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Custodian of the Two Holy Mosques
King Salman Bin Abdulaziz Al Saud
King of Saudi Arabia
His Royal Highness Prince
Mohammed Bin Nayef Bin Abdulaziz Al Saud
Crown Prince
Deputy Prime Minister
Minister of the Interior
His Royal Highness Prince
Mohammed Bin Salman Bin Abdulaziz Al Saud
Deputy Crown Prince of Saudi Arabia
Second Deputy Prime Minister
Minister of Defence
His Royal Highness Prince

Miteb Bin Abdullah Bin Abdulaziz Al Saud

Minister of National Guard
The Ministry of National Guard Health Affairs has established what is today becoming truly a leading academic medical center, one of very few in the Middle East comprised of a set of specialty hospitals, Health Sciences University and King Abdullah International Medical Research Center (KAIMRC) represented in multiple regions of the kingdom.

With KAIMRC recent efforts, we are confidently moving into joining the international hub for personalized medicine. We will no longer be content by providing only a good clinical care, but we are aiming at developing and contributing to offering a personalized clinical care to our patients, this is the era of personalized and precision medicine.

The Biomedical and Translational research at NGHA that is being conducted at KAIMRC brings a great value not only to NGHA and the medical city community alone but also to the entire Kingdom of Saudi Arabia, in particular through the creation of knowledge based economy, the Improvements in the length and quality of life of Saudis citizens and the Enhancement of the nation’s international reputation.

Our research agenda will take us from the bench to the bedside. We are also aiming at providing full support to those researchers with entrepreneurial mind to embark into bringing creative and innovative ideas into the market. We are truly positioning KAIMRC as an international leading research and development Center of the 21st century.

Dr. Bandar Al Knawy
CEO of MNGHA ,
President KSAU-HS
We have spent the last few years building a strong foundation for biomedical and clinical research. We are now witnessing the dawn of new era where we will focus on few strategic health priorities to respond to national challenges and priorities.

We are repositioning ourselves to ensure a greater success and to cope with the fast evolving and complex biomedical research field. Our model will consist of setting up large, multidisciplinary and diverse team functioning as a single unit, utilizing everyone’s strengths in a strategic, cohesive, synergistic fashion which will be the way forward to advance Research & Development agenda.

That is the model we are implementing at King Abdullah International Medical Research Center, where we have brought basic, translational, and clinical research as well as Biotechnology development together under one roof. This is the 21st century model for success in biomedical research. Our disease area of interest will be narrow but focused, and our technological resources are broad and state of the art. The ultimate goal is to contribute to the well beings of Saudi citizens and to contribute to the global biomedical and health research agenda towards building a stronger personalized and precision medicine yet following an innovative approach and adopting a bold model to achieve it.

In the history of science, a few individual scientists working on their own made important discoveries. They were the breakaway riders. But the world is changing. Collaboration, cooperation, and shared insights are the keys to success. At KAIMRC, we are betting on our research and development integrated model to overtake fragmented research initiatives and win the race for the cure.
ABOUT US

King Abdullah International Medical Research Center’s (KAIMRC) purpose is to transform lab results into products that improve the quality of life, while training skillful researchers within the healthcare community. KAIMRC is a young and thriving organization that has evolved to accomplish immeasurable success in a short period of time. At KAIMRC, we pursue translational research to facilitate the advancement of biomedical and clinical research and knowledge into practical solutions. All KAIMRC employees and researchers are loyal to the organization’s values, and our success is owed to the depth of that loyalty. Values, such as ethics, transparency, teamwork, and quality performance are demonstrated by our entire organization, and are the keys to our success. We continue to strive for excellence and higher standards through international collaborations and partnerships and quality project expansions.

Under the umbrella of National Guard Health Affairs, KAIMRC has multiple branches in the Central (Riyadh), Eastern (Al Ahsa and Dammam), and Western (Jeddah and Medina) regions of Saudi Arabia. Our research center is renowned for its notable core research projects such as the Saudi Biobank, the Cord Blood Bank, and the Research Trauma Project, in brief. These projects are leading to incredible advances in Saudi Arabia’s most common diseases including diabetes, cardiovascular diseases, cancer, trauma, obesity, and hypertension. The KAIMRC complex possesses a high-quality scientific atmosphere consisting of first-class enabling technology research platforms and laboratories. These ground-breaking laboratories include Animal Laboratories & Testing Rooms, DNA & Stem Cell Cord Banks, and Radiology rooms. King Abdullah International Medical Research Center will continue to be a leading international health science research institution that administers and executes biomedical research programs in order to understand and solve complex medical health issues.
VISION, MISSION, & GOALS

VISION
To be a leading international institution in biomedical and clinical research.

MISSION
To generate cutting-edge scientific research that helps improve the health of the population.

GOALS
1) Positively impacting the health of Saudi population and the overall healthcare system in KSA.
2) Creation of a knowledge-based economy.
3) Enhancing the academic medical center and the nation’s international reputation.

To successfully achieve these goals, we need:
1) Innovative and competitive research programs.
2) Human capital development.
3) Operational excellence.
4) Strategic Clarity.
At KAIMRC, we incorporate the highest standard of Islamic medical ethics into all our practices within the research and healthcare system. It is with deliberate synchronization of every step in our clinical decision making, policies, research and teaching.

**Scientific Excellence**
KAIMRC’s greatest commitment is to offer no less than excellence in scientific research. We believe scientific excellence can only be accomplished with a talented and proficient workforce and enhanced through world class facilities and enabling platforms.

**Ethics**
At KAIMRC, we incorporate the highest standard of Islamic medical ethics into all our practices within the research and healthcare system. It is with deliberate synchronization of every step in our clinical decision making, policies, research and teaching.

**Innovation & Commercialization**
We recognize and value the importance of creativity and responsible risk-taking. KAIMRC aims to encourage and provide strong support to innovation and commercialization projects through the newly planned medical biotechnology park.

**Collaborations & Partnerships**
Collaboration is the cornerstone of our organization. It is deeply rooted in all of us; KAIMRC, MNG-HA, KSAU-HS and ensures our alignment and synergy as well as our contribution to and pursuit of our research mission.

**Capacity Building**
Capacity building is an integral component of the mission of KAIMRC. The reputation and standing of KAIMRC will depend largely and is a reflection of the quality and satisfaction of the team members. Therefore, we promote, recognize, reward and invest in continuous education of our staff.

**VALUES AND PRINCIPLES**
VALUES & PRINCIPLES

ETHICS
At KAIMRC, we incorporate the highest standards of national and international medical ethics into all our practices within the research and healthcare system through deliberate synchronization of every step in our clinical decision making, policies, research and teaching.

SCIENTIFIC EXCELLENCE
KAIMRC’s greatest commitment is to offer the highest level of excellence in scientific research. We believe scientific excellence can only be accomplished with a talented and proficient workforce and enhanced through world class research facilities and amenities, therefore providing an optimal environment to pursue research.

INNOVATION
We recognize and value the importance of creativity and responsible risk-taking. KAIMRC aims to set up a dedicated biotechnology park with focus on further advancing early and promising laboratory discoveries into innovative medical solutions.

RESPECT
We appreciate the contribution that every individual makes to ensure the success of our research and development enterprise. We have a diverse and multicultural environment in the Kingdom of Saudi Arabia. We very much value the involvement of our patients and our study participants. We apply the highest standards of care, integrity, and confidentiality in our services to patients and employees.
KAIMRC FACILITIES
King Abdullah International Medical Research Center, with its multiple locations, is committed to providing the highest quality scientific environment. This is executed by providing the latest generation of high-throughput technology, including genomic and proteomic platforms, Molecular Imaging Resources, and Animal Laboratory Facilities containing both terrestrial and aquatic animals.

The pictures below depict, amongst others, our newly inaugurated Riyadh facility. This facility consists of 5 floors, covering over 30,000 square meters.

We will be increasing our human capacity in the three regions with a strong emphasis on recruiting high caliber scientists from Saudi Arabia and abroad.
KAIMRC WESTERN REGION – 10,000 M²

KAIMRC in the Western Region (WR) represents the cornerstone for medical research within this region of KSA. It operates in parallel with KAIMRC Central and Eastern Regions, sharing strategies and operational resources. Creativity and innovation are promoted between each other. KAIMRC – WR provides advanced infrastructure for research scientists and investigators as well as state-of-the-art technology and equipment. Access is not limited to the local area, but national and international researchers from other institutes and research centers will be able to access the center, through multiple collaborative schemes in order to serve the noble cause of advancing medical knowledge.

The new 5-story KAIMRC-WR opened in September 2014 with the offices operating in the first, third, fourth and fifth floors. The building contains state-of-the-art laboratories: Vivarium, Animal Laboratory, Medical Imaging Laboratory and lecture rooms. This facility also includes DNA Banks, Stem Cell Labs and Immunology Labs with the highest international research standards.

KAIMRC-WR also employs high caliber, qualified, and skilled staff who are enthusiastic in their fields and display teamwork and high ethical standards. At KAIMRC-WR, we are striving to maintain these standards for excellence.
KAIMRC EASTERN REGION – 5,000 M²

KAIMRC-ER was established in December 2008 with the vision to take the lead in medical research within the Eastern Region in the Kingdom and a mission to create a research environment that promotes learning research methodology, leading to the performance of high-quality relevant researchers.

Currently, the Eastern Region has its Research Office in King Abdulaziz Hospital, Al-Ahsa and Research Office, Imam Abdulrahman bin Faisal Hospital, Dammam, which provides comprehensive assistance to researchers in conducting clinical research in the region. In addition, this region has an Education and Promotion Section that plays a decisive role in the creation, dissemination and use of research knowledge by conducting research-related educational activities, i.e. lectures, symposiums, courses, etc. The Eastern Region also has consultation and support services such as Statistical Consulting Service and Research Methodology Consulting Service.

Area and Labs – The area includes basic science laboratories, administrative areas, animal laboratories. A fully functional lab will soon be established.

Current services will continue and progress in addition to basic sciences research that will start focusing on metabolic disorders including obesity, diabetes, dyslipidemia and cardiovascular risk. It will have a metabolic lab in the near future as well.
KAIMRC CAPACITIES
CAPABILITIES
The goal of the Saudi Biobank is to increase the quality of patient care and accelerate the impact of research on such care. It will implement the highest standards of biological banking to provide outstanding clinical, medical, demographical, and analytical data. The Saudi Biobank is designed as a longitudinal investigation of demographical and environmental factors influencing illnesses in Saudi Arabia. The Saudi Biobank’s objective is to implement the highest standards of biological banking as it is vital for building genomic/proteomics databases. These databases will increase the quality of healthcare by creating a link between lifestyle, environment, and clinical practice. The biological samples at the Saudi Biobank will include buffy coat, serum, urine and tissues.

The Saudi Bio-bank team is targeting 200,000 individuals and diseased subjects for fluid and solid body tissue samples, while DNA/RNA reservoir capacity is 1.8 million matrix tubes for genetic diseases seen in day-to-day clinical practice. The Saudi Biobank has launched a complete automated DNA banking system that carries out a full robotic extraction of DNA from blood, followed by banking the samples at 20°C. The retrieval of the samples is also auto-programmed by the LIMS system.
SAUDI STEM CELL DONOR REGISTRY (SSCDR)

KAIMRC and the National Guard Health Affairs have made history by launching the first Stem Cell Donor Registry in the Arab world. The Stem Cell Registry Program works closely with our Cord Blood Bank and stem cell research remains a top priority for KAIMRC.

In Saudi Arabia, 30% of adult patients and 60% of pediatrics patients cannot find a matching family donor. Therefore, the establishment of the first Saudi Stem Cell Donor Registry for unrelated donors is of utmost need. Stem cell transplantation is used to treat many life-threatening diseases such as Leukemia and Non-Hodgkin’s Lymphoma.

This registry is a KAIMRC national project launched in line with international standards, and is currently in the World Marrow Donor Association (WMDA) accreditation and is already part of the World Wide Bone Marrow Registry.

SSCDR offers another chance for patients who cannot find a family donor, by providing a rich database of potential unrelated donors. Our life-saving registry plans to recruit 100,000 donors in its first five years through nationwide public awareness campaigns, an ambassador program, marathons, and educational campaigns.

Today, the Kingdom of Saudi Arabia is the first in the Arab world with over 10,000 stem cell donors.
CORD BLOOD BANK

The Cord Blood Bank (CBB) at KAIMRC is a national non-profit project, responsible for recruiting, processing, testing, cryopreserving, storing, thawing and infusing cord blood units that will be used for patients in need of cord blood stem cell transplantation. The CBB activities will be carried out within a quality system compliant with international standards.

The main objective of CBB is the collection and production of high quality cord blood units, which could be collected at birth without any harm to the newborn infant. These will come from Saudi donors, to be given to unrelated patients. Units not suitable for clinical use shall still be utilized in research in the stem cell therapy laboratory.
BIOEQUIVALENCE RESEARCH

The bioanalytical lab component of the Drug Bioequivalence Center was established with the recruitment of several members of its laboratory staff. Its current location is Badir for Biotechnology, the Saudi National Biobusiness Incubator. New analytical laboratory equipment is being installed and calibrated and the laboratory staff is currently being trained to utilize its equipment. One hundred and fifty drugs from different classes were documented and could be further validated using the specific equipment to be used in current drug bioequivalence studies. Most required standard operating procedures (SOPs) for the bioanalytical laboratory were written, along with the clinical and health protection/safety procedures.
MEDICAL GENOMICS RESEARCH

KAIMRC's Medical Genomics Research Department (MGRD) is poised to carry out cutting-edge research aimed at addressing medical problems with an emphasis on the people of Saudi Arabia. This department is equipped with the latest technologies to facilitate next-generation sequencing, microarray, cell culture, DNA sequencing, real-time PCR and other molecular biology-based research. Its major areas of research are in the fields of human genetics, medical genomics, cancer genomics, hepatology and cellular/gene therapy.

The Department of Medical Genomics strives to produce high-quality research of translational value. This is manifested by its consistently high performance in the task of publishing papers and generating databases. A very high-capacity biobank is a hallmark of this department. Training of individuals and groups as well as collaboration are a necessary part of medical genomics. There are several collaborations in progress, both inside and outside National Guard-affiliated institutions, including both the hospital and university.

MGRD is expanding its research base to include new scientific areas that can advance KAIMRC further into the arena of medical research.
EXPERIMENTAL MEDICINE

The state-of-the-art animal research facilities at King Abdullah International Medical Center are designed according to international standards to ensure the safety and human care of research animals. Three vivariums will be inaugurated in Riyadh, Dammam and Al Ahsa, respectively.

The Vivarium Research Facility provides a complete range of equipment for recombinant DNA research, and Transgenesis, together with the latest generation of optical, and SPECT Imaging and Magnetic Resonance imaging. Each vivarium is staffed with highly qualified veterinarians to ensure proper handling, care, and use of animals in scientific, human, and ethical principles.

Further, each Vivarium Research Facility is open for international accreditation and regular monitoring by the Institutional Animal Care and Use Committee.

The animal core facility is composed of 4 units namely the laboratory animals, reproductive biology and transgenesis, imaging, and experimental surgery.

Laboratory Animals

The function of the laboratory animal facility is to provide animals and veterinary care for a wide variety of small and large animals (wild and transgenic species). The staff of the section will be composed of highly qualified veterinarians, scientists and technicians to ensure that the animals remain healthy at all times. They will offer an array of technical services and expertise as well as education in animal use for research. They will also provide consultation in the safe, humane use of laboratory animals in research and education.
Imaging Unit
Molecular imaging is a new field of science that resulted from the successful convergence of molecular biology and in-vivo imaging. The prodigious progress in the imaging technology enables the visualization of gene expression, biomarkers in living cells, tissues, as well as whole living organisms.

Experimental Surgery Unit
The experimental surgery unit’s function is to support experimental studies aimed at developing and utilizing new techniques, devices, and instruments for research that can be translated to improving prevention and treatment of various diseases in humans. Its function is also to assist investigators in developing surgically-induced models of these diseases, while providing hands-on training for surgeons and researchers using state-of-the-art equipment and instruments.

Inflammation and Cell injury Research Unit
The Inflammation and Cell Injury Program aims to characterize the biological mechanisms that underline the severity of outcome in patients requiring admission to hospital, in particular to the Intensive Care Unit (ICU), after acute injuries including sepsis, trauma, heat stroke or surgery. The program will focus on the study of the immune system and coagulation response to acute injury or illness at the molecular, cellular, and entire organism level in both experimental animal models of sepsis, trauma, heatstroke and humans with these injuries, taking advantage of KAIMRC’s unique platform in the field of immunology, genomics, proteomics, bioinformatics and laboratory animals.
INFECTIONIOUS DISEASES

The Infectious Disease Section is divided into the following units:

BACTERIOLOGY AND MYCOLOGY
KAIMRC is endeavoring to establish a fully-equipped virology lab that provides comprehensive and innovative virology testing services to our country and the entire Gulf Region. This service will range from viral cultures to molecular typing and sequencing of different viruses. In addition, it shall seek to develop new detection and isolation assays in response to the newly emerging viruses (H1N1 and MERS-CoV) that satisfy our clinical and research needs. While the mycology lab will be targeted towards the end of our first five-year cycle, it will provide mycological research including isolation, identification, and genotyping.

VIROLOGY AND ENVIRONMENTAL LABORATORY
The goal of this lab is to commission an environmental lab that will serve the purposes of national and international research and focus on the behavior and nature of regional environmental pathogens. Furthermore, we are investigating factors that influence the survival of microbial pathogens in our environment and the potential or means of trans-contamination, ultimately stopping the spread of infection.
BIOSAFETY LABORATORY (BSL3)
The mission of this lab is the inclusion of research projects on emerging BSL3 pathogens such as dengue fever, rift valley and others by using genetic, cellular, and molecular biology approaches. In addition, there is importance associated with the usage of this data to understand the mechanisms of disease and identify drug targets which may culminate with both drug and vaccine development.

ANTIBIOTIC AND VACCINE DEVELOPMENT
Establishing the capacity to develop and improve on pharmaceutical agents as well as immunization products. Our current research is focused in the field of microbiology to monitor the emergence and spread of newly recognized infectious diseases and to investigate outbreaks of well-known microbial infections.
The presence of Nanotechnology, alongside other research areas, plays an important role in advancing the medical field. The Nanomedicine group focuses on applications of nanotechnology in a medical/clinical context. The group gathers distinguished researchers with different backgrounds to conduct research, share ideas and discuss prospects of the field. The projects that the Nanomedicine group leads as a contribution to medical research includes:

- Improving point-of-care diagnostics to allow early intervention and a better patient outcome.
- Developing novel drug delivery systems for chemotherapy, vaccines, gene delivery and infectious diseases.
- Utilizing nanoparticles and advanced materials for tissue repair and regeneration.
- Nanotechnology-based imaging. Our main goal is to translate Nanomedicine research from bench to bedside by carrying it from laboratory experiments through clinical trials to clinical patient applications. It is also carried out with many collaborations with nationally and internationally recognized institutes/affiliates.
RESEARCH TRAUMA PROJECT

Trauma is ranked as the number one killer in Saudi Arabia; it is the leading cause of death in the country’s youth and the second most prevalent cause of death in all age groups. Due to the critical need to reduce morbidity and mortality rates, KAIMRC has implemented the first Trauma System in the Kingdom of Saudi Arabia. This project is supported by King Abdulaziz Medical City for Science & Technology (KACST). The development and implementation of the trauma system is a method to improve survival and reduce complications after traumatic injury. Such Trauma Systems have been executed worldwide and have already been proven to reduce mortality rate by a staggering 25%.
The Population Health Research section was founded in 2010 with the aim to contribute to the knowledge and implementation of public health at national and regional levels. This is achieved through advancing, supporting and advocating state-of-the-art research in fields of population health and health services by delivering evidence for policy makers. The section consists of six health platforms, of which three are currently active. Capacity for each platform is currently being built through recruitment and training of qualified staff, skilled in designing and conducting research studies and disseminating knowledge gained from its output. The studies will be specifically targeted to addressing current gaps in public health knowledge, health service provision and quality. For each platform, staff will include a team of epidemiologists, research assistants, research coordinators, research aides, and data collectors. Current programs include adolescent health research, maternal/women’s health research, national biobanking, and a medical questionnaires translation and validation unit.
The Research Office (RO) at King Abdullah International Medical Research Center (KAIMRC) plays a major role in at the Ministry of National Guard Health Affairs as well as at the King Saud Bin Abdulaziz University for Health Sciences, starting proposal submission through publication of research results. Since its inception in 2007, more than 1000 proposals have been submitted to the Research Office, at both national and international level. Over the last 7 years, the Research Office has also received more than 500 grant proposals, and it funds generously the researches carried under its sponsorship, or it facilitates the process of extramural funds.

The RO is playing a major and vital role in supporting research and researchers at MNGHA in all regions by facilitating the approval process of all submitted research proposals, providing highly qualified & trained research coordinators as well as monitors, supporting and managing all the external sponsored clinical trials, handling the IP for all studies at MNGAH, monitoring research studies.

The research office is considered as a research hub and point of contact for all researchers from inside & outside the MNGAH and the office undertakes the responsibility of facilitating the communications and submission of proposals to KACST, NSTIP and regulatory authorities.
BIOETHICS

In its endeavor to disseminate ethical principles in biomedical research and clinical investigations, King Abdullah International Medical Research Center established a Bioethics section. It is one of the few prestigious entities that implements these principles within the context of international standards. The Bioethics Section even blends Islamic teachings and local cultural values with its international equivalent. In particular, the “Universal Declaration for Bioethics and Human Rights” (UNESCO) constitutes the backbone for these undertakings. The main spheres of the dual purpose include protecting human subjects involved in clinical research, patients’ rights and addressing dilemmas faced in biological research. An agreement has been signed between KAIMRC and UNESCO that fosters academic collaboration between both institutions.

Thus, a momentum has evolved, allowing for KAIMRC to excel to the top of the list for achieving recognition as the designated UNESCO chair for Biomedical Ethics.
INNOVATION AND TECHNOLOGY TRANSFER MANAGEMENT OFFICE (ITTMO)

ITTMO was established in 2012 as a KAIMRC initiative to manage intellectual property produced by researchers at KAIMRC, King Saud bin Abdulaziz University for Health Science (KSAU-HS), and NGHA. The section endeavors to register patents and trademarks at patent offices around the world, participate in patent licensing and commercialization, as well as promoting awareness of intellectual property potentials. Within the framework of technology transfer, ITTMO emphasizes maximizing research’s return on investment to establish a knowledge-based economy and contribute financially to the organization. It is positioned to strategically plan, guide, and partially fund ongoing research projects.
BIOSTATISTICS AND BIOINFORMATICS

The Bioinformatics and Research Consulting Services (BRCS) section is the computational arm of the research center. The section concentrates on the areas of Biostatistics, Bioinformatics and Life Science informatics. In particular, the section is interested in exploiting collections of genetic and non-genetic diseases information by establishing multiple registries (i.e. databases), providing the research community with the data and tools needed to conduct research benefiting the Saudi community. The department of Bioinformatics and Research Consulting Services (BRCS) houses professional expertise that covers Biostatistics & Statistical Modeling Section, Bioinformatics, and Research Database & Disease Registry. The department offers a range of research consulting services that help researchers in maintaining their research goals in efficient & scientific manner.

The section serves KAIMRC with both short- and long-term collaborations with KAIMRC’s investigators. It provides support in writing research proposals, which contributes to the publishing of research results, providing bioinformatics training, and utilizing appropriate open source bioinformatics tools to mitigate the research cost.

As part of its research and development, the Bioinformatics section utilizes molecular and systems approaches in addressing biological research problems. It focuses on developing and validating novel methodology as well as adapting and tailoring those methodologies to applied problems.
ADVANCED COMPUTING TECHNOLOGIES (ACT)

Advanced Computing and Technologies department aims to provide and maintain the applications and services running academic, research, administrative business processes, engineering consultations – including solutions and deep technical training for researchers on new engineering or technical techniques when needed for specific research. It also covers the initial technical evaluation processes and selection for equipment, as well as maintaining the advanced KAIMRC technologies.

ACT is consistent with the requirements related to ISO9000 and to government regulatory requirements and it will boost IT efficiency, cut costs, and improve IT project delivery in terms of time and budget.

Advanced Computing and Technologies is comprised of four sections: Advanced Infrastructure, Technology Engineering, Technical PMO and Application Development.
RESEARCH, PROMOTION & EDUCATION SECTION (RPES)

KAIMRC was established in 1997 with the primary objective of contributing to the advancement of knowledge in health sciences through participation in research programs and providing educational opportunities for the medical students and personnel of King Abdulaziz Medical City (KAMC). The RPES is committed to enhancing the clinical research capacities of individuals and institutions through training and research studies in accordance with international guidelines. It seeks to develop laboratory and diagnostic expertise, improve institutional support structures for conducting and overseeing studies, and establish internal quality assurance, quality control systems, monitoring and evaluation of research, as well as important educational activities. One such example of RPES’ dedication to advancing research education is its annual Research Summer School. This unique educational activity, provided by KAIMRC, has the support and guidance of doctors and experts with a depth of experience in research methodology. It provides students with hands-on learning as they are required present original research results at the end of the session.
The Strategy and Business Development section is responsible for coordinating both KAIMRC’s overall strategy and the individual strategies of each of the sections and ensuring that common goals are achieved. In addition, the Strategy Department oversees the Public Relations Team which is responsible for communicating the value of KAIMRC to the community both locally and internationally. This section also manages and coordinates KAIMRC commercialization projects. Currently, there is progress towards a new overall strategy for KAIMRC that will provide guidance for all of the sections and their leadership.
RESEARCH QUALITY MANAGEMENT

Research is a complex scientific process that requires effective coordination and teamwork as well as reliable information, materials, and equipment. The Research Quality Management Section (RQMS) was established to manage and improve these complex activities. This section works exclusively to improve the quality of services provided by the KAIMRC. The RQMS is responsible for developing an effective Quality Management System (QMS) to ensure systematic and optimal quality improvement in the research center. The focus of the RQMS is continuous performance improvement, and improvement of the overall institution’s organizational environment.

The RQMS provides ongoing support to all sections of the KAIMRC through training and consultation, so that they can then implement the quality management systems. The quality management services are regularly evaluated to assess the level of performance and to assure compliance with the requirements of the RQMS.
COLLABORATIONS
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<td>EPIDEMIOLOGY AND POPULATION HEALTH</td>
<td>WOMEN'S HEALTH</td>
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<td>CARDIOVASCULAR DISEASES</td>
<td>BIOMEDICAL ENGINEERING</td>
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<td>TRAUMA RESEARCH</td>
<td>BLOOD DISEASES</td>
<td>SCIENCE &amp; TECHNOLOGY UNIT</td>
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<td>ASTHMA AND RESPIRATORY DISEASES</td>
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A study conducted from 1990 to 2010 revealed major changes in the disease patterns of the Arab world where communicable diseases decreased and non-communicable diseases and injuries increased which is a challenge for the already stretched human and financial resources.


A study conducted from 1980 to 2013 revealed a substantial increase in obesity and weight gain which has become a major global health challenge and this study also found that there was nothing being done about it since the past 33 years requiring urgent global action to help countries to more effectively intervene.

This study measured the stress levels and job satisfaction rates among healthcare professionals and identified their predictors such as working on weekends not getting free time compensation, feeling under pressure to meet deadlines, conflicts in demands, being Saudi, believing there is inadequate staff to do the job, not knowing whom to approach when under stress, and being exposed to a stressful event outside of work within a year.


This pioneering study found that there were certain genes responsible for a specific skin disorder known as autoimmune psoriasis which will have an impact on how the disease is dealt with in future.


This publication highlighted the establishment of a Stem Cell Research and Regenerative Medicine program at KAIMRC to coordinate advanced stem cell research and translational outcomes with the goal of treating chronic human diseases, such as cancer, diabetes, cardiovascular, neurological, immunological, and liver diseases.
6. Abdulkareem I., How does Arab genome different from other genomes? BMC Genomics. 15;2014 (Suppl 2).

This study showed the genetic material of Arabs. In the past the same was done for Caucasian, African, Chinese and Korean individuals and had been studied and published. This was the first time such a study was conducted for Arabs.


The high prevalence Colorectal Cancer in Saudi Arabia was studied using the most modern technologies available to date to identify the specific genes associated with the disease.


This study found there certain proteins found in colon, breast, lung and gastric cancer reacted differently when stimulated. Some proteins stimulated cell motility and simultaneously inhibited others through alternative mechanisms.

It was found that usual screening techniques in kidney transplants may not always be sufficient and more specific tests give better end results with fewer complications.


The causes for rejection of cord blood samples (taken from a newborn baby’s umbilical cord) by the laboratory at KAIMRC were studied and measures were implemented to improve results. These blood samples are used to treat certain diseases of the blood and immune system.


This research compared if permissive underfeeding had an impact on the health of critically ill patients on ventilators in Intensive care units across seven centers. It was found that there was no significant between-group differences with respect to feeding intolerance, diarrhea, infections acquired in the intensive care unit (ICU), or ICU or hospital length of stay.

This research studied if there was a difference in the outcome of patients who were fed with different types of feeding methods. It was found that clinical outcomes were similar. Thus the decision of the type of feeding will probably continue to be influenced by availability, access, assessment of individualized nutritional needs, perceived costs, and prevailing practices.


This article studied the cause of the MERS-CoV infection and it was found that the majority of patients had contact with a healthcare facility, other patients or both highlighting the role of healthcare-associated transmission.
KAIMRC’s growth in research projects has led to a significant annual growth in publications.

Along with the rise in publications comes the rise in citations over the past three years.
The total projects have increased throughout the past three years, and have shifted to include more extramural projects.