Faculty of Applied Medical Sciences

List of Research Interests

For the academic year (2020/2021)

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| **Department of Medical Laboratory Sciences** | |
| Name | Research Area |
| 1. Professor Manar Autom | * Genetic polymorphism of cancer disease. |
| 2. Professor Nawal Hijjawi | * Molecular Epidemiology of Protozoan Parasites. * Optimizing Culture Systems for the Continues Maintenance of different Parasites in the lab. * Diagnosis of Different Parasitic Diseases. |
| 3. Dr. Mamoon Hatmal | * Structural and Data Analysis Bioinformatics, Molecular dynamics, Drug design, Single Nucleotide Polymorphisms, Stem Cells research, and designing new therapeutics for cancer and viral diseases. |
| 4. Dr. Foad Al-Zghoul | * Molecular Patho-Physiology. |
| 5. Dr. Zaynab Al-Issawi | * Cancer molecular biology and therapy |
| 6. Dr. Ra'ed Al-Halalsheh | * Endocrinology. Human physiology. |
| 7. Dr. Abdlrahman Shdiefat | * Cardiovascular field and oxidative stress diseases. |
| 8. Dr. Jihad Al-Zuod | * Musculoskeletal system in normal and pathology. * Keen interest in the healing response of musculoskeletal conditions affecting muscles, bone, tendons (Tendinopathy) and articular cartilage (Osteoarthritis) using in vitro, ex vivo and in vivo models and exploring different treatment options. * Methodology includes biomechanical, chemical, histological and genetic testing. * A special interest in Dental sciences as I hold a bachelor degree in dentistry. |
| 9. Dr. Abdurahman Zuiter | * Infectious Diseases Diagnostic Methods and Molecular Microbiology. * Infectious Meningitis, Helicobacter pylori, trongyloides stercoralis, Burkholderia pseudo mallei, Multi-locus Sequence Genotyping, Tropical Infectious diseases, Clinical and Molecular Epidemiology. |
| 10. Dr. Loai Al-Anaghreh | * Microbial genomics, metagenomics and community analysis (microbiome). * Genetic make-up characterization of common pathogens (Bacteria, Viruses, Fungi). * Microbial diversity and microbial molecular evolution. * Transcriptome analysis (RNA-seq, GOseq) and bioinformatics applications. |
| 11. Dr. Omar Abu-Yamean | * Clinical Relation of Vitamin B12 biomarkers with different pathological and physiological conditions.  Identification of Vitamin B12 uptake receptor other than CD320, Explore the clinical significance of the soluble vitamin B12 uptake receptor in relation to Alzheimer disease and dementia. |
| 10.Dr. Ismael Mahmoud | * Protein receptors trafficking and recycling in cells Development of new anticancer drugs. Genetic predisposition of diseases, such as cancer and diabetes. Nanotechnology and drug delivery |

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| **Department of Clinical Nutrition and Dietetics** | |
| 1. Professor Murad Al-Holy | * Food Microbiology * Food Processing |
| 2.Professor Mahmoud Abughouosh | * Research in food products development and sensory evaluation (using Hydrocolloids and protein combinations in Mayonnaise, Beverage production, Ice cream, cakes, extruded products, chips, dairy products). * Food products and Human Health (caffeine consumption and chronic diseases) * Evaluate the effect of gums and proteins (whey protein concentrate, wheat protein....etc) in combination on the surface, emulsions properties, and Sensory properties of a fluid food system. * Model, identify, and predict the surface properties of a protein-gum interaction using a fuzzy clustering model. * Research in food engineering, Extrusion, rheology, food microstructure imaging, structure-texture relationships. * Develop a rapid and reliable estimation method using techniques such as near-infrared spectroscopy (NIRS) and imaging to study the characteristics of food products. * Providing expert consulting services for food production industry |
| 3. Professor Suhad Abumweis | * Functional foods and dietary supplements * Medical nutrition therapy * Health claims * Meta-analysis and evidence-based nutrition * Nutrition assessment |
| 4. Dr. Huda Al-Hourani | * The association between weight, obesity and several diseases. * These include type 2 diabetes mellitus, cardiovascular diseases (CVD), dyslipidemia, hypertension and cancer such as breast cancer. |
| 5. Dr. Amin Olaimat | * Study and analysis the microbial quality and safety of traditional foods. * Use of natural antimicrobials to enhance the safety and extend the shelf-life of foods. * Development of active packaging materials to improve the quality and safety of foods * Development of functional products and study the sensory characteristics. * Addresses the socio-behavioral health sciences of infectious diseases with an emphasis on COVID-19. |
| 6. Dr. Narmeen Al-Awwad | * Clinical Nutrition * Food microbiology- Probiotics and Prebiotics |
| 7. Ms. Eslam Al-Shami | * Human Clinical Nutrition * Nutritional Assessment * Disease risk control |

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| **Physical and Occupational Department** | |
| 1. Dr. Mohanad Hawamdeh | * Effect of Physical Therapy Modalities in Diseases and It's Symptoms. |
| 2. Hashem Salman Abu Tariah | * Occupational therapy and professional issues * Work related occupational and physical challenges * Physical Disabilities and the role of occupational therapy * Accessibility and occupational justice * Adaptation and quality of life |
| 3. Abdul-Majeed Almalty | * Physical Therapy * Wound care * Electrotherapy * Osteoarthritis |
| 4. Dr. Mohammad Jebril | * Occupational Therapy * Occupational therapy treatments and modalities * Psychosocial occupational therapy * Community Based Inclusive Development (CBID)/CBR * Professional development * Occupation Adaptation * Occupational science |
| 5. Dr. Sa'ad Al Nassan | * Exercise effects on Attenuating Muscle Atrophy Mediators. * Exercise Physiology * Cancer Rehabilitation * Quality of Life |
| 1. Dr. Haifa Batarseh | * Occupational Therapy * Occupational therapy in pediatrics * Occupational Therapy for persons with Autism Spectrum Disorder * Quality of life of the families and parent of children and adult with disabiliti**e**s. |
| 7. Dr. Faris Alshammari | * Effect of Neuromuscular activities and integration on human body balance * Effect of neuromuscular- based exercises on body posture, strength, balance, and activity tolerance |
| 8. Dr. Mohammad Madi | * Clinical Reasoning, Continuous Professional * Development, Manual Therapy, Musculoskeletal * Disorders, Chronic Pain. |
| 9. Dr. Zaid Modhi | * Back pain research * Efficacy of different therapeutic techniques on musculoskeletal injuries * Brain Imaging research |
| 10. Dr. Amjad Al-Shallan | * Biomechanics of the spine * Postural control and balance * Sport injuries * Manual Therapy technique |
| 11. Dr. Nisrin Alqatarneh | * Occupational therapy in pediatrics * Early Intervention programs * Cultural relevance in Occupational therapy * Parent-therapist collaboration in Occupational therapy. |
| 12. Ms. Sahden Al-Bostanji | * Neuroanatomy. * Musculoskeletal |
| 13. Mr. Mustafa Al Qaisi | * Sensory integrative dysfunctions among children with academic challenges. * Development of children with visual impairments. |

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| **Department of Medical Imaging** | |
| 1. Dr. Khalid Rababah | * Polymer Gel Dosimeters * Fricke Gel Dosimeters * Radio-chromic Film Dosimeters * Radio-chromic Solution Dosimeters |
| 1. Dr. Ali Al-Radaideh | * MRI of Neurodegenerative diseases. * MRI of spinal cord injury. * Imaging the iron stores in the brain of Multiple Sclerosis and Parkinson’s disease using the quantitative magnetic susceptibility mapping technique (qMSM). * Cortical thickness, volume and area measurement and mapping in different neurodegenerative diseases. * MRI tracking of bone marrow derived mesenchymal stem cells. * Abdominal fat measurement using MRI. * Hepatic fat assessment using MRI. |
| 1. Dr. Kholoud Alzyoud | * Image quality and dose optimisation in digital radiography * Optimisation for different BMIs for different body parts * Using physical and visual methods for image quality assessment in digital radiography * Display monitors characteristics and image viewing conditions and their influence on observers’ diagnostic performance. * Radiation protection * Radiation dosimetry |
| 1. Dr. Ammar Oqlat | * Flow phantom ultrasound * Doppler ultrasound applications * Elastography * Advanced medical imaging techniques * Acoustic properties of blood and tissue using Doppler ultrasound applications |