Group at the BHI received awards at the 12th Annual Scientific Meeting of the Australian Centre for HIV and Hepatitis Virology Research (ACH2). [Dr Dan Wijesundara](#), an Early Career Research Fellow funded by The Hospital Research Foundation, received The Westmead Institute for Medical Research Young Achiever Award (HIV; value \$500) while [Makutiro Masavuli](#), a PhD student at the University of Adelaide, received the domestic travel award to attend an Australian conference (value \$1,000). Photo: L-R, Dan and Mak.



## THRF Travel Award Report: Zenab Dudhwala



[Zenab Dudhwala](#), PhD candidate, Department of Gastroenterology University of Adelaide, Basil Hetzel Institute, TQEH

Digestive Disease Week, Chicago, Illinois, USA

6-9th May 2017

Zenab Dudhwala recently attended the Digestive Disease Week (DDW) Conference in Chicago, USA. This is one of the largest gastroenterology and hepatology conferences in the world with around 15,000 attendees.

Zenab said "As a second year PhD student it was fantastic to be accepted to present an oral presentation at such a prestigious gastroenterology conference. I presented my research on the regulation of intestinal crypt fission by the Wnt signalling pathway and how this results in intestinal growth. This field of research is important because an immature intestine remains difficult to treat and currently there are no effective treatments for an immature intestine, and when there is Short Bowel Syndrome. Hence, understanding the growth of the small intestine is important as an immature intestine and/or Short Bowel Syndrome could potentially be treated by Wnt agonists by promoting crypt fission."

The DDW conference, attended by PhD students through to highly trained gastroenterologists, was held over four days. Concurrent lecture sessions were held each morning followed by poster presentations at lunch time and oral presentations or workshops in the afternoon.

Zenab was also delighted to be awarded a DDW basic Science Travel Award, with just 10 students being selected from 217 applicants.

Zenab said "at the conference I gained knowledge to improve my own research techniques in immunohistochemistry and learned a lot more about the Wnt signalling pathway. It was really beneficial to share my work and ideas with an international audience and receive many enthusiastic questions which fuelled positive and helpful discussions about my results. This conference also helped me to identify potential collaborators, and even possible future postdoctoral opportunities, working in related areas of research. In addition to my travel award I was very happy to receive a certificate of recognition as an early stage investigator".

Zenab is grateful to the The Hospital Research Foundation for supporting both her attendance at this prestigious conference and the international dissemination of the laboratory's work.



# BHI STUDENT NEWS

## BHI STUDENT REPS 2016 –2017



**Zenab Dudhwala (Level 2)**

[zenab.dudhwala@adelaide.edu.au](mailto:zenab.dudhwala@adelaide.edu.au)



**Alex Shoubridge (Level 1)**

[alexandra.shoubridge@adelaide.edu.au](mailto:alexandra.shoubridge@adelaide.edu.au)



**Vahid Atashgaran (acting)**

[vahid.atashgaran@adelaide.edu.au](mailto:vahid.atashgaran@adelaide.edu.au)

## BHI Longest Table 2017

Over 50 people attended the BHI Longest Table lunch on Thursday 29 June raising a total of \$1,707 for The Hospital Research Foundation. The theme of this year's BHI lunch, the 5th time it has been held, was "Your signature dish" and the variety and quality of food was amazing!

Thanks for your generous donations and to those who contributed to making it a great event by cooking, helping set up, clean up, especially to our student reps Alex and Zenab.

The Longest Table main event will be held on Saturday July 22nd. To help create the online buzz – use #forkcancer in your tweets, posts and pics. More information in the THRF section of this newsletter or at [www.longesttable.com.au](http://www.longesttable.com.au)

*Kathryn*



## BHI Off the Clock - Thurs 27 July

The 3rd BHI Off the Clock gathering, sponsored by THRF, will be held on Thursday 27 July from 4pm. Keep your eye out for more details.

# COMMUNITY ENGAGEMENT



the hospital  
research foundation

## Community Group Presentations

THRF are always looking for BHI researchers to present at community events. It is a wonderful opportunity for you to practice your public speaking skills, and present your work to a lay audience! If you are interested or would like some more information, please contact Tamara at THRF on 8244 1100 or [tpietraszuk@hospitalresearch.com.au](mailto:tpietraszuk@hospitalresearch.com.au)

## A/Prof Sarah Vreugde Coast FM - 1 June

Coast FM's David Hearn interviewed **Associate Professor Sarah Vreugde**, from [ENT Surgery](#), about her former work as a surgeon and researcher in Europe. They then discussed the technology behind Deferiprone-CD-gel. Sarah explained how this gel works and why it is being used in a new project aimed at preventing adhesions forming after back surgery [refer to her THRF Development grant at the start of this edition].



## PhD student Bee Pantarat U3A Flinders - 1 June



Bee Pantarat is in the second year of her PhD studies in the Breast Cancer Research Unit at the BHI. She is developing an innovative hydrogel-based delivery system of cancer fighting T-cells for the localised treatment of completely resected or inoperable tumours. On June 1st Bee presented a talk entitled "Adoptive cell therapy: harnessing the body's immune cells to fight cancer" to the University of the Third Age (U3A) Flinders University group. She said "It's important for me to raise awareness and educate the public about cancer immunotherapy. You could not have asked for a better audience than this group. They were engaging, alert and supportive. It was an amazing experience."

## Dr Rosanna Tavella: Pan Arcadian lunch - 4 June

On Sunday 4th June, [Dr Rosanna Tavella](#), spoke at a luncheon held by The Pan-Arcadian group. They raised \$2,500 towards Australian Heart Research.

The Pan-Arcadian group (or "O Kolokotronis") is a Greek community group founded by migrants from Arcadia in the region of the Peloponnese.

This group has a monthly luncheon on the first Sunday of each month, where the members cook traditional Greek Cuisine.





# COMMUNITY ENGAGEMENT CONTINUED

## Pan Arcadian lunch - 4 June continued

Rosanna said “The food was delicious and it was really nice to see people of different cultures, including Italian, Russian, and African being part of the shared lunch.” She continued, “At this luncheon, I spoke about how we set up the CADOSA Registry and use the data to monitor the outcomes of patients living with heart disease in South Australia.”

She gave an example of some early research where they showed that for patients with stable heart disease, being treated with tablets provides the same benefits in terms of reducing the risk of heart attack and reducing chest pain symptoms, as compared to being treated with angioplasty/stenting. “The message from our research findings was very simple but meaningful,” said Rosanna. She said that “The group found this very interesting as many thought having an angioplasty procedure would provide more benefit.”

At the luncheon the group made a generous donation to Australia Heart Research. Rosanna said that she and Tam (THRF) asked for a quick lesson in the Greek language and then responded with “Efcharistó polý” - thank you very much!”



*Rosanna Tavella Sally and Con Fragos, members of The Pan-Arcadian Group*

## Dr Kareeann Khow THRF Public Talk - 15 June



One of The Hospital Research Foundation’s public talk and tours of the BHI was held in mid-June. [Dr Kareeann Khow](#), a specialist registrar in Geriatric Medicine and a PhD student in the Adelaide G-TRAC Centre, gave a presentation about ‘Healthy Ageing’ before participants enjoyed a tour of the BHI labs.

### THRF Grants - media stories

On **June 9** a [story](#) was published in The Advertiser about research by **Professor PJ Wormald** and **Associate Professor Sarah Vreugde** ([ENT Surgery](#)) and Professor Clive Prestidge (UniSA) that is being funded by a THRF Development Grant [see page 4 of this edition].

On **July 6** a Channel 9 news story will feature [Professor John Beltrame](#), lead investigator of the inaugural Basil Hetzel Translational Grant [see page 3 of this edition].

## Year 11 students visit the BHI - 16 June



*Visiting school students help Katharina Richter prepare silver nanoparticles. The students then tested the antibacterial properties of these nanoparticles in their own experiments.*

In April a group of Year 11 students from Tyndale Christian School visited the BHI and heard about some of the research projects [Dr Rosanna Tavella](#) (gender disparity in heart attack), [Katharina Richter](#) (the use of manuka honey and nanoparticles to treat biofilms) and **Joep van Agteren** (development of an app to quit smoking) are working on. The students then developed their own studies and spent the next 10 weeks investigating some of these problems. They returned in June to present their findings to interested staff and students at the BHI.

# GENERAL INFORMATION

## STATISTICIAN AT THE BHI

Dr Stuart Howell works at the BHI on Tuesdays and Thursdays. He is available and can be consulted by TQEH/University of Adelaide Faculty of Health Sciences staff and research higher degree students. Support is limited to 15 hours on a per project basis.



**Tuesdays & Thursdays**  
**BHI Level 1**  
**Room 1E.07**  
**Phone: 8222 6679**  
[stuart.howell@adelaide.edu.au](mailto:stuart.howell@adelaide.edu.au)

Dr Stuart Howell  
Senior Statistician  
Data, Design and  
Statistics Services  
Adelaide Health  
Technology Assessment  
(AHTA)  
School of Public Health  
The University of  
Adelaide

## TQEH Librarians

A librarian from the SA Health Library Service, The Queen Elizabeth Hospital Campus, is available to assist you with constructing suitable literature and database searches for your research requirements and to help you obtain relevant material. AutoAlerts can also be configured by library staff to automatically deliver the latest results from a saved database search directly to your preferred email account.

**Anna or Rachel visit the BHI  
every WEDNESDAY morning  
Level 1, Room 1-E07.**

[anna.holasek@sa.gov.au](mailto:anna.holasek@sa.gov.au) and [rachel.davey@sa.gov.au](mailto:rachel.davey@sa.gov.au)

All BHI staff and researchers are welcome to visit TQEH Library on level 5B of the main building at any time Monday to Friday between 9am-4.45pm. Alternatively, visit our website at <http://salus.sa.gov.au/salus> to view our services and resources or use the quick online chat option to contact us. To access any of the electronic resources you will need to register for a SALUS username and password with the library.

## Roy Sneddon: 1st Thursday of each month

**Roy Sneddon**, from the Office of Research Development and Research Education in the Faculty of Health and Medical Sciences at the University of Adelaide will spend a day at the BHI each month.

He will attend the postgraduate seminars, and be available afterwards to speak to postgraduate students about anything concerning their candidature.

You will find Roy at the Ground Floor hot-desk computer!

Roy can also be contacted at any time:  
[roy.sneddon@adelaide.edu.au](mailto:roy.sneddon@adelaide.edu.au)



# GENERAL INFORMATION CONTINUED

## TQEH Human Research Ethics Committee (TQEH/LMH/MH) Submission and Meeting Dates for Applications 2017

| Final Submission Date | SRS Meeting      | HREC Meeting     |
|-----------------------|------------------|------------------|
| Mon 23 January        | Tues 7 February  | Mon 13 February  |
| Mon 13 February       | Tues 28 February | Mon 6 March      |
| Mon 20 March          | Tues 4 April     | Mon 10 April     |
| Tues 18 April         | Tues 2 May       | Mon 8 May        |
| Mon 15 May            | Tues 23 May      | Mon 5 June*      |
| Mon 19 June           | Tues 4 July      | Mon 10 July      |
| Mon 24 July           | Tues 8 August    | Mon 14 August*   |
| Mon 21 August         | Tues 5 September | Mon 11 September |
| Mon 18 September      | Tues 3 October   | Mon 9 October*   |
| Mon 16 October        | Tues 31 October  | Mon 6 November   |
| Mon 20 November       | Tues 5 December  | Mon 11 December* |

\* Note: If required. Meeting could be moved to alternate HREC if not enough submissions.

**For more information please contact:**

Mrs Heather O'Dea

Executive Officer, Team Leader

Human Research Ethics Committee (TQEH/LMH/MH)

CALHN Ethics Committees

[Heather.O'dea@sa.gov.au](mailto:Heather.O'dea@sa.gov.au) or [health.CALHNResearchEthics@sa.gov.au](mailto:health.CALHNResearchEthics@sa.gov.au)

## CALHN Animal Ethics Committee

| Last date to submit a new application to PRE-SCREEN | Last day to submit final application without PRE-SCREEN | Date of AEC Meeting   |
|---|---|-----------------------|
| 11 January  | 18 January  | Wednesday 1 February  |
| 22 February   | 1 March   | Wednesday 15 March    |
| 5 April   | 12 April  | Wednesday 26 April    |
| 17 May  | 24 May  | Wednesday 7 June      |
| 5 July  | 12 July   | Wednesday 19 July     |
| 9 August  | 16 August   | Wednesday 30 August   |
| 27 September  | 4 October   | Wednesday 18 October  |
| 8 November  | 15 November   | Wednesday 29 November |

contact: Amy Brunato, Secretary SA Pathology/CALHN AEC Committee

[SAPathologyAEC@sa.gov.au](mailto:SAPathologyAEC@sa.gov.au)



# UPCOMING EVENTS

## Volunteer for Science Alive! 2017

Friday 5 August: 9-3pm – years 7-12 students only

Saturday 6 August: 9-5pm – general public

Sunday 7 August: 9-5pm – general public



**All kinds of  
awesome.**

[Science Alive!](#) forms part of the celebrations for National Science Week each August, and is attended by an estimated 20,000 people over the 3 days. Around 60 different organisations will be participating in the 12th Science Alive! that aims to celebrate science and technology in a fun, interactive, dynamic and educational way. It is held at the Adelaide Showgrounds in Wayville. This will be the 4th year that the BHI has participated. The BHI booth will have the same set-up as last year: two “laparoscopic box-trainers”, generously provided by the Royal Australasian College of Surgeons, that people can test their surgical skills on and some spirometers that allow people to measure one aspect of their lung function.

**Please consider volunteering 3 hours of your time helping out at the BHI booth.** It’s easy, it’s fun and no special knowledge or skills are required!

Please send an email to [rebecca.anderson@adelaide.edu.au](mailto:rebecca.anderson@adelaide.edu.au) if you would like to volunteer, indicating which day and time you would prefer (10-1pm, 12-3pm or 2-5pm). Thanks! Volunteers will receive FREE entry to the event (normal cost for adults is \$15 if purchased in advance, children are free).



*Dr Amy Holmes, Therapeutics Research Centre, helping a family with lung function measurements at Science Alive! 2016*

*PhD student Katharina Richter, ENT Surgery, with a girl trying her hand at laparoscopic surgery at Science Alive! 2016*







The Institute

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# July 2017

## BHI Research Seminars

with Invited External Speakers

[www.basilhetzelinstitute.com.au/events](http://www.basilhetzelinstitute.com.au/events)

**Seminars commence at 12pm every Wednesday  
Ground Floor Seminar Rooms, Basil Hetzel Institute, TQEH**

### Wednesday 5 July

**SPEAKER:** Kristy Schirmer, Principal Consultant, Zockmelon Health Promotion and Social Media Consulting

**TITLE:** Communicating research on social media

**CHAIR:** Dr Rebecca Anderson, Communications Officer, BHI, TQEH.  
[rebecca.anderson@adelaide.edu.au](mailto:rebecca.anderson@adelaide.edu.au)

### Wednesday 12 July

**SPEAKER:** Rosy Tirimacco, Operations and Research Manager, Country Health SA – Integrated Cardiovascular Clinical Network

**TITLE:** Improving patient outcomes through technology

**CHAIR:** Dr Rosanna Tavella, Clinical Data Manager, TQEH, Senior Lecturer, Discipline of Medicine, University of Adelaide, Level 2 BHI, TQEH. [rosanna.tavella@adelaide.edu.au](mailto:rosanna.tavella@adelaide.edu.au)

### Wednesday 19 July

**SPEAKER:** Dr Isaac G Sakala, Research Scientist, Vaxine Pty Ltd, Flinders Medical Centre

**TITLE:** Use of microparticulate inulin (Advax™) as an innovative adjuvant for neonatal influenza vaccine

**CHAIR:** Prof Eric Gowans, Head of Virology group, Discipline of Surgery, University of Adelaide, Level 1 BHI, TQEH. [eric.gowans@adelaide.edu.au](mailto:eric.gowans@adelaide.edu.au)

### Wednesday 26 July

**SPEAKER:** Professor Robert McLaughlin, Chair of Biophotonics, ARC Centre of Excellence for Nanoscale Biophotonics, University of Adelaide, and Managing Director of Miniprobos Pty Ltd.

**TITLE:** Survival skills for researchers: papers, collaborations and grants

**CHAIR:** Professor Andreas Evdokiou, Breast Cancer Research Unit, Discipline of Surgery, University of Adelaide, Level 1 BHI, TQEH. [andreas.evdokiou@adelaide.edu.au](mailto:andreas.evdokiou@adelaide.edu.au)

**Please Note:** All Honours and Postgraduate students are required to attend two thirds of BHI Research Seminar Program run between April and October. Attending students are requested to sign the attendance sheet each session. University of Adelaide students attending this seminar gain 1hr CaRST (refer to UoA website).



**The Institute**  
basil hetzel institute for translational health research

**CALL FOR ABSTRACTS**

# **TQEH Research Days**

**Thursday 19 & Friday 20 October 2017**

**Ground Floor, Basil Hetzel Institute, 37a Woodville Road, Woodville**



**2016 Award Winners**

**Abstract deadline: 5pm Monday 21 August 2017**

To submit an Abstract:

- visit <http://www.basilhetzelinstitute.com.au> & read Abstract Guidelines
- visit <https://tinyurl.com/y8o4e96u>
- complete and submit hard-copy of Abstract Certification form

## **Enquiries to: Lisa Leopardi**

Chair, Research Day  
Organising Committee

(08) 8222 6759  
[lisa.leopardi@sa.gov.au](mailto:lisa.leopardi@sa.gov.au)

[www.basilhetzelinstitute.com.au](http://www.basilhetzelinstitute.com.au)  
[www.facebook.com/basilhetzelinstitute](https://www.facebook.com/basilhetzelinstitute)

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# UPCOMING EVENTS CONTINUED

This **Student Open Night** is being held for the third year, and will include displays from each of the Universities with representatives available for potential honours/masters and PhD students to speak with.

Please contact [rebecca.anderson@adelaide.edu.au](mailto:rebecca.anderson@adelaide.edu.au) if you would like to volunteer for an hour or so at the BHI display. Current higher degree research students are especially welcome!



The poster for the South Australian Academic Health Science and Translation Centre Student Open Night 2017 features a central graphic of overlapping circles in various colors (orange, yellow, green, blue) containing icons for a graduation cap, a beaker, a microscope, a DNA helix, a globe, a laptop, and a gear. Below this graphic is an open book. To the right, several colored circles contain text: an orange circle with a gear icon, a pink circle with event details, a green circle with questions for aspiring students, and a blue circle with an invitation to attend. A teal circle in the center provides registration information and a prize. The bottom of the poster displays logos for various partner organizations.

**South Australian Academic Health Science and Translation Centre**

**MONDAY 31 JULY 2017**  
4:30pm – 6:30pm  
SAHMRI Auditorium North Terrace

**ARE YOU AN ASPIRING HONOURS OR PHD STUDENT?**  
WOULD YOU LIKE TO UNDERTAKE A HIGHER DEGREE THAT HELPS TO ANSWER A CRITICAL RESEARCH QUESTION?

**REGISTER BY 21 JULY 2017**  
[studentnight2017.eventbrite.com](http://studentnight2017.eventbrite.com)  
Beer and pizza will be provided - and an opportunity to win an Apple Watch!

The South Australian Academic Health Science and Translation Centre invites you to attend a Student Open-Night to meet with representatives from the three South Australian Universities and SAHMRI to explore your options.  
Learn about the Honours and PhD projects that are available.

Logos at the bottom include: Government of South Australia, SAHMRI, Flinders University, The University of Adelaide, University of South Australia, Flinders Health Centre, phn Country SA, phn Adelaide, HCA SA, and Cancer Council SA.

## WORK, HEALTH & SAFETY

### Working in isolation

Staff and students working in isolation in The Institute after hours should contact TQEH Security on extension 27222 to let them know where you are working and your expected finish time. Contact a housemate or family member and advise them of your expected return home.

You may choose to wear the duress alarms located at The Institute lab entrances and in the Experimental Surgical Suite. To raise alarm hit both buttons.

Remember hazardous work should not be conducted alone after hours, use a buddy system, or schedule for normal working hours.

For more information contact [Kathryn Hudson](#).



# PUBLICATIONS

If you wish to have a recent publication included, please send details to the BHI Communications Officer  
[rebecca.anderson@adelaide.edu.au](mailto:rebecca.anderson@adelaide.edu.au)

Bastiampillai T, Dalwood J, Dhillon R, Tibrewal P. Why not rapid clozapine dose titration? *Asian Journal of Psychiatry*. 26:13, 2017 Apr

Bihari S, Prakash S, Peake S, Bailey M, Pilcher D, Bersten A. ICU mortality is increased with high admission serum osmolality in all patients other than those admitted with pulmonary diseases and hypoxia. *Respirology*. (no pagination), 2017

Bradstock K, Link E, Di Iulio J, Szer J, Marlton P, Wei A, Enno A, Schwarzer A, Lewis I, D'Rozario J, Coyle L, Cull G, Campbell P, Leahy M, Hahn U, Cannell P, Tiley C, Lowenthal R, Moore J, Cartwright K, Cunningham I, Taper J, Grigg A, Roberts A, Benson W, Hertzberg M, Deveridge S, Rowlings P, Mills A, Gill D, Bardy P, Campbell L, Seymour J, Australasian Leukaemia & Lymphoma Group. Idarubicin dose escalation during consolidation therapy for adult acute myeloid leukemia. *Journal of Clinical Oncology*. 35(15):1678-1685, 2017 May

Burke J, Greenslade J, Chabrowska J, Greenslade K, Jones S, Montana J, Bell A, O'Connor A. Two hour evaluation and referral model for shorter turnaround times in the emergency department. *EMA - Emergency Medicine Australasia*. (no pagination), 2017

Hiwase D, Singhal D, Strupp C, Chhetri R, Kutyna M, Wee L, Harrison P, Nath S, Wickham N, Hui C, Gray J, Bardy P, Ross D, Lewis I, Reynolds J, To L, Germing U. Dynamic assessment of RBC-transfusion dependency improves the prognostic value of the revised-IPSS in MDS patients. *American Journal of Hematology*. 92(6):508-514, 2017 Jun

Kirana C, Ruszkiewicz A, Stubbs R, Hardingham J, Hewett P, Maddern G, Hauben E. Soluble HLA-G is a differential prognostic marker in sequential colorectal cancer disease stages. *International Journal of Cancer*. 140(11):2577-2586, 2017 Jun

Ko C-H, Yue G, Gao S, Luo K, Siu W, Shum W, Shiu H, Lee J, Li G, Leung P, Evdokiou A, Lau C. Evaluation of the combined use of metronomic zoledronic acid and Coriolus versicolor in intratibial breast cancer mouse model. *Journal*

*of Ethnopharmacology*. 204: 77-85, 2017 May Marshall-Webb M, Bright T, Price T, Thompson S, Watson D. Venous thromboembolism in patients with esophageal or gastric cancer undergoing neoadjuvant chemotherapy.

*Diseases of the Esophagus*. 30(2):1-7, 2017 Feb

Squire T, Buchanan G, Rangiah D, Davis I, Yip D, Chua Y, Rich T, Elsaleh H. Does chronomodulated radiotherapy improve pathological response in locally advanced rectal cancer? *Chronobiology International*. 34(4):492-503, 2017

Tomusange K, Wijesundara D, Gowans E, Grubor-Bauk B. Human rhinovirus-a1 as an expression vector. *Methods in Molecular Biology*. 1581:181-201, 2017

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**The Institute**

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## A Dinner of Thanks while Fighting to #forkcancer!



*"Forkstar" Belinda with her husband  
Paul and their 4 yr old son, Joshua*

Belinda's world came crashing down when she was diagnosed with breast cancer in October 2016. Although Belinda never felt a lump and there was no known family history, Belinda couldn't ignore the tenderness in her left breast. "For three months something didn't feel right so I finally decided to go to the doctor. Even he couldn't feel a lump but I went for tests anyway and when the results came back I was told I had a two centimetre tumour in my left breast as well as many pre-cancer cells," Belinda explained. "I was in absolute shock. I was told that my cancer was so deep into my chest wall that my doctor said there was no way I would have ever felt it. If I had of ignored the feeling and not had that appointment, my outcome would have been a lot worse."

"I began chemo with my husband Paul by my side and our four and a half year old son, Joshua." Belinda is passionate about advocating for early detection and feels that there shouldn't be an age to start being aware of the risk of cancer. "Cancer doesn't discriminate and there are too many people out there who have the attitude that it won't happen to them so they don't act on anything if they do feel something," Belinda said.

A passionate Belinda is hosting a Longest Table this year to say thank you to her family and friends who have supported her throughout her journey. "I'm very excited to host my longest table and I am looking forward to having a good night with everyone who has helped me along the way," Belinda said. Belinda wants nothing more than to #forkcancer by raising money and participating in this year's Longest Table. She will be putting on a delicious spread of Spanish food and has called her event Great Friends and Good Times. By attending BHI's Long Lunch Table or hosting a Longest Table Dinner of your own, you're supporting the lifesaving work of your cancer research teams at the BHI.

Come on down to the Farmers' Markets at the Adelaide Showgrounds markets and you may even be lucky enough to taste some of the delicious food from the cooking demo by Longest Table Ambassador Bree May!

**WHEN:** Sunday July 9

**WHERE:** Adelaide Showground Farmers' Market Leader St, Wayville

**TIME:** 10am

To find out more about The Longest Table visit: [www.thelongesttable.com.au](http://www.thelongesttable.com.au)

For more information about the Farmers Markets visit: [www.adelaidefarmersmarket.com.au](http://www.adelaidefarmersmarket.com.au)





## Meet our Newest Team member - Serena!



THRF are excited to welcome on board Serena Racar who is our new Events Manager.

Serena will be in charge of running and coordinating all our events including The Longest Table and our Mercer SuperCycle with help from team members, Jody and Tamara. She's very excited to come on board.

You may see her around the BHI so please don't hesitate to say hi!

Serena can be contacted: [sracar@hospitalresearch.com.au](mailto:sracar@hospitalresearch.com.au)

## Gear up for our 2018 Mercer SuperCycle!



It has been another successful year for [Mercer SuperCycle](#). The incredible riders and support crew were able to raise \$405,000 to support country cancer patients and their families for THRF's [Under Our Roof](#) project.

For the first time ever, Mercer SuperCycle for 2018 will be travelling from Melbourne to Adelaide via the scenic Great Ocean Road! Riders will be covering over 1000kms with picturesque views across Victoria and South Australia from the 18th – 24th March 2018.

Online registrations are now open so fill in the [SuperCycle 2018 Registration Form](#) to secure your place!

