Akhbar Al Tamayoz

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Special Issue Marking the Closing Ceremony Honouring the Arab World and Local Medical Awards Winners

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Local Awards

Hamdan Award for Distinguished Personalities

Innovation Award in Healthcare

Best Research in Healthcare

Vision

A pioneering foundation fostering excellence

Mission

Designing and implementing distinguished awards and programs that empower achievements in medicine and education, while nurturing the giftedness of individuals

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Under the Patronage and in the Presence of Sheikh Rashid bin Hamdan bin Rashid Al Maktoum

Hamdan Foundation Honours 10 Winners of the Medical Awards Today, 29 January

Dubai - 'Akhbar Al Tamayoz'

Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, is honouring, during a ceremony held on 29 January, at Etihad Museum, 10 winners of the medical awards from across the Arab world and the United Arab Emirates, representing institutions, specialists, and researchers, in recognition of distinguished achievements in the health sector and scientific research.

Arab Awards

The Arab Award in Genetics, under the Arab World Awards category and valued at AED 370,000, was granted to Prof. Majed bin Abdullah Al Fadhel, Professor of Paediatrics and Genetics at King Saud bin Abdulaziz University for Health Sciences, Chairman of the Genetics and Precision Medicine Department at King Abdulaziz Medical City in Riyadh, and Deputy Executive Director of King Abdullah International Medical Research Centre.

The Arab Award in Genetics reflects Hamdan Foundation's commitment to advancing excellence and innovation in the field of human genetics. It aims to honour physicians and researchers at the peak of their professional careers who play a leading role in human genetics and genomics across the Arab world. The award recognises their current and distinguished scientific contributions that have had a significant impact on the region.

The Arab Award for Best Research in Healthcare, valued at AED 200,000 and presented to two winners, was awarded to the study titled "Long-read sequencing enhances the discovery of pathogenic and novel variants in patients with rare diseases", submitted by a research team from Dubai Health Genomic Medicine Center, Mohammed bin Rashid University of Medicine & Health Sciences, and Dubai Police Genome Centre.

The second winning study, titled "The role of dapagliflozin in relieving cellular stress and inflammation through modulation of the PI3K/AKT pathway in cardiomyocytes, aortic endothelial cells, and stem-cell-derived beta cells", was submitted by a research team from University of Sharjah, Mayo Clinic in the United States, United Arab Emirates University, Emirates Health Services, the Armed Forces College of Medicine in Egypt, and Mansoura University in Egypt.

The award highlights Hamdan Foundation's commitment to recognising impactful scientific contributions in the Arab world. It is granted to Arab researchers in recognition of their exceptional achievements, specifically the publication of a research paper in medicine and healthcare in an

internationally recognised peer-reviewed scientific journal.

Local Awards

Within the local awards category, Hamdan Award for Distinguished Personalities in the Healthcare Sector, valued at AED 200,000, was presented to Dr. Arif Abdulla Abdulrahim Alnooryani, Executive Director and Head of the Cardiac Catheterisation Laboratory and Heart Centre at Al Qassimi Hospital, and Dr. Wadeia Muhammad Sharif, Director of the Medical Education and Research Department at Dubai Health Authority. This award is granted to Emirati nationals who have made a significant impact on healthcare in the United Arab Emirates.

The Best Research in Healthcare Award, valued at AED 100,000, was awarded to three studies. The first, titled "Physical activity as a means of preventing eye diseases", was prepared by a research team from Gulf Medical University and Johns Hopkins University.

The second study, titled "Impact of multicomponent clinical interventions, including optimal medication use and lifestyle improvement, on patients with type 2 diabetes: a randomised clinical trial between two patient groups", was submitted by a research team from The Life Corner Pharmacies – PureHealth and Seha Clinics – PureHealth.

The third study, titled "Haemostasis techniques in neurosurgery: development of a consensus-based classification and validation using retrospective analysis of neurosurgical operative videos", was prepared by a research team from University College London.

The Best Research in Healthcare Award targets young professionals in the healthcare field, with the aim of identifying the most promising research talent within this age group and encouraging a culture of scientific research.

Hamdan Award for Innovation in Healthcare, valued at AED 250,000 and granted to two winners, was awarded to the programme "One Day Is Too Long: A Transformative Model to Access Autism Care" from Al Jalila Children's Hospital – Dubai Health. The second award was granted to Cleveland Clinic Abu Dhabi for "the UAE's first comprehensive Deep Brain Stimulation programme for treating Parkinson's disease and movement disorders", which has completed more than 100 AI-enabled smart implants equipped with advanced brain-sensing technologies that exceed global standards.

The Innovation in Healthcare Award is granted to projects that demonstrate distinguished innovations in healthcare. It celebrates initiatives that have contributed to enhancing healthcare services in the United Arab Emirates, ultimately benefiting the wellbeing of individuals and the safety of the community as a whole.

Arab World Awards

Arab Award in Genetics

- Prof. Majed Al Fadhel, Kingdom of Saudi Arabia

Arab Award for Research in Healthcare

- Study titled: "Long-read sequencing enhances the discovery of pathogenic and novel variants in patients with rare diseases".
- Study titled: "The role of dapagliflozin in relieving cellular stress and inflammation through modulation of the PI3K/AKT pathway in cardiomyocytes, aortic endothelial cells, and stem-cell-derived beta cells".

Local Awards

Hamdan Award for Distinguished Personalities in the Healthcare Sector

- Dr. Arif Alnooryani, Executive Director and Head of the Cardiac Catheterisation Laboratory and Heart Centre at Al Qassimi Hospital
- Dr. Wadeia Muhammad Sharif, Director of the Medical Education and Research Department at Dubai Health Authority

Best Research in Healthcare Award

- Study titled: "Physical activity as a means of preventing eye diseases", prepared by a research team from Gulf Medical University and Johns Hopkins University.
- Study titled: "Impact of multicomponent clinical interventions, including optimal medication use and lifestyle improvement, on patients with type 2 diabetes: a randomised clinical trial between two patient groups", submitted by a research team from The Life Corner Pharmacies – PureHealth and Seha Clinics – PureHealth.
- Study titled: "Haemostasis techniques in neurosurgery: development of a consensus-based classification and validation using retrospective analysis of neurosurgical operative videos", prepared by a research team from University College London.

Innovation in Healthcare Award

- "One Day Is Too Long: A Transformative Model to Access Autism Care" from Al Jalila Children's Hospital – Dubai Health.
- "The UAE's first comprehensive Deep Brain Stimulation programme for treating Parkinson's disease and movement disorders: more than 100 AI-enabled smart implants equipped with advanced brain-sensing technologies surpassing global standards" from Cleveland Clinic Abu Dhabi.

They commended the high standard of submitted works

Heads of Judging Committees: Hamdan Foundation Awards Stimulate Achievement, Creativity, and Innovation in the Medical Sector

Dubai – "Akhbar Al Tamayoz":

The heads of the Medical Awards judging committees of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences affirmed that this year's cycle witnessed a notable increase in the number of submissions compared to previous editions. This reflects the expanding interest and growing awareness of the importance of excellence in the medical sector. They also praised the high quality of the submitted works, noting the awards' role in encouraging Arab researchers to strive for distinction.

They emphasised that Hamdan Foundation awards are among the most important initiatives that stimulate achievement, creativity, and innovation in the medical sector in the United Arab Emirates and beyond. The awards not only honour distinguished individuals, but also help entrench a culture of positive competition grounded in quality and international standards.

A Supportive and Enabling Environment

Prof. Rabee Halawani, head of the judging committee for the Arab Award for Research in Healthcare, confirmed the significant improvement in the quality of submissions this year, attributing this to the award's role in motivating Arab researchers to excel.

He stated that while scientific research is an engaging process, it is also complex and often requires considerable time and effort, particularly in healthcare. Researchers therefore need a supportive and enabling environment, which Hamdan Foundation provides through its incentive awards across multiple categories, especially the Arab Award for Research in Healthcare.

He noted that the award plays a major role in raising the standard of scientific research across the Arab world, thereby improving healthcare efficiency and quality. He added that its criteria are designed to encourage innovation and excellence, contributing substantially to the advancement of healthcare research.

He further explained that the submissions help shed light on many outstanding studies in the Arab world, potentially enabling their translation into solutions for the health challenges facing Arab societies.

He expressed his appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, and to those overseeing the Foundation, for this valuable initiative, which has elevated the level of scientific research in medical and health sciences across the Arab world. He stressed that scientific research is the key to the progress of nations and societies.

Excellence and Scientific Ambition

Dr. Fatma Al Jasmi, member of the judging committee for the Arab Award in Genetics, expressed her pride in the notable achievements of applicants, particularly young scientists, who demonstrated a high level of excellence and scientific ambition.

She affirmed that medical awards play an effective role in strengthening the healthcare sector by encouraging excellence and innovation, while also raising societal awareness of scientific and medical achievements.

She explained that the award criteria constitute a fundamental driver of excellence, as they establish clear standards for quality and impact, prompting participants to present work of genuine scientific value and real influence.

She pointed out that the large number of young scientists achieving qualitative accomplishments at the regional level, particularly in the Gulf states and the UAE, reflects a highly

Prof. Rabee Halawani:
The award makes a significant contribution to advancing scientific research across the Arab world, enhancing healthcare efficiency, and improving service quality.

Dr. Fatma Al Jasmi:
The award criteria serve as a key driver of excellence and establish clear benchmarks for quality.

Dr. Omar Al Jabri:
Medical awards raise the level of healthcare practices and encourage institutions and individuals to invest in scientific research and professional development.

Prof. Khawla Al Kaabi:
The award's precise and transparent criteria play a pivotal role in raising competitiveness.

Prof. Nawal Al Kaabi:
Medical awards strengthen the medical sector and encourage the adoption of best clinical and research practices.

promising future for genetics in the region.
She advised the importance of clear and accurate documentation of scientific achievements, highlighting its essential role in demonstrating the value of the efforts exerted. She noted that submissions contribute to advancing the medical sector by fostering innovation, raising professional standards, facilitating knowledge exchange, and enhancing regional collaboration among medical and scientific competencies.
She added that Hamdan Foundation awards serve as a strong incentive for the healthcare sector by honouring excellence, encouraging innovation and scientific research, and raising standards of medical practice and medical education in the UAE and the Arab world.
She extended her sincere thanks and appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum for his continued support of science and innovation and his commitment to empowering medical and scientific talent, affirming that such leadership and initiatives play a pivotal role in entrenching a culture of excellence and advancing the medical sector towards a more progressive and sustainable healthcare future.

Tangible Achievements

Dr. Omar Al Jabri, head of the judging committee for Hamdan Award for Distinguished Personalities, confirmed that this year's cycle saw a marked increase in submissions compared to previous editions, reflecting broader interest and awareness of excellence in the medical sector.
He noted that a strong number of candidates submitted outstanding work and profiles within their areas of specialisation, whether in scientific innovation or applied impact on improving healthcare services. Competition was intense and closely matched, making the judging process precise and challenging due to the proximity in performance levels.
He explained that the award is among the most significant initiatives stimulating achievement, creativity, and innovation in the medical sector in the UAE and beyond. It not only honours distinguished individuals, but also reinforces a culture of positive competition based on quality and global standards.
He added that Hamdan Foundation medical awards represent a cornerstone for advancing the medical sector in the Arab world, as they raise healthcare practice standards and encourage institutions and individuals to invest in scientific research and professional development, directly improving the quality of healthcare delivered to society.
He expressed his sincere thanks and appreciation to the founder of the award, the late Sheikh Hamdan bin Rashid Al Maktoum, may he rest in peace, and to its patron Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan Foundation, as well as to all those overseeing the awards, for their significant efforts in supporting medical excellence and motivating talent.


Nawal Al Kaabi


Omar Al Jabri


Rabee Halawani


Fatma Al Jasmi

Clear Progress

Prof. Khawla Abdullah Al Kaabi, head of the judging committee for the Innovation in Healthcare Award, described the submitted works as exceptionally distinguished, noting clear progress in quality, adherence to scientific standards, and professionalism in project presentation.
She stated that the awards have significantly motivated institutions and physicians to adopt a culture of excellence and innovation, positively impacting healthcare quality and strengthening the standing of the medical sector in the UAE and the Arab world.
She highlighted that the award's precise and transparent criteria played a central role in enhancing competitiveness and ensuring fair evaluation based on quality, impact, and innovation.
She also pointed to the wide diversity of innovation areas, with several projects relying on modern technologies, particularly artificial intelligence, alongside a strong focus on improving patient experience and quality of life.
She advised future applicants to focus on clarity of concept, measuring real project impact, scientifically documenting results, and highlighting innovation and sustainability.
She extended her sincere thanks to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum for his patronage and continued support of medical excellence, and to those managing the Foundation for their efforts in fostering a culture of innovation and advancing the healthcare sector.

Research Methodology

Prof. Nawal Al Kaabi, chair of the judging committee for the Best Research in Healthcare, confirmed that the level of submissions was encouraging in terms of scientific depth, research methodology, and clarity of impact.
She noted improvements in research design quality, adherence to scientific standards, thematic diversity, and participation by students and resident physicians, reflecting early development of research skills.
She explained that Hamdan Foundation award criteria provide a methodological framework that ensures quality and fairness and guides participants towards genuine excellence.
She extended her sincere thanks and appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum and the Foundation's leadership for their continued support of science and knowledge and their belief in the role of research and excellence in building a sustainable health and education future.

He discovered new diseases and syndromes for the first time worldwide and won the Arab Award in Genetics

Prof. Majed Al Fadhel: Hamdan Foundation Is a Nurturing Hub for Excellence and a Key Driver in Building a Healthy and Sustainable Future

Prof. Majed bin Abdullah Al Fadhel,
Deputy Executive Director of King Abdullah International Medical Research Center, Head of the Department of Genetics and Precision Medicine at King Abdullah Specialist Children's Hospital - National Guard, Director of the Medical Genome Laboratory, and Professor of Paediatrics and Genetics at King Saud bin Abdulaziz University for Health Sciences in Riyadh, Kingdom of Saudi Arabia.

Dubai – "Akhbar Al Tamayoz":

I contributed to the discovery of more than 70 new genes and linked them for the first time to human diseases. I also identified two syndromes: the first, marked by abnormal facial features, intellectual disability, and delayed speech, named "Al Fadhel Syndrome" and caused by a defect in the RAP1GDS1 gene; and the second, a newly identified neurodevelopmental disorder characterised by limited or absent speech, abnormal facial features, and behavioural disorders, named "Umair–Al Fadhel Neurodevelopmental Disease" and resulting from a defect in the NAV3 gene. Both syndromes were registered in the OMIM database, the official global reference for genetic diseases.

I am the Founder and Editor-in-Chief of the Journal of Biochemical and Clinical Genetics and a member of the editorial boards of several international journals. I have authored three books and a book chapter, published more than 250 papers in leading scientific journals, produced over 200 research abstracts, and supervised specialists, residents, and medical students.

I also received an award for developing a new application available on Apple and Google Play stores to treat inherited metabolic disorders. In 2024, I won the Founders Award for Career Achievement from the Canadian College of Medical Geneticists, becoming the first scientist from outside the United States and Canada to receive this prestigious global award.

Excellence in scientific research and international publishing, effective collaboration and communication, perseverance, patience, and teamwork have contributed to the discovery of new diseases and syndromes for the first time worldwide, as well as to innovative projects that achieved international recognition, including therapeutic technologies such as the IEM Drugs application and broader societal impact in genetics and genomic sciences.

Scientific research holds a fundamental role as the primary driver for achieving "health sovereignty" in the Arab world. It is no longer an academic luxury, but a strategic

necessity for advancing the medical sector.

This importance is reflected in the following aspects:

- Developing innovative therapeutic solutions
- Improving diagnosis and treatment of diseases prevalent in the region
- Strengthening disease prevention
- Building local capacities in medicine and health sciences
- Contributing to addressing global health challenges

Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences awards are not merely honorary recognitions. They are a developmental instrument that transforms the medical sector from a consumer of knowledge into a producer of innovation, ensuring a safer and more sustainable health future. The awards also entrench a culture of medical excellence, support research and discovery strategies, empower science and scientists in the Arab world, and enhance regional and international cooperation, contributing to medical advancement and positively impacting society.

Prof. Majed Al Fadhel:

Hamdan Foundation awards are a developmental tool that transforms the medical sector from a "consumer of knowledge" into a "producer of innovation".

Hamdan Foundation's support for innovators and its recognition of minds dedicated to human wellbeing is an investment in the highest values of existence.

Scientific research holds a central position as the primary driver for achieving "health sovereignty" in the Arab world.

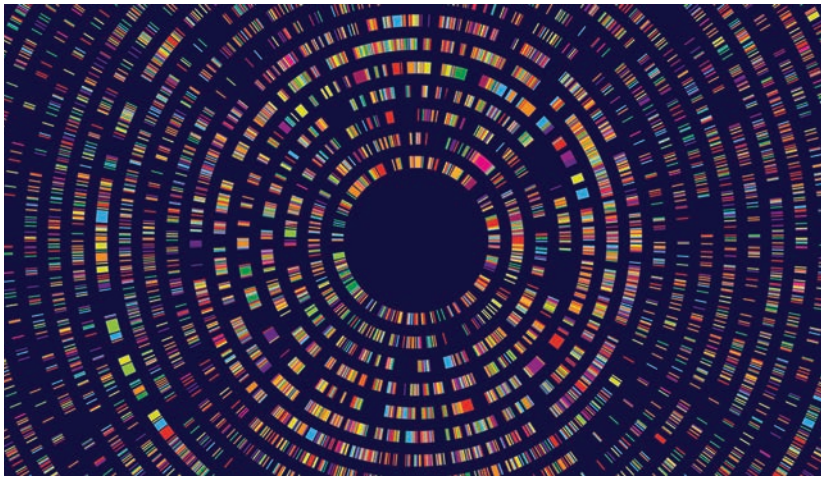
I conclude by expressing my heartfelt thanks to Hamdan bin Rashid Al Maktoum Foundation and its leadership for selecting me, describing this honour as deeply meaningful.

With accelerating advances in genetic medicine and artificial intelligence, I see the Foundation not only as an awarding body, but as a nurturing hub for excellence and a key driver in building a healthy and sustainable future. Its support for innovators and recognition of minds devoted to humanity's wellbeing go beyond financial recognition, fuelling fair scientific competition and driving the Arab medical sector towards global leadership, while transforming health challenges into tangible medical achievements in service of science and humanity.

2 Studies Win Arab Award for Research in Healthcare

Dr. Ahmad Abou Tayoun

Study Titled
"Long Read Sequencing Enhances Pathogenic and Novel Variation Discovery in Patients with Rare Diseases"
Dubai Health – Al Jalila Children's Hospital and Mohammed Bin Rashid University of Medicine and Health Sciences, United Arab Emirates



Dubai – "Akhbar Al Tamayoz":

The research group is a multidisciplinary team comprising molecular geneticists, genomic scientists, computational biologists, human geneticists, and bioinformaticians. It also includes Master's and PhD students in biomedical sciences. The group brings together diverse areas of expertise, ranging from clinical molecular genetics and rare diseases to genomic sequencing, data analysis, and interpretation, contributing collectively to the completion of the research study. Several members of the group have made significant contributions in their respective fields and have authored multiple peer-reviewed publications in genetics and genomics, with a particular focus on the Middle East.

The researchers leveraged the team's collective expertise to address a critical knowledge gap regarding the clinical utility of long-read sequencing for diagnosing patients with rare diseases. This work is among the first globally, and the first in the region, to investigate this diagnostic application.

Recognition of this work through Hamdan bin Rashid Al Maktoum Foundation award represents a great honour and reflects the strong support scientific research receives from both the scientific community and the wider society, including organisations such as Hamdan Foundation. The award also sets a high benchmark for excellence and quality in scientific research.

Recent advances in DNA sequencing technologies have enabled more effective detection of complex genetic changes that are often missed by standard testing methods. Long-read sequencing is a newer technology capable of reading much longer DNA

segments and has the potential to serve as a single, comprehensive diagnostic test for genetic diseases, particularly rare diseases, where nearly half of patients still do not receive an accurate diagnosis.

In this study, the team developed a simplified analytical approach to identify harmful genetic changes of different types, as well as abnormal DNA methylation patterns linked to disease, using whole-genome long-read sequencing. This methodology successfully detected all known disease-causing genetic changes in a group of previously diagnosed samples.

When applied to patients who had not received a diagnosis through conventional genetic testing, the approach enabled the identification of a genetic cause in an additional 10 percent of cases. This included detecting a DNA methylation pattern used to diagnose spinal muscular atrophy, a serious but treatable condition.

Overall, the findings confirm that long-read sequencing can significantly improve genetic diagnosis in clinical practice and help uncover disease-causing variations that current methods may miss.

Arab societies possess a unique history, genetic background, and social traditions that influence public health and the risk of certain diseases. Arabs are among the world's oldest populations and have experienced centuries of migration and mixing, resulting in a diverse genetic makeup. At the same time, historical population bottlenecks have led to certain inherited genetic changes becoming more prevalent.

Higher rates of marriage between relatives in some communities further increase the likelihood of inherited recessive diseases. In addition, rapid lifestyle changes, particularly in Gulf Cooperation Council countries, have contributed to increased prevalence of complex conditions such as diabetes and obesity.

Dr. Ahmad Abou Tayoun:
Honouring impactful research reflects strong support for scientific excellence and encourages investment in research that contributes to the development of healthcare systems.

Honouring impactful research reflects strong support for scientific excellence and encourages researchers to invest in high-quality studies that contribute to strengthening healthcare systems and addressing regional health challenges.

Winning Hamdan Foundation award is a source of pride for the entire team and reinforces their responsibility to continue pursuing impactful research, supporting patients and their families, and contributing knowledge that advances healthcare across the Arab world.

The team extends its highest appreciation and gratitude to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, for his visionary leadership and steadfast support of science, education, and innovation. Through the Foundation, His Highness has created a platform that empowers researchers, nurtures excellence, and advances knowledge for the benefit of the region and beyond. This recognition serves as a strong motivation to continue striving for research with real and sustainable impact.

Arab World Awards

Arab Award for Research in Healthcare

Study Titled:
"The role of dapagliflozin in alleviating cellular stress and inflammation through modulation of the PI3K/AKT pathway in cardiomyocytes, aortic endothelial cells, and stem cell-derived beta cells"

Dr. Fatima Rashid Saeed Al Suraidi
Emirati researcher specialising in molecular biology, cardiovascular disease, and diabetes - University of Sharjah and Emirates Health Services

Dubai – "Akhbar Al Tamayoz":

Science is a mission and a responsibility before it is a professional path. Scientific research and medical innovation form the cornerstone of healthcare development, serving humanity and improving quality of life. Through her work, she seeks to make science a bridge for positive impact and to represent the United Arab Emirates at leading international scientific forums.

The study's success reflects the integration of several key factors, including originality of the idea, strength of methodology, and scientific and practical impact. The research employed a rigorous, multi-model scientific approach with analysis of key molecular pathways such as PI3K/AKT, enhancing the reliability of the findings and their future applicability. The potential clinical impact further distinguished the study, as it opens new avenues for preventing cardiovascular complications using clinically approved medications.

National institutional support played a pivotal role, led by Khalifa bin Zayed Al Nahyan Foundation, alongside the integration of local expertise at University of Sharjah and Emirates Health Services with global expertise from Mayo Clinic in the United States.

Overall, this achievement reflects a spirit of commitment, passion for scientific research, and purposeful teamwork aimed at producing knowledge with real impact for humanity and the healthcare sector. The award criteria served as a guiding compass from the outset, focusing on originality, scientific depth, and human impact. They were not merely evaluation tools, but a genuine driver for adherence to the highest quality standards and for delivering knowledge that serves both medicine and humanity.

The research focuses on studying the molecular effects of dapagliflozin, a sodium–glucose co-transporter 2 inhibitor, from a perspective that goes beyond its traditional role in lowering blood glucose levels. The study aimed to explore whether the drug plays a direct role in reducing cellular stress and inflammation, two key factors in the development of cardiovascular and vascular dysfunction, through modulation of the PI3K/AKT signalling pathway.

A multi-model scientific methodology was adopted, involving three clinically relevant cell types: cardiomyocytes, aortic endothelial cells, and stem cell–derived beta cells.

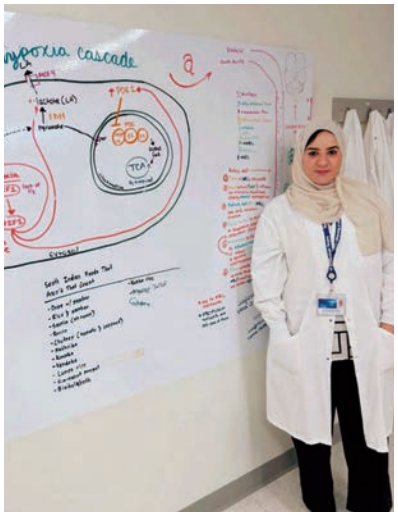
These cells were exposed to disease-mimicking stimuli associated with diabetes and cardiovascular disease, followed by assessment of dapagliflozin's effects on oxidative stress, inflammation, and cell death, as well as analysis of changes in PI3K/AKT pathway activity.

The results demonstrated that dapagliflozin significantly reduced cellular stress by lowering free radical production and improving oxidative balance within cells. It also suppressed inflammatory responses by reducing the expression of several inflammatory cytokines associated with cardiac and vascular cell damage.

Most notably, the drug showed a marked ability to activate the PI3K/AKT pathway, known for its role in promoting cell survival, improving cellular function, and limiting programmed cell death.

These findings highlight dapagliflozin as a potential therapeutic agent that not only regulates blood glucose, but also protects cells from stress and inflammation, opening new possibilities for repurposing clinically available drugs to prevent cardiovascular complications associated with diabetes.

Scientific research plays a central role in developing national medical competencies and building a generation of researchers and physicians capable of bridging clinical medicine and



applied research. This integration directly enhances healthcare service quality, improves diagnostic and therapeutic efficiency, and fosters a culture of innovation within medical institutions.

Awards provide researchers with a sense that their work is valued and visible, and that years spent in laboratories, the challenges faced, and the long hours of experimentation and reflection have not been in vain.

Such awards offer a distinguished platform to showcase Arab intellect and grant it the recognition it deserves on the map of scientific excellence, sending a clear message that the Arab world is capable of producing globally competitive science when support, vision, and belief in people are present.

The existence of such awards represents an investment in people before it is an investment in science, and an open invitation to every researcher and physician to aspire, strive, and believe that their work can make a difference. The Foundation's efforts extend a legacy rooted in the belief that investing in science is an investment in the future of humanity and society.

I conclude by expressing my gratitude to Hamdan Foundation and those overseeing it, thanking them for instilling hope, nurturing ambition, and opening doors for minds to innovate and serve humanity. I pray for continued success, affirming that the Foundation will remain a beacon of science and inspiration, and a source of pride for every researcher and physician in the Arab world.

In recognition of their distinguished achievements in healthcare and scientific research

Dr. Arif Alnooryani and Wadeia Karmastji Win Hamdan Award for Distinguished Personalities in the United Arab Emirates

Dr. Arif Alnooryani,
Consultant Cardiologist, Executive Director and Head of the Cardiac Catheterisation Laboratory and Heart Centre at Al Qassimi Hospital

Dubai – "Akhbar Al Tamayoz":

Winning Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences Award is undoubtedly a prestigious milestone in my professional journey. I have dedicated my career to serving the healthcare sector in the UAE, guided by the values of integrity, compassion, and innovation. This achievement is a continuation of the legacy of the late Sheikh Hamdan bin Rashid Al Maktoum, the spiritual father of medicine in the UAE—may his soul rest in peace.

I contributed to introducing several advanced medical technologies at national and regional levels, including performing the first direct transcatheter aortic valve implantation without surgery in the Middle East and North Africa, and the first robotic surgery using the Da Vinci system in the UAE.

I also participated in national and international initiatives to develop cardiac services, contributed to strategies to reduce cardiac mortality, and enhanced emergency preparedness. I have received local, regional, and international honours, including the UAE Pride Medal and several medical excellence awards, among them the first GCC Award for Excellence in Medicine and the World Health Organization Kuwait Prize for the Control of Cardiovascular Diseases in the Middle East, in addition to an honorary doctorate in recognition of my contributions to healthcare development.

Winning the award is the result of sustained work and continuous dedication, carried out with a distinguished team. Those who give sincerely and devote their efforts to serving others ultimately reap the rewards of their work. Over many years, we have worked to improve healthcare quality, adopt the latest medical innovations, and advance therapeutic and training services to become a model at both regional and international levels.

The criteria of Hamdan Foundation award played a pivotal role in our distinction, providing a clear and motivating framework for enhancing performance and embedding a culture of quality, innovation, and institutional practice. These criteria focus on sustainability and real impact, prompting us to review our practices, develop services in line with the highest global standards, and place the patient at the centre of every decision.

Winning the award added significant value for us, foremost among it recognition from senior authorities and the wise leadership of the United Arab

Emirates. This recognition extends beyond the individual to include all healthcare professionals across the country, reflecting the state's deep appreciation of a sector that is a cornerstone of societal progress and development.

Scientific research is a fundamental pillar for advancing the medical sector in the Arab world. It drives improvements in healthcare quality, treatment outcomes, and alignment with global medical progress, enabling a shift from consuming knowledge to producing medical knowledge tailored to our societies and patients' needs.

The medical awards presented by Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences play a vital role in stimulating the medical sector. They entrench a culture of excellence, quality, and innovation, transforming medical achievement from individual effort into a sustainable institutional approach, while setting clear benchmarks aligned with the highest international standards. These awards also convey appreciation and support from the wise leadership to a sector that represents one of society's most vital pillars, strengthening professional belonging, boosting morale, and increasing motivation among healthcare professionals.

My feeling today is one of deep pride and honour, as this achievement is not individual but the result of sustained collective effort. It reflects the work of Al Qassimi Hospital teams, the Ministry of Health, and Emirates Health Services, under the UAE's vision for developing services and raising healthcare standards locally and internationally.

Our pride stems from knowing that we are giving back, even in a small way, to our nation, and that our efforts are receiving global recognition. This motivates us to continue striving for excellence and innovation in serving every member of our society.

I advise future applicants to believe in the mission of their work, pursue it with sincerity and consistency, and not make awards the primary goal, as recognition naturally follows honest and sustained effort.

A deep understanding of award criteria and their translation into daily practice is essential, with focus on real impact and sustainability rather than symbolic achievement. Teamwork, documentation, and outcome measurement remain key indicators of institutional maturity.

With great pride and honour, I extend my highest thanks and deepest gratitude to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, and to those overseeing the Foundation, for their pioneering role in promoting excellence, quality, and innovation, supporting national and Arab talent, and stimulating creativity in education and medical sciences.

Since its inception, this award has served as an inspiring model for high-impact initiatives, future-focused thinking, and honouring distinguished contributions. It has clearly contributed to advancing professional practice, elevating institutional performance, encouraging scientific research, and fostering positive competition grounded in creativity, knowledge, and social responsibility.

The award's noble message reflects a wise leadership vision that places humanity at the heart of development and views investment in science and knowledge as the foundation for building advanced, sustainable societies.

As we value these efforts, we express our sincere appreciation for your tireless and structured work, which reflects the highest standards of integrity and professionalism and strengthens the award's standing as a respected reference and a global platform for excellence and leadership.

Dr. Arif Alnooryani:
Hamdan Foundation stimulates the medical sector, embeds a culture of excellence, quality, and innovation, and transforms medical achievement from individual effort into a sustainable institutional approach.

Investment in science and knowledge is the foundation for building advanced societies capable of keeping pace with global changes and achieving sustainable development.

Scientific research enables a shift from consuming knowledge to producing medical knowledge grounded in the specificity of our communities and patients' needs.

Prof. Wadeia Mohammed Karmastji,
Consultant in Family Medicine, Director of Medical Education and Research at Dubai Health Authority, President of the Emirates Family Medicine Society, Editor-in-Chief of Dubai Medical Journal, and Chair of the Scientific Council for Family Medicine.

Dubai – "Akhbar Al Tamayoz":

Winning this prestigious award is first and foremost a blessing from God, and secondly the result of sustained institutional work and continuous collective effort grounded in the highest standards of excellence and innovation in the medical field. This achievement marks the culmination of a professional journey shaped by my firm belief that sustainable medical education and applied scientific research are the cornerstone of improving healthcare quality.

I have worked with a strong sense of responsible leadership, building effective teams committed to excellence and innovation, and striving to translate knowledge into tangible impact in medical practice and patient care. This achievement also reflects wise leadership support, teamwork, focus on output quality, continuous performance development, investment in scientific research and medical education, and the adoption of best global practices in service of community health and in line with the UAE's aspirations for leadership and excellence. I regard this award as a tribute to everyone who shared this journey and contributed to its success.

The criteria of Sheikh Hamdan bin Rashid Al Maktoum Medical Award served as an important benchmark for evaluating performance and measuring real impact, motivating me to document professional experience systematically and link educational and research efforts to clear and sustainable quality indicators. Adherence to these criteria has strengthened a culture of excellence, professional accountability, and institutional work based on innovation and continuous development.

Winning the award represents a milestone that has increased my motivation to continue contributing, reinforced my responsibility towards knowledge transfer, empowered healthcare professionals, and expanded the impact of medical education and scientific research locally and regionally.

Among my key professional achievements is contributing to the leadership and approval of the first integrated strategy for medical education and scientific research in Dubai (2020–2030), and to establishing an interconnected academic health system integrating medical education, clinical practice, and research.

I also contributed to empowering national healthcare professionals through initiatives supporting workforce localisation, most notably the "Tibb wa Uloom" scholarship programme for high-achieving secondary school graduates pursuing studies in medicine and allied health professions.

In addition, I played a role in strengthening Dubai's position as a leading regional hub for international board examinations and postgraduate programmes, and in achieving significant academic accreditation milestones through prominent local and international accreditations, including ACGME-I, the Arab Board of Health Specialisations, the UAE Board, the Royal College of Physicians, and the Royal College of Surgeons in Ireland.

I led and implemented specialised community and educational initiatives to support outstanding students, enhance the sustainability of national healthcare cadres, and develop advanced practice environments through multi-level training programmes, while helping bridge professional practice gaps through

advanced clinical skills initiatives aligned with global standards.

I have also exercised leadership in research governance through supervising research ethics committees, managing and funding research, and building researchers' capacities through specialised training programmes, ensuring high-quality outputs and adherence to the highest ethical and scientific standards.

Scientific research is the cornerstone of medical sector development, linking knowledge with clinical practice, improving healthcare quality, and supporting evidence-based health policies. It enables deeper understanding of local health challenges and the development of innovative solutions aligned with regional demographic and epidemiological realities, while enhancing the global competitiveness of medical professionals.

Investment in scientific research, alongside sound governance and academic partnerships, is essential for health sustainability and for transitioning from consuming knowledge to producing it locally and regionally, contributing to the advancement of the medical sector in the Arab world.

The medical awards presented by Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences represent a strategic lever for stimulating excellence and innovation. They entrench a culture of quality and positive competition based on impact, and honour institutional and individual efforts that advance medical education, research, and clinical practice.

Wadeia Karmastji:

Hamdan Foundation medical awards are a strategic lever for stimulating excellence and innovation in the medical sector

Winning the award represents a high-level recognition that provides greater motivation to continue giving and reinforces responsibility towards knowledge transfer

Sustainable medical education and applied scientific research are the cornerstone of improving healthcare quality

These awards also strengthen confidence in national expertise, encourage investment in knowledge and capacity building, and promote the adoption of best global standards, supporting healthcare system development and sustainability at local and regional levels.

I advise applicants to study the award criteria in depth, understand its philosophy centred on impact and sustainability, and document achievements systematically with measurable evidence. I also recommend focusing on the quality of initiatives rather than quantity, highlighting institutional work and team spirit, and aligning professional efforts with the needs of the healthcare system and the community. Above all, I believe in sincere and continuous service, as the award values long-term impact over short-term achievement.

I extend my sincere thanks and deep appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of the Foundation, for his generous patronage and continued support of Hamdan Foundation's journey, carrying forward the legacy of the late Sheikh Hamdan bin Rashid Al Maktoum, may he rest in peace, in advancing excellence and innovation in medical and educational sciences.

2 Medical Programmes Improving Patients' Quality of Life Win the Innovation in Healthcare Award

One Day Is Too Long: A Transformative Model to Access Autism Care

Al Jalila Children's Hospital, Dubai Health
Al Jalila Children's Hospital's Paediatric Mental Health, Neurodevelopmental Paediatrics and Quality Departments and the Primary Healthcare Sector.

Dubai - 'Akhbar Al Tamayoz'

The team comprises a distinguished multidisciplinary group of clinicians and administrators working within Dubai Health, with backgrounds in mental health, paediatrics, family medicine, quality, and general healthcare. The team includes child psychiatrists, psychologists, nurses, play therapists, social workers, neurodevelopmental paediatricians, and family physicians.

The team attributed their winning the award to several key factors, most notably the broad societal significance of Autism Spectrum Disorder, the community-based nature of the project that places patients and families at the centre of care, and the use of innovation to develop a new model of service delivery.

The project achieved a tangible, transformative impact, particularly in improving access to care. The number of completed assessments increased by more than 1000%, waiting times were reduced from years to weeks, and costs were significantly lowered.

The award criteria emphasised innovative thinking and the adoption of technology to create meaningful impact on people's health. Winning the award provided the team with high-level recognition for their efforts and strong motivation to continue advancing paediatric care.

Parents and families had long faced major challenges in accessing appointments to assess suspected Autism, with waiting times often

extending for years. In response, an innovative model was introduced under the principle that “Autism is everyone’s business”, establishing a streamlined and unified clinical pathway. Clinicians were trained to assess children rapidly and connect them with expert diagnosticians within days or weeks.

This integration between general clinicians and specialist diagnosticians enabled the maintenance of the highest medical standards while drastically reducing waiting times, inspired by the words of a mother: “When you are told your child may have Autism, one day is too long to wait.”

The project increased the number of assessments tenfold and significantly reduced costs, making assessments free for Emiratis and more than ten times cheaper for expatriates through community-based primary healthcare clinics.

Building on this success, the team aims to expand family support programmes, parent-mediated interventions, and community networks, alongside strengthening Autism research across the lifespan.

The team affirmed that developing effective clinical services begins with listening to patients and understanding their real needs. Streamlining clinical pathways enables sustainable teamwork and capacity building.

دبي الصحية
DUBAI HEALTH

The winning team:

Hamdan Awards instil hope and highlight new pathways towards a brighter healthcare future in the Arab world.

The project also demonstrates that complex challenges, however difficult they may seem, can be addressed through innovation, creativity, and teamwork.

Scientific research and quality improvement projects contribute to developing locally grounded models of care that reflect the culture and needs of Arab communities, rather than importing external models that may lead to wasted resources and poor outcomes. This project stands as a living example of a locally developed solution that has become a benchmark, at a time when waiting lists in advanced countries extend for years.

The team expressed immense happiness at winning the award, noting that the recognition fairly acknowledged their efforts and challenges. They advised future applicants to study the criteria carefully, work collaboratively, and develop innovative solutions to complex health challenges.

The team extended their thanks and appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, and to those overseeing Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, affirming that these awards instil hope and illuminate new pathways towards a brighter healthcare future in the Arab world.

The UAE's First Comprehensive Deep Brain Stimulation Programme for Treating Parkinson's Disease and Movement Disorders: More Than 100 AI-Enabled Smart Implants with Brain-Sensing Technologies Exceeding Global Standards

Cleveland Clinic Abu Dhabi

Dr Shivam Om Mittal:

Hamdan Foundation awards play a pivotal role in showcasing impactful initiatives, stimulating innovation, and presenting inspiring models.

Dubai - 'Akhbar Al Tamayoz'

My work focuses on diagnosing and treating complex cases of Parkinson's disease, dystonia, and tremor, with a particular emphasis on Deep Brain Stimulation (DBS) as one of the most advanced therapeutic options in this field.

I received my medical training in the United States and completed advanced fellowships in movement disorders and DBS at leading global institutions, including Mayo Clinic and Yale University.

The DBS programme that received this recognition is the result of a multidisciplinary team working within a comprehensive, integrated model. The team includes fellowship-trained functional neurosurgeons, movement disorders neurologists, neurophysiologists, anaesthesiologists, specialised nurses, neuropsychologists, and rehabilitation therapists.

The team works closely with medical imaging experts, engineers, and data scientists to integrate brain-sensing technologies and artificial intelligence across all stages of care, from surgical planning to programming and long-term follow-up. This approach places patient dignity, cultural sensitivity, and quality of life at the heart of clinical decision-making.

The primary reason for winning the award lies in the tangible impact of the programme on patients' lives and on the healthcare system. Prior to its launch, many patients with advanced Parkinson's disease had lost their independence and were informed that no local treatment options were available, forcing them to travel abroad or endure severe symptoms.

Today, the programme has enabled patients to regain motor control and return to social and professional life. More than 100 DBS implantations

have been performed with zero major complications, while integrating artificial intelligence technologies and preserving cultural considerations, including hair-sparing surgery for women.

The award criteria, which focused on innovation with measurable impact, sustainability, and community service, aligned fully with the programme's philosophy. Winning the award reinforced the belief that true medical innovation is measured by the depth of its human impact and strengthened the sense of responsibility towards training talent and building a fair, advanced neurological ecosystem in the region.

Localising DBS surgery within a multidisciplinary model supported by advanced imaging, precise planning, and brain-sensing devices led to nearly 80% improvement in motor symptoms and a reduction in medication use by approximately 70%, alongside significant improvements in quality of life. The experience also demonstrated that respecting cultural considerations enhances acceptance and equitable access without compromising safety.

Scientific research is a cornerstone of medical advancement in the Arab world, enabling the production of knowledge that reflects genetic and cultural specificities, supports health policy, and builds trust in local systems. Hamdan Foundation awards play a pivotal role in highlighting impactful initiatives, stimulating innovation, and presenting inspiring models for younger generations.

The feeling after winning the award is a blend of gratitude and responsibility. Future participants are advised to begin with a genuine gap in patient care, document impact through data, tell the patient's story authentically, and broaden the concept of innovation to include cultural and organisational models.

I extend my sincere thanks to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, and to those overseeing Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences. Inspired by the legacy of the late Sheikh Hamdan bin Rashid Al Maktoum, may he rest in peace, the Foundation continues to empower high-impact medical programmes that make a real difference in patients' lives and reinforce the UAE's position as a regional hub for advanced neurological care.

Dr Shivam Om Mittal
American Board-certified Neurologist and Fellowship-trained Movement Disorders Specialist, Section Head of Parkinson's Disease and Movement Disorders at Cleveland Clinic Abu Dhabi.

3 Studies Win the Local Best Research in Healthcare Award

Study Titled:
Physical Activity as a Means of Preventing Eye Diseases, A Research Team from Gulf Medical University and Johns Hopkins University

Julia Qamar Bilal Agha
University Hospital Sharjah
United Arab Emirates

Dubai - 'Akhbar Al Tamayoz'

I currently work as an intern doctor at University Hospital Sharjah. My interest in scientific research began during my undergraduate years, and I worked on this study during my final year at university, driven by my belief in the importance of early research training in shaping physicians who can effectively bridge clinical practice with evidence-based medicine.

The research was carried out in collaboration with physicians and researchers at Johns Hopkins University, providing access to extensive, high-quality data and enhancing the study's rigor through the exchange of expertise and the use of global research databases.

The study's success and recognition stem from the strength of its concept, methodology, and potential impact. It addressed a critically important topic: the prevention of eye diseases, which are among the most common causes of visual impairment, through a simple and modifiable factor—daily physical activity.

The research was distinguished by its reliance on objective data derived from physical-activity tracking devices and by long-term follow-up of a large cohort of older adults, which significantly strengthened the validity and credibility of the findings. The results convey a clear preventive message that can be applied at both individual and health-system levels, aligning closely with the award's focus on research of high societal value.

The award criteria provided a motivating framework for adhering to the highest standards of research quality, in terms of originality, societal

impact, and scientific methodology. They encouraged the presentation of research that goes beyond academic analysis to emphasize practical benefit and direct health impact on the community.

Winning this award represents an important milestone in my research journey. It reinforced my confidence in the value of prevention-focused scientific work, opened doors for engagement with academic and research institutions, and provided strong motivation to continue conducting research that serves public health and supports evidence-based health policy development.

This study aimed to examine the long-term relationship between daily physical activity levels, measured by step count, and the risk of developing common eye diseases that are leading causes of visual impairment among older adults. These include age-related macular degeneration, diabetic retinopathy, glaucoma, and cataracts.

The study relied on data from the All of Us Research Program in the United States, a large national initiative that integrates electronic health records with data from wearable devices. More than 19,000 participants aged 50 years and above were included and followed for a median duration of 6.4 years, using daily step data recorded through Fitbit devices.

Advanced statistical models (Cox proportional hazards models) were used to analyse the relationship between daily step count and the risk of eye disease, adjusting for multiple confounding factors such as age, sex, body mass index, smoking status, blood pressure, education level, and the presence of diabetes.

The results showed that an increase of 1,000 average daily steps was associated with a 7% reduction in the risk of developing diabetic retinopathy, a statistically significant finding. In contrast, no statistically significant association was observed between physical activity and reduced risk of macular degeneration, glaucoma, or cataracts, although incidence rates of these conditions were generally lower among more physically active individuals.

These findings are particularly important in supporting the role of physical activity as a modifiable preventive factor, especially in relation to diabetic retinopathy, which is one of the most common and serious complications of diabetes. The study also highlights the significant potential of real-world data and modern technologies in developing effective preventive strategies.

One of the key recommendations of this research is to promote daily physical activity as a core component of preventive strategies for diabetic retinopathy, particularly among individuals with diabetes or those at risk. The findings suggest that even moderate increases in daily step counts can have a tangible protective effect on retinal health.

The study also recommends integrating wearable devices into healthcare practice and preventive programmes, given their ability to provide accurate and continuous data for patient monitoring and evaluation of intervention effectiveness. Researchers further propose leveraging these technologies to design behavioural intervention programmes that safely and sustainably encourage increased daily movement.

Another important recommendation is to conduct future interventional studies, including randomized controlled trials, to determine whether deliberately increasing physical activity can directly reduce the incidence of eye diseases, rather than merely being associated with lower risk. Expanding research to include diverse populations, including Arab communities, is also recommended to examine the influence of cultural and environmental factors.

Scientific research is the foundation of medical-sector development. It generates health knowledge grounded in community realities, improves quality of care, supports informed medical decision-making, and contributes to more efficient and sustainable health policies.

Medical awards play a vital role in reinforcing a culture of excellence and innovation, encouraging researchers and physicians to invest in scientific research, highlighting successful models, and supporting the translation of research ideas into practical applications that serve society.

I feel a deep sense of pride and gratitude upon receiving this award, along with renewed motivation to continue conducting research that advances public health.

I advise researchers to focus on selecting topics with real impact, adhere strictly to sound scientific methodology, link research to community needs, and never underestimate the value of simple, actionable ideas.

I extend my sincere thanks and appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, and to those overseeing the Foundation, for their pioneering support of science, research, and innovation, and for their vital role in empowering researchers and building a sustainable health and knowledge-based future.

Julia Agha:
Medical awards entrench a culture of excellence and innovation, encourage researchers, and support the translation of research ideas into practical applications that serve society.

Study Titled:
The Impact of Multi-Approach Clinical Interventions, Including Optimised Medication Use and Lifestyle Modification, on Patients with Type 2 Diabetes: A Randomised Controlled Trial
A Research Team from Life Corner Pharmacies – PureHealth and Seha Clinics – PureHealth

Research Team:
Dr. Marwan Al Deyarbi, Prof. Dr. Salah Al Din Abu Al Ruz, Dr. Ahmed Al Jabouri, Dr. Nermin El Dessouki, Dr. Huda Al Nuaimi, and Dr. Hosni Hassanin

Dubai - 'Akhbar Al Tamayoz'

Hamdan bin Rashid Al Maktoum Foundation Award represents a benchmark for quality in scientific research. It does not merely recognise completed achievements, but establishes rigorous criteria that guide research throughout its development. These standards encouraged the research team to move beyond repetitive studies and focus on addressing genuine scientific gaps, ensuring tangible clinical impact and measurable benefit to patients' lives in the United Arab Emirates.

At present, limited clinical evidence exists clarifying the relationship between the progression of type 2 diabetes and associated comorbidities, and factors such as medication adherence, lifestyle modification, and balanced blood mineral levels. There is also insufficient data identifying the most effective clinical interventions to slow diabetes-related complications, particularly chronic kidney disease, within the UAE population.

This study was designed as a randomised controlled trial to evaluate the long-term impact of multi-factorial clinical interventions. These included optimised pharmacotherapy management encompassing medication adherence and side-effect monitoring; adherence to a structured dietary plan with balanced carbohydrate intake combined with regular physical activity; and optimisation of blood mineral levels, including sodium, potassium, and magnesium. Clinical outcomes assessed included glycated haemoglobin (HbA1c), renal function, blood pressure, lipid profiles, and cardiovascular risk factors among outpatients with type 2 diabetes.

A total of 192 patients were followed for approximately 12 months. Glycaemic control was achieved in 40.4% of patients in the intervention group, compared with 31.6% in the control group receiving routine care, with a statistically significant mean difference of –0.63%.

By the end of the study, patients in the intervention group demonstrated notable improvements in blood

Dr. Hosni Hassanin:
Scientific research is the backbone of any genuine medical advancement, and Hamdan bin Rashid Al Maktoum Foundation Award serves as a compass for quality, with standards that elevate the level of research practice.

pressure, lipid profiles, and renal function. Statistically significant reductions were observed in systolic blood pressure (–4.21 mmHg) and low-density lipoprotein cholesterol (–0.31 mmol/L), alongside favourable trends in renal function.

A statistically significant reduction in body mass index was also recorded, with a mean difference of –1.86. Total carbohydrate intake and daily caloric consumption decreased markedly in the intervention group, alongside a significant increase in physical activity levels, measured by metabolic equivalent tasks (METs).

Medication adherence improved significantly in the intervention group after 12 months, with a mean proportion of days covered of 0.95 compared with 0.92 in the control group. These outcomes demonstrate the effectiveness of multidisciplinary, structured interventions in improving clinical indicators for patients with type 2 diabetes.

The findings support the adoption of an integrated care model that improves clinical outcomes, reduces medication burden, and delays the progression of diabetes-related complications. Structured dietary guidance and supervised physical activity were shown to play a key role in reducing cardiovascular risk and improving overall patient health.

The study recommends the use of innovative approaches to enhance medication adherence, reduce drug-related adverse effects, and minimise drug–drug and drug–food interactions. It also highlights the importance of personalised nutrition and exercise plans developed through coordinated collaboration between physicians, pharmacists, and dietitians to ensure long-term sustainability.

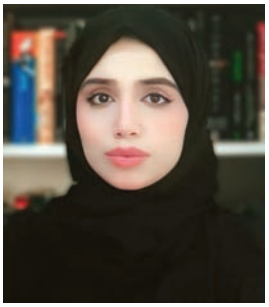
Routine monitoring of magnesium and potassium levels is further recommended to support renal health and improve glycaemic control in patients with type 2 diabetes.

Scientific research is not an academic luxury, but a foundational pillar for advancing healthcare systems, particularly in the Arab world, where region-specific challenges require evidence-based, locally grounded solutions.

Hamdan bin Rashid Al Maktoum Foundation Award plays a pivotal role in embedding a culture of quality, excellence, and accountability in medical research, while encouraging impactful studies that translate knowledge into practice.

Winning this award represents a significant milestone for the research team, reinforcing their responsibility to continue producing clinically relevant research and demonstrating that studies conducted in the United Arab Emirates can meet and exceed local and international standards.

The research team extends its sincere appreciation to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, and to those overseeing the Foundation, for their visionary support of science, research, and innovation, and for fostering an institutional culture that transforms medical excellence from individual effort into sustained societal impact.



Study Titled:
Haemostasis Techniques in Neurosurgery: Development of a Consensus-Based Classification and Validation Using Retrospective Analysis of Neurosurgical Operative Videos, A Research Team from University College London

Dr. Mariam Obaid Ibrahim
National Hospital for Neurology and Neurosurgery, United Kingdom

I work as a physician and researcher in the field of neurosurgery, and I am currently affiliated with the Department of Neurosurgery at the University of California, Los Angeles, and Johns Hopkins University.

The study focuses on integrating artificial intelligence into surgical training and education, with the aim of transforming how future generations of neurosurgeons are trained globally. This was achieved through the development of the first unified classification system for haemostasis techniques in neurosurgery, with a reliability rate of 93.8%. The system provides structured data that enables the development of advanced artificial intelligence tools to support surgical decision-making and improve patient outcomes.

The study's distinction is attributed to several interrelated factors, foremost among them addressing a genuine scientific gap. The research introduced the first validated and consensus-based classification system for haemostasis techniques in neurosurgery, where no standardised framework previously existed. This absence had hindered unified training, multicentre research, and the advancement of surgical artificial intelligence.

Another key factor was the rigorous scientific methodology adopted in the study, which included a comprehensive systematic review of 111 studies conducted in accordance with PRISMA guidelines, international expert consensus, and retrospective analysis of neurosurgical operative videos across multiple subspecialties. This approach ensured the credibility of the findings and their broad applicability.

The classification system demonstrated high reliability, achieving a kappa coefficient of 0.398, and delivered immediate practical impact by providing a tool that can be directly applied to standardise surgical training and systematically review the quality of medical practice.

The study was also distinguished by strong international collaboration between two leading global institutions in the United Kingdom and the United States, reflecting the ability of Emirati researchers to lead

high-impact international research projects and contribute meaningfully to the advancement of global medical knowledge.

Hamdan Foundation award criteria emphasise scientific innovation, practical impact, and methodological rigour. These principles shaped my research journey and guided me towards developing solutions that move beyond incremental academic contribution to effect real change in medical practice.

Winning the award provided formal recognition of my research efforts, highlighted the global competitiveness of young Emirati researchers, and reinforced a sense of responsibility and inspiration to serve as a role model for Emirati and Arab youth. It also opened new opportunities for collaboration with leading researchers and institutions, strengthened the position of the UAE as a regional and global leader in scientific research and medical innovation, and gave me strong motivation to pursue more ambitious research projects that contribute to advancing the healthcare sector in the UAE and the Arab world.

The importance of this research lies in its introduction of the first tool of its kind for standardising neurosurgical training, establishing objective criteria for evaluating trainee competency, systematically reviewing the quality of medical practice, enabling multicentre clinical research through unified terminology, and generating structured, machine-readable data to support the development of artificial intelligence systems for automatic technique recognition and real-time surgical decision support.

The study produced comprehensive recommendations addressing multiple dimensions of neurosurgical practice and research. It recommended adopting the classification system as a standard framework in neurosurgery residency training programmes worldwide, alongside developing targeted educational modules for each haemostasis technique category.

The research further recommended using the classification system as a tool for auditing and monitoring clinical practice in hospitals and medical centres, and for developing unified institutional protocols for selecting haemostasis techniques based on bleeding type, anatomical location, severity, and vascular characteristics.

Dr. Mariam Obaid Ibrahim:

Hamdan Foundation award criteria served as a guiding compass that encouraged me to pursue innovative solutions capable of driving transformative change in medical practice.

Additional recommendations included linking haemostasis technique selection to clinical outcome indicators such as blood loss volume, transfusion rates, complication rates, length of hospital stay, and overall cost, to identify the most effective techniques and support evidence-based decision-making.

The study also called for expanding system validation to larger, multicentre datasets, including at least 50 operative videos from a minimum of five institutions, to ensure broad applicability across diverse geographic and institutional contexts, and for conducting comparative effectiveness studies between different haemostasis techniques.

Medical scientific research is not an intellectual luxury, but a strategic necessity for advancing the healthcare sector and achieving sustainability and excellence in the Arab world.

Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences awards play a pivotal role in developing the medical sector and fostering a culture of excellence and innovation, by encouraging forward-thinking, creating positive competition, and motivating healthcare professionals to deliver their highest potential.

These awards are not merely a form of recognition, but a strategic instrument for building an advanced research and healthcare ecosystem capable of contributing to the progress of the medical sector in the UAE and the Arab world.

Winning Hamdan Foundation award represents a defining moment in my professional journey. I feel deep pride as an Emirati researcher contributing to the advancement of global medical knowledge.

This achievement carries a profound responsibility to serve as a role model for the next generation of Emirati and Arab researchers, particularly young women, and provides strong motivation to continue pursuing impactful research projects that contribute to the advancement of healthcare across the UAE and the Arab world.

To researchers wishing to participate in future award cycles, I offer the following advice: identify a genuine scientific gap that addresses a real medical challenge rather than pursuing purely theoretical research; adhere to rigorous international standards in study design, data collection, and analysis; and seek international collaboration with leading research institutions to enhance the value and credibility of your work.

I also advise linking research outcomes to practical application, considering how findings can be translated into tools usable in clinical practice, seeking mentorship from experienced supervisors, and carefully reviewing award criteria to understand expectations related to innovation, impact, and methodology.

I extend my deepest appreciation and gratitude to Sheikh Rashid bin Hamdan bin Rashid Al Maktoum, Supreme Chairman of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, and to all those overseeing this leading institution. Your continued support for scientific research and young researchers stands as a beacon of hope and a powerful driver of excellence and innovation across the Arab world.