
"FIRSTS
AND
ONLYS"



AMERICAN UNIVERSITY of BEIRUT MEDICAL CENTER
المركز الطبي في الجامعة الأميركية في بيروت

Our lives are dedicated to yours

www.aubmc.org



**GREAT
CARE
IS THE
BEST
MEDICINE**

The American University of Beirut Medical Center's (AUBMC) name is synonymous with advancing and revolutionizing medical care in Lebanon and the region since 1902. Our mission has been and will continue to be an academic Medical Center dedicated to the passionate pursuit of improving the health of the community in Lebanon and the region through the delivery of exceptional and comprehensive quality care to our patients, excellence in education and training, and leadership in innovative research. AUBMC has led the way by pioneering healthcare services and providing exceptional standards of quality healthcare for over a century.

Today, AUBMC— thriving to meet the needs of over 400,000 patient visits annually – is the only medical institution in the Middle East to have earned the five international accreditations of the Joint Commission International (JCI), Magnet®, College of American Pathologists (CAP), JACIE, and the Accreditation Council for Graduate Medical Education – International (ACGME-I) attesting to its superior standards in patient-centered care, nursing, pathology/laboratory services, and graduate medical education.

Persevering to provide the highest standards of excellence in patient-centered care, education, and research in the Middle East, AUB secured dynamic new leadership for AUBMC in 2009 with the appointment of Dr. Mohamed H. Sayegh, Endowed Professor of Medicine and Pediatrics at Harvard Medical School, as Vice President for Medical Affairs and Dean of the Faculty of Medicine at AUB at the time. Shortly after his arrival, Dean Sayegh announced an ambitious new vision, known as AUBMC 2020 Vision, that was meant to propel the Medical Center and medical care in the region to new levels of excellence.

As part of the AUBMC 2020 Vision and our commitment to honoring our tradition and legacy as the leading provider of health care in Lebanon, over the past eight years AUBMC has introduced many "firsts" and "onlys" healthcare advances to Lebanon and the region. Inside this brochure, you will learn more about these breakthroughs and advancements that have solidified AUBMC's role as the leading provider of healthcare, medical education, and research in the region. AUBMC is committed to raising the level of healthcare in Lebanon and the region to standards that are similar to those of the best academic medical centers in the west.

After all, at AUBMC, our lives are dedicated to yours.

AUBMC has led the way by pioneering medical services & providing exceptional standards of quality healthcare for over a century.



Unprecedented Recruitment and “Reverse Brain Drain”

Since July 2009, the AUB Faculty of Medicine and AUBMC have been able to do what no other institution in Lebanon or the region has done – and that is bring back to Lebanon

209 new faculty members

from top institutions around the world (over 45% come from top US institutions such as Harvard, Yale, Mayo Clinic, MD Anderson, Columbia University, etc.). These renowned researchers and clinicians have brought unique skills to the Middle East that allow patients to get treated in Lebanon for procedures.



Groundbreaking Procedures and Treatments

In line with AUBMC's mission to work tirelessly to improve patients' lives in the region by providing unequaled quality of patient-centered care – numerous departments, units, and services have performed pioneering procedures taking healthcare provision to even higher levels of excellence.

Cardiology and Cardiac Care

To remain abreast of the region's medical needs, the Office of Clinical Affairs and the Heart and Vascular faculty and staff at AUBMC have jointly established the framework for the first Mufid Farra Heart and Vascular Outpatient Center. With cardiovascular disease and stroke being rapidly growing as a major health issues in our region, and with the prevalence of diabetes and hypertension in the Arab Middle East being among the highest in the world, a heart and vascular center that addresses these issues is essential to reducing the burden of such a disease in Lebanon and the region.

AUBMC cardiologists were the first in Lebanon to perform the first transeptal percutaneous non-surgical mitral valve in valve replacement (Mitral VIV) in the region on an elderly lady with severe mitral bioprosthesis stenosis.

The patient had no surgical options and was not a candidate for redo conventional mitral valve replacement.

Mitral valve in valve is a minimally invasive transcatheter mitral valve replacement (TMVR) procedure for patients who have had previous open-heart valve surgery to replace the mitral valve with a bioprosthetic (tissue) valve. Instead of the failing mitral tissue valve being replaced during another open-heart mitral valve surgery, the failing mitral tissue valve is fixed by placing a TAVI valve inside the failing one.

They also performed the first transcaval percutaneous aortic valve replacement (TAVI) in the Middle East and Asia, a novel alternative for patients with severe aortic stenosis where TAVI is indicated but cannot be performed with conventional methods.

AUBMC Cardiac Electrophysiology Team Performs a Novel Procedure using a Cryoballoon for Pulmonary Vein Isolation to Treat a Condition Causing Irregular Heart Rhythm

The cardiac electrophysiology team at AUBMC, Department of Internal Medicine, performed a novel technique of cryoballoon ablation of atrial fibrillation, a practical approach that ensures long-term safety and efficacy. The recent advent is completely curative in 80 - 85 percent of patients with paroxysmal atrial fibrillation.

Developed to create a circular lesions set around each pulmonary vein in a relatively simple manner. The novel technique is considered as first-line therapy in symptomatic patients with recurring paroxysmal atrial fibrillation on anti-arrhythmic medication.



The cardiac electrophysiology team were also the first to perform the leadless pacemaker implantation in Lebanon.

The procedure which took around 15 - 20 minutes was well-tolerated by the patient who was discharged within 24 hours. This world's smallest wireless pacemaker is an FDA-approved one-piece, pill-sized device that is more than 90 percent smaller than traditional pacemaker designs which date back to more than 50 years. Demonstrating exceptionally high safety and efficacy, the state-of-the-art technology has been increasingly used in the US and Europe and has been newly introduced in Lebanon and very few other countries in the region.

AUBMC has also inaugurated the "Professor Samir E. Alam Heart Failure Unit", the first of its kind in Lebanon to offer cutting-edge medical care for patients with advanced heart failure.

This sophisticated unit will provide hospitalized heart failure patients with highly coordinated, interdisciplinary care focused on enhancing quality of life and reducing future hospitalizations.

Pediatric Cardiology

The Children's Heart Center (CHC) at AUBMC is one of the leading centers in the region and the only comprehensive Children's Heart Center in Lebanon. It comprises a team of more than 50 physicians, nurses, and allied healthcare providers. The Center's surgical outcome results are comparable to the leading hospitals in the USA with success rates of 98%. The center has previously reported first of these kind procedures to treat children with CHD in Lebanon and the world, in addition to pioneering worldwide discoveries in the field of pediatric cardiology.

Amongst the division's ground-breaking procedures, physicians at the Children's Heart Center performed a first of its kind in the world, when they implanted three umbrella-like "Occlutech" devices delivered through catheterization to close three holes in a child's heart without resorting to surgery. The operation was performed on a 12 year-old boy who had three Atrial Septal Defects (ASDs) with a dilated right sided heart.

Commonly, one umbrella like device is utilized to close the hole through a special catheter technique procedure; in some cases, two devices are utilized to close multiple holes. The procedure held at AUBMC is the first to be reported worldwide utilizing three Figulla® ASD Occluder (Occlutech) devices to close the holes in a child's heart.

Another notable accomplishment for the Children's Heart Center at AUBMC is joining the world's premiere heart centers by performing the first successful heart transplant for a pediatric patient in Lebanon or the Levant region. The recipient child who was 5 years of age, came off the ventilator within a few days, smiled at his mother, held her arm, and hope was thus renewed. This first-of-its-time procedure in a child taking place at AUBMC, paves the way for advancement in CHD management as a lifesaving option in Lebanon so that "no child dies of heart disease as even heart transplantation can be performed".



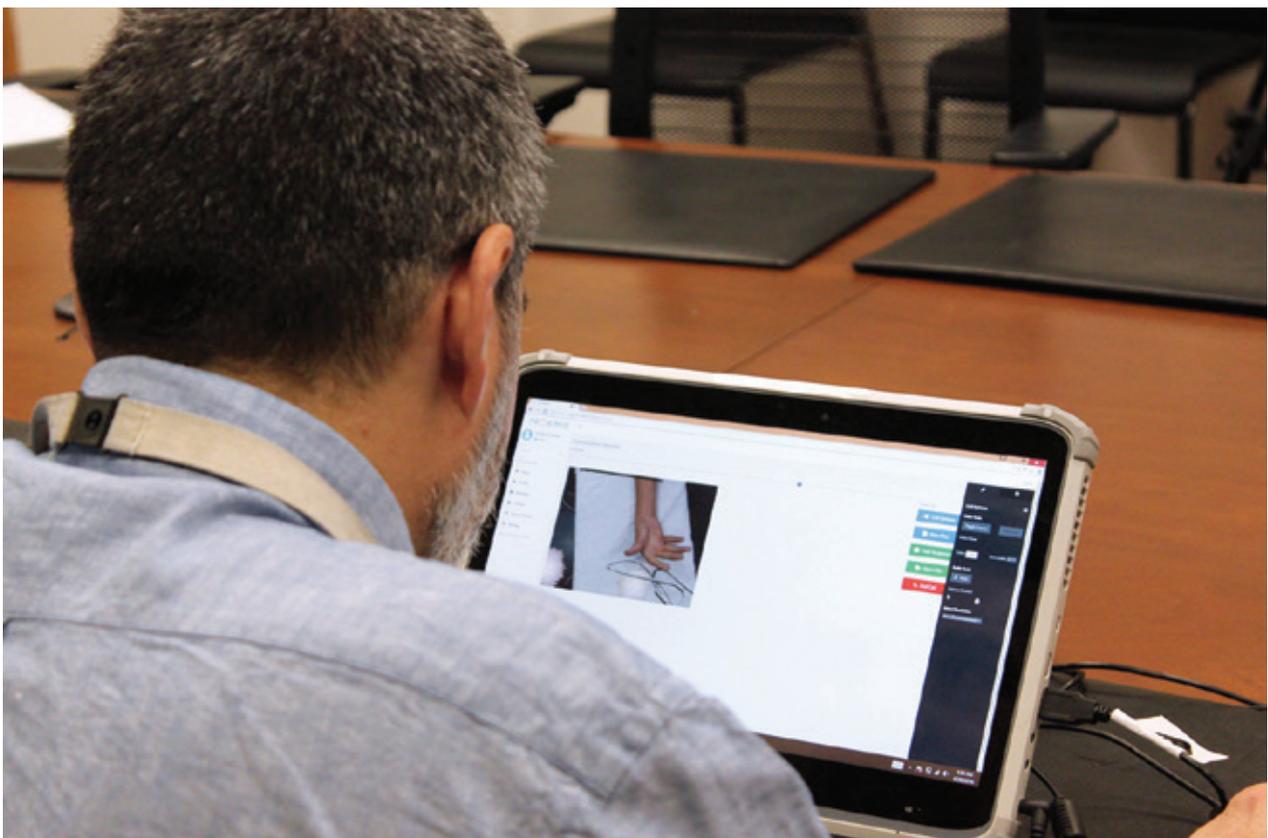
Surgery

In line with its commitment to providing cutting-edge medical treatment and technologies, AUBMC became the first center in Lebanon and the region to perform a Pulmonary Thromboendarterectomy surgery known as PTE in 2018. This procedure is an established curative surgical therapy designed to treat patients with a chronic and critical condition called Chronic Thromboembolic Pulmonary Hypertension (CTEPH). The condition is a progressive and debilitating disease caused by chronic blood clots within the lungs. The new milestone provides advanced treatment options to patients who cannot be treated with medication and marks the opening of a new program in the area for the surgical treatment of pulmonary hypertension.

The Department of Surgery also performed the first Endoscopic Endonasal resection of superior orbital fissure and optic canal tumor in Lebanon. This advanced approach helped save the life of a 5 year-old girl who presented to the Medical Center with a case of optic nerve tumor extending to the superior orbital fissure. The first of-its-kind procedure allows the surgeon to remove tumors in the brain and at the top of the spine without the need for large incisions or without having to remove parts of the skull, making recovery quicker and less painful.

Proximie Augmented Reality Technology with Robotic Surgery

For the first time in Lebanon and the region, AUBMC succeeded in the first-of-its-kind robotic surgery supported by augmented reality technology that helped a surgeon extract a tumor from the kidney while preserving it. With the increasing need to facilitate collaboration between doctors in different regions of the world, this augmented reality surgery platform facilitates intraoperative consultation through remote 'hands-on' virtual assistance and video annotation and helps get real time remote guidance and support needed from other surgeons and medical teams. The state-of-the-art technology will enable doctors to perform more complex robotic surgeries in the future.



Robotic Aquablation

AUBMC is the first in the Middle East to apply robotic aquablation procedure, a novel technique to treat benign prostate hypertrophy in patients who have obstructive symptoms. The new technology uses water at very high pressure to treat the prostate. The technique offers better outcome especially in the sexual function.

Cardiothoracic Surgery

The Department of Cardiothoracic Surgery performed in January 2019, the first lung transplantation to happen in Lebanon. The procedure was performed on a patient with an end-stage cystic fibrosis lung disease and with a life expectancy of less than one year. Performing the first lung transplantation in Lebanon marks a key milestone for AUBMC and expands regional access to this specialized level of care. This state-of-the-art procedure promotes organ donation that is vital for this type of cases.

Lung transplantation is a primary option in the care of patients with end-stage chronic lung diseases, such as cystic fibrosis. Performing such a procedure gives a surge of hope and allows more people with end stage lung disease who have exhausted all other treatment options to be able to receive a lung transplant and resume a normal life.



Otolaryngology - Head and Neck Surgery

The Department of Otolaryngology and Head and Neck Surgery has been leading the way by introducing many firsts and onlys over the past few years. These include the treatment of vocal cord paralysis under local anesthesia only using fiberoptic endoscopy, use of a minimally - invasive technique unique to Lebanon and the region – to treat cases of disability in the vocal cords and of incomplete closure of the cords as a result of neurologic disorders such as multiple sclerosis and Parkinson’s (conducted by experts at the Hamdan Voice Unit) and endoscopic laser cancer resections such as partial laryngectomies (partial removal of the larynx).

The team at the Hamdan Voice Unit (HVU) has taken the lead in performing state-of-the-art un-sedated office-based procedures for patients with benign and pre-malignant lesions of the vocal folds and for patients with laryngeal movement disorders.

The HVU is the first to provide un-sedated office-based therapy for benign and pre-malignant vocal fold pathology in addition to laryngeal movement disorders such as vocal tremor. The provision of therapy is done using either laser delivered by glass fibers and or steroid injection using fiber optic needles. As the founding president of the Lebanese Voice Association, which holds frequent meetings amongst the laryngologists in Lebanon and the region, the HVU is the first and only to perform such procedures for the last two years.

The Department of Otolaryngology - Head and Neck Surgery offers comprehensive services in its Balance Center. The Balance Center is equipped with state-of-the-art technology to facilitate diagnosis of a broad range of balance problems originating from otological, neurological, or musculoskeletal diseases. The aim of the Center is to get patients back on track to an active and safe lifestyle. The Balance Center boasts the latest in balance assessment technology to tailor the testing to every patient’s needs so that an accurate diagnosis of vestibular and balance problems can be established.

The Metabolic and Bariatric Surgery Unit

In September 2015, AUBMC launched its new Metabolic and Bariatric Surgery Unit. Aligned with AUBMC 2020 Vision, the Metabolic and Bariatric Surgery Unit is a leading specialized center to treat obesity with emerging modern strategies and minimally invasive procedures. The unit provides the safest and most effective surgical and non-surgical weight loss options. Patients are assessed by specialists in obesity, endocrinology, exercise and dietetics as necessary before surgery is contemplated. Our surgeons are specially trained in advanced laparoscopic and bariatric surgery.

The Metabolic and Bariatric Surgery Unit aims to provide patients in Lebanon and the region with positive, long term and sustainable results allowing them to live a longer and healthier life.



Neurology and Neuroscience

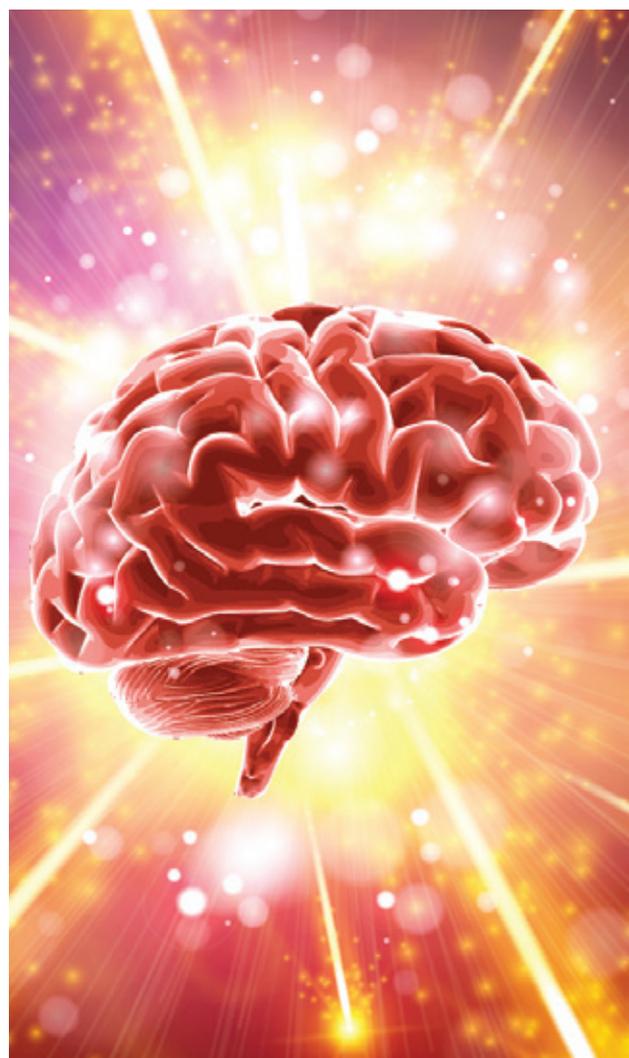
Inaugurated in 2014, the Ahmad and Jamila Bizri Neuro Outpatient Center is Lebanon's first comprehensive, multidisciplinary Neuroscience Outpatient Center- consolidating all of the Medical Center's neurology and neurosurgery services. It comprises neurology and neurosurgery clinics, a diagnostic neurophysiology lab, and sub-specialized clinics, including the well-established Epilepsy Program. The Center is also home to a Headache Clinic, an Amyotrophic Lateral Sclerosis (ALS) Clinic, and a Movement Disorders Program that addresses diseases of balance, motor coordination, and tremor, such as Parkinson's disease and dystonia.

The Ahmad and Jamila Bizri Neuro Outpatient Center is a significant leap for AUBMC in achieving its strategic objectives, bringing the Medical Center a major step closer to realizing the 2020 Vision.

The Abu-Haidar Neuroscience Institute (AHNI), a center of excellence dedicated to clinical and basic neurosciences with the introduction of its "firsts" and "onlys" has established a center that provide care to patients that may have previously had to travel abroad to the west to receive care or settle for a suboptimal treatment approach to their disease.

The Nehme and Therese Tohme Multiple Sclerosis (MS) Center is the first in the region to offer state-of-the-art resources to provide the most advanced specialized care, supported by an extensive program of research and education, in order to improve the lives of patients with MS, a degenerative disease that affects patients that are in their prime with the age of diagnosis usually ranging between 20 - 30 years.

In February 2012, the first Special Kids Clinic in Lebanon was opened wherein expert pediatric neurologists, and speech, physical, occupational, psychomotor and feeding specialists will provide early detection and outstanding expert diagnosis and coordinated, developmental, neurological and total care for neurologically impaired kids, especially special needs kids from Lebanon and the region, in an integrated and affordable manner.



First Healthcare Record System in Lebanon

AUBMC launched AUBHealth on November 3, 2018. Developed by Epic, the provider of the most widely-used and comprehensive health records system, AUBHealth provides a platform for integrated care, ensuring patients have convenient digital access to their health information.

Epic is used by many of the most advanced medical centers worldwide that work collaboratively every day to improve patient care, innovate healthcare delivery, and achieve financial health. AUBMC will be the first institution in Lebanon to use Epic.

AUBHealth has transformed AUBMC into being the gold standard of healthcare in Lebanon and the region. It also reflects the core of our AUBMC 2020 Vision, which is transforming medical education, research, and practice, and most importantly, medical care in the region, bringing them to new levels of excellence.”

Within AUBHealth, physicians will have access to real-time patient data and information, which saves time, avoids duplicate diagnostic tests, and could reduce clinical costs. AUBHealth empowers patients and their designated caregivers with easy access to health records. Using Epic’s patient portal, MyChart, patients can connect with their healthcare providers, schedule appointments, and access test results easily. The paperless system provides a secure and seamless patient experience using PatientSecure™, a cutting-edge biometric palm-scanning technology used for patient identification at registration and check-in.



The First ECMO transfer in Lebanon to Save the Life of Patients

In 2019, a mobile team of doctors and nurses from AUBMC saved a 33-year-old woman from certain death thanks to the first Mobile ECMO transfer in Lebanon and the neighboring countries. Supported by the transfer center at AUBMC, the Lebanese civil defense ambulances, and the air transfer backup of the Lebanese army, this first-of-its-kind transfer was successfully completed. The passion and dedication of the people involved paid off after 12 hours of work on supporting this highly complex transport.

Obstetrics and Gynecology

AUBMC's Department of Obstetrics and Gynecology has introduced the Preimplantation Genetic Diagnosis (PGD) program at the Haifa Idriss Fertility Unit in 2018. PGD is a technique used in reproductive medicine to identify genetic defects in embryos conceived through in vitro fertilization (IVF). It is offered when one or both parents have, or are carriers of, a known genetic abnormality.

PGD can also be used to test for many genetic conditions where a specific gene is known to cause that condition. The PGD has been approved for testing a large number of conditions such as translocations, thalassemia, sickle cell disease, cystic fibrosis, Huntington's disease, Fragile X, spinal muscular atrophy and others.

Oncology and Cancer Care

In November 2011, at the Naef K. Basile Cancer Institute (NKBCI) at AUBMC (a center of excellence dedicated to the treatment of adult cancer), oncologists and cancer care experts at AUBMC successfully performed the first unrelated donor allogeneic bone marrow transplant in Lebanon. This procedure was only possible due to the physicians' skills and experience, institutional readiness, and ability to meet international criteria. NKBCI is also leading the way in cancer care with an oncology program consisting of multidisciplinary services targeting the treatment of diffuse abdominal carcinomatosis by surgical debulking— removal of part of a malignant tumor which cannot be completely excised to enhance the effectiveness of chemotherapy - followed by hyper thermic intraperitoneal chemotherapy (HIPEC). In the fight against breast cancer, physicians at AUBMC have also performed the first RadioFrequency (RF) ablation of a breast mass – where a breast tumor was destroyed by using the heat generated from the high frequency alternating current. From the different procedures listed above, what makes the experience of patients visiting the NKBCI a successful one is not only the caliber of physicians and health care providers, but the multi-disciplinary nature of the team that allows a patient to not only work with oncologists but surgeons, radiologists, radiation oncologists, amongst others to provide patients with an entire team dedicated to providing them the best care and highest possibility for successful treatment.



Radiation Oncology

AUBMC's radiation oncologists have accumulated multiple "firsts" and "onlys" in the field throughout the region. They were the first to start with the Intensity Modulated Radiotherapy Treatment (IMRT) for optimized dose distribution and in implementing the Image Guided Radiotherapy (IGRT) to enable CT scanning while the patient is on radiotherapy treatment to ensure superiorly accurate geometrical targeting of the tumor.

Moreover, AUBMC pioneers in using the First Fluro Dopa (F-18 Dopa) PET scans in Lebanon. The advanced scanning is extremely beneficial in diagnosing Parkinson's Disease and recurrent brain tumors.

The Cyclotron Unit, another pioneering unit at AUBMC, enhances clinical practice in the area of molecular imaging and provides patients with access to the latest advancement in diagnosing and detection. The unit offers a good, flexible option for the production of a variety of isotopes on a regional scale, and most importantly, plays a pivotal role in advancing research and providing quality care for AUBMC's patients in Lebanon and the region.

AUBMC's radiation oncologists and medical physicists have also accumulated multiple "firsts" and "onlys". These include:

The first and only ACGME accredited Residency Training Program in Radiation Oncology (RO) in the Middle-East and outside the US.

The first to have American Board Certified Radiation Oncologists and Medical Physicists.

The first in the Middle-East to collaborate with the leading cancer-fighting institution in the US, our sister institution MD Anderson Cancer Center, University of Texas Houston.

The first in Lebanon and the region to offer a Medical Physics Residency program that welcomes international fresh graduates in Medical Physics and provides them with clinical training enabling them to work independently and safely in a clinical environment.

The first in Lebanon to acquire and apply clinically Deformable Registration Technology whereby two image sets (ex. CT and MRI) can be fused together even when the patient is not in the same position on both modalities. This allows for superior accuracy in tumor localization on the image set, thus better tumor targeting capability during treatment along with better sparing of surrounding healthy tissues.



AUBMC Partners with IAEA to Enhance Nuclear Medicine Collaboration in Lebanon and the Region
AUBMC signed a three-year practical arrangement agreement with the International Atomic Energy Agency (IAEA) to promote collaboration between the two organizations and enhance the practice of clinical nuclear medicine in Lebanon and the Middle East.

This practical arrangement is the first of its kind to be signed between the IAEA and AUBMC and will cover four main thematic areas, including collaboration in the training of professionals from IAEA Member States in nuclear medicine and molecular imaging or allied disciplines, collaboration in the organization of meetings and workshops on clinical nuclear medicine practice and related research, assistance in training and capacity building with the focus on education and training activities, and the exchange and dissemination of unclassified information of mutual interest and relevance.

First-of-its-kind Memorandum of Cooperation with the Lebanese Presidency of the Council of Ministers

As part of its commitment to raise the level of public health in Lebanon and the region, AUBMC signed a memorandum of cooperation and partnership with the Lebanese Presidency of the Council of Ministers for the purpose of strengthening national medical capacities, managing, and responding to chemical, biological, radiological and nuclear accidents.

Within this framework, AUBMC will exert every effort to share the wealth of knowledge and expertise in the various fields with the Council of Ministers and CBRN in order to set the foundations for the Centers of Excellence and the first-of-its-kind training center built for that purpose.

This partnership will enhance the Lebanese citizen's right to unique hospitalization services and advanced medical capabilities that are consistent with international quality standards.



Pulmonary and Critical Care

Another accomplishment by our expert physicians is represented by the endobronchial ultrasound (EBUS) guided needle aspiration of a thoracic lymph gland. The procedure performed at AUBMC to diagnose thoracic cancer was the first in Lebanon and the region.

The first pulmonary rehabilitation program in Lebanon and the region was also established at AUBMC to help patients suffering from chronic obstructive pulmonary disease (COPD) and other lung diseases. Driven by the high prevalence of smoking in our population, the program came to tackle the prevalence of COPD which has significantly increased in Lebanon.

In 2017, AUBMC announced the launching of the first Extracorporeal Membrane Oxygenation (ECMO) program in Lebanon during the first Neonatal, Pediatric, and Adult ECMO Meeting. ECMO, an advanced technology that functions as a replacement for a critically ill patient's heart and lungs, offers patients an additional chance for life, and gives the medical team a second chance to revive the diseased organs. The availability of this state-of-the-art technology at AUBMC will aid doctors to better manage acute cardiac and respiratory disorders and improve clinical outcomes.

Department of Dermatology

The Department of Dermatology is the first to introduce MOHS micrographic surgery for skin cancer. MOHS allows better control of the cancer margins and lowers risk of recurrence of the tumor (as compared to traditional excision techniques). Because of its precise nature, only the skin tumor is removed. This means preserving as much normal skin as possible and not removing an unnecessarily big part of your skin. That is why MOHS is the number one treatment modality for the treatment of certain types of skin cancer.

The Pharmacy Department

In 2018, the Pharmacy Department at AUBMC in collaboration with the Nursing Department launched a new automated system for medication dispensing known as Pyxis Carefusion, the first-of-its-kind in Lebanon. These Automated Dispensing Cabinets (ADC) support new integration capabilities with decentralized medication management while ensuring various features for safety and efficiency. The flexible system helps accurately dispense medication without affecting pharmacy workflows. The new patient-centric workflow promotes medication safety enhancement and clinical workflow efficiency. Adding to that, the modular system helps reduce the risk of medication errors, diversion, and time-consuming non-value activities to support rapid initiation of medication orders.

Ophthalmology

The Department of Ophthalmology has the first and only uveitis service in the country established in 2009. Uveitis is an uncommon disease that affects about 50 in 100,000 population, yet it is extremely devastating since it causes significant morbidity and is the third cause of blindness. Upon the establishment of the uveitis service, several conferences were organized in 2010, 2011, 2012 and 2016 to raise awareness among the Lebanese ophthalmological community about this disease and the creation of this service to encourage collaboration for proper diagnosis and management of these difficult and dangerous ocular conditions.

The Laser Eye Center at AUBMC is a leading center in laser vision correction excellence as well. From cutting edge diagnostic platform to determine patient eligibility and treatment planning to highly advanced and extremely safe customized laser vision correction technology, the Center is the only in the Middle East/ Gulf region to offer intraoperative optical coherence tomography (iOCT), a vital technology to evaluate, through the operating microscope, several key structures and aspects, which the surgeon's eyes cannot see or process. It also offers Beyond HD, the latest generation of customized wavefront-guided laser technology, the Pyramidal wavefront sensor, measuring up to 45,000 points in the whole eye to correct and improve vision.

AUBMC has also been the first to offer SmartSurf technology in the Gulf/Middle East region. SmartSurf, the most advanced form of TransPRK, provides true "no touch" laser technology from the minute the patient lies down to undergo the laser vision procedure to the minute he/ she stands up (a few minutes later).

In addition, AUBMC has set the standard many years ago by dumping the blade and adopting FemtoLASIK (bladeless LASIK). Today, armed with the latest femtosecond laser technology, surgeons at AUBMC Laser Eye Center perform extremely safe and highly precise procedures to treat visual errors.

AUBMC is also the official Gulf/Middle East teaching and training center on the Ziemer femtosecond laser technology for cataract surgery and laser-assisted corneal transplantation.



Department of Anesthesia

The programmed intermittent epidural bolus (PIEB) was recently introduced to the obstetrical anesthesia clinical service at AUBMC. PIEB is a new technique that improves the quality of epidural labor analgesia. Historically, the maintenance of epidural analgesia has progressed from manually delivered intermittent boluses, to continuous epidural infusion, to the addition of patient-controlled epidural analgesia boluses activated by the parturient for breakthrough pain and most recently PIEB. PIEB consists of programmed regular epidural boluses delivered to the parturient automatically through a state-of-the-art epidural pump. PIEB has emerged as a superior method for delivering labor analgesia due to reduced hourly local anesthetic consumption, less need for clinician intervention, and improved maternal pain and satisfaction scores compared to other techniques.

Child and Adolescent Psychiatry

The Division of Child and Adolescent Psychiatry at the Psychiatry Department at AUBMC is the first and only division of its kind in Lebanon. It aims at providing the highest standards of comprehensive evidence-based and multi-disciplinary care to patients. Its mission is providing leadership in the field of child and adolescent mental health by integrating clinical practice, research, teaching, and advocacy.

The division houses the first and only special education services within a hospital setting in Lebanon, the first and only Child and Adolescent Case Management service in Lebanon, the first and only child and adolescent mental health fund in Lebanon, and the first and only Child and Adolescent Psychiatry Fellowship in Lebanon.



Psychosis Recovery Outreach Program (PROP)

The Psychosis Recovery Outreach Program (PROP) was established in February 2016 in the Department of Psychiatry at AUBMC. Being the first community program for patients suffering for psychosis in Lebanon, it brings the best evidence-based multidisciplinary approach from the US, UK, and other developed health economies to the MENA region.

Treatment and Outreach Program for Eating Disorders (TOP-ED)

AUBMC Treatment and Outreach Program for Eating Disorders (TOP-ED) is also unique in a number of ways. It is the first multidisciplinary specialized program in eating disorders that is situated in a university based medical center. TOP-ED has a research mandate aimed at better understanding the characteristics and needs of patients seeking services as well as promoting awareness of signs and factors associated with the illness. TOP-ED also aims at providing relevant training and resources for psychologists and allied professionals nationally and regionally.

In brief, the Department of Psychiatry has assumed a leadership role in providing services to an under-served population.



The Medical Center Scheduling System

The Medical Center Scheduling System (MCSS) is the first scheduling system at AUBMC exhibiting user-friendly comprehensive high tech features for scheduling operations and acting as a reference for the Anesthesiologist's workflow. The system's features include scheduling surgeries by New OR Codes and CPT codes, OR duration linked to one OR code, all operating sites, specified contact isolation precautions for each case amongst many others.

The system has transformed the manual hardcopy schedule at the Anesthesia Department into a paperless high tech featured system which allows the generation of multiple reports depicting the workload analysis, number of cases performed, number of cases per location, number of cases per category, and percentage of cancelled cases, as well as clinical load per anesthesiologist.

Pathology Department

The Pathology Department is the first institutional department to have an affiliation with the American Association for Molecular Pathology (AMP) rather than the usual affiliation with professional societies and a welcome recognition to the Department of Pathology and Laboratory Medicine and its Molecular Pathology services which are run under the highest international standards and carry the widely respected CAP accreditation.

The affiliation with AMP will have major educational and marketing implications at many levels including technology update in molecular diagnostics, support and sponsoring of educational meetings, faculty development, and opportunities for advanced training in US centers for residents and technologists. This affiliation will also provide an international extension for genomic research conducted at AUB and AUBMC through on-going cooperation with renowned peers in molecular pathology and genomics.

Center of Excellence for Invivoscribe Technologies

The Molecular Diagnostics Laboratory at AUBMC has been selected as the first regional Center of Excellence for an international US-based company (INVIVOSCRIBE TECHNOLOGIES) providing state-of-the-art Next Generation Sequencing services. This is a first for Lebanon and first for the company in the region.

Clinical Microbiology

In expediting the management of patients suffering from infectious pathogens, the most rapid and advanced automated pathogens identification system globally, namely the Matrix-Assisted Laser Desorption/Ionization Time-of-Flight (MALDI-TOF) system, was introduced at the Clinical Microbiology Laboratory at the Department of Pathology and Laboratory Medicine. The MALDI-TOF offers the rapid (within minutes) and accurate identification of bacterial isolates with the future potential of offering rapid identification of fungal and mycobacterial isolates.



International Accreditations

AUBMC is the only medical institution in the Middle East to have earned the five international accreditations, attesting to its superior standards in patient-centered care, nursing, pathology/laboratory services and graduate medical education.

The five international accreditations:

Joint Commission International (JCI)	The Magnet Recognition Program
The College of American Pathologists (CAP's) Laboratory Accreditation Program	Accreditation Council for Graduate Medical Education - International (ACGME-I)
The Joint Accreditation Committee ISCT-Europe & EBMT (JACIE)	

AUB Faculty of Medicine Receives TEPDAD Accreditation

Early in 2019, the Association for Evaluation and Accreditation of Medical Education Programs (TEPDAD) International Medical Education Accreditation Council has ruled that AUB medical school's program meets the World Federation for Medical Education (WFME) Standards satisfactorily. Accordingly, the Faculty of Medicine has been granted "full accreditation" for a period of six years. In securing this accreditation, AUB-FM is now in compliance with the ECFMG requirement that, by 2023, all applicants to US medical schools or residency programs must come from medical schools accredited by a WFME-approved body. Accreditation was granted based on the Faculty of Medicine's self-evaluation report (SER) and the onsite evaluation visit of the Council team.

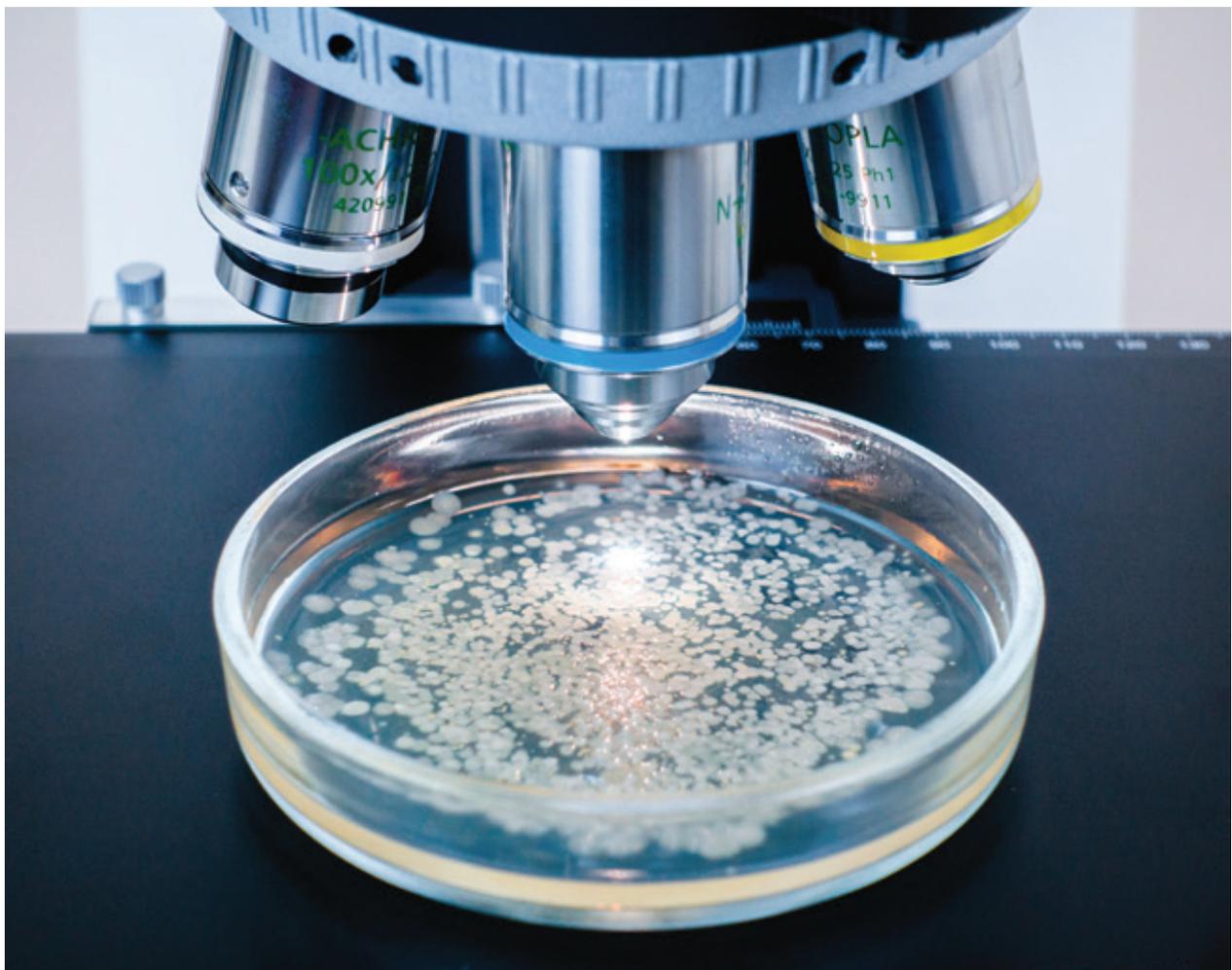
ACGME-I

Effective July 1, 2019, graduates of the Faculty of Medicine ACGME-I programs with Advanced Specialty accreditation started being viewed as eligible to apply for US ACGME fellowships. All US based programs have agreed to the eligibility except for fellowships in neuro-surgery.



World Health Organization designates AUBMC as a WHO Collaboration Center

The World Health Organization (WHO) has designated the Department of Experimental Pathology, Immunology, and Microbiology (EPIM) and the Center for Infectious Diseases Research (CIDR) at the Faculty of Medicine as a “WHO Collaborating Center (WHO CC) for Reference and Research on Bacterial Pathogens in Lebanon. The designation effective as of February 2019 recognizes a history of collaboration with WHO and provides a formal framework for future joint activities. The Center will cooperate with WHO on a diverse range of activities including data collection published in regional WHO bulletins, organizing local and regional training workshops and conferences, monitoring, tracking and controlling spread of multidrug resistant (MDR) bacterial pathogens and responding to emergencies in outbreak settings.



Emergency Medicine

The Emergency Department has been the first to establish the following academic programs and services:

- First Academic EM department
- First EM residency training program
- First student clerkship
- First Medical Toxicology Program in Lebanon
- First Pediatric Emergency Medicine specialist in Lebanon
- First ED in Lebanon to integrate Emergency Ultrasonography in routine care

Family Medicine

Advanced GP Course: Essential Skills in Family Practice

The Department of Family Medicine at AUBMC designed a blended course that aims at transitioning general practitioners (GP) to the family practice model. This course entitled “Advanced GP Course: Essential Skills in Family Practice” was developed in collaboration and upon the request of the World Health Organization in the Eastern Mediterranean Region office (WHO-EMRO). It is the first recognized course in the region by WHO-EMRO as part of the bridging program for GPs who do not have formal postgraduate training or qualifications.

Several training of trainers (ToT) sessions on the delivery of this blended course were delivered to representatives from different countries in the region. A first implementation of the course was conducted by the Department of Family Medicine to a group of General Practitioners working in the United Nations Relief and Work Agency in the Near East (UNRWA).

Athlete Cardiac Screening Program

The Department of Family Medicine and CHAMPS Fund launched in 2014 the Athlete Cardiac Screening Program targeting varsity teams at AUB. This is the first program launched in a university in Lebanon, and it includes conducting a comprehensive medical assessment of athletes enrolled in varsity teams at AUB including but not limited to cardiac screening and a musculoskeletal exam. This is done in collaboration with the University Sports and faculty members from the division of cardiology and orthopedic surgery at AUBMC.

Family Medicine Residency Program

The Department of Family Medicine at AUBMC was the first to introduce the Objective Structured Clinical Examination (OSCE) for its residents and students, and it was the first training site outside the United States of America to administer the American Board of Family Medicine in-training exam.



Health and Wellness

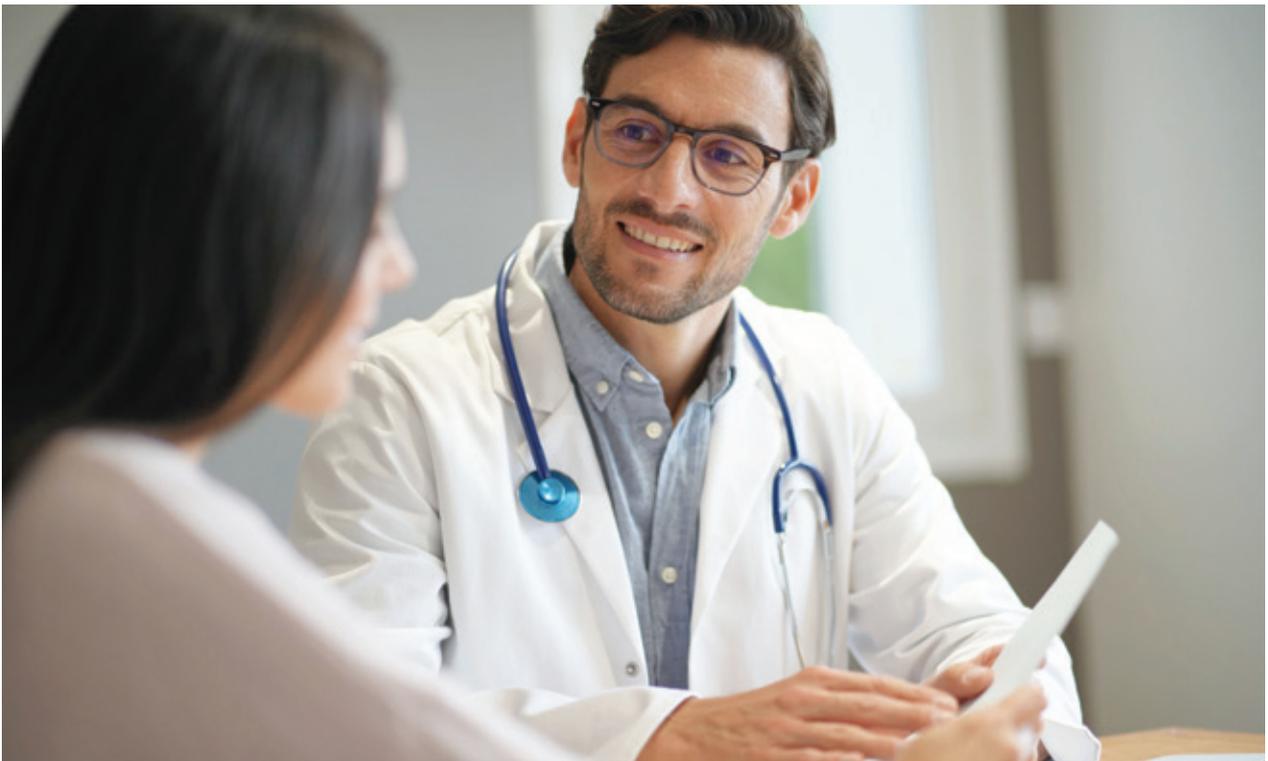
In 2015, the Department of Family Medicine introduced the first and only university and medical center-based Health and Wellness Center that aims to provide exemplary, comprehensive, and continuous primary healthcare to ensure a healthy life. The center offers clinical and evidence-based integrative health services and fulfills AUBMC's mission by delivering the highest quality of care. It provides a platform for both wellness and integrative health services, which fall under three main arms: Academic and Research, Wellness Services, and AUB Wellness Program. The center's vision is to become a state-of-the-art Health and Wellness Center of Excellence that extends its services to people in Lebanon and the region.



Balint Training: For a better Doctor-Patient Relationship

The Department of Family Medicine initiated the first Balint training in the region in February 2013. The Balint training is used to develop and strengthen the patient doctor relationship in family medicine and other residency training programs in order to enhance the doctor's expertise.

Clinical Examination (OSCE) for its residents and students, and it was the first training site outside the United States of America to administer the American Board of Family Medicine in-training exam.



First of their kind Clinical Centers and Programs:

The first Nehme and Therese Tohme Multiple Sclerosis (MS) Center in the region



The first center in the Middle East dedicated for women's breast health – the Mamdouha El Sayed Bobst Breast Unit



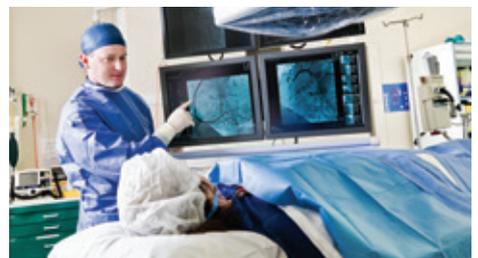
The first Special Kids Clinic in Lebanon and the region



The first comprehensive multidisciplinary Balance Center in Lebanon



The first Professor Samir E. Alam Heart Failure Unit in Lebanon



The first Partial Hospitalization Program
adolescents in Lebanon



The first Pulmonary Rehabilitation
Program in Lebanon



The first Metabolic and Bariatric
Surgery Unit



The Dr. Agnes Varis Healing Program
for Substance Use Disorders



The Child Protection Program



First-of-their-kind Research and Academic Centers:

Consistent with its pioneering role in delivering cutting-edge medical research, the AUB Faculty of Medicine and AUBMC have established:

The first Clinical Research Institute (CRI) in the region in 2015 to launch its Faculty Advancement Program in Clinical Research to support selected junior faculty members at AUBMC in advancing their clinical research career and promote the growth of the clinical research community, positioning AUBMC as the hub for regional research.

The first Human Research Protection Program in 2010, to set regional standards for human subject research.

The first foundations for 5 Basic Translational Research Centers of Excellence - Cardiovascular Sciences, Immunology Program, Genetics, Therapeutic Stem Cells, and Cancer Biology.

The first Bioethics and Professionalism Program in the region – the Salim El Hoss Bioethics and Professionalism Program – the first initiative in the Arab World targeted at enhancing public awareness, understanding and scholarly work on contemporary issues related to bioethics, humanism and professionalism and promoting the development of requisite skills and attitudes among medical practitioners.

The first regional center for mental health studies in collaboration with the WHO – the Arab Regional Center for Research and Training and Policy-Making in Mental Health

The first Vascular Medicine Program in Lebanon



