

CURRICULUM VITAE

Current to September 2017

Dr. George G. ZHANEL, FCCP

PERSONAL INFORMATION

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Birth Date: April 18, 1962
Birth Place: Olomouc, Czechoslovakia
Marital Status: Married (2 sons Stefan-1992 and Michael-1994)

ACADEMIC QUALIFICATIONS

1994 Ph.D. in Medical Microbiology
University of Manitoba
Faculty of Medicine
Winnipeg, Manitoba, Canada

1986 Doctor of Clinical Pharmacy (magna cum laude)
University of Minnesota
Minneapolis, Minnesota, USA

CURRENT POSITIONS

2013-Present Course Leader – Infectious Diseases/Medical Microbiology, Undergraduate Medical Education (UGME), Max Rady College of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada

2006-Present Director - Canadian Antimicrobial Resistance Alliance (CARA), Max Rady College of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada

2002-Present Professor, Department of Medical Microbiology/Section of Infectious Diseases, Max Rady College of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada

1994-Present Coordinator - Antibiotic Resistance Program, Section of Infection Control, Department of Medicine, Health Sciences Centre, Winnipeg, Canada

PREVIOUS POSITIONS

- 1996-2006 Chair - Antimicrobial Resistance Research Group, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada
- 1999-2002 Associate Professor, Department of Medical Microbiology/Section of Infectious Diseases, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada
- 1999-2002 Professor, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba, Canada
- 1994-1999 Assistant Professor, Department of Medical Microbiology/Section of Infectious Diseases, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada
- 1994-1999 Associate Professor, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba, Canada
- 1994-1997 Head - Division of Clinical Sciences and Practice, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba, Canada.
- 1990-1994 Doctor of Philosophy Candidate, Department of Medical Microbiology, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada
- 1989-1990 Postdoctoral Research Fellow, Department of Medical Microbiology, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada
- 1987-1994 Assistant Professor, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba, Canada
- 1987-1989 Clinical Instructor, St. Boniface General Hospital, Winnipeg, Manitoba, Canada
- 1986-1987 Clinical Specialist in Infectious Diseases, Health Sciences Centre, Winnipeg, Manitoba, Canada

ADMINISTRATIVE POSITIONS

- 1998-1999 Acting Dean, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba, Canada
- 1997-1999 Associate Dean Research, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba, Canada

ADDITIONAL TRAINING

- 1996 Animal Infection Models (murine models of pneumonia, tissue cage, subcutaneous thread, thigh and peritonitis, rabbit models of meningitis and endocarditis) Antimicrobial Chemotherapy Workshop, Reykjavik, Iceland.
- 1992 BRL Recombinant DNA Techniques Workshop, University of Manitoba, Winnipeg, Manitoba, Canada
- 1990 Training in Dr. William Craig's Laboratory, Madison, Wisconsin. "The postantibiotic effect in a neutropenic mouse thigh model"

1990 Training in Dr. John Hopkin's Laboratory, Madison, Wisconsin. "Urinary tract infection in a mouse model".

TEACHING EXPERIENCE

1987 - Present **University of Manitoba, Faculty of Medicine**

Medicine I – Course Leader – Infectious Diseases, 2013 – Present

Treatment and prevention of common infectious diseases in adults and pediatrics, antibiotic concepts, cell wall active antibiotics, protein synthesis inhibitors, other antibiotics, antibiotic resistance, antibiotic applications, antifungals, antiparasitics, antivirals, disinfectants, sterilizers, antiseptics, vaccines

– Block 1 Infectious Diseases Session leader, 2004-2013

- Antibiotic concepts, cell wall active antibiotics, protein synthesis inhibitors, other antibiotics, antibiotic resistance, antibiotic applications, pathogenesis, immune system, vaccines, normal microbiota, introduction to microbes, Enterobacteriaceae, Staphylococci, Streptococci, infectious principles, treatment of infections in adults and pediatrics
- Tutorials on normal human microbiota, *S. aureus*, *S. pyogenes*, *E. coli*, Tuberculosis/antitubercular agents, viral infections/antivirals, infection prevention/public health, fungal infections/antifungals, parasitic infections/antiparasitics
- Infectious Diseases Laboratory Session, 1991-1995
Normal microbiota, disinfectants, sterilizers, antiseptics, vaccines
- Defense Mechanisms and Therapeutics, 2000 - 2004

Antibiotic concepts, cell wall active antibiotics, protein synthesis inhibitors, other antibiotics, antibiotic resistance, antibiotic applications, disinfectants, sterilizers, antiseptics, vaccines

- Block 3 Infectious Diseases course director, 2009-2013

Viral infections/antivirals, influenza, respiratory infections, infections in travellers and HIV/AIDS

Medicine II - Infectious Diseases, 1993-1999.

- Antibiotic concepts, cell wall active antibiotics, protein synthesis inhibitors, other antibiotics, antibiotic resistance, antibiotic applications, viral infections/antivirals, preservatives, disinfectants, sterilizers, antiseptics, topical antibiotics, antibiotics in pregnancy, treatment of infections in adults and pediatrics

Medicine III - Mini-Hospital Microbiology Laboratory Session, 1991-1995

- Therapeutics in Infectious Diseases (pediatrics, adults and elderly), therapeutics in pregnancy and lactation, tutorials on antibiotic use in the treatment of adult and pediatric infectious diseases, 1993-Present.

- Infectious Diseases/Antibiotic Review 2003-present.

Review of antibiotics and their use in the treatment of common infectious diseases, new vaccines

Medicine IV - Infectious Diseases/Antibiotic Review 2003-present.

- Review of antibiotics and their use in the treatment of common infectious diseases

Infectious Diseases Postdoctoral Fellows - 2002-present

Clinical Infectious Diseases Lecture Series

- Antibiotic resistant infections
- Review of commonly used antibiotic classes
- New and investigational antimicrobials
- preservatives, disinfectants, sterilizers, antiseptics

Internal Medicine/Emergency Residents - 2007-present

Clinical Infectious Diseases Lecture Series

- Antibiotic resistant infections
- New antibiotics

Department of Pharmacology and Therapeutics

Pharmacology 89.713, 1995-Present

One 3 hour seminar on cellular and molecular mechanisms of antimicrobial action

Pharmacology 2100, 1995-2013

Principles of therapy, penicillins/cephalosporins, carbapenems, chloramphenicol, tetracyclines/glycylcyclines, glycopeptides/lipopeptides, aminoglycosides, quinolones, macrolides/ketolides, monobactams, oxazolidinones, polymyxins, antitubercular drugs, sulfonamides and antifolates, antimicrobials with special indications, antibiotics in pediatrics, adults, elderly, pregnancy and lactation, topical antibiotics, antiparasitic agents, preservatives, disinfectants, sterilizers, antiseptics,

New vaccines

Pharmacology 4040, 2009-Present

Antimicrobial selection, antimicrobial resistance

Department of Medical Microbiology

The Molecular Basis of Antibiotic Action MMC 7160, 1996-Present

Course Director

Eight 3 hour tutorials on the cellular and molecular mechanisms of action and resistance of antimicrobials, antivirals and agents with antimicrobial activity including preservatives, disinfectants, sterilizers, antiseptics

Microbial Pathogenicity MMC 7050, 2004-Present

Antibiotic resistance

Two 3 hour lecture/tutorials on the cellular and molecular mechanisms of antibiotic action/resistance.

Ecology of Infectious Diseases MMC 7220, 2010-Present

Introduction to infectious diseases

Two hour lecture/tutorial on the principles and practice of infectious diseases.

Antibiotics in Infectious Diseases 1987-1989

Course Director, Infectious Diseases Fellows, Sections of Pediatric and Adult Infectious Diseases/Medical Microbiology, University of Manitoba

Principles of antimicrobial chemotherapy, treatment of common infections in adults and pediatrics, penicillins, cephalosporins, carbapenems, monobactam, aminoglycosides, fluoroquinolones, macrolides, glycopeptides, sulfonamides, tetracyclines, agents with antimicrobial activity including non-traditional antimicrobials, preservatives, disinfectants, sterilizers, antiseptics, antifungals, antivirals, antiparasitics, antitubercular agents, vaccines

Continuing Education/Medical Microbiology, 1989, Course Instructor, Certificate in Infection Control in Health Care Program - Antimicrobial Pharmacology Section, University of Manitoba – Principles of infection prevention and agents/systems used for infection prevention

University of Manitoba, Faculty of Science

Microbiology - Mechanisms of Microbial Diseases (MBIO3010), 1993-Present

Mechanism of action and resistance of: cell wall active antibiotics, protein inhibitors, other antibiotics, antiviral agents, antifungal agents

University of Manitoba, Faculty of Pharmacy

Clinical Pharmacy Tutorials 46.438, 1987-1991

Introduction, thromboembolism and cerebrovascular disease, angina pectoris/myocardial infarction, congestive heart failure, review tutorial, hypertension and hypertensive emergencies, congestive heart failure, peptic ulcer disease, rheumatoid arthritis, urinary tract infection, respiratory tract infection, eye/ear/nose and throat infections, clinical toxicology

Therapeutics 46.435, 1987-1991

Arrhythmias and antiarrhythmic agents (2 lectures), principles of oncology & chemotherapy (4 lectures), AIDS - acquired immunodeficiency syndrome

Antibiotics in Infectious Diseases 46.443, 1991-1994; 46.341, 1994-1998

Course Director

Treatment of infectious diseases in pediatrics, adults and elderly. Introduction to microbiology, infectious diseases and the microbiology laboratory, penicillins, cephalosporins, other beta-lactams, vancomycin, aminoglycosides, fluoroquinolones, sulfonamides, tetracyclines, antiviral agents, antifungal agents, antitubercular agents, antiparasitic agents, agents used for urinary tract infections, treatment of HIV/AIDS, treatment of respiratory infections, treatment of ear infections, prevention and treatment of eye infections, prevention and treatment of dental infections, prophylaxis for travelers, treatment of viral infections, mechanisms of antibiotic resistance, antibiotics in pregnancy, lactation, neonates, agents with antimicrobial activity including non-traditional antimicrobials, preservatives, disinfectants, sterilizers, antiseptics, new vaccines

Professional Practice II 46.441, 1987-1993

Course coordinator for hospital dispensing section

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