January 2021 ISSUE 10

His Highness Sheikh Mohammed bin Rashid Hoists the UAE Flag at MBRU in Observance of Flag Day

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A walk down 2020

Sharing some of our best memories

















#2020BestNine



Mediclinic City Hospital in Partnership with Mohammed Bin Rashid University of Medicine and Health Sciences and Al Jalila Children's Specialty Hospital Perform 1st Living Donor Kidney Transplant Surgeries

Mediclinic City Hospital, a part of Mediclinic International plc., in partnership with Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU) and Al Jalila Children's Specialty Hospital, carried out the first living donor kidney transplant surgeries under the MBRU Organ Transplant Program, making it the first for Mediclinic City Hospital and Al Jalila Children's.

The first surgery was performed on November 14, 2020, a 34-year-old patient who had been on peritoneal dialysis since January 2019 and on the transplant waiting list since July 2019. He underwent successful transplant surgery using a kidney from a live donor who is his wife's 23-year-old brother.

The second surgery was performed on November 17, 2020, a 41-year-old Emirati female patient who was suffering from polycystic kidney disease. Because of her deteriorated kidney function, she had started haemodialysis in September 2020. She found a donor, her 36-year old brother, who was a suitable match.

Under the care of a multidisciplinary team of surgeons, nephrologists and nurses, the recipients and donors of both transplant surgeries were discharged within 10 days and are doing well without any complications.

Dr. Farhad Janahi, Assistant Professor of Surgery at MBRU and Consultant Urologist and Transplant Surgeon at Mediclinic City Hospital, said: "Performing living donor kidney transplants is a new dawn for our patients with kidney failure and asserts our medical and surgical teams' capabilities." "The success of performing these live donor transplants in Dubai is an ultimate demonstration of collaboration and team efforts of three institutions, pulling together all their resources and delivering the best healthcare for patients suffering from end stage renal disease," commented Dr. Waldo Concepcion, Consultant Transplant Surgeon at Al Jalila Children's Specialty Hospital

Dr. Ramzi Ayache, Consultant Nephrologist at Mediclinic City Hospital further added: "In our continuous effort to support our patients with kidney failure and their families, the launch of the living kidney donor transplant program aims to shorten the time the patient spends on a donor waiting list, improve long term kidney survival because of a better genetic matching, avoid initiation of dialysis when possible and schedule in advance the day of transplantation when donor and patient are ready."

He further explained: "After a strict evaluation before approval, the family member will donate only one kidney to his relative with failed kidneys. The remaining kidney compensates for the loss of one kidney and allows him to have a normal life. Even though the long-term risk of kidney donation is minimal when compared with the health risks in the general population, we recommend that the donor follows a healthy lifestyle and has a medical checkup annually.

"The benefit of live donation is obvious for the patient for the reasons cited above but also for the donor, as studies showed that donors tend to have higher quality of life after donation, with more self-esteem and increased sense of well-being by helping their loved ones."

Transplants in Less Than 10 Days Under the MBRU Transplant Program

Earlier this month the Ministry of Health and Prevention announced the success of a living kidney transplant surgery on a 20-year-old-patient at Al Qassimi Hospital Sharjah. Surgeons from the MBRU Transplant Program, Dr. Farhad Janahi and Dr. Waldo Concepcion, led the surgery in collaboration with the medical team at Al Qassimi Hospital.

MBRU joined forces with Al Qassimi Hospital earlier this year to support its accreditation as a kidney transplant center. This collaborative effort is an illustration of the objective of the MBRU Transplant Program which aims to establish through partnerships with healthcare providers services for organ transplantation to meet the growing demand in the country, help those patients by increasing the number of organ transplantation in the UAE which eventually improves the quality of life of those patients and their families. The MBRU Transplant Program works in partnership with the National Transplant Program of the Ministry of Health and Prevention.

In 2020, MBRU, Mediclinic Middle East and Al Jalila Children's signed a tripartite agreement to collaborate and work together to support the organ transplant efforts in the country under the MBRU Organ Transplant Program. Today, the 3 institutions act as one front in this effort.

In less than 10 days, the program surgeons Dr. Waldo and Dr. Farhad carried out the first 2 living donor kidney transplants in Mediclinic City Hospital, a living donor kidney transplant in Al Qassimi Hospital along with Dr. Suad Sajwani and the medical team of the hospital; and 2 deceased donor kidney transplants in Mediclinic City Hospital and Al Jalila Children's. The MBRU Transplant program has 19 total transplants to date since its launch in 2016.









MBRU's Pioneering Community Immunity Ambassador Program Hits Milestone of **One Million** Participants

The pioneering Community Immunity Ambassador Program introduced by MBRU has achieved a milestone of one million participants. The Program features online courses that provide crucial information and knowledge to support the global fight against COVID-19.

Launched in March to engage people from all walks of life to play a part in the fight against the virus, the MBRU Community Immunity Ambassador Program drew a phenomenal response from all over the world, particularly the Middle East, South and East Asia and North America.

His Highness Sheikh Ahmed bin Saeed Al Maktoum, MBRU's Chancellor and Chairperson of the Board of Trustees noted that the University's community awareness programs have contributed to the UAE government's efforts to contain the spread of COVID-19.

MBRU
COMMUNITY
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"Dubai and the UAE have shown the value of embracing and leading digital transformation initiatives. The Community Immunity Ambassador Program embodies MBRU's ethos of developing innovative solutions that benefit communities, while adding value to the UAE's contribution to global efforts in containing the virus. The Program is the perfect way to harness the expertise and knowledge available in the UAE for the greater good," His Highness said.



The first course of the MBRU Community Immunity Ambassador Program titled 'Let's Break the Chain of COVID-19' raises people's awareness about the chain of infection. It also details the way in which infectious diseases are transmitted and outlines solutions to break the chain of infection through concrete preventive actions. Participants successfully completing the course receive an MBRU Community Immunity Ambassador certificate.

The second course titled 'Let's Gear Up to Volunteer and Defy COVID-19' guides volunteers aiding the fight against the pandemic with detailed knowledge about the virus, how it spreads, and what precautions are needed to protect yourself and others on the frontlines.

The course was developed in partnership with the Abu Dhabi Public Health Centre and endorsed by the Ministry of Health & Prevention, Dubai Health Authority and Department of Health in Abu Dhabi.

The third course of the Program 'Find Your Light', developed in partnership with the National Program for Happiness & Wellbeing, teaches specific techniques to increase self-awareness, normalize emotions, and support overall wellbeing as the world grapples with uncertainty.

Following the overwhelming success of the Program, MBRU in collaboration with Dubai Dental Hospital, MBRU's clinical arm, which serves as the teaching hospital for the Hamdan Bin Mohammed College of Dental Medicine, has launched a fourth course focused on dental professionals that provides guidance and best practices to prevent the spread of the virus in dental clinics.

Program is available in multiple languages at https://learn.mbru.ac.ae/.

MBRU Chancellor Ahmed Bin Saeed Al Maktoum Meets Chairman of the Executive Board of E. Merck KG to Discuss Research and Knowledge-Sharing Collaboration

On December 15, 2020, MBRU welcomed Professor Dr. Frank Stangenberg-Haverkamp, chairman of the executive board of E. Merck KG, one of the world's oldest and largest companies specializing in life sciences, healthcare and

performance materials; to discuss collaborative efforts in research and knowledge exchange.

During the visit, H.H. Sheikh Ahmed bin Saeed Al Maktoum, Chancellor of MBRU & Chairperson of





its Board of Trustees, MBRU, met virtually with Professor Dr. Frank Stangenberg-Haverkamp to discuss potential collaborations between MBRU, E. Merck KG and the Merck Foundation centered around life sciences, biotechnology and research. The meeting was joined by H.E. Dr. Raja Al Gurg, vice chairperson, MBRU Board of Trustees and Dr. Abdulkareem Al Olama, CEO of the Al Jalila Foundation.

Professor Dr. Stangenberg-Haverkamp and Dr. Rasha Kelej, CEO of Merck Foundation, were welcomed to MBRU by MBRU's Vice Chancellor, Dr. Amer Sharif and members of the leadership team.

The visit with Professor Dr. Stagenberg-Haverkamp is the latest initiative by MBRU to realize its vision of becoming a global hub for innovative and integrated healthcare education and research at the service of humanity.

Collaborations and relationships with leading life science companies are crucial in helping bridge the gap in the quest to advance healthcare, in alignment with the Emirate's ambitious vision to advance this vital sector.



MBRU was featured on Russian TV in the Life of Others program in collaboration with Dubai Tourism. Watch the episode here (Minute 20:32-23:02 showcases our own Dr. Reem Al Gurg, Jalal Alfroukh and our Year-5 medical student Fatma Al Obaidli).







Student Corner

Congratulations to our Year-5 medical students Aya Akhras and Rashed Rowaiee on passing the United States Medical Licensing Exam (USMLE) Step 1.

Our Year-5 medical student Anas Zahid published a review paper on CART Cell Toxicities in the journal of Clinical Hematology International along with our colleagues at Mayo Clinic.

Read the paper here.

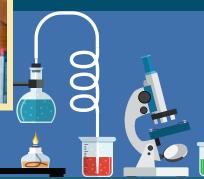


The Health Awareness Club held a virtual session about organ donation and transplantation to shed light on the importance of organ donation in saving lives.

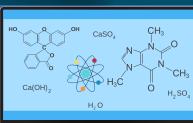
Watch the session here.







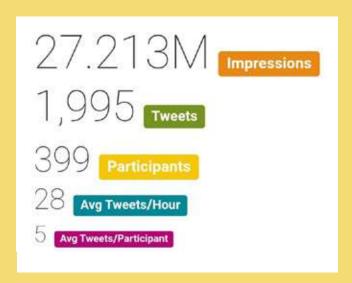




Student Corner

MBRU Student Organized the Clinician Engineer Hub Virtual Conference

Faisal Nawaz, Year-5 student enrolled in the MBBS Program at the College of Medicine, had the privilege of working with the Clinician Engineer Hub to organize their largest conference of 2020: The CEH Virtual Conference.





This included hosting exceptional speakers

from Amazon, Google Health, Microsoft, Imperial College London, World Health Organization and many more in the engineering and medical industry. With the need for Clinicians and Engineers more than ever before, this conference shaped a key milestone in sharing valuable insights for future innovation in these fields.

Additionally, Faisal had the chance to lead a social media team for this conference and worked with 12 ambassadors from 10 countries in live tweeting the conference highlights.

The 3-day event which took place in December and generated over 27 Million impressions was a great virtual success for the Clinician Engineer Hub family.

For more information click here.

Youth@RahaSchool

Year-5 MBBS student Faisal Nawaz, College of Medicine, has been invited to give a TEDx talk on January 19, 2021 at Raha School, Abu Dhabi.

The theme of this event is "What is Normal" and Faisal's talk is set to focus on the journey of a medical student in going "beyond the books" and shaping a future of portfolio leaders.

"My journey has been in highlighting the future of being a "portfolio student". By sharing my work in different fields, I hope the youth can appreciate how multi-dimensional our path ahead can be, without having to follow the traditional careers set by society. Hopefully, this journey inspires many more to create their own combination of dreams, collaborations, and ideas for the world." Faisal stated.

Check out the event details here.

"What is Normal"

Faculty Corner



Dr. Momen Atieh, Chair and Associate Professor of Periodontology at the Hamdan Bin Mohammed College of Dental Medicine was a speaker in the International Team for Implantology's ITI study club. Speaking on the topic of **Peri-implant diseases: the new epidemic**, check it out **here**.

How are dentists responding to the #COVID-19 pandemic? Click here to read the results of this multisite survey of dentists' perspectives published in the Journal of the American Dental Association (JADA), featuring Dean of the Hamdan Bin Mohammed College of Dental Medicine Professor Zaid Baqain and Professor Amar Hassan Khamis.

Faculty Members Publish the first Study of its Kind in the UAE on 'Comprehensive Ocular Examination of Healthy Newborns in the Middle East'

Reducing childhood blindness was identified as a strategic priority in the "Vision 2020 - The Right to Sight" program established by the World Health Organization in partnership with the International Agency for the Prevention of Blindness (IAPB) with the joint goal to eliminate avoidable blindness by 2020. Our adjunct faculty members Dr. Igor Kozak and Dr. Syed M. A. Ali published the first study of its kind in the UAE on the 'Comprehensive Ocular Examination of Healthy Newborns in the Middle East' in the journal of Ophthalmic Epidemiology. The study found out that a comprehensive ocular examination has the ability to identify a significant number of ocular abnormalities in healthy infants associated with preventable causes of childhood vision impairment that may have gone undetected using red-reflex screening alone. Read the study here.



What we've been up to?





Congratulations to our champions

to our champions who completed the



What we've been up to?



Positive Global Impact Award

We are incredibly proud of MBRU's Vice Chancellor **Dr. Amer Sharif** who has made history as the first recipient of the 'Positive Global Impact' Award by the renowned Royal College of Surgeons in Ireland (RCSI), under RCSI's Institute of Leadership 2020 Alumni Award. **Dr. Sharif** is the first graduate from RCSI to receive the positive global impact award and the 1st UAE national to receive an RSCI alumni award. He received the award for his instrumental role in establishing and further raising MBRU's profile.

"An inspirational leader in Middle Eastern healthcare, Amer's desire and drive for excellence has seen him be instrumental in both the initial inception and in further raising the profile of the Mohammed Bin Rashid University of Medicine and Health Sciences. A leader for change in healthcare, Amer is using his vast experience to shape the future of health systems within the UAE, through the promotion of innovative and integrated academic services, in a system that is nationally responsive and globally connected. Receiving the Positive Global Impact award, we are incredibly proud to recognize the work of such an inspirational leader in healthcare," said a statement from RCSI.

What we've been up to?

MBRU's Director of Smart Services, **Kareem Gad** spoke about the Cost of Trust in Health
Systems at the Future Blockchain Summit,
part of the 40th edition of GITEX Technology
Week

"We all care about our health and need to ensure that we can trust the health system that provides for us. What is the cost of trust in health systems and how can we improve that

by introducing efficiencies using blockchain and other technologies? We are piloting such initiatives at MBRU by publishing our future doctors graduation certificates and other certified documents on the blockchain."



Congratulations to **Dr. Reem Al Gurg**, Director of Strategy and Institutional Excellence and Assistant Professor of Health Policy, on her graduation from Mohammed bin Rashid Center for Leadership Development's Impactful Leaders Program.

مركز محمد بن راشد لإعداد القادة Mohammed Bin Rashid Center for Leadership Development

Early childhood caries is the most common childhood disease in preschool children which often requires dental treatment under restorative dental general anesthesia. Our alumnus **Dr. Kholoud Al Antali** & our faculty members from HBMCDM recently published in the British Dental Journal their findings on the changes in preschool children's oral health-related quality of life following restorative dental general anesthesia. Read more about the study **here**.

Dr. Mawlood Kowash was interviewed by the British Dental Journal about this study. Read his interview **here**





Have you heard about the surgical checklist and its importance to surgeons? Check out this short video by Professor Homero Rivas and Dr. Thomas Boillat from the MBRU Design Lab.



MBRU participated in the Najah Connect virtual exhibition. The University organized two interactive sessions to connect with future health professionals, the first session "Become the Next Frontliners" by Dr. Rasha Buhumaid, Assistant Professor of Emergency Medicine, College of Medicine, and Ahmad Al Awadhi, Senior Director of Student Services and Registration, while Nujood Al Khloofi, Director of Communications and External Relations gave the second session to showcase the unique aspects of the University and help students make the right academic choices.





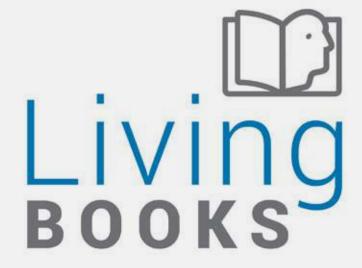


In the latest General Dental Practitioners
Lecture Series (GDP), **Professor Keyvan Moharamzadeh**, Professor of Endodontics,
Hamdan Bin Mohammed College of Dental
Medicine, led a session on



MBRU's Living Books Event is Officially a Trademark





MBRU's library, the Al Maktoum Medical Library, has successfully registered the trademark of its Living Books event through the Ministry of Economy, Dubai.

Living Books® is an annual event held at the library in which members of our community volunteer to share the experiences that have shaped their lives and identities in brief one-

on-one conversations, in a safe and respectful environment. It provides a platform for open and honest conversations that can potentially lead to greater understanding, acceptance and social cohesion in the community.

Stay tuned for our upcoming Living Books event "Overcoming Adversity".





MBRU-Led Genetic Study Reveals Crucial Insights into Make-Up of MRSA Superbug

Researchers from Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU) led a study identifying and analyzing specific strains of the potentially deadly "superbug" Methicillin-resistant Staphylococcus aureus (MRSA) in the Gulf Cooperation Council (GCC) region.

MRSA strains are responsible for many difficult-to-treat bacterial infections in humans because they are resistant to several antibiotics. Therefore, infections caused by MRSA are associated with treatment failures resulting in complications, increased length of hospitalization and, in severe cases, deaths as well as a high economic burden. The prevalence of MRSA has been rising in recent years and currently, it is estimated that up to 35% of Staphylococcus aureus infections in the UAE are due to MRSA.

With MRSA proving highly resistant to drugs, and with very little known about the molecular profile of MRSA isolates in the UAE, the objective of the genotyping study was to gain a better understanding of the genetic makeup of MRSA strains found in the UAE. This type of study also provides important clues to explain the rising prevalence of MRSA infections and potentially identify better ways to treat them.

The study, which was funded by MBRU, is the first-of-its-kind in the UAE, and a collaboration with teams from Rashid Hospital, Dubai Health Authority, Dubai; Mediclinic City Hospital Dubai; Sheikh Khalifa General Hospital, Umm Al Quwain; and Sheikh Khalifa Medical City, Abu Dhabi; as well as colleagues from institutions in Germany including the Leibniz Institute of Photonic Technology and the InfectoGnostics Research Campus in Jena Germany. Ethical approval for the study was obtained from MBRU Institutional Review Board and relevant research ethics committees in collaborating centers.

The collaborative efforts produced several key findings, including the existence of an extensive collection of MRSA strains in the UAE and the emergence of MRSA strains not previously identified in the GCC, including rare and novel strains. The study also found that the genetic profile of MRSA indicates antibiotic misuse to be a contributory factor to the continuing evolution of MRSA.

"MBRU is committed to the latest, insightful and meaningful research in line with our mission to advance healthcare in the UAE and beyond. It's an honor to collaborate with our esteemed colleagues on such a ground-breaking study," said Professor Abiola Senok, Professor of Microbiology and Infectious Diseases at MBRU who led this research work.

"This research has produced some thoughtprovoking results and demonstrated that we need to act now to prevent more virulent and/ or more drug-resistant strains from emerging. As we mark the World Antibiotics Awareness Week 2020 (Nov 18-24th), we are reminded that antibiotics are precious, and we all have a shared responsibility in preserving them through judicious use. Continuing surveillance and responsible use of antibiotics are crucial in combatting the rise and spread of the MRSA superbug."







In a new study, researchers at University of Pennsylvania, and MBRU's very own Dr. Saif Alqassim, Assistant Professor of Biochemistry, College of Medicine, have discovered the molecular mechanism by which a major cytoskeletal motor's processivity, dynein, is controlled. Dynein is a molecular motor that is responsible for transport of various cellular cargo, plays critical roles in cell division, and is hijacked by viruses during infection.

Malfunction of dynein transport machinery is linked to developmental and neurodegenerative disorders. Cells have a single dynein motor and use a family of 'activating adaptor' protein molecules to link specific cargoes to dynein and coordinate processive motility of the motor. By combining atomic-resolution structures of adaptors and a subunit of dynein with biophysical quantitative binding and motility experiments, this current work provides crucial insights

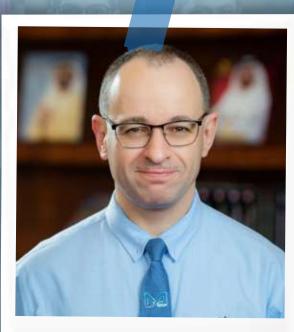
into the molecular basis of activation of dynein's processive motility, which is of immense biological significance to the field. This work has been published in the prestigious Nature Communications journal.

Structural and biophysical approaches are crucial for understanding molecular function in the context of disease and pathogenic infection, and directly contribute to rational drug and therapeutic development. Dr. Saif is one of the first Emirati scientists to get trained in structural biology and biophysical chemistry at world-renowned institutions; Johns Hopkins University School of Medicine and the Perelman School of Medicine at the University of Pennsylvania and aims to establish this line of research in the UAE, through a continued collaboration with his co-authors laboratories at University of Pennsylvania.

Read more about the study here.



New Faces @ MBRU



Leonard LipovichProfessor - Department of Basic
Medical Sciences, College of Medicine



Catherine Kellett
Associate Professor of Surgery,
College of Medicine



Jeyaseelan LakshmananProfessor – Biostatistics,
College of Medicine

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Hamdan Bin Mohammed College

of Dental Medicine

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- Master of Science in Prosthodontics
- Master of Science in Periodontology
- Master of Science in Pediatric Dentistry
- Master of Science in Orthodontics

For more information please visit

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