CV of Mohammad Khanfar

Education and Experience

2017 – Present Associate Professor of Drug Design and Medicinal Chemistry, College of Pharmacy, Alfaisal University.

2015 – Present Visiting Scholar in Prof. Holger Stark lab. at the Institute of Pharmaceutical and Medicinal Chemistry, Heinrich Heine University Düsseldorf, Germany, sponsored by Alexander von Humboldt Foundation.

2013 – Present Adjunct Professor at College of Pharmacy, University of Louisiana at Monroe, Monroe, USA

2016 – Present Associate Professor of Medicinal Chemistry and Drug Design, Department of Pharmaceutical Sciences, Faculty of Pharmacy, University of Jordan.

2011 – 2016 Assistant Professor of Medicinal Chemistry and Drug Design, Department of Pharmaceutical Sciences, Faculty of Pharmacy, University of Jordan.

2010 – 2011 NIH Postdoctoral Fellow of Professor Richard B. Silverman (the inventor of Lyrica®), Center of Molecular Innovation and Drug Discovery (CMIDD), Department of Chemistry, Northwestern University, Chicago, USA.

2007 – **2010**: PhD in Medicinal Chemistry and Drug design, College of Pharmacy, University of Louisiana at Monroe, GPA 3.91/4.00, Thesis title: "Computer-Assisted Design and Discovery of Actin Polymerization and GSK-3β Inhibitors based on Marine Natural Products".

2005 – **2007**: MSc in Pharmaceutical Science, College of Pharmacy, University of Jordan, GPA 4.00/4.00, Thesis title: "Preparation and Characterization of Organic salts of Valproic Acid".

1999 – **2004** BSc Pharmacy, College of Pharmacy, University of Jordan, GPA: 3.80/4.00.

Publications

1) **Mohammad A Khanfar,** Mutasem Taha **(2017):** Unsupervised pharmacophore modeling combined with QSAR analyses revealed novel low micromolar SIRT2 inhibitors. Journal of Molecular Recognition, Accepted. DOI: 10.1002/jmr.2623.

2) Haneen Khaled Mohammad, Muhammed H. Alzweiri, **Mohammad A Khanfar,** Yusuf Al-Hiari **(2017)**: 6-Substituted nicotinic acid analogues, potent inhibitors of CAIII, used as therapeutic candidates in hyperlipidemia and cancer. Medicinal Chemistry Research, 26 (7): 1397–1404.

3) **Mohammad A. Khanfa**r, Fahmy Banat, Shada Alabed, Saja Alqtaishat **(2017)**: Discovery of potent NEK2 inhibitors as potential anticancer agents using structure-based exploration of NEK2 pharmacophoric space coupled with QSAR analyses. Molecular Diversity, 21: 187.

4) Wafa A Mera, Malek Alzihlif, Mutasem O Taha, **Mohammad A. Khanfar (2017)**: Discovery of Potent Bruton's Tyrosine Kinase Inhibitors Using Ligand Based Modeling. Anti-Cancer Agents in Medicinal Chemistry, 17(2):265-275.

5) Sara Al-Marabeh, Enam Khalil, **Mohammad A. Khanfar**, Amal G. Al-Bakri, Muhammed Alzweiri **(2017)**: A prodrug approach to enhance azelaic acid percutaneous availability. Pharmaceutical Development and Technology, 22 (4): 578-586.

6) Shada J. Alabed, **Mohammad Khanfar**, Mutasem O. Taha **(2016)**: Computer-Aided Discovery of new FGFR-1 Inhibitors followed by In vitro Validation. Future Medicinal Chemistry, 8(15):1841-1869.

7) **Mohammad A. Khanfar,** Saja Al-Qtaishat, Maha Habash, Mutasem O. Taha **(2016)**: Discovery of potent adenosine A2a antagonists as potential anti-Parkinson disease agents. Non-linear QSAR analyses integrated with pharmacophore modeling, Chemico-Biological Interactions, 254:93-101.

8) **Mohammad A. Khanfar,** Anna Affini, Kiril Lutsenko, Katarina Nikolic, Stefania Butini, Holger Stark **(2016):** Multiple Targeting Approaches on Histamine H3 Receptor Antagonists. Frontiers in Neuroscience, 10:201

9) Jarrar, N., Alzweiri1, M., Al-Hiari1, Y., Farah, S., **Khanfar, M. A. (2015):** Modified Hummel–Dreyer method and Molecular Modeling Studies Identified Nicotinic Acid Analogues as Carbonic Anhydrase III Ligands. Letters in Drug Design & Discovery, 12 (10): 401-410.

10) **Khanfar, M. A.,** Bardaweel, S. K., Akl, M. R. El Sayed, K. A. **(2015):** Olive Oil-derived Oleocanthal as Potent Inhibitor of Mammalian Target of Rapamycin: Biological Evaluation and Molecular Modeling Studies. Phytotherapy Research, 29 (11):1776-82.

11) Jaradat, N. J, **Khanfar, M. A**., Habash, M., Taha, M. O. (**2015**): Combining docking-based comparative intermolecular contacts analysis and k-nearest neighbor correlation for the discovery of new check point kinase 1 inhibitors. Journal of Computer-Aided Molecular Design, 29, 561-581.

12) **Khanfar, M. A**., Quinti, L., Wang, H., Nobles, J., Kazantsev, A. J., Silverman, R. B. (**2015**): Design and Evaluation of 3-(Benzylthio)benzamide Derivatives as Potent and Selective SIRT2 Inhibitors. ACS Medicinal Chemistry Letters 6, 607–611.

13) Alzweiri, M., **Khanfar, M. A**., Al-Hiari, Y. (**2015**): Variation in GC-MS responses between analytes and deuterated analogues. Chromatographia, 78, 251-258.

14) Taha, M. O., **Khanfar, M. A.** (**2015**): Oleuropein Potently Inhibits Mammalian Target of Rapamycin: Possible Involvement of Tandem Anomeric Hyperconjugation–Michael Reaction. Medicinal Chemistry Research. 24, 616-623.

15) Taha, M. O., A.Al-Sha'er, M., **Khanfar, M. A.** (**2014**): Discovery of Nanomolar Phosphoinositide 3-kinase gamma (PI3Kγ) Inhibitors Using Ligand-Based Modelling and Virtual Screening followed by In Vitro Analysis. . European Journal Of Medicinal Chemistry 84, 454–465

16) Taha, M. O., Habash, M., **Khanfar, M. A.** (**2014**): The use of docking-based comparative intermolecular contacts analysis to identify optimal docking conditions within glucokinase and to discover of new GK activators. Journal of computer-aided molecular design 28, 509-547.

17) **Khanfar, M. A.,** Quinti, L., Wang, H., Choi, S. H., Kazantsev, A. G., Silverman, R. B. (**2014**): Development and characterization of 3-(benzylsulfonamido)benzamides as potent and selective SIRT2 inhibitors. European journal of medicinal chemistry 76, 414-426.

18) Al-Sha'er, M. A., **Khanfar, M. A**., Taha, M. O., (**2014**): Discovery of novel urokinase plasminogen activator (uPA) inhibitors using ligand-based modeling and virtual screening followed by in vitro analysis. Journal of molecular modeling 20, 2080.

19) Abulateefeh, S. R., **Khanfar, M. A.,** Al Bakain, R. Z., Taha, M. O. (**2014**): Synthesis and characterization of new derivatives of alginic acid and evaluation of their iron(III)-crosslinked beads as potential controlled release matrices. Pharmaceutical development and technology 19, 856-867.

20) **Khanfar, M. A.,** Taha, M. O. (**2013**): Elaborate ligand-based modeling coupled with multiple linear regression and k nearest neighbor QSAR analyses unveiled new nanomolar mTOR inhibitors. Journal of chemical information and modeling 53, 2587-2612.

21) Alzweiri, M., Tarawneh, R., **Khanfar, M. A**. (**2013**): Gas chromatography/trace analysis of derivatized azelaic acid as a stability marker. Journal of separation science 36, 3200-3205.

22) Eterovic, V. A., Del Valle-Rodriguez, A., Perez, D., Carrasco, M., **Khanfar, M. A.,** El Sayed, K. A., Ferchmin PA (**2013**): Protective activity of (1S,2E,4R,6R,7E,11E)-2,7,11-cembratriene-4,6-diol analogues against diisopropylfluorophosphate neurotoxicity: preliminary structure-activity relationship and pharmacophore modeling. Bioorganic & medicinal chemistry 21 (15):4678-4686.

23) **Khanfar, M. A.,** AbuKhader, M. M., Alqtaishat, S., Taha, M. O. (**2013**): Pharmacophore modeling, homology modeling, and in silico screening reveal mammalian target of rapamycin inhibitory activities for sotalol, glyburide, metipranolol, sulfamethizole, glipizide, and pioglitazone. Journal of molecular graphics & modelling 42:39-49.

24) **Khanfar, M. A.,** El Sayed, K. A. (**2013**): The Veratrum alkaloids jervine, veratramine, and their analogues as prostate cancer migration and proliferation inhibitors: biological valuation and pharmacophore modeling. Medicinal Chemistry Research 22: 4775-4786.

25) Hassan, H. M., Elnagar, A. Y., **Khanfar, M. A.,** Sallam, A. A., Mohammed, R., Shaala, L. A., Youssef, D. T., Hifnawy, M. S., El Sayed, K. A. (**2011**) Design of semisynthetic analogues and 3D-QSAR study of eunicellin-based diterpenoids as prostate cancer migration and invasion inhibitors. European journal of medicinal chemistry 46:1122-1130.

26) Baraka, H. N., **Khanfar, M. A**., Williams, J. C., El-Giar, E. M., El Sayed, K. A. (**2011**): Bioactive natural, biocatalytic, and semisynthetic tobacco cembranoids. Planta medica 77:467-476.

27) Mudit, M., **Khanfar, M**., Shah, G. V., Sayed, K. A. (**2011**): Methods for evaluation of structural and biological properties of antiinvasive natural products. In: Methods in Molecular Biology. Drug Design and Discovery, Ed. Satyanarayanajois, S, D. (Humana Press) 55-71.

28) Abraham, I., Jain, S., Wu, C. P., **Khanfar, M. A.**, Kuang, Y., Dai, C. L., Shi, Z., Chen, X., Fu, L., Ambudkar, S. V., El Sayed, K., Chen, Z. S. (**2010**): Marine sponge-derived sipholane triterpenoids reverse P-glycoprotein (ABCB1)-mediated multidrug resistance in cancer cells. Biochemical pharmacology 80:1497-1506.

29) **Khanfar, M. A.,** Hill, R. A., Kaddoumi, A., El Sayed, K. A. (**2010**): Discovery of novel GSK-3beta inhibitors with potent in vitro and in vivo activities and excellent brain permeability using combined ligand- and structure-based virtual screening. Journal of medicinal chemistry 53:8534-8545.

30) **Khanfar, M. A.,** El Sayed, K. A. (**2010**): Phenylmethylene hydantoins as prostate cancer invasion and migration inhibitors. CoMFA approach and QSAR analysis. European journal of medicinal chemistry 45:5397-5405.

31) **Khanfar, M. A.,** Youssef, D. T., El Sayed, K. A. (**2010**): 3D-QSAR studies of latrunculin-based actin polymerization inhibitors using CoMFA and CoMSIA approaches.

European journal of medicinal chemistry 45:3662-3668.

32) Hassan, H. M., **Khanfar, M. A.,** Elnagar, A. Y., Mohammed, R., Shaala, L. A., Youssef, D. T., Hifnawy, M. S., El Sayed, K. A. (**2010**): Pachycladins A-E, prostate cancer invasion and migration inhibitory Eunicellin-based diterpenoids from the red sea soft coral Cladiella pachyclados. Journal of natural products 73:848-853.

33) Abdel Bar, F. M., **Khanfar, M. A**., Elnagar, A. Y., Badria, F. A., Zaghloul, A. M., Ahmad, K. F., Sylvester, P. W., El Sayed, K. A. (**2010**): Design and pharmacophore modeling of biaryl methyl eugenol analogs as breast cancer invasion inhibitors. Bioorganic & medicinal chemistry 18:496-507.

34) **Khanfar, M. A.,** Youssef, D. T., El Sayed, K. A. (**2010**): Semisynthetic latrunculin derivatives as inhibitors of metastatic breast cancer: biological evaluations, preliminary structure-activity relationship and molecular modeling studies. ChemMedChem 5:274-285.

35) Bar F. M., **Khanfar, M. A.**, Elnagar, A. Y., Liu, H., Zaghloul, A. M., Badria, F. A., Sylvester, P. W., Ahmad, K. F., Raisch, K. P., El Sayed, K. A. (**2009**): Rational design and semisynthesis of betulinic acid analogues as potent topoisomerase inhibitors. Journal of natural products 72:1643-1650.

36) **Khanfar, M. A.,** Asal, B. A., Mudit, M., Kaddoumi, A., El Sayed, K. A. (**2009**): The marine natural-derived inhibitors of glycogen synthase kinase-3beta phenylmethylene hydantoins: In vitro and in vivo activities and pharmacophore modeling. Bioorganic & medicinal chemistry 17:6032-6039.

37) Shah, G. V., Muralidharan, A., Thomas, S., Gokulgandhi, M., Mudit, M., **Khanfar, M**., El Sayed, K. (**2009**): Identification of a small molecule class to enhance cell-cell adhesion and attenuate prostate tumor growth and metastasis. Molecular cancer therapeutics 8:509-520.

38) Mudit, M., **Khanfar, M.,** Muralidharan, A., Thomas, S., Shah, G. V., van Soest, R. W., El Sayed, K. A. (**2009**): Discovery, design, and synthesis of anti-metastatic lead phenylmethylene hydantoins inspired by marine natural products. Bioorganic & medicinal chemistry 17:1731-1738.

39) El Sayed, K. A., **Khanfar, M. A.,** Shallal, H. M., Muralidharan, A., Awate, B., Youssef, D. T., Liu, Y., Zhou, Y. D., Nagle, D. G., Shah, G. (**2008**): Latrunculin A and its C-17-O-carbamates inhibit prostate tumor cell invasion and HIF-1 activation in breast tumor cells. Journal of natural products 71:396-402.

Patents

1) Silverman, R. B., Wang, H., **Khanfar, M. A.**: Benzamide Compounds and Related Methods of Use. Submitted as: U. S. Patent (Application No 14292087, provisionally filed

on December 21, 2012).

2) El Sayed, K. A., **Khanfar, M. A**.: Latrunculin-Based Macrolides and Their Uses. U. S. patent (Application No US20110136880 A1, application date 09.06.2011).

Book Chapter

Mudit, M., **Khanfar, M**., Shah, G. V., Sayed, K. A. (**2011**): Methods for evaluation of structural and biological properties of antiinvasive natural products. In: Methods in Molecular Biology. Drug Design and Discovery, Ed. Satyanarayanajois, S, D. (Humana Press) 55-71.

Awards

1) The Outstanding research award of 2014 in the field of pharmacy and medicine, Scientific Research Support Fund (SRF), Ministry of Higher Education, Amman, Jordan, January **2016**.
2) The world academy of sciences (TWAS) Young Affiliate Fellow, Trieste, Italy, **2015-2019**
3) Georg Forster Research Fellowship (HERMES) for Experienced Research sponsored by Alexander von Humboldt Foundation, Germany, March **2015**.
4) American Chemical Society (ACS), Travel Award from the Division of Biological Chemistry to attend Anaheim ACS National meeting, Anaheim, California, **2011**.
5) Outstanding Graduate Student Award, College of Pharmacy, University of Louisiana at Monroe, **2011**.
6) Graduate Student Symposium Awards in Drug Design and Discovery, American Association of Pharmaceutical Sciences (AAPS), New Orleans, LA, **2010**.
7) ULM 9th Annual Student Research Symposium, April 21, **2009**, Monroe, LA. Third place winner, graduate student seminar.
8) ULM 8th Annual Student Research Symposium, April 30, **2008**, Monroe, LA. Third place winner, graduate student poster.

Selected Podium Presentation

1) Mohammad Khanfar, New Virtual Methodology Identified New mTOR Inhibitors as Potential Anticancers, TWAS 11th Annual Meeting Green Economy: A Road Map for Sustainable Development and Poverty Reduction in the Arab Region, Alexandria, Egypt, 16–17 December 2015
2) Mohammad Khanfar, Pharmacophore Modeling Coupled with QSAR Analyses Unveiled New mTOR Inhibitors from the NCI, Drug, and Natural-Product Databases, TWAS 26th General Meeting & Regional Meetings, Vienna, Austria, 18-21 November 2015
3) Mudit, M. Mohammad Khanfar, Bhushan Awate, Girish Shah, Khalid El Sayed. Novel marine -derived leads for metastatic prostate cancer. 8th Annual Student Research Symposium, ULM, Monroe, LA, April 30, 2008.
4) Mohammad A. Khanfar, Diaa T. A. Youssef, and Khalid A. El Sayed. Latruculin A and

its C-17-O-Carbamates as Potent Anti-invasive Prostae Cancer Leads. The 35th Annual MALTO Medicinal Chemistry-Pharmacognosy Meeting, May 18-20, 2008, Little Rock, AR.

5) Mudit M, Khanfar M, Awate B, Shah GV, El Sayed KA. Novel marine-derived leads for metastatic prostate cancer. The 35th Annual MALTO Medicinal Chemistry-Pharmacognosy Meeting, May 18-20, 2008, Little Rock, AR.

6) Mohammad A. Khanfar, Diaa T. A. Youssef, and Khalid A. El Sayed. Rationale Design of Semisynthetic Latrunculin Analogs as Inhibitors for Metastatic Breast Cancer, Preliminary Structure Activity Relationship, and Three- Dimensional Quantitative Structure-Activity Relationship (3D QSAR) Studies. The 36th Annual MALTO Medicinal Chemistry-Pharmacognosy Meeting, May 17-19, 2009, Memphis, TN.

7) Mudit M, Khanfar M, Muralidharan A, Thomas S, Shah GV, El Sayed KA. Phenylmethylene hydantoin analogues: Promising leads for the treatment of metastatic prostate cancer. ULM 9th Annual Research Symposium, Apr 21, 2009, Monroe, LA.

8) Mohammad A. Khanfar, Diaa T. A. Youssef and Khalid A. El Sayed. Rationale Design of Semisynthetic Latrunculin Analogs as Inhibitors for Metastatic Breast Cancer, Preliminary Structure-Activity Relationship, and Three- Dimensional Quantitative Structure-Activity Relationship (3D QSAR) Studies. ULM 9th Annual Research Symposium, Apr 21, 2009, Monroe, LA.

9) Mudit M, Khanfar M, Muralidharan A, Thomas S, Shah GV, El Sayed KA. Phenylmethylene hydantoins and their anti-metastatic potential against advanced prostate cancer. The 36th Annual MALTO Medicinal Chemistry-Pharmacognosy Meeting, May 17-19, 2009, Memphis, TN.

10) Mudit M, Khanfar M, Muralidharan A, Thomas S, Shah GV, El Sayed KA. Discovery, design, and synthesis of anti-metastatic lead phenylmethylene hydantoins. American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Nov 8-12, 2009, Los Angeles, CA.

11) Mohammad Khanfar, Ronald Hill, Amal Kaddoumi, Khalid El Sayed. Computer-Assisted Discovery, Design, Synthesis, In Vitro, and In Vivo Evaluations of Highly Potent and Selective Inhibitors of Glycogen Synthase Kinase-3β. American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Nov 13-18, 2010, New Orleans, LA.

Selected Poster Presentations

1) Mohammad Khanfar, Design and Synthesis of Oxadiazole-Derived H3 antagonist/Reversed Antagonist: Therapeutic Candidates for Neuronal Diseases, Network Meeting of the Alexander von Humboldt Foundation Augsburg, Germany, 28 - 30 October 2015

2) Mohammad A. Khanfar, Mutasem Taha. Genetic Algorithm-Based K Nearest Neighbour and Multiple Linear Regression QSAR Modelling Coupled with Elaborate Pharmacophore Exploration followed by In Silico Screening Unveiled Low Nanomolar New mTOR Inhibitory Leads. American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Nov 10-14, 2013, San Antonio, TX, USA.

3) Mohammad Khanfar, Mudit Mudit, Bhushan Awate, Girish Shah, Khalid El Sayed. Computer-Assisted Design of Novel Inhibitors for Metastatic Prostate Cancer. 6th Annual Louisiana Biomedical Research Network Meeting. January 25-27, 2008. New Orleans, LA.

4) Mohammad Khanfar, Mudit Mudit, Bhushan Awate, Girish Shah, Khalid El Sayed. Computer-Assisted Design of Novel Inhibitors for Metastatic Prostate Cancer. 8th Annual Student Research Symposium, ULM, Monroe, LA, April 30, 2008.

5) Dalia Abdelhalim, Hany Baraka, Mohammad Khanfar, Ahmed Orabi, Girish Shah, Khalid El Sayed. Ratinale-design of anti-invasive 4-O-methyl-2, 7,11- cembratriene-4-6-diol. 8th Annual Student Research Symposium, ULM, Monroe, LA, April 30, 2008.

6) Mohammad Khanfar, Mudit Mudit, Bhushan Awate, Girish Shah, Khalid El Sayed. Computer-assisted design of novel latrunculin inhibitors for metastatic prostate cancer. Marine Natural Products Gordon Research Conference, February 2008, Ventura, CA.

7) El Sayed K, Khanfar M. Muralidharan A. Awate B. Youssef D. Girish S. Targeting cytoskeleton signaling in cancer: Rationale design of semisynthetic latrunculin analogs as inhibitors for metastatic prostate cancer. American Association for Cancer Research Annual Meeting, April 12-16, 2008, Los Angeles California.

8) Mudit M, Khanfar M, Muralidharan A, Thomas S, Shah GV, El Sayed KA. Discovery, design, and synthesis of anti-metastatic lead phenylmethylene hydantoins. American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Nov 8-12, 2009, Los Angeles, CA.

9) Shah GV, Muralidharan A, Shibu T, Mudit M, Khanfar M, El Sayed KA. Identification of a small molecule(s) class to augment cell-cell adhesion and attenuate prostate tumor growth and metastasis. American Association for Cancer Research. 100th Annual Meeting, April 18-22, 2009, Denver, CO.

10) Mudit M, Khanfar M, Awate B, Shah GV, El Sayed KA. Optimization of novel marine-derived leads as potential treatment for metastatic prostate cancer. 6th Louisiana Biomedical Research Network Meeting, January 25-27, 2008, New Orleans, LA.

11) El Sayed KA, Khanfar M, Mudit M, Baraka H, Awate B, Shah GV. Discovery, design, synthesis, and development of new leads for treatment of metastatic prostate cancer inspired by marine natural products. 6th Louisiana Biomedical Research Network Meeting, January 25-27, 2008, New Orleans, LA.

12) Mohammad Khanfar, Ronald Hill, Amal Kaddoumi, Khanlid El Sayed. Computer-Assisted Discovery, Design, Synthesis, In Vitro, and In Vivo Evaluations of Highly Potent and Selective Inhibitors of Glycogen Synthase Kinase-3β. American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Nov 13-18, 2010, New Orleans, LA.

Teaching Experience

1) Medicinal Chemistry I.

2) Medicinal Chemistry II

3) Medicinal Chemistry III

4) Pharmaceutical Analytical Chemistry.

5) Advanced Organic Chemistry.
6) Pharmaceutical Organic Chemistry.
7) Pharmaceutical Instrumental Analysis.

Advising of Graduate Students:

1) Co-advisor of the master student Safa'a Amaireh, thesis title: The use of ligand – based modeling followed by in vitro assay for the discovery of new Spleen Tyrosine Kinase inhibitors.
2) Major advisor of the master student Shada Alabed, thesis title: Computer aided drug design and discovery of new Fibroblast Growth Factor Receptor 1 inhibitors (FGFR1) followed by in vitro assay.
3) Co-advisor of the master student Layth Shdeifat, thesis title: The use of computer aided ligand-based modeling followed by in vitro assay for the discovery of new Epidermal Growth Factor Receptor (EGFR) inhibitors.
4) Major advisor of the master student Wafa'a Mera, thesis title: Discovery of new agents for B cell Malignancies and Inflammatory Diseases as Bruton's Tyrosin Kinase inhibitors via ligand-based pharmacophore modeling, structure-based modeling, QSAR analysis and in vitro validation.
5) Co-advisor of the master student Sara Maraba, thesis title: Prodrug approach to enhance percutaneous absorption of Azelaic acid.
6) Co-advisor of the master student Rasha Bashatwah, thesis title: Towards the discovery of new inhibitors against the highly conserved protein ppk1 followed by validation against relevant bacterial species.

Funded Research Projects

1) Project Tile: "Design and discovery of new Mammalian Target of Rapamycin (mTOR) inhibitors". (JOD14,600, Deanship of Academic research, University of Jordan-2011).
2) Project Tile: "Design and discovery of new SIRT2 inhibitors with significant therapeutic application in Alzheimer's, Parkinson's and Huntington Diseases." (JOD 5,000, Deanship of Academic research, University of Jordan-2013).
3) Project title:" Purification of Pathogenesis Determinant Proteins for the Identification of Novel Antimicrobial Targets: Polyphosphate Kinase 1 Active Site Characterization". (JOD129000, Scientific Research Support Fund, The Ministry of Higher Education, Jordan-2014).
4) Project Tile: "Reliance on Molecular Dynamics Simulation Implemented on a Single Ligand-Protein Complex for Development of Valid Pharmacophore Model(s): Protein Kinase C Theta as a case study". (JOD 25,000, Deanship of Academic research, University of Jordan-2015).

5) Project title: **"**Preparation of new thermo-responsive PLGA-polyether amine nanoparticles for drug delivery applications**"** (JOD 27,000, Deanship of Academic research, University of Jordan-2015).

Member in Professional Organizations

- American Chemical Society (ACS).
- American Association of Pharmaceutical Sciences (AAPS).
- Jordan Pharmaceutical Association.
- Bioequivalence committee in Jordanian Food and Drug Administration (JFDA).
- Quality Control committee in Jordanian Food and Drug Administration (JFDA).