

Beyond

PAPRSB Institute of Health Sciences Newsletter

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Universiti Brunei Darussalam

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Yang Berhormat Pehin Orang Kaya Seri Kerna Dato Seri Setia (Dr) Awang Abu Bakar bin Haji Apong, Minister of Education of Brunei Darussalam, visits the poster exhibition during the 9th Malaysia Indonesia Brunei Medical Sciences Conference 2015 held at the Pengiran Anak Puteri Rashidah Sa'adatul Bolkiah Institute of Health Sciences on 11th June 2015

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PAPRSB IHS signs MoUs with two partner medical schools



Dr Maslina Mohsin and Professor Jeremy Bagg at the signing ceremony



Dr Maslina Mohsin and Professor Timothy O'Brien at the signing ceremony

PAPRSB Institute of Health Sciences (IHS), Universiti Brunei Darussalam (UBD) signed a Memorandum of Understanding (MoU) with the National University of Ireland, Galway (NUIG) and University of Glasgow, Scotland on 11th March 2015. The signing took place at the New Extension Building at the PAPRSB IHS, UBD. Signing on behalf of Universiti Brunei Darussalam was Dr Hj Maslina binti Hj Mohsin, the Dean of PAPRSB IHS, while NUIG was represented by Professor Timothy O'Brien, Dean of the College of Medicine, Nursing and Health Sciences, and University of Glasgow was represented by Professor Jeremy Bagg, the Dean of the Dental School. Present to witness the signing were other principal officers and academicians, including Professor Matthew Walters, the Head of Undergraduate Medicine at the University of Glasgow.

NUIG will be joining the IHS as a partner medical school, while the University of Glasgow will be one of the founding members of IHS's partner dental schools. Professor O'Brien hoped the collaboration will enable more students from UBD to explore and exchange academic and scientific knowledge to the benefit of both parties and Brunei. He added that, based on the principles of mutual benefit, the strategic collaborations will serve as a general framework for the establishment of new cooperation between UBD and NUIG.

Dr Hj Maslina said students that pass with a degree in medicine or dentistry are eligible to go to any of the two partner universities but will first have to undergo an interview with the institution. "We are partnered with a few universities so that our students can have more choices. It's all about the preferences of the students," said Dr Hj Maslina. The Dean of PAPRSB IHS said that the agreement would enable more efforts not only in research, but also in teaching as well as staff and student exchanges.

Programme Leader for Graduate and Research Studies Associate Professor Dr Anne Cunningham said the first batch, comprising 11 students, will be going to Glasgow and Galway this year in September to continue their studies.

Additionally, Professors Timothy O'Brien, Jeremy Bagg and Matthew Walters were introduced to the Scholarship Unit at the Ministry of Education, which deal with direct entry medical students. Professor Jeremy Bagg also gave a lecture at the National Dental Centre (NDC), and gave a report to the NDC about clinical oral microbiologists. Both Professors Jeremy Bagg and Matthew Walters also paid a visit to Kampong Ayer and the Brunei River during their trip.

Teaching Excellence Award bestowed on Professor David Koh

David Koh is Chair Professor of Occupational Health and Medicine and also Vice-President (Research and Innovation) and Assistant Vice-Chancellor at the Universiti Brunei Darussalam.

Since joining the PAPRSB Institute of Health Sciences in 2012, he has pioneered several novel teaching strategies, such as the global classroom for occupational and environmental health, held in conjunction with 5 leading Asian universities (NUS in Singapore, SNU in Korea, NTU in Taiwan, UOEH in Japan and UNU in Malaysia). Another of his teaching innovations is the use of integrated exercises for transdisciplinary education, where students from diverse specialist backgrounds work together to solve complex real world problems. He is an engaging and sought after speaker, with numerous invitations to speak at conferences. As an educator, he regularly receives accolades from students and peers for his teaching. For these achievements, Professor Koh was one of only two university academic staff who was awarded the UBD teaching excellence award in 2014.



PAPRSB IHS Student Council Blood Donation Drive



Blood is the most precious gift that anyone can give to another person — the gift of life.

Blood donations are an integral and essential part of our health care system. Without blood donations, many of the medical procedures that we take for granted could not take place. Doctors and surgeons rely on blood donations to carry out a wide variety of life saving and life-enhancing treatments on a daily basis. Therefore there is an increasing demand for blood donors every day.

The Blood Donation Drive is one of the community work conducted every semester by Pengiran Anak Puteri Rashidah Sa'adatul Bolkiah Institute of Health Sciences (PAPRSB IHS) very own student council in collaboration with the Blood Donation Centre, RIPAS Hospital. This Blood Donation Drive carries important objectives that include:

- To assist the Blood Donation Centre, RIPAS Hospital in increasing its blood supply.
- To extend our social welfare services to the public at large.
- To create awareness among UBD students on the importance of blood donation and educate them with regards to this meaningful contribution.
- To encourage Health Science students to contribute to their community.
- To enhance communication skills between students and their community.

At the same time, the student council members also set up exhibition booths displaying relevant health information. In addition, several health screening booths are available whereby blood donors and other visitors to PAPRSB IHS, can have their Body Mass Index (BMI) and blood pressure assessed. The recent blood donation drive on 4th March 2015 was seen as a pilot to conduct the event outside the institute but still within the university compound. This is merely to allow easier access as well as try to increase the number of donors. The blood drive was successfully conducted at the Multi-Purpose Hall near Student Central and we were grateful to have about 80 donors. We hope that the University, the students and the public will continue to support and actively participate in health related events to promote healthy living in our community

Why donate blood?

Safe blood saves lives and improves health. Blood transfusion is needed for: women with complications of pregnancy, such as ectopic pregnancies and haemorrhage before, during or after childbirth; children with severe anaemia often resulting from malaria or malnutrition; people with severe trauma following accidents; and many surgical and cancer patients. It is also needed for regular transfusions for people with conditions such as thalassaemia and sickle cell disease and is used to make products such as clotting factors for people with haemophilia.

There is a **constant need** for regular blood supply because blood can be stored for only a limited time before use. Regular blood donations by a sufficient number of healthy people is needed to ensure that safe blood will be available whenever and wherever it is needed.

Blood is the most precious gift that anyone can give to another person — the gift of life. A decision to donate your blood can save a life, or even several if your blood is separated into its components — red cells, platelets and plasma — which can be used individually for patients with specific conditions.



Staff Profile Agong Lupat



Awang Agong Lupat is a nursing lecturer who started his career in nursing in 1991 and has work experience with the ministry of health as a staff nurse at the accident and emergency department RIPAS Hospital. He took up the position of education officer at the former PAPRSB College of Nursing until 2008 and further his study at University of Southampton and awarded Master of Science in advanced clinical practice. In 2010, he joined Universiti Brunei Darussalam with the merging of college of nursing and institute of medicine which is now known as PAPRSB Institute of Health Sciences.

His teaching background covers area of mental health nursing, medical and surgical nursing, clinical simulation, first aid and evidence based practice.

Since 2011, Awang Agong has been involved in several research project at UBD such as developing a database for selected neurological diseases in Brunei Darussalam—including the BEST study, an epidemiological study which is a collaborative project between Brunei Darussalam and Germany, validation of the Brunei Malay Version of Edinburgh Postnatal Depression Scale and a study of its association with salivary biomarkers of depression among Postnatal Women in Brunei, Mental Health and immune function in selected occupational workforce: salivary biomarkers research in multidisciplinary in Brunei Darussalam and Understanding Women's Experiences with Obesity from the Lens of Gender, Culture, and Race: the Brunei Context".

Research Focus: Developing a database for selected neurological diseases in Brunei Darussalam – Including an epidemiological Study - BEST study.

Hospital surveillance alone is usually inadequate to identify all stroke cases because not all patients present to a hospital, perhaps because of mild stroke severity and expense of hospitalization. Door-to-door surveillance may be the only way to determine the proportion of subjects missed by limiting surveillance to hospitals and the emergency departments. Therefore research teams from PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam headed by Agong Lupat in collaboration with Brunei Neuroscience Stroke and Rehabilitation Centre (BNSRC) together with Krankenhaus Nordwest and University of Heidelberg in Germany lead by Professor Datin Seri Laila Jasa Dr Uta Meyding-Lamadé's to conduct research in the area of Neuroinfections in particular stroke and autoimmune diseases like multiple sclerosis (MS) in Brunei Darussalam. The objectives of this study are; a) To develop a Brunei national Database for neurological diseases, in particular for stroke and MS b) to identify stroke and multiple sclerosis cases by door-to-door survey so that prevalence, incidence, mortality data can be estimated for the study population.



Research team from Germany and Brunei Darussalam

Stroke is the most common neurological condition causing long-term disability and has enormous emotional and socioeconomic consequences in patients, their families and health services. Stroke is the 2nd common cause of death and the permanent leading cause for disability in western Industrial countries. In 2011, WHO reported that 6.15 million people suffer from stroke worldwide.

The epidemiological data of stroke is not available for Brunei population. In order to identify epidemiological data and risk groups in Brunei Darussalam, a house to house survey were conducted with a Modified-version of WHO instrument for assessment of stroke prevalence in developing countries (2011) carried out by trained interviewers over a period of eight months. The study has now completed its first stage that is the data collection of 5064 participants from 84 villages in Brunei-Muara district. Initial analysis of 2991 participants has produced preliminary findings and the results were presented during the 10th International Nursing and Midwifery Conference and Siriraj international conference in medicine and public health Bangkok, 2014. From this preliminary result, it was noted that risk factors for stroke have a high prevalence in Bruneians. The majority has a BMI above the recommended range by WHO (BMI 18.5 – 24.9 kg/m²). There is also high prevalence of hypertension in all age groups. The mean diastolic and systolic blood pressure, in particular for the young age groups, is higher than in several European or North American countries (Wolf-Meier *et al*, 2003).

In conclusion The observations regarding hypertension and body mass index, especially the younger age groups were alarming. Compared to studies from other countries, we found in our study population significantly higher blood pressure in younger age groups. This finding can help public health policy makers to look into the planning and establishing of adequate resources for the diagnosis and the treatment of stroke and establish prevention programs to reduce risk factor prevalence's.

The study will improve the awareness of the public about stroke and other neurological disorders through the survey. Databases developed by this study will help to get statistical data for stroke and multiple sclerosis and will be very helpful to define new quality standards in neurological health care comparing with world standards.

Team-Based Learning—an exciting and innovative approach to learning



Team-based learning—The use of learning teams to enhance student engagement and the quality of student or trainee learning

Team-based learning is a structured approach to learning that emphasizes on communication and interaction between members of the concerned teams during their learning. The breadth module GE-1403 Culture, Society and Science uses team-based learning to deliver contents of the module to students of various faculties who take this module.



Team-based learning being carried out

In TBL students are divided into several teams usually 6 or 7, with each team consisting of 6 to 7 student members. GE-1403 module consists of three main components; Individual Readiness Assessment (IRA), Group Readiness Assessment (GRA) and Group Application Task (GAT). At the beginning of each week students are provided with online preliminary reading materials for which they are tested through IRA, GRA and GAT during the following two weeks. These three assessments are delivered in a MCQ format and marked on the spot.

Learning occurs in two ways. First learning within each team during the GRA and GAT discussion where each team works and discusses together within their team as they answer each question. Second, there is also learning through interaction between all team members in a class discussion for each question following GRA and GAT as facilitated by the relevant member of staff. The final mark obtained by each student is a cumulative mark calculated from the mark they obtain in each of IRA, GRA and GAT. The module has been offered each Semester 1 since 2013 and has been getting positive feedback from students.

Two academic staff from Institute of Health Sciences Associate Professor Dr Mohd Ayud Sadiq (Biostatistics) and Dr Mas Rina Wati Haji Abdul Hamid (Genetics) are members of the teaching staff for this module. The other three teaching staff are Dr Malcolm Anderson (FoS, Astronomy), Dr Siti Norkhalbi Haji Wahsalfelah (ABS, Brunei Culture) and Dr Chris Woo (FASS, Media Communications).



香川大学
KAGAWA UNIVERSITY

The relationship between Kagawa University, Japan and Universiti Brunei Darussalam first began with a courtesy visit by Professor Seiji Shibata to Brunei Darussalam in February 2005. This was followed up by a working visit by Dr. Rafidah Binti Haji Gharif (Part-time Lecturer at the Institute of Medicine, UBD and Senior Medical Officer at the Ministry of Health, Brunei Darussalam) in June 2005. In September 2005, a team from Kagawa University Faculty of Medicine came to Brunei and presented their proposal of academic collaboration between the Kagawa University Faculty of Medicine (KUFM) and the PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam to the Ministry of Health and Ministry of Education, and the proposed programme received encouraging support from both the Minister of Health, Acting Minister of Education, Vice-Chancellor of UBD and also by the Ambassador of Japan to Brunei Darussalam.

Currently, there are two exchange programmes between the Faculty of Medicine, Kagawa University and PAPRSB IHS, Universiti Brunei Darussalam:

1. International Summer Medical School, hosted by PAPRSB IHS, UBD
2. International Winter Medical Seminar, hosted by Faculty of Medicine, Kagawa University

Kagawa University Research Elective Programme



Pengiran Anak Puteri Rashidah Sa'adatul Bolkiah Institute of Health Sciences (PAPRSB IHS), Universiti Brunei Darussalam (UBD) hosted a research elective programme for four medical students from Kagawa University, Japan – Miss Mio Soma, Miss Yoko Yokoyama, Mr Yusuke Shirai and Mr Koichi Sugihara who completed their three-week elective program from 10th February to 4th March 2015.

The research topics studied included diabetes management in Brunei, spleen tyrosine kinase expression in breast cancer, effect of D-allose on inflammation and preparation of herbal extracts where the students were supervised by their IHS lecturers, namely Dr Hjh Mas Rina Wati binti Hj Abd Hamid, Dr Adi Yusri bin DP Hj Idris, Dr Fazean Irdyati Idris and Dr Sheba David.

The Kagawa students were assigned with project buddies to help them with their research as well as social buddies to cater to their welfare needs. During their elective attachment, the students participated in a variety of academic activities such as laboratory work, problem-based learning, clinical and communication skills and also had the opportunity to attend to working visits. For cultural enrichment, they participated in club activities with Brunei Japan Friendly Association-UBD Chapter, which included traditional games and homestay with foster families.

The Kagawa students were able to improve their communication skills throughout their

stay by practising their English with their buddies and during their presentations to their supervisors and academic staff. They were also amazed by the Brunei culture and appreciated the socio-cultural differences between Japan and Brunei. Throughout their stay, the students enjoyed the experience of Brunei culture, tradition and food and were able to visit many places of interest such as Kampong Ayer, The Royal Regalia, Bukit Shahbandar and Taman Peranginan Tasek. They also had the opportunity to observe the 31st National Day Event and enjoyed the Chinese New Year celebrations by going to various open houses coordinated by their buddies.

The elective attachment of Kagawa University Faculty of Medicine students to PAPRSB Institute of Health Science marks an ongoing achievement for Universiti Brunei Darussalam in increasing inbound overseas students in its role as an international university supporting student exchanges and internationalization. In addition, this signifies a strong ongoing concerted partnership between the two institutions in research and academic activities as part of the university's mission in developing the society through cultivation of intellect and culture through collaborative activities.

Letters from Abroad: Discovery year in Edinburgh University

by Amal Widaad

It was exciting at first knowing that we would be doing our discovery year in Edinburgh, United Kingdom as we have never been as far from home before. Undoubtedly the thought of being away from our 'comfort zone' and to spend nearly a year in a country with lifestyle distinctively different from Brunei was nerve-wracking. As told by many, we were too amazed at first by the reserved historical architectures in Edinburgh which indeed creates a really beautiful scenery.



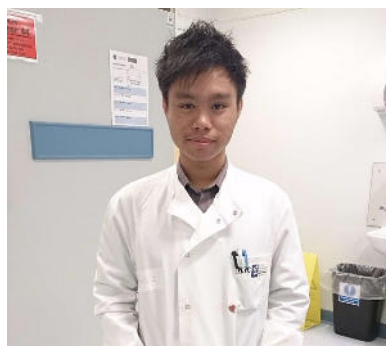
Amal Widaad binti Mohaimin
Final year BHSc Biomedical Sciences
Student

Our internship programme was based in the MRC Centre for Reproductive Health (MRC CRH) within the Queen's Medical Research Institute (QMRI) at the Little France Campus within the University of Edinburgh. CRH is a research centre where several different reproductive disorders are being investigated including fertility, polycystic ovarian syndrome, preterm birth, endometriosis and reproductive cancers. I was there with Muizz and we were placed in Professor Andrew Horne's group, under the supervision of Dr. Erin Greaves. This group focuses on investigating a common gynecological disorder known as endometriosis.

The title of my project there was 'The effects of macrophages on neuroinflammation and nerve growth in endometriosis' while Muizz was working

on the question 'Does hypoxia contribute to macrophage phenotype in endometriosis?'. We gained a lot of laboratory skills, in particular, hands-on experience in performing different types of immunohistochemistries, RNA extraction from mouse peritoneum and endometrium samples, cDNA synthesis and quantitative Polymerase Chain Reaction (qPCR) and the use of regular and confocal microscopes.

In addition, we gained skills in analysing results and data from our experiments which helps us in developing critical thinking. Engaging in these projects has assisted us in managing our time and to plan well ahead so that our work would not interfere with other people's. Moreover, we have gained communication skills from collaborating with other group members and laboratory staffs. Project presentations were conducted in each semester which help us in developing our confidence and our understanding of the projects especially in the question-and-answer sessions.



Abdul Muizz bin Mohammad
Final year BHSc Biomedical Sciences
Student

In our personal perspectives, internship programmes should be continued for all Biomedical Science cohorts at their 3rd Year of study as this may provide them with ideas and a lot of working experience in real laboratory environment. This is important in assisting them in their final year project and also in their career.

Discovery Year at UBD

Experiential learning is the main focus of GenNEXT. As such, students are moved out of their classroom environment to undergo a discovery year. During this discovery year, students will be given the opportunity to gain community-based or international experience outside of the UBD campus.

Students will be able to choose from any of the following options in combination:

- Enroll in a study abroad programme in one of UBD's partner universities.
- Take on an internship with appropriate companies or agencies.
- Plan and implement community outreach programmes.
- Create start-up and innovation enterprises.

The discovery year will develop students personally, academically and professionally, by giving them an opportunity to seriously and thoughtfully engage with local and international communities, and prolonged exposure to the professional workplace and business world.

List of Faculty Publications (Jan to June 2015)

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The Pengiran Anak Puteri Rashidah Sa'datul Bolkiah (PAPRSB) Institute of Health Sciences

Since its inauguration in September 2000, UBD's PAP Rashidah Sa'adatul Bolkiah Institute of Health Sciences has expanded beyond solely providing medical training. Graduate Programmes such as MSc in Primary Health Care, Master of Public Health, and Masters and PhD by Research as well as Undergraduate Programmes across four main disciplines – Medicine, Biomedical Sciences, Nursing and Midwifery are now offered. We ensure the Institute remains relevant and sensitive to the rapidly changing needs of the country. Our programmes are products of a continuous review of our curricula, and indeed, all our undergraduate programmes and diplomas have recently undergone major enhancements and are now also designed to encourage innovation and entrepreneurship, and for students to assume leadership roles, tempered with a keen awareness of the environment.

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