**Curriculum Vitae for Hiba M. Zalloum**

Hiba M. Zalloum

Researcher

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**Education:**

* M.Sc. in ***Chemistry,*** The University of Jordan, Amman Jordan. GPA 3.50 out of 4.00 with "*Prof. M. Mubarak*" as a thesis supervisor on a project entitled:

*"Chelation and Isothermal Behavior of Copper (II) Ions with Chitosan-Derived Schiff-Base"*

* B.Sc. in ***Chemistry*** from Petra University, Amman Jordan. GPA 3.89 out of 4.00 (Top of class)

**Professional Experience and Training:**

***Feb 2010-current*** ***Researcher*** at Hamdi Mango Center for Scientific Research, The University of Jordan from.

***Sept 2009 to Jan 2010 Part time lecturer*** at the Chemistry Department, The University of Jordan. For one semester.

***Oct. 2004 to July 2009 Research Assistant***, Dept. of Pharmaceutical Sciences, Drug Design and Discovery Unit, Faculty of Pharmacy, University of Jordan from Oct. 2004 to July 2009 with "*Prof Mutasem Taha*" Where I worked on Molecular Modeling & Drug Discovery researches. I've participated in many different researches containing different modeling techniques including: *“Pharmacophore Modeling, QSAR-analysis, Receptor Surface Analysis (RSA), CoMFA, Docking & Scoring"*

***Oct. 2003 - Dec 2004 Teaching Assistant*** in Analytical and General Chemistry laboratories, Chemistry Department, The University of Jordan for 3 consequetive semesters during my M.Sc. studies.

**Research Interests**

* Molecular modeling studies towards the discovery and design of new biologically active compounds employing novel studies focused on pharmacophore modeling, 3D-QSAR and traditional QSAR models, docking studies and in-silico screening. These efforts include development of novel molecular modeling strategies of enhanced success rates.
* Application of computer-aided molecular design techniques and molecular modeling studies towards the discovery and design of new biologically active compounds. Special emphasis on developing new agents with cancer and hypoglycemic/hypolipidemic dual activities for the management of diabetes.
* Synthesis of new compounds with expected anti-cancer effect and testing them on cancer cells.
* Synthesis of new chelating polymers or modification natural polymers that may have applications in the removal of heavy metal ions from the aquatic environment that could be very effective in removing heavy metal ions from aqueous solutions.

**Patents:**

* “A PHARMACEUTICAL COMPOSITION, AND THE USE THEREOF FOR THE TREATMENT OF CANCER”**, Hiba Zalloum** and Malek Zihlif. Filed PCT application in 22nd January 2022, published 27th July 2023, International publication number (WO 2023/139627 A1)

**Fellowships:**

* Leaders in Innovation Fellowships Global 2023 Program **(LIF Global 2023)**, In collaboration with The Royal Academy of Engineering, UK.

**HonorAwards:**

1. AL-Najah University 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".

**Professional Publications (International journals)**:

* “Metal complexes of Schiff bases prepared from quino-line-3-carbohydrazide with 2-nitrobenzaldehyde, 2-chlorobenzaldehyde and 2,4-dihydroxybenzaldehyde: structure and biological activity” Mahmoud Sunjuk, Lana Al-Najjar, Majed Shtaiwi, Bassam El-Eswed, Kamal Sweidan, Paul Bernhardt, **Hiba Zalloum** and Luay Al-Essa. Inorganics 2023, 11(10), 412.
* “Anti-Proliferative Effect of Potential LSD1/CoREST Inhibitors Based on Molecular Dynamics Model for Treatment of SH-SY5Y Neuroblastoma Cancer Cell Line”**, Hiba Zalloum**, Waleed Zalloum, Tareq Hameduh, Husam ALSalamat, Malek Zihlif. Asian Pacific Journal of Cancer Prevention, 2022, 23(10), 3533-3540.
* “1,4-Napthoquinone Is a Potent Inhibitor of IRAK1 Kinases and the Production of Inflammatory Cytokines in THP 1 Differentiated Macrophages”, Ismail Sami Mahmoud, Ma’mon M. Hatmal, Duaa Abuarqoub, Ezaldeen Esawi, **Hiba Zalloum**, Suha Wehaibi, Hamdi Nsairat, and Walhan Alshaer. ACS Omega 2021, 6, 39, 25299–25310.
* “Coffee Bean Polyphenols Can Form Biocompatible Template-freeAntioxidant Nanoparticles with Various Sizes and Distinct Colors”, Suhair Sunoqrot\*, Eveen Al- Shalabi, Amal G. Al-Bakri, **Hiba Zalloum**, Bashaer Abu-Irmaileh, Lina Hasan Ibrahim, and Huda Zeno, *ACS Omega* 2021, 6, 4, 2767–2776.
* “Fluoroquinolones as a Potentially Novel Claass of Antidiabesity and Anti Proliferative Compounds: Synthesis and Docking Studies" Kasabri, violet; ARABIYAT, SHEREEN; Al-Hiari, Yusuf; **Zalloum, Hiba**; Almaliti, Jehad; telfah, ahmad; Bustanji, Yasser Kh; alawi, Sundos. Canadian Journal of Chemistry, 2020, 98(10), pp. 635-645.
* “Comparative anti-proliferative effects of potential HER2 inhibitors on a panel of breast cancer cell lines” **Hiba Zalloum**, Tareq Hameduh, Tuka AbuThiab, Sara AlBayyari, Waleed Zalloum, Basha'er Abu- Irmaileh, Mohammad S. Mubarak, Malek Zihlif. Breast Cancer, 2020, 27(2), 213-224.
* “Nature-inspired Polymerization of Quercetin to Produce Antioxidant Nanoparticles with Controlled Size and Skin Tone Matching Colors” Suhair Sunoqrot, Eveen Al-Shalabi, Lina Hasan Ibrahim, **Hiba Zalloum**. Molecules (Nanochemistry), 2019, 24(21), 3815.
* “Anti-proliferative effect of potential LSD1/CoREST inhibitors based on molecular dynamics model for treatment of SH-SY5Y neuroblastoma cancer cell line”**, Hiba Zalloum**, Waleed Zalloum\*, Tareq Hameduh, Ahmed Sadaalhanjori, Malek Zihlif. Proceedings of Academics World 142th International Conference, London UK, 18th-19th Aug, 2019. Pages 56-62.
* “Pancreatic lipase inhibitory activity of selected pharmaceutical agents “Imad I. Hamdan\*, Violet N. Kasabri, Yusuf M. Al-Hiari, Dina El Sabawi, **Hiba Zalloum.** Acta Pharm. Acta Pharm. 69 (2019) 1–16.
* “Synthesis, Characterization, and Anticancer Evaluation of Some New N1-(Anthraquinon-2-yl) Amidrazone Derivatives”. Kamal Sweidan, **Hiba Zalloum**, Dima A. Sabbah, Ghada Idris, Khadija Abudosh, Mohammad S. Mubarak. Can. J. Chem. 2018, 96(12): 1123-1128.
* "Exploring the Active Centre of LSD1/CoREST Complex by Molecular Dynamics Simulation utilizing its Co-Crystallised Cofactor Tetrahydrofolate as a Probe". Waleed A. Zalloum\*, **Hiba M. Zalloum**\*, J. Chem. Inf. Model. 2017, 57, 3022−3031,
* “In vitro modulation of Pancreatic Lipase and proliferation of obesity related-colorectal cancer cell line panel by novel synthetic Triazoquinolones”, Shereen Arabiyat, Yusuf Al-Hiari, Yasser Bustanji, ***Hiba Zalloum***, Violet Kasabri. Rev. Roum. Chim., **2016, 61(11-12), 871-879.**
* “Antilipolytic and hypotriglyceridemic effects of dietary Salvia triloba Lf (Lamiaceae) in experimental rats”, Shereen Arabiyat, Ashraf Al-Rabi'ee, ***Hiba Zalloum***, Mohammad Hudaib, Mohammad Mohammad, Yasser. Tropical Journal of Pharmaceutical Research, **2016**, 15(4):723-728.
* “Antilipolytic Property of Curcumin: Molecular Docking and Kinetic Assessment”, Mohammad MOHAMMAD, Violet KASABRI, ***Hiba ZALLOUM***, Rabab TAYYEM, Eman ABURISH, Yusuf AL-HIARI, and Yasser BUSTANJI. Rev. Roum. Chim., **2015**, 60(10), 983-989.
* "Discovery of New Human epidermal growth factor receptor-2 (HER2) Inhibitors via Ligand-Based Pharmacophore Modeling for Potential Use in Cancer Disease".***Hiba Zalloum***, Rabab Tayyem, Basha'er Abu- Irmaileh, Yasser Bustanji, Malek Zihlif, Mohammad Mohammmad, Talal Abu Rjai, Mohammad S. Mubarak. *Journal of Molecular Graphics and Modelling*, **2015,** 61, 61-84.
* “Ligand-based designing, *in silico* screening, and biological evaluation of new potent fructose­-1,6-bisphosphatase inhibitors”. Rabab F. Tayyem, ***Hiba M. Zalloum***, M. Raafat Elmaghrabi, AL-Motassem Yousef, and Mohammad S. Mubarak. *Eur. J. Med. Chem*. 56 (**2012**), 70-95.
* "*The effect of crosslinking on the adsorption behavior of Copper (II) onto poly (2-hydroxy-4-acryloyloxybenzophenone)*". ***Hiba M. Zalloum***, Bassam El-Eswed, Ruba M. Zalloum, and Mohammad S. Mubarak. Journal of Applied Polymer Science, (**2012**), 126: 1008–1015.
* "*Discovery of New Anti Fungal Leads via Pharmacophore Modeling and QSAR Analysis of Fungal N-Myristoyl Transferase Inhibitors followed by In Silico Screening*". Mutasem O. Taha\*, Tariq Al-Haraznah, Reema Abu Khalaf, Amjad M. Qandil, ***Hiba Zalloum***, Amal G. Al-Bakri, Ghassan Abu Sheikha. Chemical Biology & Drug Design, (2011), 78: 391-407.
* *"Pharmacophore and QSAR Modeling of Estrogen Receptor B 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 (5), 383-400.
* *“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. *Eur. J. Med. Chem*. 2009, 44, 2583–2596.
* *"Copper Adsorption on Chitosan-Derived Schiff Base",* ***Hiba Zalloum****,* Zakaria Al-Qodah and Mohammad S. Mubarak. *Journal of Macromolecular Science, Part A: Pure and Applied Chemistry* (**2009**) **46**, 1–12.
* "*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 (4), 439-451
* "*Combining Ligand-Based Pharmacophore Modeling, Quantitative Structure-Activity Relationship 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***, and Suhair Saleh. *J. Med. Chem.* **2008,** *51,* 6478–6494.
* "*Pharmacophore Modeling, QSAR Analysis and In Silico Screening Reveal Potent GSK-3β Inhibitory Activities for Cimetidine, Hydroxychloroquine and Gemifloxacin*", Mutasem O. Taha, Yasser Bustanji, Mohamed A.S. Al-Ghussein, Mohammad Mohammad, ***Hiba Zalloum***, Ihab M. Al-Masri and Naji Atallah. *J. Med. Chem.* **2008,** *51,* 2062–2077.
* *"Discovery of New Mur-F 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 S. Younis and Roger C. Levesquec. (2008**)** 16(3), 1218**-**1235, *J. Bioorg Med. Chem*.

**Book Chapters:**

* "*Chitosan and Chitosan Derivatives as Chelating Agents*" Book Chapter 1, by ***Hiba M. Zalloum***, Mohammad S. Mubarak, in the book "Natural Polymers, Biopolymers, Biomaterials, and Their Composites, Blends, and IPNs", (**2013)**. By Apple Academic Press, Inc.
* "*Antioxidant Polymers: Metal Chelating Agents*" Book Chapter 4, by ***Hiba M. Zalloum***, Mohammad S. Mubarak, Pages: 87–114, (**2013**), in the book "*Antioxidant Polymers: Synthesis, Properties, and Applications*" Published Online: 7 JUN 2012. By Scrivener Publishing LLC.

**Conferences:**

1. “Anti-proliferative effect of potential LSD1/CoREST inhibitors based on molecular dynamics model for treatment of SH-SY5Y neuroblastoma cancer cell line” **16th World Congress on Tissue Engineering, Regenerative Medicine and Stem Cell Research**, May 12th, 2022/Webinar.
2. "Comparative anti-proliferative effects of potential HER2 inhibitors on a panel of breast cancer cell lines" ***Hiba Zalloum***, Malek Zihlif. **Podium Presentation** at “**The 16th Jordanian Chemistry Conference JCC16th**", October, 10th 2019, at The University of Jordan, Amman, Jordan
3. “Anti-proliferative effect of potential LSD1/CoREST inhibitors based on molecular dynamics model for treatment of SH-SY5Y neuroblastoma cancer cell line”**, *Hiba Zalloum***, Waleed Zalloum, Malek Zihlif. **Podium Presentation** at “**475th International Conference on Medical & Health Science - ICMHS** ", Aug, 18-19 2019, at London, United Kingdom.
4. "Comparative anti-proliferative effects of potential HER2 inhibitors on a panel of breast cancer cell lines" ***Hiba Zalloum***, Malek Zihlif. **Podium Presentation** at “**3rd Global Insight Conference on Breast Cancer**", July, 16-18 2018, at Valencia, Spain.
5. "Discovery of New Human epidermal growth factor receptor-2 (HER2) Inhibitors via Ligand-Based Pharmacophore Modeling for Potential Use in Cancer Disease". ***Hiba Zalloum***, Malek Zihlif, Mohammad S. Mubarak. **Podium Presentation** at “**The 6th International Jordanian Congress of Allergy & Immunology” TOWARD THE BEST IN ALLERGY & IMMUNOLOGY**", July, 26-28 2017, at Holiday Inn Hotel, Amman-Jordan.
6. Discovery of New Human epidermal growth factor receptor-2 (HER2) Inhibitors via Ligand-Based Pharmacophore Modeling for Potential Use in Cancer Disease". ***Hiba Zalloum***, Rabab Tayyem, Yasser Bustanji, Basha'er Abu- Irmaileh, Mohammad Mohammmad, Talal Abu Rjai, Mohammad S. Mubarak. **Poster presentation** at the **(ZTIPC 2015),** October 21-23, 2015, at Al-Zaytoonah University of Jordan, Amman, Jordan.
7. “Evaluation of Salvia triloba methanolic extract for potential management of hypertriglyceridemic”, Shereen Arabiyat, Ashraf Al-Rabi'ee, ***Hiba Zalloum***, Mohammad Hudaib, Mohammad Mohammad, Yasser. **Poster presentation** at the **(ZTIPC 2015),** October 21-23, 2015, at Al-Zaytoonah University of Jordan, Amman, Jordan.
8. "Discovery of New Human epidermal growth factor receptor-2 (HER2) Inhibitors via Ligand-Based Pharmacophore Modeling for Potential Use in Cancer Disease".***Hiba Zalloum***, Rabab Tayyem, Yasser Bustanji, Basha'er Abu- Irmaileh, Mohammad Mohammmad, Talal Abu Rjai, Mohammad S. Mubarak. **Podium Presentation** at “**The 1st International Conference on Natural Products & Drug Discovery**", September 8-10, 2015 at the University of Jordan.

**Grants and funded projects:**

1. Comparative anti-proliferative effects of potential LSD1 inhibitors on a panel of cancer cell lines. **5/2018;** Abdul Hameed Shoman Foundation, Hiba Zalloum, Waleed Zalloum; 15,000JDs, **Closed.**
2. Comparative anti-proliferative effects of potential LSD1 inhibitors on a panel of cancer cell lines. **4/2018;** Deanship of scientific research. The University of Jordan, Hiba Zalloum, Malek Zihlif; 20,000JDs, **Closed**
3. Determining the mechanism of action of a new anti-HER2 drug and investigate its potential toxicity in animals. **10/2015** Scientific Research Support fund, Hiba Zalloum, Malek Zihlif; 55,400JDs, **Closed**.
4. Determining the mechanism of action of a new anti-HER2 drug and investigate its potential toxicity in animals. 10/2015 Deanship of scientific research. The University of Jordan, Hiba Zalloum, Malek Zihlif; 12,000JDs, **Closed**.
5. Discovery of new LSD1 inhibitors employing molecular dynamics/pharmacophore modeling technique for potential Use in Cancer Disease. **6/2015**; Abdul Hameed Shoman Foundation; Waleed Zalloum, Hiba Zalloum; 15,000 JD, **Closed 9/2017**.
6. Discovery of New HER2 Inhibitors via Ligand-Based Pharmacophore Modeling and Hit Optimization for Potential Use in Cancer Disease. **2/2015**; Abdul Hameed Shoman Foundation; Hiba Zalloum, Mohammad S. Mubarak, Rabab Tayyem. **Closed 10/2016**.
7. “Discovery of Novel Potent STAT3 Inhibitors for Potential Treatment of Cancer”. **12/2014**, Deanship of scientific research, The University of Jordan, Abla A-Bsoul, Malek Zihlif and Hiba Zalloum; 15,000 JDs, **Closed 2/2018**.
8. "Synthesis, Characterization and Anti-Cancer Activity of Novel Amidrazone Derivatives.**11/2014**. Deanship of scientific research. The University of Jordan, Hiba Zalloum, Mohammad S. Mubarak and Meqdad Al-Habashneh, 9,900 JD, **Running.**
9. "Synthesis, Characterization and Anti-Cancer Activity of Novel Amidrazone Derivatives". **3/2014**. Hamdi Mango Center for Scientific Research The University of Jordan, Hiba Zalloum, Mohammad S. Mubarak and Meqdad Al-Habashneh, 5,000 JD, **Running**.
10. “Discovery of New HER2 Inhibitors via Ligand-Based Pharmacophore Modeling and Hit Optimization for Potential Use in Cancer Disease”, **3/2012**. Deanship of Academic Research, The University of Jordan, Hiba Zalloum, Mohammad S. Mubarak, Rabab Tayyem, Tala Abu Rjai, Mohammad Kahlil, and Yasser Al Bustanji, 21,600 JDs; (**Closed Sept 2016)**.

**Training:**

* Full time summer course training in the organic chemistry & general chemistry laboratories in Petra University.
* Technology Transfer and IP Training from Feb 2010 till Dec 2010 funded from the SRTD (EU- funded project to support science and Technology in Al Hasan Science City). I received many different trainings and workshops on Intellectual property, Technology Transfer, Licensing, marketing and all related subjects.

**Computer Skills:**

* Visual Basic 6 programming (I didn't practice it from few years)
* Well-developed computer skills in Windows based programs:
* MS Office, Microsoft desktop applications (Excellent)
* Good knowledge in some Chemistry software (modeling software like Catalyst, Cerius2, Discovery Studio, OpenEye, Marvin, …etc) & professional with others.
* Flexible to others if needed

**Hobbies:** Reading, cooking, hand crafts, sewing and embroidering.

**Google Scholar:** http://scholar.google.com/citations?user=ggqOgfoAAAAJ&hl=en

**Research gate:** <https://www.researchgate.net/profile/Hiba_Zalloum>

**JU Academic staff website:** http://eacademic.ju.edu.jo/hmzalloum/default.aspx

**References:** Upon Request