
مبادرات محمد بن راشد آل مكتوم العالمية
Mohammed Bin Rashid
Al Maktoum Global Initiatives
مؤسسة الجليلة
AL JALILA FOUNDATION
A visionary science hub
in the heart of Dubai,
serving humanity

Unlocking
Medical Solutions,
Transforming Lives

We are building a new reality for our people, a new future for our children, and a new model of development.”

His Highness Sheikh Mohammed Bin Rashid Al Maktoum
Vice-President and Prime Minister of the UAE and Ruler of Dubai

Converting our ambitions into an everyday reality”

I am immensely grateful to His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, for championing innovation and research, and for establishing Al Jalila Foundation, a global philanthropic organisation dedicated to developing medical research in the UAE.

We aim to position the city of Dubai and the United Arab Emirates as a platform for global medical innovation – research is an integral part of our strategy.

Research provides a portal to discovering new knowledge, advancing medical breakthroughs, and propelling economic development.

Our work at Al Jalila Foundation supports the UAE Vision 2021 where research and innovation are at the core. Our hope is that it will be the catalyst for ensuring a thriving biomedical research culture.

Scientists around the world continue to search for answers into the causes, prevention and treatment of diseases affecting mankind. We share a vision – to see a world devoid of cancer, cardiovascular disease, diabetes, obesity or mental illness – and an obligation to safeguard the health of our children, and children's children.

Our investment in medical research reaffirms our commitment to embed research and innovation in the fabric of the nation's long-term healthcare strategy. Medical research has the potential to save lives and our efforts today will pave the way for advancements in medicine, giving hope to many.

Research is a life-long commitment and a responsibility we take seriously. A responsibility to our founder who has entrusted us with his vision. Responsibility to our donors who have empowered us to fulfill our mission. And responsibility to the people we serve: be it a hopeful patient, an aspiring student or a pioneering scientist.

We will work diligently to drive the national dialogue around the importance of medical research, and inspire medical breakthroughs, to improve lives in the United Arab Emirates and beyond.

HE Dr Raja Easa Al Gurg
Chairperson of the Board of Directors
Al Jalila Foundation

Welcome Note

It is hard to believe that less than a century ago, we did not have cures for diseases like tuberculosis. It seemed impossible to imagine that entire continents could kick out epidemics like polio. Over the years medical discoveries have translated into improved treatment protocols and therapies. And, with each new breakthrough, a new sense of hope emerges.

Advances in medical research are critical to the nation's prosperity and longevity. We, at Al Jalila Foundation, are proud to support aspiring scientists because today's investments in medical research will go a long way to ensuring better treatment options for future generations – giving hope to countless patients and their families.

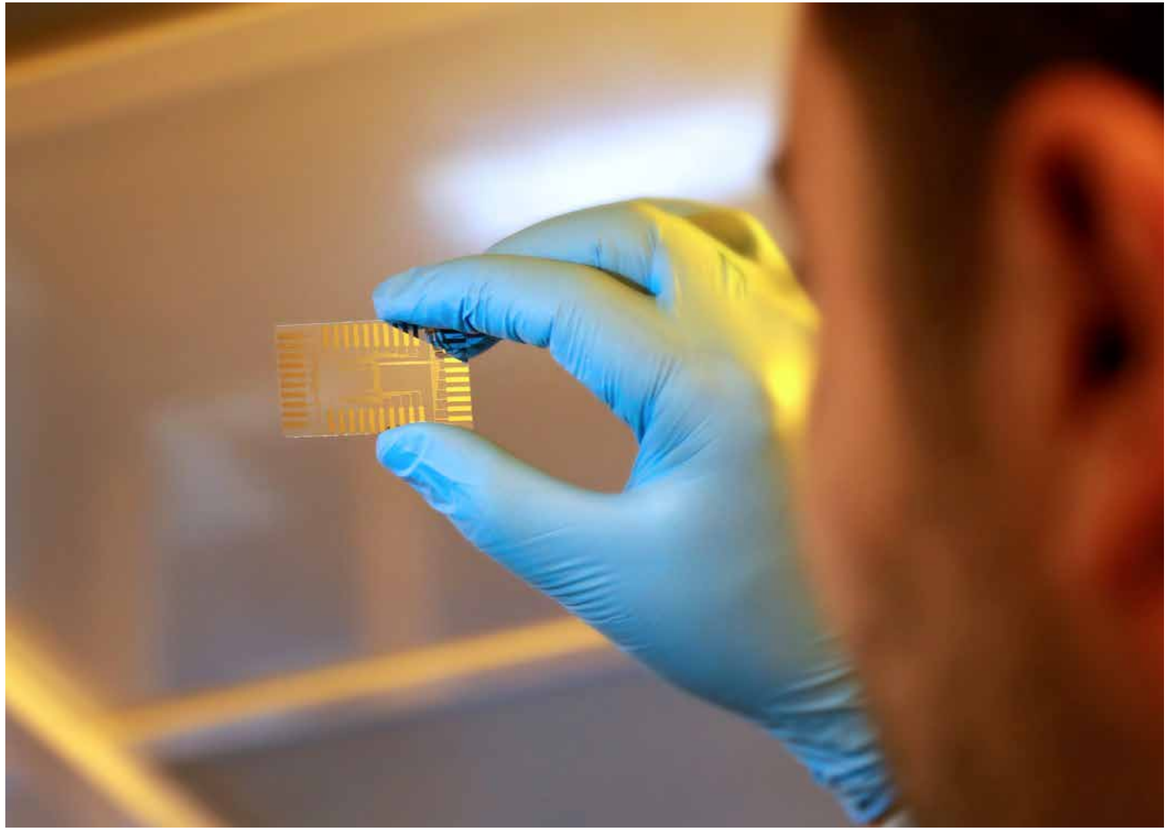
Research provides a portal to discovering new knowledge, advancing medical breakthroughs, and propelling economic development. Our priority is to create opportunities to increase innovative and impactful research in the UAE to support our vision. Whilst still in our infancy, until 2016, we have supported 55 projects and funded 6 international fellowships. We have invested over AED 14 million in research studies covering a number of themes and topics. Our research is focused on cutting-edge translational research with the intent of confronting and mitigating some of the most challenging diseases in the UAE today. Through our research mission, we seek to identify causes of disease and to build on basic and clinical research findings to develop innovative prevention and treatment strategies.

We are proud of the quality of research we have sponsored and inspired by the capabilities, achievements and innovativeness of our grant recipients. It gives me immense pride to present Al Jalila Foundation Research Portfolio; here you will find all the information on our grant recipients and an overview of their research projects. As I write, we are in the middle of the 2017 research grant cycle and we hope to bring many more research projects to fruition as we continue to expand our research portfolio.

Through Al Jalila Foundation we hope to inspire medical advancements that will benefit future generations and realise our vision to be at the forefront of global medical innovation.

May I take this opportunity to thank our Board of Trustees, Board of Directors and Scientific Advisory Committee for their continued support and foresight. And, of course, special recognition to each one of our grant recipients for their unwavering commitment to biomedical research.

Dr Abdulkareem Sultan Al Olama
Chief Executive Officer
Member of the Board of Directors
Al Jalila Foundation



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Scientific Advisory Committee

Professor Sehamuddin Galadari
Professor of Biochemistry and Molecular Cell Biology
Chair, Scientific Advisory Committee
Al Jalila Foundation

Professor Salah Gariballa
Chair & Professor of Internal Medicine
College of Medicine and Health Sciences
United Arab Emirate University

Professor Mutairu Ezimikhai
Provost
Mohammed Bin Rashid University of Medicine and Health Sciences

Professor Bassam Ali
Professor of Molecular and Genetic Medicine
Department of Pathology
College of Medicine and Health Sciences
United Arab Emirates University

Dr Raghib Ali
Director
Public Health Research Center
New York University of Abu Dhabi

Dr Jamila Al Suwaidi
Consultant Medical Physicist
Chair, DHA Radiation Protection Committee
Department of Medical Education
Dubai Health Authority

Our International **Peer Reviewers**

Overview of Grants
2014-2016

AED 14M
invested in local research

187
grant applications received

100+
reviewers from 30 countries

55
grants awarded

18
nationalities

13
institutions

4
Emirates

71
publications in international journals

107
presentations at international conferences

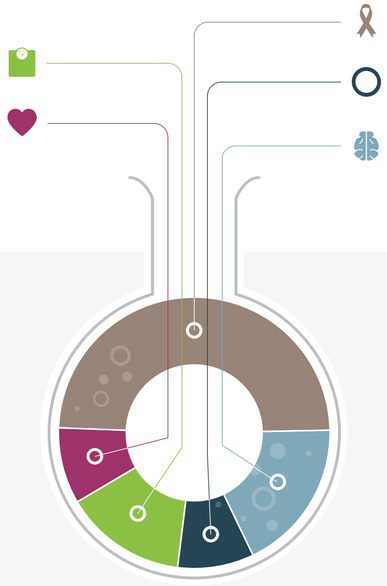
147
research training completed

14
PhD/Master Thesis

58
Principal Investigators

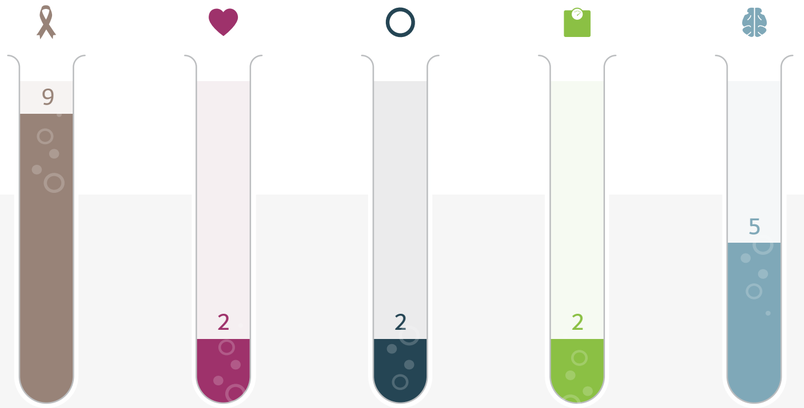
119
Co-investigators

Total Grants Funded by Theme **2014-2016**

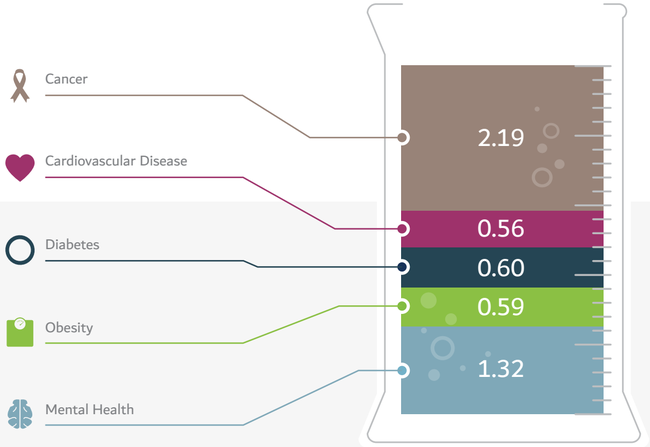


	Number	AED(m)
Cancer	27	6.92
Cardiovascular Disease	5	1.40
Diabetes	8	2.26
Obesity	5	1.38
Mental Health	10	2.05
TOTAL	55	14.01

Our Grants Funded by Theme **2016**



Our Grants Funded by Value **2016**



Overview of Research **Grants**

Dr Samrein Ahmed

MBBS, MSc, PhD
Assistant Professor
Basic Medical Sciences Department
University of Sharjah

Research Theme

Cancer

Project Title

Study of ShcD as new therapeutic target in melanoma.

Melanoma is the most common type of skin cancer and its incidence is increasing worldwide. Unfortunately, resistance to current chemotherapeutic agents is more and more common, stressing the need to identify new therapeutic targets.

This study aims to investigate the potential of the proto-oncogenic Src homology and collagen adaptor ShcD as a therapeutic target. ShcD induces an anti-apoptotic signal upon cellular stresses thus preventing cell death. A better understanding of this signaling pathways would enable the development of drugs to specifically block its effect in melanoma cells and hence lead to resumption of the tumor. In this study, ShcD signaling pathways will be studied in several types of melanoma and normal cells using light or chemicals to induce cellular stress and look for change in genetic expression and protein phosphorylation.

Dr Anas Al Azzam

BSc, MSc, PhD
Assistant Professor
Department of Mechanical Engineering
Khalifa University

Research Theme

Cancer

Project Title

Characterization of circulating tumor cells using microfluidics.

A cancerous tumor typically contains millions of cells. As the cells grow and divide, some leave the tumor and are swept away by the bloodstream or lymphatic system. These cells are called circulating tumor cells (CTCs) and can lead to the spread of the cancer also known as metastasis. Characterization of CTCs is essential to better understand metastasis and develop diagnosis to detect early-stage cancer. CTCs could also be used to monitor the progression and recurrence of cancer with a simple blood test instead of the current expensive and extensive imaging monitoring using high-level of radiation.

This study aims to develop a micro-device that separates and sorts cells, enabling them to then be characterized based on their electrical properties. The data collected will be analyzed to differentiate normal cells from cancerous ones leading to more effective and efficient way to identify CTCs.

Dr Raafat El-Awady

BSc, MSc, PhD
Associate Professor of Pharmacology
College of Pharmacy & Pharmacotherapeutic
University of Sharjah

Research Theme

Cancer

Project Title

5-Aminosalysilate-4-thiazolinone hybrid derivatives as novel anticancer agents: molecular mechanisms and in-vivo safety and activity.

The success rate of cancer therapy is low compared to other diseases. This is partly because most anti-cancer drugs cannot differentiate between normal and cancerous cells and attack both. Optimal drugs would selectively target malignant cells while sparing healthy ones.

A new type of compound, 5-aminosalicylate – 4-thiazolinone hybrid derivative, has shown promising anticancer activity with minimal impact on normal cells. However, they need to be further characterized before their human potential can be evaluated. This study aims to determine their mechanism of action through various in vitro models (e.g., cell cycle progression, apoptosis induction, DNA repair and gene expression profile), confirm their effect in animal xenograft models and investigate their safety profile on isolate organs.

Prof Sehamuddin Galadari

PhD, DIC, FRSB, FIAS
Professor of Biochemistry &
Molecular Cell Biology
New York University of Abu Dhabi

Research Theme

Cancer

Project Title

Role of Par-4-mediated transcriptional up-regulation of BNIP3 for the execution of autophagy and tumor suppression.

Prostate apoptosis response-4 (Par-4) is a tumor suppressor protein, which can selectively destroy a wide variety of cancer cells via induction of apoptosis, leaving normal cells unaffected. This selective function of Par-4 prevents the development of human malignancies and determines the efficacy of several anti-cancer therapies. While the role and molecular signaling mechanism of Par-4 in apoptosis is well established, the direct association of Par-4 in the induction of another type of cell death, autophagic cell death, is totally unknown. In autophagic cell death, a cell is forced to recycle its components; a central molecule in this process is B-cell lymphoma 2 interacting protein 3 (BNIP-3).

This study aims to discover the association between Par-4 and BNIP-3 in the induction of autophagic mediated tumor suppression through a multi-disciplinary approach including biochemical, molecular and genetics techniques. A better understanding the role and molecular signaling of Par-4 regulation will provide new venues to pharmacologically regulate it and so develop novel anticancer therapeutics strategies.

Prof Mawieh Hamad

BSc. PhD
Department of Medical Laboratory Sciences
The Sharjah Institute for Medical Research
University of Sharjah

Research Theme

Cancer

Project Title

Evaluating the anti-carcinogenic potential of biologically-driven intracellular iron depletion.

Breast cancer cells have been shown to exhibit increased levels of oxidative stress. Iron chelation, removal of iron excess, has been shown to minimize oxidative stress levels in breast cancer cells to a point where cell growth and division is reduced or stopped. However, iron chelation therapy carries toxic risks potentially resulting in death and suffers significant side-effects leading to low-compliance.

Recent findings suggest that estrogen treatment may also lead to intracellular iron depletion, which in turn could minimize oxidative stress levels in cancer cells. In this project, we aim to further study these findings by verifying whether, and to which extent, estrogen receptor engagement results in intracellular iron depletion. The effect of intracellular iron efflux and depletion in induction of estrogen-induced cell death (apoptosis) will also be studied.

Dr Hany Omar

BSc, MSc, PhD, FPGEC
Assistant Professor
College of Pharmacy & Pharmacotherapeutic
University of Sharjah

Research theme

Cancer

Project Title

Energy restriction as a novel approach targeting cancer stem cells multi-drug resistance.

Energy Restriction Mimetic Agents (ERMAs) mimic the anti-aging effects of calorie restriction or prolonged fasting without risking malnutrition. These agents have recently been shown to also affect cancer cells.

This study will examine the potential of promising ERMAs (including OSU-CG5) to target cancer multidrug resistance on their own or in combination with classical anticancer agents. Different molecular biology and genetic approaches will be employed, such as cell viability and survival assays, caspase activation analysis, western blotting and PCR analysis of protein expression. The resulting hypothesis will then be further investigated in cells over or under-expressing the identified target proteins. The overarching goals of this study is to design safer and more effective treatment of cancer.

Mr Nezar Ahmed Salim

MSC, RN, BC
Staff Nurse
Oncology Unit, Dubai Hospital
Dubai Health Authority

Research theme

Cancer

Project Title

Knowledge and attitude of oncology nurses toward patients' pain management in the UAE.

Pain is one of the most depleting symptoms cancer patients suffer from and it negatively affects their overall quality of life. Understanding nurses' knowledge and attitude toward cancer pain management through a survey will help develop an educational program targeted to local needs. In addition, discussion with nurses on the importance of cancer pain management may incidentally motivate them to develop their skills, improve their practice and raise their confidence level.

Dr Ali Trablosi

BSc, MSc, PhD
Assistant Professor
Department of Chemistry
New York University of Abu Dhabi

Research Theme

Cancer

Project Title

The use of organometallic non-trivial structures as anti-cancer agents.

The number of cancer cases worldwide is increasing every year, yet most clinically approved drugs are inefficient against drug-resistant tumors and result in severe side effects. Development of alternative potent drugs that target tumor cells more efficiently and selectively while overcoming the problem of resistance is an important challenge. A new class of metal-containing drugs, metallodrugs, which could act through different mechanisms of action than traditional small organic molecules, has the potential to overcome developed drug resistance in cancer cells.

This study aims to develop a library of compounds whose efficiency will be tested against different cancer cell lines known to present a high risk of drug resistance, such as cervical, ovarian, prostate and colon cancer cells. Gained insights will provide fundamental understanding of the design, clinical potential (efficacy, toxicity) and mechanisms of action of metallodrugs to treat various cancer.

Dr. Naoufel Weghi

PhD
Associate Professor
Department of Electrical and Computer Engineering
Khalifa University

Research Theme

Cancer

Project Title

Towards a computer-aided diagnostic system for the early detection of prostate cancer using diffusion weighted-magnetic resonance imaging.

Prostate cancer is the second leading cause of cancer-related male deaths after lung cancer. The disease is treatable in its early stages hence the importance of its early detection.

This study aims to develop a non-invasive early detection test of prostate cancer using a computer aided design (CAD) system based on diffusion-weighted magnetic resonance images (DW-MRI) and advanced machine learning (AML). DW-MRI, which are noisy and have low contrast, will be used to identify the prostate area to analyze. Then, AML will be instructed to identify specific aspects of the area to categorize the tumor as malignant or benign without the differences being explicitly programmed into the computer; in turn this will allow for more accurate differentiation between benign and malignant tumors. Aside from the obvious advantage of early cancer detection, this new technology can significantly reduce the cost of screening and diagnosis of prostate cancer.

Dr Maria Baias
BSc, MSc, PhD
Assistant Professor
Department of Chemistry
New York University of Abu Dhabi

Research Theme

Cardiovascular Disease

Project Title

Structure determination of a new polymorph of aspirin using nuclear magnetic resonance crystallography.

Cardiovascular diseases are the number one cause of death globally. This project will study the crystal structure of a new form of aspirin, which could have improved pharmaceutical properties and so be more effective in the prevention and treatment of cardiovascular diseases. Experimental and computational techniques will be combined to find an accurate crystal structure for this molecule from a pool of computationally predicted structures. The methodology used could later on be used to determine the structure of other important pharmaceutical compounds.

Dr Dymitr Ruta
BSc, MSc, PhD
Chief Research Scientist
Emirates ICT Innovation Centre
Khalifa University

Research Theme

Cardiovascular Disease | Diabetes | Obesity

Project Title

Characterization of human activity patterns using inertial body-worn sensors.

The recent rise in the popularity of wearable health monitoring devices indicates that an increasing number of people are willing to use digital devices to capture their activity in the hope of improving their health. However, even if individual data can be easily collected there is no baseline data to compare them to.

By monitoring an Emirati college-aged population, this study aims to develop a baseline against which individual activity pattern can be compared, health status correlated and behavioral strategies eventually designed to improve health.

Machine learning technologies, which allows computers to continuously learn from data collected, will be used to detect and record detailed patterns of human activity and evaluate their role in health behaviors.

Dr Louis Ashall

BSc, PhD
Assistant Professor
Diabetes Research Centre
New York University of Abu Dhabi

Dr Youssef Idaghdour

BSc, MSc, PhD
Research Scientist
Department of Biology
New York University of Abu Dhabi

Research Theme

Diabetes

Project Title

Transcriptome profiling of endothelial cells in diabetes and associated cardiovascular complications.

Obesity and diabetes are on the rise globally, but rates are increasing at an unprecedented rate in the UAE. Because of higher levels of lipids and sugar in their blood, diabetics show a higher rate of proteins with advanced glycation end products (AGEs) compared to healthy individuals. AGEs have been shown to cause deterioration of blood vessel functions by binding and activating specifics receptors called RAGE, which in turn modulate gene expressions.

In this study we aim to identify the genes that are modulated by AGEs in diabetes. This will help discover novel targets that can be used to design treatments as there is currently no drug to specifically treat diabetic cardiovascular complications.

Dr Yong-Ak (Rafael) Song

BS, MS, PhD, MBA
Assistant Professor of Mechanical and Biomedical Engineering
Division of Engineering
New York University of Abu Dhabi

Research Theme

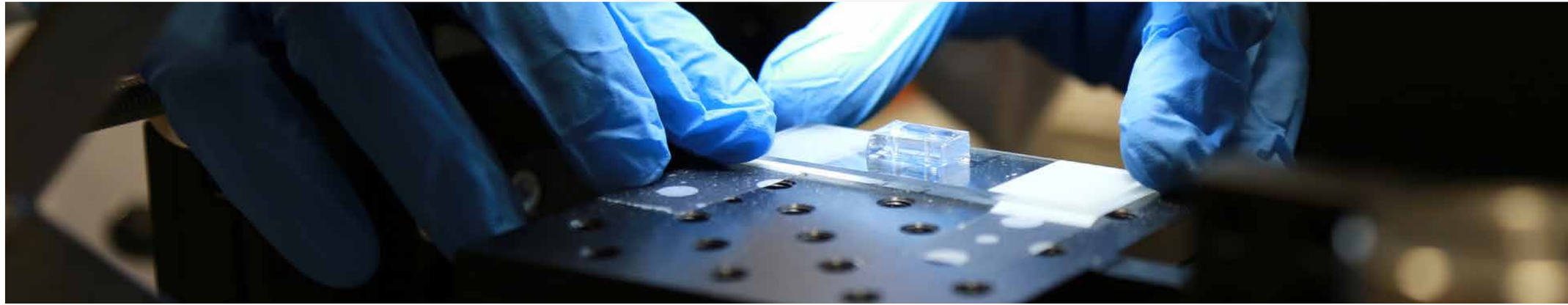
Diabetes

Project Title

High-throughput biophysical phenotyping of C. elegans worms in a microfluidic chip for the study of muscle atrophy in type 2 diabetes.

As people age, their muscle strength and mass decrease. In the case of diabetes patients, studies show that this loss takes place at a much higher rate. Therefore, in ageing diabetes patients the quality of life is decreased and the risk of accidents increased compared their non-diabetic counterparts.

This study will investigate the relationship between loss of muscle strength and diabetes using C. elegans, an invertebrate that shares many homolog genes with humans. Using newly developed equipment, C. elegans will be used for pharmacological high-throughput screening while studying the impact of antidiabetic drugs on muscle force subjected to glucose toxicity.



Dr Yvonne Valles

BSc, MSc, PhD
Research Scientist
Public Health Research Centre
New York University of Abu Dhabi

Research Theme

Obesity

Project Title

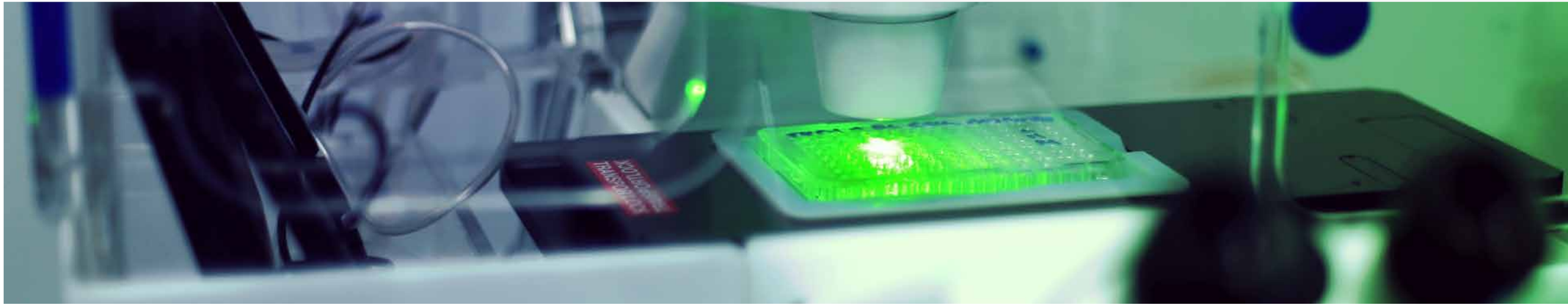
The role of the infant gut microbiome in the prediction of obesity.

The majority of microbes in our body resides in the gut. Although most of these bacteria are essential and beneficial, playing a role in digestion, immune function regulation and pathogens' protection, they can also be the cause of or contributor to diseases. For example, high fat diets can adversely affect gut flora by disturbing the equilibrium in the gut microbial community, which in turn can contribute to the accumulation of body fat leading to weight gain and obesity.

The influence of gut bacteria on our health starts well before birth. During pregnancy, the mother's gut bacteria can reach the developing fetus and start colonizing its gut. Hence this study will analyze whether an unbalanced bacterial community in the mother's gut influences the bacterial community in the fetal gut and whether the bacteria associated with obesity in adults are the same in babies. To do so, DNA from fecal samples from both mother and child will be extracted and sequenced to identify bacterial population and evaluate their diversity.

Dr Abdishakur Abdulle

BSc, PhD
Associate Director
Public Health Research Centre
New York University of Abu Dhabi



Prof Salah Gariballa

MBBS, MRCP, PhD/MD, FRCP
Professor & Chair, Department of Internal Medicine
College of Medicine & Health Sciences
United Arab Emirates University

Research theme

Obesity

Project Title

The effects of increased fruits, vegetables and whole grain food consumption with or without reduced energy intake on cardio metabolic risk factors of subjects with visceral obesity.

Visceral obesity and related morbidity, diabetes and cardiovascular diseases, is reaching endemic proportions in the UAE. Visceral fat stored within the abdominal cavity is cushioning a number of important internal organs such as the liver, pancreas, and intestines, however, because of its location it also affects hormone functions. Previous studies have shown increased markers of oxidative stress and inflammation in subjects with visceral obesity.

This study aims to investigate whether factors that reduce oxidative stress and attenuate inflammation such as fruits, vegetables, and whole-grain fibers could reduce the burden associated with obesity and its related diseases. A controlled dietary intervention study with subjects with visceral obesity will be undertaken to examine the feasibility, sustainability and long-term impact of increasing consumption of fruits, vegetables and whole-grain fiber.

Dr Wegdan Bani-issa

BSc, MSc, PhD
Assistant Professor & Assistant Dean
College of Nursing
University of Sharjah

Research Theme

Mental Health

Project Title

Stress and Women's Health: a population-based study among healthy adult women living in the UAE.

Mental health is related to mental and psychological well-being. It affects how we handle stress, relate to others, and make choices. Women are at great risk for increased stress levels due to hormonal differences and pressure related to engaging in multiple relationships and roles in life. Understandings how a woman's stress relates to her lifestyle choices will help develop evidence-based interventions geared toward improving her mental health, happiness level and productivity.

This research will study the relationship between stress levels and sleep quality, physical activity, and dietary habits of women living in the UAE. The data will be collected through questionnaires and the analysis of saliva samples to measure levels of cortisol (stress hormone) and melatonin (sleep hormone). Differences between Emirati and non-Emirati women will be investigated to tailor and optimize the intervention being developed.

Dr Dipesh Chaudhury

BSc, PhD
Assistant Professor of Biology
Division of Science
New York University of Abu Dhabi

Research Theme

Mental Health

Project Title

Sleep less smile more: understanding the cellular mechanism of sleep deprivation-induced rapid reversal of depression.

Major depressive disorder, more commonly known as depression, is a mental disorder accompanied by low self-esteem, loss of interest, and low energy. According to the World Health Organization, the incidence of depression is on the rise globally. Unfortunately, current treatment is only roughly effective in 50% of the patients and among those, who do respond, alleviation of depressive symptoms can take weeks to months. New therapeutics avenues are urgently required.

Sleep deprivation is extremely effective in rapidly alleviating depressive symptoms in around 70% of patients who are resistant to medication. However, it is not a viable long-term strategy. This study will investigate how sleep deprivation alleviates depression symptoms in an animal model of depression using the chronic social defeat stress paradigm; special focus will be given to the neurophysiological changes in neural circuitry involved in the circadian system and sleep-wake centers of the brain.

Prof Iain Blair

BA (med), MB, BChir, MA(med) DRCOG,
MRCGP, MFCM Institute of Public Health
College of Medicine and Health Sciences
United Arab Emirates University

Research Theme

Mental Health

Project Title

Al Ain longitudinal study of aging (AALSA).

The UAE population is currently youthful but, by 2050, it is estimated that 23.5% of the population will be older than 60 years old and 4% older than 80 years old. Therefore, it is important to understand how Emiratis are coping and adapting to the difficulties and inevitable losses that result from aging. This has important implications not only at the individual but also at the societal level.

This study will follow a group of older Emiratis over an initial period of two years in a longitudinal observational setting and track their health and quality of life. The physical, mental and social factors that are associated with good health and successful aging will be identified as well as those that predict poor health outcomes. Potential intervention to promote successful aging will be designed.

Dr Tom Lonely

BSc (Hons), PhD
Institute of Public Health
College of Medicine and Health Sciences
United Arab Emirates University

Dr Mazin Magzoub

BSc, PhD
Assistant Professor
Department of Biology
New York University of Abu Dhabi

Research Theme

Mental Health

Project Title

Study of the controlled assembly of various amyloid-beta structures.

Alzheimer's disease (AD) is the most common form of dementia, it is characterized by symptoms like impairment of memory and eventually by disturbances in reasoning, planning, language, and perception. The amyloid beta (Aβ) peptide is the main component of the plaques found in the brains of Alzheimer patients. However, the role of misfolded Aβ in AD is poorly understood and this lack of knowledge hinders development of effective strategies to diagnose, prevent, and cure AD.

This study proposes to clarify the role of the misfolded Aβ peptide by studying its structure and mechanism of action. To do so various Aβ structures will be created in the laboratory using a nano-meter DNA scaffold. This will enable to study the toxicity of different structures as well as their relationships; eventually these structures could also be used to study potential inhibitors. Last but not least, this approach can be reproduced to study other diseases where misfolded proteins are involved such as diabetes Type II, prion diseases and Parkinson's disease.

Dr. Hasan Mir

BS, MS, PhD
Associate Professor
Department of Electrical Engineering
American University of Sharjah

Research Theme

Mental Health

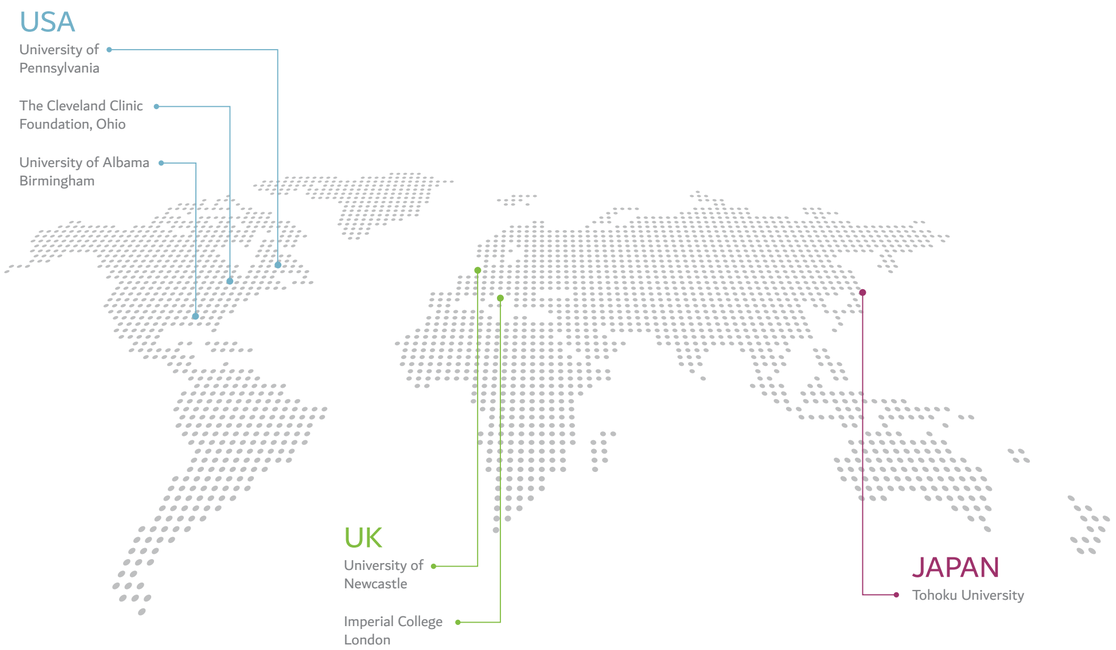
Project Title

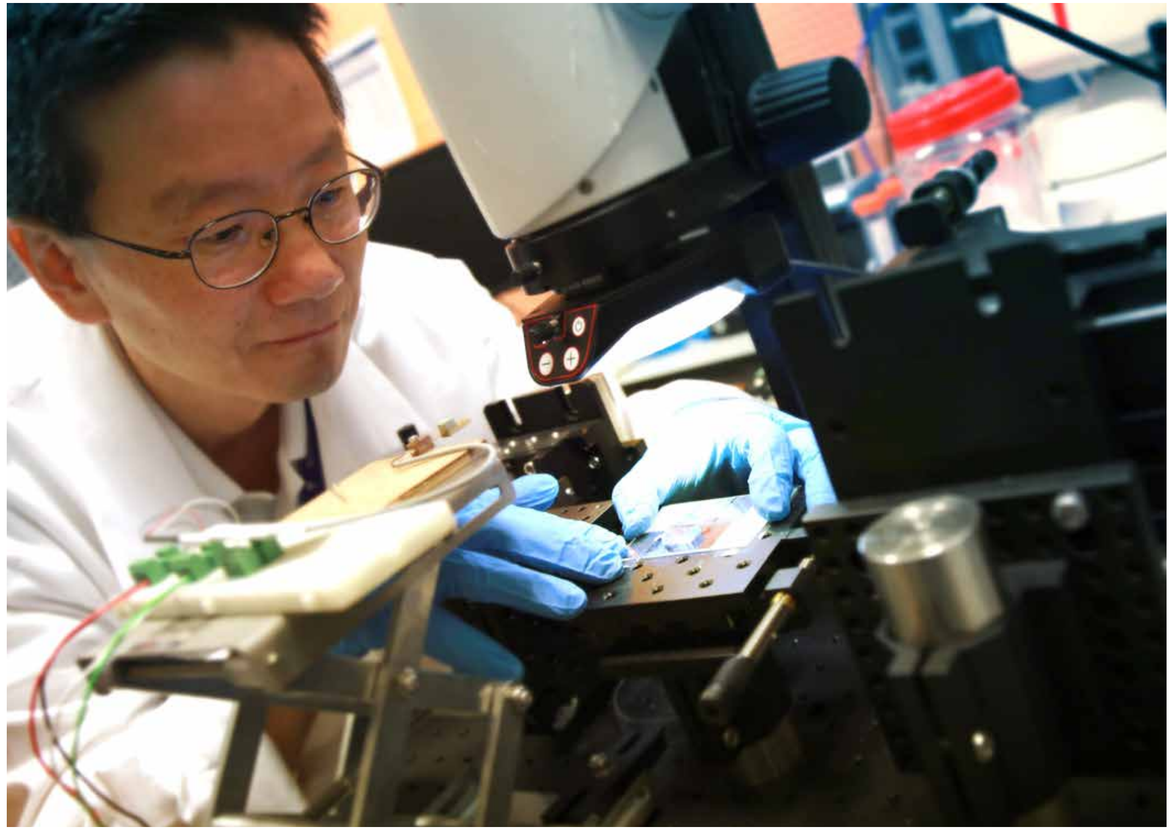
Using EEG as a cost-effective and efficient method for cortical localization of epileptic seizure.

Epilepsy is a widespread condition affecting people of all ages. Developing a cost effective, more convenient and accurate diagnosis will enable more effective treatment of the affected population.

This study investigates the use of electroencephalogram (EEG) source imaging as a cost-effective complement to magnetic resonance imaging (MRI) in developing a high accuracy estimate of where the epileptic seizure location occurs on the brain. Algorithms will be developed to localize brain source using EEG signals, their accuracy will then be validated using clinical data.

Our Research Fellowships





Our Fellowships
2016

Fatmah Ahmed Mohamed Khalfan Al Blooshi

Medical Student
College of Medicine and
Health Sciences
United Arab Emirates University

Ms Fatmah Alblooshi is a third year medical students from the College of Medicine and Health Sciences at the United Arab Emirates University. She undertook her Fellowship at the Institute of Development, Aging and Cancer, Tohoku University, Japan under the supervision of Professor Ryuta Kawashima.

Ms Fatmah has a keen interest in Neuroscience and aside from exploring brain anatomy and the basics of brain imaging, she participated in a research project investigating the impact of traumatic events, such as earthquakes and tsunamis, on brain function and structure through the modulation of hormone pathways and genetic expression.

Abdulla Mahmoud Abdulla Ahmed Mohamed

Medical Student
College of Medicine and
Health Sciences
United Arab Emirates University

Mr Abdulla Mohamed is a third year medical student from the College of Medicine and Health Sciences at the United Arab Emirates University with a keen interest on researching the aging process. Despite being ubiquitous, very little is understood of the aging process and render the elderly susceptible to diseases such as dementia, Alzheimer's disease and diabetes.

During the fellowship, Mr Abdulla studied brain anatomy and participated in MRI and functional MRI studies investigating pathological and non-pathological changes to the brain during stress and ageing. The research was conducted at the Institute of Development, Aging and Cancer, Tohoku University, Japan under the supervision of Professor Ryuta Kawashima.

Institutions **Funded**

United Arab Emirates University

Zayed University

Dubai Diabetes Center

American University of Sharjah

Al Jalila Children's Speciality Hospital

Mohamed Bin Rashid University of Medicine and Health Sciences

Khalifa University

Sharjah University

Dubai Hospital

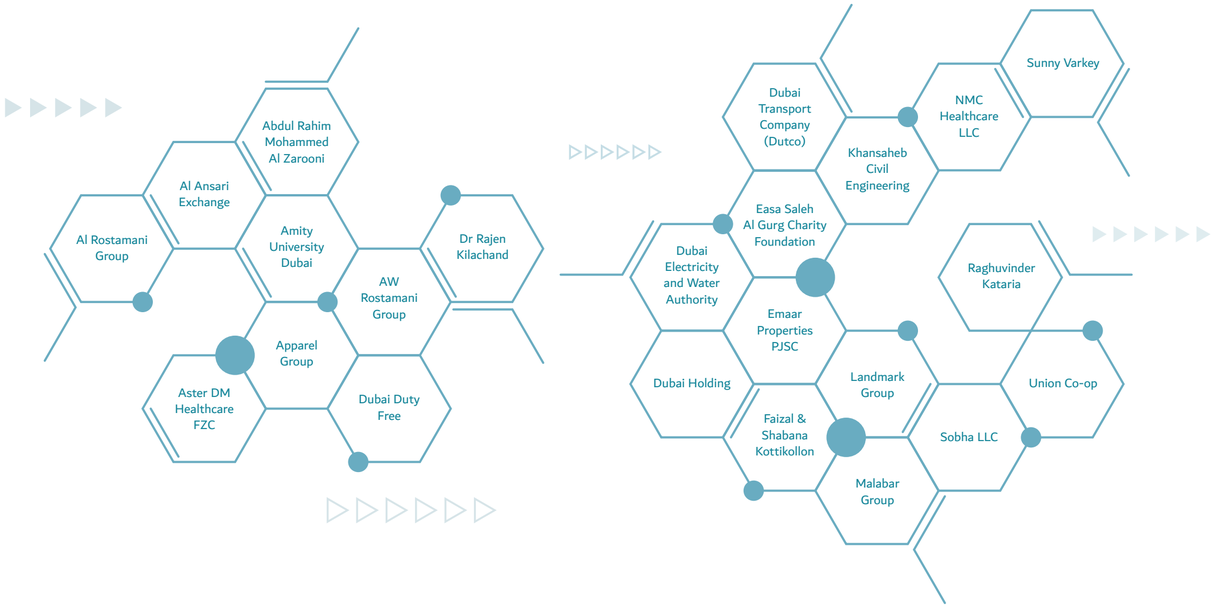
Gulf Medical University Ajman

Latifa Hospital

New York University of Abu Dhabi

Mediclinic City Hospital

Al Jalila Foundation
Research Donors



Book Chapters from **2014 Grants**

1. **Alazzam A.** Microfluidic platforms for bio-applications. Advanced Mechatronics and MEMS Devices II, Published by Springer 2017.
2. **Christoforou N**. In Situ Tissue Regeneration. Published by Elsevier ISBN: 9780128022252

Publications (Peer Reviewed Articles, Reviews and Conference Proceedings) from **2014 Grants**

1. **Abdel-Rahman WM**, Lotsari-Salomaa JE, Kaur S, Niskakoski A, Knuutila S, Järvinen H, Mecklin JP, Peltomäki P. The role of chromosomal instability and epigenetic in colorectal cancers lacking beta-catenin/TCF regulated transcription. Gastroenterology Research and Practice 2016; 2016:1-11 [Epub ahead of print].
2. Alhussein G, Shanti A, Farhat IAH, Timraz SBH, Alwahab NSA, Pearson YE, Martin MN, Christoforou N, **Teo JCM**. A spatiotemporal characterization method for the dynamic cytoskeleton. Cytoskeleton 2016; 73:221-232.
3. Al Haddad AHI, Al-Azwani EK, Mahamoud Y, Safi F, El-Salhat H, Malek JA, **Adrian TE**. Next generation sequencing of the muscle and fat transcriptome in patients with cancer cachexia reveals novel mechanisms. J Cachexia Sarcopenia Muscle 2015; 6:13.
4. **Amin A**, Hamza AA, Daoud S, Khazanehdari K, Al Hrout A, Baig B, Chaiboonchoe A, Adrian, TE, Zaki N, Salehi-Ashtiani K. Saffron-Based Crocin Prevents Early Lesions of Liver Cancer: In Vivo, In Vitro & Network Analyses. Recent Patents on Anti-Cancer Drug Discovery 2016; 11:121-33.
5. Boularaoui S, **Christoforou N**. Enhancing the transdifferentiation process of human dermal fibroblasts into skeletal muscle cells using small molecules and extracellular matrix components. Tissue Engineering and Regenerative Medicine Society (TERMIS 2015 World Congress). Tissue Engineering 2015; Part A 21; S141-142.
6. Benyettou F, Ocadiz Flores JA, Ravaux F, Rezgui R, Jouiad M, Nehme SI, Parsapur RK, Olsen JC, Selvam P, **Trabolsi A**. Mesoporous γ-Iron Oxide Nanoparticles for Magnetically Triggered Release of Doxorubicin and Hyperthermia Treatment. Chemistry. 2016; 22(47):17020-17028.
7. **Christoforou N**, Ji H, Atchison L, Teo J, Truskey G, Leong KW. Transdifferentiation of human endothelial progenitors into functional smooth muscle cells following induction with the transcriptional co-activator MYOCD for tissue engineering applications. Tissue Engineering and Regenerative Medicine Society (TERMIS 2015 World Congress). Tissue Engineering 2015; Part A 21; S141-142.
8. **El-Awady RA**, Semreen MH, Saber MM, Cyprian F, Menon V, Al-Tel TH. Modulation of DNA damage response and induction of apoptosis mediates synergism between doxorubicin and a new imidazopyridine derivative in breast and lung cancer cells. DNA repair 2016; 37:1-11.
9. Feitelson M, Arzumanyan A, Kulathinal R, Blain SW, Holcombe R, ..., **Amin A**, et al. Sustained proliferation in cancer: Mechanisms and novel therapeutic targets. Seminars in Cancer Biology 2015; 35: S25-S54.
10. Ferguson LR, Chen H, Collins AR, Connell M, ..., **Amin A**. et al. Genomic instability in human cancer: Molecular insights and opportunities for therapeutic attack and prevention through diet and nutrition. Seminars in Cancer Biology 2015; 35: S5-S24.
11. **Galadari S**, Rahman A, Pallichankandy S, Thayyullathil F. Tumor suppressive functions of ceramide: evidence and mechanisms. Apoptosis 2015; 20:689-711.
12. **Gomathi KG**, Al Biate MS, Ismail AH, Menon PK, Ille T, et al. Glycated hemoglobin in first trimester pregnant Arab women and its correlation with other parameters. Revista de la Sociedad Argentina de Diabetes 2016; 50:66-67.
13. Joensuu EI, Nieminen TT, Lotsari JE, Pavicic W, **Abdel-Rahman WM**, Peltomaki P. Methyltransferase expression and tumor suppressor gene methylation in sporadic and familiar colorectal cancer. Gene Chromosomes Cancer 2015; 54(12):776-87.
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15. Mathew B, **Alazzam A**, Abutayeh M, Stiharu I. Modeling microparticles path in DEP-FFF microfluidic devices. IEEE Regional Symposium on Micro/Nanoelectonics. RSM 2015 Proc. 2015; K Tarengganu, Malaysia.
16. Mathew B, **Alazzam A**, El-Khasawneh B, Maalouf N, Destgeer G; Sung HJ. Model for tracing the path of microparticles in continuous flow microfluidic devices for 2D focusing via standing acoustic waves. Separation and Purification Technology, 2015; 153:99-107.
17. Mathew B, **Alazzam A**, Khashan S, Abutayeh M. Lab-on-chip for liquid biopsy (LoC-LB) based on dielectrophoresis. Talanta 2016; [Epub ahead of print].
18. Mathew B, **Alazzam A**, Abutayah M, Stiharu I. Model based analysis of a dielectrophoretic microfluidic device for field-flow fractionation. J Separation Science 2016; 00:1-9.

19. **Alazzam A**, Mathew B, Alhammadi F. A novel microfluidic device for continuous separation of cancer cells from blood using dielectrophoresis. J Separation Science 2017; [E Pub].
20. Mohammad RM, Muqbil I, Lowe L, Yedjou C, Hsu H-Y, ..., **Amin A**, et al. Broad targeting of resistance to apoptosis in cancer. Seminars in Cancer Biology 2015; 35: S78-S103.
21. **Omar HA**, Tolba MF, Hung JH, Al-Tel TH. OSU-2S/Sorafenib synergistic antitumor combination against hepatocellular carcinoma: The role of PKCδ/p53. Front Pharmacol 2016; 7:463.
22. **Omar HA**, Tolba MF, Hung JH, **Al-Tel TH**. Novel approach for targeting hepatocellular carcinoma cell-survival: OSU-2S/Sorafenib Combination. Clinical Cancer Research 2017; Jan 2017 [Epub ahead of print].
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24. Pearson YE, Lund AW, Lin AWH, Ng CP, Alsuwaidi A, Azzeh S, Gater DL, **Teo JCM**. Non-invasive single cell biomechanical analysis using live imaging datasets. J Cell Science 2016; [Epub ahead of print].
25. Rahman A, Thayyullathil F, Pallichankandy S, **Galadari S**. Hydrogen peroxide/ceramide/Akt signaling axis play a critical role in the antileukemic potential of sanguinarine. Free Radic Biol Med. 2016; 96:273-89.
26. Rahman A, Thayyullathil F, Pallichankandy S, **Galadari S**. Reactive oxygen species and cancer paradox: to promote or to suppress? Free Radic Biol Med 2017; 104:144-64.
27. Samadi AK, Bilsland A, Georgakilas AG, Azmi AS, ..., **Amin A**, et al. A multi-targeted approach to suppress tumor-promoting inflammation. Seminars in Cancer Biology 2015; 35: S151-S184.
28. Tarazi H, Saleh E, **El-Awady R**. In-silico screening for DNA-dependent protein kinase (DNA-PK) inhibitors: combined homology modeling, docking, molecular dynamic study followed by biological investigation. Biomed Pharmacother. 2016; 83:693-703.
29. **Thomas J**, Grey I. From Black Bile to the Bipolar Spectrum: A Historical Review of the Bipolar Affective Disorder Concept. Archives of Depression and Anxiety 2016; 2(1): 010-015.
30. Yaswen P, MacKenzie KL, Keith WN, Hentosh P, Rodier, F, ..., **Amin A**, et al. Therapeutic targeting of replicative immortality. Seminars in Cancer Biology 2015; 35: S104-S128.

Presentation (Invited Lecture, Oral and Poster Presentations) from **2014 Grants**

1. **Abdel-Rahman WM**. Cancer and environmental factors in the region. Solution for a better life: World future leaders. Sharjah, UAE. February 2016.
2. **Abdel-Rahman WM**, Nair VA. Study of the role of common environmental toxin in induction of breast and colon cancer and the underlying molecular mechanism. International Conference of Biodiversity and Biotechnology. Tamilnadu, India. February 2016.
3. **Abdel-Rahman WM**, Aravind SR, Nair VA, Caroline AT, Ahmed S. Analysis of the pathways to colorectal carcinogenesis by Bisphenol A. The 9th Dubai International Conference for Medical Sciences. Dubai, UAE. December 2016.
4. **Abdel-Rahman WM**. Environmental Contaminants and Cancer. Chemistry and Environment Symposium, College of Science, UoS, Sharjah, UAE. February 2017.
5. Al Haddad AHI, Parekh K, El-Salhat H, Safi F, **Adrian TE**. Identifying the molecular mechanism of early cachexia using whole transcriptome sequencing in muscle and fat biopsies from cancer patients. 4th Emirates Oncology Conference. Abu Dhabi, UAE. November 2015.
6. Al Haddad AHI, Parekh K, Al-Azwani EK, Mahmoud Y, Safi F, El-Salhat H, Malek JA, **Adrian TE**. Using RNA-sequencing in muscle and fat biopsies from cancer patients with early cachexia reveals novel mechanisms. United Arab Emirates University Annual Research and Innovation Conference. Al Ain, UAE. November 2015.
7. Al Haddad AHI, Al-Azwani EK, Mahmoud Y, Safi F, El-Salhat H, Malek JA, **Adrian TE**. Whole transcriptome analysis in muscle and fat biopsies from patients with cancer cachexia reveals novel mechanisms. World Congress on Cancer and Prevention Methods. Dubai, UAE. August 2015.
8. Alhammadi F, Hallfors N, **Alazzam A**. Cell dipping using dielectrophoresis. BioSMART IEEE Conference, Dubai. UAE. December 2016.
9. **Amin A**, Hamza A, Daoud S, Khazanehdari K, Al Hrout A, Baig B, Chaiboonchoe A, Adrian TE, Zaki N, Salehi-Ashtiani K. Crocin prevents early lesions of liver cancer: system biology approach. The 107th Annual Meeting of the American Association for Cancer Research. Louiziana, USA. April 2016.
10. Benyettou F, **Trabolsi A**. Drug delivery nanoparticles for combined cancer therapies. 6th International Conference on Nanoscience & Technology. Beijing, China. September 2015.
11. Benyettou F, **Trabolsi A**. Triply responsive doxorubicin-liaded CB[7]-modified iron-oxide nanoparticles for chemotherapeutic and hyperthermic inhibition of cancer. International Chemistry Conference on Organic and Bioorganic Chemistry. New York University Abu Dhabi, UAE. February 2016.
12. Benyettou F, **Trabolsi A**. Magnetic nanocontainers: Theranostic nanotools for cancer therapy and imaging. 2nd Annual World Congress of Smart Biomaterials Conference. Singapore. March 2016.
13. Boularaoui S, **Christoforou N**. Enhancing the transdifferentiation process of human dermal fibroblasts into skeletal muscle cells using small molecules and extracellular matrix components. Tissue Engineering and Regenerative Medicine Society (TERMIS 2015 World Congress). Boston, USA. September 2015.
14. **Christoforou N**, Ji H, Atchison L, Teo J, Truskey G, Leong KW. Transdifferentiation of human endothelial progenitors into functional smooth muscle cells following induction with the transcriptional co-activator MYOCD for tissue engineering applications. Tissue Engineering and Regenerative Medicine Society (TERMIS 2015 World Congress). Boston, USA. September 2015.
15. **El-Awady RA**, Khan FM, Saleh EM. Ketotifen, a mast cell stabilizer, modulates exosome/doxorubicin release from cancer cells. Targeted Anti-cancer Therapies (TAT) Congress. Washington, USA. March 2016.
16. **Gomathi KG**, Al Biate MS, Ismail AH, Menon PK, Ille T, et al. Glycated hemoglobin in first trimester pregnant Arab women and its correlation with other parameters. Scientific Meeting of the International Association of Diabetes and Pregnancy Study Groups (IADPSG 2016). Buenos Aires, Argentina. March 2016.
17. Hallfors N, Alhammadi F, **Alazaam A**. Deformation of red blood cells under dielectrophoresis. BioSMART IEEE Conference, Dubai. UAE. December 2016.
18. Mathew B, **Alazzam A**, Abutayeh M, Stiharu I. Modeling microparticles path in DEP-FFF microfluidic devices. IEEE Regional Symposium on Micro/Nanoelectonics. Kaula Tarengganu, Malaysia. August 2015.
19. Mathew B, **Alazzam A**, Khashan S, Destgeer G, Sung HJ. Trajectory of microparticles actuated with standing surface acoustic waves in microfluidic devices. IEEE Regional Symposium on Micro/Nanoelectonics. Kaula Tarengganu, Malaysia. August 2015.

20. Nawaz MH, **Rabeh WM**, Human hexokinase 2 in cancer metabolism and apoptosis. Cancer and Metabolism Conference. Cambridge UK. September 2015.
21. Nawaz MH, **Rabeh WM**. Mechanism of action of the human hexokinase 2 in cancer metabolism and apoptosis. Carbohydrate Active Enzymes in Medicine and Biotechnology, University of St. Andrews. St. Andrews, Scotland. August 2015.
22. Nawaz MH, **Rabeh WM**. Structural and molecular mechanisms of human hexokinase 2 in cancer metabolism and apoptosis. American Association for Cancer Research (AACR) Special Conference. Washington, USA. June 2015.
23. **Ni CW**. The role of newly identified flow-sensitive genes in embryotic vascular development. The 80th Annual Scientific Meeting on the Japanese Circulation Society. Tohoku, Japan. March 2016.
24. **Omar HA**, Tolba MF, Hung JH, Al-Tel TH. Tackling liver cancer cells survival by OSU-2S/Sorafenib combination. 7th International Conference on Drug Discovery and Therapy. Sharjah, UAE. February 2016.
25. **Omar HA**, Tolba MF, Hung JH, Al-Tel TH. Tackling liver cancer cells survival by OSU-2S/Sorafenib combination. American Association for Cancer Research (AACR), Targeting the Vulnerabilities of Cancer. Florida, USA. May, 2016.
26. **Omar HA**, Tolba MF, Hung JH, Al-Tel TH. Mechanistic insights into the significance of sorafenib and OSU-2S combination for the treatment of hepatocellular carcinoma. The 9th Dubai International Conference for Medical Sciences. Dubai, UAE. December 2016.
27. **Rabeh WM**. The Warburg effect and molecular mechanism of human hexokinase 2 in cancer metabolism and apoptosis. Beatson Institute, Cancer Research UK. Galsgow, UK. August 2015.
28. **Rabeh WM**, Structural and molecular mechanism of human hexokinase 2 in cancer metabolism and apoptosis. Sharjah Institute for Medical Research, University of Sharjah. Sharjah, UAE. March 2015.
29. **Trabolsi A**. The small wonder – Nanoparticles-based smart materials for therapy and imaging. Cambridge University, England, UK. January 2015.
30. **Trabolsi A**. The small wonder – Nanoparticles-based smart materials for therapy and imaging. University of Strasbourg. France. January 2015.
31. **Trabolsi A**, Benyettou F. Cucurbituril and iron-oxide nanoparticles: a potential combination for cancer therapy and imaging. Advanced Materials and Nanotechnology (AMN 7). Nelson, New Zealand. February 2015.
32. **Trabolsi A**, Benyettou F. Drug delivery nanoparticles for combined cancer therapies. Nanotech. Dubai, UAE. March 2015.
33. **Trabolsi A**. Cucurbituril-modified iron-oxide nanoparticles for combined cancer therapies. Prude University. Indiana, USA. April 2015.
34. **Trabolsi A**. Cucurbituril-modified iron-oxide nanoparticles for combined cancer therapies. Northwestern University. Illinois, USA. April 2015.
35. **Trabolsi A**. Cucurbituril-modified iron-oxide nanoparticles for combined cancer therapies. University of Texas. Illinois, USA. April 2015.
36. **Trabolsi A**. Drug delivery nanoparticles for combined cancer therapies. Cornell University. New York, USA. April 2015.
37. **Trabolsi A**. Drug delivery nanoparticles for combined cancer therapies. University of Maryland. Maryland, USA. April 2015.
38. **Trabolsi A**. Drug delivery nanoparticles for combined cancer therapies. Texas A&M. Texas, USA. April 2015.
39. **Trabolsi A**. Cucurbituril-modified iron-oxide nanoparticles for the adsorption, delivery and release of doxorubicin. NYUAD International Chemistry Conference on Organic and Bioorganic Chemistry. Abu Dhabi, UAE. February 2016.
40. **Trabolsi A**. Cucurbituril-modified iron-oxide nanoparticles for combined cancer therapies. 2nd United Arab Emirates Conference on Pure and Applied Chemistry. Sharjah, UAE. March 2016.
41. **Trabolsi A**. Cucurbituril-modified iron-oxide nanoparticles for combined cancer therapies. University of Coruna. Spain. April 2016.
42. **Trabolsi A**. Iron oxide nanoparticles in drug delivery. International Conference on Nanomaterials (ICNM 2016). Flic en Flac, Mauritius. September 2016.
43. Yaaqoob A, Humood A, Thayyullathil F, **Galadari S**. Thymoquinone, a bioactive component of black cumin, activates tumor suppressor lipid ceramide in human leukemia. UAE University Annual research conference. Al Ain, UAE. April 2016.
44. Zaher DH, Vunnam S, Hersi F, **Omar HA**, Al-Tel TH. OSU-2S congeners: anti-tumor effect of novel and enantiomerically pure pyrrolidine-2-carboxamide derivatives in hepatocellular carcinoma. The 9th Dubai International Conference for Medical Sciences. Dubai, UAE. December 2016.

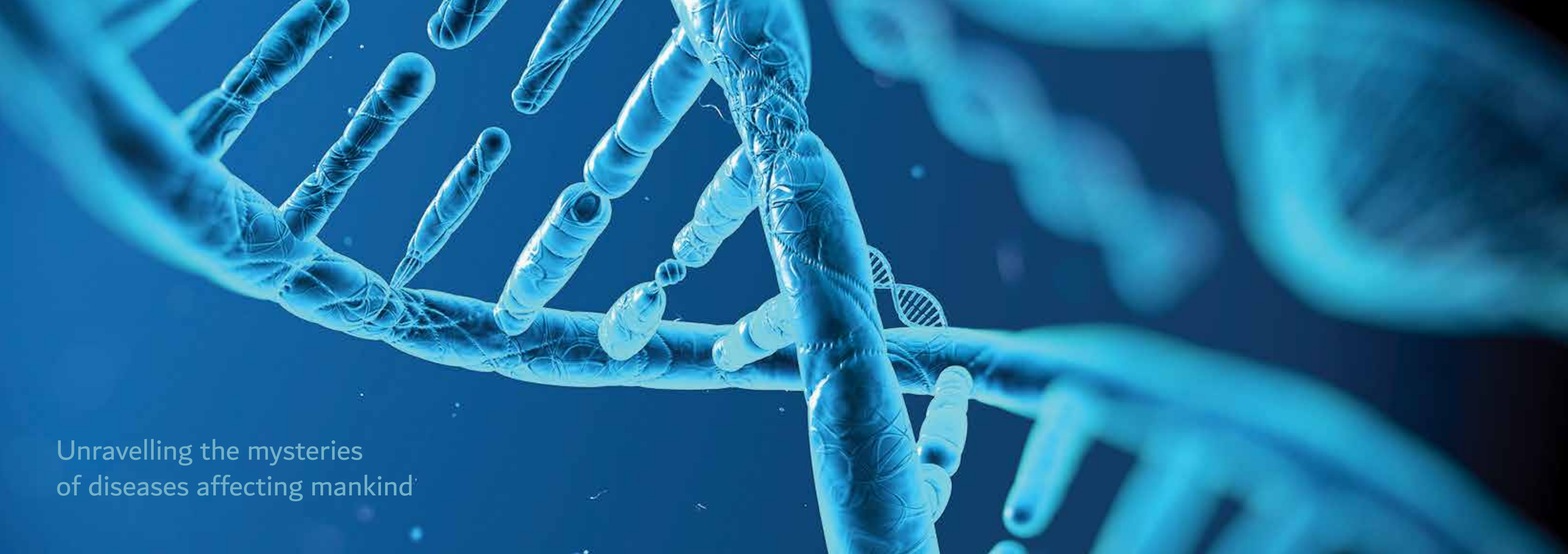
Publications (Peer Reviewed Articles, Reviews and Conference Proceedings) from **2015 Grants**

1. **Benyettou F**, Ocadiz Flores JA, Ravaux F, Rezgui R, Jouiad M, Nehme SI, Parsapur RK, Olsen JC, Selvam P, **Trabolsi A**. Mesoporous γ-Iron Oxide Nanoparticles for Magnetically Triggered Release of Doxorubicin and Hyperthermia Treatment. Chem. Eur. J. 2016; 22(47):17020-17028.
2. **Benyettou F**, Murtaza AM, Bilbeisi R, Ocadiz Flores JA, Rezgui R, Olsen JC, Platas-Iglesias C, **Trabolsi A**. Chemical and thermal inhibition of cancer in vitro with doxorubicin-loaded CB(7)- modified iron-oxide nanoparticles. RSC Advances 2017; 7:23827.
3. Skorjanc T, **Benyettou F**, Olsen JC, **Trabolsi A**. Design of organic macrocycle-modified iron-oxide nanoparticles for drug delivery. Chem. Eur. J. 2017; [Epub - DOI:10.1002/chem.201605246].
4. El Khatib A, **Werghi N**, Al-Ahmad H. Automatic polyp detection: a comparative study. Proc. 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) 2017; PP 2669-2672.
5. **Lukman S**, Nguyen MN, Sim K, Teo JC. Discovery of Rab1 binding sites using an ensemble of clustering methods. Proteins. 2017; 85(5):859-871.
6. Menachery A, Kumawat N, **Qasaimeh MA**. Linear and non-linear concentration gradient generation using orthogonal microfluidics. Proceedings: The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences. Dublin, Ireland. October 2016. pp. 840-841.
7. Menachery A, Kumawat N, **Qasaimeh MA**. Label-free microfluidic stem cell isolation technologies. Trends in Analytical Chemistry 2017; 89, 1-12.
8. Omar HA, Tolba MF, Hung JH, **Al-Tel TH**. OSU-2S/Sorafenib Synergistic Antitumor Combination against Hepatocellular Carcinoma: The Role of PKCδ/p53. Front Pharmacol. 2016; 7:463.
9. **Qasaimeh MA**, Wu C, Bose S, Menachery A, Talluri S, et al. Isolation of circulating plasma cells in multiple myeloma using CD138 antibody-based capture in a microfluidic device. Scientific Reports 2017; 7: 45681.
10. Srinivasulu V, Reddy A, Mazitschek R, Lukens AK, Wirth DF, Li L, Naumov P, O'Connor MJ, **Al-Tel TH**. Intramolecular Diaza-Diels-Alder Protocol: A New Diastereoselective and Modular One-Step Synthesis of Constrained Polycyclic Frameworks. Chemistry-A European Journal 2017; 23(17)4137-48.
11. Srinivasulu V, Janda KD, Abu-Yousef IA, O'Connor MJ, **Al-Tel H**. A modular CuI-L-Proline catalyzed one-pot route for the rapid access of constrained and privileged hetero-atom-linked medium-sized ring systems. Tetrahedron 2017; 73(15):2139-50.
12. Tarazi H, Odeh RA, Al-Qawasmeh R, Yousef IA, Voelter W, **Al-Tel TH**. Design, synthesis and SAR analysis of potent BACE1 inhibitors: possible lead drug candidates for Alzheimer's disease. Eur J Medicinal Chemistry 2017; 125:1213-24.

Presentation (Invited Lecture, Oral and Poster Presentations) from **2015 Grants**

1. **Al-Tel TH**. Fine feathers make fine birds: Diastereoselective synthesis of privileged sructures as potential anticancer and antimalarial lead drug candidates. 7th International Conference on Drug Design and Therapeutics. Sharjah, UAE. February 2016.
2. **Al-Tel TH**. Heuristic Synthesis Planning: Diastereoselective Design of Privileged. NYUAD International Chemistry Conference on Organic and Bioorganic Chemistry. Abu Dhabi, UAE. February 2016.
3. **Al-Tel TH**. Fine feathers make fine birds: Diastereoselective synthesis of privileged sructures as potential anticancer and antimalarial lead drug candidates. The 252nd ACS Meeting. California, USA. March 2016.
4. **Al-Tel TH**. Privileged diversity oriented organic synthesis: Modular one-step route for the synthesis of novel compound collections for phynotypic screening. 253rd ACS Meeting. California, USA. April 2017.
5. **Al-Tel TH**. Modular cul-proline catalyzed one-pot route for the rapid access of privileged small and medium ring systems. 253rd ACS Meeting. California, USA. April 2017.
6. **Al-Tel TH**. Synthesis of Novel and Privileged Macrocycles for Phenotypic Screening. Cambridge Healthtech Institute's Macrocyclics & Constrained Peptides day-and-a-half Conference. California, USA. April 2017.
7. **Al-Tel TH**. Privileged Substructures diversity oriented organic synthesis: modular one-pot routes for the rapid access of complex compound collections for phenotypic screening. Temple University -Moulder Drug Discovery Center. Philadelphia, USA. May 2017.
8. **Al-Tel TH**. Discovery of Novel and Privileged lead drug Candidates. Merck Pharmaceutical Innovation Summit. DarmStadt, Germany. February 2017.
9. **Benyettou F**. Cucurbituril-Modified Iron-Oxide Nanoparticles for the Adsorption, Delivery and Release of Doxorubicin. NYUAD International Chemistry Conference on Organic and Bioorganic Chemistry, New York University Abu Dhabi, UAE, February 2016.
10. **Benyettou F**. Magnetic Nanocontainers: Theranostic Nanotools for Cancer Therapy and Imaging. BITS 2nd Annual World Congress of Smart Biomaterials Conference, Singapore, March 2016.
11. **Benyettou F**. Curcubituril-Modified Iron-Oxide Nanoparticles for Combined Cancer Therapies. 2nd United Arab Emirates conference on Pure and Applied Chemistry (ECPAC 16). Sharjah, UAE. March 2016.
12. **Benyettou F**. Cucurbituril-Modified Iron-Oxide Nanoparticles for Combined Cancer Therapies University of Coruña, Spain, April 2016.
13. El Khatib A, **Werghi N**, Al-Ahmad H. Automatic polyp detection: a comparative study. The 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). Milano, Italy. August 2015.
14. El Khatib A, **Werghi N**, Al-Ahmad H. Enhancing automatic polyp detection accuracy using fusion techniques. IEEE 59th International Midwest Symposium on Circuits and Systems (MWSCAS). Abu Dhabi, UAE. October 2016.
15. **El-Serafi AT**. Can epigenetic modifiers help in designing a human-based adipogenic model for anti-obesity drug testing? 6th PAN ARAB Human Genetic Conference. Dubai, UAE. January 2016.
16. **El-Serafi AT**. Can epigenetic modifiers help in fat regeneration and fat loss? 7th International Conference on Drug Discovery and Therapy. Sharjah, UAE. February 2016.
17. **El-Serafi AT**. Differential role of epigenetic modifiers with stem cells. 2nd International Conference on Current Trends in Biotechnology. Dubai, UAE. March 2016.
18. **El-Serafi AT**, Lozansson Y, Sandeep D. Opposing roles for DNA methylation and histone deacetylation inhibitors in controlling adipogenic differentiation. CiRA/ISSCR International Symposium. Kyoto, Japan. October 2016.
19. **El-Serafi AT**. Can epigenetic modifiers advance the stem cell differentiation?. Global Forum on Transplantation Research and Technologies. Dubai, UAE. November 2016.
20. **El-Serafi AT**, Lozansson Y, Sandeep D. Modulation of adipogenesis by the epigenetic modifiers 5-aza-deoxycytidine and suberoylanilide hydroxamic acid. Translational Opportunities in Stem Cell Research; ISSCR/STEMBANCC/Basel Stem Cell Network 2017 International Symposium. Basel, Switzerland. February-March 2017.

21. Kumawat N, Menachery A, Mathew B, **Qasaimeh MA**. A microfluidic-based platform for isolating prostate circulating tumor cells (CTCs) from blood samples. NYUAD Postdoc Research Day. New York University Abu Dhabi, UAE. November 2016.
22. **Lukman S**. How to discover novel Rab1A binding sites for drug discovery? Bioinformatics Institute. Singapore. June 2016.
23. Menachery A, Kumawat N, **Qasaimeh MA**. A Cross-flow microfluidic concentration gradient generator. Microfluidics, Liquid Handling & Lab-on-a-Chip International Conference. Bangalore, India. May 2016.
24. Menachery A, Kumawat N, **Qasaimeh MA**. Concentration gradient generation using orthogonal microfluidics. NYUAD Postdoc Research Day. New York University Abu Dhabi, UAE. November 2016.
25. **Qasaimeh MA**. Micro and nano technologies for biomedical and clinical applications. The 2nd World Congress and Expo on Nanotechnology and Materials Science. Dubai, UAE. April 2016.
26. **Qasaimeh MA**. Microfluidics for single cell analysis. EMN Meeting on Microfluidics and Nanofluidics. Dubai, UAE, April 2016.
27. **Qasaimeh MA**. Microfluidics for cell analysis and isolation. The 6th Global Experts Meeting on Nanomaterials and Nanotechnology. Dubai, UAE. April 2016.
28. **Qasaimeh MA**. Microfluidic quadrupoles and applications in cell chemotaxis studies. Microfluidics, Liquid Handling & Lab-on-a-Chip International Conference. Bangalore, India. May 2016.
29. **Qasaimeh MA**. Microfluidics for cell analysis and isolation: from simple devices to channel-less mobile systems. Centre for Nano Science and Engineering (CeNSE). Indian Institute of Science, India. May 2016.
30. **Qasaimeh MA**. Micro/Nano technologies for biomedical applications. The 2nd World Congress on Materials Science, Polymer Engineering, and Microtechnologies. Abu Dhabi, UAE. November 2016.
31. **Qasaimeh MA**. Microfluidics for biological and clinical applications. Cleveland Clinic Abu Dhabi - New York University Abu Dhabi Research Symposium. Abu Dhabi, UAE. November 2016.
32. **Qasaimeh MA**. Microfluidic technologies for isolating tumor cells from peripheral blood samples. The 16th Global Annual Oncologists Meeting. Dubai, UAE. April 2017.
33. **Qasaimeh MA**. Microfluidics for biological and medical applications. The 5th Annual Conference of AnalytiX-2017. Fukuoka, Japan, March 2017.
34. **Qasaimeh MA**. Microfluidics for biomedical and clinical applications. The 1st NYU Biomedical and Biosystems Conference. Abu Dhabi, UAE. April 2017.
35. **Radwan H**. Mother and Infant Study Cohort (MISC) in the United Arab Emirates (UAE): Challenges and lessons learned. 2nd Dubai Nutrition Conference. Dubai, UAE. November 2016.
36. **Radwan H**. Gestational Weight Gain associated with Pre-pregnancy, Body Mass Index and Other Maternal lifestyle in MISC cohort Study. 2nd Dubai Nutrition Conference. Dubai, UAE. November 2016.
37. **Radwan H**. Mother and Infant Study Cohort (MISC) in the United Arab Emirates (UAE): Challenges and lessons learned. International Nutrition and Growth Conference. Amsterdam, Netherlands. March 2017.
38. **Radwan H**. Gestational Weight Gain associated with Pre-pregnancy, Body Mass Index and Other Maternal lifestyle in MISC cohort Study. International Nutrition and Growth Conference. Amsterdam, Netherlands. March 2017.
39. Taha B, **Werghi N**, Dias J. Automatic polyp detection in endoscopy videos: A survey. The 13th IASTED International Conference on Biomedical Engineering (BioMed 2017). Innsbruck, Austria. February 2017.


Unravelling the mysteries
of diseases affecting mankind