

## National Conference for Clinical Research: Research That Matters

### Interview with NCCR Poster Finalists

### Swee Tan: A Journey of Discovery

### Why I do research: Check out what young enthusiastic researchers have to say

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# Words from the Editor



It's been a great 2014 in the Networks of CRC. Time flies, a little too fast in fact, for us to grasp all the wonderful events and achievements that we have realized. It is again time for me to summarize all the happenings of the year.

We bade farewell to our two prominent staff – Dr Ho Tze Ming and Dato' Teh Lei Choo – through retirement. However, they have agreed to be independent members of the CRC Network Technical Committee and will be actively involved in training sessions. One of our longest serving staff, Dr. Jamaiah Haniff, has been appointed as the head of

the Malaysia Healthcare Performance Unit, a new unit under the Deputy Director of Research and Technical Support. This year, the CRC network has grown with the establishment of three new CRCs – Hospital Sultan Abd Halim, Sungai Petani, Hospital Pakar Sultanah Fatimah, Muar and Hospital Duchess of Kent, Sandakan. I also saw a closer fellowship among our CRCs through regionalisation efforts. Following the proposal at the second CRC Network meeting in September 2014 to form regional networks, regional meetings have been conducted in the North (Penang, Kedah, Perlis), West (Perak), South (Melaka, Johor), East (Pahang, Terengganu) and in Sabah and Sarawak. With closer collaboration, we hope to achieve greater heights in the years to come.

Many promotional activities have also been organized throughout the country with Research Day in nine states, namely Melaka, Pahang, Negeri Sembilan, Selangor, Sabah, Sarawak, Penang, Kedah and Perak; Research Camps in Kota Kinabalu, Kuching, Sungai Petani, Seremban and Melaka; and Research Retreats for doctors in Oral Health and Ophthalmology. Do check out their photos and write up in MyResearcher Facebook and CRC Facebook pages.

As with CRC's KPI achievements, we had 117 publications, 50% with impact factor above one (refer publications list in CRC website), 170 poster/oral presentations at local scientific meetings and 32 presentations at international conferences. We also had compiled 20 review articles on Major Diseases in Malaysia, published in Medical Journal of Malaysia (MJM) August 2014 supplement issue.

As for our efforts to create awareness on clinical research, we were featured in Penang Monthly magazine and in 6 articles in Berita MMA. In conjunction with NCCR 2014, CRC Sarawak also graced the news in Borneo Talk. Speaking of NCCR, we have managed to create a new record of participants with more than 500 attendees, and a diverse group of speakers from seven countries.

The CRC newsletter has reached one year old with three issues published so far. If you have noticed, our current issue has undergone a facelift to welcome the coming new year with fresh ideas. I would love to see more CRC staff contribute to future issues. Do send in your CRC event photos and summary on articles published so we can share your achievements and updates with others.

It's the time of the year to create new resolutions and I hope you have many great ones in your list already. I'm looking forward to 2015, to its challenges and certainly to more wonderful events and great achievements.

Wishing you a happy and productive 2015!

Dr Goh Pik Pin  
Editor-in-Chief

## NOTICE BOARD

### Memorandum of Agreement signing between MOH, CRM and Quintiles Malaysia for Prime Site Partnership

MOH and CRM recently signed an MOA with Quintiles Malaysia for Prime Site Partnership, a global initiative focused on accelerating the development of new and more effective medicines.

This partnership, involving seven MOH hospitals (HQE II, HRPZ II, HRPB, HSibu, HSB, HTA, and HUS), serves to increase efficiency in recruitment of volunteers for clinical trials and to conduct trials with high quality.

### TV Interview of VENUS Project

The VENUS team, including principal investigators Professor Yuen Kah Hay and Dr Irene Looi were interviewed by

the crew members of TV3 in a news feature that was aired on Buletin TV3 on the 8th and 14th of August 2014. The project is a collaboration between USM School of Pharmaceutical Science and CRC Hospital Seberang Jaya.

### CRC Publications

For the list of CRC publications, please visit <http://www.crc.gov.my/journal/>

## ACHIEVEMENTS

### BABE Accredited Sites

Three sites have been accredited by NPCB to run BABE trials:

- Hospital Seberang Jaya
- Hospital Umum Sarawak
- Clinical Research Ward Hospital Ampang

### Congratulations to our fellow colleagues who recently graduated:

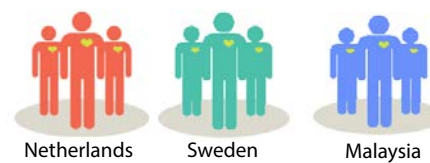
- Ms Chun Geok Ying, Master of Business Administration, Universiti Kebangsaan Malaysia
- Dr Hor Chee Peng, Master of Science in Global Health and Infectious Diseases, University of Edinburgh
- Dr Lai Weng Hong, PhD in Microbiology, Universiti Kebangsaan Malaysia

### 2014 Award for International Group Collaboration to Advance Resuscitation Science

The PAROS network has been accorded the 2014 Award for International Group Collaboration to Advance Resuscitation Science by the American Heart Association and the Resuscitation Science Symposium Planning Committee. The award was presented during the 2014 Resuscitation Science Symposium (ReSS) in Chicago, Illinois, on November 16th 2014.

## THE CHANGING PATTERN OF CATARACT SURGERY INDICATIONS

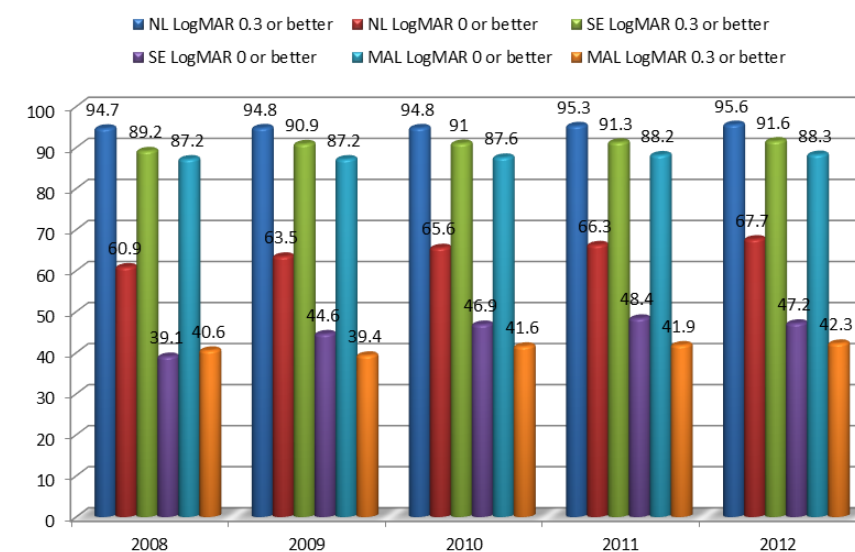
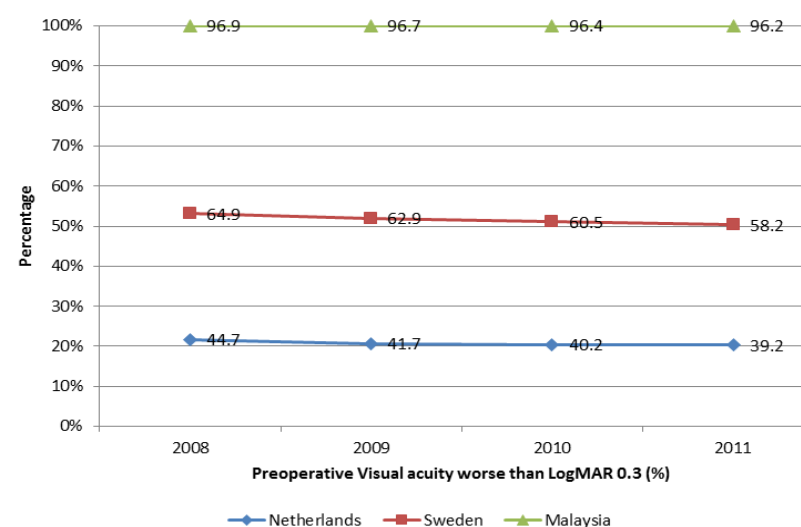
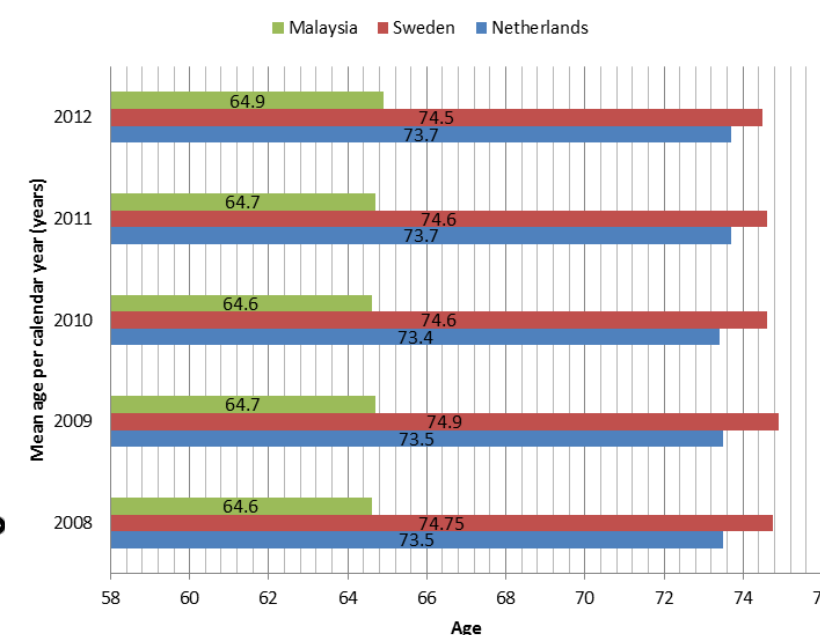
This article is based on 2 national cataract surgery registry databases from 2008 to 2012



European Registry of Quality Outcomes for Cataract and Refractive Surgery (EUREQUO)

Malaysian National Cataract Registry

The mean age of patients in Malaysia (65 years) were much younger than those in the Netherlands (74 years) and Sweden (75 years)



Source:

Lundstrom M, Pik-Pin G, Ype H, Salowi MA, Barry P, Manning S, Rosen P, Stenevi U. (2014). The changing pattern of cataract surgery indications. American Academy of Ophthalmology, 1-8.

# RESEARCH Illustrated

The percentage of patients with pre-operative vision worse than 20/40 or 6/18 equivalent was highest in Malaysia (96%), followed by Sweden (55.5% - 64.9%) and the Netherlands (37.5% - 44.7%). This means that Malaysian patients were presented for cataract surgery at a younger age but have worse pre-operative vision.

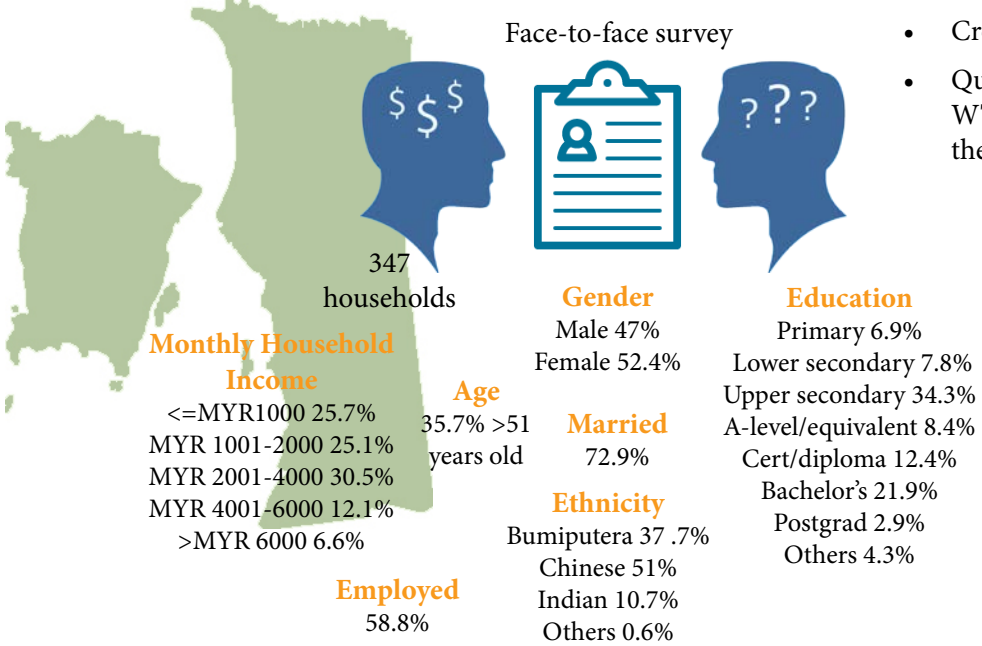
The line chart shows the percentage of patients to be operated on from 2008 to 2012 with pre-operative visual acuity worse than 0.3 logarithm of the minimum angle of resolution (logMar; 20/40) in the eye.

Post-operative vision improved over time from 2002 to 2008 for all the three countries. This improvement slowly decreased over time as the pre-operative visual acuity became better.

Bar graph shows two levels of visual outcome (CDVA: Corrected Distance Visual Acuity), 0.3 logarithm of the minimum angle of resolution (logMAR; 20/40) or better and 0 logMAR (20/20) or better, as a percentage for each year from 2008 to 2012. NL-Netherlands; SE-Sweden; MAL-Malaysia.



EXPLORING THE WILLINGNESS TO PAY (WTP) FOR A QUALITY-ADJUSTED LIFE-YEAR (QALY) IN THE STATE OF PENANG, MALAYSIA



- Cross sectional, contingent evaluation study
- Questionnaire collected information on WTP for one additional QALY to determine the cost-effectiveness threshold value

10 grids were selected randomly from 123 grids of 1 km<sup>2</sup> each overlaid on a Google Map of Penang

Within each grid, direction for initial data collection was determined using a random pen-throw method

510 households approached  
68.04% participated

Participants were asked if they were willing to pay for a medication which would treat a serious illness and give them 1 year of perfect health

The WTP amount was obtained from the participant by using a double-bound dichotomous choice bidding game approach with 3 different starting bids of MYR20k, MYR40k and MYR100k

The mean value of WTP for an additional QALY gained was estimated to be MYR 29,080. The factors associated with a higher WTP amount for a QALY gained were Chinese ethnicity and those whose income were more than MYR 6000

152 participants were not willing to pay

- Reasons**
- Affordability (29.6%)
  - Not worth as the treatment only extends life for 1 year (5.9%)
  - Treatment cost should be covered by government or insurance (3.3%)
  - Others (61.2%)

Using Heckman's two-step approach, the probability of observing a positive WTP was predicted by a binary Probit model in the first step, while in the second step, a quantile regression on the observations above zero WTP was estimated.

Estimated Coefficients of the Heckman Selection Model for WTP/QALY

Independent Variable	Willingness-to-Pay? <sup>a</sup>		WTP Amount <sup>b</sup>	
	Coefficient	Standard Error	Coefficient	Standard Error
Estimated Monthly Household Income(≤MYR1,000=Reference)				
MYR 1,001 – MYR 2,000	-0.2966	0.5854	7812.90	10158.44
MYR 2,001 – MYR 4,000	-0.4726	0.5286	10941.45	10263.07
MYR 4,001 – MYR 6,000	-0.5803	0.5824	25018.07	13789.83
> MYR 6,000	4.1972	-	53765.21*	16198.96
Ethnic(Bumiputera=Reference)				
Chinese	-0.5933	0.4577	21359.67*	9046.06
Indian	-0.3872	0.6439	-1085.06	12410.43
Others	3.7923	-	3598.34	45829.38
Visual Analogue Score	0.0223	0.0121	157.51	297.73
Presence of Disease	-5.3002*	0.5154	-11559.62	10009.43
Satisfaction with Medical Care Received	0.5775	0.5950	7441.04	17352.73
Satisfaction with Medical Care in the Country	-0.1547	0.5518	9747.99	13506.01
Total Expenditure	-0.0001	0.0003	4.7417	3.1720
Constant	11.1472	-	-2515.25	25562.18
lambda	-20874.16	87559.97		
rho	-0.3257			
sigma	64098.61			

<sup>a</sup>Selection equation using Probit  
<sup>b</sup>Ordinary least squares regression incorporating mills ratio obtained from the selection equation  
\*Significant at p< 0.05

**Source:**  
Asrul Akmal Shafie, Yen Wei Lim, Gin Nie Chua, Mohammed Azmi, Ahmad Hassali. (2014). Exploring the willingness to pay for a quality-adjusted life-year in the state of Penang, Malaysia. ClinicoEconomics and Outcomes Research, 6, 473-481.

CHIT CHAT

Why I do research



Mr Mahadevan Deva Tata

Mr Mahadevan Deva Tata, a general and upper gastrointestinal surgeon from Hospital Tuanku Jaafar revealed secrets of his original research ideas. He used an innovative method he creatively called the “Phoenix Method” to brainstorm for research problems. As the originator of the method, he said that one simply needs to pick a subject and identify its immediate surrounding problems, be it diagnostic or management issues. From there, by using mathematic operators such as addition or subtraction, new ideas could be added or redundant or old ideas could be removed from the equation. What remains thereafter are the potential keywords that could lead to further literature search and thus forming a research question.

Another way is to observe the cases that come to you. If there are a large number of certain cases, you may have a diagnostic or management problem. Mr Maha said that you should then ask yourself, ‘How do I better diagnose or manage these patients?’

Mr Maha summed up what drives him to do research as a chance of finding new answers to certain questions and the chance to get new ideas and invention. Although interventional studies are the best for immediate research outcomes, case reports are the bread and butter of surgical research.

“The road to success is always under construction”, Mr Maha depicted, likening the saying to the journey in research. Nonetheless, having a good mentor could smoothen the way out. He advised that one should keep looking for a good mentor until they find one even if it meant that they have to look further, beyond their hospital or country.

Dr Dewi Mayang Sari



Dewi Mayang Sari did not use to like research. A dentist from Pangkor Health Clinic, she claims she never had the knack for subjects such as statistics or epidemiology when she was a student. This changed when she met her mentor during her housemanship in Hospital Sultanah Bahiyah. It was compulsory for every new intern to do research, and although many did not complete it within their 6-month attachment, Dewi's mentor made sure she completed hers. She was granted the chance to attend conferences and to give poster and oral presentations of her research. Because of the encouragement and motivation by her mentor, Dewi still carries the research flame with her and is constantly looking for fresh research ideas. She makes it a point to attend research conferences and to reach out to people who can help her improve her research skills.

For Dewi, the reasons for her to do research are to keep abreast with the latest updates and to fill in knowledge gaps in her field. She wants to make a difference. She has completed one research and is going to carry out another soon. Dewi, who has just sat for her Good Clinical Practice certification, wants to specialise in the research field in the future.



Dr Cheah Wee Kooi

Currently working as a geriatrician and physician in Hospital Taiping, Dr Cheah Wee Kooi was first exposed to clinical research during his years in the university. His project on herbal medications had managed to pique Dr Cheah's curiosity and interest in research. He later met his research mentor in Tan Tock Seng Hospital, Singapore, and during that training, managed to publish his study in a journal which carried an impact factor above 2. In the words of Dr Cheah himself, “It was an accomplishment for me.” He returned to Malaysia and has been actively involved with clinical research ever since.

Just like any researcher, Dr Cheah encountered various setbacks but he persisted and rallied on, holding firmly to the mantra, ‘Never give up’. Time factor also played an important role in determining the outcome of his projects. Being able to dedicate personal time to conducting studies while juggling his responsibilities as a clinician and a family man was certainly a prerequisite

attribute for his success.

Now that Dr Cheah is a prominent figure in the research field, he is taking on the role as a mentor. According to him, proper planning together with good allocation of time is a good initial strategy for new researchers. He would also be more realistic in setting goals in regards to the timeline. Dr Cheah has no plans to halt his rapidly progressing efforts in research. He will be concentrating more in studies related to neuro-cognitive specialties such as stroke and dementia as this is where his interest lies.





Dubbed “part Chinese, part New Zealand and part Jedi” by his former patient, Dr Swee Tan, a Consultant Plastic and Craniomaxillofacial Surgeon at Hutt Hospital, is the man behind the ground-breaking discovery of the treatment of strawberry birthmarks. At the Gillies McIndoe Research Institute (GMRI) where he is the Executive Director, Dr Tan and his team is dedicated to researching regenerative medicine and the cause of disfiguring and life-threatening conditions such as birthmarks and cancer. We got a chance to speak to him during the 8th National Conference for Clinical Research where he was invited as the CRC Named Speaker.

#### A paradigm shift

Dr Swee Tan discovered the gene responsible for the regression of strawberry birthmarks, but his most important discovery was the origin of these hemangiomas from stem cells and how they are controlled by the Renin-Angiotensin system. Because of this breakthrough, a completely new, and most of all, simple concept of fighting a tumour by manipulating the Renin-Angiotension system with an anti-hypertensive drug has been established. Low doses of propranolol or captopril could be used to treat hemangiomas without the risks and side effects of steroids, chemotherapy or surgery.

#### How he got involved

Dr Tan’s interest in hemangiomas was piqued when he went to Harvard to further his training in craniofacial surgery. Up until then, hemangiomas to him was just another surgical condition. It was serendipity, he said. His boss, John Mulliken was a world-renowned expert in vascular birthmarks and while working with him, Dr Tan slowly developed an emotional attachment to studying hemangiomas. He calls his decision to work with hemangiomas a ‘natural choice’. All the treatments developed for hemangiomas at that time were not satisfactory. The other thing about it is that it is a biologically fascinating tumour that grows out of nothing and then slowly regresses. He felt that if he could figure this out and understand the condition better, he could be able to come up with a better treatment.



#### Links to cancer

Because of the similarity between benign tumours and cancer – hemangiomas are benign tumours – a vague concept he had was that if he could unlock the secrets behind the rapid multiplication of tumour cells, he should be able to apply that knowledge to controlling or treating cancer. But what is more important is finding the mechanism that makes the tumour self-destruct. What switches it off? The whole picture became clearer after more work on hemangiomas showed that the tumour is not just a tumour. It was an embryological developmental problem. He decided to test this concept on cancer cells and found embryonic stem cell markers expressed in tongue cancer. “It is remarkable to see embryonic stem cell markers that you normally see during the first 12 weeks of conception in an adult.”

While they have proposed that stem cells from placenta migrated to the foetus and forms hemangioma, no work has been done to prove that cancer has a similar pathology. “What we are saying is that cancer is a problem of stem cells. Now the question is when did they arrive?” They haven’t proven that we are born with cancer stem cells either, but if this is true, the next question would be, can they manipulate them in the same way they controlled

the hemangioma stem cells? “If this is the case then the systems that we will be looking for that manipulates cancer stem cells will be the systems that are similar to the one that manipulates embryological development. If we know that then we can switch them off.”

#### Barriers

Dr Tan, who claimed that he has never thought of giving up before, mentioned funding as his biggest barrier. In the beginning, he had to fund a lot of the work by himself. He would do operations in the day, collect tissue specimens and grow them in the lab a night. “You have to believe that it is important to carry on.” Never short on humour, he joked, “If you know someone who has a billion dollars, tell us about it.”

Jokes aside, research is a serious business. To be able to carry out his research Dr Tan needs money to employ people and to purchase the equipment and materials to work with. Securing funds is difficult as he needs to find people who believe in his ideas before they invest in his research.

He likens research, something that has no guarantee, to space exploration. “You believe that you are going to find something but you may not or what you find may be quite different from what you think you might find.”

#### Motivation

For Dr Tan, relieving human suffering is his motivation. His work is committed to improving his patients’ quality of life. He gets the satisfaction when he sees his patients able to function again and have the confidence to fulfil their potential. “I met a child with hemangioma when she was about seven. She was so shy and never looked at me in the eyes. At the end of a series of treatments, I asked her, ‘Aimee, what are you going to do when you grow up?’ She looked up at me and said, ‘I’m going to college’. It is that change. What was done for her, restored her confidence.” However, he still felt he wasn’t doing enough. The girl still had to put up with the condition for all those years before she got her treatment. He wanted to be able to change that, to treat it early so the child will never ever know there was a problem. Coming up with a better way to manage this so



(left) The photo shows baby Charley-Jean affected by hemangioma on her cheek and eye.

(right) Baby Charley-Jean 5 months after treatment. The birthmark was completely gone without the need to use any harsh medications or surgery.

the child would not have to lose her confidence over a number of years is part of his motivation.

#### Future

A lot more is left to be done for vascular birthmarks. Although the researchers at GMRI now have a basic understanding of the workings behind hemangiomas, there are still many other types that they do not understand properly yet. However, the major focus for them now is cancer. Dr Tan aspires to find a way to control cancer with just some simple medications. He wants to be able to replace the

current harsh treatments with a completely different treatment, perhaps by using oral medications, where patients can stay at home, not in the hospital. “One day you may no longer have surgery, radiotherapy or chemotherapy,” he said optimistically.

#### Making every moment count

This humble man who grew up in a poor plantation village in Malaysia with 13 siblings has never imagined himself to be who he is today. But he imagined that he can achieve if he works hard for it. For him, life is a journey, not a destination. When asked what advice he would give the readers, he said “Believe in your dreams and work for it.”

Infantile hemangiomas, also known as strawberry birthmarks, are a type of vascular tumour that develops in the first few days or weeks of life. Although they can occur anywhere, including the internal organs, they usually occur on the head or neck. The hallmark of hemangiomas is its rapid proliferation within the first few weeks of life before it involutes or regresses in a process that can last several years. Hemangiomas that block off vision or hearing or interfere with breathing will require medical attention.



Dr Tan giving his talk in the 8th National Conference for Clinical Research held in Kuching this year.



2003

First established in 2001, CRC Penang Hospital started functioning as a unit in August 2003. Headed by Dato' Dr Ong Loke Meng, the small unit was located in Block A of Penang Hospital.



In April 2007, they moved to a newly constructed ACC Building. The new premise occupies a section on the 1st floor of the building where they remain until today.

2007

The new premise was launched by the then Director General of Health Y.B. Tan Sri Datuk Dr. Hj. Mohd Ismail Merican.



Office

Computer room

Reception area



Trial Clinic

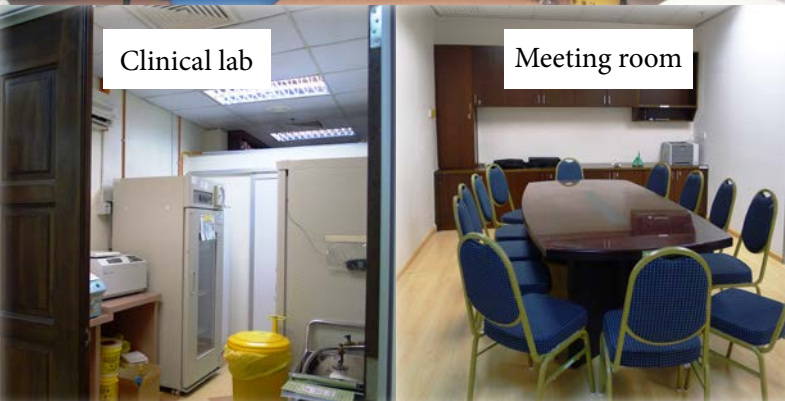


Drug store & Server room

CRC Hospital Seberang Jaya was established in 2011 and officiated by Director of Penang State Department of Health, Dr Hj Lailanor bin Hj Ibrahim, accompanied by Director of National Clinical Research Centre, Dr Goh Pik Pin, on 16 February 2012

2011

# CRC IN Retrospect PENANG



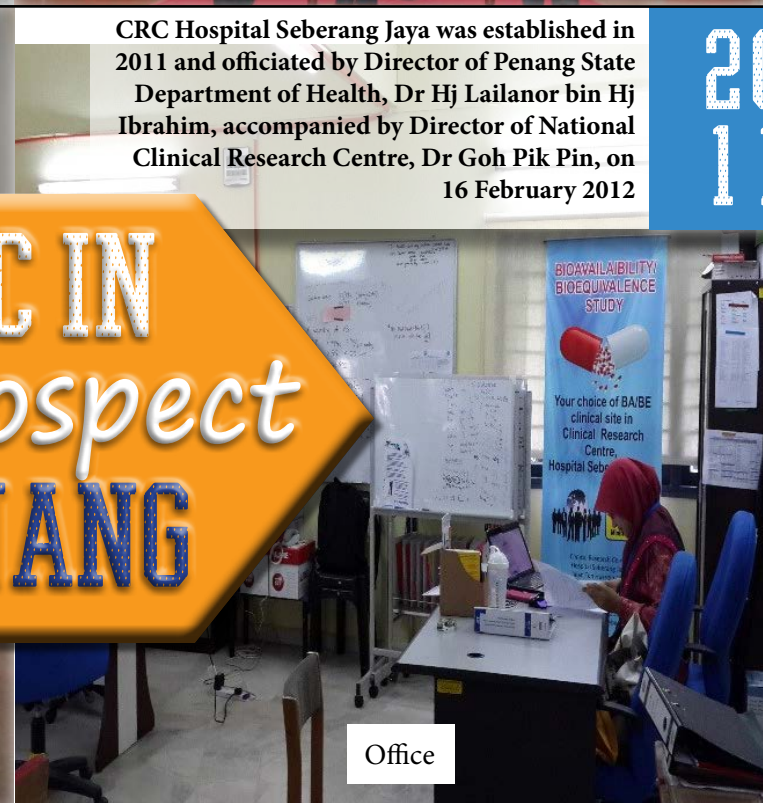
Clinical lab



Meeting room



Clinical trial ward



Office



Meeting area

HSJ Clinical Trial Unit was launched in September 2012. The centre is a fully accredited BABE centre by the National Pharmaceutical Control Bureau, in 2013

2012

The double-storey bungalow is equipped with 24 beds, basic laboratory (-20 degrees Celcius fridge, centrifuge) and emergency support



## CRC PENANG HOSPITAL TEAM



2014

## CRC SEBERANG JAYA HOSPITAL TEAM





The National Conference for Clinical Research (NCCR) is an annual event which celebrates clinical research work done in Malaysia. Ideally aligned with the country's ambitions to generate income from clinical research and pave way for improved health care, the conference aims to assemble local research talents together, sharing ideas and exchanging experiences which can lead to innovative quality researches. For fellow young researchers in Malaysia, NCCR can be said to be the Oscars equivalent for clinical research in the country. Every year, researchers submit their abstracts and enter a poster competition for the title of Young Investigator. First organized in 2007 in Kuala Lumpur, the conference has since seen its numbers grow in terms of participants and abstracts. In line with this, research topics presented by participants have also been more diverse, including interdisciplinary collaborations with public and private sectors, both local and international.

This year, NCCR was held from 30th September to 2nd October and for the first time its venue was in East Malaysia, in Kuching, Sarawak. It also had the most number

## IN THE SPOTLIGHT

of attendees in its history with over 500 registered participants. Spreading its horizons to seven countries, this 8th NCCR hosts speakers from USA, New Zealand, Australia, Japan, South Korea, Singapore and Thailand. With a multidisciplinary range of talks from monkeys and parasites to recipes for successful clinical trial centres, this year's conference is the most diverse yet.

The three-day conference had a line-up of 6 symposiums and seven plenary talks covering topics on Industry Sponsored Research, clinical trial centres of excellence, researches in surgery and infectious diseases and local and international researches that matter to patients. On the first night itself an interactive session was held between inspiring accomplished researchers and young researchers. With Dr Goh Pik Pin as the moderator and Dr Alan Fong, Dr Swee Tan and Dr Stephanie Tan as the team of panellists, the rewarding discussion was attended by close to a hundred young and rising researchers.

### Industry sponsored research

The conference saw speakers talk about industrial trials from bench to bedside. A drug compound on a shelf typically has gone through an arduous journey from its developmental stages in the lab to clinical trials before being approved for sale as a drug. The designs, rationales

and strategies of each phase in a clinical trial presents its own global challenges and must be addressed carefully by the industry. Malaysia has a bright future in industry sponsored trials, however, just like any site, it comes with deficiencies that with dedication, can be improved. The roles and demands of important key players of the early stages of ISRs were also highlighted along with the strengths and weaknesses in conducting ISRs. It is important for sponsors and the site to work together in ensuring patients' compliance and safety. Partnerships in collaborations, duplicating human capital and increasing technical training and awareness are crucial in preparing the country to be more conducive for sponsored clinical trials. MOH's capacity to drive registrations of clinical trials and trial patients and a government initiated central insurance scheme are all vital for the country to move forward as one in industry sponsored research.

### Centre of excellence for clinical trials

Centres of excellence for clinical trials have a few things in common. Good management with an efficient team and collaboration between successful centres are important to achieve sustained growth and continual excellence. These centres of excellence have contributed enormously to the advancing of medical knowledge and technology. Notable trials such as Diabetes Control and Complication Trials (DCCT) and UKPDS study have helped shape the management of diabetes. Progress is also being made in the field of cardiovascular disease (CVD) with the novel concept of thera-diagnostics that combines diagnosis and therapy. The discovery of a proprietary atherosclerosis biomarker (AtherOx) as a potential predictor of adverse CVD outcomes could bring the treatment of cardiovascular diseases to a new level.

The advances brought by centres of excellence for clinical trials are not limited to the development of drugs only. The field of medical devices is no exception. From development to a completed product the field has experienced rapid evolution especially in stent development whereby the current generation of stents (DES) uses newer stent platforms, better polymers and anti-restenotic drug. Some DES are biodegradable with controlled release drug that eventually will leave only the stent platform.

### Research that matters to patients

Several researches that matters to patients were highlighted in this symposium. Among the studies highlighted were the utilization of surrogate markers in therapeutic trials versus direct outcome measures which are conventionally employed. Surrogate markers measure outcomes indirectly. It merely predicts it and must be validated before it can replace a primary endpoint.

However, their use presents several advantages in that it can be measured earlier and more frequently, it is less invasive, it shortens the duration of trials and reduces its cost. Research in stem cells is also slowly making its way into the future of the medical field. Drawing on examples from studies for stem cells in patient with ischaemic heart failure and critical limb ischemia, stem cells have great therapeutic potentials in cardiovascular diseases. It is important to identify public health problems plaguing the country and the flow of management for it. This is where outcome based research plays an essential role in aiding policy making which can have an immense impact of the health status of the public.

### Research in surgery

It was stressed in the symposium that the majority of trained surgeons available in Malaysia were focused in the West Coast of Peninsular Malaysia with Sabah having the lowest density of general surgeons. The supplies of workforce were also not keeping up with the demands and workloads. The speakers also shared their experiences in conducting research in surgery and barriers faced. As it is usually difficult to conduct proper randomized controlled trials in the surgical field, registries play an important role in the future of surgical research. Registries may be the thing to turn to in conducting quality observational research in this field.



Winner of the Young Investigator Award, Mr Lim Yen Wei



Launching of NCCR 2014 with (from left) SGH CRC Head Dr Alan Fong, Asst State Director Dr Jamilah Hashim, Deputy Director-General of Health Dr Shahnaz Murad and NCRC Director Dr Goh Pik Pin



Interactive session panelists (from left) Dr Goh Pik Pin, Dr Stephanie Tan, Dr Swee Tan, and Dr Alan Fong



Enthusiastic audiences of the conference

# NATIONAL CONFERENCE OF CLINICAL RESEARCH 2014





Members of the organising committee

### Research in infectious disease

Outbreak control is a critical decision that requires quick but careful planning. Public health authorities have implemented various interventions to reduce the impact of outbreaks, however some have resulted in unexpected outcomes. For instance, kindergarten closure in the city to contain hand, foot and mouth disease resulted in many of the infected children being sent to their relatives in the villages, thus spreading the infection to children there. Such hotspot shifts from urban to rural settings reflects how local child care culture and behaviour could affect the dynamics of the outbreak.

Being a country located in the tropics, Malaysia is exposed to tropical diseases such as malaria. Discovery of the 5th malaria parasite, *Plasmodium knowlesi*, has revamped malaria epidemiology in the country. Since then, more *knowlesi* malaria cases have been diagnosed and their severity with high mortality were recognized. Local research on management of this disease has been incorporated into the WHO guideline. Japanese encephalitis is also a tropical disease which causes seasonal outbreaks in Sarawak, corresponding to the mosquitoes' breeding season. Over the past decade, immunization programmes in Sarawak have resulted in significant reductions of JE incidence from 9.8 to 4.3 cases per 100,000 population. Following vaccination programme, JE epidemiological characterization has shifted from young children to teenage and young adult populations. Cases reported among patients who had completed the vaccination programme implicated vaccine failure, thus warranting further investigation.

### Malaysian research

Researches done in Western countries may not always be applicable to the Malaysian setting. This symposium introduced researches that were carried out in Malaysia. Recorded history of research in the country had already emerged during the British Malaya days through Leonard Braddon's work on beri beri and Sir Malcolm Watson's efforts in combating malaria. Even then, con-

trolled trials have already been introduced to confirm the causes of beri beri. Fast forward to the present, researches have become an integral part of Malaysia's medical field advancement. Unfortunately, up till three decades ago, we did not have a proper database and many early researches that were published in non-indexed journals could not be retrieved. Several efforts have been put together to collect a list of primary care researches done by Malaysians from 1966 to 2003 and as a result of this a bibliography has been published containing some 1222 papers on primary care researches in the country. Retrievable studies are important not only to add to the knowledge pool but also to yield more accurate systematic reviews. In Malaysia, the Cochrane MDG Project is using best practices from Cochrane reviews in an effort to achieve Millennium Development Goals 4 and 5 in reducing child mortality and improving maternal health. The project aims to assess the implementation of best evidences in reducing mortality indexes in Malaysian MOH and ways to improve them.

The unique characteristic that makes Malaysia different from many other countries is her multi-ethnic population. This allows studies investigating risk factors, incidence and



survival of diseases in different ethnic groups. One such study highlighted in this symposium was on breast cancer. Most of the women presented with breast cancer in Malaysia were already in the late stages. This could be explained by a series of studies that showed Malaysian women to have poor knowledge on the signs and symptoms of breast cancer and do not practice early detection, thus leading to a delay in presentation. Future research directions in breast cancer are broad, ranging from studying risk factors for different cancer subtypes to investigating barriers of genetic counselling and testing.

For more quality publications from Malaysia, adequate funding, training, incentives and research facilities are needed. More awareness can be created through conferences such as the NCCR. The conference this year has been a success and we look forward to the 9th NCCR in Penang next year.



Research posters on display during the conference

# YOUNG INVESTIGATOR AWARD Finalists



WINNER: MR LIM YEN WEI

Mr Lim Yen Wei, winner of the oral presentation for the Young Investigator's Award presented his research on an impressive collaboration project between four member countries of the Health Tech Reassessment Asia-link, namely Japan, Korea, Malaysia, and Taiwan. The idea was generated 3 years ago with the intention to mimic the European effort in generating health cost data and to transform such data to suit local settings.

The study involved health economics experts and policy makers from all the countries involved. The questionnaire was validated and the initial draft of the study was presented to various experts in Ireland and UK for further confirmation of the soundness of its methodology. External statistician was employed to provide assistance with the analysis.

In view of rising health care costs, Mr Lim hopes that the results from this study would be able to help in shaping health policies in Asian countries. He mentioned that this study also helped foster stronger bonds between the four countries and hoped that this can encourage future collaborations.

1ST RUNNER UP: DR IRENE WONG

The first runner up prize was snagged by Dr Irene Wong with her study comparing cefazolin and cloxacillin for catheter related bacteraemia in haemodialysis patients. The idea for the presentation was the brainchild of Dr Irene 2 years ago when she first joined the nephrology team of Hospital Serdang. The objective of the study was to identify an alternative to the current high frequency of administration in view of the difficulties in securing an intravenous route in chronic renal patients.

Being involved in this study, Dr Irene realized that the process of conducting a proper clinical research is certainly no walk in the park. Endless amount of effort was poured into conducting the study from recruitment to data collection and finally to analysis of the accumulated information. From this study, she realized that clinical significance clearly outweighs the emphasis placed upon statistical significance.

Dr Irene hopes to conduct a larger scale study on this topic if she is able to secure funding and more manpower for it. Her ultimate goal is to improve the management of catheter related bacteraemia patients undergoing haemodialysis.



2ND RUNNER UP: MS TAN YEE MUN

With three years working at Hospital Bahagia Ulu Kinta, Yee Mun got chatty with us about her experiences working with psychiatric patients. According to her, more than 70% of the patients in HBUK were diagnosed with schizophrenia and most of them did not take their medications as instructed.

Inspired by the on-going 'Home Medication Review', an effort initiated by Bahagian Perkhidmatan Farmasi, MOH, she realized that she could join an existing homecare team from the hospital to check on patients' medication compliance in a similar fashion. Knocking on these patients' doors were not like any neighbourly experiences. If she were lucky, the patients would be in remission. Otherwise she may be greeted by "unfriendliness", to put it mildly.

But this did not deter Yee Mun from completing a six month study on a total of 133 patients with schizophrenia. She followed them up on anti-psychotic medications compliance by homecare visits. The result of her intervention boasted a positive im-



pact on the overall compliance rates.

Yee Mun aspires to publish her current findings and to extend this study for a duration longer than a year; to investigate employment rates (an indicator of social acceptance) and readmission rates of these patients after homecare visits. She resolves to address this issue of non-compliance with patients with schizophrenia with all the homecare teams nationally.



## CRC HSJ-BUSAN Collaboration Initiative

15th-17th July 2014

The CRC HSJ team visited the Dong-A University, Inje University Busan Paik Hospital, and Pusan National University Hospital clinical research centres in South Korea to seek opportunities for knowledge exchange and collaboration. The team was honoured to have visited the administrative officers of Busan City, i.e. the Manager of Busan Food & Medical Drug Safety Division, and the Director of Busan Medical Tourism Division.



Pusan National University Hospital Clinical Trial Centre



## Transnational Collaborative Neurocognitive Research Initiative

22nd August 2014

The visit from the neurocognitive research team, led by Dr Nagaendran Kandiah, from National Neuroscience Institute (NNI), Tan Tock Seng Hospital, Singapore to CRC Hospital Seberang Jaya has paved the way for a longstanding collaborative research journey on neurocognitive disorders between Malaysia and Singapore. One of the projects is a validation of visual-based cognitive assessment tool (VCAT) in a multi-ethnic society.

## 6th Sarawak State Research Day

12th-13th August 2014

Themed "Re-Engineer Healthcare through Research & Development", the 6th Sarawak State Research Day was hosted by CRC Miri in collaboration with Sarawak State Health Department. The objectives for the research day were to provide an avenue and opportunity for clinicians and for allied health professionals to share their research findings and activities. Besides that, it allowed more interaction and sharing of research ideas between clinicians and health care professionals as well. A total of

102 abstracts was received for the poster competition and oral free paper presentation, held at the Conference & Research Centre, Miri Hospital. Five winners were selected each from Poster Competition, Case Report, and Oral Presentation categories.



Poster judging

**JULY to NOVEMBER 2014**



## 8th National Conference for Clinical Research 2014

30th September - 2nd October 2014

This year, NCCR has broken many of its records. For the first time in its history, the conference was held in East Malaysia, in Kuching, Sarawak. It was also the first time the conference has seen more than 500 participants, with a diverse list of speakers coming from seven different countries. Themed "Research That Matters", the 3-day conference was held in Four Points by Sheraton Kuching and officiated by Dr Shahnaz Murad, Deputy Director-General of Health Malaysia. NCCR has again, succeeded in being one of the most diverse, multidisciplinary venue for clinical researchers to meet, display their work, and exchange ideas.

## 63rd Annual Scientific Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH)

2nd - 6th November 2014

The Infectious Disease Unit, CRC QEH, Sabah organised a symposium titled Plasmodium knowlesi: An Emerging Pathogen of Public Health Importance at the ASTMH Annual Meeting, an internationally recognised meeting on tropical diseases, in New Orleans. Research findings on P. knowlesi in Sabah done by CRC QEH in collaboration with University Malaya, University Malaysia Sabah, Menzies School of Health Research, Darwin, Australia and the London School of Hygiene and Tropical Medicine were presented highlighting the best treatment for P. knowlesi from the ACTKNOW trial funded by MOH. Four themed talks were also presented describing a series of linked, multidisciplinary studies carried out in Sabah to address some key knowledge gaps in P. knowlesi malaria.



Presenters for the P. knowlesi symposium



## 2nd Northern Research Camp

7th-9th November 2014

The 2nd Northern Research Camp was organised in Cinta Sayang Resort, Sungai Petani by CRC Hospital Sultanah Bahiyah, Alor Setar. The camp's main objective was to nurture young and highly potential researchers among healthcare providers in Ministry of Health, Malaysia. Each of the camp's 20 participants presented their proposals to senior researchers from CRC and USM and were guided to prepare good proposals. A beneficial talk on "Cost Effectiveness Analysis" was presented by Dr Bala, a senior lecturer from USM. A camp is not complete without some fun elements. Movie nights with popcorn were infused into the program, screening inspiring movies related to public health research.

## 2nd Sabah Medical Research & Scientific Conference

3rd-4th November 2014

Jointly organised by CRC QEH II, CRC QEH and CRC SWACH, the state's second of such conference aimed to provide a forum for healthcare providers in Sabah to present findings of their research projects, to foster the development of research and presentation skills and to impart updates on research issues to the audience through its keynote lectures. Themed "Research Priorities in Sabah", this annual event saw 10 oral and 12 poster presentations and attended by close to a 100 participants. A panel discussion on the topic "Research That Matters to People in Sabah" was also held with five panellist from CRC, Public Health Department, Sabah State Health



Opening ceremony

Office to discuss the important aspect of research that should be explored especially in communicable diseases and maternal and child health issues.



## CRC Northern Regional Meeting

9th November 2014

The first CRC Northern Regional Meeting was introduced to strengthen the CRC networks in the northern region. The meeting, chaired by Dr Goh Pik Pin and attended by five CRCs from the northern region (Penang, Seberang Jaya, Alor Setar, Sungai Petani and Perlis) was held at Cinta Sayang Golf & Country Resort, Sungai Petani, Kedah. Each CRC presented a SWOT analysis of their centre focusing on four pillars - research, training, consultation and management. Solutions for each centre's weaknesses and limitations were discussed together. Also on the agenda were capacities for training and research collaboration.



# Calendar OF EVENTS

JAN  
2015

## *Research Dialogue: Clinical Research in Dengue - Interaction with Stakeholders*

Date : 27 January 2015, 2.30 - 5.00pm

Venue: Auditorium, Institute of Health Management

FEB  
2015

## *Good Clinical Practice (GCP) Workshop, CRC Melaka*

Date : 26-28 February 2015

Venue: Super Cowboy Hotel, Melaka

MAR  
2015

## *Perak Research Conference 2015*

Date : 6 March 2015

Venue: Auditorium, 4th Floor ACC Building, Hospital Raja Permaisuri Bainun, Ipoh

## *Good Clinical Practice (GCP) Workshop, CRC Seberang Jaya*

Date : 11-13 March 2015

Venue: Malaysian Institute of Pharmaceuticals & Nutraceuticals (IPHARM), Penang

## *CRC Network Meeting*

Date : March 2015

Venue: TBD

MAY  
2015

## *9th National Conference for Clinical Research 2015*

Date : 27-29 May 2015

Venue: Bayview Hotel, Penang

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