

Resumé

Biography:

Name: Mohammad Abdulmohsen Alfuhaily.

Date of Birth: November 6, 1985.

Place of Birth: Alkhobar, Kingdom of Saudi Arabia.

Nationality: Saudi.

Marital Status: Married.

Cell Phone: (+966) 504262597.

E-Mail Address: malfeehily@ksu.edu.sa; alfuhailym@gmail.com

Present Address: Saudi Arabia, Riyadh, P.O. Box 14, Postal Code 11313.

Education:

Bachelor of Science (BS)

09/2003-02/2009

Clinical Laboratory Sciences

Project: "Semen Analysis: A Comprehensive Review"

Magna Cum Laude (GPA = 4.56/5)

Department of Clinical Laboratory Sciences

College of Applied Medical Sciences

King Saud University (KSU)

Riyadh, Saudi Arabia

Master of Science (MS)

09/2010-12/2011

Clinical Chemistry

Project: "Spectrophotometric Determination of Allura Red AC (FD&C Red #40) Concentrations in Selected Non-Alcoholic Beverages"

Magna Cum Laude (GPA = 3.67/4)

College of Health Sciences and Technology

Rochester Institute of Technology (RIT)

Rochester, New York, USA

Doctor of Philosophy (PhD)

08/2016-04/2019

Biomedicine

Dissertation: "Therapeutic and Toxicological Evaluation of Broad-Spectrum Antimicrobial Triclosan as a Chemotherapeutic Agent"

Magna Cum Laude (GPA = 3.67/4)

Brody School of Medicine

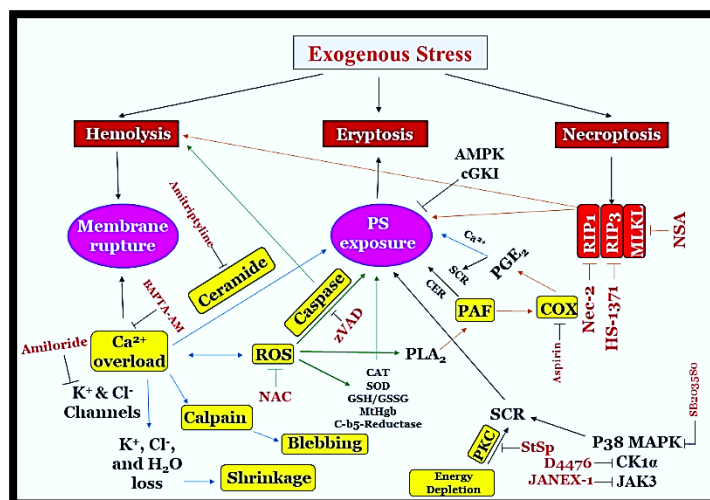
Department of Internal Medicine

East Carolina University (ECU)

Greenville, North Carolina, USA

Research Interests:

Eryptosis is a recognized form of cell death that specifically occurs in enucleated red blood cells (RBCs; erythrocytes). At the nexus of a wide array of life-threatening conditions, eryptosis plays a pivotal role in diabetes mellitus, renal failure, infections, and malignancy. Eryptotic cells display the characteristic “eat me” signal; phosphatidylserine externalization, that allows for recognition and engulfment by macrophages. Accelerated disposal of these cells from the circulation gives rise to anemia. Of particular interest to our studies is chemotherapy-induced anemia, which is prevalent in at least 75% of patients undergoing treatment. Nevertheless, whether or not current and prospective chemotherapeutic agents cause anemia through eryptosis remains unexplored.



Using diverse cellular and molecular methods, including flow cytometry, immunoassays, and genetic manipulations, we aim to identify novel stimulators and inhibitors of eryptosis, specifically within the context of risk assessment for potential therapeutic development. Our preclinical approach will provide a working platform for future *in vivo* validation in highly relevant animal models and in clinical trials.

In collaboration with Dr. Jawaher Alsughayyir (CLS Dept., KSU), we are also interested in studying the influence of xenobiotics, particularly prospective therapies and environmental toxicants, on the host immune response. We employ *in vitro* cell culture systems in addition to a novel *ex vivo* approach using whole blood to dissect the cellular and molecular immune response to exogenous stress stimuli. Findings from our investigations will be invaluable to devise efficient interventions to augment or suppress immune activation for preventive and therapeutic purposes.

Our research group has received generous funding, through multiple channels, from the Deanship of Scientific Research at King Saud University and the Ministry of Education. Current research projects are as follows:

- Anticancer Natural and Synthetic Products as Novel Modulators of Eryptosis.
- Targeting Non-apoptotic Modalities of Cell Death for Therapeutic Development.
- Biochemical and Molecular Toxicology of Environmental Pollutants and Occupational Hazards.
- Molecular Profiling of the Host Immune Response in COVID-19 Active and Convalescent Saudi Patients.
- Resolving the Molecular Landscape of Microbial Sensing and Innate Cellular Immunity: Implications for the Inflammasome Response and Pyroptosis.
- Pathophysiological Mechanisms of Aging and Drug Target Identification of Aging-related Disease.
- Population-based Evaluation of Canonical and Novel Blood Indices in Various Clinical Contexts.

Researchers, graduate, and undergraduate students interested in our work are more than welcome to explore potential collaboration and mentorship opportunities by email.

Experience:

(1) Intern Medical Technologist (MT)

02/2008-02/2009

Department of Pathology
King Khalid University Hospital
King Saud University

-During this internship period, I was fortunate enough to experience the day-to-day life of the profession of medical technology as a full-time employee. This clinical rotation included an extensive training program in the different disciplines of CLS, as follows:

Clinical Chemistry (9 weeks)
Hematology (7 weeks)
Clinical Bacteriology (7 weeks)
Blood Bank (5 weeks)
Histopathology (5 weeks)
Cytopathology (2 weeks)
Clinical Virology (2 weeks)
Medical Parasitology (2 weeks)
Medical Mycology (2 weeks)
Clinical Immunology/Serology (2 weeks)
Phlebotomy/Receiving (2 weeks)
Molecular Diagnostics (1 week)
Cytogenetics (1 week)
Electron Microscopy (1 week)

-Relevant clinical chemistry experience includes different automated instruments operating on a wide variety of principles such as spectrophotometry, chromatography, nephelometry, turbidimetry, ion-selective electrodes, and chemiluminescence; and manual procedures like electrophoresis, osmometry, urine dipstick strips, tests for inborn errors of metabolism, and immunoassays (e.g., ELISA).

(2) Teaching Assistant (TA)

05/2009-08/2010

12/2011-08/2017

Department of Clinical Laboratory Sciences
College of Applied Medical Sciences
King Saud University

-Teaching Analytical Chemistry (CLS 231) to sophomores (Fall 2013).
-Teaching Clinical Practice in Biochemistry (CLS 432) to senior undergraduates (2010, 2014, 2015, 2016).
-Development of the new study plan for the BS program in Clinical Laboratory Sciences.
-Serving on department and college committees:

- Member of the organizing committee of the “1st Clinical Laboratory Sciences Forum: Technology and Professional Development”, College of Medicine, King Saud University (Spring 2009).
- Member of the organizing committee of the “College of Applied Medical Sciences 1st Research Forum” (Fall 2009).
- Member of Support Unit for Demonstrators and Lecturers (Fall 2009).
- Member of the Exams Committee (Fall 2009-Spring 2010).
- Member of the Quality and Academic Accreditation Unit at the College of Applied Medical Sciences (Spring 2010; 2012).
- Representative of the CLS Department at the “1st College of Applied Medical Sciences Expo” (Spring 2010).

- Author of the ‘So What Is This CLS Thing All About?’ brochure, aimed at the public audience at the 1st CAMS Expo (Spring 2010).
- Member of the Academic Counseling Committee (Spring 2010).
- Representative of the CLS Department at the “1st Conference of Applied Medical Sciences Colleges” (Spring 2012).
- Member of the Promotions Committee (2014-2015).
- Member of the Graduate Studies and Research Committee (2015-2016).
- Member of the Curriculum Development Committee (2015-2016).
- Member of the Community Service Committee (2015-2016).

(3) Lecturer

08/2017-10/2019

Department of Clinical Laboratory Sciences
College of Applied Medical Sciences
King Saud University

(4) Assistant Professor

10/2019-Present

Department of Clinical Laboratory Sciences
College of Applied Medical Sciences
King Saud University

-Teaching:

- BS:
 - Introduction to Clinical Laboratory Sciences & Biosafety (CLS 251) to sophomores.
 - Basic Biochemistry & Biomolecules (CLS 281) to sophomores.
 - Clinical Metabolism (CLS 282) to sophomores.
 - Urinalysis & Body Fluids (CLS 354) to junior undergraduates.
 - Research Project II (CLS 456) to senior undergraduates.
 - Independent Study (CLS 452) to senior undergraduates.
- MS:
 - Scientific Writing (CLS 595).
 - Thesis Proposal Writing (CLS 596)
 - Research Project (CLS 599).
 - Thesis (CLS 600).
- PhD:
 - Seminars in Clinical Laboratory Science Research (CLS 604).
 - Research Proposal Writing (CLS 699).

-Head of the Laboratories Committee (Fall 2019).

-Member of the Curriculum Development Committee (Spring 2020).

-Head of the Academic Counseling Committee (Fall 2019-Fall 2022).

-Representative of the CLS Department (Fall 2019-Present).

-Member of the Accreditation and Academic Quality Committee (Spring 2020- Fall 2022).

-Member of the Graduate Studies Committee – Master’s Program (Spring 2020-Present).

-Member of the Subcommittee for Establishing the Executive Master’s in Clinical Laboratory Management (Spring 2021-Fall 2021).

- Head of the Subcommittee for Updating the MS program in CLS – Clinical Chemistry Track (Fall 2021).
- Member of the Subcommittee for Establishing the Clinical Endocrinology Track in MS program in CLS (Fall 2021).
- Member of the Research Committee (Fall 2020-Spring 2021).
- Member of CAMS Committee for Graduate Studies and Research (Fall 2019-Present).
- Member of the Strategic Planning Committee (Spring 2021-Spring 2022).
- Member of the Scientific Committee of CAMS Research Day 2021 (Spring 2021).
- Head of CAMS Subcommittee for Research Partnership with King Salman Social Center (KSSC) [Fall 2021-Present].
- Member of the Academic Calendar Transition Committee (Spring 2022).
- Member of CAMS Emergency Evacuation Plan Committee (Spring 2022).
- Interviewer for Teaching Assistant applicants (Fall 2021).
- Interviewer for PhD applicants (Spring 2022).
- Member of the Master's Program Academic Quality & Accreditation Task Force (Winter 2022-Present).

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| (5) Member of Research Chair of Medical and Molecular Genetics | 10/2019-Present |
| (6) Board Member of CAMS Research Center | 02/2021-Present |
| (7) KSU-MOE Liaison Officer for Import of Research Material | 10/2022-Present |
| (8) Member of the Scientific Committee for Institutional Funding | 01/2023-Present |
| (9) CAMS Representative on the Chemical Pollution Protection Committee | 03/2023-Present |
| (10) Head of IRB Task Force for Human Studies of RDIA-funded Projects | 09/2023-Present |

Affiliations:

- Member of American Association of Clinical Chemistry (AACC).
- Member of American Society of Clinical Pathology (ASCP).
- Member of American Society for Clinical Laboratory Sciences (ASCLS).
- Founding Member of *Letters in Medical Sciences*.
- Editor:

- *Frontiers in Endocrinology*.

- Review Editor:

1. *Frontiers in Cell and Developmental Biology*.
2. *Frontiers in Genetics*.
3. *Frontiers in Oncology*.
4. *Frontiers in Physiology*.
5. *Frontiers in Bioengineering and Biotechnology*.

- Reviewer:

1. *Cell Cycle*.
2. *Reviews in Cardiovascular Medicine*.
3. *Scientific Reports*.
4. *Microorganisms*.
5. *Nutrients*.
6. *Heliyon*.

7. *Therapeutic Advances in Endocrinology and Metabolism*.
8. *Integrative Cancer Therapies (ICT)*.
9. *Saudi Journal of Biological Sciences (SJBS)*.
10. *Environmental Science and Pollution Research (ESPR)*.
11. *Medical Oncology*.
12. *PLOS One*.
13. *Human and Experimental Toxicology (HET)*.
14. *Immunopharmacology and Immunotoxicology*.
15. *Journal of Food Biochemistry (JFB)*.
16. *Saudi Medical Journal (SMJ)*.
17. *Wiener Medizinische Wochenschrift*.
18. *Cell Signaling*.
19. *Inquiry: The Journal of Health Care Organization Provision and Financing*.
20. *International Journal of Circumpolar Health*.
21. *Biological Trace Element Research*.

-Advisory Board Member for the Bachelor's program in CLS at King Saud bin Abdulaziz University for Health Sciences (2019-Present).

Awards:

- Dean's List (2005, 2006, 2007, and 2008).
- Magna Cum Laude (BS, MS, and PhD).
- Recipient of a scholarship for graduate school (MS & PhD) from King Saud University (2009).
- Recipient of the Saudi Arabian Cultural Mission (SACM) to the United States Awards for Academic Excellence (2011).
- Recipient of the SACM Award for Distinguished Publishing (2017, 2018, and 2019).
- Recipient of the Deanship of Scientific Research (KSU) Award for Distinguished Publishing (2017, 2018, and 2019).
- Certificate of Appreciation for Excellence in Teaching the First Batch of PhD students (Spring 2021).

Professional Development:

A. Professional Certification by SCFHS (#19161489)

- Senior Specialist – Clinical Biochemistry (07/2020-11/2022).
- Consultant – Clinical Biochemistry (11/2022-Present).

B. Training Courses, Conferences, and Workshops

- “Ready? Set? Test!” Online Course by Centers for Disease Control and Prevention (CDC) [1/2012].
- Test of English as a Foreign Language (TOEFL): 99/120 (Spring 2010).
- International English Language Testing System (IELTS): 8.0/9.0 (Fall 2012)
- Graduate Record Examination (GRE): 147 (Quant.); 146 (Verb.); 33% (Percl.) [Summer 2012].
- Academic Quality and Accreditation: Writing Course Report (Spring 2020).
- Academic Quality and Accreditation: Academic Quality Practitioner (Fall 2020).
- Academic Quality and Accreditation: Writing Self-Study Report (Spring 2021).
- Academic Quality and Accreditation: Academic Accreditation Orientation (Spring 2022).
- Deanship of Skills Development: Teamwork Skills (Fall 2021).
- CAMS Risk Management Unit: Risk Management: Analysis and Solutions (Spring 2022).
- Saudi Society for Epidemiology: Preparing and Qualifying Healthy Leadership Symposium (CME = 20) [Spring 2022].

Community Service:

- Member of the organizing committee of the “College of Applied Medical Sciences 1st Research Forum” (Fall 2009).
- Member of the organizing committee of the “1st Clinical Laboratory Sciences Forum: Technology and Professional Development” in College of Medicine at King Saud University (Spring 2009).
- Representative of the CLS Department at the “1st College of Applied Medical Sciences Expo” (Spring 2010).
- Author of the ‘So What Is This CLS Thing All About?’ brochure, aimed at the public audience at the 1st CAMS Expo (Spring 2010).
- Representative of the CLS Department at the “1st Conference of Applied Medical Sciences Colleges” (Spring 2012).
- Speaker at the ‘World Diabetes Day 2020’ event hosted by the CLS Dept. with a talk entitled “Laboratory Diagnosis of Diabetes Mellitus: Current and New Trends” (Fall 2020).
- Speaker at ‘CAMS Research Day 2021’ event with a talk entitled “Research Grants” (Spring 2021).
- Speaker with a talk entitled “Research Funds in Saudi Arabia” offered by the Deanship of Skills Development at KSU (Spring 2022).
- Speaker with a talk entitled “Research Grants for Graduate Students” to students of the Executive Master’s Program in Health Education, Department of Community Health Sciences, CAMS, KSU (Spring 2022).
- Speaker with a talk entitled “Research Funding Sources in Saudi Arabia” offered by the Deanship of Skills Development at KSU (Fall 2022).
- Member of the “CLS Career and Beyond” discussion panel organized by the CLS Department (Winter 2022).

Grants:

Principle Investigator (PI)			
Funding Body	Grant	Project Title	Period
Deanship of Scientific Research, King Saud University	Chair of Medical and Molecular Genetics	Molecular Mechanisms of Novel Modulators of Eryptosis	2019-Present
	Research Group	Anticancer Natural Products (RG-1441-335)	2020-2021
	COVID-19 Initiative	Molecular Profiling of the Host Immune Response in COVID-19 Active and Convalescent Saudi Patients	2020-2021
	Faculty Startup Fund (Waed)	Investigating the Pro-Eryptotic Potential of Novel Anticancer Drugs: Tenovin-1 and Wogonin	2020
Ministry of Education	Institutional Fund – Research Groups I	Novel interactions of β -lapachone, sanguinarine, and nickel ions with red cell physiology	2021-2022
	Institutional Fund – Directed Research Projects	Establishment of a Centralized, Multidisciplinary Core Facility: Reducing the Disease Burden of Xenobiotics in Saudi Arabia	2022-2023
	Institutional Fund – Research Groups II	A Population-based Retrospective Analysis of Hematological and Biochemical Parameters: Isolated and Combined Influence of Gender, Age, and Blood Pressure	2022-2023
King Saud University	Researchers Supporting Project	Targeting Eryptosis by Natural and Synthetic Compounds: Therapeutic Implications	2022-2023
Co-PI			
Funding Body	Grant	Project Title	Period
Ministry of Education	Institutional Fund – Directed Research Projects	Establishment of a Metabolic Research Clinic: A Novel Lifestyle Risk Score of Hypertension and Pyroptosis in the Saudi Population	2022-2023

	Institutional Fund – Directed Research Projects	Significance and Utility of Immunoscore in the Management of Adjuvant Therapy in Stage II Colon Cancer	2022-2023
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Student Advising: All students have published at least one original research article.

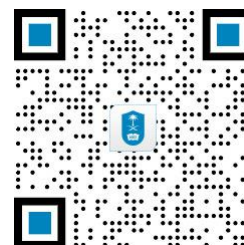
King Saud University – Doctor of Philosophy in Clinical Laboratory Sciences				
Student Name	Track	Role	Project/Thesis Title	Period
Sumiah A. Alghareeb	Clinical Chemistry	PI	Targeting phospholipid signaling networks in erythrocytes as novel mechanisms in chemotherapy-related anemia	2021-2024
Iman H. Alajeyan	Clinical Chemistry	PI	Elucidating the role of cellular GPX4 and lipid peroxidation in ferroptosis: a preclinical study	2022-2024
Feryal H. Alharthi	Clinical Chemistry	PI	Interrogating the RIPK1/RIPK3/MLKL axis and necrosome assembly for therapeutic development	2022-2024
Sara Y. Aldughaythir	Clinical Immunology	Co-PI	Resolving the molecular landscape of immunoepigenetic modifications by HDAC inhibitors in peripheral blood mononuclear cells	2022-2024
Shayma H. Alruwaili	Clinical Chemistry	PI	Biochemical mechanisms underlying oxidative stress-associated apoptosis: implications for anticancer therapy	2022-2024
King Saud University – Master of Science in Clinical Laboratory Sciences				
Student Name	Track	Role	Project/Thesis Title	Period
Essa H. Alsalmi	Clinical Hematology	Co-PI	Investigating the pro-eryptotic properties and associated biochemical mechanisms of novel anticancer compound inauhizin in human red blood cells	2019-2020
Wafa K. Alshaidi	Clinical Immunology	Co-PI	Whole blood cytokine response to oncolytic immunotherapies: TNF α inhibitor geraniin	2020-2021
Tariq A. Alahmari	Clinical Chemistry	Co-PI	Biochemical and molecular mechanisms of cytotoxic properties of <i>Salix spp.</i> crude extracts against cancer cells	2020-2021
Abdullah S. Alomari	Clinical Hematology	PI	Characterization of the membranotropic properties of methoxyflavonoid wogonin in human erythrocytes	2021
Ahmed N. Alenzi	Clinical Chemistry	Examiner	Biogenic synthesis of silver nanoparticles using <i>Salix Salsaf</i> leaf extract and investigation of their <i>in vitro</i> antimicrobial and anticancer activity	2022
Mustafa Alzaqaan	Clinical Hematology	PI	Isolated and Combined Effects of Age and Gender on Neutrophil-Lymphocyte Ratio in Hyperglycemic Saudi Population	2022
Ahmed Aljuwaiyan	Clinical Chemistry	PI	ATP supplementation ameliorates RBC storage lesion	2022
Ghada A. Alotaibi	Clinical Immunology	PI	Elucidating the effect of heat-shock protein 70 (HSP70) inhibition on innate immune activation of whole blood	2022-2023
Abdulaziz M. Alyousef	Clinical Hematology	PI	Molecular Mechanisms of Tamoxifen-induced Eryptosis	2022-2023
Rahaf F. Alothaimeen	Clinical Chemistry	PI	Arctigenin as Modulator of Endoplasmic Reticulum Stress and the Unfolded Protein Response in Acute Lymphoblastic Leukemia	2023-2024
King Abdulaziz University – Master of Science in Clinical Laboratory Sciences				

Mohammed H. Khawaji	Clinical Chemistry	Co-PI	Investigating the biochemical and anticancer properties of natural product allicin in red blood cells and leukemic cells	2019-2020
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Publications: (*) *Denotes corresponding author.*

(1) Original Articles/Reviews:

- (1) Yoon DS, **Alfhili MA**, Friend K, Lee MH. **MPK-1/ERK regulatory network controls the number of sperm by regulating timing of sperm-oocyte switch in *C. elegans* germline.** *Biochem Biophys Res Commun*. 2017 Sep 30;491(4):1077-1082. doi: 10.1016/j.bbrc.2017.08.014. Epub 2017 Aug 3.
- (2) Yoon DS, Choi Y, Cha DS, Zhang P, Choi SM, **Alfhili MA**, Polli JR, Pendergrass D, Taki FA, Kapalavavi B, Pan X, Zhang B, Blackwell TK, Lee JW, Lee MH. **Triclosan Disrupts SKN-1/Nrf2-Mediated Oxidative Stress Response in *C. elegans* and Human Mesenchymal Stem Cells.** *Sci Rep*. 2017 Oct 3;7(1):12592. doi: 10.1038/s41598-017-12719-3.
- (3) Yoon DS, Cha DS, **Alfhili MA**, Keiper BD, Lee MH. **Subunits of the DNA polymerase alpha-primase complex promote Notch-mediated proliferation with discrete and shared functions in *C. elegans* germline.** *FEBS J*. 2018 Jul;285(14):2590-2604. doi: 10.1111/febs.14512. Epub 2018 May 28.
- (4) **Alfhili MA**, Yoon DS, Faten TA, Francis JA, Cha DS, Zhang B, Pan X, Lee MH. **Non-Ionic Surfactants Antagonize Toxicity of Potential Phenolic Endocrine-Disrupting Chemicals, Including Triclosan in *Caenorhabditis elegans*.** *Mol Cells*. 2018 Dec 31;41(12):1052-1060. Epub 2018 Nov 14.
- (5) **Alfhili MA**, Nkany MB, Weidner DA, Lee MH. **Stimulation of eryptosis by broad-spectrum insect repellent N,N-Diethyl-3-methylbenzamide (DEET).** *Toxicol Appl Pharmacol*. 2019 Mar 14; 370:36-43. doi: 10.1016/j.taap.2019.03.011. Epub 2019 Mar 14.
- (6) Hussein HAM, **Alfhili MA**, Pakala P, Simon S, McCubrey JA, Akula SM. **miRNAs and their roles in KSHV pathogenesis.** *Virus Res*. 2019 Jun; 266:15-24. doi: 10.1016/j.virusres.2019.03.024. Epub 2019 Apr 2.
- (7) **Alfhili MA**, Lee MH. **Triclosan: an update on biochemical and molecular mechanisms.** *Oxid Med Cell Longev*. 2019 May 2; 2019:1607304. doi: 10.1155/2019/1607304. eCollection 2019.
- (8) **Alfhili MA**, Weidner DA, Lee MH. **Disruption of erythrocyte membrane asymmetry by triclosan is preceded by calcium dysregulation and p38 MAPK and RIP1 stimulation.** *Chemosphere*. 2019 Aug;229:103-111. doi: 10.1016/j.chemosphere.2019.04.211. Epub 2019 May 4.
- (9) Dera A, Rajagopalan P, **Alfhili MA**, Ahmed I. **Thymoquinone attenuates oxidative stress of kidney mitochondria and exerts nephroprotective effects in oxonic acid-induced hyperuricemia rats.** *BioFactors*. 2020 Mar;46(2):292-300. doi: 10.1002/biof.1590. Epub 2019 Nov 23.
- (10) Park Y, O'Rourke S, Taki FA, **Alfhili MA**, Lee MH. **Dose-Dependent Effects of GLD-2 and GLD-1 on Germline Differentiation and Dedifferentiation in the Absence of PUF-8.** *Front Cell Dev Biol*. 2020 Jan 24; 8:5. doi: 10.3389/fcell.2020.00005. eCollection 2020.
- (11) Dera A, Rajagopalan P, Ahmed I, **Alfhili M**, Alsughayyir J, Chandramoorthy HC. **Thymoquinone attenuates IgE-mediated allergic response via pi3k-Akt-NFκB pathway and upregulation of the Nrf2-HO1 axis.** *J Food Biochem*. 2020 Jun;44(6):e13216. doi: 10.1111/jfbc.13216. Epub 2020 Mar 24.



- (12) Alamri H, Alahmari B, Altayar B, Alquraini S, Aldriwesh M, Karar T, Abdulfattah M, Alhawiti N, Akiel M, Alsughayyir J, and **Alfhili MA***. **Serum TSH and 25(OH)D in Saudi thyroid cancer patients: a retrospective, cross-sectional study.** *Intl J Curr Res*. 2020 Mar 24; 10840-10844. doi: 10.24941/ijcr.38036.03.2020. Epub 2020 Mar 24.
- (13) **Alfhili MA**, Alsughayyir J, McCubrey J, Akula SM. **GSK-3-associated signaling is crucial to virus infection of cells.** *Biochim Biophys Acta Mol Cell Res*. 2020 Oct;1867(10):118767. doi: 10.1016/j.bbamcr.2020.118767. Epub 2020 Jun 6.
- (14) Dera AA, Al Fayi M, Otifi H, Alshyarba M, **Alfhili M**, Rajagopalan P. **Thymoquinone (Tq) protects necroptosis induced by autophagy/mitophagy-dependent oxidative stress in human bronchial epithelial cells exposed to cigarette smoke extract (CSE).** *J Food Biochem*. 2020 Sep;44(9):e13366. doi: 10.1111/jfbc.13366. Epub 2020 Jul 7.
- (15) Park Y, Gaddy MA, **Alfhili MA***, Lee MH. **The teratogenic effect of Triclosan on embryogenesis is attenuated by Tween 20 in Caenorhabditis elegans.** *MicroPubl Biol*. 2020 Jul 23;2020:10.17912/micropub.biology.000282. doi: 10.17912/micropub.biology.000282.
- (16) Akiel M, Mohamud M, Adriwesh M, Alamri H, Alhawiti N, **Alfhili MA**. **Translation and cross-cultural validation of the non-invasive prenatal testing questionnaire into Arabic.** *Saudi Med J*. 2020 Sep;41(9):999-1010. doi: 10.15537/smj.2020.9.25272.
- (17) Sultan SA, Khawaji MH, Alsughayyir J, **Alfhili MA**, Alamri HS, Alrefaie BM. **Antileukemic activity of sulfoxide nutraceutical allicin against THP-1 cells is associated with premature phosphatidylserine exposure in human erythrocytes.** *Saudi J Biol Sci*. 2020 Dec;27(12):3376-3384. doi: 10.1016/j.sjbs.2020.09.005. Epub 2020 Sep 8.
- (18) Oh S, Bae W, **Alfhili MA**, Lee MH, Koo HS. **Nucleotide Excision Repair and Translesion Synthesis are More Critical Than the Fanconi Anemia Pathway in Interstrand Crosslinks Repair in Caenorhabditis elegans.** *Biochemistry*. 2020 Sep 29;59(38):3554-3561. doi: 10.1021/acs.biochem.0c00719. Epub 2020 Sep 18.
- (19) Alamri HS, Alsughayyir J, Akiel M, Al-Sheikh YA, Basudan AM, Dera A, Basuwdan AM, Barhoumi T, **Alfhili MA***. **Stimulation of calcium influx and CK1 α by NF- κ B antagonist [6]-Gingerol reprograms red blood cell longevity.** *J Food Biochem*. 2021 Jan;45(1):e13545. doi: 10.1111/jfbc.13545. Epub 2020 Nov 3.
- (20) **Alfhili MA**, Hussein HH, Lee MH, Park Y, Akula SM. **Triclosan induces apoptosis in Burkitt lymphoma-derived BJAB cells through caspase and JNK/MAPK pathways.** *Apoptosis*. 2021 Feb;26(1-2):96-110. doi: 10.1007/s10495-020-01650-0. Epub 2021 Jan 2.
- (21) Akiel M, Alsughayyir J, Basudan MA, Alarmi HS, Dera A, Barhoumi T, Al Subayyil AM, Basmaeil YS, Aldakheel FM, Alakeel R, Ghneim HK, Al-Sheikh YA, Alraey Y, Asiri S, **Alfhili MA***. **Physcion Induces Hemolysis and Premature Phosphatidylserine Externalization in Human Erythrocytes.** *Biol Pharm Bull*. 2021 Mar 1;44(3):372-378. doi: 10.1248/bpb.b20-00744. Epub 2021 Jan 9.
- (22) Dera A, Ahmad I, Rajagopalan P, Al Shahrani M, Saif A, Alshahrani MY, Alraey Y, Alamri AM, Alasmari S, Makkawi M, Alkhathami A, Zaman G, Hakami A, Alhefzi R, **Alfhili MA**. **Synergistic efficacies of thymoquinone and standard antibiotics against multidrug-resistant isolates.** *Saudi Med J*. 2021 Feb;42(2):196-204. doi: 10.15537/smj.2021.2.25706.
- (23) **Alfhili MA***, Alsughayyir J, Basudan AM. **Reprogramming of erythrocyte lifespan by NF κ B-TNF α naphthoquinone antagonist β -lapachone is regulated by calcium overload and CK1 α .** *J Food Biochem*. 2021 Apr;45(4):e13710. doi: 10.1111/jfbc.13710. Epub 2021 Mar 22.

- (24) Gaddy MA, Kuang S, **Alfhili MA**, Lee MH. **The soma-germline communication: Implications for somatic and reproductive aging.** *BMB Rep.* 2021 May;54(5):253-259.
- (25) **Alfhili MA***, Alsughayyir J, Basudan AM. **Epidemic dropsy toxin, sanguinarine chloride, stimulates sucrose-sensitive hemolysis and breakdown of membrane phospholipid asymmetry in human erythrocytes.** *Toxicon.* 2021 Aug;199:41-48. doi: 10.1016/j.toxicon.2021.05.013. Epub 2021 May 31.
- (26) **Alfhili MA***, Alsalmi E, Alsughayyir J, Aljedai A, Abudawood M, Basudan AM. **Calcium-oxidative stress signaling axis is essential for eryptosis elicited by novel p53 agonist inauhizin.** *J Chemother.* 2022 Jul;34(4):247-257. doi: 10.1080/1120009X.2021.1963616. Epub 2021 Aug 19.
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