

## CURRICULUM VITAE

### MUTAZ A. W. SHEIKH SALEM

*President of Philadelphia University*



#### ADDRESS

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#### PERSONAL DATA

**Date of Birth:** January 1<sup>st</sup>, 1955  
**Place of Birth:** Irbid - Jordan  
**Nationality:** Jordanian  
**Marital Status:** Married  
**Number of Children:** Five

#### EDUCATION

**December, 1981.** Ph.D. in Formulation Sciences, Department of Pharmacy, Manchester, University, Manchester, England.

**June, 1978.** **Ph. D. Thesis:** Compaction Characteristics of Binary Mixtures.  
B.Sc. in Pharmacy, College of Pharmacy, Baghdad University, Baghdad, Iraq.

#### EMPLOYMENT

**Since January 2015:** President of Philadelphia University.  
**2013 – 2015:** President of the Royal University for Medical Sciences.  
**2007- 2012:** Director of Pharmaceutical Research Center- Jordan University of Science and Technology.  
**2005- 2007:** Professor, Philadelphia University (Vice-President and Dean of Science).  
**1997 - 2005:** Professor, Jordan University of Science and Technology, Irbid, Jordan (Dean of Pharmacy School and President's Advisor).  
**July 2002:** Industrial Pharmacy–Individual Training Course, Tohoku Pharmaceutical University, National Institute of Health Sciences, Takeda Chemical Industries Ltd. and related institutions. The Course is organized by Japan International Cooperation Agency (International Cooperation Programme of the Government of Japan).  
**1988 - 1997:** Associate Professor, Jordan University of Science and Technology, Irbid, Jordan.  
**1992 - 1993:** Fulbright Visiting Associate Research Scientist, College of Pharmacy, University of Minnesota.  
**1986 - 1988:** Assistant Professor, Jordan University of Science and Technology, Irbid, Jordan.  
**1982 - 1986:** Assistant Professor, Yarmouk University, Irbid, Jordan.

## TEACHING EXPERIENCE

- **Undergraduate Courses**
  - Pharmacy Orientation
  - Physical Pharmacy
  - Pharmaceutical Technology
  - Industrial Pharmacy
  - Pharmacy Administration
  - Modern Dispensing
  - Non- Prescription Drugs (OTC)
  - Advanced Pharmaceutics
  - Seminar and / or Project
  - Pharmaceutical Dosage Forms (for Nursing Students)
  
- **Graduate Courses**
  - Technology of Pharmaceutical Dosage Forms
  - Seminar in Pharmaceutical Technology
  - Technology of Pharmaceutical Dosage Forms Lab.
  
- **M.Sc. Theses Supervised**
  - Preparation and Characterization of Possible Indomethacin Dosage Forms Using Different Carriers. By Mai Subhi Khanfar. (1995).
  - Effect of Additives on the Stability of Triproloidine Hydrochloride in Liquid and Solid Dosage Forms. By Sami Quasim (1996).
  - Studies on Solid Transformation of Terfenadine. By Mayyas Al-Remawi (1998).
  - Anti-inflammatory Activity of Niosome Encapsulated Diclofenac Sodium and Tocopherol. By Randa Atwan (1998).
  - Release Behavior & Physical Characteristics of Diclofenac Sodium in Compritol 888 Matrix Beads Encapsulated in Alginate. By Amani Mergani (1999).
  - Solid State Transformation & Modification in Sildenafil Citrate & Terfenadine Salts. By Isra Idmoor (1999).
  - Influence of Moisture Content on Hydrophilic Polymers and Its Effects on the Stability of Cefadroxil. By Deema Fayoumi (2001).
  
- **Ph.D. Theses Supervised**
  - Formulation of Universal Controlled Release Hydrophilic Polymer Mixtures Ready for Direct Compression. By Mayyas Al-Remawi (2003).
  - Characterization of the Surface Properties of Chitosan Using Adsorption. By Mai Khanfar (2004).
  - Kinetics of Solid-State Transformations of Fluconazole. By Rana Obeidat (2004).
  - Development and Evaluation of Mucoadhesive Buccal Patches Releasing Fentanyl Citrate. By Rana Abu-Huwaj:( August 2004).
  - Development and Characterization of a Controlled Release Ocular Drug Delivery System. By Samar Al-Showa' (2004).
  
- **Examiner for Many M.Sc. Theses – among them:**
  - The use of Drug/Excipient interaction in the design of controlled release dosage forms by Derar Omari (1995).

- Formulation of oral dosage forms of nifedipine using semisolid systems. By Husam Younis (1995).
- Evaluation of some Mefenamic Acid Esters as possible prodrugs. By Sana'a Hasan Gharaibeh (1996).
- Release of Salicylic Acid, Diclofenac Acid and Diclofenac Acid Salts, from Isotropic and Anisotropic Nonionic Surfactant Systems Across Rat Skin. By Nancy Husni Ghabboun (1996).

## ADMINISTRATIVE RESPONSIBILITIES

<b>2013 – 2015:</b>	President of the Royal University for Medical Sciences.
<b>2007- 2012:</b>	Director of Pharmaceutical Research Center- Jordan University of Science and Technology.
<b>2005 – 2007:</b>	Vice - President for Academic Affairs/ & Dean of Science / Philadelphia University.
<b>2001 – 2005:</b>	President's Advisor, Jordan University of Science and Technology.
<b>1995-2001:</b>	Dean, Faculty of Pharmacy, Jordan University of Science and Technology.
<b>Sept. 1988 - Sept.1992, Sept. 1993 - 1995</b>	Chairman of Pharmaceutical Technology Department, Faculty of Pharmacy, Jordan University of Science and Technology Summer Sessions of 1988, 1989 & 1991 Acting Dean.

## OTHER RELEVANT EXPERIENCE

### Accomplishments as a Dean

As the Dean of the Faculty of Pharmacy, I accomplished the following:

- Modified the undergraduate curriculum by: improving the quality of practical courses, emphasizing clinical pharmacy orientation, emphasizing pharmacy training and introducing new elective courses that cover new areas and trends in pharmaceutical sciences to meet the needs of graduates and their prospective employers.
- Established new graduate programs:
  - Master's program in Pharmaceutical Technology
  - Ph.D. program in Pharmaceutical Technology
  - Master's program in Clinical Pharmacy
  - Master's program in Pharmaceutical Quality Control
  - Master's program in Medicinal Chemistry and Pharmacognosy
- Introduced the Pharm D program as pioneers in the Middle East.
- Introduced a computer laboratory to support the teaching process.
- Launched several continuing education courses in Pharmacy in coordination with Jordan Pharmaceutical Association.

## COUNCILS AND COMMITTEES

I have served as a member of several committees and councils.

- **At the Faculty level:**
  - Faculty council
  - Departmental council
  - Tender's committee
  - Curriculum committee

- Admission and registration committee
- Student training committee
- Research committee
- **At the University level:**
  - University council
  - Council of Deans
  - Appointments and promotions committee
  - Graduate studies council
  - Ethical committee
  - Housing and loans committee
  - Scientific research committee
  - Curriculum committee
  - Head of Registration committee
- **At the National and International Level:**
  - Member of the Board of Trustees at Balqa University 1999-2003.
  - Member of the Accreditation Board/Ministry of Higher Education 2001-2004.
  - Expert Evaluator for M.Sc. & B.Sc. programs in Pharmacy for Private Universities in Jordan and the Palestinian Authority.
  - Local Consultant for World Bank project to organize the Pharmaceutical Sector in Jordan.
  - Secretary General of the Association of Colleges of Pharmacy in the Arab World (1996-1998).
  - Member of the Executive Committee of the Association of Colleges of Pharmacy in the Arab World (1998).
  - Member of the Committee of Arab Pharmacopoeia (1996-
  - Member of several accreditation Committees of various private universities in Jordan (1995 –
  - Member of the Ministry of Higher Education Committee for qualifying foreign universities degrees in Medical Sciences.
  - Member of the editorial board of the Arab J. of Pharmaceutical Sciences.
  - Member of the Bioequivalency and Bioavailability Committee at the Ministry of Health 1999-2001.
  - Chairman of the Committee of Accreditation for Drug Manufacturing Sites 2001-present.
  - Chairman and Vice-Chairman of the IRB Committee at King Abdallah University Hospital and Jordan University of Science and Technology since 2010.
  - Member of Clinical Studies Committee at Jordan Food and Drug Administration (JFDA) since 2010.
  - Member of the editorial board of Jordan Journal of Pharmaceutical Sciences since 2008.
  - Member of Scientific Research Support Fund at the Ministry of Higher Education since 2010.

## COMMUNITY SERVICE

- Participating in a study that aimed at elucidating the level of health awareness among Jordanian students.

- Conducting a study to explore problems facing drug marketing in Jordan.
- Conducting joint research projects to improve the quality of locally manufactured pharmaceutical products.
- Participating in the organization of the symposium on solid dosage forms in Jordan.
- Studying chemical and microbiological contamination of pharmaceutical products available in the Jordanian market.
- Participating in the organization of a national workshop on pharmaceutical education.

## RESEARCH INTERESTS

- Solid phase manipulation of pharmaceutical powders.
- Solubility and dissolution enhancement of poorly water soluble drugs.
- Bioavailability and bioequivalency of pharmaceutical dosage forms.
- Development and evaluation of drug delivery systems.

## GRANTS

### A. Yarmouk University:

1. Research grant to study "The Effect of Magnesium Stearate on Mixtures of Pharmaceutical Powders".
2. Research grant to study "The Feasibility of Establishing Drug Information Center at Yarmouk University."
3. Research grant from The Jordanian Ministry of Planning, to study "Cross Contamination of Pharmaceutical Products".

### B. Jordan University of Science and Technology:

1. Research grant to study "Analysis and Pharmacokinetics of Methotrexate."
2. Research grant to study "Influence of Surface Hydrophobicities on Powder Mixing."
3. Research grant to study "The Use of Caffeine as Indicator of Liver Function in Jordanian Population."
4. Research grant to study "Drug - Exepient Interactions."

### C. Jordanian Pharmaceutical Manufacturing Company:

1. Research grant to study "The Bioequivalency of Ranidine Tablet Formulations. "
2. Research grant to study "The Bioequivalence of Co-Tetroxazine Tablet Formulations."
3. Research grant to study "The Bioequivalence of Tenoxicam Tablet Formulations."

### D. Arab Pharmaceutical Manufacturing Company:

1. Research grant to study "The bioequivalency of Co-Trimoxazole tablet Formulations."
2. Research grant to study "The bioequivalency of Omprazole tablet formulations."
3. Research grant to study "The bioequivalency of Chlorpheniramine and Phenyyl proplamine tablet formulations."

### E. United Pharmaceuticals:

1. Research grant to study "The bioequivalency of Piroxicam dosage forms"

### F. ACDIMA:

1. Research grant to study "Preparation of fast release dosage forms of Mefenamic acid."
2. Research grant to "Controlled release devices for the treatment of periodontal diseases using resorbable human collagen."

**G. Fulbright grant for post-doctoral research at the department of pharmaceutics,**

1. Minnesota University, 1992 - 1993.

## REPORTS

1. Proposal for establishing Drug Information Centre at Yarmouk University.
2. Presented to the University administration and the Ministry of Health.
3. Report on Bioavailability and Bioequivalence Study on Two Tablet Formulations of Ranitidine Hydrochloride: Ranidine(R) and Zantac(R). Submitted to: The Jordanian Pharmaceutical Manufacturing Company, Naor - Jordan.
4. Report on Bioavailability and Bioequivalency Study on Two Tablet Formulations of Tetroxoprim and Sulphadiazine. Submitted to: The Jordanian Pharmaceutical Manufacturing Company, Noar - Jordan.
5. Report on Bioequivalency Study on Two Tablet Formulations of Co- Trimoxazole, Trimethoprim (160mg) and Sulphamethoxazole (800mg). Submitted to: The Arab Pharmaceutical Manufacturing Company, Sult-Jordan.

## ARTICLES

- H.N. Alkaysi and M. Sheikh Salem "Importance of Drug Information in Community Pharmacy Practice". Al-Saidali (Pharmacist), April, 1986.

## CONFERENCES AND MEETINGS

- British Pharmaceutical Technology Conference, London, UK 1980.
- First Jordanian Pharmaceutical Conference. Amman, Jordan 1982.
- First Kuwaiti Conference on Pharmaceutical Sciences. Kuwait, 1982.
- ACDIMA Symposium on Drug Industry in the Arab World, Amman, Jordan 1983.
- Second Jordanian Pharmaceutical Conference, Amman Jordan, 1984.
- The Ninth Arab Pharmaceutical Conference, Tripoli, Libya, 1984.
- Symposium on Solid Dosage Forms. Amman, Jordan 1984.
- Conference held on the occasion of the Golden Jubilee of the College of Pharmacy, University of Baghdad, Baghdad, Iraq, 1986.
- British Pharmaceutical Technology Conference, London, UK 1988.
- Fifth International Conference on Pharmaceutical Technology, Paris, France. 1989.
- Fiftieth International Congress of F.I.P., Istanbul, Turkey, 1990.
- The 4th Pan Pacific Asian Congress on Clinical Pharmacy, Jakarta, Indonesia 1994.
- The 1st World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Budapest, Hungaria 1995.
- American Association of Pharmaceutical Sciences (aaps) Seattle, USA. 1996.



- The Midnight Sun Meeting on Drug Development, Tromso, Norway, 2004.
- PharmSciFair, June 2005, Nice, France.
- 6<sup>th</sup> World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Barcelona, Spain 2008.
- 12<sup>th</sup> Jordanian Pharmaceutical Conference. Amman, Jordan 2008.
- 26<sup>th</sup> Arab Pharmaceutical Conference, Amman, Jordan, 2008.
- Clinical Studies in Jordan, Current and Future Prospective, April 2008.
- Clinical Trials- Media Outreach Workshop; Amman- Jordan, July 2008.
- Facilitating Clinical Trials in the MENA Region; Amman- Jordan, October 2008.
- The First JAPM Bioequivalence Conference, Amman, July 2008.
- 13<sup>th</sup> Jordanian Pharmaceutical Conference. Amman, Jordan 2010.
- 27<sup>th</sup> Arab Pharmaceutical Conference, Damascus, Syria 2010.
- Clinical Trials Workshop organized by JFDA, Amman, April 2010.
- IRB Training Workshop organized by JAPM &USAID, Amman, July 2010
- Pharmsci-UK Nottingham-England Sept.2010.
- Clinical Investigation Training Program by JFDA, JAPM, USAID, Amman, Oct. 2010.

## ABSTRACTS

1. H.N. Alkaysi, M. Sheikh Salem, and N. Alkhalili, "HPLC Analysis and Stability of Naphazoline Salts in Pharmaceutical Dosage Forms", First Cyprus Conference on New Methods in Drug Research. April, 1983.
2. H.N. Alkaysi, M. Sheikh Salem and W. Alkhateeb, "Role of Drug Information Centers in Community Pharmacy Practice". Second Kuwaiti Pharmaceutical Conference, December, 1983.
3. M. Sheikh Salem and H.N. Alkaysi, "Drug Market: A Study and Recommendations". Ninth Arab Pharmaceutical Conference, Tripoli, Libya, November, 1984.
4. M. Sheikh Salem, "Capping of Pharmaceutical Tablets", Symposium on Solid Dosage Forms, Amman, Jordan, January, 1984.
5. M. Sheikh Salem, "Capping Tendency of Pharmaceutical Tablets", Golden Jubilee Conference, College of Pharmacy, University of Baghdad, Baghdad, Iraq, April, 1986.
6. M. Sheikh Salem, H.N. Alkaysi and A.A. Badwan, "Improvement of Terfenadine Dissolution Using Solid Dispersion Techniques", Seventh Pharmaceutical Technology Conference, London, UK, April, 1988.
7. H.N. Alkaysi and M. Sheikh Salem, "HPLC Analysis of Some Pharmaceutical Preparations", Fourth Jordanian Pharmaceutical Conference, Amman, Jordan, April, 1988.
8. M. Sheikh Salem, M.A. Hassan, H.N. Alkaysi, T.A. Arafat A. Abu Malooh and A.A. Badwan, "Physico-Chemical Study of Terfenadine Glassy State", Fifth International Conference of Pharmaceutical Technology, Paris, France. May, 1989.
9. M. Sheikh Salem, H.N. Alkaysi and A.M. Gharaibeh, "High Performance Liquid Chromatographic Determination of Methotrexate in Plasma", Fiftieth International Congress of F.I.P., Istanbul, Turkey, 1990.
10. H.N. Alkaysi, M. Sheikh Salem and A.A. Badwan, "Analysis of Tetroxoprim and Sulphadiazine in Serum and Urine", Fiftieth International Congress of F.I.P., Istanbul, Turkey, 1990.

11. H.N. Alkaysi, M. Sheikh Salem and K. Ali Gharaibeh, "Analysis and Bioequivalency Studies on Co-Tetroxazine", The Fourth Annual Science Day of the Faculty of Medicine and the Faculty of Pharmacy, Irbid, Jordan, 1990.
12. M. Sheikh Salem, H.N. Alkaysi, "In Vitro Comparative Evaluation of Some Pharmaceutical Dosage Forms", the Fourth Annual Science Day of the Faculty of Medicine and the Faculty of Pharmacy, Irbid, Jordan, 1990.
13. M. Sheikh Salem, H.N. Alkaysi, "HPLC Analysis of Piroxicam and Tenoxicam In Biological Fluids and Dosage Forms", the Fifth Annual Science Day of the Faculty of Medicine and the Faculty of Pharmacy, Irbid, Jordan, 1991.
14. M. Sheikh Salem, H.N. Alkaysi, M.H. Abdel-Hay, and T.E. Na'was, "Interactions of Aluminum and Magnesium Ions with Norfloxacin", the Eleventh Pharmaceutical Technology Conference, Manchester, U.K., 1992.
15. M. Sheikh Salem H.N. Alkaysi, and A.A. Badwan "The Influence of Polymorphic Modification of Tenoxicam on Its Pharmacokinetics, the 4th Pan Pacific Asian Congress on Clinical Pharmacy, Jakarta, Indonesia, 1994.
16. M. Sheikh Salem, G.K. Pillai, and A.A. Badwan "The Effect of Crospovidone on the Physical Properties of Acetaminophene Tablets, the 1st World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Budapest, Hungary 1995.
17. M. Sheikh Salem, Naji M. Najib, G. K. Pillai, J. A. Jilani, "HPLC Determination of Loratadine in Human Plasma Using Fluorescence Detection", American Association of Pharmaceutical Sciences (aaps) Seattle, USA. 1996.
18. M. Sheikh Salem, G.K. Pillai, L. Nabulsi, H.N. Alkaysi, T.A. Arafat, A. Abu. Malooh, M. Saleh and A.A. Badwan, "Preparation Characterisation and Transformation of Terfenadine Polymorphic Forms", American Association of Pharmaceutical Sciences (aaps) Seattle, USA. 1996.
19. J. A. Jilani G. K. Pillai M.S. Salem, N.M. Najib, "Evaluation of Hydroxyethyl Esters of Mefenamic Acid And Diclofenac As Prodrugs", American Association of Pharmaceutical Sciences (aaps) Seattle, USA. 1996.
20. Khoulood A. Alkhamis, Mutaz Sheikh Salem and Mai Khanfar, "The Uptake of Ketotifen Fumarate by Chitosan", presented at the 18th Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS PharmSci Vol. 5, No. 4, Abstract M1178 (2003) Salt Lake City, Utah, USA, October 2003.
21. Mai S. Khanfar, Mutaz Sheikh Salem and Naji Najib, "Dissolution Behavior of Sustained Release Formulation of Indomethacin with Eudragit RS", the Ninth Pharmaceutical Conference/ Jordan, 29/2-2/3 2000.
22. Mai S. Khanfar and Mutaz Sheikh Salem, "Determination of the Mechanism of Uptake of Organic Vapors by Chitosan", the First Pharmaceutical Conference in al-Zaytoonah University, Amman –Jordan 2007.
23. Mai S. Khanfar and Mutaz Sheikh Salem, "Determination of the Mechanism of Ketotifen Fumarate Uptake by Chitosan", the Eleventh Pharmaceutical Conference/ Jordan, Sept. 2005.
24. Mai S. Khanfar, Mutaz S. Salem, "Dissolution Enhancement of Poorly Water Soluble by Precipitation into Aqueous Solution in the Presence of Additives and Stabilizers", the Twelfth Pharmaceutical Conference/ Jordan, April, 2008.
25. Mai S. Khanfar, Mutaz S. Salem, "Dissolution Enhancement of Poorly Water Soluble by Precipitation into Aqueous Solution in the Presence of Additives and Stabilizers", the Pharmaceutical Conference/ Spain, April, 2008.



26. Mai S. Khanfar and Mutaz Sheikh Salem," Preparation and Characterization of Mefenamic Acid Crystals with Surfactants", the Fifth Congress in "The Arab Science and Technology Foundation" Fez- Morocco, October 2008.
27. Mai S. Khanfar and Mutaz Sheikh Salem," The Effect of Different Organic Solvents on the Crystal Habit of Mefenamic Acid", the First international Conference in Al - Zaytoonah University, October 2008.
28. 6th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Barcelona, Spain 2008.
29. PharmSciFair, June 2005, Nice, France.
30. Mutaz Sheikh Salem, Bashar Al-Taani, and Sura Al Taani. "Influence of Polyethylene Glycol Addition During Crystallization on the Properties of Mefenamic Acid Crystals", The Midnight Sun Meeting on Drug Transport and Drug Development, Tromso, Norway, 2004.

## PATENTS

- **Patent 1:** Universal controlled-release composition comprising chitosan. No. AT390127 (T), 15/4/2008.
- **Patent 2:** Universal controlled-release composition comprising xanthan gum and sodium alginate. No. AT390122 (T). 15/4/2008.

## PUBLICATIONS

1. M. Sheikh Salem and J.T. Fell, "The Influence of Initial Packing on the Compression of Powders", *J. Pharm. Pharmacol.*, **33**, 491-494 (1981).
2. M. Sheikh Salem and J.T. Fell, "Compaction Characteristics of Mixtures of Materials with Dissimilar Compaction Mechanisms", *Int. J. Pharm. Tech. & Prod. Mfr*, **2**, 19-22 (1981).
3. M. Sheikh Salem and J.T. Fell, "The Influence of Magnesium Sterarate on Time Dependent Strength Changes in Tablets", *Drug Development and Industrial Pharmacy*, **7**, 669-674 (1981).
4. M. Sheikh Salem and J.T. Fell, "The Tensile Strength of Tablets of Lactose, Sodium Chloride, and their Mixtures" *Acta. Pharm. Suec.*, **19**, 391-396 (1982).
5. M. Sheikh Salem, J.T. Fell, H.N. Alkaysi and N. Mohsen, "Stress Relaxation of Mixtures of Pharmaceutical Powders", *Acta. Pharm. Technol.*, **30**, 312-316 (1984).
6. M. Sheikh Salem, J.T. Fell, H.N. Alkaysi and N. Mohsen, "Stress Relaxation of Mixtures of Pharmaceutical Powders", *Acta. Pharm. Technol.*, **30**, 312-316 (1984).
7. M. Sheikh Salem, H.N. Alkaysi and W. Alkhateeb, "Strategy of Drug Marketing in Jordan", *Jordan Medical Journal*, **19**, 19-29 (1985).
8. H.N. Alkaysi, M. Sheikh Salem and N. Alkhalili, "HPLC Analysis and Preliminary Stab;otu Study of Naphazoline Nitrate and Phenylephrine Hydrochloride in Dosage Forms", *Dirasat*, **12**, 101-112 (1985).
9. H.N. Alkaysi and M. Sheikh Salem, "Simultaneous Quantitative Determination of Codeine Phosphate, Chlorpheniramine Maleate, Phenylephrine Hydrochloride and Acetaminophen in Pharmaceutical Dosage Forms Using Thin Layer Chromatography Densitometry", *Analytical Letters*, **19**, 915-924 (1986).
10. M. Sheikh Salem and H.N. Alkaysi, "High Performance Liquid Chromatographic Analysis and Dissolution of Ampicillin and cloxacillin in Capsule Formulation", *Drug Development and Industrial Pharmacy*, **13**, 2771-2787 (1987).

11. N.M. Najib and M. Sheikh Salem, "Release of Ibuprofen from Polyethylene Glycol Solid Dispersions: Equilibrium Solubility Approach, Drug Development: Equilibrium Solubility Approach", *Drug Development and Industrial Pharmacy*, **13**, 2263-2275 (1987).
12. H.N. Alkaysi, M. Sheikh Salem and A.A. Badwan, "Reverse Phase High Pressure Liquid Chromatographic Analysis of Terfenadine", *Journal of Pharmaceutical and Biomedical Analysis*, **5**, 729-733 (1987).
13. H.N. Alkaysi and M. Sheikh Salem, "High Pressure Liquid Chromatographic Analysis of Orphenadrine Citrate and Acetaminophen in Pharmaceutical Dosage Forms", *Analytical Letters*, **20**, 1451-1466 (1987).
14. K.Y. Kalikli, M. Sheikh Salem and B. A. Abudhaise, "Level of Health Awareness Among Second Secondary Graders of Scientific, Literary, and Vocational Streams in Three Different Geographic Areas in Jordan", *Ab'hass-Al Yarmouk*, **3**, 91-110 (1987).
15. M. Sheikh Salem, H.N. Alkaysi and J.T. Fell, "The Tensile Strength of Tablets of Binary Mixtures Lubricated with Magnesium Stearate", *Drug Development and Industrial Pharmacy*, **14**, 895-903 (1987).
16. M. Sheikh Salem, H.N. Alkaysi, A. Abu-Maloooh and A.A. Badwan, "Improvement of Terfenadine Dissolution Using Solid Dispersion Techniques", 7th Pharmaceutical Technology Conference, Vol 3, 51-68, London, England, April 1988.
17. H.N. Alkaysi, M. Sheikh Salem and Y.M. El-Sayed, "High Performance Liquid Chromatographic Analysis of Caffeine Concentrations in Plasma and Saliva", *Journal of Clinical Pharmacy and Therapeutics*, **13**, 109-115 (1988).
18. M. Sheikh Salem and H.N. Alkaysi, "High Performance Liquid Chromatographic Analysis and Dissolution of Dextropropoxyphene Napsylate with Other Analgesics in Capsule Formulation", *Drug Development and Industrial Pharmacy*, **16**, 1185-1201 (1990).
19. M.A. Sheikh.Salem, A.M. Gharaibeh, H.N. Alkaysi and A.A. Badwan, "High Performance Liquid Chromatographic Analysis of Ranitidine in Plasma and Urine", *Journal of Clinical Pharmacy and Therapeutics*, **13**, 351-357 (1988).
20. M. Sheikh Salem, H.N. Alkaysi and A.M. Gharaibhen, "Quantitation of Orphenadrine Citrate and Acetaminophen in Tablet Formulation Using Thin Layer Chromatography Densitometry", *Analytical Letters*, **22**, 585-596 (1989).
21. H.N. Alkaysi, M. Sheikh Salem, A.M. Gharaibhen, K. Ali Gharaibeh, Y.M. El-Sayed and A.A. Badwan, "Bioequivalency of Ranitidine Tablets Forms", *Journal of Clinical Pharmacy and Therapeutics*, **14**, 111-117 (1989).
22. M. Sheikh Salem, H.N. Alkaysi and A.A. Badwan, "High Pressure Liquid Chromatographic Analysis and Dissolution of Famotidine in Tablet Formulation", *Analytical Letters*, **22**, 2501-1510 (1989).
23. H.N. Alkaysi, A.M. Gharaibeh and M. Sheikh Salem, "High Performance Liquid Chromatographic Analysis of Methotrexate in Plasma", *Therapeutic Drug Monitoring*, **12**, 1a91-194 (1990).
24. M. Sheikh Salem, H.N. Alkaysi and A.A. Badwan, "High Pressure Liquid Chromatographic Analysis and Dissolution of Sulphadiazine and Tetroxoprim in Tablet Dosage Form", *Analytical Letters*, **23**, 461-472 (1990).
25. T.E. Na'was, M. Sheikh Salem and H.N. Alkaysi, "Microbial Contamination and Preservation Efficacy of Cough Preparations", *Journal of Clinical Pharmacy and Therapeutics*, **15**, 365-36(1990).
26. A.A. Badwan, A. Abu-Maloooh, L. Owais, M. Sheikh Salem and H.N. Alkaysi, "Terfenadine Determination Using Different Analytical Methods", *Analytical Letters*, **24**, 217-232 (1991).

27. A.A. Badwan, H.N. Alkaysi, L.B. Owais, M. Sheikh Salem and T.A. Arafat, "Terfenadine", "Analytical Profiles of Drug Substances", Ed. Klaus Florey, Vol. 19, 627-662 (1990). Academic Press.
28. H.N. Alkaysi, M. Sheikh Salem and A.A. Badwan, "High Performance Liquid Chromatographic Analysis of Tetroxoprim and Sulphadiazine in Serum and Urine", *Biomedical Chromatography*, 5, 265-268 (1991).
29. A.A. Badwan, A. Abu-Maloooh, L. Owais, T.A. Arafat, M. Sheikh Salem and H.N. Alkaysi, "Some Formulation Aspects of Terfenadine Solid Dispersions", *European Journal of Pharmaceutics and Biopharmaceutics*, 37, 166-170 (1991).
30. H.N. Alkaysi, M. Sheikh Salem, A.M. Gharaibeh and A.A. Badwan, "Bioequivalency Studies on Tablet Formulations of Tetroxoprim and Sulphadiazine", *Journal of Clinical Pharmacy and Therapeutics*, 17, 97-99 (1992).
31. H.N. Alkaysi, M.H. Abdel-Hay, M. Sheikh Salem, A.M. Gharaibeh and T.E. Na'was, "Chemical and Microbiological Investigations of Metal Ions Interaction with Norfloxacin", *International Journal of Pharmaceutics*, 87, 73-77 (1992).
32. M. Sheikh Salem, H.N. Alkaysi, A.M. Gharaibeh, F.F. Amari, E. Sallam and M.S. Shubair, "Analysis and Bioequivalency Study on Two Tablet Formulations of Co-Trimoxazole", *Journal of Clinical Pharmacy and Therapeutics*, 18, 109-114 (1993).
33. A.M. Gharaibeh, H.N. Alkaysi, M. Sheikh Salem, and K.I. Ali Gharaibeh, "Nil Effect of Cigarette Smoking on Ranitidine Pharmacokinetics", *International Journal of Pharmaceutics*, 100, 253-255 (1993).
34. M. Sheikh Salem, H.N. Alkaysi, A.M. Gharaibeh, N.M. Gharaibeh and A.A. Badwan, "Bioequivalence of Two Oral Dosage Forms Prepared from Different Polymorphic Modifications of Tenoxicam", *Journal of Clinical Pharmacy and Therapeutics*, 19 203-207 (1994).
35. M. Sheikh Salem, G.K. Pillai and A.A. Badwan "The Effect of Crospovidone on the Physical Properties of Acetaminophene Tablets", *Drug Development and Industrial Pharmacy*. 21 1807 - 1814 (1995)
36. J. A. Jilani G. K. Pillai M. S. Salem, , N.M. Najib, "Evaluation of Hydroxyethyl Esters of Mefenamic Acid And Diclofenac As Prodrugs", *Drug Development and Industrial Pharmacy*, 23 325 -329 (1997) .
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