

الأسم: محمود عبد الرحيم محمود الشاعر

Email:a.mahmoud@zu.edu.jo

IT/ CIS

**Academic Rank: Professor** 

## Membership:

| 1 | نقابة الصيادلة الأردنيين |  |
|---|--------------------------|--|
|---|--------------------------|--|

## **Qualifications:**

| 1 | درجة البكالوريوس – جامعة العلوم والتكنولوجيا الأردنية 1998  |
|---|---|
| 2 | درجة الماجستير في العلوم الصيدلانية – الجامعة الأردنية 2000 |
| 3 | درجة الدكتوراة في تصميم واكتشاف الأدوية 2010                |

• Professional Objective(s):

تطوير عوامل جديدة مضادة للسرطان باستخدام النمذجة الجزيئية

- انشاء وحدة بحثية في مجال النمذجة الجزيئية وتصميم الأدوية
- التدريس في مجالات الكيمياء الطبية، الكيمياء التحليلية، والكيمياء التخليقية
- إدارة المختبرات العلمية .

## **Teaching Experience:**

| # | From | to          | Experience                     |
|---|------|-------------|--------------------------------|
| 1 | 2020 | Till<br>now | أستاذ في تصميم واكتشاف الأدوية |

| 2 | 2015           | 2020               | أستاذ مشارك في تصميم واكتشاف الأدوية                    |
|---|----------------|--------------------|---|
| 3 | 2010           | 2015               | أستاذ مساعد في تصميم واكتشاف الأدوية                    |
| 4 | 10-9-<br>2010  | Till<br>now        | محاضر أكاديمي في كلية الصيدلة في جامعة الزرقاء          |
| 5 | 1/10/<br>2006  | 1/7/<br>2010<br>:  | مدرس ومحاضر في كلية الصيدلة في جامعة العلوم التطبيقية   |
| 6 | 14/12<br>/2002 | 30/6<br>/200<br>6  | رئيس قسم الصيدلة في معهد السباعي بالطائف                |
| 7 | 14/12<br>/2001 | 1/12<br>/200<br>2: | باحث في البحث والتطوير في الشركة العربية لتصنيع الأدوية |

## **Publications:**

| #  | Title   | Publisher                                  | Year/ Issue<br>(Vol/No) |
|----|---|--|-------------------------|
| 1. | Investigation of Antimicrobial Sesquiterpenes in Ferula harmonis F. root                                      | ACTA Technologie et lagis medicamenti      | 2000                    |
| 2. | Discovery of novel CDK1 inhibitors by combining pharmacophore modeling, QSAR analysis and in silico screening | European Journal of<br>Medicinal Chemistry | 2010                    |

|    | followed by in vitro   |                                  |      |
|----|--|----------------------------------|------|
|    | bioassay   |                                  |      |
| 3. | Elaborate Ligand-Based<br>Modeling Reveals New<br>Nanomolar Heat Shock<br>Protein 90a Inhibitors   | J. Chem. Inf. Model              | 2010 |
| 4. | Some sulfonamide drugs inhibit ATPase activity of heat shock protein 90: investigation by docking simulation and experimental validation   | J Enzyme Inhib Med<br>Chem.      | 2010 |
| 5. | Rational exploration of<br>new pyridinium-based<br>HSP90a inhibitors<br>tailored to thiamine<br>structure  | Medicinal Chemistry<br>Research  | 2012 |
| 6. | Design, synthesis, and biological evaluation of sulfonic acid ester and benzenesulfonamide derivatives as potential CETP inhibitors  | Med Chem Res                     | 2012 |
| 7. | Application of Docking-<br>Based Comparative<br>Intermolecular Contacts<br>Analysis for Validating<br>Hsp90a Docking Studies<br>and Subsequent In Silico<br>screening for Inhibitors | Journal of Molecular<br>Modeling | 2012 |
| 8. | 1-[2-Substituted ethyl]-<br>2-methyl-5-<br>nitroimidazole<br>derivatives, synthesis<br>andantibacterial activities   | Der Pharma Chemica               | 2013 |

| Δ   | Flabourte Bossell                          |                       | 2012 |
|-----|--|-----------------------|------|
| 9.  | Elaborate ligand-based modeling reveal new | Journal of molecular  | 2013 |
|     | migration inhibitory                       |                       |      |
|     | factor inhibitors                          | graphics & modelling  |      |
|     | Evaluation of                              |                       | 2013 |
|     | miscellaneous heat shock                   |                       |      |
| 10. | protein (Hsp90) inhibitors                 | Der Pharma chemica    |      |
|     | using different                            |                       |      |
|     | methodologies                              |                       |      |
|     | Design, Synthesis and                      |                       | 2013 |
|     | Biological Evaluation of N4-               | The Open Medicinal    |      |
|     | Sulfonamido-Succinamic,                    |                       |      |
| 11. | Phthalamic, Acrylic and                    | Chemistry Journal     |      |
|     | Benzoyl Acetic Acid                        | Chemistry Journal     |      |
|     | Derivatives as Potential                   |                       |      |
|     | DPP IV Inhibitors,                         |                       |      |
|     | Discovery of novel                         |                       | 2014 |
|     | urokinase plasminogen                      |                       |      |
| 10  | activator (uPA) inhibitors                 | Journal of Molecular  |      |
| 12. | using ligand-based                         | Modeling              |      |
|     | modeling and virtual                       |                       |      |
|     | screening followed by in vitro analysis.   |                       |      |
|     | Could the cancer be a                      |                       | 2014 |
|     | chronic immune disorder?                   |                       |      |
| 13. | rather than a serious                      | Der Pharma chemica    |      |
|     | malignant disease                          |                       |      |
|     | Discovery of nanomolar                     |                       | 2014 |
|     | Phosphoinositide 3-kinase                  |                       |      |
|     | gamma (PI3Kγ) inhibitors                   | European Journal of   |      |
| 14. | using ligand-based                         | Medicinal Chemistry   |      |
|     | modelling and virtual                      | iviculcinal chemistry |      |
|     | screening followed by in                   |                       |      |
|     | vitro analysis                             |                       |      |
| 15. | Evaluation of antimicrobial                | Der Pharma chemica    | 2014 |

|     | T   |   |      |
|-----|---|---|------|
|     | activities of synthesized   |   |      |
|     | pyridinium derivatives  |   |      |
| 16. | Docking and Pharmacophore Mapping of Halogenated Pyridinium Derivatives as Heat Shock Protein90   | Journal of Chemical and<br>Pharmaceutical<br>Research | 2015 |
| 17. | Screening of miscellaneous Hsp90 inhibitors using virtual co-crystallized pharmacophore   | Journal of Computational Methods in Molecular Design  | 2015 |
| 18. | Discovery of Check Point<br>Kinase1 (Chk1) Inhibitors as<br>Potential Anticancer<br>Agents Using Ligand-Based<br>Modelling and Virtual<br>Screening | Journal of In Silico & In<br>Vitro Pharmacology       | 2015 |
| 19. | Evaluation of Novel Akt1 Inhibitors as Anticancer Agents using Virtual Co- crystallized Pharmacophore Generation                                    | J Mol Graph Model.                                    | 2015 |
| 20. | Discovery of new heat<br>shock protein 90 inhibitors<br>using virtual co-crystallized<br>pharmacophore generation                                   | J Enzyme Inhib Med<br>Chem                            | 2016 |
| 21. | Discovery of novel potent nuclear factor kappa-B inhibitors (IKK-β) via extensive ligand-based modeling and virtual screening                       | J Mol Recognit.                                       | 2016 |
| 22  | Ligand-based modeling of Akt3 lead to potent dual   | J Mol Graph Model                                     | 2018 |

|    | Alat / Alat 2 :  -  -  -  -  -  -  -  -  -  -  -  -   |                               |      |
|----|---|-------------------------------|------|
|    | Akt1/Akt3 inhibitor   |                               | 2010 |
| 23 | Discovery of New Phosphoinositide 3-kinase Delta (PI3Kδ) Inhibitors via Virtual Screening using Crystallography-derived Pharmacophore Modelling and QSAR Analysis                       | Med Chem                      | 2019 |
| 24 | Combination of pharmacophore modeling and 3D-QSAR analysis of potential glyoxalase-I inhibitors as anticancer agents  | Comput Biol Chem              | 2019 |
| 25 | Investigation of binding characteristics of Phosphoinositide-dependent kinase-1 (PDK1) co-crystallized ligands through virtual pharmacophore modeling leading to novel anti - PDK1 hits | Med Chem                      | 2019 |
| 26 | Ligand Based Pharmacophore Modeling Followed by Biological Screening Lead to Discovery of Novel PDK1 Inhibitors as Anticancer Agents  | Anticancer Agents Med<br>Chem | 2020 |
| 27 | Combined High Throughput Screening with QSAR Analysis Unravel Potential Glyoxalase-I inhibitors   | Curr Comput Aided<br>Drug Des | 2020 |

|    | 1   |  | T    |
|----|---|--|------|
| 28 | Elaboration of Novel TTK1 Inhibitory Leads via QSAR- Guided Selection of Crystallographic Pharmacophores Followed By In vitro Assay   | Current Computer-<br>Aided Drug Design | 2020 |
| 29 | Identification of the first "two digit nano-molar" inhibitors of the human glyoxalase-I enzyme as potential anticancer agents   | Medicinal Chemistry                    | 2021 |
| 30 | Repurposing FDA-<br>approved drugs against the<br>"main protease" pivotal<br>enzyme in COVID-19 virus<br>using computer-aided drug<br>design techniques   | Preprint at Research<br>Square         | 2022 |
| 31 | Discovery of new PKN2 inhibitory chemotypes via QSAR-guided selection of docking-based pharmacophores   | Molecular Diversity                    | 2022 |
| 32 | Pharmacophore Modeling of Targets Infested with Activity Cliffs via Molecular Dynamics Simulation Coupled with QSAR and Comparison with other Pharmacophore Generation Methods: KDR as Case Study | Molecular Informatics                  | 2022 |
| 33 | Evaluation of antibacterial, antioxidant, cytotoxic, and acetylcholinesterase inhibition activities of novel [1,4] benzoxazepines   | Medicinal Chemistry<br>Research        | 2022 |

|    | T                                    |                      | T    |
|----|--------------------------------------|----------------------|------|
|    | fused to heterocyclic                |                      |      |
|    | systems with a molecular             |                      |      |
|    | modeling study                       |                      |      |
|    | Novel                                |                      | 2023 |
|    | Sulfonamide—Triazine                 |                      |      |
| 34 | Hybrid Derivatives:                  | ACS Omoga            |      |
| 34 | Docking, Synthesis, and              | ACS Offiega          |      |
|    | Biological Evaluation as             |                      |      |
|    | Anticancer Agents                    |                      |      |
|    | Development of                       |                      | 2023 |
|    | phosphoinositide 3-kinase            |                      |      |
|    | delta (PI $3K\delta$ ) inhibitors as |                      |      |
| 25 | potential anticancer agents          | Medicinal Chemistry  |      |
| 35 | through the generation of            | Research             |      |
|    | ligand- based                        |                      |      |
|    | pharmacophores and                   |                      |      |
|    | biological screening                 |                      |      |
|    | In Silico Evaluation of              |                      | 2023 |
|    | Ferulic Acid Based                   |                      |      |
| 36 | Multifunctional Conjugates           | Medicinal Chemistry  |      |
|    | as Potential Drug                    |                      |      |
|    | Candidates                           |                      |      |
|    | Novel hydantoin                      |                      | 2023 |
| 37 | derivatives: Synthesis and           | Posults in Chamistry |      |
| 37 | biological activity                  | Results in Chemistry |      |
|    | evaluation                           | Research             |      |
|    | Docking, synthesis, and              |                      | 2024 |
| 38 | anticancer assessment of             | Pharmacia            |      |
| 30 | novel quinoline-                     | Pilatiliacia         |      |
|    | amidrazone hybrids                   |                      |      |
|    | Chemical Synthesis,                  |                      | 2024 |
|    | Biological Evaluation, and           |                      |      |
|    | Cheminformatics Analysis             | Current Computer     |      |
| 39 | of a Group of Chlorinated            | •                    |      |
|    | Diaryl Sulfonamides:                 | Alded Drug Design    |      |
|    | Promising Inhibitors of              |                      |      |
|    | Cholesteryl Ester Transfer           |                      |      |
| l  | J                                    |                      | I    |

|    | Protein   |                                   |      |
|----|---|-----------------------------------|------|
| 40 | Novel 2- Aminobenzothiazole Derivatives: Docking, Synthesis, and Biological Evaluation as Anticancer Agents   | ACS Omega                         | 2024 |
| 41 | Synthesis, complexation, in vitro cholinesterase inhibitory activities and molecular docking of azinethiacrown ethers and acyclic thiacrown ethers derived indole | Journal of Molecular<br>Structure | 2024 |

## Books:

| DOUKS. |   |   |      |
|--------|---|---|------|
| #      | <b>Book Title</b>                                   | Publisher   | Year |
| 1.     | Discovery and optimization of new anticancer agents | Scholars' press   | 2015 |
| 2      | تصميم الادوية وبناؤها                               | ناشر: مؤسسة الامة العربية النشر والتوزيع المقر الرئيسي: جمهورية مصر العربية رقم الايداع القانوني: 23543/2018 الرقم الدولي: 4/476/783/977/978 جهة الايداع: وزارة الثقافة المصرية 2018 هـ- 2019 | 2018 |
| 3      | نظرة الى السرطان وطرق علاجه                         | دار أسامة للنشر, Amazon, عمان   | 2021 |

## **Supervision of Theses:**

| # Year University Thesis Title Student Nan | me |
|--|----|
|--|----|



|    | <b>T</b> |                  |                   |                 |
|----|----------|------------------|-------------------|-----------------|
| 1. |          |                  | Discovery and     | الاء عزيز       |
|    | 2017     | الجامعة الأردنية | Optimzation of    |                 |
|    | 2017     |                  | New KDR           |                 |
|    |          |                  | inhibitors        |                 |
| 2  |          |                  | Synthesis of      | محمود عليمات    |
|    | 2000     | جامعة الزرقاء    | triazines as      |                 |
|    | 2020     |                  | anticancer        |                 |
|    |          |                  | agents            |                 |
| 3  |          |                  | Synthesis of      | عبد الوهاب عقيل |
|    |          |                  | ,<br>Hydantoin    | ن جنوب ب        |
|    | 2021     | جامعة الزرقاء    | derivatives as    |                 |
|    |          |                  | anticancer        |                 |
|    |          |                  | agents            |                 |
| 4  |          |                  | Novel 2-          | .014.4          |
| -  |          |                  | Aminobenzothia    | عمر مهدي        |
|    |          |                  | zole Derivatives: |                 |
|    |          |                  | Docking,          |                 |
|    | 2023     | جامعة الزرقاء    | Synthesis, and    |                 |
|    |          |                  | Biological        |                 |
|    |          |                  | Evaluation as     |                 |
|    |          |                  | Anticancer        |                 |
|    |          |                  | Agents            |                 |
| 5  |          |                  | DESIGN OF         | على خضر         |
|    |          |                  | AMINOBENZO        | <b>5 G</b>      |
|    |          |                  | XAZOLE            |                 |
|    |          | 12 - 11 - 1      | DERIVATIVES       |                 |
|    | 2023     | جامعة الزرقاء    | AS KDR            |                 |
|    |          |                  | INHIBITORS        |                 |
|    |          |                  | AND ANTI-         |                 |
|    |          |                  | CANCER            |                 |
|    |          |                  | AGENTS            |                 |
| 6  |          |                  | Design,           | أماني سليمان    |
|    |          | جامعة الأسراء    | synthesis,        | *               |
|    | 2024     |                  | characterization, |                 |
|    |          |                  | and in-vitro      |                 |
|    |          |                  | evaluation of     |                 |

|  | novel        |  |
|--|--------------|--|
|  | depigmenting |  |
|  | agents       |  |

## **Personal Information**

| Name          | Mahmoud A.Al-Sha'er  |                        |  |
|---------------|----------------------|------------------------|--|
| Place and     | Libya, 30/3/1976     |                        |  |
| Date of Birth |                      |                        |  |
| Nationality   | Jordanian            |                        |  |
| Marital       | Married              |                        |  |
| Status        |                      |                        |  |
| Address       | Amman-Jabal Al-Nuzha |                        |  |
| Work Tel      | 065 5 38 211 00      |                        |  |
| No.           |                      |                        |  |
| Mobile:       | 0786844928           |                        |  |
| Postal        | 13132 P.O.Box 132222 | Zarqa University-Zarqa |  |
| Address       | Faculty of Pharmacy  |                        |  |