

Curriculum Vitae

Name: Rana (M. N.) Abu-Dahab
Date of birth: 08 March 1969
Place of birth: Kuwait
Nationality: Jordanian
Marital status: Married with three children.
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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 Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, Jordan University
Since 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 Biopharmaceuticals committee, JFDA
Since Jan. 2008	Member in the Registration of Vaccines and Sera committee, JFDA
Since Jan. 2008	Member in the IRB committee, Pharmaceutical Research Unit, Amman, Jordan
Sep.2010-Sep.2011	Visiting Associate Prof., Dept of Pharmaceutical Technology, JUST, Jordan

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

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. 28th 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 5th scientific congress of the association of the colleges of pharmacy in the Arab world and the 2nd 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 injury of the lung, Lecture, The 2nd international conference of the royal jordanian medical services, 7-10 October, 2003, Amman-Jordan

Abu-Dahab Rana, The use of animal cell culture models in pharmaceutical sciences, invited speaker, The 9th 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. 33rd 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. 55th 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 1st 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 58th International congress and annual meeting of the society for medicinal plant and natural product research. 29th August-2nd 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). 11th 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. 11th 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 3rd Kuwait International Pharmacy Conference. Kuwait, February, 14-16, 2011.

Publications in Refereed Journals

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*, accepted for publication. Jan 2011

Jelnar Z. Al-Kalaldeh, Rana Abu-Dahab and Fatma U. Afifi, Volatile Oil Composition and Antiproliferative Activity of Selected Culinary Herbs Grown in Jordan against Human Breast Adenocarcinoma Cell Line (MCF7). *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 B₁₂ 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)

Sallam, E.; Ibrahim, H.; Abu Dahab, R.; Shubair, M.; Khalil, Enam. Evaluation of fast disintegrants in terfenadine tablets containing a gas-evolving disintegrant. Drug Development and Industrial Pharmacy, 24(6), 501-507. (1998)

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, Hoechstra 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)

Abu-Dahab, Rana; Lehr, Claus-Michael. Artificial self-assembling systems for gene delivery, edited by Philip L. Felgner, Michael J. Heller, Pierre Lehn, Jean Paul Behr and Francis C. Szoka, Jr., Journal of Controlled Release, 51(2,3): 343-344 (1998)

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. Jelmar Z. Al-Kalaldeh. Co-supervisor with Prof Dr. Afifi. August 2008
- Studies on some Savia species grown in Jordan: volatile oil composition and mechanism of action of their antiproliferative activity. Co-supervisor with Prof Dr Afifi. July 2010

Taught courses in the University of Jordan since September 2001

- Biopharmaceutics, 2 credit hours course, 4th year undergraduate students
- Pharmacokinetics, 2 credit hours course, 4th year undergraduate students
- Pharmacokinetics workshops, 1 credit hour course, 4th year undergraduate students
- Biochemistry practical, 1 credit hour, 2nd year undergraduate students
- Parapharmaceutics, 2 credit hour, elective course for 5th year undergraduate students
- Seminar in Biopharmaceutics and clinical pharmacy, 1 credit hour elective course for 5th 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 biopharmaceutics, 3 credit hours elective 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, 5th year undergraduate student
- Pharmaceutical Biotechnology, 3 credit hour elective course, 5th year undergraduate student
- Biopharmaceutics and Pharmacokinetics, 3 credit hour elective course, 4th 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.

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
- Tageted 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

Areas of Interest

The use of colloidal drug delivery systems for macromolecule delivery and targeting

Cell culture models and their use in estimating drug toxicity, transport and activity

Estimation of antiproliferative activity of phytochemicals

Language Proficiency

English and German: good command spoken and written