

Ahmad Aljada, Ph.D.
Professor of Biochemistry

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ACADEMIC QUALIFICATIONS

Ph.D., Biochemistry 01/9/1995-01/2/2000
Roswell Park Cancer Institute, State University of New York at Buffalo, Buffalo, NY

M.S., Clinical Chemistry 01/09/1993-01/9/1995
State University of New York at Buffalo, Department of Clinical Laboratory Science, Buffalo, NY

B.S., Clinical Laboratory Science 01/09/1991-01/09/1993
State University of New York at Buffalo, Buffalo, NY

Medical Technology 01/09/1987-15/05/1990
Kuwait University (Transferred to State University of New York at Buffalo, Buffalo, NY)

PROFESSIONAL EXPERIENCE

Professor of Biochemistry 05/01/2019-Present
Dept. of Biochemistry & Molecular Medicine-College of Medicine
Alfaisal University, Kingdom of Saudi Arabia.

Consultant, Second Advanced Medical Company – SAMCO 01/05/2020-15/11/2023
Riyadh, Saudi Arabia

Chairman, Department of Basic Medical Sciences (BMS) 09/10/2016-17/12/2018
King Saud Bin Abdulaziz University for Health Sciences-College of Medicine, Riyadh, Ministry of
National Guard Health Affairs (MNGHA), Kingdom of Saudi Arabia.

Professor of Biochemistry 28/05/2016-17/12/2018
King Saud Bin Abdulaziz University for Health Sciences-College of Medicine, Riyadh, National Guard
Health Affairs, Kingdom of Saudi Arabia.

Associate Professor of Biochemistry 17/09/2010-28/05/2016
King Saud Bin Abdulaziz University for Health Sciences-College of Medicine, Riyadh, National Guard
Health Affairs, Kingdom of Saudi Arabia.

- Research Scientist** 01/10/2012-01/01/2019
King Abdullah International Medical Research Center, Riyadh, National Guard Health Affairs,
Kingdom of Saudi Arabia.
- Associate Professor of Biomedical Sciences** 01/09/2007-17/09/2010
Department of Biomedical Sciences, School of Health Professions and Nursing
C.W. Post Campus, Long Island University, Brookville, NY
- Assistant Director** 01/05/2005-07/09/2007
Pharmaceutical Research Institute at Albany College of Pharmacy, Albany, NY
- Member of the Institutional Review Board** 18/10/2005-07/09/2007
Albany College of Pharmacy, Albany, NY
- Member of the Journal Editorial Board** 01/01/2014-01/01/2008
Journal of “Metabolic Syndrome and Related Disorders”, Mary Ann Libert, Inc., publishers
- Research Assistant Professor** 01/03/2000 to 30/09/2005
Department of Medicine, State University of New York at Buffalo, Buffalo, NY
- Associate Director** 01/05/2004 to 01/05/2005
Diabetes-Endocrinology Center of Western New York Cellular and Molecular Research Laboratories,
Kaleida Health, Buffalo, NY
- Laboratory Manager** 01/02/1999 to 01/05/2004
Diabetes-Endocrinology Center of Western New York, Kaleida Health, Buffalo, NY
- Graduate Research Assistant** 01/09/1995 to 01/02/2000
Roswell Park Cancer Institute, State University of NY at Buffalo, Buffalo, NY
- Graduate Teaching assistant** 01/09/1993 to 01/06/1995
Department of Clinical Laboratory Science, State University of New York at Buffalo, Buffalo.
- Research Assistant** 09/01/1992 to 06/01/1995
Interdisciplinary Vascular Research Laboratories, Department of Medicine, Millard Fillmore Hospitals,
Buffalo, NY

TEACHING EXPERIENCE

Undergraduate:

- 1) Clinical Chemistry
- 2) Medical Biochemistry & Molecular Medicine
- 3) Biochemistry
- 4) Problem Based Learning
- 5)

Graduate:

- 1) Research Methodology

- 2) Signal Transduction
- 3) Diagnostic Techniques in Molecular Pathology (lecture and laboratory)
- 4) Advanced Medical Chemistry (lecture and laboratory)
- 5) Bioinformatics
- 6) Cancer Research
- 7) Tissue Culture
- 8) Toxicology and Therapeutic Drug Monitoring

RESEARCH MENTORSHIP ACTIVITIES

- *Graduate Students Research Projects at Alfaisal University:*

PhD Thesis Advisor, Bristol University, UK

Student: Dana Abu Matar, Project Title: Regulation of aging genes by senescence proteins, 2023-2026.

PhD Thesis Co Advisor, Bristol University, UK

Student: Lina Sami Jamjoom, Project Title: An OMICS approach to familial hypercholesterolemia, 2023-2026.

PhD Thesis Advisor, Bristol University, UK

Student: Mariam Elsayed, Project Title: The Effect of Senescence Mediators on Insulin Receptor (INSR) in Cancerous & Chemo-resistant Cells: Proposed Mechanism of Metformin as Cancer Therapy, 2022-2025.

PhD Thesis Co Advisor, Bristol University, UK

Student: Jasmine Holail, Project Title: Role of Type A Lamins in Chemo-Resistance: Inhibition by Sulfated Non-Anticoagulant Heparin (S-NACH), 2022-2025.

PhD Thesis Co Advisor, King Saud University, Saudi Arabia

Student: Fai Eldosori, Project Title: Quantification of Procaspsases and Activated Caspases in Chemo-Resistant Cell Lines by Targeted Quantitative Proteomics, 2022-2024.

Master Thesis Advisor, Alfaisal University, Saudi Arabia

Student: Aljohara Waleed Alsaud, Project Title: Recombinant DNA Polymerase from Eukaryotes; A Novel Method for In-House COVID-19 RT-PCR Testing, 2022-2023(Completed).

Master Thesis Co Advisor, Alfaisal University, Saudi Arabia

Student: Majeda Alrifai, Project Title: Development of an In-house Real-Time Q-PCR Assay for Multiplexed Detection of Hepatitis B and C Viruses in Plasma, 2022-2023 (Completed).

Master Thesis Co Advisor, Alfaisal University, Saudi Arabia

Student: Mahmoud Mohamad Zhra, Project Title: Establishment of Rapid Direct Multiplex rRT- PCR for SARS-CoV2 Detection without RNA Extraction, 2022-2023 (Completed).

Master Thesis Co Advisor, Alfaisal University, Saudi Arabia

Student: Hamad Abdullah Aleidiy, Project Title: The Role of Advanced Glycation End products and p70S6K1 in Metastatic Breast Cancer, 2022-2023 (Completed).

Master Thesis Advisor, Alfaisal University, Saudi Arabia

Student: Osama Abdelhadi, Project Title: Establishment of in-house quantitative reverse transcriptase-polymerase chain reaction (RT-PCR) multiplex assay & RNA isolation kit for the diagnosis of COVID-19 infection, 2020-2022.

Master Thesis Advisor, Alfaisal University, Saudi Arabia

Student: Mariam Elsayed, Project Title: Absolute quantification of senescence biomarkers in chemoresistant cell lines by targeted liquid chromatography-tandem mass spectrometry, 2019-2020.

- Graduate Students Research Projects at KSAU-HS:

- Master Thesis Co advisor, Naif Arab University for Security Sciences
Student: Heba Wael Shamsah, Project Title: Effect of Chemotherapeutic Agents on STR of Cancer Cells (2016-2017).
- Ph.D. Thesis Co advisor, King Saud University, Student: Wedad Saaed AlQahtani, Project Title: Detection of LAMNA/C gene Transcript Variant Proteins of Nuclear Envelope Using Quantitative and Multiplex Mass Spectrometry (2018-2020).

- Students Research Projects at College of Medicine, KSAU-HS:

- Co-supervisor for Student: Wedad AlQahtani, College of Science, KSU, PhD Program
Project Title: Detection of *Lamin A/C* gene Transcript Variant Proteins of Nuclear Envelope, April 6, 2017-December 1, 2000.
- Students: Firas Alsebayel, Nawaf Alammari, Faisal Alsudairy, Muath Almajed
Project Title: Comparison of expression levels of hNaa40 in mononuclear cells of lean, obese diabetics and obese diabetics on Metformin and modulation by equicaloric intake of macronutrients in normal subjects, December 26, 2016
- Students: Mohammed Alghamdi, Abdullah Alqahtani, Talal Almojel, Munthir Almujaheed, Saad Alsuwaidan, Ahmed Shubaily
Project Title: Establishment and Validation of a rapid quantitative RT-PCR diagnostic test for MERS-CoV, November 19, 2015
- Students: Khalid Saud Alshaalan, Khalid Abdulaziz Aldihan, Turki Khalid Albawardi
Project Title: Differential Lamin A/C transcript variants mRNA expression as a diagnostic tool for Leukemia, June 3, 2015
- Student: Arwaf Abdulaziz Benrwaf
Project Title: Modulation of Insulin receptor and insulin receptor like growth factors by senescence and anti-senescence proteins in breast cancer, 2015.

- Students: Abdulmalik Khalid, Mohammed Ali, Hasan Moeenaldeen, Abdullah Tawfeeq
Project Title: Differential effects of equicaloric intake of different macronutrients on the expression of apoptotic and senescence mediators in mononuclear cells, 2014.
- Student: Sarah Faisal AlGabbani
Project Title: Establishment of Quantitative PCR (qPCR) Method for the Measurement of mRNA Differential Expression Levels of LMNA/C Transcript Variants in Normal Human Tissues, 2012.
- Student: Shahad Hussain Al-Matar
Project Title: Correlation Between Lamin A/C Transcript Variants and Metastasis in Breast Cancer, 2012.
- Student: Emad Albayouk
Project Title: Sirtuin-7 as a novel multidrug resistance in cancer: modulation by metformin, 2012.
- Student: Osama Moeenaldeen
Project Title: Effect of Sirtuin-7 inhibition and upregulation on cell cycle progression, 2012.
- Student: Sulaiman Mohammad Al-Aqeel
Project Title: Differential expression of insulin receptor/insulin-like growth factor receptors in chemoresistance: correlation with breast cancer metastasis, 2012.
- Student: Mohammed Abdullah Aldawsari
Project Title: Role of Sirtuin-7 (Sirt7) inhibition in foam cell formation, 2012.
- Student: Moath Abdulmohsen Al-Katheri
Project Title: Correlation of Sirtuin-7 mRNA expression and Metastatic Stages in Breast Cancer, 2012.
- ***Master Thesis (Supervisor), School of Health Professions and Nursing, C.W. Post Campus, Long Island University, Brookville, NY***
- Student: Nasans Tnacanti; Thesis Title: Lamin Delta and chemoresistance, 2009.
- Student: Jenifer Bigus; Thesis Title: Growth Hormone: The Missing Link Between Diabetes and Periodontal Disease, 2010.
- Student: Tshitabamell Patel; Thesis Title: Role of Insulin Transcript Variants in Chemoresistance, 2010.
- Student: Michael Kirk; Thesis Title: Diagnostic Markers of Pancreatic Cancers, 2009.
- Student: Shivani Patel; Thesis Title: Modulation of Insulin Pathway in Chemoresistance By Sirtuins, 2010.
- Student: Kshitij Shah; Thesis Title: PPAR agonist: Do They Increase Cardiovascular Risk?, 2009.
- Student: Aditya Badheka; Thesis Title: Role of Metformin in Cancer: A Call For Large Study, 2009.
- Student: Yu Yen Fu; Thesis Title: PPAR γ Ligands, Rosiglitazone And Pioglitazone, Inhibit bFGF- And VEGF- Mediated Angiogenesis, 2009.
- Student: Vivekananda Sannapu; Thesis Title: Chemoresistance And Insulin Transduction Pathways, 2009.
- Student: Joseph Doria; Thesis Title: Expression of Sirtuins in Mice With Relation to Age, 2009.
- Student: Emil Fertli; Thesis Title: DPP4 Inhibitors: A New Class of Drugs For The Treatment of Type II Diabetes, 2009.
- Student: Vishal Ramnretine; Thesis Title: SIPS As A key Mechanism in Atherosclerosis, 2009.

- Student: Dustin Kreitzberg; Thesis Title: Bisphosphonate Related Osteonecrosis of the Jaw and Its Relationship to Diabetes and Inflammation, 2009.
- Student: Sravan Kumar Galla; Thesis Title: OT551: A Novel NFκB Inhibitor, 2009.
- Student: Chaitanya Shilagani; Thesis Title: Insulin Transduction Pathways in Chemoresistance, 2009.

HONORS & AWARDS

- Patent (USPTO): Quantification of Lamin C and Lamin A for tumor classification. US20160208337A1-United States.
- Faculty Awards for Research Excellence for 2022, Alfaisal University.
- The 7th Annual Research Award 2014 at King Abdullah International Medical Research Center (KAIMRC), National Guard Health Affairs-Riyadh, Kingdom of Saudi Arabia.
- Outstanding Researcher of the Year (2005) at State University of New York At Buffalo, The Research Foundation-State University of New York at Buffalo.
- Finalist for The Pharmacia Corporation International Award for Excellence in Published Clinical Research in The *Journal of Clinical Endocrinology & Metabolism* in 2002 for the paper entitled "Insulin inhibits intranuclear nuclear factor kappaB and stimulates IkappaB in mononuclear cells in obese subjects: evidence for an anti-inflammatory effect? *J Clin Endocrinol Metab* 86:3257-3265, 2001", Endocrine Society.
- Who's Who Among Students in American Universities and Colleges, State University of New York at Buffalo, 1992-1993.

UNIVERSITY COMMITTEES & ADMINISTRATION DUTIES

- Alfaisal University PhD Program Steering Committee, Member
- Alfaisal University College of Medicine Curriculum Committee, Member
- College of Medicine (COM) Year 1 Director
- Alfaisal University College of Medicine (COM) Research Director
- Alfaisal University College of Medicine (COM) Research Committee, Chairman
- Alfaisal University Laboratory Supervisory Committee, Member
- Editor of National Commission for Academic Accreditation and Assessment (NCAAA) Application for College of Medicine-KSAU-HS
- Chairman, NCAAA Standard 10 Subcommittee
- KSAU-HS College of Medicine (COM) Council in Riyadh, Member
- KSAU-HS College of Medicine (COM) Executive Management Group Committee, Member
- KSAU-HS College of Medicine (COM) Assessment Committee, Member
- KSAU-HS College of Medicine (COM) & Alfaisal University Curriculum Committee, Member
- KSAU-HS COM-Riyadh and COM-Jeddah Steering Committee, Member
- KSAU-HS COM-Riyadh Section Coordinating/Steering Committee, Member
- KSAU-HS COM Quality Assurance & Academic Accreditation (QAAA) Committee, Member
- Research Committee for Basic Science Research, KAIMRC, Member

- Colorectal Cancer Research Program (CCRP) Board, Member

RESEARCH GRANTS

- Alfaisal University- President's Innovation Funding October 2023- March 2025
Alfaisal University Portable and Rapid Molecular Diagnostic (Alpha-MDx) PCR Platform for Molecular Testing
Budget: 500,000 SR (\$133,200)
Role: PI
 - Alfaisal University-Internal Research Grant (ORI) March 2022- March 2023
Quantification of Procaspsases and Activated Cleaved Caspases (Caspase 1 to 10) in Chemo-Resistant Cell Lines by Targeted Absolute Quantitative Proteomics
Budget: 50,000 SR (\$13,300)
Role: PI
 - King Abdulaziz City for Science and Technology (KACST) June 2020-Dec 2020
Evaluation of Eukaryote-Made Thermostable DNA Polymerase to Expedite Inhouse and Point of Care COVID-19 RT-PCR Test kits Manufacturing
Budget: 395,274 SR (\$105,300)
Role: PI
 - Alfaisal University-Internal Research Grant (ORG) Feb 2020-Feb 2022
Quantification of Senescence Mediators in Chemo-resistant Cell Lines by Targeted Absolute Quantitative Proteomics
Budget: 50,000 SR (\$13,300)
Role: PI
 - Alfaisal University-Internal Research Grant (ORG) Feb 2020-Feb 2022
Role of LMNA Δ 10 in Chemo-Resistance: Inhibition by Sulfated Non-Anticoagulant Heparin (S-NACH)
Budget: 50,000 SR (\$13,300)
Role: Co-PI
 - King Abdullah International Medical Research Center (KAIMRC) Jun 2017-Jun 2020
(RC12/089; Title: Role of Premature Senescence in Colorectal Cancer)
Budget: 1,244,863 SR (\$332,000)
Role: PI
 - King Abdullah International Medical Research Center (KAIMRC) March 2017-March 2018
(RC15/115; Title: Macrophage polarization in obesity and diabetes: modulation by Metformin)
Budget: 40,500 SR (\$10,800)
Role: Co-PI
 - King Abdullah International Medical Research Center (KAIMRC) April 2016-April 2017
(RC15/115; Title: Validation and Verification of the CDC Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Quantitative RT-PCR as a Point-of-Care-Rapid Diagnostic Test)
Budget: 313,000 SR (\$83,500)
Role: PI
 - King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC12/089; Title: Insulin, Chemotherapy, and the Mechanisms of Chemo Resistance) Budget: 1,145,150 SR (\$305,000)
Role: PI.
 - King Abdulaziz City for Science and Technology (KACST) Sep 2013-Sep 2015
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(A-S-13-1000; Title: Stress-Induced Premature Senescence as a Novel Mechanism in Atherosclerotic Foam Cell Formation)

Budget: 1,143,000 SR (\$305,000)

Role: Co-PI

- King Abdullah International Medical Research Center (KAIMRC) Sep 2013-Sep 2015
(Title: Isolation and Characterization of the Anti-Cancer Compounds From A Traditional Medicinal Plant and Evaluating Their Efficacy Against Clinical Leukemia Samples)
Budget: 1,947,500 SR (\$519,000)
Role: Co-PI
- King Abdulaziz City for Science and Technology (KACST) Sep 2013-Sep 2015
(Title: Mechanistic and efficacy studies of a novel synthetic anticancer agent [1-(β -D-ribofuranosyl)-4-trifluoromethyl pyrazolinone derivative] against acute lymphocytic leukemia)
Budget: 1,529,000 SR (\$408,000)
Role: Co-PI
- King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
Investigating the effect of various cytokine gene's polymorphisms on the incidence and outcome of sepsis infection in new born infants
Budget: 38,000 SR (\$10,100)
Role: Co-PI
- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/036/R; Title: Sirtuin-7 as a Novel Mechanism to Multidrug Resistance in Cancer: Modulation by Metformin)
Budget: 56,100 SR (\$15,000)
- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/112/R; Title: Role of Sirtuin-7 (Sirt7) Inhibition in Foam Cell Formation)
Budget: 50,000 SR (\$13,000)
- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/058/R; Title: Effect of Sirtuin-7-Inhibition and Up-regulation on Cell Progression)
Budget: 47,800 SR (\$12,800)
- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/047/R; Title: Correlation of Sirtuin-7 mRNA Expression and Metastatic Stages in Breast Cancer)
Budget: 36,100 SR (\$9,600)
- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/062/R; Title: Differential Expression of Insulin Receptor/Insulin-Like Growth Factor Receptors in Breast Cancer Metastasis)
Budget: 38,580 SR (\$10,300)
- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/094/R; Title: Differential mRNA Expression in Normal Human Tissues)
Budget: 39,463 SR (\$10,500)

- Student Monetary Grant at King Saud Bin Abdulaziz University for Health Sciences-College of Medicine from King Abdullah International Medical Research Center (KAIMRC) Jan 2014-Jan 2016
(RC13/130/R; Title: Correlation Between Lamin A/C Transcript Variants and Metastasis in Breast Cancer)
Budget: 49,815 SR (\$13,300)
 - King Abdullah International Medical Research Center (KAIMRC) Sep 2011-Sep 2013
(Title: Role of Sirtuin 7 in Chemoresistance; Modulation by Metformin)
Budget: 1,141,701 SR (\$305,000)
Role: PI
 - King Abdullah International Medical Research Center (KAIMRC) Sep 2011-Sep 2013
(Lamin Delta as A novel Anti-aging Protein: Role in Chemoresistance)
Budget: 1,492,960 SR (\$398,000)
Role: PI
 - Undergraduate monetary grant for the 2008-2009 academic year from C.W. Post campus research committee (\$4,973)
(Characterization of insulin/insulin like growth factor pathways in chemoresistance)
 - Graduate monetary grant for the 2008-2009 academic year from C.W. Post campus research committee (\$3,800)
(Role of lamin A transcript variants in chemoresistance)
 - Graduate monetary grant for the 2007-2008 academic year from C.W. Post campus research committee (\$2,300)
(Sirtuin-7 Inhibition: A novel Mechanism For Chemoresistance)
 - Undergraduate monetary grant for the 2007-2008 academic year from C.W. Post campus research committee (\$2,318)
(Establishment of Lamin A transcript Variants PCR Assay)
 - New York State (\$7,500) Sep, 2000
Establishment of teaching/research tissue culture laboratory in the department of biomedical sciences
 - Othera Pharmaceuticals (\$350,000) 07/04 – 09/07
Grant main objective: investigate novel anti-oxidant compounds in angiogenesis modulation: molecular mechanisms and potential implication in ocular and oncological disorders
Role: PI
 - Sanofi-Aventis (\$100,000) 09/04 - 03/07
Grant main objective: role of heparin and heparin derivatives beyond anticoagulation
Role: PI
 - GlaxoSmithKline (SKF#105517/353); (\$180,456) 12/1/2001-8/1/2004
Grant main objective: evaluate the effect of Carvedilol on oxidative load and inflammatory mediators in diabetic hypertensive patients with or without established coronary artery disease
Role: Co-PI
 - GlaxoSmithKline (49653/372); (\$350,000) 12/1/2002-12/1/2004
Grant main objective: test the effect of rosiglitazone on oxidative load, inflammatory end points and vascular reactivity, insulin sensitivity and insulin secretion in-patients with type 2 diabetes mellitus.
Role: Co-PI
 - GlaxoSmithKline (49653/384); (\$168,600) 08/1/2002-08/1/2004
Grant main objective: examine the effect of rosiglitazone on intraocular cytokines and vascular endothelial growth factor (VEGF).
Role: Co-PI
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- Bristol-Myers Squibb Company; (\$120,000) 12/1/2002-8/1/2005
Grant main objective: examine the effect of Metformin on oxidative load, inflammatory end points and vascular reactivity in diabetic patients and non-diabetic obese patients.
Role: Co-PI
- Novartis Pharmaceuticals (CCIB002F US10); (\$140,000) 08/1/2002-08/1/2005
Grant main objective: compare the anti-inflammatory and anti-atherosclerotic effects of benazepril, amlodipine, and a combination of benazepril + amlodipine in patients with hypertension.
Role: Co-PI
- Abbott Labs; (\$184,848) 09/1/2002-09/1/2004
Grant main objective: examine the effect of micronized fenofibrate (TRICOR) on oxidative load and inflammatory markers in hyperlipidemic patients with or without diabetes mellitus.
Role: Co-PI
- Novartis Pharmaceuticals (CVAL489A US27); (\$233,208) 12/1/2002-12/1/2004
Grant main objective: study was to examine if angiotensin II receptor blocker, Valsartan (Diovan) will reduce oxidative stress and inflammatory mediators in obese and subjects with type 2 diabetes.
Role: Co-PI
- Takeda Pharmaceuticals North America, Inc.; (\$120,000) 06/1/2002-06/1/2004
Grant main objective: examine the effect of pioglitazone on oxidative load, inflammatory end points, and vascular reactivity in obese non-diabetic patients.
Role: Co-PI.

PUBLICATIONS

Ph.D. Thesis: The Effect of Insulin and Tumor Necrosis Factor Alpha On Human Aortic Endothelial Cells (Bar Code: 39072024512851).

Master Thesis: The Role Of Vasodilators In Lipid Peroxide Induced Retinal Neovascularization (Thesis C495 1995 A42).

1. Alqasim R., Aljada A. Systemic Acetate Is a Potential Biomarker of Metabolic Health and Therapeutic Response: A Pilot Cross-Sectional Investigation. *J Endocrinol Metab.* 2024; doi: <https://doi.org/10.14740/jem943>.
2. Zhra M, Magableh AM, Samhan LM, Fatani LM, Qasem RJ, Aljada A. The Expression of a Subset of Aging and Antiaging Markers Following the Chondrogenic and Osteogenic Differentiation of Mesenchymal Stem Cells of Placental Origin. *Cells.* 2024;13(12); <https://doi.org/10.3390/cells13121022>
3. Zhra M, Qasem RJ, Aldossari F, Saleem R, Aljada A. A Comprehensive Exploration of Caspase Detection Methods: From Classical Approaches to Cutting-Edge Innovations. *Int J Mol Sci.* 2024;25(10); <https://doi.org/10.3390/ijms25105460>
4. Alshaalan KS, Albawardi TK, Zhra M, Bin Sulaiman N, Jnied OY, Saleem RA, et al. Differential Expression of LMNA/C and Insulin Receptor Transcript Variants in Peripheral Blood Mononuclear Cells of Leukemia Patients. *J Clin Med.* 2024;13(9); <https://doi.org/10.3390/jcm13092568>
5. Metformin: A Dual-Role Player in Cancer Treatment and Prevention. *Int. J. Mol. Sci.* 2024, 25(7), 4083; <https://doi.org/10.3390/ijms25074083>
6. Zhra M, Al Saud A, Alzayer M, Okdah L, Tamim H, Fakhoury HMA, et al. Cost-effective in-house COVID-19 reverse transcription-polymerase chain reaction testing with yeast-derived Taq polymerase. *Ann Thorac Med.* 2024;19(2):165-71; https://doi.org/10.4103/atm.atm_180_23
7. Galal M.A., Al-Rimawi M., Hajeer A., Dahman H., Alouch S., Aljada A., Metformin: A Dual-Role Player in Cancer Treatment and Prevention. *Int. J. Mol. Sci.* 2024, 25(7), 4083; <https://doi.org/10.3390/ijms25074083>
8. Sing G. K., Rohra D., Kulik K., Aljada A. What has Genomics Done for us? A Review of the Advancements in the Biomedical Sciences Resulting from the Deciphering of the Human Genome. *Biomed J Sci & Tech Res* 2024, 54 (3), 45961-70, <https://doi.org/10.26717/BJSTR.2024.54.008558>
9. Mujammami, M.; Aleidi, S.M.; Buzatto, A.Z.; Alshahrani, A.; AlMalki, R.H.; Benabdelkamel, H.; Al Dubayee, M.; Li, L.; Aljada, A.; Abdel Rahman, A.M. Lipidomics Profiling of Metformin-Induced Changes in Obesity and Type 2 Diabetes Mellitus: Insights and Biomarker Potential. *Pharmaceuticals (Basel)*, Published 11 December 2023, 16; <https://doi.org/10.3390/ph16121717>
10. Galal M.A., Alouch S.S., Alsultan B.S., Dahman H., Alyabis N.A., Alammam S.A., Aljada A. Insulin Receptor Isoforms and Insulin Growth Factor-like Receptors: Implications in Cell Signaling, Carcinogenesis, and Chemoresistance. *Int. J. Mol. Sci.* Published 9 October 2023, 24, 15006; <https://doi.org/10.3390/ijms241915006>
11. Alshahrani A., Aljada A., Masood A., Mujammami A., Alfadda A.A., Musambil M., Alanazi I.O., Al Dubayee M., Abdel Rahman A.M., Benabdelkamel H.H. Proteomic Profiling Identifies Distinct Regulation of Proteins in Obese Diabetic Patients Treated with Metformin. *Pharmaceuticals (Basel)*. 2023 **Published 23 September 2023**;16(10):1345; <https://doi.org/10.3390/ph16101345>

12. Batha L, Aziz MA, Zhra M, Holail J, Al-Qahtani WS, Fakhoury R, Aljada A. Differential Gene Expression Signatures and Cellular Signaling Pathways induced by Lamin A/C Transcript Variants in MCF7 Cell Line. *Front Biosci (Landmark Ed)*. 2023 Jun 12;28(6):113. doi: 10.31083/j.fbl2806113. PMID: 37395027.
13. AbuObead, D.A.; Alhomsy, T.K.; Zhra, M.; Alosaimi, B.; Hamza, M.; Awadalla, M.; Abdelhadi, O.E.; Alsharif, J.A.; Okdah, L.; AlKattan, K.; et al. Development and Validation of ScriptTaq COVID PCR: An In-House Multiplex rRT-PCR for Low-Cost Detection. *Curr. Issues Mol. Biol.* 2022, 44, 6117-6131. <https://doi.org/10.3390/cimb44120417>.
14. Fakhoury HMA, Elahi MA, Al Sarheed S, Al Dubayee M, Alshahrani A, Zhra M, Almassri A, Aljada A. Gene Expression Profiling of Peripheral Blood Mononuclear Cells in Type 2 Diabetes: An Exploratory Study. *Medicina (Kaunas)*. 2022 Dec 12;58(12):1829. doi: 10.3390/medicina58121829. PMID: 36557031; PMCID: PMC9787392.
15. Holail J, Mobarak R, Al-Ghamdi B, Aljada A, Fakhoury H. Association of *VKORC1* and *CYP2C9* single-nucleotide polymorphisms with warfarin dose adjustment in Saudi patients. *Drug Metab Pers Ther* . 2022 Apr 4. doi: 10.1515/dmdi-2022-0108.
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