

DIABETES RESEARCH GROUP (DRG)

UNIVERSITI PUTRA MALAYSIA

This group was officially initiated by the Faculty of Medicine and Health Science UPM on the 23rd March 2022.

This group will research on all types of diabetes mellitus but mainly the type 1, type 2 and gestational diabetes mellitus. The thoughts are on setting up a diabetes resource centre like that in Joslin's, Leicester's, etc. The group is also going for collaborations with KKM and international centres on this. Along the way there will be much research conducted to achieve the patient-centred goals.

Group's *modus operandi* that was set and agreed on 23rd February 2022:

1. This group is to take advantage of the faculty's initiative in this research grouping
2. The best researcher among us will be the head of the group. The measure will be following the faculty's criteria in getting the advantage and recognition. Let's make this group as vibrant as possible in terms of leadership.
3. I am aware that the institutions KPI is unavoidable for promotion etc. But I always believe pursuing patient-centred and high-quality research are the best approach to get there. This is why most if not all of us became a physician/surgeon or academician and researcher.
4. Becoming a member of this research group will **NOT** demand you to must include all or any member of this group in your research or **STOP** you from collaborating with others out of this group. New members can be invited to strengthen this group. The existing members can also leave if their research focus has changed.
5. Notwithstanding item 4 above, every member of this group will commit to some agreed 'culture' to pursue and expand diabetes research for the benefits of patients, general public, and of course, scientific communities. This is the culture that is going to hold us together.
6. Even if this group should fail to be 'recognised' by the faculty in any calendar year, I think we should just continue to support each other in diabetes research until the group gets back into the recognition list of the 'significant'.
7. All the above is subjected to improvisation from the group. But let it be always clear.

The members are:

1.	<p>Assoc. Prof. Dr. Chew Boon How [CBH] (JPK) HTTPS://ORCID.ORG/0000-0002-8627-6248 EMAIL: chewboonhow@upm.edu.my</p>	
2.	<p>Assoc. Prof. Dr. Barakatun Nisak Mohd Yusof [BNMY](JD) HTTPS://ORCID.ORG/0000-0003-0403-5895 EMAIL: bnisak@upm.edu.my</p>	
3.	<p>Assoc. Prof. Dr. Subashini C. Thambiah [SCT](JPAT) HTTPS://ORCID.ORG/0000-0001-6939-9185 EMAIL: subashini@upm.edu.my</p>	
4.	<p>Dr. Nurul Iftida Basri [NIB](JOG) HTTPS://ORCID.ORG/0000-0002-3430-0963 EMAIL: nurul.iftida@upm.edu.my</p>	
5.	<p>Dr. Mazatulfazura Sf Salim [MSS](JPR) HTTPS://ORCID.ORG/0000-0002-5635-7063 EMAIL: fazurasf@upm.edu.my</p>	
6.	<p>Assoc. Prof. Dr. Zubaidah Nor Hanipah [ZNH](JSUR) HTTPS://ORCID.ORG/0000-0003-1184-6987 E-MAIL : n_baidah@upm.edu.my</p>	
7.	<p>Assoc. Prof. Dr. Geeta Appannah [GA](JPEM) HTTPS://ORCID.ORG/0000-0003-4636-6529 EMAIL: geeta@upm.edu.my</p>	
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9.	<p>Dr. Azammuddin Alias [AA](JORT) EMAIL: azammuddin.alias@upm.edu.my</p>	
10.	<p>Dr. Dhashani A/P Sivaratnam [DS](JO) HTTPS://ORCID.ORG/0000-0002-4560-0419 EMAIL: dhashani@upm.edu.my</p>	
11.	<p>Dr. Ng Ooi-Chuan HTTPS://ORCID.ORG/0000-0003-4240-7661 EMAIL: ngooui@upm.edu.my</p>	

The following are the tentative plans of DRG to promote reputation of the group's members in diabetes research and medical services through setting up a cross-discipline Diabetes Resource & Research Centre (DRRC).

DIABETES RESOURCE & RESEARCH CENTRE (DRRC)

HOSPITAL PENGAJAR UNIVERSITI PUTRA MALAYSIA (HPUPM)

OVERARCHING AIMS:

1. Provide evidence-based therapy and education to people with diabetes mellitus
2. To produce high-quality scientific research and medical evidence

	A. Telemedicine	B. Mobile Clinic	C. Physical DRRC
Why?	<ul style="list-style-type: none"> Digital health is the future. Better access of healthcare. A service that is relatively easier to initiate. 	<ul style="list-style-type: none"> To deliver tertiary care to the challenged community or the hard to reach people. Improve health equity. An extension of the physical DRRC. 	<ul style="list-style-type: none"> Providing the healthcare needs of HPUPM's clients. Function as the operation base.
Clinical services	Multidisciplinary teleconsultation	Multidisciplinary clinical consultation and pharmacy	Multidisciplinary clinical consultation
Education & counselling	<ul style="list-style-type: none"> Dietary and physical exercise education, and cognitive-emotional and psychosocial counselling. May include pharmacists, lay experts in peer-to-peer support program and cognitive behavioural therapy. Demo. 		
Clinical & biomedical research	Digital health, AI, ML, block chain, etc	TBD	<ol style="list-style-type: none"> 1. COVID-19 and incidence of type 2 diabetes 2. MYGODDESS Project 3. ... 4. ...
Logistics	<ol style="list-style-type: none"> 1. Desktops / laptops 2. 5G connection 3. A coordinator / manager 	<ol style="list-style-type: none"> 1. A bus or trailer converted to a clinic set-up 2. A coordinator / manager 3. Driver 	<ol style="list-style-type: none"> 1. A space in HPUPM or a cabin / prefabricated modular space 2. Admin staffs 3. Diabetes educators 4. Post-docs / Research officers 5. Postgraduate students
General Strategy	<ul style="list-style-type: none"> 1st priority To sort out the technical, ethical and legal aspects of teleconsultation Sponsorship on the equipment and internet connection To obtain research grant to initiate the service Organised and sponsored health webinars (by pharma etc) for the professionals and the public 	<ul style="list-style-type: none"> 3rd priority (or 2nd) Relied on availability of sponsorship To sought funding and sponsorship from government / politicians or private companies or philanthropists To learn about the regulatory terms and business model 	<ul style="list-style-type: none"> 2nd priority (or 3rd) Longer-term after DRG matures (?) To discuss with hospital administration for support, or To obtain research grant to initiate renting of a space and hiring of staffs Organised and sponsored workshops and health campaigns (with pharma etc) for the public

<p>Small and impactful activity</p>	<ol style="list-style-type: none"> 1. University to create a DRRC website, social media presence, etc to increase professional reputation among colleagues and the public 2. To set-up teleconsultation by HPUPM 3. Regular webinars to increase professional reputation of DRRC 4. To broaden the service to wider clients by participating in existing online platforms to increase income/revenues and professional reputation 	<p>TBE To explore with pharma or private companies</p>	<ol style="list-style-type: none"> 1. To set-up shared clinic service in the current respective clinic to increase professional reputation among colleagues 2. ToT workshops for colleagues sponsored by pharma or private companies to increase income/revenues and professional reputation 3. Health campaigns or awareness days for the public with pharma or private companies increase professional reputation
<p>Initiatives to grow DRRC</p>	<ul style="list-style-type: none"> • To get post-doc, postgraduate students • To plan high-quality clinical / biomedical research in DM and to get research grants • To communicate with the local established diabetes centres e.g. NADI • To collaborate with local diabetes experts / entities e.g. Unit NCD MOH • To collaborate with international diabetes centres • To publish articles to increase reputation • To issue alerts and calls to colleagues and public 		
<p>Strategic partners</p>	<ul style="list-style-type: none"> • Renown diabetes centres (see the list below) • Pharmaceutical, nutritional and health products companies • Private companies for CSR programs • Hospital and university administration • Research grant providers / funders – national and international • Communities and philanthropists 		

TBD= to be decided, TBE= to be elaborated

Similar centres

1. [Diabetes Education and Research Center: HOME](#)
2. [CDNRC : Diabetes & Endocrine Unit - IMR](#)
3. [Diabetes Research Center](#)
4. [Diabetes Centers | NIDDK](#)
5. [Diabetes Research Institute | Solely Focused on Curing](#)
6. [Joslin Diabetes Center – World Leader in Diabetes Care](#)
7. <https://www.leicesterdiabetescentre.org.uk/about>

Research projects and activities currently undertaken by the group's members:

As the project lead [co-member's initial]:

Chew Boon How:

1. The **Malaysian Gestational Diabetes and Prevention Of Diabetes Study (MYGODDESS)** [BNMY, NIB, MSS]
 - i. Exploring the perception of need, importance and acceptability of diabetes prevention interventions including a digitalized app in women with Gestational Diabetes Mellitus and their healthcare providers in Malaysia (Explore-MYGODDESS). NMRR-20-750-53235. [BNMY, NIB, MSS]
 - ii. Risk factors for the diagnosis of gestational diabetes mellitus in different trimesters and their relation to maternal and neonatal outcomes (GDM-RIDMAN): a retrospective cohort and nested case-control study NMRR-20-3000-57095. [BNMY, NIB, MSS]
 - iii. A mobile phone application for the prevention of type 2 diabetes in Malaysian women with gestational diabetes mellitus: a protocol for a feasibility randomized controlled trial. NMRR-21-1667-60212; NCT05204706 [BNMY, NIB, MSS]
2. Diabetes-specific quality of life and its correlates among 1184 adults with type 2 diabetes in 12 public health clinics in Kedah Malaysia (EDIPEQS-DQOL): a cross-sectional study
3. Patient assessment of chronic illness care and its correlates among 1185 adults with type 2 diabetes in 12 public health clinics in Kedah Malaysia (EDIPEQS-PACIC): a cross-sectional study

Barakatun Nisak Mohd Yusof :

4. Calculated Dietary Glycemic Index, Glycemic Load and Prevalence of Diabetes Mellitus Among Women with History of Gestational Diabetes Mellitus. [CBH]
5. Nutritype signatures of women with previous history of GDM [GA]
6. Ramadan Nutrition Plan for Diabetes
7. Effect of Medical Nutrition Therapy on Weight Loss Outcomes among Metabolic Obesity Patients [ZNH]
8. Using virtual reality for interprofessional education among Health Sciences students [CBH, ZNH]

Dhashani Sivaratnam:

9. Knowledge, attitude and practice towards the management of diabetic retinopathy among primary care doctors in Malaysia: a web-based cross-sectional study.

Geeta Appannah:

10. Associations between empirically derived dietary patterns and insulin resistance among adolescents in Southern Malaysia: Findings from Putra-Adol Study

Zubaidah Nor Hanipah:

11. Molecular, metabolomic and nutritional changes after metabolic surgery among obese diabetic patients and biomarkers of different diabetes status. NMRR-20-2496-56353 [BNMY]
12. Comparative study of liver fat analysis in 1H magnetic resonance spectroscopy and liver histology in obese patients with metabolic syndrome [with Dr Hasyma- radiology]

As a project member [co-member's initial]:

Chew Boon How:

1. Primary Care Physicians Perceived Barriers in Management of Type 2 Diabetes Mellitus in Malaysia: A Nationwide Cross-Sectional Survey
2. Fasting Practice by Type 2 Diabetes Mellitus Patients during Ramadhan in Primary Health Clinic

Project under development [co-member's initial]:

Chew Boon How:

1. A Continuous Blood Glucose Estimation Model using Gait Profile for Non-invasive Monitoring of Type 2 Diabetes Mellitus
2. The effectiveness of low carbohydrate diets for the remission of type 2 diabetes mellitus (LOCARD): study protocol for a randomised controlled trial. [BNMY, SCT]
3. The effectiveness of low carbohydrate diet using behavioural economic approach for the remission of prediabetes (LOCPredM): study protocol for a randomised controlled trial

Lee Yee Lin:

4. New Onset Diabetes and Predictors of Diabetic Ketoacidosis among Children in Selected Tertiary Hospitals Before and During the Covid-19 Pandemic

Subashini C. Thambiah:

5. The role of glycated albumin in multiethnic pregnant women with gestational diabetes mellitus.
6. Are LDL subfractions a better therapeutic and prognostic biomarker for dyslipidaemia in diabetic patients compared to the conventional lipid profile?
7. Osteoporosis in diabetic patients: biochemical markers of bone fragility.

Geeta Appannah:

8. Effect of antenatal lifestyle intervention in obese pregnant women on gestational cardiometabolic profiles: a multicenter randomized controlled trial [BNMY, SCT]

Zubaidah Nor Hanipah

9. Effect of early initiation of oral semaglutide 50mg versus empagliflozin 25 mg in treatment-naïve newly diagnosed young participants with type 2 diabetes and obesity [NOC]
10. Awareness Care and Treatment In Obesity Management – APAC
11. Effect of Ramadan Fasting on Weight, Nutritional Status, Lifestyle and Depression Among Bariatric Patients at Single Government Hospital [BNMY]