



Prof. Dr. Mutasem Omar Taha

Department of Pharmaceutical Sciences

Faculty of Pharmacy

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Amman - Jordan

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<http://scholar.google.com/citations?user=wQF0o8gAAAAJ&hl=en>

Personal Information

Marital status: Married, two daughters.

Nationality: Jordanian

Date of Birth: 5/6/1970

Academic and Educational Career

Currently

Faculty of Pharmacy – Jordan University.

Amman, Jordan

Professor of Drug Design and Medicinal Chemistry at the Department of Pharmaceutical sciences.

Head of the Drug design and Discovery unit at the Faculty of Pharmacy/ University of Jordan

29/9/2003

Faculty of Pharmacy – Jordan University.

Amman, Jordan

11/8/2008

Associate Professor at the Department of Pharmaceutical sciences. Teaching the Following Courses:

- Selected Topics in Drug Discovery for Ph.D. students (solo)
- Selected Topics in Drug Discovery for Ph.D. students (solo)
- Advanced Pharmaceutical Organic chemistry for M.Sc. students (solo).
- Drug Design for M.Sc. Students (solo)
- Medicinal Chemistry 1 (joint with other staff members).

- Medicinal chemistry 2 (solo).
- Advanced Pharmaceutical Organic chemistry for M.Sc. students (solo).
- Pharmaceutical applications of metal chelation (joint with other staff members).
- Selected Topics in Chromatography (Solo)
- Drug Identification for M.Sc. students (joint with other staff members).
- Analytical Chemistry (joint with other staff).
- Instrumental analysis (joint with other staff members).

1/10/2002-
1/10/2003

Faculty of Pharmacy – Jordan University.

Amman, Jordan.

Dean Assistant at the Faculty of Pharmacy/University of Jordan

23/8/1998 –
28/9/2003

Faculty of Pharmacy – Jordan University.

Amman, Jordan.

Assistant Professor at the Department of Pharmaceutical Sciences.

1994 - 1998

Department of Chemistry - Loughborough University.

Loughborough, Leics., UK

Ph.D in synthetic organic chemistry.

Title: Some Uses of Acyliminium Ions In The Synthesis Of Isoquinolones With Potential Biological Activity. Supervisor: Prof. Harry Heaney

1993 - 1994

Department of Chemistry - Loughborough University.

Loughborough, Leics., UK

M.Sc in Medicinal Chemistry and Drug Metabolism that included taught courses and research thesis.

Distinction.

Thesis Title: New routes to acyliminium ion precursors and a synthesis of the neuvamine skeleton.

Supervisor: Prof. Harry Heaney

1987 - 1992

Faculty of Pharmacy - University of Jordan.

Amman, Jordan

BSc in Pharmaceutical Sciences.

Distinction. Grade Point Average: 87.6%.

The Islamic-Scientific College.*Amman, Jordan*General Secondary Education Certificate Examination. **Distinction**. Grade Point Average: 93.7 %.**Research Activities:****Areas of Interest**

- Synthetic modifications of natural and synthetic biodegradable polymers towards developing new polymers of interesting pharmaceutical properties..
- Application of computer-aided molecular design techniques as aids in pharmaceutical formulation.
- Molecular modeling studies towards the discovery and design of new biologically active compounds employing novel methodologies.

Supervision of M.Sc. and Ph.D Theses

Dr. Taha supervised and Co-supervised the following M.Sc. and Ph.D. research projects:

- 1) The Utilization of Catalyst Software for the Discovery of New Potential Anticancer Agents. **Ihab Mustafa Almasri** (M.Sc. Thesis), May 2003.
- 2) Synthesis and Characterization of Novel Chiral Polymer- Aluminum Composite and Its Evaluation as a New Stationary Phase for the Chromatographic Separation of Optical Isomers. **Muhammed Hashem Zweiri** (M.Sc. Thesis), November 2002.
- 3) The Synthesis and Microbiological Evaluation of Some Novel Derivatives of Some Natural and Synthetic Polymers. **Reema A. K. Abu Khalaf**, July 2002.
- 4) Synthesis of Iron-Crosslinked Benzyl and Methyl Hydroxamated Natural Polymers and its In Vitro Evaluation as Potential Matrix Material for Oral Sustained-Release Beads. **Reem H. AL-Qieshawi** (M.Sc. Thesis), December 2001.
- 5) Predicting Tablet Properties by the Novel Use of Molecular Modeling and Quantitative Structure Property Relationship Analysis. **Maha A. Habash** (M.Sc. Thesis), August 2001.
- 6) Development of *in-silico* pharmacophoric models for inhibitors of important key receptors and enzymes involved in the pathogenesis of a group of interrelated circulatory and cardiovascular diseases. **Dhia Zaki Dawoud**. (M.Sc. Thesis) December 2003.

- 7) The utilization of Catalyst software for the discovery of potential anti-viral agents. **Hamadeh Tarazi** (M.Sc. Thesis). December 2003.
- 8) Development of valid analytical technique for the analysis of the experimental neuromuscular blocker EXP150 developed at the faculty of Pharmacy/University of Jordan. **Hind Taha** (M.Sc. Thesis).
- 9) Preparation of taste-masking microspheres for the cephalosporin cefataxim axetil. **Abdul Hamid Odeh** (M.Sc. Thesis). 2005.
- 10) Generation Of An Optimal Pharmacophoric Model For Quorum Sensing Agonists And Antagonists in *Pseudomonas aeruginosa* Employing Ligand-Based Modeling Techniques And Subsequent Experimental Validation. **Waleed Zalloum** (M.Sc. Thesis). 2005
- 11) Modeling the Pharmacophoric Properties of the Skin Pigmentation Enzyme “Tyrosinase” followed by *in-silico* and *in-vitro* screening for new hits. **Rushdi Abu Hamdah** (M.Sc. Thesis). 2007
- 12) In silico modeling and search for new neuraminidase inhibitors as potential treatments for avian flu. **Areej Abu Hammad** (M.Sc. Thesis). 2006
- 13) Docking, CoMFA and Pharmacophore Modeling of the MurF enzyme inhibitors for the discovery of new selective anti-bacterial agents and subsequent experimental validation. **Naji Atallah** (M.Sc. Thesis). 2007
- 14) Discovery of new anti-diabetic GSK3- β inhibitors using ligand-based pharmacophore modelling and experimental validation. **Mohammad Al-Ghusein** (M.Sc. Thesis). 2007.
- 15) Preparation of novel matrices based on alginate-surfactant composites via ionotropic crosslinking with calcium and/or zinc and their evaluation as sustained release formulations using chlorpheniramine maleate as model drug. **Wissam Nasser** (M.Sc. Thesis). 2007
- 16) Discovery of dual protein tyrosine phosphatase 1B and dipeptidyl peptidase IV inhibitors via pharmacophore and QSAR analysis followed by *in-silico* screening and *in-vitro* and *in-vivo* experimental validation. **Ihab Al-Masri** (Ph.D. Thesis). September-2008.
- 17) Discovery of new cholesteryl ester transfer protein (CETP) inhibitors via ligand-based pharmacophore modelling and QSAR analysis and subsequent hit optimization. **Reema Abu Khalaf** (Ph.D. Thesis). 2009.

- 18) Discovery and Optimization of new β -D-Glucosidase and β -D-Galactosidase inhibitors via Pharmacophore, QSAR analysis, in-silico Screening and in-vitro Validation. **Ahmad Al-Mutanabi** (Ph.D. Thesis). 2009.
- 19) Discovery of new Hormone Sensitive Lipase inhibitors via Ligand-based Pharmacophore modeling and QSAR analysis followed by experimental validation. **Lina Dahabeyah** (M.Sc. Thesis). August-2008.
- 20) Preparation of novel matrices based on alginate-chitosan phthalate composites via ionotropic crosslinking with calcium(II) and/or zinc(II) and their evaluation as sustained release formulations using chlorpheniramine maleate as model drug. **Arwa Matter** (M.Sc. Thesis). August -2008.
- 21) Preparation of novel controlled-release matrices based on alginate small carboxylic acid composites via ionotropic crosslinking with calcium(II) and/or zinc(II) and their evaluation as sustained release formulations using methylene blue as model drug. **Reema Ottom** (M.Sc. Thesis). August-2008.
- 22) Design new NMT inhibitors and Their Biological Evaluation. **Tareq Al-Hraznah** (M.Sc. Thesis). November-2008.
- 23) Discovery of new estrogen-receptor β (ERB) selective antagonists as potential anti-inflammatory agents. **Mai Taraira** (M.Sc. Thesis). 2009.
- 24) Discovery and Chemical Optimization Of Novel Rho Kinase (Rock II) and/or Ca^{2+} /calmodulin-dependent protein kinase II (CAMKII) as potential New Anti-Hypertensive Agents. **Rand Shahin** (Ph.D. Thesis). Present
- 25) Discovery and optimization of new anticancer agents based on dual inhibition of heat shock protein 90 and cyclin dependent kinase-1 via ligand-based and structure-based modelling followed by in-silico screening, biological evaluation and chemical optimization. **Mahmoud A. Al-Sha'er** (Ph.D. Thesis). 2010
- 26) Discovery and Optimization of New Glucokinase Enzyme Activators and/or Glycogen Phosphorylase Enzyme Inhibitors as Potential Anti-Diabetic Agents. **Maha A. Habash** (Ph.D. Thesis). 2010.
- 27) Discovery and Optimization of new Fructose-1,6-Bisphosphatase (FBP) inhibitors as potential antidiabetic agents. **Rabab F. Tayyem** (Ph.D. Thesis). Present

- 28) Discovery and optimization of new β -secretase inhibitors as possible treatment for Alzheimer's. **Afaf Al nadaf** (Ph.D. Thesis). 2009
- 29) Implementation of novel structure-based techniques for the discovery of new N-myristoyl transferase inhibitors as potential antifungal agents (M.Sc. Thesis). **Zeina Al-Hadidi**. 2010
- 30) Development of animal models for endometriosis and its use for in vivo screening (Ph.D. thesis). **Manal Abass**. 2012.
- 31) Synthesis and optimization of new Hormone Sensitive Lipase inhibitors as potential treatments for diabetes. **Jumanah Al-Shwabkeh** (M.Sc. thesis). 2011
- 32) The Use of Comparative Intramolecular Contacts Analysis to Build Valid Pharmacophore Models Against Soluble Epoxide Hydrolase Towards Development of Potential Anti-Inflammatory Agents. **Hanan Alameddin** (M.Sc. thesis). 2013.
- 33) Computer-Aided Molecular Design And Discovery Of New P-Glycoprotein Inhibitors Followed By In Vitro Validation On Doxorubicin Resistant MCF7 Cell-Line. **Dana A. AlQudah** (M.Sc. thesis). 2014.
- 34) Development And Evaluation Of A New Docking Scoring Function Based On The Number And Quality Of Ligand – Receptor Contacts: Evaluation Against PKC θ . **Eman Eid** (M.Sc. thesis). 2014.
- 35) Identification of novel inhibitors of the Middle East respiratory syndrome corona virus (MERS-CoV) protease (3C IPro) by pharmacophore modeling, quantitative structure-activity relationship analysis and subsequent in-silico screening. **Manal AL-Husban** (M.Sc. Thesis). 2014.
- 36) Implementation Of K-Nearest Neighbor (Knn) Modeling Technology Within The Context Of Docking – Based Comparative Intermolecular Contacts Analysis (kNN-dbCICA) For The Discovery Of New Check Point Kinase 1 (Chk1) Inhibitors As Potential Anticancer Agents. **Nour Jamal Jaradat** (M.Sc. Thesis). 2014.
- 37) Implementation of computer-aided drug design methodology for the discovery of novel small molecule treatments for acute myeloid leukemia. **Reem AbuTayeh** (Ph.D. Thesis). Present.
- 38) Microscopic, Histological and Physiological Studies on the Effects of Some Antioxidant Nutraceuticals on The Metronidazole Induced Infertility of Male Albino Rats. **Zeina Al-Alami** (Ph.D. Thesis) 2014.

- 39) Reliance on Molecular Dynamics Simulation Implemented on a Single Ligand-Protein Complex for Development of Valid Pharmacophore Model(s) for Check point Kinase 1. **Shadi Jaber** (M.Sc. Thesis) 2014.
- 40) The Use of ligand-based Modelling followed by *in vitro* assay for the discovery of Spleen Tyrosine Kinase inhibitors. **Safa' Amayreh** (M.Sc. Thesis) Present.
- 41) Optimizing the anti-tumor effect of local virgin kefir on cancer cell lines during different fermentation times, fermentation temperatures, and different proportions of kefir weight to milk volume. **Abeer Al-Nuirate** (M.Sc. Thesis) Present.
- 42) Implementation of new approaches for in situ covalent crosslinking of nanoparticle drug delivery systems. **Isra' Dmour** (Ph.D. Thesis) Present.
- 43) Search for new platelet derived growth factor beta receptor inhibitors for potential anti-angiogenesis therapy via computer-aided molecular modeling followed by bioassay. **Ruaa Alaqtash** (M.Sc. Thesis) Present.
- 44) Computer-Aided Drug Design and Discovery of new Fibroblast Growth Factor Receptor 1 inhibitors followed by *in vitro* assay. **Shada Alabed** (M.Sc. Thesis). Present.
- 45) Investigation of novel chemical methodologies for stabilization of chitosan based nanoparticles: Free radicals and metal chelation routes. **Safa Daoud** (M.Sc. Thesis). Present.
- 46) The use of computer-aided ligand-based modeling followed by in-vitro assay for the discovery of new epidermal growth factor receptor tyrosin Kinase Inhibitors. **Laith Al-Shdifat** (M.Sc. Thesis). Present.

Contributions in Conferences

1. New Synthetic Protocols Based on Homophthalimide Derivatives. **Taha, M.O.** *A poster presented at the 18th RSC Perkin Division East Midlands Regional Meeting* –UK, held on 2nd of April 1997.
2. Pharmacy education and the utilization of CAL and IT. Afifi, F.; **Taha, M.O.**, *A poster presented at the 18th International Congress of Biochemistry and Molecular Biology*, Beyond the Genom, 16-20 July 2000 – International Conference Center, Brimingham, UK.

3. Synthesis of Iron-Crosslinked Hydroxamated Alginic Acid and its In vitro Evaluation as a Potential Material for Oral Sustained –Release Beads. **Taha, M.O.** and Aiedeh, K. *A poster presented at the 2nd International Conference of the Faculty of Pharmacy*, October, 2001, Amman-Jordan.
4. Synthesis of Iron-Crosslinked Chitosan Succinate and Iron-Crosslinked Hydroxamated Chitosan Succinate and their in vitro Evaluation as Potential Matrix Materials for Oral Theophylline Sustained-Release Beads. Aiedeh, K. and **Taha, M.O.** A poster presented at the 2nd *International Conference of the Faculty of Pharmacy*, October, 2001, Amman-Jordan.
5. A symposium entitled “Advanced Computer Aided Drug Discovery Techniques Adopted In The Faculty Of Pharmacy / The University Of Jordan” was held in Jordan University on the 28th of August-2003 in which Dr. Taha and his group presented their research results in the area of computer aided drug design:
6. Combining Molecular Docking Simulations And Comparative Field Analysis To Probe Drug-B-Cyclodextrin Complexes. M. B. Zughul, **M. O. Taha**, M. M, Al Omari, M. I. El-Barghouthy, A. A. Abdo, K. Al Sou’od, A. A. Badwan. *Proceedings of the XIII International Cyclodextrins Symposium. Turin, Italy*, May 2006.
7. Homology Modelling of the Extracellular Domain of GABA_A receptors using Homology Modelling, Docking/Scoring and 3D QSAR Analysis. Heba R. Abdel Haleem, **Mutasem Taha**, David Hibbs, Jane Hanrahan, Mary Chebib. *Proceedings of the International Conference of the Asia/Pacific Molecular Graphics and Modelling Society, Curtin University of Technology, Perth, Australia*, April, 2006.

Publications

- 1) A Concise Route To Tetrahydrophenanthridinones and Functionalised Isoquinolones. Heaney. H.; **Taha, M.O.**, *Synlett*, 1996, 820 - 822.
- 2) The oxidation of homophthalimide derivatives by dioxygen in alkaline media and cleavage-cyclisation reactions. Heaney, H.; **Taha, M.O.**; Slawin, A.M.Z., *Tetrahedron Lett.*, 1997, 38, 3051-3054.

- 3) The Bis(homoallylic) Stabilisation of an Acyliminium Ion and Reactions with Nucleophiles. Heaney, H.; **Taha, M.O.**, *Tetrahedron Lett.*, 1998, 39, 3341-3344.
- 4) *N*-Acyliminium ion cyclisation *versus* rearrangement. The synthesis of 13,13-dimethylberberines and 3,4-dimethylisoquinolin-1-ones, Heaney, H.; **Taha, M.O.**, *Tetrahedron Letters*, 2000, **41**, 1993-1996.
- 5) The oxidation of 3-alkylhomophthalimide derivatives by dioxygen in alkaline media and Bischler-Napieralski reactions of cleavage-cyclization products. Heaney, Harry; **Taha, Mutasem O**; *Arkivoc*, 2000, 1(3), 335-351.
- 6) Synthesis of Chitosan Succinate and Chitosan phthalate and Their Evaluation as Suggested Matrices in Orally administered, Colon-Specific Drug Delivery Systems. Aiedeh, K.; **Taha, M.O.**, *Archiv Der Pharmazie*, 1999, 332, 103-107.
- 7) Synthesis of Chitosan Triethylene Glycol Phthalate and its Evaluation as a Binder in Wet granulation Procedures. Aiedeh, K; **Taha, M.O.**, *Die Pharmazie*. 1999, 54, 614-619.
- 8) An Investigation on the Suitability of Chitosan-Triethyleneglycol-Phthalate as a Matrix in Prolonged-Release, Orally Administered, Chlorpheniramine Maleate Granules. **Taha, M.O.** and Aiedeh, K, Amro, B., *STP Pharma Sciences* 2000. **10**,395-400.
- 9) Synthesis of Iron-Crosslinked Hydroxamated Alginate Acid and its *in vitro* Evaluation as a Potential Matrix Material for Oral Sustained-Release Beads. **Taha, M.O.** and Aiedeh, K., *Die Pharmazie*, 2000, **55**, 663-667.
- 10) Spectrophotometric and Conductimetric Study of the Complexation of Ranitidine to Fe⁺², Fe⁺³, Al⁺³, Mg⁺², Cu⁺², Ni⁺² and Pb⁺² Metal ion: Pharmaceutical Implications, Hamdan, I.; **Taha, MO.**, *Scientia Pharmaceutica* (Sci. Pharm.) 2000, 68, 357-367.
- 11) Synthesis of Iron-Crosslinked Chitosan Succinate and Iron-Crosslinked Hydroxamated Chitosan Succinate and their *in vitro* Evaluation as Potential Matrix Materials for Oral Theophylline Sustained-Release Beads, Aiedeh, K.; **Taha, M.O.** *European Journal of Pharmaceutical Sciences*, 2001, Vol 13/2, pp 159-168.
- 12) Aiedeh, K.; **Taha, M. O.**; Sweileh, B. Testosterone-succinate-dextran and testosterone-succinate-polyvinyl alcohol conjugates: Synthesis and testosterone release in plasma. *Acta Technologiae et Legis Medicamenti*, 2001, 12(3), 267-281.

- 13) Amro, B. I.; **Taha, M. O.**; Aiedeh, K. Evaluation of chitosan-triethyleneglycol-phthalate as a potential matrix for chlorpheniramine maleate controlled-release oral tablets. *Acta Technologiae et Legis Medicamenti* 2001, 12(3), 239-252.
- 14) Development of QSPR models for Pseudoternary Microemulsions Formulated with Nonionic Surfactants and Cosurfactants: Application of Data Mining and Molecular Modeling. **M. O. Taha**; M. Al-Ghazawi; H. Abu-Amara; E. Khalil. *European Journal of Pharmaceutical Sciences* 2002, 15(5), 461-478
- 15) In-vitro Alpha-Amylase Inhibitory Effects of Some Clinically Used Drugs. Hamdan, I.; Affifi, F.; **Taha, M.O.**; *Die Pharmazie*, 2004, 59 (10), 799-801.
- 16) Investigation of the Active Constituents of Portulaca Oleraceae L. (Portulacaceae) Growing in Jordan. Rashed, A. N.; Afifi, F. U.; Shaedah, M.; **Taha, M. O.**; *Pakistan Journal of Pharmaceutical Sciences*, 2004, 17(1), 37-46.
- 17) Evaluation of Chitosan-Succinate and Chitosan-Phthalate as Enteric Coating Polymers for Diclofenac Sodium Tablets. Aiedeh, K.; **Taha, M. O.**; Al-Khatib, H. *Drug Delivery Science and Technology (STP Pharma Sciences)*, 2005, 15 (3), 207-211.
- 18) Ligand-Based Assessment of Factor Xa Binding Site Flexibility via Elaborate Pharmacophore Exploration and Genetic Algorithm-Based QSAR Modeling. **Taha, Mutasem O.**; Qandil, Amjad M.; Zaki, Dhia D.; Murad A. AlDamien. *European Journal of Medicinal Chemistry*, 2005, 40(7), 701-727.
- 19) Synthesis of Zinc-Crosslinked Thiolated Alginic acid Beads and their In Vitro Evaluation as Potential Enteric Delivery System Utilizing Folic Acid as Model Drug. **Mutasem O. Taha**, Khalid M. Aiedeh, Yusef Al-Hiari and Hatim Al-Khatib. *Die Pharmazie*. 2005, 60, 736-742.
- 20) QSPR Modeling of Pseudoternary Microemulsions Formulated Employing Lecithin Surfactants: Application of Data Mining, Molecular and Statistical Modeling. **Mutasem O. Taha**, Heba Abdel-Halim, Mutasim Al-Ghazawi, Enam Khalil. *International Journal of Pharmaceutics*. 2005, 295, 135-155.
- 21) Application of novel chitosan derivatives in the dissolution enhancement of a poorly water soluble drug using spray drying technique. Khalid M. Aiedeh, Hatim Al-Khatib, **Mutasem O. Taha**, Nizar Al-Zo'by, *Die Pharmazie*. 2006, 61, 306-311.

- 22) Effects of variable docking conditions and scoring functions on the qualities of protein aligned CoMFA models constructed from diverse h-PTP 1B inhibitors. **Mutasem O. Taha***, Murad AlDhamin. *Journal of Medicinal Chemistry*. 2005, 48, 8016-8034.
- 23) Berberine potently inhibits protein tyrosine phosphatase 1B: investigation by docking simulation and experimental validation. Bustanji, Y.; **Taha, M. O***; Yousef, M.; Bakri, AG. *Journal of Enzyme Inhibition and Medicinal Chemistry*. 2006, 21,163-71.
- 24) Discovery of potent inhibitors of pseudomonal quorum sensing via pharmacophore modeling and in silico screening. **Mutasem O. Taha***, Amal G. Al-Bakri and Waleed A. Zalloum *Bioorganic & Medicinal Chemistry Letters*, 2006,16, 5902-5906.
- 25) Synthesis and in vitro behavior of iron-crosslinked N-methyl and N-benzyl hydroxamated derivatives of alginic acid as controlled release carriers. Hatim S. AlKhatib, **Mutasem O. Taha**, Khaled M. Aiedeh, Yasser Bustanji and Bassam Sweileh. *European Polymer Journal*, 2006, 42, 2464-2474.
- 26) Discovery of New Potent Human Protein Tyrosine Phosphatase Inhibitors Via Pharmacophore and QSAR Analysis Followed by In-Silico Screening. **Mutasem O. Taha***, Yasser Bustanji, Amal G. Al-Bakri, Al-Motasseem Yousef, Waleed A. Zalloum, Ihab M. Al-Masri and Naji Atallah. *Journal of Molecular Graphics and Modelling*, 25 (2007) 870–884
- 27) Effect of Increasing Concentrations of Quinine on the Volatile compounds in Cultured Tissues of *Iris atrofusca* Baker and *Iris petrana* Dinsmore. Ahmad H. Al-Ghabesh, Dhia S. Hassawi, **Mutasem O. Taha**, Fatma U. Afifi. *Biotechnology*, 25 (2007) 218–224.
- 28) Effect of Ionic Crosslinking on the Drug Release Properties of Chitosan Diacetate Matrices. Khaled M. Aiedeh, **Mutasem O. Taha**, Yusuf Al-Hiari, Yasser Bustanji, Hatim S. Alkhatib. *Journal of Pharmaceutical Sciences*, 2007, 96 (1), 38-43.
- 29) Combining Docking, Scoring and Molecular Field Analyses To Probe Influenza Neuraminidase-Ligand Interactions. Areej M. Abu Hammad, Fatima Afifi, **Mutasem O. Taha***. *Journal of Molecular Graphics and Modelling*, 2007. 26, 443–456.

- 30) Sodium Lauryl Sulfate Impedes Drug Release From Zinc-Crosslinked Alginate Beads: Switching From Enteric Coating Release Into Biphasic Profiles. **Mutasem O. Taha***, Wissam Nasser, Adel Ardakani, Hatim S. AlKhatib. *International Journal of Pharmaceutics*, 2008, 350, 291-300
- 31) Discovery of New MurF Inhibitors via Pharmacophore Modeling and QSAR Analysis followed by in-silico screening. **Mutasem O. Taha***, Naji Atallah, Amal G. Al-Bakri, Catherine Paradis-Bleau, Hiba Zalloum, Khaled Younis and Roger C. Levesque. *Bioorganic and Medicinal Chemistry*. 2008, 16, 1218-1235.
- 32) Olanzapine inhibits glycogen synthase kinase-3 β : an investigation by docking simulation and experimental validation. Mohammad K. Mohammad, Ihab M. Al-Masri, **Mutasem O Taha**, Mohamed A. S. Al-Ghoussein, Hatim S. AlKhatib, Samer Najjar, Yasser Bustanji. *European Journal of Pharmacology*, 2008, 584, 185–191.
- 33) Pharmacophore Modeling, Quantitative Structure-Activity Relationship Analysis and In Silico Screening Reveal Potent Glycogen Synthase Kinase-3 β Inhibitory Activities for Cimetidine, Hydroxychloroquine and Gemifloxacin. **Mutasem O. Taha***, Yasser Bustanji, Mohamed A.S. Al-Ghoussein, Mohammad Mohammad, Hiba Zalloum, Ihab M. Al-Masri, Naji Atallah. *Journal of Medicinal Chemistry*, 2008, 51, 2062–2077.
- 34) Development of Predictive In Silico Model for Cyclosporine- and Aureobasidin-Based P-Glycoprotein Inhibitors Employing Receptor Surface Analysis. Hiba M. Zalloum, **Mutasem O. Taha***, *Journal of molecular graphics and Modelling*, 2008, 27, 439–451
- 35) Combining Ligand-Based Pharmacophore Modeling, QSAR Analysis and In -Silico Screening for the Discovery of New Potent Hormone Sensitive Lipase Inhibitors. **Mutasem O. Taha***, Lina A. Dahabiyeh, Yasser Bustanji, Hiba Zalloum, Suheer Saleh. *Journal of Medicinal Chemistry*, 2008, 51, 6478–6494.
- 36) Discovery of New DPP IV Inhibitors via Pharmacophore Modeling and QSAR Analysis followed by in-silico screening. Ihab M. Al-Masri, Mohammad K. Mohammad, **Mutasem O. Taha***. *ChemMedChem*, 2008, 3, (11), 1763-1779
- 37) **Book Chapter**: Ethnopharmacology as an emergent discipline: From empirical knowledge to drug discovery. Talal Aburjai, Rabab Tayyem and **Mutasem Taha**. ISBN 978-81-308-0213-8.

- 38) Inhibition of Glycogen Synthase Kinase by Curcumin: Investigation by Simulated Molecular Docking and Subsequent in vitro/in vivo evaluation. Yasser Bustanji, **Mutasem O.Taha**, Ihab M. Almasri, Mohamed A.S. Al-Ghusein, Mohammad, K. Mohammad, and Hatim S. AlKhatib, *Journal of Enzyme Inhibition and Medicinal Chemistry*. 2009, 771 – 778.
- 39) Inhibition of dipeptidyl peptidase IV (DPP IV) is one of the mechanisms explaining the hypoglycemic effect of berberine. Ihab M. Al-masri, Mohammad K. Mohammad, **Mutasem O. Taha**. *Journal of Enzyme Inhibition and Medicinal Chemistry*. 2009, 24(5), 1061-1066.
- 40) Phenytoin Enhances Collagenization in Excision Wounds and Tensile Strength in Incision Wounds. Eyad Qunaibi, Ahmad Disi, **Mutasem Taha**. *Pharmazie*, 2009, 64, 584-586
- 41) In Silico Screening for Non-Nucleoside HIV-1 Reverse Transcriptase Using ADMET-filtration and High Throughput Docking. Yasser Bustanji, **Mutasem O. Taha**, Ihab M. Al-masri. *Chemical Biology & Drug Design*, 2009; 74: 258–265
- 42) Homology modeling of MCH1 receptor and validation by docking/scoring and protein-aligned CoMFA. Areej Abu-Hammad, Waleed A. Zalloum, Hiba Zalloum, Ghassan Abu-Sheikha, **Mutasem O. Taha***. *European Journal of Medicinal Chemistry*, 2009, 44, 2583–2596.
- 43) Docking simulations and in vitro assay unveil potent inhibitory action of papaverine against protein tyrosine phosphatase 1B. Yasser Bustanji, **Mutasem O. Taha**, Ihab Mustafa. Almasri, Mohammad Khalil. Mohammad. *Biological and Pharmaceutical Bulletin*, 2009,32 (4), 640-645.
- 44) Pharmacophore modelling, Quantitative Structure-Activity Relationship Analysis and Shape-Complemented In-Silico Screening Allow Access to Novel Influenza Neuraminidase Inhibitors. Areej M. Abu Hammad, **Mutasem O. Taha***. *Journal of Chemical Information and Modeling*. 2009, 49, 978–996.
- 45) Pharmacophore and QSAR Modeling of Estrogen Receptor β Ligands and Subsequent Validation and In Silico Search for New Hits. **Mutasem O. Taha,*** Mai Tarairah, Hiba Zalloum, Ghassan Abu-Sheikha. *Journal of molecular graphics and Modelling*, 2010, 28 383–400
- 46) Discovery of new cholesteryl ester transfer protein inhibitors via ligand-based pharmacophore modeling and QSAR analysis followed by synthetic exploration. Reema Abu Khalaf, Ghassan

- Abu Sheikha, Yasser Bustanji, **Mutasem O. Taha*** *European Journal of Medicinal Chemistry*. 2010, 45, 1598–1617.
- 47) Elaborate Ligand-Based Pharmacophore Exploration and QSAR Analysis Guide the Synthesis of Novel Pyridinium-based Potent β -Secretase Inhibitory Leads. Afaf Al-Nadaf, Ghassan Abu Sheikha, **Mutasem O. Taha*** *Bioorganic & Medicinal Chemistry*, 2010, 18 3088–3115
- 48) Discovery of New β -D-Glucosidase Inhibitors via Pharmacophore Modeling and QSAR Analysis Followed by In Silico Screening. Reema Abu Khalaf, Ahmed Mutanabbi Abdula, Mohammad S. Mubarak, **Mutasem O. Taha***, *Journal of Molecular Modeling*, 2011, 17, 443–464.
- 49) Discovery of Novel CDK1 Inhibitors by Combining Pharmacophore Modeling, QSAR Analysis and In Silico Screening followed by In Vitro Bioassay. Mahmoud A.Al-Sha'er, **Mutasem O. Taha***, *European Journal of Medicinal Chemistry*. 2010, 45, 4316-4330.
- 50) Discovery of New β -D-Galactosidase Inhibitors via Pharmacophore Modeling and QSAR Analysis Followed by In Silico Screening. Ahmed Mutanabbi Abdula, Reema Abu Khalaf, Mohammad S. Mubarak, **Mutasem O. Taha***, *Journal of Computational Chemistry*, 2011, 32, 463-482.
- 51) Thujone Corrects Cholesterol and Triglyceride Profiles in Diabetic Rat Model, Nour W. Al – Haj Baddar, Ahmad M. Disi, Talal A. Aburjai, **Mutasem O. Taha**. *Natural Products Research*, 2011, 25, 1180–1184
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Propriety Rights: Patents and Copyrights

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Prizes and Awards

1. Loughborough University Chemistry Department Award for Distinction in the M.Sc. Program (1994).
2. A two-month DAAD-sponsored research award at the Institute of Pharmacy/Hamburg University (Germany) in collaboration with Prof. Geffken (2002).
3. The Jordan University Prize for Distinguished Research Projects in **2004-2005** for the paper entitled: "Ligand-Based Assessment of Factor Xa Binding Site Flexibility via Elaborate Pharmacophore Exploration and Genetic Algorithm-Based QSAR Modeling." Published in the *European Journal of Medicinal Chemistry*, 2005, 40(7), 701-727.
4. The Prize of The Jordanian Ministry of Higher Education for Distinguished Research Projects in **2008** for the paper entitled: "Effects of variable docking conditions and scoring functions on the qualities of protein aligned CoMFA models constructed from diverse h-PTP 1B inhibitors. Mutasem O. Taha*, Murad AlDhamin. *Journal of Medicinal Chemistry*. 2005, 48, 8016-8034."
5. An-Najah Research Award for the year 2009 for the paper entitled: "Combining Ligand-Based Pharmacophore Modeling, QSAR Analysis and In -Silico Screening for the Discovery of New Potent Hormone Sensitive Lipase Inhibitors. Mutasem O. Taha*, Lina A. Dahabiyeh, Yasser Bustanji, Hiba Zalloum, Suheer Saleh. *Journal of Medicinal Chemistry*, 2008, 51, 6478-6494."
6. University of Jordan Prize for Research Distinction during the Academic Year **2008/2009**

7. The Prize of The Jordanian Scientific Research Support Fund for Distinguished Research Projects in Medical and Pharmaceutical Fields during the year **2011** for the paper entitled: "Docking-based comparative intermolecular contacts analysis as new 3-D QSAR concept for validating docking studies and in silico screening: NMT and GP inhibitors as case studies. *Journal Chemical Information and modelling*, 2011, 51 (3), pp 647–669
8. Ali Hamdi Mango Award for Distinguished Researchers at the University of Jordan for the year **2011**.
9. University of Jordan Prize for Research Distinction during the Academic Year 2010/2011
10. Applied Sciences Private University Certificate for Distinguished Researchers during the Academic Year **2011-2012**.
11. Daniel Turnberg Travel Fellowship Award-Academy of Medical Sciences-United Kingdom. September **2012**.

Scientific and Professional memberships

- Currently member of the editorial board of the international journal ISRN Biomathematics.
- Served as Editor-in-Chief: of the Jordan Journal of Pharmaceutical Sciences during 2011 and 2012.
- Served as regional Editor of the Internet Chemistry Journal "**Molecules**" during 1996-2006.

Referees

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