

# CURRICULUM VITAE

## Ayman M. Noreddin Ph.D.

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### EDUCATION AND PROFESSIONAL EXPERIENCE

- 2019- **Academic Consultant-International Pharmaceutical Federation (FIP) East Mediterranean Regional Office (EMRO)/Pharmacy/ Education**
- 2018- **Director of the “Infectious Diseases and Antimicrobial Resistance” Research Group, Sharjah Institute of Medical and Health Research (SIMHR), University of Sharjah**
- 2017- **Dean, College of Pharmacy, The University of Sharjah**  
-Securing successful re-accreditation of the BSc. program  
-Securing successful accreditation of the MSc. program  
-Establishment and accreditation of the PharmD program  
-Introduction of Professional diplomas  
-Introduction of ACPE International certification
- 2016- **Adjunct Research Professor, University of California-Irvine, School of Medicine, CA, USA**
- 2014-2017 **Professor and Associate Dean of Academic Affairs School of Pharmacy, Chapman University, CA, USA**  
-Participated in the establishment of the PharmD program  
-Developed and managed the Digital Examination Implementation Monitoring program  
-Developed Faculty Development program  
-Developed Faculty Mentoring program
- 2011- 2018 **Graduate Faculty, Biomedical Sciences Graduate Program, Eastern Virginia Medical School, VA, USA**
- 2009- 2014 **Professor and Chairperson, Department of Pharmacy Practice, School of Pharmacy, Hampton University, VA, USA**  
- Developed a strategic plan to improve the department’s endeavor in teaching, research and service  
- Lead the department of Pharmacy Practice to achieve the following specific strategic goals within the school of pharmacy:  
    1) Successful ACPE accreditation  
    2) Increased scholarly activity and research focus  
    3) Innovation in teaching

- 4) Community engagement (faculty and students' involvement)
- 5) Early Research Experience for Pharmacy Students
- 6) Establishment of Medication Therapy Management and Outcome Research Center

- 2008 **Fellow-Academic Leadership Program,  
The American Association of Colleges of Pharmacy (AACP)**  
-The leadership training program covered the following aspects:
- 1) Personal and interpersonal competencies for leadership
  - 2) Practical management responsibilities and administrative competencies of an academic pharmacy administrator
  - 3) Leadership in the external arena of advocacy and the profession
- 2005-2009 **Graduate Faculty,  
Department of Experimental and Clinical Pharmacology,  
College of Pharmacy, University of Minnesota, MN, USA**  
- Participated in the strategic planning and graduate admissions  
- Participated in graduate courses, seminars and directed studies  
- Supervised graduate student
- 2005-2009 **Senior Clinical Scientist,  
Division of Education and Research,  
St. Mary's Duluth Clinic - Health System**  
-Participated in the clinical research program management  
-Reviewed and refereed grant proposals
- 2004-2009 **Associate Professor,  
Department of Pharmacy Practice and Pharmaceutical Sciences,  
College of Pharmacy (Duluth), University of Minnesota, MN, USA**  
-Nominated as the Teacher of the Year (2008)  
-Participated in several didactic lectures, experiential instructions, along with advising, training and mentoring activities  
-Developed an active and well-funded translational research program in the field of Pharmacokinetic/Pharmacodynamic (PK/PD) modeling of anti-infective/ anti-neoplastic therapy, clinical simulation analysis and bacterial resistance studies  
-Supervised graduate students and post doctorate fellows  
-Participated in several strategic planning activities, task forces and committee service
- 2001-2004 **Director, Clinical Pharmacology Research,  
Manitoba Antibiotic Research Laboratory,  
Department of Medical Microbiology/Infectious Diseases,  
Faculty of Medicine, University of Manitoba**  
- Supervised and directed research activities in the field of PK/PD modeling, clinical simulation and bacterial resistance studies.  
- Conducted advanced PK, Population PK and Monte Carlo Simulation analysis
- 2002-2004 **American College of Clinical Pharmacy/Aventis Pharmacotherapy,  
Research Fellowship (Infectious Diseases),**

- Research Institute of the American College of Clinical Pharmacy**  
 Primary research project: *“Study of Fluoroquinolones Resistance in Clinical Isolates of Streptococcus pneumoniae: Molecular and Pharmacodynamic Approach”*  
 - Taught in Faculty of Pharmacy, University of Manitoba  
 Clinical Pharmacy and Elective courses to 3<sup>rd</sup> and 4<sup>th</sup> year pharmacy students)  
 - Participated in infectious diseases consultation rounds.
- 2002-2004 **Faculty Member, Department of Continuing Medical Education, Faculty of Medicine, University of Manitoba**  
 - Organized and provided Teaching Improvement Programs (TIPs) for faculty members and medical staff  
 - Organized medical education programs and workshops at the Faculty of Medicine.
- 2000-2001 **Pharmacokinetic/Pharmacodynamic Research Fellow (Infectious Diseases), Department of Medical Microbiology/Infectious Diseases, Faculty of Medicine, University of Manitoba**  
 - Conducted, research in the field of PK/PD modeling, clinical simulation analysis and bacterial resistance studies.  
 - Taught in Faculty of Pharmacy, University of Manitoba  
 - Participated in infectious diseases consultation rounds
- 1994-2000 **Associate Professor of Clinical Pharmacy, Faculty of Pharmacy, King Saud University**  
 - Taught didactic and graduate clinical pharmacy courses  
 - Supervised clinical rotations for B.Sc. students  
 - Directed clinical pharmacy practice service (Infectious Diseases) at King Khalid University Hospital
- 1991-1994 **Assistant Professor of Clinical Pharmacy, Faculty of Pharmacy, King Saud University**  
 - Taught didactic and graduate clinical pharmacy courses  
 - Supervised clinical rotations for B.Sc. as well as M.Sc. (clinical pharmacy) students  
 - Directed clinical pharmacy practice service (Infectious Diseases) at King Khalid University Hospital  
 - Conducted clinical pharmacy research and supervised M.Sc. (clinical pharmacy) research projects  
 - Participated in different committees at the College of Pharmacy
- 1994-2000 **Director of the Research and Continuing education committee, Saudi Pharmaceutical Society (SPS)**  
 - Promoted research activities for pharmacists  
 - Designed, supervised as well as participated in many continuing education programs for pharmacists offered by the SPS and pharmaceutical industry  
 a) “PharmAssst” program (SKB)  
 b) “PharmCare” program (GLAXO/WELLCOM)  
 c) “Pediatric Care” program (NOVARTIS)
- 1990-1991 **Staff Pharmacist, Kaiser Permanent Hospital, Sunnyvale, CA.**

Pharmacy license (California) No: 43354

- 1987-1991 **Visiting Scholar, Department of Medicine/Oncology, Stanford University, Faculty of Medicine, Palo Alto, California, USA.**  
*Molecular Biology, tissue culture and gene expression studies*
- 1985-1991 **Ph.D. [Pharmaceutical Sciences (Clinical Pharmacy)], University of the Pacific, School of Pharmacy, Stockton, California, USA.**  
*Thesis: (Phase I study of toxicity, tolerance and certain metabolic effects of TNF administered as a continuous infusion to cancer patients)*
- 1985-1990 **Teaching Assistant (Pharmacokinetics, Pharmacology), School of Pharmacy, University of the Pacific, Stockton, California**
- 1984-1985 **Visiting Scholar, Department of Medicine/Atherosclerosis Research Unit Faculty of Medicine, Miami University, Miami, FL, USA.**  
*Lipoprotein fractionation, lipid and protein analysis*
- 1984 **Professional License (Clinical Analysis).**  
Ministry of Health, Cairo, Egypt
- 1981-1984 **MS. [Pharmaceutical Sciences (biochemistry)], Cairo University, College of Pharmacy, Cairo, Egypt**  
*Thesis: (Effect of gamma irradiation on the chemical structure, biological activity and certain metabolic effects of contraceptive hormones in rats)*
- 1976-1981 **Laboratory Supervisor, Central Medical Laboratories, Cairo, Egypt**  
*Clinical chemistry and hormone analysis*
- 1971-1976 **BS. Pharmaceutical Sciences, Cairo University, School of Pharmacy, Cairo, Egypt.**

#### ADDITIONAL TRAINING

- August 2019 **Diabetes Care Certificate, Training of Trainer Certificate,**  
American Pharmacy Association, VA
- September 2019 **Cardiovascular Diseases Care, Training of the Trainer Certificate**
- October 2016 **Medication Therapy Management Certificate,** American Pharmacy Association, VA
- May 2015 **Point of Care Certificate,** American Pharmacy Association, VA

April	2014	<b>Quality Service Training program (Connections)</b> , Hampton University, VA
September	2013	<b>Strategic Academic Leadership Training (SALT)</b> , Hampton University, VA
November	2012	<b>12<sup>th</sup> Annual Executive Leadership Summit</b> , Hampton University, VA
September	2012	<b>Strategic Academic Leadership Training (SALT)</b> , Hampton University, VA
October	2011	<b>Grant Writing workshop</b> , Hampton University Skin of Color Research Institute, VA
September	2011	<b>Strategic Academic Leadership Training (SALT)</b> , Hampton University, VA
March	2011	<b>Leadership Development Training</b> , Hampton University, VA
December	2010	<b>Funding Opportunities Research workshop</b> , Hampton University, VA
October	2010	<b>ACPE's Site-Team Evaluator Training workshop</b> , Accreditation Council for Pharmacy Education (ACPE), Chicago, IL
September	2010	<b>Strategic Academic Leadership Training (SALT)</b> , Hampton University, VA
September	2010	<b>Faculty Institutional Retreat</b> , Hampton University, VA
August	2010	<b>Administrative Retreat "Enhancing the University Landscape: Planting Seeds... Growing Even Greater reputation"</b> , Hampton University, VA
November	2009	<b>"Writing a Successful Grant for the National Institute of Health", Faculty Development Workshop</b> , Hampton University, VA
October	2009	<b>Strategic Academic Leadership Training (SALT)</b> , Hampton University, VA
August	2009	<b>Faculty Institutional Retreat</b> , Hampton University, VA
August	2009	<b>Faculty Development Workshop</b> , Hampton University, VA
June	2009	<b>New Developments in Hollow Fiber Cell Culture</b> , FiberCell Systems Inc
March	2009	<b>More In Vivo-Like Cell Cultures</b> , Corning Inc
February	2008	<b>Write Winning Grants</b> , University of Minnesota, MN 2008

April 2007 **Ref Works training seminar**, University of Minnesota, MN 2007

April. 2006 **Grant Writers' Seminar**, University of Minnesota, MN, 2006

October 2005 **Basic training for new clinical faculty and professors**, American College of Clinical Pharmacy (ACCP) Annual Meeting, SF, 2005

October 2005 **Cost effectiveness analysis**, Healthcare standard training, TreeAge Software Inc. SF, 2005

September 2004 **Microdialysis: Basics and Principles workshop**. World Conference on Dosing of Anti-infective (WCDA), Nurnberg, Germany. 2004

October 2004 **The Leadership Experience**. American College of Clinical Pharmacy (ACCP) Annual meeting, Dallas, TX, 2004

March 2003 **Advanced Clinical Pharmacokinetic Hands on Training using Winnonlin Program**, Pharsight Corporation, Mountain Views, CA

October 2002 **Population Pharmacokinetic/ Pharmacodynamic (PK/PD) Modeling**, On-site training at the Laboratory of Applied Pharmacokinetics, USC, School of Medicine, LA, CA

October 2002 **New Unified Parametric and Nonparametric Approach to Population PK/PD Modeling-Application to therapeutic Drug Monitoring and to Optimal Individualization of Drug therapy**, hands on workshop by the Laboratory of Applied Pharmacokinetics, USC, School of Medicine, LA, CA

September 2002 **Advanced Risk analysis**, advanced course using Crystal Ball Pro software. Decioneering Inc., San Diego, CA

July 2002 **Risk Analysis, Decision analysis and Monte Carlo Simulation**, Introduction and advanced Courses using Crystal Ball software. Decioneering Inc., Minneapolis, MN

March 2002 **Microdialysis as a Gateway to New Knowledge**, workshop during the ACCP Practice and Research Forum. Savannah, Georgia.

December 2001 **Teaching Improvement Program (TIPs)**, One week hands on workshop, Department of Continuing Medical Education, Faculty of Medicine, University of Manitoba

September 2001 **Bacterial Resistance: Mechanisms, Detection, Pharmacology, and Molecular Epidemiology**, workshop during the ICCAC meeting, Chicago, IL

November 2000 **Model-Based, Goal-Oriented Optimal Individualized Drug Therapy:**

**Relationship to Parametric and Nonparametric Population PK/PD Modeling, Therapeutic Drug Monitoring, and Multiple Dosage Design**, hands on workshop by the USC Laboratory of Applied Pharmacokinetics, USC, School of Medicine, LA, CA

- March 2000      **Parametric and Nonparametric Population PK and PD Modeling: Application to Multiple Model Dosage Design and Optimal Sequential Bayesian Feedback for Optimal Patient Care**, hands on workshop by The USC Laboratory of Applied Pharmacokinetics, School of Medicine, LA, CA
- 1986-1989      **Molecular Biology techniques including rDNA, RNA, tissue culture and gene expression studies**, Frank Torti M.D. Research Lab., Faculty of Medicine, Stanford University, CA
- 1985-1986      **Lipoprotein fractionation, lipid and protein analysis**, Atherosclerosis Research Lab., Faculty of Medicine, Miami University, Miami, FL

### **HONORS AND AWARDS**

- Nominated member at the “Emirates Council of Scientists”, UAE,
- Reviewer for the National Institute of Health (NIH), special session: “Drug Discovery and Mechanisms of Antimicrobial Resistance”, February, 2017
- Invited speaker at the 1<sup>st</sup> ACU International Conference of Pharmaceutical Sciences On New Trends in Pharmaceutical and Medical Research, Giza, Egypt, May 2016
- Invited speaker at the Faculty of Pharmacy, UNICAPM University, Campinas, Brazil, August, 2016
- Key Note speaker at the 3<sup>rd</sup> international Conference on Clinical Pharmacy, Atlanta, Ca, December, 2015
- Invited speaker at the 3<sup>rd</sup> FUE International Conference of Pharmaceutical Sciences, Feb, 2015, Cairo, Egypt
- Reviewer for the National Institute of Health (NIH), special session: “Drug Discovery and Mechanisms of Antimicrobial Resistance (DDR)”, June, 2015
- Reviewer for the National Institute of Health (NIH), special session:” Pharmacological Approached to Evaluating Drug Regimens to Address Antimicrobial Resistance”, January 2014
- Member of the Organizing Committee, Plenary Speaker, International Summit on Clinical Pharmacy and Dispensing, San Antonio, TX, 2013
- Member of Organizing Committee, Keynote Speaker and Chair, International Congress on Bacteriology and Infectious Diseases, Baltimore, 2013
- Co-Chair, Infectious Diseases Session, International Conference on Clinical Microbiology and Microbial Genomics, San Antonio, TX, 2012
- Session Chair, Clinical trial-Part II, TM’s 2nd World Drug Discovery online conference, 2012

- Member of the Editorial Board of the International Journal of Tumor Therapy, 2012
- Board member, Egyptian Cancer Network 2011
- Invited speaker: Meet-the-Professor Session, Infectious Diseases Society of America meeting  
49<sup>th</sup> Annual Meeting, 2011
- Session Chair, Clinical trial-Part II, TM's 1<sup>st</sup> World Drug Discovery online conference, 2011
- Member of the advisory council for Egypt Cancer Network, 2011
- Member of the Scientific Board, IN-Tech-Open Access Publisher, 2011
- Editor in Chief. InTech- Open Access Publisher, 2011
- Member of the Editorial Board of the Journal of Drug Metabolism & Toxicology, 2011
- Member of the Editorial Board of International Scholarly Research Network (ISRN) Pulmonology, 2011
- Invited advisor to the Faculty of Pharmacy, Al-Fateh University, Tripoli, Libya, 2010.
- Member of the editorial board of the "Egyptian Journal of Pharmaceutical Sciences", Cairo University, Cairo, Egypt, 2010
- Reviewer for the National Institute of Health (NIH), 2009
- Elected advisor. Multicultural Pharmacy Students Organization, University of Minnesota, Duluth, 2008
- Advisor for the Pharm.D. 2012 class, College of Pharmacy, University of Minnesota, Duluth, 2008
- Teacher of the Year, College of Pharmacy, Duluth, University of Minnesota, 2007-2008
- Teacher of the Semester, College of Pharmacy, Duluth, University of Minnesota, Fall 2007
- Member of the Scientific Review Program, Division of Extramural Activities, National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIH), Department of Health & Human Services, 2008
- American College of Clinical Pharmacy/Aventis Pharmacotherapy Research Fellowship (Infectious Diseases), 2002
- Director of the continuing education and research committee - Saudi Pharmaceutical Society, 1996
- Membership in the Rho Chi Pharmaceutical Honorary Society, CA, USA, 1986
- Graduate Students Fellowship, School of Pharmacy, University of the Pacific, 1985
- Graduate Students Representative, School of Pharmacy, University of the Pacific, 1985
- Oncology Project Grant for Pharmacy Students, the American Cancer Society, California, 1985
- Peace Fellowship to conduct graduate study in the USA, 1984

### **Peer-Reviewed Publications**

*H index: 19*

1. Asante J, **Noreddin A**, El Zowalaty ME.. Systematic Review of Important Bacterial Zoonoses in Africa in the Last Decade in Light of the 'One Health' Concept. Pathogens.16;8(2),2019.
2. Sobur A, Hasan M, Haque E, Mridul AI, **Noreddin A**, El Zowalaty ME, Rahman T. Molecular Detection and Antibiotyping of Multidrug-Resistant *Salmonella* Isolated from Houseflies in a Fish Market. Pathogens. 15;8(4),2019.



3. Islam MS, El Zowalaty ME, van Vliet AHM, Thakur S, Khatun MM, Saha S, Rahman MT, **Noreddin A**, Islam MA. First Genome Sequence of *Brucella abortus* Biovar 3 Strain BAU21/S4023, Isolated from a Dairy Cow in Bangladesh. *Microbiol Resour Announc.* 13;8(24).2019.
4. Soliman SSM, Alsaadi AI, Youssef EG, Khitrov G, **Noreddin AM**, Hussein MI, Ibrahim AS. Calli Essential Oils Synergize with Lawsone against Multidrug Resistant Pathogens. *Molecules.* 22(12), 2017.
5. Soliman S, Alnajdy D, El-Keblawy AA, Mosa KA, Khoder G, **Noreddin AM.** Plants' Natural Products as Alternative Promising Anti-Candida Drugs. *Pharmacogn Rev;*11(22):104-122, 2017.
6. Zhanel GG, Parkinson K, Higgins S, Denisuik A, Adam H, Pitout J, **Noreddin A**, Karlowsky JA. Pharmacodynamic activity of fosfomycin simulating urinary concentrations achieved after a single 3-g oral dose versus Escherichia coli using an in vitro model. *Diagn Microbiol Infect Dis;*88(3):271-275. 2017.
7. El Zowalaty ME, Belkina T, Bahashwan SA, El Zowalaty AE, Tebbens JD, Abdel-Salam HA, Khalil AI, Dagheriy SI, Gahtani MA, Madkhaly FM, Nohi NI, Khodari RH, Sharahili RM, Dageery KA, Khormi M, Habibah SA, Medrba BA, Gahtani AA, Hifthi RY, Zaid JM, Amshan AW, Alneami AA, **Noreddin A**, Vlček J. Knowledge, awareness, and attitudes toward antibiotic use and antimicrobial resistance among Saudi population. *International Journal of Clinical Pharmacy.* 38(50): 126-8, 2016.
8. Ansari WK, Parvej MS, El Zowalaty ME, Jackson S, Bustin SA, Ibrahim AK, ElZowalaty AE, Rahman MT, Zhang H, Khan MF, Ahamed MM, Rahman MF, Rahman M, Nazir KH, Ahmed S, Hossen ML, Kafi MA, Yamage M, Debnath NC, Ahmed G, Ashour HM, Masudur Rahman M, **Noreddin A**, Rahman MB. Surveillance, epidemiological, and virological detection of highly pathogenic H5N1 avian influenza viruses in duck and poultry from Bangladesh. *Vet Microbiol.* 25(193): 49-59, 2016.
9. Ali AM, **Noreddin AM** and Mahmoud MA. *Helicobacter pylori* Infection and Its Potential Role in Childhood Eczema. *J Immunol Tech Infect Dis* 5:1; 1-5, 2016.
10. **Noreddin AM**, Ndemo FA and Ombengi DN. Medication Therapy Management (Editorial), *J Pharma Care Health.* 3(2): 1, 2016.
11. Ombengi DN, Ndemo FA, **Noreddin AM** and Harris WT. The Disease Burden and the Extent of Drug Therapy Problems in an Underserved Minority Population Receiving Medication Therapy Management at an Ambulatory Care Free Clinic. *J Pharma Care Health.* 3(2): 2-5, 2016.

12. 3. Ahmed GF, Elkhatib WF, and **Noreddin AM**. Inhibition of adhesion and invasion of *Pseudomonas aeruginosa* PAO1 to A549 lung epithelial cells by some natural extracts. Journal of Infection and Public Health. (J Infect Public Health. 7(5): 436-44, 2014.
  
13. Alrakaf S, Abdelmageed A, Kiersma M, Coulman SA, John DN, Tordoff J, Anderson C, **Noreddin AM**, Sainsbury E, Rose G, Smith L. An international validation study of two achievement goal measures on pharmacy education context. *Adv Med Edu Pract*. 27; 5:339-45, 2014.
  
14. Elkhatib WF, and **Noreddin AM**. Efficacy of Ciprofloxacin-Clarithromycin Combination against Drug-Resistant *Pseudomonas aeruginosa* Mature Biofilm Using in Vitro Experimental Model. *Microbial Drug Resistance*. 20(6):575-82,2014.
  
15. Elkhatib WF, and **Noreddin AM**. *In Vitro* Antibiofilm Efficacies of Different Antibiotic Combinations with Zinc Sulfate against *Pseudomonas aeruginosa* Recovered from Hospitalized Patients with Urinary Tract Infection. *Antibiotics*. 3: 64-84, 2014.
  
16. Salem AH and **Noreddin AM**. Moxiflocacin in lower respiratory tract infections: *in silico* simulation of different bacterial resistance and drug exposure scenarios. *Journal of Chemotherapy*. J Chemother. 26(2):80-5, 2014.
  
17. Salem AH, Zhanel GG, Ibrahim SA, **Noreddin AM**. A Monte Carlo Simulation Analysis of Ceftobiprole, Dalbavanancin, Daptomycin, Tigecycline, Linezolid and Vancomycin Pharmacodynamics Against ICU-Isolated MRSA. *Clin Exp Pharmacol Physiol*. December 2013.
  
18. Vera C. Campbell, **Ayman M. Noreddin**, David Ombengi, Wayne T. Harris, Ebony Andrews, Francis Ndemo, Neelam Azad, Anand Iyer, Corinne Ramaley, Johnson Deadre, Patricia L. Richards-Spruill, Marilyn Saulsbury. Calculations Across the Curriculum: An Innovative Approach to Improve Student's Ability to Perform Pharmaceutical Calculations. *American Journal of Pharmaceutical Education*. 77 (5): 109, 2013.
  
19. Zhanel GG, Yachison C, Nichol K, Adam H, **Noreddin AM**, Hoban DJ, Karlowsky JA Assessment of the activity of ceftaroline against clinical isolates of penicillin-intermediate and penicillin-resistant *Streptococcus pneumoniae* with elevated MICs of ceftaroline using an in vitro pharmacodynamic model. J Antimicrob Chemother.67(7):1706-11, 2012.
  
20. **Noreddin AM**, Elkhatib WF, Cunnion KG and Ghanel GG. Cumulative clinical experience from over a decade of use of levofloxacin in community acquired pneumonia; critical appraisal and role in therapy", Drug, Healthcare and Patient Safety.3:59–68,2011.

21. Salem A, Noreddin E, Zhanel G, **Noreddin A**. Comparative pharmacodynamics of ceftobiprole, daptomycin, linezolid, telavancin, tigecycline, and vancomycin in the treatment of methicillin resistant staphylococcus aureus: a monte carlo simulation Analysis. *J Vaccines*. 2:5,2011.
22. Zhanel GG, Rosznagel E, Nichol K, Cox L, Karlowsky JA, Zelenitsky S, **Noreddin AM**, Hoban DJ. Ceftaroline pharmacodynamic activity versus community-associated and healthcare-associated methicillin-resistant Staphylococcus aureus, heteroresistant vancomycin-intermediate S. aureus, vancomycin-intermediate S. aureus and vancomycin-resistant S. aureus using an in vitro model. *J Antimicrob Chemother*.66(6):1301-5,2011.
23. **Ayman M. Noreddin** and Walid F. ElKhatib Antibacterial Therapy in the Elderly. In: *Frontiers in Anti-Infective Drug Discovery*.1:1-12, 2010.
24. Salem AH, Elkhatib WF, and **Noreddin AM**. Pharmacodynamic assessment of vancomycin–rifampicin combination against methicillin resistant *Staphylococcus aureus* biofilm: a parametric response surface analysis. *Journal of Pharmacy and Pharmacology*. 63:73-79,2010.
25. Salem AH, Elkhatib WF, Ahmed GF, **Noreddin AM**. Pharmacodynamics of moxifloxacin versus vancomycin against biofilms of methicillin-resistant Staphylococcus aureus and epidermidis in an in vitro model. *J Chemother*.22(4):238-42,2010
26. **Noreddin AM** and Elkhatib WF. Levofloxacin in the Treatment of Community Acquired Pneumonia. *Expert Review of Anti-Infective Therapy*. Expert Rev Anti Infect Ther.8(5):505-14,2010.
27. Galal AM, Gul W, **Noreddin AM**, Slade D. An Update on the synthesis and antibacterial effects of Carbapenems. Recent Pat Antiinfect Drug Discov.5:23-42,2010.
28. **Noreddin AM** and El-Khatib WF. Novel *in vitro* pharmacodynamic model simulating ofloxacin pharmacokinetics in the treatment of *Pseudomonas aeruginosa* biofilm-associated infections. Journal of Infection and Public Health.2:120-128,2009.
29. El-Khatib WF and **Noreddin AM**. A new fluorogenic assay for monitoring and determining planktonic and biofilm forms of *Pseudomonas aeruginosa* viable count in vitro. Journal of Rapid Methods and Automation in Microbiology. 17:304-314,2009.
30. Zhanel GG, Voth D, Nichol K, Karlowsky JA, **Noreddin AM**, Hoban DJ. Pharmacodynamic activity of ceftobiprole compared with vancomycin versus methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-intermediate Staphylococcus aureus (VISA) and vancomycin-resistant Staphylococcus aureus (VRSA) using an in vitro model. J Antimicrob Chemother.64(2):364-9,2009.
31. **Noreddin AM**, El-Khatib WF, Aolie, J, Salem AH and Zanel GG. Pharmacodynamic Target Attainment Potential of Azithromycin, Clarithromycin and Telithromycin in Serum and Epithelial Lining Fluid (ELF) of Community Acquired Pneumonia (CAP)

Patients with Penicillin-Susceptible, Intermediate and Resistant *Streptococcus pneumoniae*. International Journal of Infectious Diseases.13(4):483-7.2009.

32. El-Khatib WF, Haynes VL and **Noreddin AM**. Microbiological appraisal of levofloxacin activity against *Pseudomonas aeruginosa* biofilm in combination with different calcium channel blockers. Journal of Chemotherapy. 21(2): 37-45,2009.
33. El-Khatib WF and **Noreddin AM**. Novel Approach Against Central Venous Catheter Associated Infection with *Acinetobacter baumannii* Biofilm. J.Med.Devices, 3(2): 027543-027543,2009.
34. El-Khatib WF, Haynes VL and **Noreddin AM**. Unexpected induction of resistant *Pseudomonas aeruginosa* biofilm to fluoroquinolone by diltiazem: A new perspective of microbiological drug-drug interaction. Journal of Infection and Public Health.1(1): 105-112,2008.
35. Walid F. El-Khatib, Virginia Haynes and **Ayman M. Noreddin**. A high-throughput in vitro model illustrating potential microbiological interactions during treatment of *Pseudomonas aeruginosa* Biofilm associated infections. L. Med.Devices, 2(2):027535,2008.
36. Zhanel GG, Lam A, Schweizer F, Thomson K, Walkty A, Rubinstein E, Gin AS, Hoban DJ, **Noreddin AM**, Karlowsky JA. Ceftobiprole: a review of a broad-spectrum and anti-MRSA cephalosporin. Am J Clin Dermatol.9(4):245-54,2008.
37. Zhanel GG, Baudry P, Vashisht V, Laing N, **Noreddin AM**, Hoban DJ. Pharmacodynamic activity of ertapenem versus multidrug-resistant genotypically characterized extended-spectrum beta-lactamase-producing *Escherichia coli* using an in vitro model. J Antimicrob Chemother. 61(3):643-6,2008.
38. **Noreddin AM**, El-Khatib W, Haynes V. Optimal dosing design for antibiotic therapy in the elderly: a pharmacokinetic and pharmacodynamic perspective. Recent Patents Anti-Infect Drug Disc.3(1):45-52,2008.
39. Zhanel GG, Baudry P, Vashisht V, Laing N, **Noreddin AM**, Hoban DJ. Pharmacodynamic activity of ertapenem versus multidrug-resistant genotypically characterized extended-spectrum {beta}-lactamase-producing *Escherichia coli* using an in vitro model. J Antimicrob Chemother. 58(1):144-7,2007.
40. **Noreddin AM**, Reese A, Ostroski M, Hoban DJ and Zhanel GG. Comparative Pharmacodynamics of Garenoxacin, Gemifloxacin and Moxifloxacin against *Streptococcus pneumoniae*: Monte Carlo Simulation analysis. Clinical Therapeutics.29(12):2685-9,2007.
41. Zhanel GG, Derkatch S, Laing N, **Noreddin AM**, Hoban DJ. Pharmacodynamic activity of ertapenem versus penicillin-susceptible and penicillin-non-susceptible *Streptococcus pneumoniae* using an in vitro model. J Antimicrob Chemother. 59(1):144-7,2007.
42. Zhanel GG, Wiebe R, Dilay L, Thomson K, Rubinstein E, Hoban DJ, **Noreddin AM**,

- Karlowsky JA. Comparative review of the carbapenems. Drugs.67(7):1027-52,2007.
43. **Noreddin AM** and Haynes V. Use of Pharmacodynamic Principles to Optimise Dosing Regimens for Antibacterial Agents in the Elderly. Drugs Aging.24(4):1-24,2007.
  44. Zhanel GG, Fontaine S, Adam H, Schurek K, Mayer M, **Noreddin AM**, Gin AS, Rubinstein E, Hoban DJ. A Review .of New Fluoroquinolones: Focus on their Use in Respiratory Tract Infections. Treat Respir Med.5(6):437-465,2006.
  45. Zhanel GG, Hisanaga TL, Laing NM, DeCorby MR, Nichol KA, Weshnoweski B, Johnson J, **Noreddin A**, Low DE, Karlowsky JA; for the NAUTICA Group; Hoban DJ. Antibiotic resistance in *Escherichia coli* outpatient urinary isolates: final results from the North American Urinary Tract Infection Collaborative Alliance (NAUTICA). International Journal of Antimicrobial Agents.27(6):468-75,2006
  46. Zhanel GG, James J, Derkatch S, Laing N, **Noreddin AM**, Hoban DJ. Pharmacodynamic activity of garenoxacin against ciprofloxacin-resistant *Streptococcus pneumoniae*. International Journal of Antimicrobial Agents.58(1):112-6,2006.
  47. Zhanel GG, Hisanaga TL, Laing NM, DeCorby MR, Nichol KA, Palatnik LP, Johnson J, **Noreddin A**, Harding GK, Nicolle LE, Hoban DJ; NAUTICA Group. Antibiotic resistance in outpatient urinary isolates: final results from the North American Urinary Tract Infection Collaborative Alliance (NAUTICA). International Journal of Antimicrobial Agents.26(5):380-8,2006.
  48. **Noreddin AM**, Haynes VL and Zhanel GG. Pharmacokinetics and Pharmacodynamics of the new Quinolones. Journal of Pharmacy Practice,18(6):1-12, 2005.
  49. **Noreddin AM**, Hoban DJ and Zhanel GG. Comparison of Gatifloxacin and Levofloxacin Administered at Various Dosing Regimens to Hospitalized Patients with Community Acquired Pneumonia: Pharmacodynamic Target Attainment Study Using North American Surveillance Data for *Streptococcus pneumoniae*. International Journal of Antimicrobial Agents. 26(2):120-5, 2005.
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## **REVIEWER**

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- Qatar National Research Foundation, Qatar Foundation
- Research and Training committee grant reviewing, St. Mary's Duluth Clinic Hospital.
- Minnesota Futures Grant Program, Office of the Vice President for Research, University of Minnesota
- Faculty Research Development Program, Academic Health Center, University of Minnesota
- King Abdul-Aziz City for Science and Technology (KACST) Mini-Grants Program

### **Journal and Book Chapters Reviews:**

- Antimicrobial Agents Chemotherapy
- Currents in Pharmacy Teaching and Learning
- Clinical Drug Investigation
- International Journal of Nano medicine
- Infection and Drug Resistance
- Biomed Central (BMC) Infectious Diseases
- Journal of Drug Design, Development and Therapy
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- Future Medicine Journal- Aging Health
- The Annals of Pharmacotherapy
- Pharmacotherapy Essentials, McGraw-Hill
- Journal of Pharmaceutical Sciences
- Expert Review of Anti-infective Therapy
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### **NIH Grant Reviewer:**

-Reviewer for the National Institute of Health (NIH), special session: "Drug Discovery and Mechanisms of Antimicrobial Resistance (DDR)", Feb, 2017

-Reviewer for the National Institute of Health (NIH), special session: "Drug Discovery and Mechanisms of Antimicrobial Resistance (DDR)", June, 2015

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### **Selected Presentations**

2016-2019: Many presentations

**Noreddin AM.** Strategies for Optimizing Antimicrobial Pharmacodynamics and Fighting Bacterial Resistance. 1<sup>st</sup> ACU International Conference of Pharmaceutical Sciences on New Trends in Pharmaceutical and Medical Research, 28<sup>th</sup> -29<sup>th</sup> May 2016

**Noreddin AM.** (Kenote Speaker). Pharmacy Education in the 21 Century: Opportunities and Challenges. 3<sup>rd</sup> International Conference on Clinical Pharmacy, Atlanta, GA, December 7-9, 2015.

**Noreddin AM** and Jelliffe, R. Workshop “Methods for Maximally Precise Individualization of Drug Therapy”. 3<sup>rd</sup> International Conference on Clinical Pharmacy, Atlanta, GA, December 7-9, 2015.

**Noreddin AM,** Jelliffe R. Bedside Clinical Software to Optimize Individualized Drug Dosage Regimens. 3<sup>rd</sup> FUE International Conference of Pharmaceutical Sciences (3<sup>rd</sup> FUE-ICPS), February 9-11, 2015.

**Noreddin AM.** Title: Pharmacodynamic profiling of fluoroquinolones in Community Acquired Pneumonia (CAP) patients: dose and age stratification study. 2<sup>nd</sup> International Conference on Clinical Pharmacy, SF, CA, December 2-4, 2014.

Vera C. Campbell, **Ayman M. Noreddin,** David Ombengi, Wayne T. Harris, Ebony Andrews, Francis Ndemo, Neelam Azad, Anand Iyer, Corinne Ramaley, Johnson Deadre, Patricia L. Richards-Spruill, Marilyn Saulsbury. Calculations Across the Curriculum: An Innovative Approach to Improve Student’s Ability to Perform Pharmaceutical Calculations. 114<sup>th</sup> Annual Meeting of the American Association of Colleges of Pharmacy, Chicago, IL, July 13-17, 2013

Walid F. Elkhatib, Ghada F. Ahmed, and **Ayman M. Noreddin**  
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El-Khatib WF and **Noreddin AM**. High-Throughput *In Vitro* Model for Fluoroquinolone Mutant Prevention Concentrations against *Acinetobacter baumannii* Biofilm. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents & Chemotherapy (50th ICAAC), Boston, MA, September 2010.

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Zhanel GG, **Noreddin A**, Laing N, Nichol K, Palatnick L, Johnson J” the NAVRESS group” and Hoban D. Prevalence of Urinary Infection Caused by Vancomycin-Resistant Enterococci (VRE): Results from the North American Vancomycin Resistant Enterococci Susceptibility Study (NAVRESS). Infectious Diseases Society of America(IDSA), San Francisco, Ca, USA, October 2001.

Zhanel G, **Noreddin A**, Roberts D, Nichol K, Weirzbowski A., Bellyou T, and Hoban D. In-Vitro Pharmacodynamic Modeling of Clarithromycin Simulating Serum (S) and Epithelial Lining Fluid (ELF) Concentrations versus *mefA* and *ermB* Macrolide Resistant *Streptococcus pneumoniae*. International Congress of Chemotherapy(ICC), Amsterdam, The Netherlands, June, 2001.

**Noreddin A**, Laing N, Nichol K, Wierzbowski A, Hoban D and Zhanel G. Pharmacodynamic Simulation of ABT-773 a New Ketolide Against PCR Positive *mefA* and *ermB* Macrolide Resistant Strains of *Streptococcus pneumoniae* Using an In Vitro Model. International Congress of Chemotherapy (ICC), Amsterdam, The Netherlands, June 2001.

Al-Shabeeb M, **Noreddin A** and Al-Dhawailie A. Switch therapy, appropriateness and cost assessment: a retrospective study in a teaching hospital. The Second International Conference of Hospital Pharmacy, Cairo, Egypt, June 1999.

Al-Balla M, Al-Yamani M, and **Noreddin A**. Prescribing Pattern during the Month of Ramadan. The 5<sup>th</sup> International Saudi Pharmacy Conference, Riyadh, Saudi Arabia, October 1999.

Al-Fawzan N, **Noreddin A** and al-Rasheed A. Extended interval aminoglycoside dosing in critically ill patients. Pharmacokinetic assessment in a tertiary hospital. The Third International pharmaceutical science Conference, Beirut, Lebanon, September 1998.

**Noreddin A** and Torti F:"Experience with recombinant tumor necrosis factor (rTNF)" Drug Biotechnology Symposium, Saudi Pharmaceutical Society, Tabouk, Saudi Arabia, 28-29 March 1995.

**Noreddin A**: Blood and blood products infections, including hepatitis and AIDS", Blood Products Symposium, Saudi Pharmaceutical Society, Al-Madina Al-Munawara, Saudi Arabia, November 1994.



**Noreddin A** and Torti F: Tumor necrosis factor (rTNF) administered as a continuous infusion to cancer patients", Drugs and Poisons: Uses and Hazards Symposium, Directorate of Health Affairs, Jeddah, Saudi Arabia, June 1994

**Noreddin A**: Pharmacist, physician, nurse and patient interaction", Clinical Pharmacy Services in Hospitals Symposium, Al-Khobar, Saudi Arabia, May 1993.

Saleh S, Roushdy H, Hamdy M, **Noreddin A**, and Barakat M. Study on Radiation sensitivity of medroxyprogesterone acetate as reflected by chemical, biochemical, and biological investigations. The Second Mediterranean and Near- East Congress of Clinical Chemistry, November 1983.

### **RESEARCH GRANT FUNDING**

Principal Investigator: **Targeting breast cancer by novel exosome-based formulations of Anastrozole** . Collaborative grant. University of Sharjah, (200,000ADH), 2018.

Principle Investigator: A Novel Antibiofilm Formulation to Treat Combat-Related Wound Infections, W81XWH-17-JPC-2/MIDRP-ARA. (\$ 2M), 2017.

Co-investigator: Design of novel cationic, amphipathic cellulose based Nano biomaterials from agricultural residues for Drug Delivery: Application in the Treatment of Multi-Drug Resistant Planktonic and/or Biofilm Embedded Bacteria. Academy of Scientific Research and Technology. (\$100 K), submitted July, 2016.

Co-investigator: "Quorum Quenching Enzymes: New Trend in Antimicrobial treatment: JESOR program, Academy of Science Research and Technology, Egypt. 2015 (\$60,000).

Principal Investigator: "Providing Medication Management Services", **Senior Services of Southeastern Virginia**, 2013 (\$4,800)

Principal investigator: "Innovative technologies to effectively treat multi-drug resistant and/or biofilm-embedded bacteria ", **Innovative Surface Technologies, Inc. (ISurTec)**, National Institute of Health (NIH)/SBIR. Grant number: 1R43GM093398-01A1, 2010-2012 (\$40,000)

Co-investigator: "Collaborative Pilot Study: Evaluating the efficacy of the Drug Information Database System at Hampton University School of Pharmacy", Hampton University Faculty Institute Grant, 2010 (\$5,200)

Co-Investigator: "Relationship of MIC and AUC/MIC to vancomycin efficacy for treatment of methicillin-resistant *Staphylococcus aureus* pneumonia", Whiteside Clinical Research Institute, 2008-2009 (\$14,500)

Principal Investigator: "A dynamic model of bio-film infected Cystic Fibrosis lung epithelial cells", Grant-In-AID of research, Artistry and Scholarship (Category 6, University of Minnesota 2007-2009 (\$29,200)

Principal Investigator: “High throughput and *in vitro* modeling strategies vs. catheter biofilms in elderly patients with complicated urinary tract infections “, Society of Infectious Diseases Pharmacist, 2007-2008 (\$15,000)

Principal Investigator: “Target Attainment Potential Study of Fluoroquinolones versus Resistant Strains of *Streptococcus pneumoniae*” Schering Plough, 2007-2008 (\$24,000)

Principal Investigator: “*Pharmacodynamic Profiling of Moxifloxacin and Comparators versus Susceptible and Genetically Characterized Resistant strains of Streptococcus pneumoniae. Monte Carlo Simulation Analysis*”. Schering Plough, 2006-2007 (\$39,100)

Principal Investigator: “Study of the Pharmacodynamic Activity of the New Respiratory Quinolones against Ciprofloxacin Resistant Mutants of *Streptococcus pneumoniae*”, Grant-In-AID of Research, Artistry and Scholarship (Category I), University of Minnesota 2006-2008 (\$28,000)

Principal Investigator: “Liquid Chromatography-Mass Spectroscopy Instrument”, Grant-In-Aid Program (Category II), University of Minnesota, 2005 (\$38,000)

Recipient: “Establishment of Clinical Pharmacology Research Laboratory with LC-MS instrument as the major component of Drug Metabolites, hormones and other sophisticated assays”.*Shimadzu Equipment Grants for Research*, Shimadzu Scientific Instruments. , 2005 (\$51,000)

Principal Investigator: “*Assessment of Moxifloxacin ability to eradicate and prevent development of Streptococcus pneumoniae resistance: Clinical simulation and Monte Carlo analysis*”. Whiteside Institute for Clinical Research, St.Luke’s Hospital, 2005-2006 (\$10,000)

Principal Investigator: “*Target Attainment Analysis for Gatifloxacin 400 Daily in Immunocompetent Elderly and Immunocompromised Patients Hospitalized with Community Acquired Pneumonia*”. Bristol Meyers Squibb, 2002-2003 (\$12,000)

Co-Investigator: “*Simulation of Levofloxacin pharmacokinetics in patients with community acquired pneumonia*”. Ortho McNeil, 2001-2002 (\$22,000)

Co-investigator: “*Pharmacokinetic/Pharmacodynamic modeling of various Nitrofurantoin formulations versus selected urinary tract isolates*. “Procter and Gamble, 2000-2002 (\$160,000)

Co-investigator: “*Pharmacodynamic modeling of Macrolides/ Ketolides against macrolide-resistant S.pneumoniae* ”. ABBOTT Laboratories, 2000-2001 (\$50,000)

### **PROFESSIONAL SOCIETIES:**

The Rho Chi Society (Pharmaceutical Honor Society)  
American Association of Colleges of Pharmacy (AACCP)  
American Pharmacists Association (APhA)  
California Pharmacists Association (CPhA)  
American Society of Microbiology