THE IMPACT FACTOR

IN THIS ISSUE...

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The Impact Factor is a monthly newsletter highlighting the achievements of the BHI's researchers.

We want to celebrate your success, so please email news and updates to: bhireport@adelaide.edu.au

Dr Basil Hetzel's research linking iodine deficiency with intellectual disability and deformities in infants remains of global significance and an inspiration for today's researchers.

Congratulations Prof Michael Samuel!

Bowel Cancer Australia has announced a team led by Professor Michael Samuel as the successful applicant for a three-year $600k early-onset bowel cancer research project through the 2023 round of Cancer Australia's Priority-driven Collaborative Cancer Research Scheme (PdCCRS).

Professor Samuel of the Centre for Cancer Biology (an alliance between the University of South Australia and SA Pathology) and the Basil Hetzel Institute for Translational Health Research will investigate ROCK-induced early-onset bowel cancer progression.

ROCK, Rho-associated kinase, is an enzyme (protein) found in all of us, that controls the shape and movement of cells within the body. ROCK goes into overdrive in people with bowel cancer, accelerating the growth and spread of the disease. Click here to read more.

A potential new treatment for rheumatoid arthritis that focuses on the gut microbiome

A3BC or Australian Arthritis and Autoimmune Biobank Collaborative is a national biobank launched in 2021 which has been running in Adelaide for the last 3 years, having enrolled 145 participants. BHI is the South Australian node for A3BC

More recently, in association with A3BC, MRFF funding for clinical trial called PROSPECT was awarded. This trial begun in August 2023 having enrolled 4 at TQEH.

The PROSPECT trial is a randomised controlled trial to compare rheumatology drug dose reduction strategies in adults with rheumatoid arthritis and psoriatic arthritis for safer and more efficient drug use. The trial will concurrently address patient and clinician concerns regarding drug safety, efficacy and health system sustainability, with potential to lead to less harms and substantial individual and societal savings. The project will generate new knowledge on RA and PsA low disease activity state and/or remission in the short to medium term while optimising long-term return on investment by following participants longitudinally as a clinical registry/biobank cohort. Clinical and biomarker predictors of successful (or failure) of down-titration strategies will be evaluated.

If you would like to know more, come along to to BHI staff seminar series with Dr Jannatul Tuli 15th May 12.30pm.

" Welcome,
Dr Ramin Hassankhani
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We would like to welcome Dr Ramin Hassankhani, the new SALNH Ryan Hodges Research Fellow, who has joined the **BHI Clinical Pharmacology Research Group**. Ramin will coordinate the ADAPT program (Accurate Dosing of Anti-cancer Patient-centered Therapies), a collaboration between Dr Ganessan Kichenadasse (Flinders University, SALHN) and BHI Clinical Pharmacology.

This work will expand the group's cancer precision-dosing research program focussing on kinase inhibitors, with the aim of translating this to a comprehensive accredited clinical service available for all SA cancer patients.

Ramin holds a PhD in Medical & Health Science from the University of South Australia where his research targeted anti-cancer drug discovery and development with a focus on cyclin dependent kinase (CDK) inhibitors. His research encompassed both preclinical and clinical aspects.

In the preclinical setting, he conducted drug screening programs which involved the in vitro validation of drug action followed by in vivo efficacy assessments, using mouse cancer models. Clinically, he led a program to develop pharmacodynamic and immune biomarkers for a kinase inhibitor in a cancer clinical trial using multi-color flowcytometry.

POTENTIAL LEADERS IN AI

"The Adelaide Score has shown it can successfully predict discharge within a 12-24 hour period, potentially helping to improve patient management in hospitals. However, there are also some limitations with this new technology and it should in no way replace hospital staff."
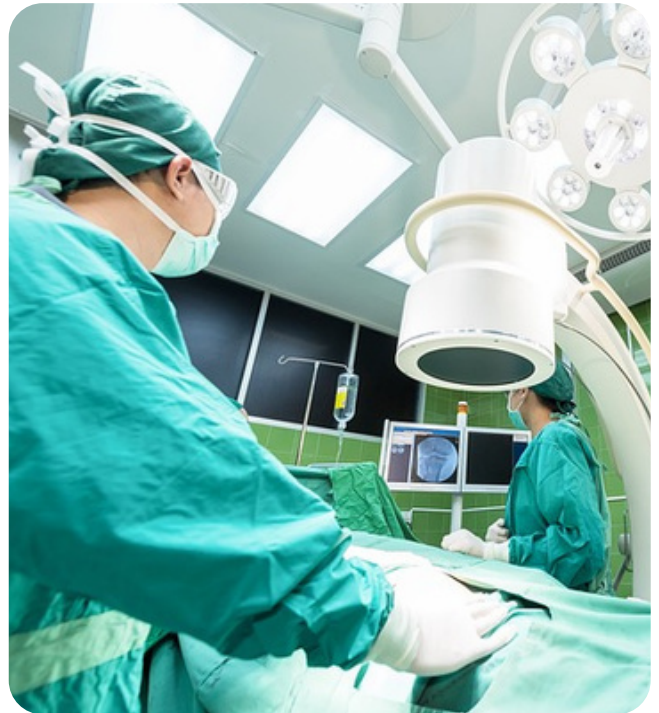
Australia and New Zealand could become international leaders in the safe use of artificial intelligence (AI) in surgery, but first there needs to be guidelines in place to safeguard patients, according to University of Adelaide experts.

Published in the Medical Journal of Australia, the research perspective, which embodied South Australian collaboration, was also authored by researchers from Flinders University. The study defined current views and issues surrounding the use of AI in surgery, ranging from ethical dangers to the opportunities it provides to improve services and patient outcomes in the future.

"There is no doubt that AI has the potential to change surgical services for the better, improving diagnostic accuracy and efficiency," said first author of the study and University of Adelaide researcher Dr Joshua Kovoor from the Adelaide Medical School. "The Adelaide Score algorithm is the perfect example of this as we have shown that it can successfully predict discharge within a 12-24 hour period, potentially helping to improve patient management in hospitals.

"However, there are also some limitations with this new technology and it should in no way replace hospital staff. It should always be used as an assistive tool, and its implementation needs to be carefully regulated."

"Australia has the opportunity to become a global leader in adopting this technology but there needs to be a strict evidence-based approach which reflects international frameworks as well as local factors," Professor Guy Maddern, Adelaide Medical School, University of Adelaide and Director of the Basil Hetzel Institute. Click here to read more.

If you would like to contribute to The Impact Factor, please contact Brooke Sivendra.
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BASIL HETZEL INSTITUTE FOR TRANSLATIONAL HEALTH RESEARCH