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For members only

HOWZIT

Manipal Alumni Association Newsletter

For Membership Enquiries

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Up coming event

MAAM 33rd AGM 2018
4th August, 2018

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A very warm welcome to all our dear Manipalites. A handshake too and an embrace if you want, to the Manipalites who have recently joined our illustrious Manipal Alumni Association Malaysia.

Dr. Koh Kar Chai

This association has been increasing its activities. From sports to continuous professional activities, and not forgetting the charitable work being done, our association has been buzzing like a busy bee. All these is however not possible without the participation of each and every one of you out there.

There are many more exciting and productive activities coming up in the 2nd and 3rd quarters of this year. Of note will be our Ultra Sound Workshop to be held on 24, June, 2018 at Manipal Hospital Klang. And of course, do not forget our 33rd Annual General Meeting and Gala Dinner happening on 4, Aug, 2018 at Holiday Villa, Subang Jaya when we will have the chance to meet up with long lost friends for a round of fellowship a la Manipal style.

Riding on the success of our previous Run at Cyberjaya, do look out for the next Manipal Run due to happen on 7, Oct, 2018 at Manipal International University which is to be held in collaboration with National Athletes. This Run will be in aid of special needs children. Looking towards the support of not only the members of MAAM but all the Manipal Alumni out there in this country.

This year will be an election year for our association when we will elect new office bearers for the next 2 year term. Do come to the Annual General Meeting and volunteer to serve.

Our association has been having close ties with the Malaysian Medical Association (MMA) since our inception. Manipalites are known to be active in MMA and many high offices including the Presidency in MMA have been held by Manipalites. In fact, the current President Dr. Ravindran R. Naidu is a Manipalite too.

MAAM has always supported its members who stand for election for the various offices in MMA and garnered the votes for the aspiring candidates.

This year, there is only one MAAM member who is aspiring for none other than the positon of President Elect of MMA. He is Dr. Koh Kar Chai, an active member of our Alumni who is currently our Assistant Secretary, Editor of HOWZIT and the Chairman of our Society for Scientific Studies.

MAAM will be rooting for him, not only because he is one of our own, but also because he is experienced in affairs of the medical fraternity, having been actively involved in MMA for many years. Our Alumni members frequently seek him out for assistance on MMA matters.

Show our support for Dr. Koh Kar Chai by voting for him if you are also a member of MMA so that we can put another Manipalite up there as the President of MMA.

Executive Committee,
Manipal Alumni Association Malaysia.

Manipal
Alumni
Association
Malaysia
(MAAM)

31st Anniversary

2017 Gala Dinner


KELUAR

Manipal International University's Milestone First Convocation in Malaysia

Kuala Lumpur: Manipal International University (MIU) made history with its first convocation ceremony in Malaysia, the milestone event was hosted at the Sheraton Hotel Petaling Jaya. The fully fledged university, which is located on a sprawling lake campus of 142 acres in the educational hub of Nilai, conferred degrees and diplomas in science, engineering, biotechnology, management, and business programs to 220 graduates.

The convocation was graced by YB Dato' P. Kamalanathan, the Deputy Minister of Education 1, His Excellency Shri T. S. Tirumurti, High Commissioner of India to Malaysia, and Dr. H. S. Ballal, the Pro-Chancellor of Manipal Academy of Higher Education (India), together with over 800 guests, including the graduates, their families, the MIU faculty and staff, to mark a landmark step in the journey of the rapidly growing university.

Top performers were also awarded for their accomplishments at the ceremony, with three graduates receiving the prestigious Dr. Tonse Ramdas Madhav Pai Gold Medal and nine graduates receiving Academic Excellence Awards.

The ceremony also witnessed the launch of a special scholarship program to promote education of female students. Two of the current female students at MIU were awarded full scholarship based on their merit for their studies at the university.

YB Dato' P. Kamalanathan, Deputy Minister of Education 1 stated "I am humbled to be part of this historic day not only to our young graduates but also to the management and staff of Manipal International University. Let me also take this opportunity to congratulate Manipal University for being ranked the no.1 Indian private university by QS World University rankings. This is indeed an acknowledgement of the quality of education that is offered to all of you.

"I am pleased to state that the government of Malaysia through both the ministries of education and higher education have embarked on various strategies to impress that critical thinking will drive us forward as we move to redesign education for industry 4.0. We must look at the kind of experiences university students require in the current and future environment. This includes changes in the global landscape as well to be trained in multi-disciplinary fields.

"Education must be exciting. Industry and academia are one and I am told that Manipal International University is already moving in the right direction by partnering with leading Malaysian companies and industries to ensure that the students receive the right exposure during their internship. This would in turn help them to be well placed in their pursuit for employment, either locally or globally," concluded YB Dato' P. Kamalanathan when congratulating the graduating students.

Mr. Bharath Vasudevan, the Principal Operations Officer of Manipal Education Malaysia, stated, “Manipal International University is thrilled to announce another significant milestone, the launch of our first post graduate program, Masters in Business Administration. Today’s business managers are required to make decisions in a rapidly changing, global, diverse and data-intensive environment. With this in our mind, our program has been specially designed as a premier “analytics-driven” MBA, with a special focus on enabling learners to make scientific decisions, solve problems based on data analysis, and develop multi-cultural sensitivity through international exposure and field trips.

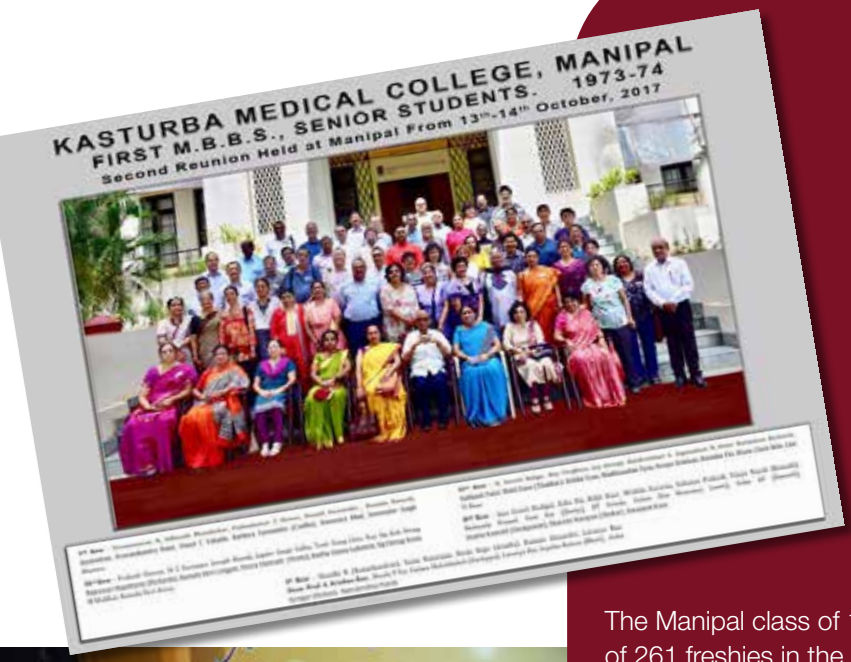
“Over the past 60 years, the Manipal Global Education Group have built a reputation for excellence and student engagement. With this in mind, we are proud to announce the launch of “Alma Connect”, an exclusive platform for alumni of all Manipal institutions across the world, including Malaysia, India, Dubai, Nepal, and Antigua. The portal has been specially built for Manipal and will enable our alumni to remain updated on all news and events of their alma mater. All announcements regarding alumni affairs will be made on this portal going forward,” concluded Mr. Bharath Vasudevan during his speech.

Senior leaders from the Manipal Group were also present at the event, including Datuk Dr. Ranjan Pai, Chairman, Manipal Education and Medical Group, Mr. S. Vaitheeswaran, CEO, Manipal Education and Medical Group, Mr. Ravi Panchanadan, President and COO, Manipal Global Education, Dr. Vinod Bhat, Vice-Chancellor, Manipal Academy of Higher Education, Datuk Dr. Abdul Razzak, Pro-Vice Chancellor, Manipal Academy of Higher Education, Mr. Bharath Vasudevan, Principal Operations Officer, Manipal Education Malaysia, Dr. Jaspal Singh, Chief Executive, Melaka Manipal Medical College, and Mr. Gaurav Rekhi, MD and CEO, Manipal Hospitals (Malaysia).

Manipal International University (MIU), a member of the Manipal Global Education Group, is a full-fledged Malaysian university offering multidisciplinary programs with a focus in the fields of Science, engineering, management and business. With a sprawling lake campus of 142 acres in the educational hub of Nilai, MIU is has trained over 1,600 learners since its inception in 2010.

Globally, the Manipal Education Group has been responsible for producing some of the brightest minds in Asia over the past 60 years. The group has a network of six campuses and affiliations with 30 universities worldwide. Building on the success of the Melaka Manipal Medical College in Malaysia, the Manipal Education Group brings its multidisciplinary expertise to Malaysia through Manipal International University.

For more information about Manipal International University visit **www.miu.edu.my**



MAAM *Class of 73* Reunion

Datuk Dr. Teoh Siang Chin

The Manipal class of 1973 was distinctly a batch apart. The record enrolment of 261 freshies in the regular term was twice the normal number. More than half had come through the usual PPC and nomination route; the swell came from direct admissions from various countries. The largest cohort was local students and more than seventy Malaysians formed the largest foreign contingent - a third of whom had come direct from HSC or A levels. A sprinkling of others came from Africa, Middle East, and even North America. The other distinction we had was that the founder TMA Pai's, Asha and the Dean's daughter Jayagowri were in this same class. A class apart.

This large class never actually met together officially - there was simply no hall big enough.

Our plenary lectures and dissection were split into two groups of about 130 each and then into six other groups for tutorials and laboratory sessions. It was a true maverick venture by the Pais which marginally survived the regulators.

As any Manipalite will know most of us in the 73-batch got thru somehow or other – some in straight run, others in fits and starts and plenty of proxy and escapades along the way. At that time, we still had the option of moving to Mangalore for our clinical years. The total liberation from home control ministry offered a rush of freedom and many of us had their first taste of manhood and womanhood. A story for another day.

Post-graduation, there was not much contact in the days before the internet and mobile phones. However some groups and close friends maintained fleeting contact. In 2016 the middle age anxieties pushed for a first ever reunion in Penang with a good attendance, even our renowned classmate Devi Prasad Shetty came for the formal night to great applause.

The call for a reunion in Manipal awoke a primal nostalgic instinct and when Kamala called I was already half convinced. About 20 Malaysians from our batch made the trip to Manipal in October for the reunion on 13th to 15th October. A small group led by Peter Richards flew by MAS to Bangalore BLR and connected to Mangalore IXE.

Glamour in Malpe

The Malaysian contingent with Dean

We managed to convince a couple of Tuk Tuk drivers that Ullal was not far from the city and took an agonising and bumpy half hour race to Summer Sands, wondering all the time how we could have been so enthusiastic about such rides 40 years ago.

That evening Gopal Hebbar hijacked some of us in Mangalore and largely sponsored a rollicking night at the Mangalore club. His son plucked the lead guitar a la Hendrix and those of us there swung through many bottles of intoxicants. As this was the first opportunity to reacquaint with our local classmates, there was quite a lot of catching up.

The next day we staggered to the taxi stand and squeezed into a couple of cabs for the nostalgic trip to Udupi and Manipal. Some of the parts of the journey was familiar but largely new.

After checking into Valley view and overflowing into smaller hotels around tiger circle, we each tried to recollect our memories of our global village. I was quite struck by the differential development of the infrastructure and roads – muddy and no drains or sidewalks around TC. In the campus proper however, much had been invested and although we could recognise the buildings and hostels, the learning experience was vastly modernised.

The registration was prolonged and noisy, with a lot of back slapping and very many wellies and catching up. Later that afternoon we were bussed to Malpe beach where the party venue had been heavily decorated and illuminated. We were kids again and we swayed to the setting sun and began a night of fraternity and fellowship.

A band kept us rollicking through the thunderstorm which raged for almost two hours. This would have dampened any other gathering except classmates who had not met for decades. A clutch of otherwise sober and upright members of society were dancing in the rain – non-stop totally drenched and kept warm by good spirits and cheers.

The conversation and camaraderie challenged the rain drops and thunder and only abated when the MC announced the last bus back to Manipal.

The next day we were given a tour of the updates and upgrades to the medical college and facilities which were impressive.

The formal and final night was the most poignant and touching. Just as extreme informal the beach party had been, our classmates were on their best behaviour. We all paid attention and clapped intensely as each teacher was announced and celebrated on stage by selected classmates. We all really enjoyed trying to recollect instances and events in our student days. The applause and sincere veneration for each and everyone of our beloved teachers was loud and prolonged, befitting our gratitude for all the learnings. It was indeed an exceptional occasion for us to pay homage and greet our teachers.

The Dean spoke of his dreams come true to witness this gathering even more since his daughter Jaya Gowri was the organising chair. He shared how Jayagowri had foreseen disaster the night before when the rain came pouring down on all their painstaking preparations. Yet he regaled that he was told despite the thunderstorm and drenched venue, how the class had just shrugged it off and this he said was most encouraging – overcoming adversity with enthusiasm and belief in the can-do attitude - his words – Dancing in the Rain will carry us through till the next reunion in Florida.

Our Malaysian Contingent would like to express our sincere appreciation for all the hard work and preparations for a wonderful and memorable reunion.

FORMATION of AMSA MMMC

On 10 October 2017, a group of enthusiastic students who formed AMSA MMMC had their first Annual General Meeting of AMSA MMMC.

The main objective of this meeting was to introduce this new organization to the students of MMMC. Prof. Dr Somsubhra De, Advisor of AMSA MMMC, welcomed the students. In his welcome address, he enumerated the benefits of joining AMSA along with the importance of networking and opportunity to learn from peers. The founding President, Mr Prem Kumar explained about AMSA International and informed the audience about the 13 other colleges which are currently part of AMSA Malaysia. He also mentioned that every year, AMSA International organizes events and all the institutions under its umbrella are required to organize an event. Following the speeches, there was an election of the vacant positions of various portfolios. The students volunteered and elections ensued for the available posts via voting system.

This year the colleges under AMSA are required to organize an event for mental health day. Hence, during this AGM, the members diligently discussed and planned the event for AMSA MMMC to ensure successful execution of a programme regarding Mental Health in MMMC. They also deliberated on charity events in order to raise money for the organization, which will further aid in hosting other events. It was a successful meeting due to the presence of many students. We ended the session with a positive note to embark on the program on mental health.

By Tharishini Segaran B33

Depression:

Let's Talk

On 28 November 2017, AMSA MMMC organized a talk on depression and its impact on the modern society. Mr Prem Kumar, President AMSA MMMC, welcomed the audience. AMSA MMMC Advisor, Prof Somsubhra De, delivered the opening address. After the initial introductions, Dr Minoo Pothen from Dept. of Psychiatry, MMMC enlightened the audience with her interactive session. Two hundred students attended the talk. They were from all batches including students from the Foundation in Science (FIS) programme.

According to World Health Organization (WHO) in the year 2015, almost 350 million people in the world from all ages suffer from depression. The main objective of the talk was to spread awareness of the dangers of depression and its detrimental effects on the growth of an individual as well as the growth of the nation. All the students who attended the talk got a copy of Beck's Depression Inventory (BDI), questionnaire regarding depression, for self-evaluation. The students in the audience were encouraged to meet lecturers or senior students to seek assistance in case they have any personal problems.

AMSA MMMC organized sales of event badges and key chains as a fundraiser. To conclude, the talk was a huge success and we hope that AMSA MMMC has played a role in broadening the mind-set of the audience on their outlook towards depression. We look forward to organizing many more events in the future for the betterment of the society. We thank Chief Executive, MMMC, Prof Jaspal Singh for his support and encouragement for the entire event.

By Kavithaanjally Kumar B35

The **ticking time bomb** that could exist **in our brain**

Many are unaware as to what a brain (cerebral) aneurysm is and further, many don't realize that if managed early, multiple lives could be saved thru early intervention.

So, what exactly is a brain aneurysm? I often tell patients that a brain anerusym can be described as a ticking time bomb that lays silently in the brain and could at any point explode due to a myriad of factors or in certain instances, without any apparent reason at all.

WebMD (a common site used by patients to seek medical knowledge) describes an aneurysm as a bulging weak area in the wall of a blood vessel that supplies blood to the brain. Essentially, this means that the blood supply of our brain is made up of a complex network of vessels that are intrinsically connected to ensure that every part of the brain receives sufficient oxygen and nutrients that are vital for it to function. Any disruption to the functioning of this network of vessels can result in either debilitating problems or sometimes even death.

Overseas studies have shown that brain aneurysms can affect between 1% - 6% of the general population. Individuals are generally not born with brain aneurysms but develop them later in life. This ballooning of the blood vessel in the brain commonly happens in adulthood with peak incidences of ruptured aneurysms occurring between the ages 40 – 60 years. Cigarette smoking, cocaine use, hypertension, a family history of aneurysms and various inherited disorders are amongst the common risk factors for this disease. Patients with unruptured aneurysms usually don't have any symptoms or in rare cases may present with symptoms such as headaches, visual, memory or speech

disturbances, numbness, weakness or seizures. The main complication caused by a brain aneurysm is when the said aneurysm ruptures and causes a bleed in the brain.

The risk of an aneurysm rupture is low. A study known as the International Study of Unruptured Intracranial Aneurysms (ISUIA) showed an overall annual rupture risk of 0.7%, with another similar study conducted in Japan showing an annual rupture risk of 0.9%.

The risk of an aneurysm rupture is associated with multiple factors including the size and location of the aneurysm, those aged over 60 years, those of the female sex, those with Finnish or Japanese ancestry and if the patient is symptomatic.

A patient with a ruptured aneurysm will usually present with a sudden onset of severe headaches, persistent vomiting, change in state of consciousness, coma or death. The mortality rate for such patients are about 50% and a re-rupture can worsen the mortality rate to 80%.

Screening the general public for a brain aneurysm remains a controversial topic. Considering that a brain aneurysm can lead to devastating complications, one would logically deduce that screening may provide a good option to overcome this problem. Most of these aneurysms however are asymptomatic (i.e showing no signs or symptoms), have a low risk of rupture and the intervention to treat such aneurysms do carry some risk.

Therefore, although screening of the general public is not recommended, screening certain high risk groups such as those with a history of a previous aneurysm bleed, family members with cerebral aneurysms or those with a genetic disorder known as Autosomal Dominant Polycystic Kidney has been shown to be beneficial. The screening process involves a scan known as a Magnetic Resonance Angiography (MRA) followed by a follow up with a neurosurgeon if an aneurysm is detected.

During my visit to the Department of Neurosurgery, Fujita Health University, Nagoya, I was intrigued to learn about a health check system termed “The Brain Dock” that was used as a screening tool to diagnose asymptomatic strokes and cerebral aneurysms in patients in Japan. This nationwide survey was initiated at multiple health institutions all over Japan since 1995. The detection rate for a cerebral aneurysm at participating hospitals ranged from 1%-5%. However it involved a high cost and was only carried out on those perceived as being at risk. Patients with a confirmed aneurysm were then further assessed to decide on suitability for intervention.

There are three management options available for patients who present with an unruptured brain aneurysm: surgical clipping, endovascular coiling or conservative management. The treatment goal for cerebral aneurysms is to obliterate the neck of the aneurysm and hence prevent the aneurysm from causing a bleed in the brain. This can be done by the application of surgical clips or coiling. The overall complication rate is much lower and the outcome much better when performed in a patient with an unruptured aneurysm. Some studies have shown that surgical clipping may result in a superior outcome to the natural history of patients who are expected to have a life expectancy of no less than 10 years.

In summary, the most important message that I would like convey is that it is important for patients to educate themselves about this disease, the risk factors and the possible treatment options. Patients who have been diagnosed with a brain aneurysm should be careful about their blood pressure control, quit smoking, avoid any form of stimulant drugs such as cocaine and always discuss the use of supplements or medications such as oral contraceptives with their neurosurgeon to avoid worsening of their condition. If at risk, a consultation with a general practitioner will help you decide on the need for screening. Early diagnosis can lead to better outcomes and prognosis.

This article is courtesy of Manipal Hospital Klang’s Neurosurgeon (Neuro & Spine) ***Dr. Puneet Nandrajog****.*

Oral Chromium in Diabetes Mellitus

By Roshan

Definition and Function

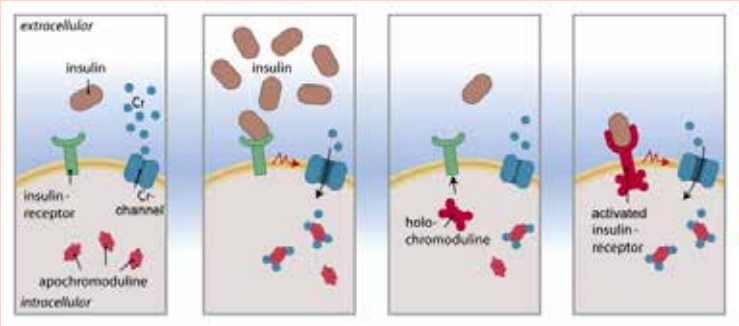
Chromium is an element. It is one of the basic building blocks of all things, both living and non-living. Like elements such as carbon, nitrogen, iron and calcium etc... Chromium plays an essential role in our life and health. Chromium's function in our bodies is critical, without it, the hormone Insulin would not work. Chromium's essential role in humans was clearly proven in 1970. This proof came accidentally when Total Parenteral Nutrition or TPN was being designed.
(TPN was designed to give patients all the carbohydrates, proteins, fats, vitamins and minerals they needed to maintain health until they could eat once again.)

Some of these patients who had been fed intravenously with TPN for months developed high blood sugars, just as if they were diabetic (but they weren't). Doctors started insulin therapy in order to treat this diabetic like condition but the insulin given didn't appear to work as well as it should have. Since it was already known that chromium was necessary for insulin action, it was thought that this trace element may have been lacking in these patient's TPN solutions.

It was deduced that these patients were showing signs of very severe chromium deficiency. The physicians caring for them then added chromium in very small amounts less than 50 micrograms to their IV feeding solution and quickly noted an improvement.

The patients no longer required insulin injections, and their blood sugars and other abnormalities returned to normal. After these cases of chromium deficiency and its serious consequences were reported, medical and nutrition experts agreed that chromium was an essential nutrient for humans and advised health professionals administering TPN about the danger of omitting chromium from the solutions.

Chromium comes from the Greek word for **Colour**. The Chromium that our bodies require is called trivalent chromium, Cr3+. The precise way in which trivalent chromium affects insulin's actions is not presently known.Insulin not only controls blood sugar levels and many other aspects of carbohydrate breakdown and storage, but also directs much of the metabolism involving fat, protein and energy (calories). Because insulin requires chromium to function properly, this trace element has significant biological effects in the body.



Another type of molecular chromium is Hexavalent chromium or Cr6+. A byproduct of certain industrial processes
- making of stainless steel
- hard-alloy steels
- manufacture of certain pigments

Hexavalent chromium has been shown to be carcinogenic.

Trivalent chromium has been tested over several decades has **NEVER** shown to cause cancer in any animal ever studied. Trivalent Chromium cannot change into Hexavalent Chromium inside the body. Because of chromium's connection to insulin function, it should come as no surprise that most of the research with this trace mineral relates to diabetes or to non-diabetic persons who develop high blood glucose levels after ingesting simple sugars. There are at least 17 clinical studies, which have tested specific chromium compounds in such patients using proper scientific methods. While three of the 17 properly designed studies showed no benefit of chromium supplementation in diabetics, 14 did show blood glucose improvements in the patients tested. One study that was reported (which was presented in 1995 at the annual meeting of the American College of Nutrition) showed dramatic improvements in blood sugar using less than one milligram of supplemental chromium picolinate in a group of women who developed gestational diabetes (that is, they showed symptoms and signs of diabetes only during their pregnancies).

The latest study to examine the issue of chromium supplementation and adult-onset diabetes was presented in June, 1996 at the annual Scientific Sessions of the American Diabetes Association held in San Francisco.

They randomized 180 adult-onset diabetics into 3 groups of 60 each:
- One group received placebo twice per day.
- The second received 100 mcg twice daily of chromium as chromium picolinate.
- The third received 500 mcg of chromium as chromium picolinate twice daily.

Their blood work was examined at baseline, at 2 months and at 4 months. The patients were told to remain on their anti-diabetic medications and continue with their diets and activity levels as before. The results were impressive: blood glucose, insulin levels, cholesterol and glycated hemoglobin (a measure of blood sugar control over the previous few months) all decreased, with the higher dose generally (but not always) more effective than the 200 mcg.

Chromium doesn't work by stimulating the body to make more insulin, but rather chromium makes the insulin, which is present function more effectively in the cells of the body. Chromium may decrease the amount of insulin resistance present, it may change the type or amount of medication needed to treat the diabetes and/or the frequency with which blood sugar monitoring needs to be done. By the late 1980s, a noted diabetes expert from Stanford University (Dr. Gerald Reaven) proposed that the basic combination of high blood sugar, high blood pressure and abnormal blood lipids all constituted disease that was based on increased insulin resistance.

Since chromium reduces insulin resistance, this essential trace element could therefore have wide-ranging effects on high blood pressure and abnormal blood lipids in addition to lowering blood sugar.

Chromium and Body Composition:

Another area that is gaining more interest lately is the possible effect of chromium on body composition; that is, how chromium affects the relative amounts of lean body mass (mainly muscle) compared to the amount of body fat. In October, 1996 a study published in a peer-reviewed medical journal looked at 154 slightly overweight individuals split into three groups who were supplemented with either 200 mcg of chromium as the picolinate compound, 400 mcg of chromium as the picolinate compound or a placebo. What these researchers found after the 72 days of the study was a statistically significant difference in the chromium groups vs. the placebo group in change of body composition index. (BCI, a sum of the loss in body fat plus the gain in muscle mass) It is interesting to note that therapies for diabetes that increase insulin levels in the blood are associated with weight gain (insulin injections and sulfonylureas such as Diabinese and Micronase) while therapies that decrease insulin levels (such as Glucophage and oral agent troglitazone) are associated with no weight gain or even weight loss.

Data from U. S. Government sources show that the great majority of Americans get less chromium in their daily diets than the amount recommended.RDA Committee recommends 50-200 mcg of chromium/day; the vast majority of Americans get less than 50 mcg/day.

Stone Age people ingested more chromium than modern people because they regularly ate organ meats from the animals they hunted (which contained higher levels chromium as well as other trace elements). More important than their higher intakes, it is most likely that they lost less chromium in their urine than we do. This is because Stone Agers did not ingest nearly as much simple sugars as modern people and simple sugar intake causes chromium to be lost in the urine.

Chromium tissue levels in humans decrease over our lifetimes. In fact, the highest tissue levels of chromium are found in newborns. They get chromium in the womb across the placenta from their mothers. There is also evidence that pregnancy depletes a woman's chromium stores. These experts feel that chromium supplementation for diabetics should take its place alongside the two other proven ways of decreasing insulin resistance: low-fat, high complex-carbohydrate diets for weight loss/weight maintenance and regular exercise.

Safety:

It is extremely difficult to poison laboratory animals with oral chromium. On March 14, 1996, a safety study conducted by the U. S. Department of Agriculture was presented at the Society of Toxicology's annual meeting. This study looked at various supplemental doses (including none) of chromium chloride and chromium picolinate fed to rats for 6 months, The **highest doses** were equal to a human consuming **5,000 tablets of 200 micrograms** chromium picolinate. At regular intervals during the study the rats were weighed and blood was taken for laboratory tests. Liver and kidney (organs that would have the highest tissue levels of chromium) were examined under the microscope. There were **no differences** in any of the measurements or examinations between the various groups. "Trivalent chromium has such a low order of toxicity that deleterious effects from excessive intake of this form of chromium do not occur readily. Trivalent chromium becomes toxic only at extremely high amounts.- chromium then acts as a gastric irritant rather than as a toxic element interfering with essential metabolism or biochemistry."

Testing for Chromium is not easily done. The only generally accepted method for assessment of chromium status is to supplement an individual (who has abnormalities of either blood sugar, cholesterol, triglycerides or all three) with the trace clement and see if the laboratory values improve. If they do, then chromium insufficiency is presumed.

Recommended dosage:
Chromium Picolinate :
200mcg to 500mcg, taken oral after food, with a glass of water.

There are some special precautions if taking with other supplements.

Thyroxine
Taking chromium with levothyroxine (Synthroid) might decrease how much levothyroxine (Synthroid) that the body absorbs. This might make levothyroxine (Synthroid) less effective. To help avoid this interaction, levothyroxine (Synthroid) should be taken 30 minutes before or 3-4 hours after taking chromium.

Iron
Chromium can make it hard for the body to use iron. This could lead to iron deficiency in some people. However, this is unlikely to happen when people take chromium supplements at the usual doses.

Vitamin C
Using vitamin C along with chromium use might increase the amount of chromium absorbed.

Zinc
Using zinc along with chromium might decrease absorption of both chromium and zinc.

Chromium rich food
To easily and safely increase your chromium intake, get it from foods rich in the mineral, such as whole grains, wheat germ, brewer's yeast, bran cereal, orange juice, romaine lettuce, raw onions, broccoli, potatoes, green beans, raw tomatoes, black pepper and grape juice.

Physiology Revisited…

Why Basic Physiology is so important in Clinical Medicine.

By Dr. Lai Jun Min

Passing out from medical school and marching on as a Houseman, all in my mind was just about "what are the signs and symptoms of each disease', 'what medicine to give when patient is having this'.

With such a busy schedule i didn't have the luxury of time to think, 'why are patients presenting with these signs and symptoms?', 'why healthy person would not have these?'

These questions sounded very simple, but how often we actually thought about it? And most of the time we choose to brush it aside and label it as 'idiopathic' as the answer.

Till one day, when I was still working in government clinic, just doing the daily routines and giving treatments to diabetic patients, a thought struck me. How come no matter how disciplined the patients were, more often than not they would still end up with renal failure? Was this really the progression of the disease?

Then I realized I needed to revisit Physiology… my biochemistry....In other words, I needed my basic medical science!

Remembering the day when I finally passed out from medical school, clearing my stuff from the hostel, I was so happy to finally be able to throw away all my biochemistry and physiology notes. I didn't need it anymore because I was going to finally practice medicine.

But now, I needed my physiology notes, Ganong text book.

I started to do a lot of research and reading. And realized what I had done all the time-giving treatments to diabetic patients, were actually only treating their signs and symptoms-lowering the blood sugar level. But what are the cause? No, we are not treating the cause!

What is the cause of diabetes mellitus? Hereditary? Aging? Idiopathic?

That's when I discovered FUNCTIONAL MEDICINE!

Functional Medicine as defined by The Institute of Functional Medicine US as to identify and determine how and why illness occurs, and to restore health by addressing the root causes of disease for each individual.

In other words, functional medicine strives to determine the root cause of each and every disease, particularly chronic diseases such as autoimmune and cardiovascular diseases as well as, diabetes and obesity. Rather than simply making a diagnosis and then determining which drugs or surgery will best treat the condition, Functional Medicine practitioners dive deep into the patient's history, biochemistry and physiology, and ask why this patient is ill. Functional medicine is highly personalized and often includes a detailed analysis of an individual's genetic makeup.

I believe functional medicine will be in the forefront of medicine in the future. There is still a lot things to learn about functional medicine and many more areas to be researched and studied.
My dream is to hope more of us will be embark in this new frontier which is definitely a more complete and rewarding medical practice.

The future of medicine = **Functional Medicine**.

Culture or Unity?

By Dr. Shayama Ghobe

Education seems to have always been a hot topic in our nation. There's always some new development or change about it. Whether those changes are good or bad, well, that depends entirely on how we as the citizens choose to take it. Apart from just the national schools, we also have other kinds of schools such as national type schools also known as vernacular schools and religious schools. Vernacular schools mainly being Chinese and Tamil medium as well as religious schools. These schools have been around since the British colonization. Their purpose for allowing such schools to exist? Divide and conquer of course. Imagine how much more difficult it would have been for any external party to exploit a country all in the name of "running the country" if the citizens were united?

I imagine we would have put up a better fight. Since all of that is history now, there are bigger things at play here. Other schools besides the national schools have not been affected badly since the departure of the British colony. Their reasons for wanting to exist are simple:

- To ensure our culture is preserved
- To ensure quality education is given to our young minds as the national schools just aren't up to par

While waiting for my housemanship position, I was working as a tutor for school children. I have tutored both national and national type school children (vernacular school pupil). Therefore, this piece is written based on my two cents worth about this issue. I would be lying if I said there isn't much of a difference between these two kinds of schools.

So what if there is a difference? How is this pertaining to me you may ask. As much as I do agree to the claims that there are many other things we should and could be doing to head towards being a unified nation, I also strongly believe having a single education system would be a big step.

Why is this such a big deal? Being someone from a national school background myself, I can safely say I learnt the most about my country's multicultural and multiracial nature in school. I had friends from various races. I benefited a lot from my time in a national school. I learnt about cultural differences and practices as well as the importance to coexist peacefully while still retaining my own culture and heritage.

The question that lingers in my mind is, why must children attend vernacular schools to learn about their culture or even religious schools? Is this not possible to achieve at home? Unless your religious school is serving supplementary purpose, there's no real need for it to exist. The most worrying detail about children from a national type school is their ignorance towards the multicultural as well as multi-faith coexistence of Malaysians. When asked about the cultural practices of races and religion other than their own, they seem to be at a loss. This is something we should all definitely be worried about. How are we supposed to be working towards becoming 1Malaysia when we barely even know our fellow citizens?

I am not concluding that everyone from a national type school background are not in tune with the basic knowledge of our country but I cannot deny that a majority of them are. In an effort to retain your culture, are you really willing to forgo the importance of assimilation? In my opinion, I feel that Malaysians really do try to have it all; culture, unity, economic boom, religion and peace. Though incredibly laborious to achieve, this is not exactly impossible to do. So what is holding us back? One of the strong reasons would be choosing national type schools over national schools. Perhaps the time has come for us to change the method we use in trying to achieve our goals.
Is bigotry really going to allow Malaysians to become one? One of the most common qualities of a Malaysian is their ability to whine and complain endlessly about racism as well as racial inclination. Yet when the opportunity presents itself for us to make a change, do we really go through with it? Heck we even have racial preferences for real estate! But that is a topic for another day.

If parents really feel our national schools aren't good enough, maybe it is time for us to work on that more. Our actions should be working towards a single minded nation. If that includes abolishing vernacular as well as religious schools, then I am all up for it. In choosing our pride over our country, we are indirectly allowing the possibilities of a unified nation to be left in the lurch. By insisting on sending our future generation to national type schools, we are digging a grave for the future of this beloved country and since we've made the bed, when the time comes we are going to lie in it. The time has come for us to realize maybe the existence of national type schools have become incongruous to make the visons of this nation a reality.

Last year we represented Manipal International University and finished Top 8 out of 56 teams represented by various Malaysian Universities in Pitch for Progress 2.0 organized by the Organization of National Empowerment (ONE) and The Ministry of Higher Education (MOHE) Malaysia. The pitch focused on futuristic learning methods that can be implemented and our team pitched on Virtual Reality Education in short VR Education. We primarily focused on the implementation of VR in the practical and laboratory classes as it may enhance and provide a better learning environment for students. Here are some of my views on how VR Education is a game changer and its benefits for students.

Benefits of

The system here focuses more on graded result scripts obtained after sitting for examinations which later becomes the determinant of students' capabilities when they step into the working environment. That script may show the knowledge content of a student but will not prove the student's practical skills or what we call it as the soft skills in their chosen profession. The reality in the working environment is that it requires more prior experiences of related jobs that we fresh graduates do not have in hand. Obviously, we have sufficient facilities back in university to teach us the practical aspects of our college degree which relates to our job scope but then not all the experiments are friendly and safe to be conducted in our college lab environment especially in science and engineering courses. All these experiments with boundaries can be made possible by Virtual Reality.

Virtual Reality was sci-fi idea many years ago but now it is the next GREAT thing being a game changer in many industries and fields, also in our education. According to Google, VR simply means a computer technology that uses virtual reality headsets to generate realistic images, sounds and other sensations that simulate a user's physical presence. Based on a statistic, about 171 million people are said to be using VR technology in their daily life this year and this will add value to the younger generation's education. There are numerous benefits of using the VR technology in our practical classes and here are my top three.

We tend to understand a specific subject better if we can experience it rather than just studying and memorizing a plain black and white textbook. To maximize our understanding with visualization, virtual reality can ultimately help to provide real-life experiences. In other words, VR empowers experimental learning by simulating real-world situation. Imagine an engineering student taking a virtual step into how does an offshore oil rig look like. The student may learn and experience their future to be environment

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even before getting into it in real life. This would create a deep understanding and prior experience of handling equipment or machinery, performing experiments and surgeries and processes involved at their respected workplace in the university itself. For medical students, there is a VR application called Surgeon Simulator VR where they can freely operate and dissect patients to get a virtual experience in handling a surgery even before performing it on a real body. Above evidently shows that VR aids in strengthening our understanding of our subjects.

The curiosity of a student is what drives them to experiment more and to learn more. Sometimes these curiosities are hindered by safety reasons, cultural or religious beliefs or even human nature. Let's take chemical related studies, some reaction like Andrussow oxidation process reaction with methane and ammonia to produce hydrogen cyanide is very dangerous to be conducted by students in real life as it is highly reactive when exposing to air. With the aid of Virtual Reality, a virtual lab environment can be created with all possible reactions of atoms, molecules, and compounds to yield real-life results and values with safety into hands. Virtual immersive earth provides students an opportunity to experience any circle of expert and life application that are still at the learning stage. Besides, in 2016, innovative doctors took advantage of VR and explored new aspects of medicine and possible medicine chemical formulas to aid diseases for a better human healthcare. This strongly portrays that Virtual Reality can break the boundary of impossible in experiments conducted allowing us to learn beyond and into the unknown.

The cycle of tough examinations has made us lose interest and build passion in what we learn rather memorize and write blindly for exams each semester. Reality will be that we may lack important knowledge when we step into the working environment. Mission V's Corbett said that "Inspiration and engagement are key components of amusement based learning, and virtual reality takes those to the following level". VR aids in inspiring and rekindling the flame of interest within us. It awakens us and shows the importance and uses of each subject we learn and how it is incorporated in the real world. This also closes the gap between students and lecturer and brings them together in the process of immersive learning through this technology. All these interest and inspiration will create an industry ready student with great practical knowledge ready to take up the real-life jobs.

This ever-revolutionizing world filled with great technologies will also reshape the way education is. VR is here to stay as it enhances the students' way of learning, understanding, and application in their real life. Imagine exploring an inaccessible planet, voyaging through those inside of a human body, what more strolling close by a dinosaur which is possible with VR technology in education. Though some may go against it saying it is an unconventional way of learning, remember that the possibilities are endless in learning. It comes down to how one perceives the idea and apply it. All the above benefits explain why we students should be ready to use this technology and institutions should make effort to incorporate it in education. This process of education revolution will coincide with the vision of the Ministry of Higher Education to prepare students to face the global challenges of Industrial Revolution 4.0. Remember Einstein once said that "Intellectual growth should commence at birth and cease only at death.".

in Education

Our inaugural golf tournament for the year 2017 took place on the 14th of October 2017 at Kota Kemuning Golf and Country Club. We had a total of 7 players who participated. Most of them were around Kuala Lumpur but we also had our regular battalion joining us all the way from Johor. Mode of play was stableford, giving both the high and low handicappers equal chance of winning.

The overall champion was Dr Ding LS, followed closely by Dr Jasmeet. The champion was presented with the challenge trophy and also gifted with a MST Golf voucher worth RM500. All players did not go home empty handed as Pro Rahizam Ramli got all of them passes to attend the CIMB classics. It was a very heartwarming event as many came down not to win the prizes but to mingle and spend time with friends. It's great to see individuals taking time to do so.

We hope to have more golfers participating in the years to come. I'm grateful for the support that we are getting and hope the numbers increase in the years to come.

Our tentative event for this year will take place in May and we are looking at playing in Kelab Golf Negara Subang (KGNS). Hope to get good numbers this year. Till we meet again… FORE!!!

From L to R:
Dr. Ramesh, Dr. Jasmeet, Dr. Malvinder,
Dr. Ding LS, Dr. Sarjit, D.r Anba, Dr. Thayanethi

By Nyana Kalaiwani Krishnan
(MAAM Golf Captain)

MAAM SPORTIVO

By Rubenandran Ramachandran / Vickneswaran Werasingam
(MAAM Pool Captains)

MAAM Sportivo Pool/Billiards was started in January 2016 as a bi-monthly event. This get together over a game of pool basically serves as a catch up session among the Manipalites.

The home ground of our pool team is Interlude Tapas & Bar, Taman Tun Dr.Ismail, Kuala Lumpur. We have played against teams from Interlude Regulars, Walk Inn, Pj Club, Bar Council, RSUC Seremban, Lake View & Quaff so far. For 2018 we have fixed every 1st Friday of the month for our pool friendly matches. Our next session will be a very interesting one which will be the Manipal Pool Doubles Championship in March.

We hope to see more Manipalites turning up for our pool sessions which is monthly now as our home ground Interlude also offers special discounts for MAAM members and at the same time it will be a get together among us. Thank you to the MAAM Exco for supporting our pool friendly matches.

MAAM Sportivo started with bi-monthly futsal in January 2016 and for the year 2017 we decided to have football instead of futsal. This football team has managed to bring together many Manipalites from the seniors to juniors. We have around 30 active players in the team. The matches are normally played around the Klang Valley.

Following are the results so far:
February 2017 – vs Hangover FC Drew 3-3
April 2017 – vs Pasung FC Lost 1-3
June 2017 – vs Prime FC B Won 3-1
August 2017 – vs Pan Global FC Lost 0-1
December 2017 – vs Mines Veterans Won 3-1
January 2018 – vs UUM Old Boys Won 5-3

Our team has been gelling & progressing very well and we aim to take this team to greater heights by playing in matches outside the Klang Valley and also participating in local social leagues. The support of fellow Manipalites is very important as we try to achieve our aim. Thank you to the MAAM Exco who have been very supportive of this team. Our main aim this year is to become champions of the Manipal Inter-Professional Games to be held in May.

By Vickneswaran Vaithylingam
(MAAM Football Captain)

Thumbs Up for MANIPAL RUN

By Malveen Kaur
1st Year student Faculty of TCM,
Cyberjaya University College of
Medical Sciences (CUCMS)

Manipal run was an event organised by the Manipal Alumni Association Malaysia for special needs children. It was on the 12th of November 2017 where it took place in Cyberjaya University College of Medical Sciences or more commonly known as CUCMS. I took part in this event as a volunteer. From my point of view, it was a great experience indeed. I got the chance to learn many new things from the other volunteers and coordinators. Each volunteer was given a specific task to do. For example, some were the emcee, some were in charge of the registration counter, food and beverage booth and many more. We did help each other out as well which made the event a tad bit much more easier to conduct. It was nice that we were given the chance to share our ideas for the betterment of this event. With that said, one thing I'm glad that I had learnt during this event is patience and humbleness. In addition to that, mainly owing to these two key elements, the event went smoothly and organised. This also projects our professionalism which pleased the participants, making them more satisfied of the services given. A day before the run, all of the volunteers were given the responsibility to pack the race kit collection for the participants. All due to our persistent hard work, we were able to manage the crowd in a blink of an eye. As a piece of evidence to support the previous statement, we worked together from giving out the bib number, t shirts and etc which quickened the work flow thus leaving the participants fully happy and satisfied. Furthermore, as a volunteer, it gave me the opportunity to expand my social circle by making new friends which had enliven my team work spirit. Moreover, by witnessing how enthusiastic the participants were towards the event from participating, showing their efforts and support till the end really encouraged us as volunteers to be more productive to serve them and give out our best. In a nutshell, I'm glad I took part in this event. It was not just fun but also done for a good cause. Everyone had an amazing time. Putting it in simple words, time well spent.

If you **Want To Run**, do it for a cause

Manipal Run 2017 was a remarkable journey for the Manipal Alumni Association Malaysia (MAAM) as this was the first time the association decided to organize such an event.

The main reason we chose to run this event was to promote healthy and active living, create awareness and also a way of giving back to the community.

The event was mainly put together to help '**The Special Needs Children**', paying attention to the Autistic Children.

There were 2 categories. The 10km and also the 5km (Fun) run. What made this event even more special was the participation of the Malaysian past and current athletes running along the autistic children in the 5km (Fun) run. Among the athletes who took part were M.Ramachandran (athletics), S.Saravanan (taekwando), Sree Sharmini (karate), T.Gopinath Naidu (football), Christie Jeyaseelan (football) and many others. We had a total number of 800 participants, many coming forward because of the cause of the event.

The events were flagged off by our chief guest Tan Sri Dr.Mani Jegathesan who is a legendary Malaysian athlete,an Olympian & past national record holder of 100 & 200 meters in athletics.The other VIP guest were Tan Sri Dr.R.Palan (Pro Chancellor of Cyberjaya University College of Medical Sciences), Mr.Gaurav Rekhi (CEO of Manipal Hospitals), Prof.Dr.Jaspal Singh (CEO & Dean of Melaka Manipal Medical College), Prof.Dr.PLNG Rao (Vice Chancellor of Manipal International University) & Dr.Arun Kumar (President of MAAM).

THE MANIPAL RUN 2017

We also had Batman, Mickey, Spiderman and even the Minions were present to entertain the children… but nevertheless we had the adults snapping photos away with them.

A great thank you goes out to the sponsors of the event: mainly to the co-organizers- Manipal Hospital and venue sponsor Cyberjaya University College of Medical Sciences (CUCMS), in collaboration with NASOM (National Autism Society of Malaysia), Autism Café Project, Malaysian Anti-Aging Society, iM4U, Subang Eye Clinic, 100 Plus, Lenovo and Yakult. Not forgetting the volunteers from CUCMS and also Manipal International University (MIU).

We are looking forward to organize our next charity run this year 2018 and we hope you stand by us like how you did for this event. Thanking everyone who helped, motivated, and criticized the event… just for us to pull it off successfully!!

By Nyana Kalaiwani Krishnan
Organizing Chairman
Manipal Run 2017

Operation Polio Eradication (OPEM) Cycling Campaign Malaysia

Operation Polio Eradication by Manipal (OPEM) Cycling Campaign was an Manipal International University (MIU) initiative to cover the entire of Peninsular Malaysia on cycle to create public awareness on the seriousness of Polio, and also to help Rotary International raise some fund for Global EndPolio mission.

By Mr. SSS Shameem
Assistant Prof., Dept. of Computer Engineering & Computer Science, School of Science & Engineering (SOSE), Manipal International University, Nilai, Malaysia

MIT faculty Mr. SSS Shameem, from the Department of Computer Applications, who has been deputed at MIU for a short-term service contract had taken the initiative to plan and execute the entire event with MIU and Rotary's support. Dr. Sudhir Sengupta, VC's advisor at MIU, had been instrumental in fine-tuning the event with his expertise. The support of Finance, BDM, & HR at MIU; and MMMC administrations have helped in success of the event. MIT and MAHE had also contributed with much needed support at the background, for media coverage of the event in India.

As a part of the event, Shameem cycled a total of 2,200km to cover the entire of Peninsular Malaysia in 15 days, during 31, Jan 2018 to 14, Feb, 2018. During this event, he touched all the Manipal Educational establishments in Malaysia, i.e. MIU at Nilai, MMMC at Muar, and MMMC at Malacca. The campaign crossed through 20 prominent cities of Malaysia, and Rotary clubs of each city made public awareness campaigns there. Interestingly, Shameem could meet Manipal Alumnus or student-parents (mostly KMC or MMMC, Manipal, India) at almost each of the 20 cities.

As a result of the campaign, we could generate an impressive Rm20,000 (INR 3 lakh equivalent) towards Rotary's Global EndPolio mission, and the amount will be handed over to Rotary International by MIU shortly.

This EndPolio event by MIU (with Manipal's Go-Green agenda) has been nicely taken by all, and appreciated by many. A great support was shown by Manipal Group Public_ Relations team and almost all major news & media houses had covered our attempt, both in India and in Malaysia. Listed below are a few of the coverage links, and a few others are yet to get published. www.ride4pride.weebly.com/media_coverage1.html

Such events does not just help Manipal's external visibility, rather it has some strong internal positive results as well. For information, MIT has a student-alumni-staff cycling club with some highly skilled members, and in the past 2 years they have been preparing and participating in competitive events. Supported by MIT and MAHE, and having faculty members as role-models, the student cyclists are training hard and harnessing their skills. Last year, we had 2 of our MIT-BTech students securing 4th and 5th place in the state-level OPEN (non-elite) cycling sprint event help in Mangalore. And this year they proved their skill by finishing on Podium at Bangalore (OPEN, non-elite category) just last week. Also, 2 of our MIT-Alumin (2016 batch) just completed the Colombo-Ironman, a highly competitive International Triathlon event, also last week.

I thank my parent organization MIT, MAHE, and currently MIU for being highly supportive towards such events, and encouraging a cycling culture among students as well.


MAAM
SPORTS CARNIVAL
2017