

**Ghassan M. Abu Sheikha, Ph.D.****Curriculum Vitae**

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**EDUCATION AND TRAINING**

<b>Ph.D in Medicinal Chemistry</b> University of Pisa Italy	1993 - 1997
<b>B.S. Pharmacy</b> University of Camerino Italy	1992 - 1993
<b>B.S. Pharmaceutical Chemistry and Technology</b> University of Camerino Italy	1985 - 1992

**EMPLOYMENT**

<b>Visiting Research Scholar</b> College of Pharmacy and Pharmaceutical Sciences University of Toledo Toledo, OH USA	June 2013 - Aug 2013
<b>Dean</b> <b>Professor of Medicinal Chemistry</b> Faculty of Pharmacy Al-Zaytoonah University of Jordan Amman, Jordan	July 2011 - present
<b>Dean</b> <b>Associate Professor of Medicinal Chemistry</b> Faculty of Pharmacy Al-Zaytoonah University of Jordan Amman, Jordan	Sept 2005 - July 2011

***Cont. Employment***

<b>Associate Professor of Medicinal Chemistry</b> College of Pharmacy, King Khalid University Abha, Saudi Arabia	Aug 2004 - Aug 2005
<b>Associate Professor of Medicinal Chemistry</b> Faculty of Pharmacy Philadelphia University Amman, Jordan	Feb 2004 - Aug 2004
<b>Dean</b> <b>Associate Professor of Medicinal Chemistry</b> Faculty of Pharmacy Applied Science University Amman, Jordan	Feb 2003 - Oct 2003
<b>Dean</b> <b>Assistant Professor of Medicinal Chemistry</b> Faculty of Pharmacy Applied Science University Amman, Jordan	July 2002 - Feb 2003
<b>Deputy Dean</b> <b>Assistant Professor of Medicinal Chemistry</b> Faculty of Pharmacy Applied Science University Amman, Jordan	Aug 2001 - Oct 2001
<b>Assistant Professor of Medicinal Chemistry</b> Faculty of Pharmacy Applied Science University Amman, Jordan	Sept 1998 - Feb 2003
<b>Assistant Research Professor</b> Faculty of Pharmacy Camerino University Camerino, Italy	July 1997 - April 1998

## PROFESSIONAL ACTIVITY

### *Summary of research interest*

- Synthesis of phosphoinositide 3-kinase (PI3K ) inhibitors as anticancer agents.
- Synthesis of anti-hyperlipidemic agents.
- Synthesis of acyclic nucleoside phosphonates as anti- HIV-1 (antivirals).
- Synthesis of nucleoside analogues as anti-cancer and antiviral.

## PUBLICATIONS

1. Novel Pyrrole Derivatives as Potent lipid-Lowering Agents in Triton-WR-1339-Induced Hyperlipidemic Rats. Ghassan F. SHATTAT, **Ghassan M. ABUSHEIKHA**, Tariq M. AL-QIRIM, Rawan HUWAITAT, Waseem EL-HUNEIDI, Reema ABU KHALAF, Yusuf M. AL-HIARI, Suhair H. JASIM & Lama HAMADANEH. Lat. Am. J. Pharm. **2015**, 34 (6): 1258-64.
2. Molecular modeling based approach, synthesis, and cytotoxic activity of novel benzoin derivatives targeting phosphoinositide 3-kinase (PI3K ). Dima A. Sabbah, Musaab Saada, Reema Abu Khalaf, Sanaa Bardaweel, Kamal Sweidan, Tariq Al-Qirim, Amani Al-Zughier, Heba Abdel Halim, **Ghassan Abu Sheikha**. Bioorganic & Medicinal Chemistry Letters, **2015**, 25, 3120-3124.
3. Kamal Sweidan, Dima A. Sabbah, Jörn Engelmann, Heba Abdel-Halim, **Ghassan Abu Sheikha**. Computational Docking Studies of Novel Heterocyclic Carboxamides as Potential PI3K Inhibitors. Letters in Drug Design & Discovery, **2015**, 12, 1-8.
4. Kamal Sweidan, Jörn Engelmann, Walid Abu Rayyan, Dima Sabbah, Musa Abu Zarga, Tariq Al-Qirim, Yusuf Al-Hiari, **Ghassan Abu Sheikha**, Ghassan Shattat. Synthesis and Preliminary Biological Evaluation of New Heterocyclic Carboxamide Models. Letters in Drug Design & Discovery, **2015**, 12, 417-429.
5. Al-Qirim, Tariq; Shattat, Ghassan; **Abu Sheikha, Ghassan**; Sweidan, Kamal; Al-Hiari, Yusuf; Jarab, Anan. Synthesis and in vivo antihyperlipidemic activity of new series of N-(4-benzoylphenyl)-2-furamide derivatives Triton-WR-1339-Induced hyperlipidemic Rats. Drug Research, **2014**, accepted and in press.
6. Manal AL-Najdawi, Yusuf Al-Hiari, Tariq Al-Qirim, Ghassan Shattat, Mohammad Al-Zweri and **Ghassan Abu Sheikha**. Synthesis and Pharmacological Evaluation of Novel Unsubstituted Indole-Anthraquinone Carboxamides Derivatives as Potent Anti-hyperlipidemic Agents. Z. Naturforsch, **69c**. **2014**, 21-28.

**Cont. Publications**

7. Reema Abu Khalaf, **Ghassan Abu Sheikha**, Mahmoud Al-Sha'er, Mutasem Taha. Design, Synthesis and Biological Evaluation of N<sup>4</sup>-Sulfonamido-Succinamic, Phthalamic, Acrylic and Benzoyl Acetic Acid Derivatives as Potential DPP IV Inhibitors. *The Open Medicinal Chemistry Journal*. **2013**, 7, 39-48.
8. Ghassan Shattat, Tariq Al-Qirim, **Ghassan Abu Sheikha**, Yusuf Al-Hiari, Kamal Sweidan, Rania Al-Qirim, Suhair Hikmat, Lama Hamadneh, Sameer Al-kouz The Pharmacological Effects of Novel 5-Fluoro-N-(9,10-dihydro-9,10-dioxoanthracen-8-yl)-1*H*-indole-2-carboxamide Derivatives on Plasma Lipid Profile of Triton-WR-1339-Induced Wistar Rats. *Journal of Enzyme Inhibition and Medicinal Chemistry*. **2013**, 28(4), 863-869.
9. Tariq Al-Qirim, Ghassan Shattat, Kamal Sweidan, Waseem El-Huneidi, **Ghassan Abu Sheikha**, Reema Abu Khalaf and Suhair Hikmat. In vivo Antihyperlipidemic Activity of New Series of N- (benzoylphenyl) and N-(acetylphenyl)-1-benzofuran-2- carboxamides in Rats. *Archiv der Pharmazie (Weinheim, Germany)*, **2012**, 345(5), 401-406.
10. Reema Abu Khalaf, **Ghassan Abu Sheikha**, Ghadeer Albadawi, and Mutasem O. Taha. Design, synthesis and biological evaluation of sulfonic acid ester and benzenesulfonamide derivatives as potential CETP inhibitors. *Medicinal Chemistry Research*, **2012**, 21(11), 3669-3680.
11. Yusuf Al-Hiari, Ghassan Shattat , Tariq Al-Qirim, Waseem El-Huneidi, **Ghassan Abu Sheikha** and Suhair Hikmat. Antihyperlipidemic Properties of Novel N-(Benzoylphenyl)-5-substituted-1*H*-indole-2-carboxamides in Triton WR-1339-Induced Hyperlipidemic Rats. *Molecules* **2011**, 16(10): 8292-8304.
12. Rana M. OBAIDAT, Ammar BADER , Wafa AL-RAJAB , **Ghassan ABU SHEIKHA** , Aiman A. OBAIDAT. Preparation of Mucoadhesive Oral Patches Containing Tetracycline Hydrochloride and Carvacrol for Treatment of Local Mouth Bacterial Infections and Candidiasis. *Sci. Pharm.* **2011**; 79: 197–212.
13. **Ghassan Abu Sheikha**, Mahmoud A. Al-Sha'er, Mutasem O. Taha. Some Sulfonamide drugs inhibit ATP-ase activity of heat shock protein 90: investigation by docking simulation and experimental validation. *Journal of Enzyme Inhibition and Medicinal Chemistry*, 26, 603-609, **2011**.
14. **Ghassan Abu Sheikha**, Buthina Hussin, Yusuf Al-Hiari, Tariq Al-Qirim and Ghassan Shattat. Synthesis of Benzothiophene Carboxamide Derivatives and Their Pharmacological Evaluation as Potent Antihypertriglyceridemic Agents in Rats. *Z. Naturforsch*, 66c, 93-103, **2011**.

**Cont. Publications**

15. Ghassan Shattat, Rania Al-Qirim, Yusuf Al-Hiari, **Ghassan Abu sheikha**, Tariq Al-Qirim, Waseem El-Huneidi and Moyad Shahwan. Synthesis and Anti-Hyperlipidemic Evaluation of N-(Benzoylphenyl)-5-fluoro-1H-indole-2-carboxamide Derivatives in Triton WR-1339-Induced Hyperlipidemic Rats. *Molecules* 15, 5840-5849, **2010**.
16. **Ghassan Abu Sheikha**, Reema Abu Khalaf, Areej Melhem and Ghadeer Albadawi. Design, Synthesis, and Biological Evaluation of Benzylamino-Methanone Based Cholesteryl Ester Transfer Protein Inhibitors. *Molecules* 15, 5721-5733, **2010**.
17. Tariq Al-Qirim, Ghassan Shattat, Kamal Sweidan, **Ghassan Abu Sheikha**, Yusuf Al-Hiari, benzofuran- and benzothiophene-2-carboxamide derivatives, a process for their preparation and their use as potential antihyperlipidaemic agents a process for their preparation and their use as potential antihyperlipidaemic agents. **Jordan Patent 47 /2009**.
18. Ghassan Shattat, Tariq Al-Qirim, Moyad Shahwan, Yusuf Al-Hiari, **Ghassan Abu Sheikha**. *N-substituted-1H-indole-2-carboxamide* derivatives, a process for their preparation and their use as potential antihyperlipidaemic agents. **Jordan Patent 373/2008**.
19. Moyad Shahwan, Ghassan Shattat, Tariq Al-Qirim, **Ghassan Abu Sheikha**, Usuf Al-Hiari, Waseem El-Huneidi, Anan Jarab and Manal Al-Najdawi. Synthesis and Pharmacological Evaluation of Novel Substituted and Unsubstituted *N*-(benzoylphenyl)-1H-indole-2-carboxamides As Potent Anti-Hypertriglyceridemic Agents. *Z. Naturforsch.* 65 C, 309-316, **2010**.
20. Afaf al-Nadaf, **Ghassan Abu Sheikha**, Mutasem O. Taha. Elaborate ligand-based pharmacophore exploration and QSAR analysis guide the synthesis of novel pyridinium-based potent  $\beta$ -secretase inhibitory leads. *Bioorganic & Medicinal Chemistry* 18, 3088-3115, **2010**.
21. Reema Abu Khalaf, **Ghassan Abu Sheikha**, Yasser Al Bustanji, Mutasem O. Taha. Discovery of new cholesteryl ester transfer protein inhibitors via ligand-based pharmacophore modelling and QSAR analysis followed by synthetic exploration. *European Journal of Medicinal Chemistry* 45, 1598-1617, **2010**.
22. Mutasem O. Taha, May Tarirah, Hiba Zalloum, **Ghassan Abu Sheikha**. Pharmacophore and QSAR modeling of estrogen receptor  $\alpha$ -ligands and subsequent validation and *in silico* search for new hits. *Journal of Molecular Graphics and Modelling*, 28, 383-400, **2010**.

**Cont. Publications**

23. Tariq Al-Qirim, Moyad Shahwan, Ghassan Shattat, Yusuf Al-Hiari, **Ghassan Abu Sheikha**, and Sayed Zaidi. Pharmacological Evaluation of Novel Indole-2-carboxamides As Potent Lipid-Lowering Agents in Triton-WR- 1339-Induced Hyperlipidemic Rats. *Z. Naturforsch*, 64c, 619-625, **2009**.
24. Kamal Sweidan, Qutaiba Abu-Salem, Ahmed Al-Sheikh and **Ghassan Abu Sheikha**. Novel Derivatives of 1,3-Dimethyl-5-methylenebarbituric acid. *Letters in Organic Chemistry*, 6, 669-672, **2009**.
25. Mahmoud Sunjuk, Mousa Al-Noaimi, **Ghassan Abu Sheikha**, Ekkehard Lindner, Bassam El-Eswed, Kamal Sweidan. Synthesis and characterization of water-soluble palladium (II)-functionalized diphosphine complexes. *Polyhedron*, 28, 1393-1398, **2009**.
26. Areej Abu-Hammad, Waleed A. Zalloum, Hiba Zalloum, **Ghassan Abu Sheikha**, Mutasem O. Taha. Homology modelling of MCH1 receptor and validation by docking /scoring and protein-aligned CoMFA. *European Journal of Medicinal Chemistry*, 44, 2583-2596, **2009**.
27. Yusuf M. A-Hiari, Bassam A. Sweileh, Ashok K. Shakya, **Ghassan Abu Sheikha**, and Sabah I. Almuhtaseb. Synthesis of 1-benzyl-1, 2, 3, 4-tetrahydroisoquinoline, Part I: Grignard synthesis of 1-(substitutedbenzyl)-1, 2, 3, 4-tetrahydroisoquinoline models with potential antibacterial activity. *Jordan Journal of Pharmaceutical Sciences*, 1-21, vol. 2, No. 1, **2009**.
28. Majdi Bkhaitan, Ahmed O. Maslat and **Ghassan Abu Sheikha**. Study of the Effects on DNA of Two Novel Nucleoside Derivatives Synthesized as Potential Anti-HIV Agents. *Drug and Chemical Toxicology*, 30:41-53, **2007**.
29. **Ghassan M. Abu Sheikha**, Rami A. Al-Hourani, Ali M. Qaisi, Majdi M. Bkhaitan, Roberta Loddo, and Paolo La Colla. Synthesis and in *Vitro* Antiviral Studies of *Bis*(Pivaloyloxymethyl) Ester Derivative of 9-{{[(Phosphonomethyl)aziridin-1-yl]methyl} Adenine (PMAMA) and Analogues. *Saudi Pharmaceutical Journal*, 16-22, vol. 15, No. 1, **2007**.
30. Luay Rashan and **Ghassan Abu Sheikha**. Cytotoxicity Studies of A Novel Class of Acyclic Nucleoside Phosphonates. *Arab Journal of Pharmaceutical Sciences*. **2003**, vol. 2, No.5. 47-51.
31. **Ghassan Abu Sheikha**, Paolo La Colla, and AnnaGiulia Loi. A New Class of Acyclic nucleoside Phosphonates: Synthesis and Biological Activity Studies of 9-{{[(Phosphonomethyl)-aziridin-1-yl] methyl} guanine [PMAMG] and Analogues. *Nucleosides, Nucleotides & Nucleic Acids*. **2002**, vol. 21, No. 10, 619-635.

**Cont. Publications**

32. **Ghassan Abu Sheikha**. Synthesis of Alkylating Acyclic Nucleoside Phosphonates of Potential Antitumoral Activity. *Arab Journal of Pharmaceutical Sciences*. **2002**, vol. 2, No.3. 11-23.
33. **Ghassan Abu Sheikha**. A New Class of Acyclic Nucleoside Phosphonates: Synthesis of Potential Antiviral 9-[[[(Phosphonomethyl)-aziridin-1-yl]methyl]guanine [PMAMG] and Analogues. *Jordan Journal of Applied Sciences*. **2001**:3 (6), 46-57.
34. Palmarisa Franchetti, **Ghassan Abu Sheikha**, Loredana Cappellacci, Stefano Marchetti, Mario Grifantini, Emanuela Balestra, Carlo-Federico Perno, Umberto Binatti, Giorgio Brandi, Luigia. Rossi, and Mauro Magnani. A New Acyclic Heterodinucleotide Active Against Human Immunodeficiency Virus and Herpes Simplex Virus. *Antiviral Research*. **2000**, 47, 149-158.
35. Palmarisa Franchetti, **Ghassan Abu Sheikha**, Loredana Cappellacci, Mario Grifantini, Emanuela Balestra, Carlo-Federico Perno, Giorgio Brandi, Luigia Rossi, and Mauro Magnani. Synthesis and Biological Application of a New Heterodinucleotide With Both Anti-HSV and Anti-HIV Activity. *Nucleosides & Nucleotides*. **1999**, 18(4&5), 989-990.
36. **Abu Sheikha G.**, Tramontano E., Loi A. G., Franchetti P., Grifantini M., La Colla P. Effect of Acyclic Nucleoside Phosphonates on the HIV-1 Integrase in vitro. *Nucleosides & Nucleotides*. **1999**, 18(4&5), 849-851.
37. P Franchetti, P Perlini, **G Abu Sheikha**, L Cappellacci, M Grifantini, AG Loi, A De Montis, A Pani, ME Marongiu, and P La Colla. Potent and selective inhibitors of human immunodeficiency virus protease structurally related to L-694,746. *Antiviral Chemistry & Chemotherapy*. **1998**.9, 303-309.
38. L. Cappellacci, P. Franchetti, **G. Abu Sheikha**, H. N. Jayaram, V. V. Gurudutt, T. Sint, B. P. Schneider, B. M. Goldstein, G. Perra, S. Poma, P. La Colla, and M. Grifantini. Synthesis and Cytotoxic Activity of Selenophenfurin, A New Inhibitor of IMP Dehydrogenase. *Nucleosides & Nucleotides*. **1997**, 16(7-9), 1045-1048.
39. P. Franchetti, L. Cappellacci, **G. Abu Sheikha**, H. N. Jayaram, B. P. Schneider, T. Sint, V. V. Gurudutt, F. R. Collart, E. Huberman, and M. Grifantini. Synthesis and IMP Dehydrogenase (type I and type II) Inhibitory Activity of Isosteric NAD Analogs Derived from Thiophenfurin and Furanfurin. *Nucleosides & Nucleotides*. **1997**, 16(7-9), 1415-1418.

**Cont. Publications**

40. Palmarisa Franchetti, Loredana Cappellacci, **Ghassan Abu Sheikha**, Hiremagalur N. Jayaram, Vivek V. Gurudutt, Thaw Sint, Bryan P. Schneider, William D. Jones, Barry M. Goldstein, Graziella Perra, Antonella De Montis, Anna Giulia Loi, Paolo La Colla, and Mario Grifantini. Synthesis, Structure, and Antiproliferative Activity of Selenophenfurin, an Inosine 5'-Monophosphate Dehydrogenase Inhibitor Analogue of Selenazofurin. *Journal of Medicinal Chemistry*. **1997**, vol. 40, No. 11, 1731-1737.
41. Palmarisa Franchetti, **Ghassan Abu Sheikha**, Paolo Perlini, Farhat Farhat, Mario Grifantini, Graziella Perra, Carlo Milia, Monica Potzolu, Paolo La Colla, and Maria Elena Marongiu. Synthesis of Unsaturated Analogues of 9-[2-(Phosphonomethoxy)propyl]guanine as Antiviral Agents. *Nucleosides & Nucleotides*. **1997**, 16(10&11), 1921-1932.
42. P. Franchetti, L. Cappellacci, **G. Abu Sheikha**, M. Grifantini, A. G. Loi, A. De Montis, M. G. Spiga, and P. La Colla. Acyclic Nucleotides Related to Clitocine: Synthesis and Anti-HIV Activity. *Nucleosides & Nucleotides*. **1995**, 14(3-5), 607-610.
43. Palmarisa Franchetti, **Ghassan Abu Sheikha**, Loredana Cappellacci, Mario Grifantini, Antonella De Montis, Giovanna Piras, Anna Giulia Loi, and Paolo La Colla. Synthesis and Antiviral Activity of 8-Aza Analogs of Chiral [2-(Phosphonomethoxy)propyl]guanines. *Journal of Medicinal Chemistry*. **1995**, 38, 4007-4013.
44. L. Cappellacci, P. Franchetti, M. Grifantini, **G. Abu Sheikha**, G. Nocentini, R. Moraca, B. M. Goldestien. Synthesis, Antitumor Activity and Crystallographic Studies of Analogues of Tiazofurin. *Nucleosides & Nucleotides*. **1995**, 14(3-5), 637-640.
45. P. Franchetti, L. Messini, L. Cappellacci, **G. Abu Sheikha**, M. Grifantini, P. Guarracino, A. De Montis, A. G. Loi, M. E. Marongiu, and P. La Colla. 8-Aza-1-Deazapurine Nucleosides as Antiviral Agents. *Nucleosides & Nucleotides*. **1994**, 13(8), 1739-1755.
46. Palmarisa Franchetti, Loredana Cappellacci, Mario Grifantini, Lea Messini, **Ghassan Abu Sheikha**, Anna Giulia Loi, Enzo Tramontano, Antonella De Montis, Maria Grazia Spiga, and Paolo La Colla. Synthesis and Evaluation of the Anti-HIV Activity of Aza and Deaza Analogues of Isodda and Their Phosphonates as Prodrugs. *Journal of Medicinal Chemistry*. **1994**, 37, 3534-3541.



**Cont. Publications**

47. P. Franchetti, **G. Abu Sheikha**, L. Cappellacci, L. Messini , M. Grifantini, A. G. Loi, A. De Montis, M.G. Spiga , and P. La Colla. 8-Aza-Analogues of PMEa and PMEG: Synthesis and *in vitro* anti-HIV Activity. *Nucleosides & Nucleotides*. **1994**, 13(8), 1707-1719.

**PUBLISHED ABSTRACTS**

1. Computer Aided Drug Design: New Frontiers in computer-Aided Drug Design, July 19-24, 2015, Grand Summit Hotel, Mount Snow, West Dover, VT, USA.
2. Ligand Recognition & Molecular Gating: Structure and Dynamics of Ion Channels, G-Protein Coupled Receptors, and Solute Transportes, March 23-28, 2014, Four Points Sheraton/ Holiday Inn Express, Ventura, CA, USA.
3. FloHet-2013 Florida Heterocyclic and Synthetic Conference, March 3<sup>rd</sup> -March 6<sup>th</sup>, 2013, Gainesville, Florida, USA.
4. The Sixth International Conference of the Royal Medical Services, King Hussein Bin Talal Convention Center ,10-12 November 2012, Dead Sea, Jordan.
5. Faculties of Pharmacy at Al-Zaytoonah University of Jordan and The University of Toledo International Pharmaceutical Conference (ZTIPC 2012), 17-19 October 2012, Amman, Jordan.
6. Challenges in Organic Chemistry and Chemical Biology (ISACS7), 12-15 June 2012, Edinburgh, UK.
7. The 4<sup>th</sup> International Conference on Healthcare, Faculty of Pharmacy and Medical Sciences, 4-5 May 2011, Al-Ahliyya Amman University, Amman, Jordan.
8. Jordanian International Pharmaceutical Conference 2010 "Towards Pharmaceutical Discovery", Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan, 20-22 October 2010.
9. 11<sup>th</sup> Eurasia Conference on Chemical Sciences, the Dead Sea, Jordan, 6-10 October 2010.
10. International Symposia on Advancing the Chemical Sciences-Challenges in Organic Chemistry and Chemical Biology (ISACS1). The Fairmont, San Francisco, USA 6-9 July 2010.
11. Pharmaceutical Jordanian International Conference 2008, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan, 15-17 October 2008.
12. Pharmaceutical Jordanian International Conference 2006, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan, November 15-17, 2006.
13. The Tenth Jordanian Pharmaceutical Conference, Radisson Sas Hotel, Amman, Jordan, March 13-16, 2002.
14. First Symposium on Antiviral and Anticancer Agents (2001) Applied Science University, Amman, Jordan, March 2-3, 2001.
15. Ninth Research PROJECT on AIDS (1996) Progress Report, Rome, Italy, January 13-17, 1997.

***Cont. Published Abstracts***

16. Eleventh International Round Table on Nucleosides, Nucleotides and their Biological Applications, La Jolla, California USA, September 15-19, 1996.
17. XIII National Congress in Pharmaceutical Chemistry, Paestum (Salerno), Italy, September 23-27, 1996.
18. XVI Advanced Course in Pharmaceutical Chemistry, Urbino/Italy 2-6 July 1996.
19. II Conjoint Italian-Spanish Congress in Pharmaceutical Chemistry, Ferrara, Italy, August 30-September 3, 1995.
20. XV Advanced Course in Pharmaceutical Chemistry, Urbino/Italy 3-7 July 1995.
21. AIDS PROJECT, Rome, Italy, May 29- June 2, 1995.
22. III Meeting of the Scientific Purine Club, Chieti, Italy, 20-21 October 1994.
23. XI National Congress in Pharmaceutical Chemistry, Bari, Italy, 2-5 October 1994.
24. Eleventh International Round Table on Nucleosides, Nucleotides and their Biological Applications, Katholieke Universiteit Leuven September 7-11, 1994.
25. XIV Advanced Course in Pharmaceutical Chemistry, Urbino/Italy 5-9 September 1994.
26. AIDS PROJECT, Rome, Italy July, 4-8 1994.
27. The VIth International Antiviral Symposium, Acropolis, Nice, France, June 7-10, 1994.
28. Analytical Technique and Organization of the Quality Control Laboratory, Firenze, Italy, May 20, 1994.
29. Seventh International Conference on Antiviral Research, Charlesten, SC., USA 27 February-4 March 1994.
30. Italian Society of General Microbiology and Microbiological Biotechnology XII Scientific Congress, Camerino (MC), Italy September 26-29 1993.
31. Joint Meeting Society for drug research, Queens' College, Cambridge, UK 14<sup>th</sup>-16<sup>th</sup> July 1993.
32. AIDS PROJECT, Orbetello (GR), Italy June 19-23, 1993.
33. Sixth International Conference on Antiviral Research, Venice, Italy April 25-30, 1993.
34. XII Advanced Course in Pharmaceutical Chemistry, Urbino/Italy 9-11 September 1992.
35. JANUACHEM 92: National Congress of the Italian Chemical Society, Genova/Italy 25-30 October 1992.

**NATIONAL AND INTERNATIONAL MEETINGS**

1. Arabic Conference for the Scientific Research Development: Scientific Research between Ambition and Reality, October 25-27, 2015, Landmark Hotel, Amman, Jordan.

***Cont. National and International Meetings***

2. International Pharmaceutical Conference 2015 (ZTIPC 2015). Frontiers in the Pharmaceutical Sciences and Pharmacy Practice: A global perspective, October 21-23, 2015, Al-Zaytoonah University of Jordan, Amman, Jordan. Oral Presentation: From Hit to Lead: Structure-Based Drug Design, Synthesis, and Biological Evaluation of Novel Benzoin Derivatives as PI3K Inhibitors.
3. International Pharmaceutical Conference 2015 (ZTIPC 2015). Frontiers in the Pharmaceutical Sciences and Pharmacy Practice: A global perspective, October 21-23, 2015, Al-Zaytoonah University of Jordan, Amman, Jordan. Oral Presentation: Synthesis and Biological Evaluation of Substituted Fluorinated Benzylamino Benzamides as Potent CETP Inhibitors.
4. First Public Sector Pharmacists Conference: Towards Pharmacy Excellence in Public Sector, Landmark Hotel, June 11-16, 2015, Amman, Jordan.
5. The 15<sup>th</sup> Scientific Congress of the Jordanian Pharmacists Association "Pharmacy Perspectives" an evolving role in community health, Landmark Hotel, April 3-5, 2014, Amman, Jordan.
6. American Association of Colleges of Pharmacy (AACP) Meeting, July, 13-17, 2013 Chicago, IL 60611, USA.
7. The 15<sup>th</sup> Scientific Congress of the Association of the Pharmacy Colleges in the Arab World and the 3<sup>rd</sup> International Conference of Faculty of Pharmacy at the University of Jordan, 9-11 October 2012, Amman, Jordan.
8. The 14<sup>th</sup> Jordanian Pharmaceutical Conference: Contemporary Challenges for the pharmacy profession, Amman, Jordan, 26-28 April 2012.
9. The 1<sup>st</sup> Technosphere 2012 Conference. The 14<sup>th</sup> Annual SACPAW Congress and the 2<sup>nd</sup> International Conference of AUST College of Pharmacy and Health Sciences, 7-9 Feb 2012, AUST, Ajman, UAE.
10. Pharmacy Education: Perspectives of Career Market. Scientific day at the Faculty of Pharmacy, Jordan University, 28/04/2011, Amman, Jordan.
11. The 13<sup>th</sup> Conference of Scientific Association of Colleges of Pharmacy in the Arab World, Misr University for Science and Technology, Hilton Hotel, Six October City, Egypt, 25-28 May 2010.
12. 5<sup>th</sup> International Conference of the Royal Medical Services: Future Directions in Health Care, King Hussein Bin Talal Convention Center, Dead Sea-Jordan, 3-6 May 2010.
13. The 13<sup>th</sup> Jordanian Pharmaceutical Conference, Amman, Jordan, 22-24 April 2010.
14. The 12<sup>th</sup> Conference of Scientific Society of the Faculties of Pharmacy in the Arab World and the 3<sup>rd</sup> conference of pharmaceutical sciences: Future vision in pharmaceutical sciences, Aleppo, Syria, November 5-7, 2008.
15. The 11<sup>th</sup> Conference of Scientific Society of the Faculties of Pharmacy in the Arab World, Tripoli, Libya, December 4-7, 2007.
16. First OTC Conference Organized by Jordanian Association. Amman-Jordan, 1-2/12/2006.
17. The Eleventh Jordanian Pharmaceutical Conference, Meridian Hotel, Amman, Jordan, September 28-30, 2005.

***Cont. National and International Meetings***

18. The Second Annual Scientific Research Day of The College , May 05, 2005, College of Medicine, King Khalid University, Abha, Saudi Arabia.
19. The First Scientific Meeting by Saudi Society for Medical Education, 21-23 November, 2004, Abha, Saudi Arabia.
20. The 2<sup>nd</sup> International Conference of the Royal Jordanian Medical Services, 7-10 October 2003, Amman-Jordan.
21. The 6<sup>th</sup> Scientific Congress of the Association of Colleges of Pharmacy in the Arab World and the 1<sup>st</sup> International Conference of Faculty of Pharmacy and Health Sciences Ajman University of Science and Technology (AUST) (Technosphere 2002), Ajman, UAE, October 19-21, 2002.

**SUMMARY OF RESEARCH FUNDING**

- PI, investigator or co-investigator on total funding of about \$ 1.1 M to date (1999 - present).
- Current
  - Co-investigator, Al-Zaytoonah University Grant (2015-2016; **\$60.000**). Project title: 3-Benzylamino-benzamides: Design, synthesis and biological evaluation as novel CETP inhibitors.
  - Co-investigator, Al-Zaytoonah University Grant (2014-2016; **\$165.000**). Project title: Design, synthesis, and biological assay of novel PI3K $\alpha$  inhibitors.
  - PI: Al-Zaytoonah University Grant (2012-2014; **\$156.000**). Project title: Synthesis and *in vitro* and *in vivo* biological studies of a new series of indole-carboxamide benzophenones as anti-hyperlipidemia.
- Past
  - Co-investigator, Al-Zaytoonah University Grant (2012-2014; **\$183.000**). Project title: Drug design, synthesis and *in vitro* and *in vivo* biological evaluation of quinolines derivatives as CETP inhibitors.
  - PI: Al-Zaytoonah University Grant (2008-2011; **\$282.000**). Project title: Synthesis and biological evaluation of anti-hyperlipidemia agents.
  - PI: Al-Zaytoonah University Grant (2007-2010; **\$99.000**). Project title: Synthesis and *in vivo* evaluation of indole-carboxamide anthraquinone derivatives as anti-hypertriglyceridemia.
  - PI: Al-Zaytoonah University Grant (2006-2007; **\$17.000**). Project title: Synthesis of antiviral acyclic nucleotides.
  - PI: Applied Science University Grant (1999-2003; **\$40.000**). Project title: Synthesis of antiviral acyclic nucleotides.

## TEACHING EXPERIENCE

- Total seventeenth years of classroom and laboratory teaching undergraduate and graduate courses in drug design, organic pharmaceutical and medicinal chemistry; in addition of supervising, co-supervising and external examiner for **25** graduate students (MS and Ph.Ds.).
- Five years of classroom teaching graduate courses in advanced organic pharmaceutical and medicinal chemistry at Al-Zaytoonah University.
- Six years of classroom and laboratory teaching undergraduate courses in organic pharmaceutical and medicinal chemistry at Al-Zaytoonah University.
- One year of classroom and laboratory teaching undergraduate courses in organic pharmaceutical and medicinal chemistry at King Khalid University.
- One year of classroom and laboratory teaching undergraduate courses in organic pharmaceutical and medicinal chemistry at Philadelphia University.
- Five years of classroom and laboratory teaching undergraduate courses in organic pharmaceutical and medicinal chemistry at Applied Science University.

## COURSES TAUGHT

Advanced Medicinal Chemistry (Ms. Students)  
Advanced Organic Pharmaceutical Chemistry (Ms. Students)  
Research Methodologies (Ms. Students)  
Organic Pharmaceutical Chemistry I  
Organic Pharmaceutical Chemistry II  
Medicinal Chemistry II  
Medicinal Chemistry III  
Drug Design  
Principles in Pharmaceutical Research  
Practical Pharmaceutical Research Workshop  
Organic Pharmaceutical Chemistry Lab I  
Organic Pharmaceutical Chemistry Lab II  
Medicinal Chemistry Lab II  
Medicinal Chemistry Lab III  
Principles in Pharmaceutical Research Lab

**GRADUATE STUDENTS (PRIMARY ADVISOR, CO-ADVISOR, AND EXAMINER)**

1. **Shada Alabed** (M. S). Computer Aided Drug Design and Discovery of New Fibroblast Growth Factor Receptor-1 Inhibitors (FGFR-1Is) Followed by *In Vitro* Assay. 2015. Faculty of Pharmacy / Jordan University.
2. **Haneen Kalloush** (M. S). Design, Synthesis and *In Vivo* Biological Evaluation of Modified Indole-2-Carboxamide Derivatives as Anrihyperlipidemic Agents. 2015. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
3. **Haneen Abu Zeid** (M. S). Design, Synthesis and *In Vivo* Biological Evaluation of Imidazole-2-Carboxamide Derivatives as Lipoprotein Lipase Activator. 2015. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
4. **Amira Ibrahim** (M. S). Optimization and Synthesis of Benzoin Derivatives as PI<sub>3</sub>K $\alpha$  Inhibitors. 2015. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
5. **Fatima Al Tarawneh** (M. S). Design, Synthesis and Biological Evaluation of Benzoin Schiff Bases as Antitumor Agents. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
6. **Haneen Mohammad** (M.S). Screening and Size Effect Investigation of Nicotinic Acid Analogues as Potential Carbonic Anhydrase III Inhibitors to Treat Hyperlipemia. 2015. Faculty of Pharmacy / Jordan University.
7. **Khadija Abu Dosh** (M.S). Synthesis, Characterization and Biological Evaluation of Some New Indole-2-Carboxamide Derivatives. 2015. Faculty of Science/Jordan University.
8. **Mervat Sammor** (Ph.D). Computer-Aided Design, Synthesis, and Biological Evaluation of New Indolequinone-3-Carboxamide Derivatives as Anticancer Agents. 2015. Faculty of Science/Jordan University.
9. **Dania Al Kabbani** (M.S). Synthesis and Biological Evaluation of Novel N-Benzoylphenyl-2-Furamide Derivatives. 2015. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
10. **Sarah AlRawashdeh** (M.S). Fluorinated Benzamides: Design, synthesis and biological evaluation as potential CETP inhibitors. 2014. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
11. **Hamada Mansour** (M.S). Synthesis and biological evaluation of substituted fluorinated alkyloxy benzylamino benzenamide as potential CETP inhibitors. 2014. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
12. **Samar Theyab** (M.S). Study of potential interaction between selected pharmaceutical agents in tablets prepared with cyclodextrin. 2013. Faculty of Pharmacy/Jordan University.
13. **Bayan Hishmah** (M.S). Design, synthesis, and biological assay of novel PI3K $\alpha$  inhibitors. 2013. Faculty of Pharmacy/ Al-Zaytoonah University of Jordan.
14. **Mohammed Alhindi** (M.S). Design, Synthesis and biological Evaluation of a New Series of Potential CETP Inhibitors. 2012. Faculty of Pharmacy/Al-Zaytoonah University of Jordan.

**Cont. Graduate Students**

15. **Rawan Alashagar** (M.S). In Vivo Antihyperlipidemic Properties of Novel Pyrrole-2-Carboxamide Derivatives in Triton WE-1339-Induced Hyperlipidemic Rats. 2012. Faculty of Pharmacy/Al-Zaytoonah University of Jordan.
16. **Lubnah Mahmoud** (Ph.D). Synthesis and Biological Screening of Novel h-Fused Heterocycles onto 4-Oxoquinolones; Diazepines and Benzodiazepine. 2011. Faculty of Pharmacy/Jordan University.
17. **Rabab F. Tayyem**. (Ph.D). Discovery and Optimization of new Fructose-1,6-Bisphosphatase (FBP) inhibitors as potential antidiabetic agents . 2011. Faculty of Pharmacy/Jordan University.
18. **Jumanah Al-Shawabkeh** . (M.S). Optimization of new HSL inhibitors Guided by Pharmacophore and QSAR models. 2011. Faculty of Pharmacy / Jordan University.
19. **Mai Taraira** . (M.S). Discovery of new estrogen-receptor B (ERB) selective antagonists as potential anti-inflammatory agen. 2011. Faculty of Pharmacy / Jordan University.
20. **Buthainah Hussein**. (M.S). Preparation and study antihyperlipidemic properties of new benzothiophen-2-carboxamide derivatives. 2009. Faculty of Pharmacy / Jordan University.
21. **Afaf Al Nadaf** (Ph.D).Discovery and optimization of new b-secretase inhibitors as possible treatment for alzheimer's. 2009. Faculty of Pharmacy / Jordan University.
22. **Lorka Al-Zo'ubi** (M.S). Synthesis and antimicrobial evaluation of N-piperazinamide analogues of Ciprofloxacin and Norfloxacin. 2009. Faculty of Pharmacy / Jordan University of Science and Technology (JUST).
23. **Reema Abu Khalaf** (Ph.D). Discovery of new cholesteryl ester transfer protein (CETP) inhibitors via ligand-based pharmacophore modelling and QSAR analysis and subsequent hit optimization. 2009. Faculty of Pharmacy / Jordan University.
24. **Tareq Al-Hraznah** (M.S). Design and Synthesis of Azole Containing Abeitic Acid Derivatives and Their Biological Evaluation. 2009. Faculty of Pharmacy / Jordan University of Science and Technology (JUST).
25. **Lina Dahabeyah** (M.S). Discovery of new Hormone Sensitive Lipase inhibitors via Ligand-based Pharmacophore modeling and QSAR analysis followed by experimental validation. 2008. Faculty of Pharmacy / Jordan University.
26. **Rufaida Al- Zoubi** (M.S).Synthesis and antibacterial evaluation of novel 8-nitro-fluoroquinolone derivatives. 2008. Faculty of Pharmacy / Jordan University.
27. **Reema Ottom** (M.S). Preparation of novel matrices based on composites of alginate/small molecule carboxylic acid derivatives via ionotropic crosslinking using zinc(II) and their evaluation as sustained release formulations using methylene blue as loaded drug model .(2008). Faculty of Pharmacy / Jordan University.
28. **Rushdi Abu Hamdah** (M.S). Modeling the Pharmacophoric Properties of the Skin Pigmentation Enzyme "Tyrosinase" followed by *in-silico* and *in-vitro* screening for new hits. 2007. Faculty of Pharmacy / Jordan University.
29. **Areej Abu Hammad** (M.S). Combining Docking, Scoring and Molecular Field Analysis to Probe Influenza Neuraminidase-Ligand Interactions. (December 2006) 2006. Faculty of Pharmacy/Jordan University.
30. **Anas Al Mazari** (M.S). Synthesis of Qinolones analogues with potential antibacterial activity. (December 2005). Faculty of Pharmacy at the Jordan University.

***Cont. Graduate Students***

31. **Dima Azzam** (M.S). Synthesis of Nitro-furan derivatives of potential antibacterial activity. (July 2003) Faculty of Pharmacy at the Jordan University.
32. **Rami Al Hourani** (M.S). Synthesis of Acyclic Nucleoside Phosphonate Prodrugs of Potential Antiviral Activity. (2001-2003), Faculty of Pharmacy / Jordan University.

**SERVICE***Professional activities*

- Chairman of Organizing Committee in the preparation of Faculties of Pharmacy at Al-Zaytoonah University of Jordan and The University of Toledo International Pharmaceutical Conference 2015 (ZTIPC 2015). Frontiers in the Pharmaceutical Sciences and Pharmacy Practice: A global perspective, October 21-23, 2015, Al-Zaytoonah University of Jordan, Amman, Jordan.
- Editorial Board of Jordan Journal of Pharmaceutical Sciences, 2014-present.
- Member of American Association of Colleges of Pharmacy (AACCP) 2013-2014.
- Member of Scientific Committee Arab Union of the Manufactures of Pharmaceuticals and Medical Appliances. Amman, Jordan, November 2012-present.
- Chairman of Organizing Committee in the preparation of Faculties of Pharmacy at Al-Zaytoonah University of Jordan and The University of Toledo International Pharmaceutical Conference (ZTIPC 2012), 17-19 October 2012, Amman, Jordan.
- Institutional Review Board (IRB) Member at ACDIMA Center for Bioequivalence and Pharmaceutical Studies. Amman, Jordan, May 2012-present.
- Chairman of Organizing Committee in the preparation of Pharmaceutical Jordanian International Conference 2010, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan, October 20-22, 2010.
- Advisory member and Reviewer for Jordan Journal of Pharmaceutical Sciences.
- Referee for Promotion to Associate and Full Professor Ranks.
- Chairman of Organizing Committee in the preparation of Pharmaceutical Jordanian International Conference 2008, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan, October 15-17, 2008.
- Reviewer and Referee for Archiv Der Pharmazie International Journal.
- Chairman of Organizing Committee in the preparation of Pharmaceutical Jordanian International Conference 2006, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan, November 15-17, 2006.
- Organizing Committee of the First Symposium on Antiviral and Anticancer agents (2001) Applied Science University, Amman, Jordan, March 29, 2001.
- Membership of Professor Mario Grifantini Research Group in AIDS PROJECT supported by the Istituto Superiore di Sanita`, Ministry of Health, Rome, Italy from 1992-1998.



*Al-Zaytoonah University of Jordan, Applied Science University and community activities*

- Deans' Council member from 2002 – 2003 and from 2005 – present.
- Membership in the following Committees:
  - Postgraduate Studies Council from 2011-present
  - Postgraduate Studies Committees from 2011 – present.
  - Scientific Research Committee from 2000 – 2003 and from 2006 – 2010.
  - Matriculation Committee from 1998 – 2001.
  - Students Affair and Exams Committee from 1999 – 2001.
  - Central and Branch Committee of Penalty from 2000 – 2001.
  - Library Committee from 2005 – 2007.
  - Appointment and Promotion Committee from 2001 – 2003 and from 2011 – present.
  - Students Elections Committee from 2000 – 2003 and from 2005 – present.
  - Member in the University Council from 2000 – 2003 and from 2005 – present.

*Community Service*

- Chairman of Health Care and Medical Servicing Day: providing counselling and dispensing medicines to poor families and refugees in one day servicing community by colleagues from the College of Pharmacy. It is one of the College of Pharmacy's staff and teaching assistant's activity through providing service to local community people and it will be done three times up to four per year.
- Receiving Students from High Secondary Schools each semester annually. The Dean should talk and explain to the visitors the curriculum of the pharmacy program, duration and important requirements to access to the course in addition to a tour in the pharmacy labs. Also, the visitors should have been given an idea about the pharmacy profession and the important role of the pharmacist in the health care system in the community.