

# **RESUME**

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**NAME:** MALEK ZIHLIF

**DATE OF BIRTH:** 15 NOV 1977

**NATIONALITY:** JORDANIAN

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JABAL AL-HUSSEIN

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## **TERIATARY EDUCATION**

2002 - 2006	<b>DOCTOR OF PHILOSOPHY OF MOLECULAR PHARMACOLOGY (PhD)</b> Department of Pharmacology and Physiology School of Medical Science Faculty of Medicine University of New South Wales
2001 - 2002	<b>M.S.c IN BIOPHARMACEUTICAL</b> School of biotechnology and bimolecular science Faculty of life Science University of New South Wales Sydney, Australia
1995 - 2000	<b>B.S.c IN PHARMACEUTICAL SCIENCE</b> Faculty of Pharmacy University of Jordan Amman, Jordan

## **OTHER QUALIFICATIONS / MEMBERSHIBS**

Nov 2003	<b>MEMBER OF AUSBIOTECH</b> Australia's Biotechnology Organisation
March 2003	<b>RADIATION SAFETY CERTIFICATE</b> Risk Management Unit University of New South Wales

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Sydney, Australia

Jan 2004

**BIOLOGICAL SAFETY AND INFECTION CONTROL  
CERTIFICATE**  
Risk Management Unit  
University of New South Wales  
Sydney, Australia

### **RESEARCH EXPERIENCE**

1. PhD project: Effect of topoisomerase II poisons and transcription template inhibitors on global gene expression in human malignant cells.
  
2. Master degree project: Bisintercalating threading cytotoxins: Evidence for Bifunctional reaction amongst 9-aminoacridine-4-carboxamide dimers with piperidine sidechain using covalently closed circular DNA and agarose gel electrophoresis.

### **WORK EXPERIENCE**

Dec 2017

**Professor of pharmacology**  
Department Pharmacology  
Faculty of Medicine  
University of Jordan  
Amman, Jordan

Sep 2013

**Associated professor of pharmacology**  
Department Pharmacology  
Faculty of Medicine  
University of Jordan  
Amman, Jordan

Feb 2009- Sep 2013

**Assistant professor of pharmacology**  
Department Pharmacology  
Faculty of Medicine  
University of Jordan  
Amman, Jordan

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Sep 2008 – Jan 2009	<b>Assistant professor of pharmacology</b> Faculty of Pharmacy Applied Sciences University Amman, Jordan
Jan 2007- 2008	<b>Assistant professor of pharmacology</b> Department Pharmacy Faculty of Pharmacy AL-Zytoonah University Amman, Jordan
March 2003- Aug2005	<b>Teaching assistant</b> School of Medical Science Faculty of Medicine University of New South Wales

### **Current grants:**

Gene Expression Alterations in Chronic Hypoxic MCF7 Breast Cancer Cell Line.

A new approach towards developing a smart and multifunctional peptide based drug delivery system for selective targeting and treatment of invasive/metastatic breast cancer

Determining the mechanism of action of a new anti-HER2 drug and investigate its potential toxicity in animals

### **PUBLICATIONS**

He Z, Bu X, Eleftheriou A, **Zihlif M**, Qing Z, Stewart BW, Wakelin LP. DNA threading bis(9-aminoacridine-4-carboxamides): effects of piperidine sidechains on DNA binding, cytotoxicity and cell cycle arrest. *Bioorganic & Medicinal Chemistry* 2008 Apr 15;16(8):4390-400.

**Zihlif M**, Catchpoole DR, Stewart BW, Wakelin LP. Effects of DNA threading bis(9-aminoacridine-4-carboxamides) on global gene expression. *Cancer Genomics Proteomics* 2009 Nov-Dec;6(6):317-23.

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**Zihlif M**, Catchpoole DR, Stewart BW, Wakelin LP. Effects of DNA minor groove binding agents on global gene expression. *Cancer Genomics Proteomics*. 2010 Nov-Dec;7(6):323-30.

**Zihlif M**, Beano H, Barouqa M, Shwaiki S, Naffa R. Some insights into the cellular responses against doxorubicin and actinomycin D. *Jordan Medical Journal*. 2011, 45(4): 323-330.

Mustafa MS, El-Abadelah MM, **Zihlif MA**, Naffa RG, Mubarak MS. Synthesis, and antitumor activity of some N1-(coumarin-7-yl) amidrazones and related congeners. *Molecules*. 2012 16(5), 4305-431

Awad ED, El-Abadelah MM, Matar S, **Zihlif MA**, Naffa RG, Al-Momani EQ, Mubarak MS. Synthesis and Biological Activity of Some 3-(4-(Substituted)-piperazin-1-yl)cinnolines. *Molecules*. 2011 Dec 28;17(1):227-39.

**Zihlif M**, Afifi F, Muhtaseb R, Al-Khatib S, Abaza I, Naffa R. Screening the Antiangiogenic Activity of Medicinal Plants Grown and Sold in Jordan. 2012 Feb;78(3):297-30.

Marwa N. Abu-Aisheh , Mohammad S. Mustafa , Mustafa M. El-Abadelah , Randa G. Naffa , Said I. Ismail , **Malek A. Zihlif**, Mutasem O. Taha, Mohammad S. Mubarak. Synthesis and biological activity assays of some new N1-(flavon-7-yl) amidrazone derivatives and related congeners. *European Journal of Medicinal Chemistry*. 2012 Aug;54:65-74.

**Zihlif M**, Mahmoud I , Ghanem M, Zreikat M , Alrabadi N, Imraish A, Odeh A, Abbas M, Ismail S. Thymoquinone efficiently inhibits the survival of EBV infected B cells and alters EBV gene expression. *Integrative Cancer Therapies*. 2012 Oct 21. (ahead of print)

**Zihlif M**, Imraish A, Irshaid Y. Frequency of single nucleotide polymorphisms and duplication of CYP2D6 in the Jordanian population. *Genetic Testing and Molecular Biomarkers*. 2012 Oct;16(10):1201-5

S. AbuHamad and **Zihlif M**. Gene expression alterations in doxorubicin resistant MCF7 breast cancer cell line. *Genomics Genomics* 101 (2013) 213 – 220

Abbas MA, Taha MO, **Zihlif MA**, Disi AM.  $\beta$ -Caryophyllene causes regression of endometrial implants in a rat model of endometriosis without affecting fertility. *Eur J Pharmacol*. 2013 Jan 23;702(1-3):12-19.

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**Zihlif M**, Mahafza T, Obeidat NM, Froukh T, Shaban M, Al-Akhras FM, Zihlif N, Naffa R. Frequency of genetic polymorphisms of ADAM33 and their association with allergic rhinitis among Jordanians. *Gene*. 2013 Sep 10.

**Zihlif M**, Afifi F, Abu-Dahab R, Abdul Majid AM, Somrain H, Saleh MM, Nassar ZD, Naffa R. The antiangiogenic activities of ethanolic crude extracts of four salvia species. *BMC Complement Altern Med*. 2013 Dec 13;13(1):358

H Zalloum, R Tayyem, Y Bustanji, **M Zihlif**, M Mohammad, TA Rjai, Discovery of new human epidermal growth factor receptor-2 (HER2) inhibitors for potential use as anticancer agents via ligand-based pharmacophore modeling. *Journal of Molecular Graphics and Modelling*, 2015, 61, 61-84.

EA Sharieh, AS Awidi, M Ahram, **MA Zihlif**. Alteration of gene expression in MDA-MB-453 breast cancer cell line in response to continuous exposure to Trastuzumab. *Gene* in press

H Feda'H, **MA Zihlif**. Gene expression alterations in chronic hypoxic MCF7 breast cancer cell line. *Genomics* 2014, 104 (6), 477-481

**M Zihlif**, N Zihlif, NM Obeidat, T Mahafza, T Froukh, MT Ghanim, Association between ADAM33 Polymorphisms and Susceptibility with Adult and Childhood Asthma Among Jordanians. *Genetic testing and molecular biomarkers* 2015, 18 (11), 767-774

AY Habashneh, MM El-Abadelah, **MA Zihlif**, A Imraish, MO Taha. Synthesis and Antitumor Activities of Some New N1-(Flavon-6-yl) amidrazone Derivatives *Archiv der Pharmazie* , 2014, 347 (6), 415-422

MM Abadleh, MM El-Abadelah, SS Sabri, HH Mohammed, **MA Zihlif**, Synthesis and Antitumor Activity of Some N2-(Thien-3-yl) amidrazones *Zeitschrift für Naturforschung B* , 2014, 69 (7), 811-816.

**Malek Zihlif**, Nathir M. Obeidat Nadwa Zihlif, Tareq Mahafza, Tawfiq Froukh, Marcel T Ghanim, Hamza beano, Fatima M AL-Akhras, Randa Naffa. Association between Gasdermin A and Gasdermin B polymorphisms and susceptibility to adult and childhood asthma amongst Jordanians. *Genetic testing and molecular biomarkers* in press.

Haider N. Sultani<sup>1</sup>, Rasha A. ghazal<sup>1</sup>, Alaa M. Hayallah<sup>2</sup>, Loay K. Abdulrahman<sup>1</sup>, Khaled Abu-Hammour<sup>1</sup>, Shatha AbuHammad<sup>4</sup>, Mutasem O. Taha<sup>3</sup>, **Malek A. Zihlif<sup>4</sup>** **INHIBITORY EFFECTS OF NEW 1,3-DIETHYL-8-MERCAPTO XANTHINE DERIVATIVES IN HUMAN MCF7 AND K562 CANCER CELL LINES**. *Journal of Heterocyclic Chemistry* in press

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Al-zagameem, MM El-Abadelah, **MA Zihlif**, RG Naffa, ML Al-Smadi. Synthesis and Bioassay of Novel Substituted Pyrano [2, 3-f] cinnoline-2-onesAS Journal of Heterocyclic Chemistry 2015 in press

RA Al-Balawnih, SM Zmeili, YM Irshaid, **MA Zihlif**. The effect of licorice drink on cytochrome P3A6 and P-glycoprotein gene transcription in rabbits. Medicine research 6 (1), 35-40

NH Aboalhaija, **MA Zihlif**, MO Taha. Discovery of new selective cytotoxic agents against Bcl-2 expressing cancer cells using ligand-based modeling. Chemico-biological interactions 250, 12-26

DA AlQudah, **MA Zihlif**, MO Tah Ligand-based modeling of diverse aryalkylamines yields new potent P-glycoprotein inhibitors. European journal of medicinal chemistry 110, 204-223. 2017

A Al Maaitah, M Alsmady, S Dmour, D Alsmady, A Al Alwan, M Younis, The Prevalence and Prognostic Value of BRAFV600E Mutation in Papillary Thyroid Cancer. International Journal of Human and Health Sciences (IJHHS) 3 (4), 223-230, 2019

HM Hammad, A Imraish, B Azab, AM Best, YS Khader, **M Zihlif**  
Associations of CYP2A6 gene polymorphism with smoking status among Jordanians: gender-related differencesCurrent Drug Metabolism 20 (9), 765-770, 2019

WJ Al-Awaida, **MA Zihlif**, HJ Al-Ameer, A Sharab, M Akash, The effect of green tea consumption on the expression of antioxidant-and inflammation-related genes induced by nicotine  
Journal of food biochemistry 43 (7), e12874, 2019

S Abudahab, N Hakooz, Y Jarrar, M Al Shahhab, A Saleh, **M Zihlif**, ..Interethnic variations of UGT1A1 and UGT1A7 polymorphisms in the Jordanian population. Current Drug Metabolism 20 (5), 399-410, 2019

IS Mahmoud, A Homsi, HJ Al-Ameer, J Alzyoud, M Darras, M Al Shhab, **M Zihlif**  
Screening the RFX6-DNA binding domain for potential genetic variants in patients with type 2 diabetes. World Journal of Diabetes 10 (3), 181. 2019

AR Alsayed, **M Alzihlif**, JAW Al Ramahi. Relevance of vancomycin suceptibility on patients outcome infected with Staphylococcus aureus The International Arabic Journal of Antimicrobial Agents 9 (1) 2019

FM Alhawarat, HM Hammad, MS Hijjawi, AS Sharab, DA Abuarqoub, **M Zihlif**.The effect of cycling hypoxia on MCF-7 cancer stem cells and the impact of their

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microenvironment on angiogenesis using human umbilical vein endothelial cells (HUVECs) as a model

PeerJ 7, e5990. 2019

Alshaer, Walhan; Alqudah, Dana A; Wehaibi, Suha; Abuarqoub, Duaa; **Zihlif, Malek**; Hatmal, Ma'mon M; Awidi, Abdalla. Downregulation of STAT3,  $\beta$ -Catenin, and Notch-1 by Single and Combinations of siRNA Treatment Enhance Chemosensitivity of Wild Type and Doxorubicin Resistant MCF7 Breast Cancer Cells to Doxorubicin. *Int J Mol Sci* ; 20(15)2019 Jul 28.

L Baqlouq, M Zihlif, H Hammad, T Thaib. Determining the Relative Gene Expression Level of Hypoxia Related Genes in Different Cancer Cell Lines. Current Molecular Pharmacology. 2020

M Zihlif, T Mahafza, T Froukh, FM Al-Akhras, R Alsalman, M Zuriekat, Association between Gasdermin A and Gasdermin B polymorphisms and allergic rhinitis amongst Jordanians. Endocrine, Metabolic & Immune Disorders Drug Targets... 2020.

AQ Al Bawab, M Zihlif, Y Jarrar, A Saleh. Continuous Hypoxia and Glucose Metabolism, The Effects on Genes Expression in Mcf7 Breast Cancer Cell Line. Endocrine, metabolic & immune disorders drug targets 2020

B Moh'd Al-Rawashdeh, A Sadaalhanjori, E Ali, M ZihlifAssociation of IL-4 Polymorphisms with Allergic Rhinitis in Jordanian Population Medicina 56 (4), 179 . 2020

A Sobiahe, E Hijazi, HJ Al-Ameer, Y Almasri, Y Jarrar, **M Zihlif**, M Shomaf, (2020) Arg399Gln XRCC1 Polymorphism and Risk of Squamous Cell Carcinoma of the Head and Neck in Jordanian Patients.

Asian Pacific Journal of Cancer Prevention 21 (3), 663-665

H Alhawari, Y Jarrar, MA AlKhatib, H Alhawari, M Momani, A Zayed **M Zihlif**. The Association of 3-Hydroxy-3-Methylglutaryl-CoA Reductase, Apolipoprotein E, and Solute Carrier Organic Anion Genetic Variants with Atorvastatin Response among Jordanian. Life 10 (10), 232, 2020

S Hababbeh, A Imraish, **M Zihlif**. The crosstalk between adenosine A2B receptor and insulin signalling in rat skeletal muscle cells. Biologia Futura 71 (3), 283-288, 2020

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R Jabr, M Gharaibeh, AA Zayed, **M Zihlif** The Association between Apolipoprotein E Polymorphism and Response to Statins in Group of Hyperlipidemic Patients. Endocrine, Metabolic & Immune Disorders Drug Targets, 2020

S Abdullah, Y Jarrar, H Alhawari, E Hneet, **M Zihlif** The Influence Of Endothelial Nitric Oxide Synthase (Enos) Genetic Polymorphisms On Cholesterol Blood Levels Among Type 2 Diabetic Patients On Atorvastatin Therapy. Endocrine, Metabolic & Immune Disorders Drug Targets, 2020

ALE Laith, H Saadeh, A Alnaamneh, S Darabseh, ALS Na'meh, **M Alzihlif** The genetic landscape of Arab Population, Chechens and Circassians subpopulations from Jordan through HV1 and HV2 regions of mtDNA. Gene 729, 144314, 2020

## **CONFERENCES AND PRESENTATION**

Gene expression changes in metabolic and hypoxic related genes in response to long term hypoxia in MCF7 breast cancer cell line.

Presented at “13<sup>th</sup> Asia- Pacific Oncologists Annual meeting”  
Kuala Lumpur,Malaysia 2016

COMPUTER-AIDED MOLECULAR DESIGN AND DISCOVERY OF NEW P-GLYCOPROTEIN INHIBITORS FOLLOWED BY IN VITRO VALIDATION ON DOXORUBICIN RESISTANT MCF7 CELL-LINE

Presented at 10th Middle East the Best of San Antonio Breast Cancer Symposium  
Jeddah Saudi Arabia 2016

Presented at 2016  
 مؤتمر مستشفى البشير الدولي الأول  
 مؤتمر الأوروبي للسرطان

Hepatocyte nuclear factor 4, alpha (HNF4A): A potential biomarker in MCF7 breast cancer cell line response to chronic hypoxia

Presented at 40<sup>th</sup> ESMO European Cancer congress  
Vienna, Austria 2015

Gene expression alteration in chronic hypoxic MCF7 breast cancer cell line.  
Presented at Eortic – NCI- AACR Symposium on Molecular Targets and Cancer therapeutics  
Barcelona, Spain 2014

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Genetic Expression Alterations in Doxorubicin Resistant MCF7 Breast Cancer Cell-Line  
Presented at Eortic – NCI- AACR Symposium on Molecular Targets and Cancer  
therapeutics  
Boston , USA 2013

## GENETIC EXPRESSION ALTERATIONS IN DOXORUBICIN RESISTANT MCF7 BREAST CANCER CELL-LINE

Presented at 7<sup>th</sup> Middle East the Best of San Antonio Breast Cancer Symposium  
Reyad, Saudí Arabia 2012

### **EXTRACULLULAR**

- Excellent computer user. My knowledge extend to include the following computer packages:  
MS-WORD, MS-EXCEL, MS-POWER POINT, Internet explorer.
- My hobbies vary to include soccer, volleyball, swimming.
- Professional user of the visual aids, such as overhead projectors, power point presentations.

### **ACADEMIC REFEREES**

Dr Laurence Wakelin  
Associate Professor  
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Faculty of Medicine  
University of New South Wales  
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Dr. Stephen Mahler  
Senior Lecturer  
School of biotechnology and  
bimolecular science  
Faculty of science  
University of New South Wales  
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