



CRC Seremban Bulletin

Issue 1 | July 2022

*Celebrating
milestones*

**Nurturing
Research
Talents Beyond
the Skies**





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Clinical Research Centre Hospital Tuanku Ja'afar Seremban (CRC HTJS)

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Cover photo Dr Chua Aun Aun, Dr Wan Farahiyah Binti Wan Muhmad



About Us



Clinical Research Centre Hospital Tuanku Ja'afar Seremban (CRC HTJS) was established in September 2006. It is part of the Institute for Clinical Research (ICR) network, under the National Institutes of Health, Ministry of Health Malaysia.

Vision

To become a leading clinical research institution in the region.

Mission

To improve patients' health outcomes through ethical and quality clinical research.

We are committed to support and facilitate research activities, via:

- ❖ provision of database on clinicians interested in research – by interest areas, track record on Industry Sponsored Research (ISR) for Investigator Initiated Research (IIR) and publications;
- ❖ provision of technical, administrative and facility support for clinical research activities;
- ❖ assistance in research protocol registration through NMRR (National Medical Research Register) and application of grants for research;
- ❖ participation in clinical trials and other research initiated or coordinated by the national ICR;
- ❖ capacity building with ongoing training and workshops in research.

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Clinical Research Operation

Dr Gan Li Lian

Training & Skills Development

Dr Chua Aun Aun



From the desk of **CHIEF EDITOR**

Welcome to the inaugural issue of the CRC Seremban Bulletin, published by the Clinical Research Centre of Hospital Tuanku Ja'afar Seremban (CRC HTJS). This bulletin aims to provide complete and reliable source of information on the current developments in clinical researches done locally, especially Seremban. Since 2013, CRC HTJS had been organising Negeri Sembilan Research Day on a yearly basis. The emergence of COVID-19 pandemic in 2019 has led to drastic shifts in the way we communicate ideas and learn. To ensure continuity of our outreach efforts, we have decided to publish this bulletin.

In this issue, we feature basic information on clinical research as easy-to-read infographics for beginners in research. Considering the emerging trend of digital health interventions, we shared an article focusing on the key concepts for developing impactful digital health researches. Heartfelt thanks to Dr Lily Mushahar and Dr David Ng Chun-Ern, for graciously accepting our interviews. It is our hope that their stories would inspire more researchers. To encourage and acknowledge the hard work of our local researchers, our bulletin will highlight research outputs by Negeri Sembilan clinical researchers.

I would like to represent the editorial team to thank many people who contributed to the publication of this bulletin. Firstly, special thanks to our hospital director, Dr Zaleha Binti Md Nor and the hospital management team for continuous support in our clinical research activities. Tremendous thanks to Dr Lily Mushahar, the head of unit for CRC HTJS, for dedicating her time and energy in helping us grow; and Dr Noor Lita Adam, our deputy head of unit, for her unwavering encouragement and support. Last, but not least, to all of our clients and readers for believing in our values and their continuous effort in creating a good research culture in the state of Negeri Sembilan.

Dr Gan Li Lian
Clinical Research Centre
Hospital Tuanku Ja'afar Seremban

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Dr Lily Binti Mushahar
Dr Noor Lita Binti Adam

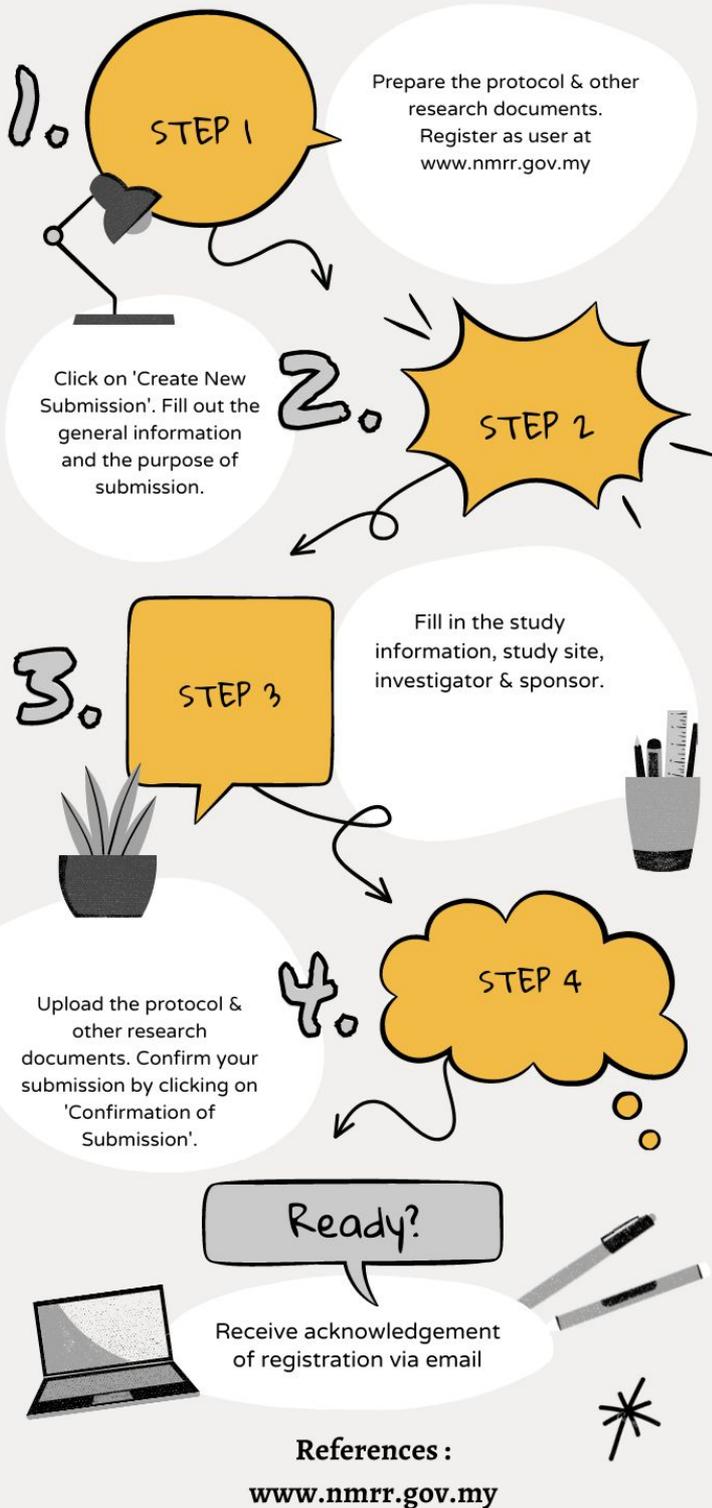
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NMRR Submission



Designed by Dr Ili Najihah Binti Muhammad Amin

FAQs on NMRR

National Medical Research Register (NMRR) - What it is?

The NMRR is a web-based integrated system. It is a one-stop center, allowing research application for study related to MOH. It also serves as a database for all clinical trials that are conducted in Malaysia.

What can investigators apply for using NMRR?

Through NMRR, investigators can submit relevant documents to be reviewed by the respective authorities: Jawatankuasa Penilaian Penyelidikan (JPP), ethical approval by the Medical Research & Ethics Committee (MREC), MOH, MOH Research Grant (MRG) application and for Publication & Presentation Approval by the Director General of Health.

Who can register a clinical trial with NMRR?

All investigators and researchers, from Malaysia, can register a clinical trial with the NMRR. The study team representative (or corresponding person) / principal investigator (PI) / sponsor of the trial are responsible in registering the trial. For multicenter trials, the study corresponding person / lead PI / lead sponsor are responsible for the trial registration.

What are the documents that I need to prepare before registering my study in NMRR?

Documents required for NMRR registration:

- Curriculum vitae (CV) of all study team members (investigators)
- GCP certificate (mandatory for all study team members in interventional study)
- Investigator's Agreement - Head of Department (HOD's) - Institutional Agreement (IA-HOD-IA) form.
- Study related documents: study protocol, case report form, participant information sheet, etc.



Transforming Curiosity to Clarity

Rising star in Research

Dr David Ng Chun-Ern

Consultant Paediatrics Infectious Disease Physician
Hospital Tuanku Ja'afar Seremban

Could you share with us a bit about yourself?

I grew up in a small town in Pahang - Mentakab. I finished my primary school in Sekolah Kebangsaan Abu Bakar, Mentakab. Subsequently, I shifted to Petaling Jaya where I completed my secondary education before going to University Putra Malaysia for medicine.

I was posted to Sarawak for housemanship and spent almost 10 years serving in various hospitals in Sarawak. Then, I was transferred to Seremban for my pediatric infectious disease subspecialty training. Interestingly, Seremban was the town where I was born. I never expected to be posted to Seremban. Negeri Sembilan is indeed a lovely place to live.

Why Paediatric infectious disease?

As a medical student, I had always thought that I would do adult medicine. After my housemanship, I was posted to Miri. I was trained under a paediatrician, Dr Teh Siao Hean, who inspired me to embark on a career in paediatrics. After doing paediatrics for a while, I realised that I like it.

Sarawak is a "gold mine" for infectious diseases. After working in Sarawak for some time, I became naturally inclined toward infectious diseases because of the cases I have seen: Enteroviruses, Japanese encephalitis, melioidosis, tuberculosis, chikungunya, and many others.

We noticed that you have been actively taking part in various clinical research projects, especially so during the COVID-19 pandemic. Can you share with us what drives your interest in clinical research, especially in the recent years?

Most of our research are observational studies driven by curiosity. The COVID-19 pandemic paved the way for many opportunities in research; being a novel virus, affecting every age-group and spreading worldwide. There was so much to discover about the virus, from the science and its virologic properties, to the epidemiology, laboratory aspects, outcomes, risk factors for severity, prevention such as public health measures, vaccination and so on. The possibilities are endless.

Would you share with us your first experience in clinical research?

To recall, my first few attempts of research resulted in failures. We have had many unpublished works. Sometimes, it can be rather demoralising after all the hard work of applying for ethical clearance, data collection, data entry, data analyses, data interpretation, write-up and submission, only to end up with rejection. So, the lesson is, do not give up.

Who inspired you?

The three people who inspired me in research are:

My mum. She is a retired public health doctor. Since my medical school days, she has emphasized the importance of research and continues to give encouragement today.

Dr Ooi Mong How. He is a consultant paediatrician in Sarawak General Hospital with whom I had the privilege to work. His works on enteroviruses and Japanese encephalitis are world-renowned. Dr Ooi has been a great source of inspiration and taught me how research opens up a whole new dimension in clinical medicine.

Dr Tan Kah Kee. I had the privilege of doing my infectious disease training under him before he retired. Dr Tan is also a well-accomplished researcher with multiple publications and has been a constant co-author for many of our recent works.

You have a tight schedule. How do you allocate time to drive your research-related activities?

There is, in fact, very little time. Now and then, I would use up annual leave to complete my research works.

What are the major challenges you have encountered in conducting clinical researches, and how do you deal with that?

The major challenge is still the lack of time for research. Clinical work is very time-consuming. So, much research had to be done post office hours, even on weekends. Most of our studies are observational studies which are technically more manageable. Despite being observational studies, the findings guide clinician decision-making. We had results worth reporting, and we wanted to reach a broader audience; therefore, we publish.

The key to a successful project is good teamwork. Any secret formula for identifying enthusiastic research team members?

Our team of researchers consists mainly of the rotating paediatric ID medical officers. I have been very fortunate and blessed to have enthusiastic medical officers. Sometimes, they even come in on weekends for data collection because of the time constraints on regular working days. Whenever we have a successful publication, it boosts their confidence as well. This spurs them to take part in future research. A lot of credit also goes to them because they worked very hard behind the scenes.



“Always stay curious. Many ideas come from seeing patients and being curious why things behave in a certain way.”

Do you have any dreams about how the clinical research field should evolve for the benefit of your patients?

A lot more research is possible if we digitize our data. Hopefully, we will become more of an IT hospital where the necessary data gets fully recorded in the computer system. I find it much easier to retrieve data when it is digitalized, as opposed to flipping through case notes, which is more tedious and time-consuming.

Any words of advice for our budding researchers?

Do not give up. In the beginning, we would encounter failures for publication. Always stay curious. Many research ideas come from seeing patients and being curious why things behave in a certain way. A good way to start is to enrol in statistical workshops. A good understanding of the basic statistical concepts is essential because it allows us to decide what are relevant data to collect from the beginning. Also, we get a better understanding of the logic behind the research outputs and tables generated. CRC often organizes these courses, so do register for one of them!

Interviewers: Dr Chua Aun Aun (Photography), Dr Gan Li Lian



Key Concepts in Designing Digital Health Interventions with Impact

Dr Gan Li Lian

Digital health interventions (DHI) can be broadly defined as the use of information and communications technology to support health and address other health-related needs.¹

These digital technologies for health, which encompass the use of advanced computing sciences in big data, genomics and artificial intelligence are constantly evolving, with rapidly emerging novel technologies and modalities day-by-day. As such, digital health has emerged as a salient field of

practice, allowing routine and innovative forms of information and communications technology to address various health needs.

Promising applications

DHI have demonstrated promising applications in numerous areas, such as promoting healthy lifestyle behaviours (such as healthy eating, physical activity, smoking cessation and control of alcohol consumption), providing guidance on managing chronic conditions (such as diabetes mellitus, cardiovascular

disease and chronic kidney disease), and allowing remote access to effective treatments for mental health management.²

Despite heightened interests, the employment of DHI for the community at large warrants careful examination based on the evidence of benefits and harms. This is challenging, because the evolution of digital tools is overwhelmingly diverse, and the understanding of their impact on people's well-being and the health systems are relatively limited.

The WHO Bellagio eHealth Evaluation Group also advocated “rigorous evaluation to generate evidence and promote the appropriate integration and use of technologies”, to ensure that alternative, non-digital approaches are given adequate investment and attention.^{1,3}

In the context of constrained resources, the public, patients, clinicians, policy-makers and healthcare authorities should play the role as stakeholders to decide and support the creation of an actionable knowledge base.² This enables identification of the most effective, cost-effective, safe and scalable interventions to improve individual and population health.¹

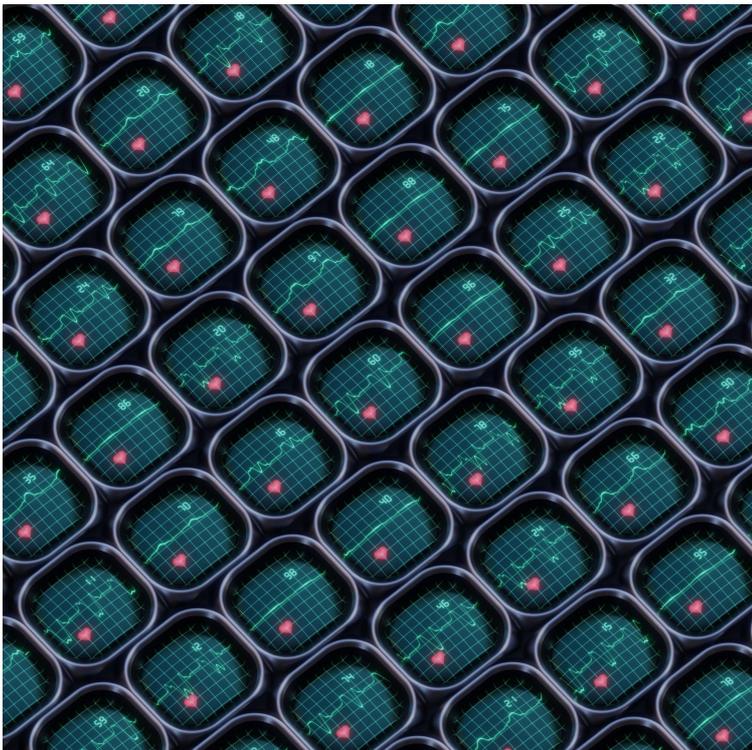
Stages and key considerations during the DHI development process

To ensure success, DHI needs careful planning and a systematic approach for execution. Bradbury *et. al.* proposed a methodological approach which involves three major stages of DHI development, which consists of: (i) intervention planning, (ii) intervention development and usability testing, and (iii) intervention testing.⁴

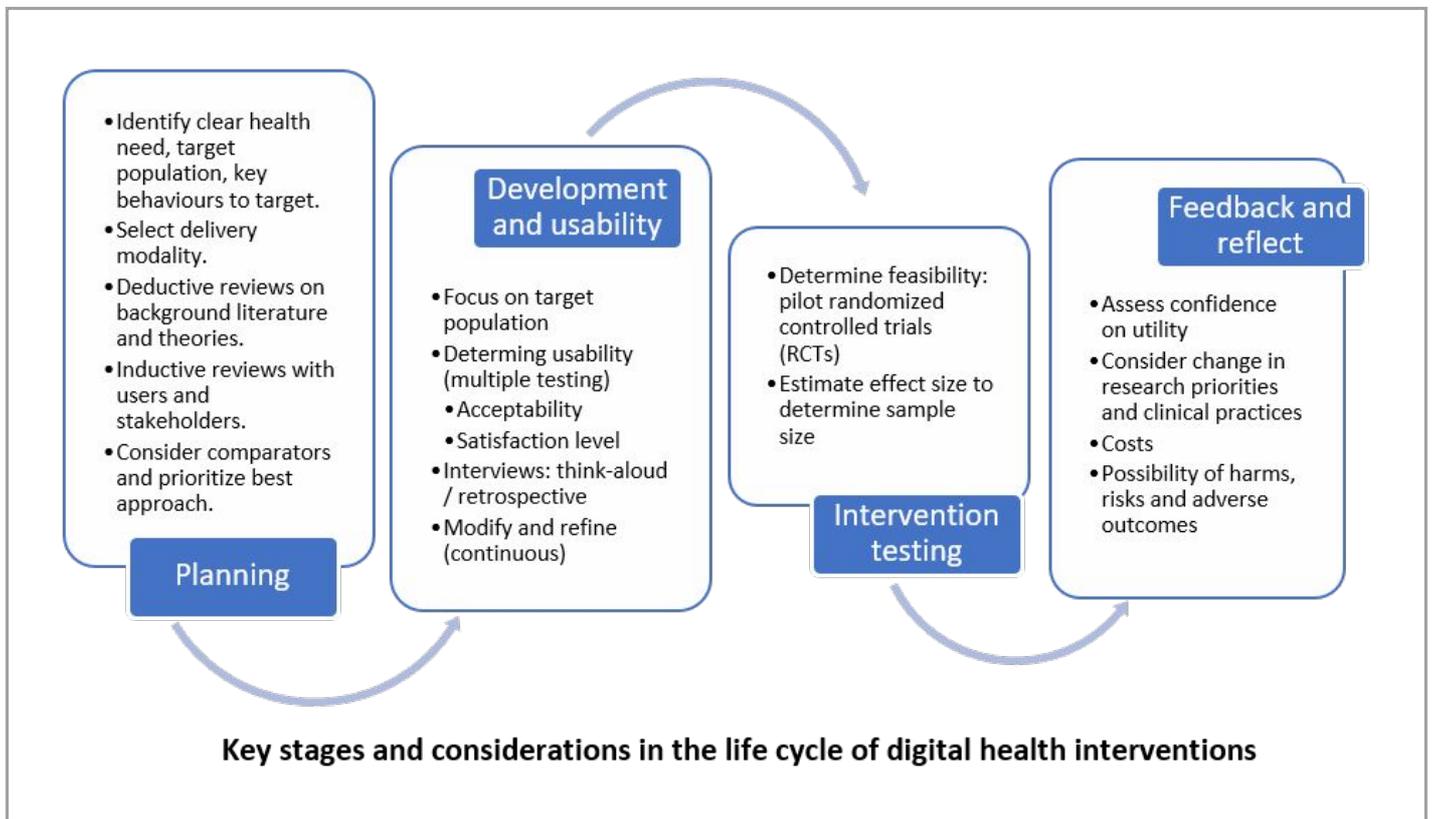
Another approach by Murray *et. al.* emphasizes a research question-driven approach to evaluate digital health interventions as an efficient way to accumulate knowledge based around DHI.²

In essence, both approaches not only complement each other well, they share overlapping similarities that guide the development of an efficient DHI to improve healthcare delivery.

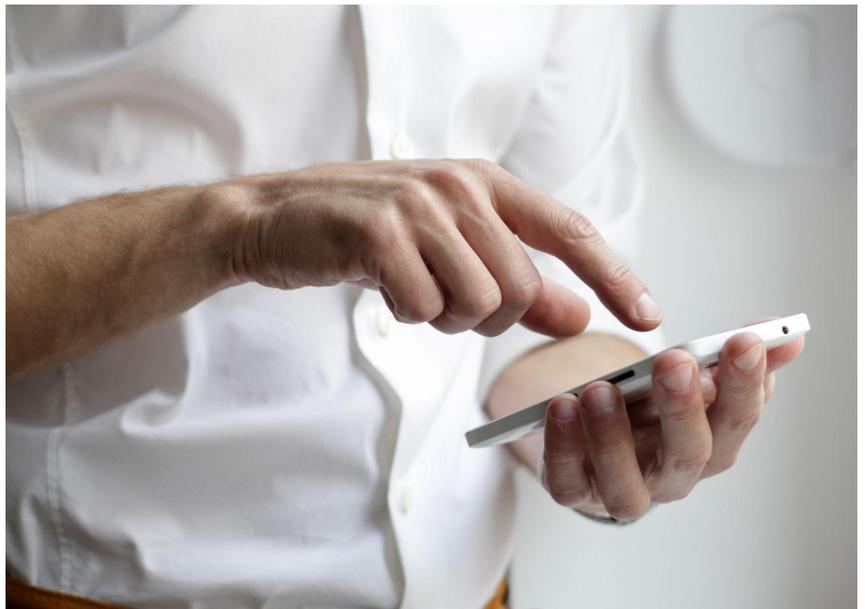
Digital health provides a promising avenue to address limitations in distance and access, it allows scalability and accelerated exchange of information. Albeit that, DHI should not be regarded as a substitute for existing and functioning health systems, because inherent challenges faced by the health system persists, such as suboptimal management, training inadequacies, and limitation of infrastructures, equipment and supplies.



“The public, patients, clinicians, policy-makers and healthcare authorities should play the role as stakeholders to decide and support the creation of an actionable knowledge base.”



Ultimately, a good understanding of the health system challenges that can be helped by digital technologies is crucial. This will allow the seamless integration of digital intervention within the existing health system ecosystems domains: including the overall health workforce, leadership and governance, financing, and access to essential medicines.¹ Altogether, this will enable appropriate decision-making and informed investments to optimize healthcare delivery.



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Research leadership with a growth mindset

Exemplary role model in research
Dr Lily Mushahar



Could you share with us a bit about yourself?

I received my secondary education at Bukit Bintang Girls School before pursuing undergraduate medical studies at University Sains Malaysia (USM). I served as a medical officer in Mersing District Hospital for two years before enrolling in USM Kubang Kerian once again for my Master's degree in Internal Medicine.

What drives your interest in nephrology and research?

My postgraduate dissertation topic was on proteinuria in pregnancy. Under the mentorship of Professor Zainal Darus, I presented the paper at a Cardiology congress in UKM and won the first prize for the oral presentation category. The event boosted my confidence and sparked my interest in research and nephrology.

Later, I pursued my fellowship training in the United Kingdom at the University of North Staffordshire Hospital (2005-2006) under the supervision of Prof. Simon J. Davies. I had the privilege to conduct various researches, attend conferences, write and publish several manuscripts, all with the assistance of Prof. Simon. These activities have sharpened my research skills, while witnessing the impact of the published articles has strengthened my determination to make a difference in healthcare through research.

About Dr. Lily Mushahar

Consultant Nephrologist,
Head of Nephrology Department,
Head of Clinical Research Centre, Hospital Tuanku Ja'afar Seremban
President, Malaysian Society of Nephrology (MSN)

Chair,
Membership Committee of International Society of Peritoneal Dialysis (ISPD)
Committee Member, ISPD Scholarship and Award Committee

Council Member,
Malaysian Society of Diagnostic Interventional Nephrology (MSDIN)

Invited Reviewer for:

Peritoneal Dialysis International (ISPD)
International Journal for Urology & Nephrology (Springer)
Nephrology (Asian Pacific Society of Nephrology)
Clinical Kidney Journal (Oxford Academic)
Renal Failure (Taylor and Francis Online)

Would you share with us your early experience in a clinical trial?

The Study of Heart and Renal Protection (SHARP) in 2012 was a remarkable trial. Sponsored by the University of Oxford, it was an eye-opener for me on how to run clinical trials. Difficulties and challenges encountered during the trial eventually translated to valuable knowledge, propelling my confidence to undertake future trials.

What was your most memorable research experience?

One noteworthy study would be my research on the "Exit-Site Dressing and Infection in Peritoneal Dialysis: A Randomized Controlled Pilot Trial", published in the *Peritoneal Dialysis International Journal*, 2016. Despite being a pilot study, dissemination of the study findings brought impact beyond expectations. The published article made its way to clinical guidelines and garnered attention at the international level. Since then, I was invited to review several international journals. As a reviewer, great satisfaction comes from the experience of learning from others' work and networking opportunities, all of which are priceless.



Dr Lily and her mentors,
Left: Prof Simon Davies and Dr Lily;
Right: Prof Zainal Darus, Dr Fauziah Jaya, and Dr Lily.

(Photographs courtesy of Dr Lily Mushahar)



Who inspired you the most?

Professor Simon Davies. At the time of my fellowship, he was already a well-accomplished researcher, but he would spend time guiding and assisting me with my papers. Often, Prof Simon would trigger new ideas and later assist his trainees with the write-up. His inspiring work ethic is something I am putting into practice in my department to this day. Starting with an idea, I would encourage my trainees. We work together to execute it, and I will assist them in the analyses and writing. I encourage the similar with my nurses and paramedics, getting them to level up their involvement in international research events.

Could you share with us your considerations and major challenges that you have faced when conducting clinical research?

Feasibility. Before taking on any trials, I will perform thorough assessments on feasibility. Because a clinical trial is a team effort, where my team of co-investigators and nurses need to multitask. As a leader, I need to strike a balance between their workload in clinical and research-related tasks.

Patient recruitment. This is a huge challenge, besides ensuring compliance among the patients throughout the trial period. Good communication skill with prospective trial patients is essential. For instance, using layman's terms to directly address patient's needs and concerns, providing clear study goals and outlines, and transparency about the study risks and commitments.

Patient dropout. Patient dropout can be frustrating. However, asking the right questions, listening to the patients' needs, and anticipating their problems, such as logistics or carer support, can help reduce patient dropouts.

You have a tight schedule. How do you allocate time to drive your research-related activities?

Time management is essential. Without protected time for research, I prioritize my professional and personal tasks based on their urgency and importance. Occasionally I have to stay after office hours or bring some work home. For as long as I can remember, I have always pushed myself to work harder and longer. Passion keeps us driving at it and views our goals as achievable.

Do you have any dreams on how the clinical research field should evolve for the benefit of your patients?

We are now moving towards real-world research, where the real-world data is more generalizable to a real-world situation, it also helps inform decisions for patient subgroups that may not be well-represented in clinical trials. I aspire to see the advent of simplified, convenient medication regimes and follow-up plans for the patient. Cybersecurity technologies play a role to help pave the way for functional and safe digital interventions. The traditional way of working is constantly changing; we have to move with the times, then healthcare can benefit from digital health transformation.

Any words of advice for our budding researchers?

Some researchers lack confidence and worry that they lack the knowledge and experience to take up clinical trials. Involvement as co-investigators in clinical trials is an excellent way to start. It provides a good platform to gain knowledge and experience, besides developing their passion to undertake future studies. I encourage my medical officers and staff to participate in clinical trials as this will provide them with the necessary exposure in research.



INVESTIGATOR INITIATED TRIALS VS INDUSTRY SPONSORED TRIALS

Dr Ili Najihah Binti Muhammad Amin

INVESTIGATOR INITIATED TRIALS

ANSWERING A
CLINICALLY RELEVANT
QUESTION (HYPOTHESIS
GENERATING)



FOCUS

INDUSTRIAL SPONSORED TRIALS

DEVELOPMENT AND
APPROVAL OF NEW
DRUGS / MEDICAL
DEVICES

INVESTIGATOR
INDEPENDENTLY
DESIGNS THE TRIAL

DESIGN



PREPARED BY THE
SPONSORS, WITH INPUT
FROM THE
INVESTIGATORS

INVESTIGATORS AS
SPONSORS (MAY SEEK
EXTERNAL FUNDING)



FUNDING

HIGH BUDGET
AVAILABLE BY
SPONSORS

INVESTIGATOR'S
RESPONSIBILITY

REGULATION



INDUSTRY SPONSOR'S
RESPONSIBILITY

INVESTIGATOR



STUDY DATA OWNERSHIP

SPONSOR

Publications

in 2022

Research Title & Authors	Journal (Impact Factor)	Department
January - February		
Shared Decision-Making for a Dialysis Modality <i>Xueqing Yu, Masaaki Nakayama, Mai-Szu Wu, Yong-Lim Kim, <u>Lily Mushahar</u>, Cheuk Chun Szeto, Dori Schatell, Fredric O Finkelstein, Robert R Quinn, Michelle Duddington</i>	Kidney International Reports (10.61)	Nephrology
Effects of Perioperative Oral Nutrition Supplementation in Malaysian Patients Undergoing Elective Surgery for Breast and Colorectal Cancers—A Randomised Controlled Trial <i>Ting Xuan Wong, Wei Xiang Wong, Seong Ting Chen, Shu Hwa Ong, Sangeetha Shyam, <u>Nurzarina Ahmed</u>, Khairul Hazim Hamdan, Rafli Ruzairee Awang, Mohd Razali Ibrahim, Kandasami Palayan, Winnie Siew Swee Chee</i>	Nutrients (5.72)	General Surgery
Heerfordt-Waldenström Syndrome: an under-recognised form of sarcoidosis <i>Kuganathan Ramasamy</i>	Postgraduate Medical Journal (2.40)	Otorhinolaryngology - Head & Neck Surgery
Safety attitudes, burnout and wellbeing among healthcare workers during the COVID-19 pandemic: an Indo-Pacific regional cross-sectional study <i>Abhiram Kanneganti, Benjamin Yq Tan, Nik Hisamuddin Nik Ab Rahman, Aloysius St Leow, Max Denning, Ee Teng Goh, Lucas Jh Lim, Ching-Hui Sia, Ying Xian Chua, James Kinross, Melanie Tan, Li Feng Tan, Yi Min Wan, Arvind K Sharma, Rivan Danuaji, R N Komal Kumar, Chew Keng Sheng, Cheah Phee Kheng, Sarah Shaikh Abdul Karim, Mohd Najib Abdul Ghani, <u>Suhaimi Mahmud</u>, Yiong Huak Chan, Vijay K Sharma, Kang Sim, Shirley Bs Ooi</i>	Singapore Medical Journal (1.36)	Emergency and Trauma

Research Title & Authors	Journal (Impact Factor)	Department
March - April		
<p>Anaemia and its associated factors among pregnant women in Malaysia <i>Halimatus Sakdiah Minhat, Puganeswary Thangarajah</i></p>	<p>Malaysian Journal of Nutrition (0.72)</p>	<p>District Health Office, Jelebu</p>
<p>Case scenario: Management of major depressive disorder in primary care based on the updated Malaysian clinical practice guidelines <i>Uma Visvalingam, Umi Adzlin Silim, Ahmad Zahari Muhammad Muhsin, Firdaus Abdul Gani, <u>Noormazita Mislán</u>, Noor Izuana Redzuan, Peter Kuan Hoe Low, Sing Yee Tan, Masseni Abd Aziz, Aida Syarinaz Ahmad Adlan, Suzaily Wahab, Aida Farhana Suhaimi, Nurul Syakilah Embok Raub, Siti Mariam Mohtar, Mohd Aminuddin Mohd Yusof</i></p>	<p>Malaysian Family Physician (0.71)</p>	<p>Psychiatry and Mental Health</p>
<p>Comparison of Severe Viral Pneumonia Caused by SARS-CoV-2 and Other Respiratory Viruses Among Malaysian Children During the COVID-19 Pandemic <i><u>David Chun-Ern Ng</u>, Kah Kee Tan, <u>Grace Sieng Sing Ting</u>, Chin Ling, <u>Nur Fadzeena Binti Fadzilah</u>, <u>Shir Fong Tan</u>, <u>Thayasher Subramaniam</u>, <u>Nur Emylia Binti Zailanalhuddin</u>, <u>Hui Yi Lim</u>, <u>Suhaila Binti Baharuddin</u>, <u>Yee Lean Lee</u>, <u>Airena Mohamad Nor</u>, Erwin Jiayuan Khoo</i></p>	<p>Frontiers in Pediatrics (3.42)</p>	<p>Pediatrics, Pathology (Microbiology Unit)</p>
<p>Oncologist-led BRCA counselling improves access to cancer genetic testing in middle-income Asian country, with no significant impact on psychosocial outcomes <i>Sook-Yee Yoon, Siu Wan Wong, Joanna Lim, Syuhada Ahmad, Shivaani Mariapun, Heamanthaa Padmanabhan, Nur Tiara Hassan, Shao Yan Lau, Gaik-Siew Ch'ng, Muzhirah Haniffa, Winnie P Ong, Kavitha Rethanavelu, Lip Hen Moey, Wee Teik Keng, Jamil Omar, Mohd Norazam Mohd Abas, Chee Meng Yong, Vickneswaren Ramasamy, Mohd Rushdan Md Noor, Ismail Aliyas, Michael C K Lim, Anuradha Suberamaniam, Noor Azmi Mat Adenan, Zatul Akmar Ahmad, Gwo Fuang Ho, Rozita Abdul Malik, Suguna Subramaniam, Boom Ping Khoo, Arivendran Raja, Yeung Sing Chin, Wee Wee Sim, Beng Hock Teh, Swee Kiong Kho, Eunice S E Ong, Pei Jye Voon, Ghazali Ismail, Chui Ling Lee, Badrul Zaman Abdullah, Kwong Sheng Loo, Chun Sen Lim, Saw Joo Lee, Keng Joo Lim Lim, Mohamad Nasir Shafiee, Fuad Ismail, Zarina Abdul Latiff, Mohd Pazudin Ismail, <u>Mohamad Faiz Mohamed Jami</u>, Suresh Kumarasamy, Kin Wah Leong, John Low, Mastura Md Yusof, Ahmad Muzamir Ahmad Mustafa, Nor Huda Mat Ali, Mary Makanjang, Shahila Tayib, Nellie Cheah, Boon Kiong Lim, Chee Kin Fong, Yoke Ching Foo, Matin Mellor Abdullah, Teck Sin Tan, Doris S Y Chow, Kean Fatt Ho, Rakesh Raman, Ahmad Radzi, Azura Deniel, Daren C Y Teoh, Soo Fan Ang, Joseph K Joseph, Paul Hock Oon Ng, Lye-Mun Tho, Azura Rozila Ahmad, Ileen Muin, Eveline Bleiker, Angela George, Meow-Keong Thong, Yin Ling Woo, Soo Hwang Teo</i></p>	<p>Journal of Medical Genetics (6.32)</p>	<p>Gynaecology</p>

Research Title & Authors	Journal (Impact Factor)	Department
Achalasia cardia: A five-year review in Hospital Tuanku Ja'afar, Seremban <i>Daniel Hong Jeng Chin, Kean Ghee Lim, Hong Shawn Peh, Ismail Abdul Sattar Burud, Mahadevan Deva Tata, <u>Jasiah Zakaria</u></i>	Medical Journal of Malaysia (0.50)	General Surgery
Emergency physician-performed emergency bronchoscopy in cardiac arrest patient due to acute foreign body airway obstruction <i>Osman Adi, <u>Muhammad Faiz Baherin</u>, Chan Pei Fong, Ahmad Abdul Basitz Ahmad Fatan, Azma Haryaty Ahmad, Alhady Alfian Yusof, Faheem Ahmed Khan</i>	The American Journal of Emergency Medicine (2.47)	Trauma & Emergency Department
Isolated Infraspinal Atrophy from a Spinoglenoid Cyst: A Case Report <i>Gomez DN, <u>Zulkahini NF</u>, Ahmad AR, Solayar GN</i>	Malaysian Orthopaedic Journal (0.88)	Orthopaedic Surgery, Sports Medicine
Fall determinants in hospitalised older patients: a nested case control design - incidence, extrinsic and intrinsic risk in Malaysia <i>Fatt Soon Lee, Sondi Sararaks, Weng Keong Yau, Zen Yang Ang, Anis-Syakira Jailani, Zulkarnain Abd Karim, Lin Naing, Thillainathan Krishnan, <u>Ai Reen Chu</u>, Suria Junus, Mohd Shahril Ahmad, Norhayaty Sapiee, Vicneas Wary Veloo, Sangetavani Manoharan, Maimunah A Hamid</i>	BMC Geriatrics (3.74)	Occupational Therapy Department
Anterior Cruciate Ligament (ACL) Reconstruction and Extra-Articular Tenodesis in a Contralateral Above-Knee Amputee Following Complex Trauma: A Case Report <i><u>Vijayaraj RM</u>, <u>Balakumaran M</u>, Ahmad AR, Solayar GN</i>	Malaysian Orthopaedic Journal (0.88)	Orthopaedics
May - June		
Longitudinal Association between Sarcopenia and Cognitive Impairment among Older Adults in Rural Malaysia <i>K Ramoo, Noran N Hairi, A Yahya, W Y Choo, F Mohd Hairi, D Peramalah, S Kandiben, A Bulgiba, <u>Z Mohd Ali</u>, <u>Abdul Razak</u>, N Ismail, N S Ahmad</i>	International Journal of Environmental Research and Public Health (3.39)	Negeri Sembilan State Health Department

Research Title & Authors	Journal (Impact Factor)	Department
<p>Adverse events following BNT162b2 mRNA COVID-19 vaccination among healthcare workers: A single-centre experience in Malaysia</p> <p><i>Li-Lian Gan, Zahidah Binti Abdul Razak, Nur Hazirah Mohd Hazman Teh, Nabilah Huda Binti Kamaluzaman, Nur Aisyah Binti Zulkeplee, Ili Najihah Binti Muhammad Amin, David Chun-Ern Ng</i></p>	Medical Journal of Malaysia (0.50)	Clinical Research Centre, Occupational Safety and Health Unit, Paediatrics
<p>Risk factors associated with household transmission of SARS-CoV-2 in Negeri Sembilan, Malaysia</p> <p><i>David Chun-Ern Ng, Kah Kee Tan, Ling Chin, Xiang Lin Cheng, Thalitha Vijayakulasingam, Damian Wen Xian Liew, Nor Zanariah Zainol Abidin, Ming Lee Lee, Kurubaran Ganasegeran, Erwin Jiayuan Khoo</i></p>	Journal of Paediatrics and Child Health (1.954)	Paediatrics, Pathology (Microbiology Unit)
<p>Multicenter study on the genetics of glomerular diseases among southeast and south Asians: Deciphering Diversities - Renal Asian Genetics Network (DRAGoN)</p> <p><i>Liangjian Lu, Yok-Chin Yap, Duc Quang Nguyen, Yiong-Huak Chan, Jun-Li Ng, Yao-Chun Zhang, Chang-Yien Chan, Mya Than, Isaac Desheng Liu, Sadaf Asim, Khemchand Moorani, Bilquis Naeem, Iftikhar Ijaz, Thi Minh Tan Nguyen, Ming-Lee Lee, Caroline Eng, Syed Saimul Huque, Yong-Hong Ng, Indra Ganesan, Sing-Ming Chao, Siew-Le Chong, Puay-Hoon Tan, Alwin Loh, Sonia Davila, Vikrant Kumar, Joanna Zhi-Jie Ling, Rajesh Babu Moorakonda, Karen Mei-Ling Tan, Alvin Yu-Jin Ng, Kok-Siong Poon, Franz Schaefer, Beata Lipska-Zietkiewicz, Hui-Kim Yap, Kar-Hui Ng, Deciphering Diversities: Renal Asian Genetics Network (DRAGoN)</i></p>	Clinical Genetics (4.104)	Paediatrics
<p>Characteristics and quality of life in pemphigus patients</p> <p><i>Chiaw Ting Tee, Choon Sian Lee, Preamala Gunabalasingam</i></p>	Medical Journal of Malaysia (0.50)	Dermatology
<p>Elder abuse and hospitalization in rural Malaysia</p> <p><i>Muhammad Abbas M Firdaus, Raudah Mohd Yunus, Noran Naqiah Hairi, Wan Yuen Choo, Farizah Hairi, Leny Suzana Suddin, Rajini Sooryanarayana, Norliana Ismail, Devi Peramalah, Zainudin M Ali, Sharifah N Ahmad, Inayah A Razak, Sajaratulnisah Othman, Awang Bulgiba</i></p>	PLoS One (3.24)	Negeri Sembilan State Health Department

“Good writing is clear thinking made visible.”

- Bill Wheeler

CRC Activities

in 2022



Good Clinical Practice (GCP) Workshop
8-10 March 2022



**Introduction to the NMRR System -
Interdepartmental Online CMEs**
February, April 2022



Introduction to Clinical Research (ICR)
Workshop
22-24 March 2022



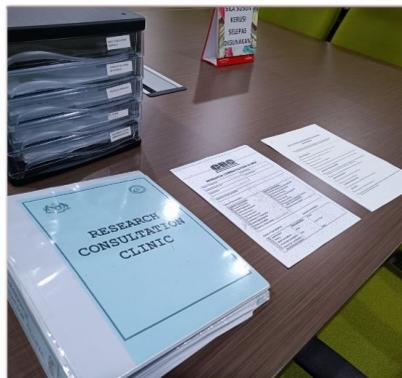
CRC Unit Meeting & Hari Raya Celebration
May 2022

“Some people want it to happen,
some wish it would happen,
others make it happen.”

- Michael Jordan

State Research Meeting with CRC Hospital Tuanku Ampuan Najihah

7 June 2022



Research Consultation Clinic - Open Day

10 June 2022



Basic Statistics Workshop

14-15 June 2022

Upcoming Training Activities in 2022

- **Research Consultation Clinic - Open Day - 29 July**
- **NIH Road Tour - Seremban Stop - 22 August**
- **Good Clinical Practice Workshop - 6-8 September**

Email us at seremban@crc.moh.gov.my for more details.

CRC

HOSPITAL TUANKU JA'AFAR SEREMBAN

Research that matters to patients

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