

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



NAME: Rula M. Darwish
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PERSONAL INFORMATION Sex

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

MEMBER OF:

- Society for Applied Microbiology-London
- Society for invertebrate Pathology- USA
- National Centre for Intellectual Property-Amman
- Jordan Pharmaceutical Association-Amman
- Member of disinfectant standards committee.
- Referee of Journal of Applied Microbiology , London
- Referee of international journals
- Referee of papers from Syria & Gaza

EDUCATION :

1. Ph.D. in Pharmacy (Pharmaceutical Microbiology), 1992, King's College- University of London, UK .
2. B.Sc. in Pharmacy, Faculty of Pharmacy, Baghdad University, Iraq.
3. Secondary Education Certificate, Ministry of Education (Kuwait) (Scored 92.2%).

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 Science and Technology, Irbid, Jordan (2014-present)
- 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.

TEACHING EXPERIENCES***x 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).

x Postgraduate Courses

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

MSc STUDENTS SUPERVISION

" **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 2005

" **Detection of Fusidic Acid Resistance Genes Among Clinical Isolates of Staphylococcus aureus IN Jordan** " Rasha Ahmad Al-Dasaouqi 2016

PhD STUDENTS SUPERVISION

" **Synthesis and Biological Screening of Novel *h*-Fused Heterocycles on to 4-Oxoquinolones; Diazepines and Benzodiazepine** " Lubna M. Swellmeen , Faculty of Pharmacy, University of Jordan 2011.

" **In-vitro and In-Vivo Evaluation of Synthetic Triazoloquinolone Derivatives against Helicobacter Pylori** " Mohammad Khaled Abu Sini , University of Jordan 2013.

MSc STUDENTS EXAMINAR

" **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.

"**The utilization of catalyst software for the discovery of potential antiviral agents**". Hamadeh M. Kheir Tarazi, Faculty of Pharmacy, University of Jordan 2003

"**Molecular Epidemiology of Methicillin- Resistant Staphylococcus aureus Isolated from Sick and healthy Yemenis**" Jamal Al –Ameri Faculty of biological sciences , University of Jordan2004

"**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 col Genotypes in water and stool isolates from Jordan using multiplex PCR**" . by Suhair Micheal Lolas Faculty of Science, University of Jordan 2004

"**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

"**Effect of Honey And Propolis on Two different isolates of probiotic Bacteria**" by Sara' Raddad 2006

"**Quorum sensing and microbial growth antagonistic activities of extract of medicinal plants in Jordan**" by Reema Mohammad Al –Hissaini December 2008

"**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 2010

"**Discovery of new Candida albicans myristol- CoA : Protein N-Myristoyl Transferase (NMT) inhibitors via novel structure-based molecular modeling approach followed by experimental validation**" by Zeina Mohammad Al- Hadidi 2010

"**Combined Action of Valspodar (PSC833) with Antibiotics on Staphylococcus aureus Strains**" by Razan Marwan Jamil Jaber 2015

"**Evaluation of Quinolone Resistance Among Escherichia Colisolates in Urinary Tract Infection Patients in South Jordan**" by Ala' Majed Abu Faraj 2015

PhD STUDENTS EXAMINAR

1. "**Serotypes and antimicrobial susceptibility patterns of Streptococcus pneumonia isolated d from healthy children in Amman Jordan** " by Rawaa Suhail Al Kayali 2008
2. |"**Biochemical and genetic characterization of the bacteriocins produced by Bacillus cereus and Bacillus thuringensis isolates** "by Natali hasan sarsour2010
3. "**Biological activity ofsome plant extracts with special emphasis on antitumor potential**" by Wamidh Hadi Talib 2010

RESEARCH INTEREST :

1. Antibiotics and the effects of formulation ingredients on antimicrobial activity.
2. Antimicrobial effects (including antifungal, nematocidal etc.) of different plant extracts.
3. The preserving effect of different formulations.
4. Invertebrate pathology.
5. Parasitology.
6. Microbial Resistance and how to improve the effects of antimicrobial agents on resistant strains of microorganisms.
7. Control of crossinfections.
8. Disinfection and Sterilization.
9. Nematocidal effects of natural products.
10. Investigation of new anticancer drugs from medicinal local plants.
11. Discovery of new insecticidal natural products from local plants.

PUBLICATION:

- x Ghadeer A. R. Y. Suaifan, Mayadah B. Shehadeh, **Rula M. Darwish**, Hebah Al-Ijel and Vincenzo Abbate "Design, Synthesis and in Vivo Evaluation of Novel Glycosylated Sulfonyleureas as Anti hyperglycemic Agents" **MOLECULES, 2015 Volume 20, Pages 20063–20078**
- x 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**
- x 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 PHARMACEUTICAL SCIENCES 2014 Volume 7, Number 3.**
- x Mayadah B. Shehadeh, Silvio Sosa, Ghadeer A.R.Y. Suaifan, **Rula M. Darwish**, Anna Giangaspero, Antonio Vassallo, Laura Lepore, Sawsan A. Oran, Hana Hamma, 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**
- x Ghadeer A. R. Y. Suaifan^{1*}, Mayadah Shehadeh¹, Dana A. Darwish, Hebah Al-Ijel, Al-Motassem M. Yousef³ 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 .**
- x Mayada Shehadeh, Ghadeer Suaifan, **Rula M. Darwish**, Mayyada Wazaify, Luna Zaru, Suzan Alja'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**
- x Suaifan, Ghadeer, Shehadeh, Mayadah; Darwish, Dana; Fahmi, Al-Motassem; **Darwish, Rula M.**, Al Ijil, Hiba "A cross-sectional Study on Knowledge, Attitude, and Behavior Related to Antibiotic Use and Resistance, among Medical and Non-Medical University Students " **African Journal of Pharmacy and Pharmacology 2012 Volume 6 , Number 10 ,pages 763 - 770**

- x 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
- x **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(36), pp. 5966-5974,
- x 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** 2010 Volume: 25, Issue: 14, Pages: 1312-1318
- x **Rula M. Darwish** and Talal Aburjai " Antimicrobial Activity of Certain Medicinal Plants Against Candida" **Jordan Journal of Pharmaceutical Sciences** 2010 (in press)
- x **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
- x 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.
- x **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
- x 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
- x **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
- x **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
- x Ra'ed Abu Fares, Ibrahim K. Nazer, **Rula M. Darwish** and Mosa Abu Zarqa Honey Bee Hive Modification for propolis collection Jordan **Journal of Agricultural Sciences** 2008 pp 138-147
- x 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
- x Nailya R. Bulatova, **Rula M. Darwish** " Effect of chemosensitizers on MICs of fluconazole in *Candida albicans*" **Medical Principles and Practice** 2007
- x Yusef 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
- x Ruba Tarawneh , Imad Hamdan , Ahmad Bani Jaber, **Rula M. Darwish** "Physicochemical studies on ciprofloxacin 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**, 123-128
- Abu Qaddom, **R. M. Darwish** and H. Muti "The effects of some formulation ingredients used in ophthalmic preparations on thiomersal activity against *Pseudomonas aeruginosa* and *Staphylococcus aureus*" **Journal of Applied Microbiology** **95**,250-255 (2003)
- x **Rula M. Darwish**,T. Aburjai, S.Al-Khalil , A.Mahafzah"Screening of Antibiotic Resistant Inhibitors from Local Plant Materials against two Different Strains of *Staphylococcus aureus* "**Journal of Ethnopharmacology** **79**,359-364 (2002).
- x **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).
- x 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).
- x 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).
- x **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).
- x Amal Shervington, **Rula M. Darwish** and Fatma U. Afifi "Volatile Oil Produced by Microbial Infected *Rosmarinus Officinalis* Callus and Suspensions Culture ". **Alexandria Journal of Pharmaceutical Sciences** **11** (2) 81-84 (1997).
- x Fatma U. Afifi, Amal Shervington and **Rula M. Darwish**" Phytochemical and Biological Evaluation of *Arum palistinium* "**Acta Technologiae et Legis Medicamenti**,VII, (2), 105-111 (1997).
- x **Rula M. Darwish**, and Sally F. Bloomfield "Effect of ethanol, propylene glycol and glycerol on the interaction of methyl and propyl p-hydroxybenzoate with *Staphylococcus aureus* and *Pseudomonas aeruginosa*" **International Journal of Pharmaceutics** **147**, 51-60 (1997).
- x **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).
- x **Rula M. Darwish**, "Immediate Effects of Local Commercial Formulations of Chlorhexidine

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).

BOOKS

M. K. Darwish and **Rula M. Darwish** "You ,Your Life and the Calories" Anass Press 1998.

CONFERENCES, MEETINGS AND WORKSHOPS

1. The 13th Conference of Jordan Pharmaceutical association. Head of Scientific committee. Amman, 22-24 April 2010.
2. Conference of "the Arab Alliance for the Prudent Use of Antimicrobials" ,Beirut – Lebanon 2009
3. Conference of "the Arab Alliance for the Prudent Use of Antimicrobials" , Rabat – Morrocco 2008
4. Third International Medical Conference, Royal Medical Services 6002/5/8 -5
5. Advanced training course on “Recent Techniques for Identification of Bacteria”. Collaboratively Organized by Uniscoand CAIRO MIRCEN 2004-2005
6. Application of statistical modeling in the optimization of pharmaceutical formulation. Faculty of Pharmacy (Jordan University) Scientific day, Amman, Jordan, June 2nd,2005.
7. “World congress on Gastro Intestinal Cancer “ Parshalona, Spain 6002/2/65/55
8. Conference of "the Arab Alliance for the Prudent Use of Antimicrobials" , Syria 2003
9. ECCO in Copenhagen, Denmark 2003
10. First conference of Society of Friends of scientific research at universities in Jordan. Amman 2003
11. 2nd Conference of "the Arab Alliance for the Prudent Use of Antimicrobials" , Damascus –Syria 2002
12. The 5th Scientific Congress of the Association of the Colleges of Pharmacy and the Second International Conference of the Faculty of Pharmacy, New Millenium New Horizons in Pharmaceutical Sciences, University of Jordan, Amman, Jordan, 16 - 18, October, 2001.
13. Lecturing for Community Pharmacist, Continuing Education Course, Jordanian Pharmaceutic Association, Amman- Jordan, August,2001.
14. The Seventh and Eighth Jordanian Pharmaceutical Association Conferences,Amman, Jordan 1999 and 2000
15. “Molecular Biology In Medicine” Seminar Amman –Jordan1998

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**, Dean of Faculty of Pharmacy ,Baghdad University, Baghdad-Iraq.
4. **Prof. Dr. Fatma U. Afifi**, Faculty of Pharmacy, University of Jordan, Amman 11942, Jordan, Fax: 00962 -6-5339649, [E-mail: afifi@ju.edu.jo](mailto:afifi@ju.edu.jo)
5. **Prof. Ali M. Qaisi**, Faculty of Pharmacy, University of Jordan, Amman 11942, Jordan, Fax: 00962 -6-5339649, E-mail amqaisi@ju.edu.jo
6. **Prof. Suleiman Al-Khalil**, Faculty of Pharmacy, University of Jordan, Amman 11942, Jordan, Fax: 00962 -6-5339649, E-mail :alkhalil@ju.edu.jo
7. **Prof. khaled Aida**, Faculty of Pharmacy, University of Jordan, Amman 11942, Jordan, Fax: 00962 -6-5339649, E-mail:
8. **Prof. Talal Abu rjai** ,Faculty of Pharmacy, University of Jordan, Amman 11942, Jordan, Fax:00962-6-5339649,E-mai