



## Curriculum Vitae

Name: Rana (M. N.) Abu-Dahab  
Date of birth: 08 March 1969  
Place of birth: Kuwait  
Nationality: Jordanian  
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### Education

1986 Secondary School Certificate, Scientific branch, Islamic College, Amman, Jordan  
1986-1991 B.Sc. Pharmacy with honor degree, Jordan University, Amman, Jordan  
1991 Permission to Practice Pharmacy, Amman, Jordan  
1995-1996 M.Sc. Biopharmacy with distinction, King's College London, University of London, UK  
1997-2001 Ph.D. Biopharmacy, Saarland University, Germany

### Training and Working Experience

1991-1993 Arab Pharmaceutical Manufacturing Company, Research and Development Department, Salt, Jordan  
1993-1995 Faculty of Pharmacy, Jordan University, Teaching Assistant  
1996-1997 Faculty of Pharmacy, Jordan University, Lecturer  
Oct.1997-June 2001 Ph.D. candidate, Dept. of Biopharmaceutics and Pharmaceutical Technology, Saarland University, Saarbrücken, Germany  
1998-2000 European Editor Assistant, EJPB, Germany  
Sep. 2001-Mar.2008 Faculty of Pharmacy, Dept. of Biopharmaceutics and Clinical Pharmacy, Jordan University, Assistant Professor

Summer 2004 Faculty per Factory Programme, Triumpharma, Amman, Jordan

Sep. 2005-Sep 2007 Assistant Dean for Students Affairs, Faculty of Pharmacy, Jordan University

Sep. 2007-Sep.2009 Head of Departement of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, Jordan University

March 2008 Associate Professor of Biopharmacy, Faculty of Pharmacy, Jordan University

2005- 2007 Member in Bioequivalence Studies Evaluation committee, JFDA

2005- 2006 Member in Registration of Biopharmacueticals committee, JFDA

2008-2012 Member in the Registration of Vaccines and Sera committee, JFDA

Since Jan. 2008 Member in the IRB committee, Pharmaceutical Research Unit, Amman, Jordan. From Jan 2020, Chairman of the committee

Sep.2010-Sep.2011 Visiting Associate Prof., Dept of Pharmaceutical Technology, JUST, Jordan

Summer 2011 Faculty per Factory Programme, JPM, Naur, Jordan

Sep 2013-Sep 2014 Assistant Dean for Quality Management

Since Nov 2013 Prof. of Biopharmacy, Dept. of Biopharmaceutics and clinical pharmacy, The University of Jordan

Sep 2014-May 2016 Member in the Scientific committee in the Jordanian Science Research Foundation

Sep 2014-Sep 2015 Sabbatical leave at Zarqa University

Sep 2015-Spe 2016 Vice Dean of Scientific Research, The University of Jordan

July 2018-Sep 2019 Member in Bioequivalence Studies Evaluation Committee, JFDA

Since April 2019 Member of the Board of Trustees, Zarqa University, Jordan

Since Sep 2020 Dean of the School of Pharmacy, The University of Jordan

## Publications in Refereed Journals

Rana Abu-Dahab, Raed AL-Hweiyyan, Areej Abuhammad, Fatma Afifi. Effect of Selected Pure Compounds of Plant Origin on the Proliferation, Adhesion, Migration, and Invasion of Human Prostate Cancer Cells. 2021. Tropical Journal of Natural Product Research. 5(2):253-259. doi.org/10.26538/tjnpr/v5i

Lina Dahabiyeh, Nouf N. Mahmoud, Mohammad A. Al Natour, Laudina Safo, Dong-Hyun Kim, Enam A. Khalil, Rana Abu-Dahab. Phospholipid-Gold Nanorods Induce Energy Crisis in MCF-7 Cells: Cytotoxicity Evaluation Using LC-MS-Based Metabolomics Approach. 2021. Biomolecules. <https://doi.org/10.3390/biom11030364>

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Nouf N.Mahmoud, Rana Abu-Dahab, Maha Abdallah, Sabaa Al-Dabash, Duaa Abuarqoub, Abdulrahim Albasha, Enam A.Khalil. Interaction of gold nanorods with cell culture media: Colloidal stability, cytotoxicity and cellular death modality. Journal of Drug Delivery Science and Technology. 2020, Volume 60, 101965. <https://doi.org/10.1016/j.jddst.2020.101965>

Imad I Hamdan, Dina El-Sabawi, Tverdokhle N.M., Lantushenko A.O, Evstigneev M.P., Rana Abu-Dahab. Studies on potential interaction between cincalcet hydrochloride and diclofenac sodium. Biophysical Chemistry. 2020, Volume 266, 106460, <https://doi.org/10.1016/j.bpc.2020.106460>

Nouf N. Mahmoud, Duaa Abuarqoub, Rand Zaza, Dima A. Sabbah, Enam A. Khalil, Rana Abu-Dahab. Gold Nanocomplex Strongly Modulates the PI3K/Akt Pathway and Other Pathways in MCF-7 Breast Cancer Cell Line. International Journal of Molecular Sciences. 2020, 21, 3320; doi:10.3390/ijms21093320

Shahd Al-Maaz, Rana Abu-Dahab, Mayyada Wazaify & Munir Shawagfeh (2020) Second-hand exposure to aerosolized intravenous anesthetics (fentanyl) among anesthesiologists in Jordan, Journal of Substance Use, 25:4, 405-411, DOI: [10.1080/14659891.2020.1723723](https://doi.org/10.1080/14659891.2020.1723723)

Imad Hamdan, Duaa Farah and Rana Abu-Dahab, Chromatographic Behaviour and Analytical Method Development for Metformin HCl: Application to Permeation Studies through Caco-2 Cells. Acta Poloniae Pharmaceutica - Drug Research, 2020, 77(1): 11-21

Mahmoud, Nouf ; Abu-Dahab, Rana; Hamadneh, Lama; Abuarqoub, Duaa; Jafar, Hanan; Khalil, Enam, Insights into the Cellular Uptake, Cytotoxicity and Cellular Death Modality of Phospholipid-Coated Gold Nanorods Toward Breast Cancer Cell Lines. Molecular Pharmaceutics. August 2019. DOI: 10.1021/acs.molpharmaceut.9b00470

Nouf N. Mahmoud, Lubna M. Al-Kharabsheh, Enam A. Khalil, and Rana Abu-Dahab, Interaction of Gold Nanorods with Human Dermal Fibroblasts: Cytotoxicity, Cellular Uptake, and Wound Healing. Nanomaterials 2019, 9, 1131; doi:10.3390/nano9081131

Nagham S. Al-dmour, Rana M.N. Abu-Dahab, Maxim P. Evstigneev, Victor V. Kostjukov, Dina El Sabawi, Imad I. Hamdan. Interaction of Pseudoephedrine and Azithromycin with Losartan: Spectroscopic, Dissolution and Permeation Studies. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 2019. 221 117194.  
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Mahmoud, N.N., Sabbah, D.S., Abu-Dahab, R.M, Abuarqoub, D., Rashed, R., Hasan Ibrahim, A., Khalil, E.A. Cholesterol-Coated Gold Nanorods as an Efficient Nano-Carrier for Chemotherapeutic Delivery and Potential Treatment of Breast Cancer: *In vitro* Studies Using MCF-7 Cell Line. *RSC Advances*, 2019, 9 (22):12718-12731

Shahd Al-Maaz , Rana Abu-Dahab , Munir Shawagfeh , and Mayyada Wazaify. Prevalence and pattern of substance use and misuse among anesthesia health-care personnel in Jordan. *Journal of Substance Use*. 2019. 24:3, 317-322,  
DOI: [10.1080/14659891.2019.1570366](https://doi.org/10.1080/14659891.2019.1570366)

Bashar Altaani, Suhair Nimri, Razan Hadad and Rana Abu-Dahab. Preparation and Characterization of an Oral Norethindrone Sustained Release/Controlled release Nano-particles Formulation Based on Chitosan. *AAPS PharmSciTech*. 2019. 20(2):54

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Nirmeen Elmadany, Enam Khalil, Lisa Vaccari, Giovanni Birarda, Ibraheem Yousef, Rana Abu-Dahab. Antiproliferative activity of the combination of doxorubicin/querceetin on MCF7 breast cancer cell line: A Combined Study Using Colorimetric Assay and Synchrotron Infrared Microspectroscopy. *Infrared Physics and Technology*. 2018. 95:141-147

Dina El-Sabawi, Rana Abu-Dahab, Waleed A. Zalloum, Fadia Ijbara, Imad I. Hamdan. The effect of ferrous ions, calcium ions and citric acid on absorption of ciprofloxacin across Caco-2 cells: practical and structural approach. *Drug Development and Industrial Pharmacy*. October 2018. DOI: [10.1080/03639045.2018.1539495](https://doi.org/10.1080/03639045.2018.1539495)

Aman A Ishaqat, Rana Abu-Dahab, Hana M Hammad , Malek Al-Zihlif , Ismail F Abaza , Zeyad D Nassar and Fatma U Afifi. Phytochemical Analysis and Evaluation of Anti-angiogenic and Antiproliferative Activities of the Leaves of *Elaeagnus angustifolia L.* Grown in Jordan. *Nat Prod Chem Res* 2018, 6:3. DOI: [10.4172/2329-6836.1000319](https://doi.org/10.4172/2329-6836.1000319)

Violet Kasabri, Fatma Afifi, Rana Abu-Dahab, Sundos Mashallah. Mitigating efficacy of *Inula graveolens* (L.) Desf. (Asteraceae) in breast adenocarcinoma MCF7 and T47D proliferation: In vitro mechanistic studies of a selected ethnomedicinal plant from Jordan. *Romanian Biotechnological Letters* 1(1):1-9. January 2018

I Hamdan, D. Sabawi, R. Abu-Dahab. Solubility of Gliclazide and Ion-Molecular Interactions with Aminopropanol in Aqueous Solutions. *Russian Journal of Physical Chemistry A*. 2018, Vol 92 No. 1, pp 84-92

O. Awwad, R. Abu-Dahab, I.F. Abaza, R. Alabbasi, L. Majdalawi and F.U. Afifi. Effect of the galling aphid of *Baizongia pistaciae* L. on composition and biological activities of essential oils of *Pistacia atlantica* Desf. growing wild in Jordan. *Journal of Essential Oil Bearing Plants*. 2017. Vol 20, Issue 3: 791-800

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Adwan S, Abu-Dahab R, Al-Bakri AG, Sallam A. Glycerol monooleate-based otic delivery system of ofloxacin: release profile and bactericidal activity. *Pharm Dev Technol*. 2015; 20(3): 361–366

Abu-Dahab R, Abdallah MR, Kasabri V, Mhaidat NM, Afifi FU. Mechanistic studies of antiproliferative effects of *Salvia triloba* and *Salvia dominica* (Lamiaceae) on breast cancer cell lines (MCF7 and T47D). *Z Naturforsch C*. 2014 Nov-Dec; 69(11-12):443-51. doi: 10.5560/znc.2013-0147

Yusuf M. AlHiari, Ashok K. Shakya, Muhammed H. Alzweiri, Talal Aburjai, Rana Abu-Dahab. Synthesis and biological evaluation of substituted tetrahydro-1H-Quino[7,8-B][1,4]Benzodiazepine-3-Carboxylic derivatives. *Farmacia*, 2014, Vol. 62, 3

Rana Abu-Dahab, Violet Kasabri and Fatma U. Afifi. Evaluation of the Volatile Oil Composition and Antiproliferative Activity of *Laurus nobilis* L. (Lauraceae) on Breast Cancer Cells Line Models. *Records of Natural Products* 8:2 (2014):136-147

Rana Abu-Dahab, Enam Khalil, Ayman Khadair, Dina El-Sabawi, Imad Hamdan. Antiproliferative activity of selected non-steroidal anti-inflammatory agents: Role of iron complexes. *Jordan Journal of Pharmaceutical Sciences*, Volume 7, No. 1, 2014: 49-66

Fatma U. Afifi, Violet Kasabri, Rana Abu-Dahab, Ismail M. Abaza. "Chemical composition And in vitro studies of the essential oil and aqueous extract of *Pelargonium graveolens* growing in Jordan for hypoglycaemic and hypolipidemic properties " *European Journal of Medicinal Plants* 4(2):220-233, 2014

Violet Kasabri, Fatma U. Afifi, Rana Abu-Dahab, Nizar Mhaidat, Yasser K. Bustanji, Ismail M. Abaza, Sundus Mashallah. In vitro modulation of metabolic syndrome enzymes and proliferation of obesity related-colorectal cancer cell line panel by salvia species from Jordan. *Revue Roumaine De Chimie* 2014; 59(8):693-705

Zihlif M, Afifi F, Abu-Dahab R, Abdul Majid AM, Somrain H, Saleh MM, Nassar ZD, Naffa R. The antiangiogenic activities of ethanolic crude extracts of four *Salvia* species. *BMC Complement Altern Med*. 2013 Dec 13;13:358

Sanaa Bardaweel, Rana Abu-Dahab and Noor Almomani. An *in vitro* based investigation into the cytotoxic effects of D-amino acids. ACTA Pharmaceutica, 2013 Dec;63(4):467-78

Rana Abu-Dahab, Fadwa Odeh, Said I. Ismail, Hanan Azzam and Abeer Al Bawab. Preparation, characterization and antiproliferative activity of Thymoquinone-B cyclodextrin self assembly nanoparticles. Die Pharmazie, 2013 Dec;68(12):939-44

Maha Abdallah, Rana Abu-Dahab and Fatma Afifi. Composition of the Essential Oils from *Salvia dominica* L. and *Salvia hormium* L. Grown in Jordan. Jordan Journal of Pharmaceutical Sciences. 2013. 6(1): 40-47

Violet Kasabri, Rana Abu-Dahab, Fatma U. Afifi, Randa Naffa, Lara Majdalawi, Hazar Shawash. *In vitro* effects of Geranium graveolens, Sarcopoterium spinosum and Varthemia iphionoides extracts on pancreatic MIN6 proliferation and insulin secretion and extrapancreatic glucose diffusion. International Journal of Diabetes in Developing Countries. Accepted for publication, January 2013

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Violet Kasabri, Rana Abu-Dahab, Fatma U. Afifi, Randa Naffa, and Lara Majdalawi, Hazar Shawash, *In vitro* modulation of pancreatic MIN6 insulin secretion and proliferation and extrapancreatic glucose absorption by *Paronychia argentea*, Rheum ribes, and Teucrium polium extracts. Jordan Journal of Pharmaceutical Sciences. 2012, 5(3): 203-219

Rana Abu-Dahab, Fatma Afifi, Violet Kasabri, Lara Majdalawi, Randa Naffa. Comparison of the Antiproliferative Activity of Crude Ethanol Extracts of Nine *Salvia* Species Grown in Jordan Against Breast Cancer Cell Line Models. Pharmacognosy Magazine, 2012, Vol 8: 32: 319-324

Violet Kasabri, Rana Abu-Dahab, Fatma U. Afifi, Randa Naffa, and Lara Majdalawi. Modulation of pancreatic MIN6 insulin secretion and proliferation and extrapancreatic glucose absorption with Achillea santolina, Eryngium creticum and Pistacia atlantica extracts: *in vitro* evaluation. Journal of Experimental and Integrative Medicine, 2(3): 237-244 (2012)

Fatma U. Afifi and Rana Abu Dahab, Phytochemical screening and some biological activities of Eminium spiculatum (Blume) Kuntze (Family Araceae), Natural Product Research, 2012 May;26(9):878-82.

Afifi-Yazar F, Kasabri V and Abu Dahab R. Medicinal Plants from Jordan in the Treatment of Diabetes: Traditional Uses vs. In vitro and In Vivo Evaluations - Part 2. Planta Medica, July 77(11): 1210-20 (2011)

Afifi-Yazar F, Kasabri V and Abu Dahab R. Medicinal Plants from Jordan in the Treatment of Cancer: Traditional Uses vs. In vitro and In Vivo Evaluations - Part 1. Planta Medica, July 77(11): 1203-9 (2011)

Jelnar Z. Al-Kalaldeh, Rana Abu-Dahab and Fatma U. Afifi, Volatile oil composition and antiproliferative activity of *Laurus nobilis*, *Origanum syriacum*, *Origanum vulgare*, and *Salvia triloba* against human breast adenocarcinoma cells. Nutrition Research, 30:271–278 (2010)

Yusuf M. Al-Hiari , Rana Abu-Dahab and Mustafa M. El-Abadelah, Heterocycles [*h*]-Fused Onto 4-Oxoquinoline-3-Carboxylic Acid, Part VIII [1]. Convenient Synthesis and Antimicrobial Properties of Substituted Hexahydro[1,4]diazepino[2,3-*h*]quinoline-9-carboxylic acid and Its Tetrahydroquino[7,8-*b*]benzodiazepine Analog. Molecules, 13: 2880-2893 (2008)

Abu Dahab R, Afifi-Yazar FU, Comparison of antiproliferative activities of ethanolic plant extracts of the Jordanian flora using MCF7 and A549 cells. Planta Medica, Volume 3 (9): 990 (2007)

Rana Abu-Dahab and Fatma Afifi, Antiproliferative activity of selected medicinal plants of Jordan against a breast adenocarcinoma cell line (MCF7), Scientia Pharmaceutica, 75, 121-136 (2007)

Yusuf M. Al-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, 12, 1240-1258 (2007)

Abu-Dahab, R., Hakooz, N., “A Primer of an Animal Cell Culture Laboratory for Efficacy, Toxicity and Transport Screening” . Jordan Medical Journal, Vol 40 (3) 172-179 (2006)

Hakooz, N., Abu-Dahab, R., Arafat, T., Hamad, M., “A trend of low serum vitamin B<sub>12</sub> in Jordanian adults from two ethnic groups in Amman”. Jordan Medical Journal. Vol. 40 (2) 80-87 (2006)

Takayuki Nakamura, Rana Abu-Dahab, Michael D. Menger, Ulrich Schaefer, Brigitte Vollmar, Hiromi Wada, Claus-Michael Lehr, and Hans-Joachim Schaefer "Depletion of Alveolar Macrophages by Clodronate-liposomes Aggravates Ischemia - Reperfusion Injury of the Lung". Journal of Heart and Lung Transplantation. Volume 24 (1) 38-45 ( 2005)

Ehrhardt, C., Fiegel, J., Fuchs, S., Abu-Dahab, R., Schaefer, U.F., Hanes, J., Lehr, C.-M., Drug absorption by the respiratory mucosa-cell culture models and particulate drug carriers, J. Aerosol Medicine, Vol. 15 (2):131-139 (2002)

Brueck, A., Abu-Dahab, R., Borchard, G., Schaefer, U.F., Lehr, C.-M., Lectin functionalized liposomes for pulmonary drug delivery: interaction with human alveolar epithelial cells. J. Drug Targeting, Vol 9 (4) 241-251, (2001)

Abu-Dahab, R., Schaefer, U.F., Lehr, C.-M., Lectin functionalized liposomes for pulmonary drug delivery: effect of nebulization on stability and bioadhesion, Eur. J. Pharm Sci., 14: 37-46, (2001)

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## Other publications

Ehrhardt C, Fuchs S, Abu-Dahab R, Schaefer UF, Lehr CM, Arzneistoffabsorption durch die Lungenschleimhaut – Zellkulturmodelle und partikulaere Arzneistofftaeger, in G Scheuch "Aerosole in der Inhalationstherapie VI", IndustrieTBmed, München (2002)

Bakowsky U, Oberle V, Hoehstra D, Vogel J, Bendas G, Rothe U, Abu-Dahab R, Kneuer C, Hartmann U, Lehr CM, Untersuchungen pharmazeutisch relevanter Transportsysteme in Wechselwirkung mit biologischen und Modellmembranen charakterisiert durch AFM und QCM, In A.Wisser & W.Nachtigall (eds.): BIONA-Report 14, Akad. Lit., Mainz; GTBB, Saarbrücken, 75-76 (2000)

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## Presentations in International Congresses

Abu-Dahab R, Schaefer U, Lehr CM, Stability of DPPC and lectin functionalized liposomes to nebulization, Lecture, CRS German Chapter Annual Meeting, Erlangen, March 19, 1999

Abu-Dahab R, Schaefer U, Lehr CM, Stability of 1,2-dipalmitoyl-glycero-3-phosphocholine (DPPC) and lectin functionalized DPPC liposomes to nebulization, Poster presentation, CRS Boston, June 20-25, 1999

Abu-Dahab R, Fuchs S, Schaefer U, Lehr CM, Interaction of lectin functionalized liposomes with alveolar epithelial cells, Poster presentation, Workshop: Liposome advances: Progress in drug and vaccine delivery, Centro for Drug Delivery Research, The School of Pharmacy, University of London, London, December 13-17, 1999

Abu-Dahab R, Schaefer UF, Lehr CM, Interaction of lectin functionalized liposomes with cells of deep lung, Poster presentation, AAPS Annual Meeting, October 29 – November 2, 2000, Indianapolis

Abu-Dahab R, Nakamura T, Schaefer U, Schaefer H.J., Lehr CM, Characterization of clodronate liposomes for the depletion of alveolar macrophages: in vitro and in vivo studies. Lecture, CRC German Chapter Annual Meeting, Saarbrücken, February 2, 2001

Abu-Dahab R, Schaefer UF, Lehr, CM, Interaction of lectins with cells of deep lung: human alveolar cells in primary culture versus A549 cells. 28<sup>th</sup> Int. Symposium on controlled release of bioactive materials. June 23-27, 2001, San Diego-USA

Abu-Dahab R., Schaefer UF, Lehr CM, Lectin functionalized liposomes: a promising drug delivery system to deep lung. Lecture, The 5<sup>th</sup> scientific congress of the association of the colleges of pharmacy in the Arab world and the 2<sup>nd</sup> international conference of the faculty of pharmacy / University of Jordan. Amman-Jordan, October 16-18, 2001

Abu-Dahab R, Nakamura T, Schaefer U, Schaefer H.J., Lehr CM, Intratracheal administration of liposome-encapsulated clodronate aggravates warm ischemia reperfusion



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Abu-Dahab Rana, The use of animal cell culture models in pharmaceutical sciences, invited speaker, The 9<sup>th</sup> international pharmaceutical sciences conference and exposition, December 17-21 Riyadh-Saudi Arabia, 2005. Abstracts published in Saudi Pharmaceutical Journal, 2005, Volume 13, No. 4, 58

R. Abu-Dahab, S. Adwan and A. Sallam, Glycerylmonooleate System Based Delivery System of Ofloxacin: Release Profile and Bactericidal activity. 33<sup>rd</sup> annual meeting of the controlled release society. July 22-26, 2006, Vienna, Austria

Abu Dahab R, Afifi-Yazar FU, Comparison of antiproliferative activities of ethanolic plant extracts of the Jordanian flora using MCF7 and A549 cells. 55<sup>th</sup> International congress and annual meeting of the society for medicinal plant research. September 2-6, 2007, Graz, Austria. Poster presented by Prof. Afifi

Fatma U. Afifi-Yazar, Abu-Dahab, Rana, Ismail, Said. Medicinal plants and anticancer activities: Experiences from Jordan Using MCF7 cell line. Oral contribution presented by Prof Afifi in BIT Life Sciences 1<sup>st</sup> Annual World Cancer Congress-2008, June 12-15, Shanghai, China

Afifi-Yazar F, Abu Dahab R and Kasabri V. Traditional uses and scientific evidence for selected native medicinal plants from Jordan: a critical evaluation. *Planta Medica*, Volume 76: 1168, (2010) Abstract of 58<sup>th</sup> International congress and annual meeting of the society for medicinal plant and natural product research. 29<sup>th</sup> August-2<sup>nd</sup> September 2010, Berlin Germany

Abdullah Maha, Fatma U Afifi and Abu Dahab Rana, Studies on *Salvia Dominica* grown in Jordan: volatile oil composition and mechanism of action of its antiproliferative activity (MCF-7). 11<sup>th</sup> Eurasia Conference on Chemical Sciences, 6-10 October, The Dead Sea, Jordan. Poster presented by Maha Abdullah

Fatma U Afifi, Rana Abu-Dahab and Violet Kasabri, Volatile oil composition and antiproliferative activity of two *Origanum* species from Jordan. 11<sup>th</sup> Eurasia Conference on Chemical Sciences, 6-10 October, The Dead Sea, Jordan. Podium presentation for Prof. Afifi.

Rana Abu-Dahab and Fatma U Afifi, Antiproliferative and antibacterial activity of *Eminium Speculatum* (Blume) Kuntze grown in Jordan. Poster presentation at The 3<sup>rd</sup> Kuwait International Pharmacy Conference. Kuwait, February, 14-16, 2011.

Violet Kasabri (presenter), Fatma U. Afifi-Yazar, Imad Hamdan, Rana Abu- Dahab. Traditional uses and scientific evidence for a selected native medicinal plant from Jordan: a critical evaluation of *Pistacia atlantica*. First United Arab Emirates Conference on Pure and Applied Chemistry (ECPAC11). American University of Sharjah; March 1-3, 2011, UAE. Oral Podium Presentation.

Violet Kasabri (presenter), Fatma U. Afifi-Yazar, Imad Hamdan, Rana Abu- Dahab. Traditional uses and scientific evidence for a selected native medicinal plant from Jordan: a critical evaluation of *Arum hygrophilum*. Balqa 4<sup>th</sup> Medical Conference, Al-Sult, Jordan; June 8<sup>th</sup>-9<sup>th</sup>, 2011. Oral Podium Presentation

Fatma U.Afifi (presenter), Violet Kasabri, Rana Abu-Dahab. Studies on the *in vitro* determination of the antiproliferative activity of aromatic, edible and medicinal plants from the flora of Jordan. Second International Conference on Holistic Medicine (ICHM-2011) September 11-13, 2011. Kottayam, Kerala, India. Oral Podium Presentation

Fatma U. Afifi (presenter), Imad Hamdan, Rana Abu-Dahab, Violet Kasabri. Evidence-based Traditional Medicine: Critical evaluation of medicinal plants used for antidiabetic properties in Jordan. 13<sup>th</sup> International Symposium on Natural Product Chemistry (ISNPC-13). September 22-25, 2012. Karachi, Pakistan. Oral Podium Presentation.

Violet Kasabri (presenter), Fatma U. Afifi-Yazar, Imad Hamdan, Rana Abu- Dahab. Traditional uses and scientific evidence for a selected native medicinal plant from Jordan: a critical evaluation of *Eryngium creticum*. 3ISMP: The 3<sup>rd</sup> International Symposium on Medicinal Plants Their Cultivation and Aspects of Uses. Al-Balqa Applied University/Shoubak University College/Petra. November 21<sup>st</sup>-23<sup>rd</sup>, 2012. Oral Podium Presentation

Violet Kasabri (presenter), Fatma U. Afifi-Yazar, Imad Hamdan, Rana Abu- Dahab. Traditional uses and scientific evidence for a selected native medicinal plant from Jordan: a critical evaluation of *Achillea santolina*. 3ISMP: The 3<sup>rd</sup> International Symposium on Medicinal Plants Their Cultivation and Aspects of Uses. Al-Balqa Applied University/Shoubak University College/Petra. November 21<sup>st</sup>-23<sup>rd</sup>, 2012. Poster Presentation

Rana Abu-Dahab (presenter), Violet Kasabri and Fatma Afifi-Yazar. Evaluation of the Volatile Oil Composition and Antiproliferative Activity of *Laurus nobilis* L. (Lauraceae) on Breast Cancer Cell Line Models The 3<sup>rd</sup> International Symposium on Medicinal Plants, Their Cultivation and Aspects of Uses. Al-Balqa Applied University/ Shoubak University College/Petra November 21-23, 2012. Poster Presentation.

Rana Abu-Dahab, Fadwa Odeh, Said Ismail, Hanan Azzam and Abeer Al Bawab. Preparation and characterization of Thymoquinone self assembly nanoparticles. Third European Conference on Cyclodextrins, Antalya, Turkey, 2-4 October, 2013. Poster Presentation.

Rana Abu-Dahab, What makes Biologicals Different? The 8<sup>th</sup> International Conference of The Royal Medical Services. 15-18 November 2016. Oral Presentation.

Rana Abu-Dahab, Aman Ishaqat, Fatma Afifi. Nature as a Source of New Anticancer Agents: Experience from Indigenous Plants from Jordan: *Lavendula angustifolia* and *Eleagnus angustifolia*. The 6<sup>th</sup> Annual Meeting of the Middle Eastern Association of Cancer Research. December. 3-5, 2016. Qatar University, Doha. Oral Presentation

Rana Abu-Dahab, ESARMUS , conference and roundtable discussion, Amman, 12-13 June, 2017

Enam Khalil, Rana Abu-Dahab, Nirmeen Almadany, Giovanni Birarda, Lisa Vaccari and Ibraheem Yousef. Evaluation of cytotoxicity of Doxorubicin/Quercetin combination in MCF7 breast cancer cell line: a combined study using synchrotron infrared microspectroscopy and colorimetric assay. WIRMS 2017, 25-28 September 2017. Oxford, UK. Poster Presentation

Amal G. Al-Bakri, Nisreen Dahshan, Rana Abu-Dahab, Enam Khalil. A novel *ex vivo* skin explants biofilm model for evaluating the effect of photodynamic antimicrobial chemotherapy and iberin treatment towards *Pseudomonas aeruginosa* biofilms. Microbiology Annual Conference (10-13 April, 2018). ICC, Birmingham, UK. Oral Presentation by Al-Bakri

May Tayyem, Rana Abu-Dahab and Amal G. Al-Bakri, Development of a co-culture model simulating cystic fibrosis lung infected with *Pseudomonas aeruginosa*. 12<sup>th</sup> International conference and workshop on Biological Barriers, Saarbruecken, Germany. Oral presentation.

### **Awards**

|      |                                                                |
|------|----------------------------------------------------------------|
| 1991 | Scientific Achievement Award, Jordan University, Amman, Jordan |
| 1996 | Biopharmacy Department Award, King's College London, UK        |
| 1999 | Best Presentation Award, CRS-Germany, Erlangen, Germany        |

### **Supervision of MSc thesis**

- In vitro evaluation and cytocompatibility of natural polymers for local/systemic delivery of macromolecules. Sanaa Bardaweel. Co-supervisor with Dr. Khaled Aiedeh. July 2006
- Development and characterization of controlled release drug delivery system of ofloxacin for the treatment of otitis externa. Samer Adwan. Co-supervisor Dr. A. Sallam. January 2007
- In vitro cytotoxic activity of selected Jordanian medicinal plants using leukemia cells. Fatima Hassan. Co-supervisor with Prof. Dr. F. Afifi
- Evaluation of the solubilization capacity of Gelucire 44/14 and Pluronic F126 combination. Manar AlGhabish. Co-supervisor with Dr. Hatem Al-Khatib. July 2008
- GC-MS determination of the volatile oil composition and evaluation of antiproliferative activity for selected medicinal plants indigenous to Jordan against breast cancer adenocarcinoma cell line. Jelnar Z. Al-Kalaldehy. Co-supervisor with Prof Dr. Afifi. August 2008
- Studies on some *Salvia* species grown in Jordan: volatile oil composition and mechanism of action of their antiproliferative activity. Maha Rashed. Co-supervisor with Prof Dr Afifi. July 2010
- Evaluation of Safety and Uptake Mechanism of a Micellar Drug Delivery System Based on poly (ethyleneoxide) - b- poly (propyleneoxide) (PEO- b -PPO) copolymers using Caco-2 cell culture model. Rehan Al-Kasasbeh. December 2013
- Antiproliferative activity of the combination of quercetin/doxorubicin on breast cancer cell lines: possible role of changes in oxidative stress level. Nirmeen Almadany. June 2015
- Phytochemical evaluation of the ethanol extract and volatile oil of the aerial parts of *Phlomis viscosa* L. grown in Jordan and determination of its antioxidant, antimicrobial and anti-proliferative activity against different breast cancer cell lines. Hadeel Hasan. Co-supervisor with Prof. Dr. Afifi. August 2015

- Phytochemical screening and evaluation of antioxidant, antimicrobial and antiproliferative (against breast cancer cell line T47D) activities of the leaves of *Elaeagnus angustifolia* grown in Jordan. Aman Ishagat. Co-supervisor with Prof. Dr. Afifi. August 2015
- Effect of organic anions on the intestinal absorption of metformin HCl. Duaa G. Farah. January 2016
- The effect of Iberin against *Pseudomonas aeruginosa* biofilms in cystic fibrosis artificial sputum medium and on ex vivo skin explant model. PhD thesis. Nisreen Ahmad Dahshan. Co-supervisor with Prof. Dr. Enam Khalil and Prof. Dr. Amal Al-Bakri. July, 2016
- The safety and efficacy of Mycamine on fibroblasts and *Pseudomonas aeruginosa* acute wound model. MSc thesis. Heba I Jaber. Co-supervised with Prof. Dr. Amal G Al-Bakri. December 2017
- Development of a co-culture *in vitro* model simulating cystic fibrosis lung infected with *Pseudomonas aeruginosa*. MSc thesis. Mai Tayyem. Co-supervisor Prof. Dr. Amal G Al-Bakri. December 2017
- Prevalence and Pattern of Substance Use and Misuse among Anesthesia Health Care Personnel in Jordan and the Effect of Second Hand Exposure to Aerosolized Intravenous Anesthetics (Fentanyl) among Anesthesiologists in Jordan. MSc thesis. Shahd AlMuaz. Co supervised with Prof. Dr. Mayyada Al-Wazaify. December 2017
- Effects of selected basic drugs on dissolution and permeation of losartan. MSc thesis, Nagham Al-Dmour. Co-supervisor with Prof. Dr. Imad Hamdan. March 2018
- Determination of the anticancer activity of selected compounds of natural origin: possible involvement of phosphatase of regenerating liver-3 enzyme. MSc thesis. Raed Al-Hweihan. Co supervisor Dr. Areej AbuHammad. July 2018
- Formulation potential of chitosan-octanoate in beads and microparticles as drug carriers. MSc thesis. Safaa Taha Eyal-Salman. Co supervisor with Dr. Ahmad BaniJaber. April 2019
- Cellular uptake and toxicity of gold nanorods on human dermal fibroblast: effect of nanoparticle surface chemistry. MSc thesis. Lubna Al-Kharabsheh. Co supervisor with Dr. Enam Khalil. April 2019
- Synthesis and anticancer activity of novel pyridoquinoxaline derivatives. MSc thesis. Alaa Tabaza. Co supervisor with Dr. Yusuf Al-Hiari. April 2019
- Evaluation of the protective effect of probiotics on fibroblast -*Pseudomonas aeruginosa* acute wound model. MSc thesis. Sarah Co supervisor with Dr. Amal Bakri. May 2020

### **Taught courses at The University of Jordan since September 2001**

- Medical Terminology, 1 credit hour course, 1<sup>st</sup> year undergraduate PharmD students
- Biopharmaceutics, 2 credit hours course, 4<sup>th</sup> year undergraduate students
- Pharmacokinetics, 2 credit hours course, 4<sup>th</sup> year undergraduate students
- Pharmacokinetics workshops, 1 credit hour course, 4<sup>th</sup> year undergraduate students
- Biochemistry practical, 1 credit hour, 2<sup>nd</sup> year undergraduate students
- Parapharmaceuticals, 2 credit hour, elective course for 5<sup>th</sup> year undergraduate students
- Seminar in Biopharmaceutics and clinical pharmacy, 1 credit hour elective course for 5<sup>th</sup> year undergraduate students
- Drug targeting II, 3 credit hours elective course for MSc students
- Pharmaceutical biotechnology, 3 credit hours elective course for MSc students
- Delivery of biopharmaceuticals, 3 credit hours elective course for PhD students
- Drug Discovery and Biotechnology, 2 credit hours obligatory course for PhD students

### **Taught courses at Jordan University of Science and Technology, during the academic year 2010-2011**

- Drug Delivery, 3 credit hour course, 5<sup>th</sup> year undergraduate student
- Pharmaceutical Biotechnology, 3 credit hour elective course, 5<sup>th</sup> year undergraduate student
- Biopharmaceutics and Pharmacokinetics, 3 credit hour elective course, 4<sup>th</sup> year undergraduate students

### **Invited Lectures**

- Workshop entitled "Implementation of Global Guidelines in Bioequivalence and Stability Studies", arranged by JFDA, 3, March, 2007, Kempenski Hotel, Amman. Lecture title "Biowaivers based on the biopharmaceutics Classification System"
- Workshop entitled "Monitoring and evaluation of serum vaccine registration files and certification. Organized by JFDA, 21, April, 2007, Kempenski Hotel, Amman. Lecture title "Biological and Biosimilar Products: where do we stand".
- Continuous Education Program, Jordan Pharmacist Association, "Biologicals versus small molecular weight drugs: what do we need to know". Session hold in Le Meridian Amman, 5. May, 2009.

### **Scientific visits**

- Soft X ray Beam user. April 2019. BESSY II Synchrotron, Berlin, Germany.
- FTIR- Beam user times May 2016. Elettra Synchrotron, Trieste, Italy.
- FTIR- Beam user times July - August 2015. BESSY II Synchrotron, Berlin, Germany.

### **Certificates and Training**

- Clinical Investigation Training Program (CITP), JFDA, May 2010
- Institutional Review Board Manual Training, JAPM, July, 2010
- IRB manual training, PRU, January, 2011

## **Funded Projects**

- Assessment of drug toxicity/transport using validated tissue culture systems.(PI) Deanship of Scientific Research, JU. Funded on April 2002. 12 500 JD
- In vitro cytotoxic activity of selected Jordanian medicinal plants. Deanship of Scientific Research, JU. Funded on June 2004 with 12 800 JD (PI)
- Studies on in vitro insulinotropic activity in pancreatic MIN6 cell line and phytochemical evaluation of selected medicinal plants of Jordan. Deanship of Scientific Research, JU. Funded on July 2008 with 17 300 JD.
- Studies on the mechanisms of antiproliferative active extracts of selected medicinal plants from Jordan. Funded by SRTD (contract JO/2008/RGS/034) on April 2009. 14 000 JD
- Targeted Delivery of macromolecules to cancer cells. Deanship of Scientific Research, JU. Funded on March 2009 with 20 000 JD
- Targeted Delivery of Aptamers to cancer cells. Funded by Ministry of Higher Education and Scientific Research. Funded on April 2010 with 60 000 JD
- Marie Curie Actions—International Research Staff Exchange Scheme- IRSES-FP7, 2010 (32, 000 EUR)
- Antiproliferative activity of the combination of Quercetin/Doxorubicin on breast cancer cell lines. *In vitro* tests vs FTIR micorspectroscopy. Co-Researcher with Prof. Enam Khalil. Scintific Research Support Fund. December 2015. 19550 JOD
- Establishment of a Co culture Model of the Upper Respiratory Tract Cells Representing Cystic Fibrosis and *Pseudomonas aeruginosa*. (PI). June 2014. 10000 JOD
- Screening of some pure compounds (flavonoids, coumarins, volatile compounds) and their simple derivatives isolated from local medicinal plants for their antiproliferative properties. (PI). Deanship of Scientific Research. March 2017. 10 000JOD.

## **Areas of Interest**

The use of colloidal drug delivery systems for macromolecule delivery and targeting  
Cell culture models and their use is estimating drug toxicity, transport and activity  
Estimation of antiproliferative activity of phytochemicals  
FTIR spectroscopy and biological testing  
*In vitro* modeling of infected tissues

## **Language Proficiency**

English and German: good command spoken and written