

**Curriculum Vitae Dr. Rula M.
Darwish**
Professor of Pharmaceutical
Microbiology

NAME: Rula M. Darwish

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PERSONAL ADDRESS:

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PERSONAL INFORMATION

- Sex: Female
- Place of Birth: Amman - Jordan.
- Nationality: Jordanian
- Marital Status: Married, with two Childs

❖ **MEMBER OF:**

- ❖ Member of - FIP - International Pharmaceutical Federation
- ❖ Member of the executive committee the academic section of the International Pharmaceutical Federation (exco-committee of FIP/academic section)
- ❖ Society for Applied Microbiology-London Society for invertebrate Pathology- USA
- ❖ Society for British Pharmacological Society
- ❖ Society of Athens institute of Education and research
- ❖ National Centre for Intellectual Property-Amman Society for Quality control Amman
- ❖ Jordan Pharmaceutical Association-Amman
- ❖ Chair of Continuous professional Development (CPD committee) in JPA Jordan Pharmaceutical Association-Amman
- ❖ Chair of CPD statement in FIP International Pharmaceutical Federation
- ❖ Member of disinfectant standards committee.
- ❖ Referee of Journal of Applied Microbiology, London
- ❖ Referee of international, regional and local Journals

EDUCATION:

1. Ph.D. in Pharmacy (Pharmaceutical Microbiology), King's College- University of London, UK.
2. B.Sc. (with honor) in Pharmacy, Faculty of Pharmacy, Baghdad University, Iraq.
3. Secondary Education Certificate, Ministry of Education (Kuwait).

TITLE OF Ph.D. THESIS

"The effect of co-solvents on the activity of preservatives in oral aqueous dosage forms

LANGUAGES

Arabic: Mother Tongue English: Excellent French: Fair

ADMINISTRATIVE ACTIVITIES

- Member of the board of Trustee, The university of Sharjah, UAE (2021-present)
- Chair of CPD policy statement in FIP International Pharmaceutical Federation
- Chair of CPD committee in JPA 9 Jordan Pharmaceutical Association
- Former Member of the board of Trustee, The university of Science and Technology, Irbid, Jordan (2014-2018)
- Member of the International Pharmaceutical Federation (FIP) 2016- present)
- Executive committee in Academic Section of the International Pharmaceutical Federation
- Lead Hub of the CPD in Academic Section of the International Pharmaceutical Federation
- Accreditation Council for Pharmacy Education (ACPE) Advisory Group (ISPAG)
- Surveyor with Accreditation Council for Pharmacy Education (ACPE)
- Surveyor of Pharmacy Programs with Accreditation and Quality Assurance Commission for Higher Institutions (HAEC)
- Surveyor with National Commission for Academic Accreditation and Assessment (NCAAA)
- Chair of the Continuous Professional Development (CPD) in JPA
- Former Member of Scientific Committee of Scientific Research Fund in Jordan
- Member of the Committee for the Ethics of Scientific Induction (IRB) in ACDIMA
- Member of Technical Advisory Committee for Professional Diploma in Pharmaceutical Technology Princess Sumaya University for Technology (2017)
- Former Member of The higher IRB Committee in Jordan Food and Drug Organization (JFDA) (2016- 2018)
- Member of the Advisory Committee of WHO for The TAP (Tailoring Antimicrobial Resistant Program)
- Dean of School of Pharmacy, The University of Jordan, Amman, Jordan (2014-2016) Leading the School to get the International ACPE certification- June 2016 (The Accreditation Council of Pharmacy Education) thus becoming the first in Jordan and one of the few accredited in the world outside America.
- Director of The University of Jordan ACPE certification committee since 2014
- Dean of Faculty of Rehabilitation Sciences, The University of Jordan, Amman, Jordan 2013-2014
- Member of the Faculty of Research Deanship Council
- Member of committees in the Higher Education Accreditation commission (HEAC)
 - Chairman of Department of Pharmaceutics and pharmaceutical technology, Faculty of Pharmacy, University of Jordan, Amman, Jordan 2003-2005. 2012-2013 x
 - Assistant Dean, Faculty of Pharmacy, University of Jordan 1995- 1996
 - Chairman of the scientific committee Faculty of Pharmacy, University of Jordan 1996-1997/2009-2010

- Member of Department Council 1992-2010
- Member of Faculty of Pharmacy Council.
- Member of Postgraduate Committee in the Faculty of Pharmacy.
- Member of Department of Pharmaceutics and Pharmaceutical Technology Council.
- Member of Postgraduate Committee at the Faculty of Pharmacy.

RESEARCH INTEREST:

1. Education (Pharmacy Programs) & Quality assurance
2. Continuous professional development among Healthcare providers (CPD)
3. Antibiotics and Antimicrobial resistance
4. Antibiotic Stewardship
5. Improving effects of antimicrobial agents on resistant strains of microorganisms.
6. Control of cross infections.
7. Disinfection and Sterilization.
8. Antimicrobial effects (including antifungal, nematicidal etc.) from different plant extracts.
9. The effects of formulation ingredients on antimicrobial activity.
10. The preserving effect of different formulations.

PUBLICATION:

- ❖ **Darwish RM**, Matar SG, Snaineh AA, Alsharif MR, Yahia AB, Mustafa HN, Hasabo EA. Impact of antimicrobial stewardship on antibiogram, consumption and incidence of multi drug resistance. *BMC Infectious Diseases*. 2022 Dec;22(1):1-21
- ❖ Suaifan GA, Abu-Odeh AM, Shehadeh MB, **Darwish RM**, Shahwan M, Jbara FA. Knowledge, practice and attitude associated with SARS-CoV-2 Delta Variant among adults in Jordan. *Plos one*. 2022 Dec 7;17(12):e0278243.
- ❖ Dar-Odeh N, Badran E, **Darwish R**, Abu-Hammad O. Career Satisfaction among Physicians, Dentists and Pharmacists: A study from Jordan. *Asia Pacific Journal of Health Management*. 2022 Dec 22.
- ❖ Mohammed AH, Hassan BA, Wayyes AM, Gadhban AQ, Blebil A, Alhija SA, **Darwish RM**, Al-Zaabi AT, Othman G, Jaber AA, Al Shouli BA. Parental health beliefs, intention, and strategies about covid-19 vaccine for their children: A cross-sectional analysis from five Arab countries in the Middle East. *Vaccine*. 2022 Oct 26;40(45):6549-57.
- ❖ **Darwish RM**, Salama AH. "Study the Effect of Conjugate Novel Ultra-Short Antimicrobial Peptide with Silver Nanoparticles against Methicillin Resistant *S. aureus* and ESBL *E. coli*". *Antibiotics*. 2022 Aug;11(8):1024.
- ❖ Salih, M.A.F., Al-Hiari, Y., Kasabri, V., **Darwish, R.**, Abumansour, H., Bourghli, L., Al Alawi, S. and Albashiti, R., 2022." Newly Substituted Anilino-Fluoroquinolones with Proliferation Inhibition Potential against a Panel of Cancer Cell Lines". *Asian Pacific Journal of Cancer Prevention*, 23(7), pp.2507-2521.

- ❖ Alnahar SA, Gkountouras G, **Darwish RM**, Bates I. “Community pharmacists workforce readiness to deliver vaccination services: A cross-sectional study from Jordan. *Pharmacology Research & Perspectives*. 2022 Apr;10(2):e00943.
- ❖ BA Alkhalifa, NR Bulatova, **RM Darwish** “Serotonin reuptake inhibitors effect on fluconazole activity against resistant *Candida glabrata* strains” *Journal of Global Antimicrobial Resistance* 2022, 29, 49-54
- ❖ Ali Haider Mohammed, Bassam Abdul Rasool Hassan ,Abdulrasool M. Wayyes ,Haydar F. Al-Tukmagi, Ali Blebil ,Juman Dujaili ,Muhammed Hassan Nasr ,Maguy Saffouh El Hajj ,Diana Malaeb ,Sara Abu Alhija ,Elham Kateeb ,Ahmad Amro ,Dalal Al-Taweel ,Muna Arif Al Juma ,Omar Abdulwahid Al-Ani MD, Sinan Subhi Farhan ,**Rula M. Darwish** ,Ahmed Talib Al-Zaabi. “Exploring the quality of life of cosmetic users: A cross-sectional analysis from eight Arab countries in the Middle East”. *Journal of Cosmetic Dermatology*. 2022.
- ❖ **Rula M. Darwish**, Luay Abu-Qatouseh , Eman Badran, "Sources and Risk factors of a Novel MRSA Spa Type Circulating in Neonatal Intensive Care Unit". 2022 *Jordan Journal of Pharmaceutical Sciences*
- ❖ **Darwish RM**, AlMasri M, Al-Masri MM. “Mucormycosis: The Hidden and Forgotten Disease”. *Journal of Applied Microbiology*. 2022 Feb 13.
- ❖ Badran EF, **Darwish RM**, Khader Y, AlMasri R, Al Jaber M, AlMasri M, AlSa’di F, al-Badaineh N. Adverse pregnancy outcomes during the COVID-19 lockdown. A descriptive study. *BMC pregnancy and childbirth*. 2021 Dec;21(1):1-8.
- ❖ **Rula M. Darwish** “COVID-19 immunity and vaccines: what a pharmacist needs to know” *Asian Biomedicine* 2021.
- ❖ **Rula M. Darwish**, AlKawareek MY, Bulatova NR, Alkilany AM. “Silver nanoparticles, a promising treatment against clinically important fluconazole-resistant *Candida glabrata*”. *Letters in Applied Microbiology*. 2021 Sep 12.
- ❖ **Rula M. Darwish**, Shehadeh M, Jalouqa S, Suaifan G. Users’ Knowledge and Self Medications in Relation to Gastric Problems among Adults in a Middle Income Country; Jordan. *Journal of Substance Use*. 2021 Aug 6:1-5.
- ❖ **Rula M. Darwish** , Luay Abu-Qatouseh, Eman Badran “Sources and Risk factors of a Novel MRSA Spa Type Circulating in Neonatal Intensive Care Unit” *Jordan Journal of Pharmaceutical Sciences*, 2021 (In progress)
- ❖ Ali Salama , Ammar Almaaytah, **Rula Darwish**, “The Design of Alapropoginine, a Novel Conjugated Ultrashort Antimicrobial Peptide with Potent Synergistic Antimicrobial Activity in Combination with Conventional Antibiotics” *Antibiotics* 10(6):712 2021
- ❖ **Rula Darwish**, Mohammad Saleh, Khawlah Ammar, Mohammad Al Masri “Impact of International Accreditation in Pharmacy Education: Pharmacy School Students’ Perspective” *Indian Journal of Pharmaceutical Education and Research* | Vol 55 Issue 2 2021
- ❖ Amy Chan, **Rula Darwish** , Saba Shamim ,Zaheer-Ud-Din Babar “Pharmacy practice and continuing professional development in low and middle-income countries

(LMICs) Chapter In book: Pharmacy Practice Research Case Studies Edition: 1st
Publisher: Elsevier 2021

- ❖ Amal Mayyas, Mohammad Abu-Sini, Rula Amr, Rand T. Akasheh, Waleed Zalloum, Ayman Khedair, Islam Hamad, Talal Aburjai, **Rula M. Darwish** and Luay Abu-Qatouseh “Novel in vitro and in vivo anti-*Helicobacter pylori* effects of pomegranate peel ethanol extract” Veterinary World, 2021 ,14(1): 120-12
- ❖ **Rula M. Darwish**, Ghaida N. Baqain, Hala Aladwan, Lina M. Salamah, Rahaf Madi, Rama M AlMasri “Knowledge, attitudes, and practices regarding antibiotic use and resistance among community pharmacists: a cross sectional study in Jordan” International Journal of Clinical Pharmacy 2021
- ❖ Yazan S. Batarseh, Feras W. Darwish ElHajji, Samira Shammass, **Rula M. Darwish**, Rula Fakhoury, Maram Al Haj Ahmad, Ahmed Al Rusasi and Laila Jarrar “Perception and attitude of the public on vaccine practices and pharmacists as immunizers in Jordan” Journal of Pharmaceutical Health Services Research, 2021, 1–8
- ❖ Imad Hamdan, Dina El-Sabawi, **Rula Darwish**, Lina A. Dahabiyeh “Preparation, characterization and antimicrobial assessment of selected ciprofloxacin salts” Acta Pharm. 71 (2020)
- ❖ Ghadeer A R Y Suaifan, Samah WA Al Nobani, Mayadah Shehadeh, **Rula Darwish** “Engineered colorimetric detection of *Staphylococcus aureus* extracellular proteases” Talanta 2019
- ❖ Rasha Aldasouqi, Luay F Abu-Qatouseh, Eman F Badran, Sameer A Alhaj Mahmoud, **Rula Madhat Darwish** “Genetic Determinants of Resistance to Fusidic Acid Among *Staphylococcus aureus* Isolates in Jordan” Jundishapur Journal of Microbiology 2019
- ❖ Mayadah Shehadeh, Nidal Jaradat, Mutasem Al-Masri, Abdel Naser Zaid, Fatima Hussein, Ahmad Khasati, Ghadeer Suaifan, **Rula Darwish** “Rapid, cost-effective and organic solvent-free production of biologically active essential oil from Mediterranean wild *Origanum syriacum*” Saudi Pharmaceutical Journal 2019
- ❖ Mayadah Shehadeh, Ghadeer A R Y Suaifan, Alaa M. Abu-Odeh, **Rula Darwish** “Complementary and alternative medicine use for weight management among females in Jordan; a community-based survey” Eastern Mediterranean health journal 2019
- ❖ Lina M. Alnajjar Nailya R Bulatova, **Rula Darwish** “Evaluation of Four Calcium Channel Blockers as Fluconazole Resistance Inhibitors in *Candida glabrata*” Journal of Global Antimicrobial Resistance 2018
- ❖ Mohammad Abu sini Amal Mayyas Nehaya Al-Karablieh, **Rula Darwish**, Yusuf Al-Hiari, Talal Aburjai, Shereen Arabiyat and Luay Abu-Qatouseh “Synthesis of 1,2,3-Triazolo[4,5-h]quinolone Derivatives with Novel Anti-Microbial Properties against Metronidazole Resistant *Helicobacter pylori*” Molecules 2017
- ❖ L Abu-Qatouseh, M Abu-Sini, AMA Mayyas, **R Darwish**, T Aburjai, I Sabri “Molecular characterization and antibiotic susceptibility profiles of *Helicobacter*

pylori isolated from patients with Gastrodeudenal diseases in Jordan" The International Arabic Journal of Antimicrobial Agents 2017 6 (3)

- ❖ L Abu-Qatouseh, M Abu-Sini, A Mayyas, Y Al-Hiari, **R Darwish**, T Aburjai "Synthesis of New Nitrofluoroquinolone Derivatives with Novel Anti- Microbial Properties against Metronidazole Resistant *H. pylori*" *Molecules* ,2017 , 22 (1), 71
- ❖ Mayadah B. Shehadeh, Ghadeer A. R. Y. Suaifan, **Rula M. Darwish**. "Complementary and Alternative Modalities; A New Vein in Weight Control and Reduction Interventions. A Pilot Study in Jordan". *International Journal of Biology and Biomedicine* 2017, **2**, 1-5
- ❖ **Rula Darwish** "Accreditation of Pharmacy programs; a need or a treat? The University of Jordan experience" Conference Paper October 2016 The 4th international Conference of School of Pharmacy /The University of Jordan and the 2nd Conference of Faculties of Pharmacy at Jordanian Universities
- ❖ Luay Abu-Qatouseh, **Rula Darwish**, Mohammad Abu sini, Talal Aburjai "Molecular characterization and antibiotic susceptibility profiles of *Helicobacter pylori* isolated from patients with Gastrodeudenal diseases in Jordan" The International Arabic Journal of Antimicrobial Agents 2016
- ❖ Ghadeer A. R. Y. Suaifan, Mayadah B. Shehadeh,**R ula M. Darwish**, Hebah Al-Ijel and Vincenzo Abbate "Design, Synthesis and in Vivo Evaluation of Novel Glycosylated Sulfonylureas as Antihyperglycemic Agents" *Molecules*,2015 Volume 20 , Page s20063 –2007 8
- ❖ Yusuf M. Al-Hiari, Ashok K. Shakya, Wafa J. Al-Rajab, Emad A. Abdel Rahim, Muhammed H. Alzweiri, Lubna Rustam and **Rula Darwish** "Antimicrobial screening of novel N-4- fluorophenylquino-[7,8-b] [1 ,4]- benzodiazepin-3- carboxylic acid derivatives" *Revue Roumaine De Chimie* 2015 Volume 60 Number 9, Pages 899 -905
- ❖ **Rula Darwish** ,T. Aburjaib "Screening of antibiotic resistant inhibitors from local plant materials against MRSA" Conference Paper, The First International Conference on Natural Products and Drug Design 2015
- ❖ Amal Mayyas, Talal Aburjai, **Rula Darwish**, Luay Abu-Qatouseh "Antimicrobial activity of local herbal oils and extracts against *Helicobacter pylori*" Conference Paper Scientific Day-Faculty of Pharmacy-University of Jordan, 2015
- ❖ Sanaa K. Bardaweel, **Rula M. Darwish**, Muhammed H. Alzweiri and Yusuf M. Al-Hiari "Synergism and Efficacy of Some Naturally Occurring D-Amino Acids against Clinically Relevant Bacterial and Fungal Species" *Jordan Journal of Pharmaceutica science* 2014 Volume 7 , Number 3
- ❖ Mayadah B. Shehadeh, Silvio Sosa, Ghadeer A.R.Y. Suaifan, **Rula M. Darwish**, Anna Giangaspero, Antonio Vassallo, Laura Lepore, Sawsan A. Oran, Hana Hama, Aurelia Tubar Nunziatina De Tommasi, Roberto Della Loggia " Topical Anti-Inflammatory Potential of Six *Salvia* Species Grown in Jordan" *Jordan Journal of Pharmaceutical Sciences* 2014, Volume 7,Number 2
- ❖ Rula Darwish, Ghadeer A R Y Suaifan, Mayadah Shehadeh, Dana Darwish "Awareness regarding antibiotic use: Is there a need to re-evaluate university

courses? Survey-based study "Conference Paper, Evidence Live Conference, 2013.

- ❖ Shehadeh M. B.; Suaifan G.; Darwish R. M.; Wazaify M. "Urgent need for national educational programme addressing antibiotics misuse among adults in Jordan. A pilot study". Evidence-based 2013; Oxford University; UK. (Poster and presentation) 2013
- ❖ Yusuf M. Al-Hiari ,Amjad M. Qandil ,Rufaida M. Al-Zoubi ,Muhammed H. Alzweiri , Rula M. Darwish , Ghassan F. Shattat ,Tariq M. Al-Qirim "Synthesis and antibacterial activity of novel 7-haloanilino-8-nitrofluoroquinolone derivatives" *Medicinal Chemistry Research* 21(8) 2012
- ❖ Ghadeer A. R. Y. Suaifan, Mayadah Shehadeh, Dana A. Darwish, Hebah Al- Ijel, Al- Motassem Yousef and **Rula M. Darwish** "A cross-sectional Study on Knowledge, Attitude, and Behavior Related to Antibiotic Use and Resistance, among Medical and Non - Medical Students at The University of Jordan" *African Journal of Pharmacy And Pharmacology* 2012 Volume 6 number 10, Pages 763 - 770 .
- ❖ Mayada Shehadeh, Ghadeer Suaifan, **Rula M. Darwish**, Mayyada Wazaify, Luna Zaru, Suzan Al Ja'fari "Knowledge, Attitudes and Behavior Regarding Antibiotics Use And Misuse Among Adults In The Community Of Jordan. A pilot study" *Saudi Pharmaceutical Journal* 2012, Volume 20, Number 2, pages 125-133
- ❖ Ryalat S, **Darwish R**, Amin W "New form of administering chlorhexidine for treatment of denture-induced stomatitis" *Therapeutics and Clinical Risk Management* 2011 Volume 2011:7 Pages 219 – 225
- ❖ Safa A. Shaheen, Musa H. Abu Zarga, Ibrahim K. Nazer, **Rula M. Darwish** and Hala I. Al-Jabe "Chemical constituents of Jordanian propolis" *Natural Product Research* 2011 Volume: 25, Issue: 14, Pages: 1312-1318
- ❖ **Rula M. Darwish**, Ra'ed Abu Fares, Musa Abu Zarga and Ibrahim Nazer "Antibacterial Effect of Jordanian Propolis and Isolated Flavonoids Against Human Pathogenic Bacteria" *African Journal of Biotechnology* 2010 Vol. 9 (3 6) , pp . 5966 - 5974,
- ❖ **Rula M. Darwish** and Talal Aburjai " Antimicrobial Activity of Certain Medicinal Plants Against Candida" *Jordan Journal of Pharmaceutical Sciences* 2011
- ❖ **Rula M. Darwish** and Talal Aburjai "Effect of ethnomedicinal plants used in folklore medicine in Jordan as antibiotic resistant inhibitors on *Escherichia coli*" *BMC Complementary and Alternative Medicine* 2010, 10:9
- ❖ Yusuf Mohammad Al-Hiari , Amjad M. Qandil, Rufaida M. Al-Zoubi, Muhammed H. Alzweiri **Rula M Darwish**, Ghassan F. Shattat and Tariq M. Al-Qirim. " 7-(3-Chlorophenylamino)-1- cyclopropyl-6- fluoro-8-nitro-4-oxo-1,4-dihydroquinoline-3-carboxylic Acid" *Molbank* 2010, M669.
- ❖ **Rula Darwish**, Talal Aburjai " Effect of ethnomedicinal plants used in folklore medicine in Jordan as antibiotic resistant inhibitors on *Escherichia coli*" *BMC Complementary and Alternative Medicine* 2010
- ❖ **Rula M. Darwish**, Wala M. Amin, Muna H. Al-Ali and Nesreen A. Salem. "Study

of the elution of fluconazole from a self-polymerizing acrylic resin and its activity against resistant *Candida albicans*" *Journal of Materials Science: Materials in Medicine* 2009

- ❖ Wala M. Amin, Mahmoud A. Alawi, **Rula M. Darwish** ,Muna H. Al-Ali; Nesreen A. Salim , Sandra K. Al-Tarawneh “ In vitro studies of the elution of Fluconazole, Chlorhexidine and a combination of the two drugs from a self-cured acrylic and the effect of the eluates upon the growth of *Candida albicans*” *Material Research Innovation* vol 13.3 2009.
- ❖ **Rula Darwish**, Ra'ed Abu Fares, Musa Abu Zarga, Ibrahim Nazer Antifungal activity of Jordanian Propolis on Different Resistant and Standard Species of *Candida*" *Mellifera* 9-18:23-32 2009
- ❖ **Rula M. Darwish**, Talal Aburjai S. Al- Khalil and K. Hadidi “The effect of COX1 and Inhibitors on the Antibacterial activity of Selected Antibiotics against standard and Methicillin Resistant *Staphylococcus aureus*' *Jordan Journal of Pharmaceutical Sciences* 2009 pp76-84
- ❖ Ra'ed Abu Fares, Ibrahim K. Nazer, **Rula M. Darwish** and Mosa Abu Zarqa Honey “Honey Bee Hive Modification for Propolis Collection “*Journal of Agricultural Sciences*2008 pp 138-147
- ❖ S. Patricia Stock , Luma Al Banna ,**R. M. Darwish** and Ahmad Katbeh “Diversity and distribution of entomopathogenic nematodes (Nematoda: Steinernematidae, Heterorhabditidae) and their bacterial symbionts(c-Proteobacteria: Enterobacteriaceae) in Jordan” *Journal of Invertebrate Pathology* 2008
- ❖ Nailya R. Bulatova, **Rula M. Darwish** “ Effect of chemosensitizers on MICs of fluconazole in *Candida albicans* “*Medical Principles and Practice* 2008
- ❖ Yuseuf M. Hiari ,Inas Saleh Al- Mazari, Ashok K. Shakya , **Rula M. Darwish** and Rana Abu- Dahab " Synthesis and Antibacterial Properties of New 8-Nitrofluoroquinolone Derivatives " *Molecules* 2007,12,1240-1258
- ❖ Ruba Tarawneh , Imad Hamdan , Ahmad Bani Jaber, **Rula M. Darwish** 'Physicochemical studies on ciclopirox olamine complexes with divalent metal ions"*International Journal of Pharmaceutical Sciences* 289 2005 ,179-1 87
- ❖ Luma Albanna, **Rula M. Darwish** and Talal Aburjai " Effect of plant extracts and essential oils on root –Knot nematode" *Phytopathol. Mediterr.*2003 42, 123-12
- ❖ Abu Qaddom, **R. M. Darwish** and H. Muti "The effects of some formulation ingredients used in ophthalmic preparations onthiomersal activity against *Pseudomonas aeruginosa* and *Staphylococcus aureus*" *Journal of Applied Microbiology* 95,250-255 (2003)
- ❖ **Rula M. Darwish**,T. Aburjai, S.Al-Khalil , A.Mahafzah "Screening of Antibiotic Resistanc Inhibitors from Local Plant Materials against two Different Strains of *Staphylococcus aureus* " *Journal of Ethnopharmacology* 79,359-364 2002.
- ❖ **Rula M. Darwish**, "Immediate Effects of Local Commercial Formulations of Chlorhexidine and Povidone Iodine Used for Surgical Scrub" *Alexandria Journal of Pharmaceutical Sciences* 16 (1), 15- 19 ,2002.

- ❖ T. Aburjai, **Rula M. Darwish**, S.Al-Khalil , A.Mahafzah and A. Al-Abbadi, "Screening of antibiotic resistance inhibitors from local plant materials against two different strains of *Pseudomonas aeruginosa* " Journal of Ethnopharmacology 76,39-44 ,2001.
- ❖ M. Al-Shaer, **R. M. Darwish** and T. Aburjai " Antimicrobial Sesquiterpene from the Roots of *Ferula harmonis* " Acta Technologiae et Legis Medicamenti, XII,(3), 255-264 ,2001.
- ❖ **Rula M. Darwish**, Fatma U. Afifi and Amal Shervington " Comparison of the Antimicrobial Activity of Two different Extracts of Jordanian Plants: A Preliminary Study Alexandria " Journal of Pharmaceutical Sciences 11 (2)75-77 (1997)
- ❖ Amal Shervington, **Rula M. Darwish** and Fatma U. Afifi "Volatile Oil Produced by Microbial Infected *Rosmarinus Officinalis* Callusand Suspensions Culture ". Alexandria Journal of Pharmaceutical Sciences 11 (2) 81-84 ,1997.
- ❖ Fatma U. Afifi, Amal Shervington and **Rula M. Darwish**" Phytochemical and Biological Evaluation of *Arum palistinum* "Acta Technologiae et Legis Medicamenti,VII, (2), 105-111 ,1997.
- ❖ **Rula M. Darwish**, and Sally F. Bloomfield "Effect of propylene glycol, glycerol on the interaction of methyl and propyl p-hydroxybenzoate with *Staphylococcus aureus* and *Pseudomonas aeruginosa*" International Journal of Pharmaceutics 1997.
- ❖ **Rula M. Darwish** and Sally F.Bloomfield "The effects of co-solvents on the antibacterial activity of parabens preservatives".International Journal of Pharmaceutics 119, 183-192 ,1995.

PATENT

- ❖ Talal Aburjai, **Rula Darwish** and Luma Al-Banna. "Gundelia tournifortii L. a Native Jordanian edible plant to Control Nematodes", *Jordan Patent 2344*, May 2006. (priority date June 5,2005).
- ❖ **Rula M. Darwish**, Yousef Hiari, Sumaya M.Abdalla Elsheikhi, Violet Kasabri "Novel Substituted Quinolone Derivatives, Methods of Preparation Thereof, and their Use for Treating Microbial Infections". Patent 2021.
- ❖ Violet Kasabri, Yousef Hiari, **Rula M. Darwish**, Mohammad Amin "New Substituted Aniline-fluoroquinolones with anti-proliferative potential against solid cancer cell lines" Patent 2022.

BOOKS

- ❖ Madhat K. Darwish and **Rula M. Darwish** "You, Your Life and the Calories" Anass Press 1998
- ❖ Amy Chan, **Rula Darwish**, Saba Shamim ,Zaheer-Ud-Din Babar “Pharmacy practice and continuing professional development in low and middle-income countries (LMICs) Chapter In book: Pharmacy Practice Research Case Studies Edition: 1st Publisher: Elsevier 2021

Awards & achievements

- ❖ Award of Mohamed Moheb for Excellence in evidence based practice, Children Cancer Hospital Foundation 57357. (2021)
- ❖ Venus International Healthcare Awards – VIHA Professor of the Year in Pharmaceutical Microbiology 2022
- ❖ Awarded FIP Exco committee in academic section 2019
- ❖ FIP Workforce Development Hub lead 2019
- ❖ Awarded the CPD Chair in FIP 2022
- ❖ Staff Mobility for Training in Bath /UK 2019
- ❖ King Abdullah II fund for development for students / supervised by Prof. Rula Darwish
- ❖ Association of Women Jordanian Academies
- ❖ Immunization Advocate especially for elderly in nursing homes
- ❖ Several awareness lectures nationally, regionally and internationally including
 - COVID 19 new strains
 - Leadership lectures (The Quickest Way to Gain Leadership: Problem Solving)
 - COVID 19 Vaccines
 - Vector-Borne Diseases
 - Air pollution, its effect on health and the role of healthcare workers in relation to this issue
- ❖ CPD chair organized several successful workshops based on Needs including
 - Smoking cessation
 - Wound management
 - Asthma and COP management
 - Disposal Methods of Expired Medicines and their impact on the environment

CONFERENCES, MEETINGS AND WORKSHOPS including:

- ❖ Workshop entitled “Best practices for planning and evaluation of inter-professional education - part 2 “Organized by Accreditation Council for Pharmacy Education (ACPE), American Association of Colleges of Pharmacy (AACP) and AL Ain University Abu Dhabi, United Arab Emirates March 2021
- ❖ Speaker at Lincoln University, UK on “Pharmacy education and practice in Jordan” 2021
- ❖ Speaker at Knowledge University, Iraq on “Certification of Pharmacy programs; The University of Jordan Experience 2021
- ❖ International Pharmaceutical Federation (FIP) Panelist for FIP-UNITWIN Global Summit on Pharmaceutical Education. Roadmap for pharmacy education
- ❖ The International Pharmaceutical Federation (FIP) expert roundtable discussion on “The global threat of air pollution and its impact on patient care: supporting pharmacy practice and workforce development” moderator and participant 2021.

- ❖ Leader and speaker in The International Pharmaceutical Federation (FIP) on continuous professional development 2021
- ❖ Speaker in International Pharmaceutical Federation (FIP) event on Vector-Borne Disease EMRO 2021
- ❖ School of Pharmacy / University of Jordan conference "Recent Updates in Pharmacy and Pharmaceutical Sciences" 2021.
- ❖ Speaker on "COVID -19 and vaccines" awareness campaign at the University of Jordan Library 2021
- ❖ Speaker on "COVID -19 the new variants" webinar at the School of Pharmacy /The University of Jordan Library 2021
- ❖ The International Pharmaceutical Federation FIP Virtual 2020 congress "Living and learning through the covid-19 pandemic– global reflections" moderator and participant 2020
- ❖ WHO Workshops:
 - SMART Phone for change in October 2018
 - Tailoring Antimicrobial Resistance (TAP) preparation Workshop Phase 1 & Phase 2 in November 2018
 - Tailoring Antimicrobial Resistance (TAP) February 2019
 - Antimicrobial Stewardship 2019
- ❖ Conference of the Vaccines and Infectious center in Amman 2018 delivering a talk entitled (The Pharmacist and Antimicrobial Resistance)
- ❖ Jordan University of Science and Technology (JUST) Conference on Fostering National Initiatives for Management Healthcare- Associated Infections 2018
- ❖ The International Pharmaceutical Federation (FIP) World Congress of Pharmacy and Pharmaceutical Sciences 2 - 6 September 2018 Glasgow, UK
- ❖ The International Pharmaceutical Federation 79th FIP World Congress of Pharmacy and Pharmaceutical Sciences in Abu Dhabi 2019
- ❖ Third International conference entitled "Towards best Pharmacy Practice- Enhancing Pharmacy Education "and the third form for advancing Pharmacy education for internationally accredited pharmacy programs in middle east and gulf region 8-0 May in Beirut Arab University, Beirut, Lebanon
- ❖ Clinical Congress 2017 what's right for patients (education and training) 22-26th October 2017 San Diego, USA
- ❖ Workshop entitled" SMART Pharmacy" 8-9th October 2017 in Jordan Pharmaceutical Association
- ❖ Workshop entitled "The 2nd Symposium on Globalization of Bioequivalence Requirements "30-31 October 2017 Arab Co for Drug Industries & Medical Appliances ACDIMA.
- ❖ "The Eighth Scientific Research Conference in Jordan "Amman Jordan 11th November 2017

- ❖ “5th Annual International Conference on Health & Medical Sciences” 1-4 May 2017 in Athens, Greece.
- ❖ Building Successful Partnerships between Academia and Industry - The Pharmaceutical Sector” Amman, April 13th, 2016 (Organizer)
- ❖ President of "the 4th International Conference of School of Pharmacy /The University of Jordan and the 2nd Conference of the Association of Faculties of pharmacy of Jordanian Universities." 25-28th October 2016
- ❖ Workshop entitled “Regional Faculty Development Workshop on Curriculum Design and Delivery “Organized by Accreditation Council for Pharmacy Education (ACPE), American Association of Colleges of Pharmacy (AACP) and AL Ain University Abu Dhabi, United Arab Emirates March 13-14 ,2016
- ❖ Workshop on “Continuous Improvement of Students output based on ILOs “October 2016
- ❖ Workshop on “Design of Competencies in Accordance with the National Needs “October 2016
- ❖ The 13th Conference of Jordan Pharmaceutical association. Head of Scientific committee. Amman, 22-24 April 2010.
- ❖ Conference of "the Arab Alliance for the Prudent Use of Antimicrobials”, Beirut – Lebanon2009
- ❖ Conference of "the Arab Alliance for the Prudent Use of Antimicrobials”, Rabat – Morocco2008
- ❖ Third International Medical Conference, Royal Medical Services 5-8th May 2006
- ❖ Advanced training course on “Recent Techniques for Identification of Bacteria”. Collaboratively Organized by UNISCO and CAIRO MIRCEN 2004-2005
- ❖ Application of statistical modeling in the optimization of pharmaceutical formulation. Faculty of Pharmacy (Jordan University) Scientific day, Amman, Jordan, June 2nd,2005.
- ❖ “World congress on Gastro Intestinal Cancer “Parshalona, Spain 6002/ 2/ 65/ 55
- ❖ Conference of "the Arab Alliance for the Prudent Use of Antimicrobials”, Syria 2003
- ❖ ECCO in Copenhagen, Denmark 2003
- ❖ First conference of Society of Friends of scientific research at universities in Jordan. Amman 2003
- ❖ 2nd Conference of "the Arab Alliance for the Prudent Use of Antimicrobials”, Damascus–Syria 2002
- ❖ The 5th Scientific Congress of the Association of the Colleges of Pharmacy and the Second International Conference of the Faculty of Pharmacy, New Millennium New Horizons in Pharmaceutical Sciences, University of Jordan, Amman, Jordan, 16 - 18, October, 2001.
- ❖ Lecturing for Community Pharmacist, Continuing Education Course, Jordanian Pharmaceutic Association, Amman- Jordan, August,2001.
- ❖ The Seventh and Eighth Jordanian Pharmaceutical Association Conferences, Amman, Jordan 1999 and 2000
- ❖ “Molecular Biology in Medicine” Seminar Amman –Jordan1998

TEACHING EXPERIENCES

❖ Undergraduate Courses, Faculty of Pharmacy

1. Pharmaceutical Microbiology (1), Third year students (2 credit hours).
2. Pharmaceutical Microbiology (1) lab., Third year students (2 credit hours).
3. Pharmaceutical Microbiology (2), Third year students (second, 2 credit hours)
4. Applied Pharmaceutical Microbiology s, Fifth year students (2 credit hour).
5. Under Graduate seminar in Pharmaceutics and pharmaceutical technology (1 credit hour).

❖ Postgraduate Courses

Advanced Pharmaceutical Microbiology, Faculty of Pharmacy, **MSc** (3 credit hours).

MSc STUDENTS SUPERVISION Including

- **“Characterization and colonization of group b streptococcus isolated from mothers and their neonates”** Amani Abu Mandeel, School of Graduate studies, University of Jordan 2021.
- **“Antibacterial Peptides: Synthesis and Potential Activity on Clinically Important Bacteria”** Ali Salama School of Graduate studies, University of Jordan 2020.
- **“Antimicrobial effect of new fluoroquinolones on clinically important microorganisms”** Sumia M. Abdalla Hassan, School of Graduate studies, University of Jordan 2018.
- **Pharmacognostical, in vivo hypoglycemic and in vitro antimicrobial evaluation of traditionally used *Arum Palestineum* extracts and isolated compounds** “ Reem Fayiz Abu Hashhash School of Graduate studies, University of Jordan 2018
- **"Study of the synergistic effect of selective serotonin reuptake inhibitors with fluconazole against resistant strains of *Candida glabrata*"** Bashar Ahmad Al-Khalifa, School of Graduate studies, University of Jordan 2018.
- **"Study of the effect of proton pump inhibitors on fluconazole-resistant strains of *Candida glabrata*"** Waed Mohammad Abu Rokba Faculty of Graduate studies, University of Jordan 2018.
- **Rapid Colorimetric detection of *Staphylococcus aureus* In a Variety of Media”** Samah Waiel Al Noubani School of Graduate studies, University of Jordan 2016
- **In vitro and in vivo evaluation of selected plant extracts activity against *Helicobacter pylori*”** Amal Hussein Mayyas School of Graduate studies, University of Jordan 2016
- **“Study of chemosensitizing effect of calcium channel blockers in fluconazole resistant strains of *Candida albicans* ”**Lina Munir Al Najjar , School of Graduate studies, University of Jordan 2016.

- **“Detection of Fusidic Acid Resistance Genes among Clinical Isolates of *Staphylococcus aureus* IN Jordan”** Rasha Ahmad Al-Dasaouqi , School of Graduate studies, University of Jordan 2016.
- **The effects of formulation factors on thiomersal activity against *Pseudomonas aeruginosa* and *Staphylococcus aureus*”** Ali Abu Qaddoum, Faculty of Pharmacy, University of Jordan 2002.
- **The synthesis and microbiological evaluation of some novel derivatives of some natural and synthetic polymers ”** Reema Abu Khalaf, Faculty of Pharmacy University of Jordan 2002.
- **Chemical synthesis of Chitosan-metronidazole conjugate and evaluation of its antimicrobial activity ”** Dima Anani, Faculty of Pharmacy, University of Jordan 2003.
- **Synthesis of potentially antibacterial novel fluoroquinolone derivatives prepared from introducing new appendages at C-7 position of 7-chloro-1-cyclopropyl-6- fluoro-8-nitro-4-oxo-1,4-dihydroquinolone-3- carboxylic acid “** Inas Saleh Ayoub Al – Mazari, School of Graduate studies, University of Jordan 2005

PhD STUDENTS SUPERVISION Including

- **“In-vitro and In-Vivo Evaluation of selected plant extracts activity against *Helicobacter pylori*”** Amal Hussein Mayyas , Faculty of Pharmacy, University of Jordan 2016.
- **“In-vitro and In-Vivo Evaluation of Synthetic Triazoloquinolone Derivatives against *Helicobacter Pylori*”** Mohammad Khaled Abu Sini, University of Jordan 2013.
- **Synthesis and Biological Screening of Novel-Fused Heterocycles on to 4- Oxoquinolones; Diazepines and Benzodiazepine”** Lubna M. Swellmeen, Faculty of Pharmacy, University of Jordan 2011

MSc STUDENTS EXAMINAR Including

- **“Antimicrobial Resistance and Risk Factors associated with multidrug resistant *Acinetobacter baumannii* clinical isolates in Jordanian patients”** Yaman Majed Abandh, Jordan university of science and technology 2022
- **“Molecular Screening of Urogenital Tract of Adult Male for *Simkania negevensis*”** Noura Imad Alyateem The University of Jordan 2022
- **“Occurance and molecular characterization of metallo beta lactamases (MBLS) among *Acinetobacteria baumannii* isolates from Cancer patients “** Husam Fakhri Qouzah School of Graduate studies, University of Jordan 2019
- **Preliminary Study for antibiotics from microbes in soil from different locations in Jordan “** Zinah Azzam Abdulwahhab AlShareeda Faculty of Pharmacy Isra University 2019
-

- **“Evaluation of antibiotic-protease combinations as a new approach to control infectious diseases”** Diana Mohammad Ahmad Abdel Rahman , School of Graduate studies, University of Jordan 2018
- **“In vitro and phytochemical evaluation of Quercus-based traditional herbal remedies in Jordan”** Saif AlDeen MohammadFayiz Jaber School of Graduate studies, University of Jordan 2017
- **Design and synthesis of novel glycosylated –based antimicrobial agents** “ Aya Ahmed Mohammed Mohammed School of Graduate studies, University of Jordan 2017
- **“Evaluation of Quinolone Resistance among *Escherichia coli* isolates in Urinary tract infection patients in south Jordan ”** Ala’ Majed Abu Faraj School of Pharmacy, University of Jordan 2015.
- **“Combined action of valsopodar (PSC833) with antibiotics on *Staphylococcus aureus* strains”** Razan Marwan Jamil Jabr Faculty of Pharmacy, University of Petra 2015
- **Combined action varsopodar (PSC 833) with antibiotic on *Staphylococcus aureus* strains”** Razan Marwan Jamil Jabr , University of Petra 2015
- **Antimicrobial susceptibility patterns , macrolide resistant and vrulence factors of Viridansgroup Streptococcus (VGS) colonizing oral cavity in a group of Jordanian patients “** Rawan Fadel Abu-zeineh School of Graduate studies, University of Jordan 2013.
- **“Effect of local royal jelly on the growth and metabolism of two species of probiotic bacteria”** Zaid Mohammad Omran Nabas, School of Graduate Studies, University of Jordan 2012
- **“Parents knowledge, attitude and practices on antibiotic use in children with upper respiratory tract infection in Amman “**Rawan Bacel Qurashi Faculty of Graduate Studies, University of Jordan 2012
- **“Isolation of Microorganisms producing antibiotic from soil in Jordan”**Zinah AzzamAbdulwahhab Al-Shareeda , Faculty of Pharmacy, University of Jordan 2011.
- **“Effect of green tea (*Camellia sinesis*) on body weight, fat accretion and energy balance in rats fed high fat diets”.** Eman Ibrahim Adawiya Faculty of Graduate Studies, University of Jordan 2010
- **"Discovery of new *Candida albicans* myristol- Co A : Protein N-Myristoyl Transferase (NMT) inhibitors via novel structure-based molecular modeling approach followed by experimental validation"** by Zeina Mohammad Al- Hadidi 2010
- **"Use of Jordanian bacterium isolates to manage root knot nematodes (*Meloidogyne javanica* and *Meloidogyne incognita*) and citrus nematodes *Tylenchulus semipenetrans*)"** by Yahya M. Da'na Faculty of Graduate Studies, University of Jordan 2010

- **“Quorum sensing and microbial growth antagonistic activities of extract of medicinal plants in Jordan”** by Reema Mohammad Al –Hissaini December 2008
- "Effect of Honey and Propolis on Two different isolates of probiotic Bacteria"** by Sara' Raddad 2006
- **“Generation of an Optimal Pharmaophoreic Model for Quorum Sensing Agonist and Antagonists in *Pseudomonas aeruginosa* Employing Ligand-Based Technique and Subsequent Experimental Validation”** by Waleed Zalloum 2005
- **"Molecular Epidemiology of Methicillin- Resistant *Staphylococcus aureus* Isolated from Sick and healthy Yemenis"** Jamal Al –Ameri Faculty of biological sciences, University of Jordan 2004
- **"Preparation and Pharmaceutical Characterization of Ciclopirox olamin Complexes with Metal Ions"** by Ruba Tahsin Tarawneh Faculty of Pharmacy University of Jordan 2004
- **"Prevelence of Enterotoxigenic and Enterohaemorrhagic *Escherichia coli* Genotypes in water and stool isolates from Jordan using multiplex PCR”.** by Suhair Micheal Lolas Faculty of Science, University of Jordan 2004
- **The utilization of catalyst software for the discovery of potential antiviral agents”.** Hamadeh M.Kheir Tarazi, Faculty of Pharmacy, University of Jordan 2003
- **“Synthesis and Antimicrobial Evaluation of N-(Chloro, dichloro and Trichloro) acetyl –N- Methyl–D-Gulcamines"** Amaal Abdullah Al-Tahami, Faculty of Pharmacy, University of Jordan 2001.
- **“Synthesis of Haloacetamido Derivatives of Potential Antimicrobia Activities”.** Wesam Saleh Abdel–Razeq, Faculty of Pharmacy, University o Jordan 2000.

PhD STUDENTS EXAMINAR Including

- ❖ **Screening of plant-derived hypoglycemic and anticancer bioactive compounds** “Ala’ Mustafa Abu-Odeh School of Graduate studies, University of Jordan 2021
- ❖ **Penetration and Distribution of Gold Nanoparticles into Skin: Effect of Nanoparticle size, shape and surface Chemistry on Hair Follicles Targeting and antibacterial Activity”** Nouf N. Abdul Hameed Mahmoud Faculty of Graduate Studies, University of Jordan 2016
- ❖ **“Synthesis Docking Studies and Evaluation of Novel Fluoroquinolones and Triazolofluoroquinolones as Potential Panceratilipase inhibitors and Antiproliferative Compounds** “Shereen Ahmed Radwan Arabiyat School of Graduate studies, University of Jordan 2016
- ❖ **"Biological activity of some plant extracts with special emphasis on antitumor potential"** by Wamidh Hadi Talib School of Graduate studies, University of Jordan 2010
- ❖ **Biochemical and genetic characterization of the bacteriocins produced by *Bacillus cereus* and *Bacillus thuringensis* isolates** "by Natali hasan sarsour School of Graduate studies, University of Jordan 2010

- ❖ “Serotypes and antimicrobial susceptibility patterns of *Streptococcus pneumoniae* isolated from healthy children in Amman Jordan ” by Rawaa Suhail Al Kayali School of Graduate studies, University of Jordan 2008

REFEREES

1. **Dr. Sally F. Bloomfield, Bpharm Ph.D. MPS PhD**, The Old Dairy Cottage Woodhouse Lane, Montacute, Somerset TA1 5 6XL.
2. **Mr. Jeoff Dembpsy**, King's College London, Franklin–Wilkins Building, 150 Stamford Street, London SE18WA.
3. **Prof. Waleed Ra'oof Ahmad Suleiman**, Former Dean of Faculty of Pharmacy, Baghdad University, Baghdad-Iraq.
4. **Prof. Dr. Fatma U. Affi**, School of Pharmacy, University of Jordan, Amman 11942, Jordan, Fax: 00962 -6-5339649, E-mail: affi@ju.edu.jo
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