

Name: David Andes

Education

1984-88 Undergraduate: St. Louis University, BA Biology
1988-92 Medical School: University of Missouri, Columbia
1992-95 Residency Training: University of Wisconsin, Madison, Internal
Medicine
1995-96 Chief Residency: University of Wisconsin, Madison, Internal
Medicine
1996-99 Clinical Fellowship: University of Wisconsin, Madison,
Infectious Disease
1999-2001 Research Training: Antimicrobial Pharmacodynamics – Mentor:
William Craig
1999-2001 Research Training: Molecular Biology/Mycology – Mentors:
Bernard Weisblum/Bruce Klein
2002 Marine Biological Laboratory, Wood's Hole – Molecular Mycology

Board Certification:

Internal Medicine
Infectious Diseases

Positions and Appointments

1999-2002 University of Wisconsin, Madison, Assistant Professor (CHS),
Department of Medicine, Section of Infectious Diseases
2002-present University of Wisconsin, Madison, Assistant Professor
(Tenure Track), Department of Medicine, Section of
Infectious Diseases
2003-present University of Wisconsin, Madison, Assistant Professor
Department of Medical Microbiology and Immunology
2006-present Infectious Diseases Fellowship Director
2007-present Associate Professor with Tenure, University of Wisconsin,
Department of Medicine and Medical Microbiology and
Immunology

Honors and Awards:

1994 American College of Physicians Clinical Award
1995-96 Chief Medicine Resident
1995-96 Department of Medicine Teacher of the Year Award
1998 George McCracken Research Fellow Award
2001 National Institutes of Health Mentored Clinical Scientist Development
Award
2002 Interscience Conference on Antimicrobial Agents and Chemotherapy
(ICAAC) – Young Investigator Award
2006 Faculty – Molecular Mycology Course, Marine Biological Institute,
Woods Hole, MA
2006 Infectious Diseases Society of America – Candidiasis Treatment
Guideline Committee
2006 Puestow Award – Young Investigator Basic Science Research, University
of Wisconsin, Dept of Medicine
2006 President – International Society of Antimicrobial Pharmacology

2007 Voting Member – Clinical Laboratory Standards Institute – Antifungal Testing Committee
2007 Co-Chair, Mycosis Study Group Education Committee
2008 Faculty of 1000 – Mycology Section

Published Peer Reviewed

1. Craig WA, **Andes D**. Oral versus parenteral antibiotic therapy. *Med Clin of North Amer.* 1995;79:479-509.
2. Craig WA, Andes D. Pharmacokinetics and pharmacodynamics of antibiotics in otitis media. *Pediatr Infect Dis J.* 1996;115:255-259.
3. Craig WA, **Andes D**. Aminoglycosides are useful for severe respiratory tract infections. *Seminars in Resp Infect.* 1997;12:271-277.
4. Andes D, Craig WA. Pharmacokinetics of fluoroquinolones in experimental endocarditis. *Clin Infect Dis.* 1998;27:47-50.
5. **Andes D**, Craig W.A. Pharmacokinetics and pharmacodynamics of outpatient intravenous antimicrobial therapy. *Infect Dis Clinics North Am* 1998;12:849-859.
6. **Andes D**, Craig WA. In-vivo activity of amoxicillin and amoxicillin/clavulanate against penicillin-resistant pneumococci in a murine thigh infection model. *Antimicrob Agents Chemother.* 1998;42:2375-2379.
7. **Andes D**, Urban A, Acher CW, Maki DG. Report of septic thrombosis from a PICC and review. *Amer J Med.* 1998;105:446-450
8. **Andes D**, van Ogtrop ML. Characterization and quantitation of the pharmacodynamics of fluconazole in a neutropenic murine model of disseminated candidiasis model. *Antimicrob Agents Chemother.* 1999;43:2116-2120.
9. **Andes D**, Craig WA. Pharmacokinetics and pharmacodynamics of antibiotics in meningitis. *Infect Dis Clinics North Am* 1999;13:595-617.
10. **Andes D**. Preclinical review of L-084, a new carbapenem. *Current Opinion in Anti-infective Investigational Drugs.* 1999;1:101-103
11. **Andes D**. Preclinical review of J-111225. *Current Opinion in Anti-infective investigational Drugs.* 1999;1:111-113.
12. Mouton JW, van Ogtrop ML, **Andes D**, Craig WA. Use of pharmacodynamic indices to predict efficacy of combination therapy in vivo. *Antimicrob Agents Chemother.* 1999;43:2473-2478.
13. **Andes D**, van Ogtrop ML. In-vivo characterization of the pharmacodynamics of flucytosine in a neutropenic murine candidiasis model. *Antimicrob Agents Chemother.* 2000;44:938-942.
14. van Ogtrop ML, **Andes D**, Stamstad TJ, Conklin B, Weiss WJ, Craig WA, Vesga O. In-vivo pharmacodynamic activity of two glycolcyclines (GAR-936 and WAY 152,288)

against various gram-positive and gram-negative bacteria. *Antimicrob Agents Chemother.* 2000;44:943-949.

15. **Andes D**, Bush R, Pasic T, Proctor R. Report of successful therapy with prolonged antifungal therapy of refractory allergic fungal sinusitis. *Clin Infect Dis.* 2000;31:202-4.

16. **Andes D**. In-vivo pharmacodynamics of amphotericin B against selected *Candida* species. *Antimicrob Agents Chemother* 2001;45:922-926.

17. Drusano GL, Preston S, Hardalo C, Hare R, Banfield C, **Andes D**, Vesga O, Craig WA. Use of preclinical data for selection of a phase II-III dose for evernimycin and identification of a preclinical MIC breakpoint. *Antimicrob Agents Chemother* 2001;45:13-22.

18. **Andes D**. Pharmacokinetic and pharmacodynamic properties of antimicrobials in the therapy of respiratory tract infections. *Curr Opin Infect Dis.* 2001;14:165-172.

19. **Andes D**, Craig WA. Characterization of the Pharmacodynamics of the New Fluoroquinolone, Gatifloxacin, in Murine Thigh and Lung Infection Models. *Antimicrob Agents Chemother* 2002;46:1665-1670.

20. **Andes D.**, Craig, W.A. A Critical Review of Animal Model Pharmacokinetics and pharmacodynamics. *International Journal of Antimicrobial Agents.* 2002;19:261-268.

21. **Andes D**, Peng J, Craig WA. In-vivo characterization of the pharmacodynamics of a new oxazolidinone (linezolid). *Antimicrob Agents Chemother.* 2002;46:3484-3489.

22. Jones R, **Andes D**, Mandell L, Gothelf S, Ehrhardt A, Nicholson S. Gatifloxacin used for therapy of outpatient community-acquired pneumonia caused by *Streptococcus pneumoniae*. *Diagn Microbiol Infect Dis.* 2002;44:

23. Crnich C, **Andes D**. Molecular characterization of community-acquired *Pseudomonas aeruginosa* pneumonia. *Clin Infect Dis.* 2003;36:55-7.

24. **Andes, D**. Pharmacokinetics and pharmacodynamics in the development of antifungal compounds. *Current Opinion in Investigational Drugs* 2003;4:991-8.

25. **Andes, D**. Clinical pharmacodynamics of antifungals. *Infect Dis Clin N Amer.* 2003;17:635-49.

26. **Andes D**, Marchillo K, Lowther, J., Bryskier, A., Stamstad, T., Conklin, R. In vivo pharmacodynamics of HMR 3270, a glucan-synthase inhibitor, in a murine candidiasis model. *Antimicrob Agents Chemother.* 2003;47:1187-1192.

27. **Andes D**, Marchillo, K., Stamstad, T., Conklin, R. In-vivo pharmacodynamics of a new triazole, ravuconazole, in a murine candidiasis model. *Antimicrob. Agents Chemother.* 2003;47:1193-1199.

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30. Safdar N, Young, DK, **Andes D**. Autochthonous furuncular myiasis in the United States: case report and literature review. *Clin Infect Dis*. 2003;36:73-80.
31. Adams M., **Andes D.**, Kwon G. Amphotericin B encapsulated in micelles based on poly (ethylene oxide) – block – poly (L-amino acid) derivatives exerts reduced in vitro hemolysis but maintains potent in vivo antifungal activity. *Biomacromolecules*. 2003;4:750-757.
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36. **Andes D**. Antifungal pharmacokinetics and pharmacodynamics: understanding the implications for antifungal drug resistance. *Drug Resistance Updates*. 2004;7:185-194
37. **Andes D.**, Marchillo K, Stamstad T., Conklin R. Pharmacodynamics of a new triazole, posaconazole, in a murine model of disseminated candidiasis. *Antimicrob Agents Chemother*. 2004;48:137-42.
38. Agger W., **Andes D**, Burgess JW. *Exophiala jeanselmei* infection in a heart transplant recipient successfully treated with oral terbinafine. *Clin Infect Dis* 2004;38:e112-115.
39. **Andes D.**, Anon J, Jacobs MR, Craig WA. Application of pharmacokinetics and pharmacodynamics to antimicrobial therapy of respiratory tract infections. *Clin Lab Med* 2004;24:477-502.
40. **Andes D**, J Nett, P. Oschel, R. Albrecht, K. Marchillo, A. Pitula. Development and characterization of an in vivo central venous catheter *Candida albicans* biofilm model. *Infect Immun*. 2004;72:6023-6031
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45. **Andes D**, Safdar N. Efficacy of Micafungin for the Treatment of Candidemia. Eur J Clin Microbiol Infect Dis. 2005;25::1-3
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60. Lepak A, L Lincoln, K. Marchillo, **Andes D**. Time Course Microbiologic Outcome and Gene Expression During and Following Fluconazole Exposure In vitro and In vivo. *Antimicrob Agents Chemother*. 2006;50:1311-9.
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65. Bok JW, Chung D, Balajee SA, Marr KA, **Andes D**, Nielsen KF, Frisvad JC, Keller NP. GliZ, a transcriptional regulator of gliotoxin biosynthesis, contributes to *Aspergillus fumigatus* virulence. *Infect Immun*.2006;74:6761-68.
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70. **Andes D**. Clinical Antifungal Pharmacokinetics and Pharmacodynamics. *Infect Dis Clin N Amer* 2006;30 :679-97.
71. Gauthier G, Safdar N, Klein BS, **Andes D**. Blastomycosis in solid organ transplant recipients. *Transplant Infect Dis* 2007;9:310-7.
72. Nett J, Lincoln L, Marchillo K, Van Handel M, **Andes D**. Role of Beta 1,3 glucan in *Candida albicans* biofilm resistance to fluconazole and amphotericin B. *Antimicrob Agents Chemother*. 2007;51:510-520.
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74. Fang L, Wagner J, Marchillo K, Oshel P, **Andes D**, Palecek S. EAP1 enhances *Candida albicans* adhesion and in vivo biofilm formation. *Eukaryot Cell* 2007;6:931-9.
75. Croy SR, **Andes D**, Kwon GS. Cremophor EL and polysorbate 80 attenuate nystatin induced toxicities and enhance potency in vitro. submitted
76. LaPlante KL, Rybak MJ, **Andes D**, Craig WA. Activity of clindamycin inducible community associated methicillin resistant *Staphylococcus aureus* versus daptomycin, clindamycin, doxycycline, linezolid in in vitro and in vivo pharmacodynamic models. *Antimicrob Agents Chemother* 2008 Apr 14; [Epub ahead of print]
77. **Andes D**, Craig WA. In vivo pharmacodynamic characterization of the new lipoglycopeptide, dalbavancin. *Antimicrob Agents Chemother*. 2007;51:1633-42.
78. Nett J, Lincoln L, Lepak L, Marchillo K, **Andes D**. Global transcriptional profile of *Candida albicans* in an in vivo central venous catheter model. submitted
79. Smith J, Safdar N, Knasinski V, **Andes D**. Impact of the campath on infection in solid organ transplantation – a case controlled study. submitted
80. Chung D, Dagenais TRT, **Andes D**, Keller NP. A requirement of the dioxygenase PpoC in conidiophore development and fitness in the murine model of aspergillosis. In press *Eukaryot Cell*
81. Kethireddy S, **Andes D**. CNS pharmacokinetics of antifungal agents. *Expert Opin Drug Metab Toxicol*. 2007;3:573-81.
82. Rosenfeld RM, **Andes D**, Bhattacharyya N, Cheung D, Eisenberg S, Ganiats TG, Gelzer A, Hamilos D, Haydon RC 3rd, Hudgins PA, Jones S, Krouse HJ, Lee LH, Mahoney MC, Marple BF, Mitchell CJ, Nathan R, Shiffman RN, Smith TL, Witsell DL.

Clinical practice guideline: adult sinusitis. Otolaryngol Head Neck Surg. 2007;;137(3 Suppl):S1-31.

83. Lepak A, **Andes D**. Pharmacodynamics of Antifungal Drugs: A Strategy to Optimize Efficacy. Current Fungal Infection Reports, In press

84. Smith J, **Andes D**. Antifungal Therapeutic Drug Monitoring – Pharmacokinetic and Pharmacodynamic Considerations. Therapeutic Drug Monitoring. 2008 Apr;30(2):167-172.

85. **Andes D**, Diekema DJ, Pfaller MA, Prince RA, Marchillo K, Ashbeck J, Hou J. In vivo Pharmacodynamic Characterization of Anidulafungin in a Neutropenic Murine Candidiasis Model. Antimicrob Agents Chemother. 2008 Feb;52(2):539-50. Epub 2007 Dec 10.

86. Kano R, Baddley JW, Brandt ME, Moser SA, Marr KA, Alexander B, **Andes D**, Kontoyiannis DP, Pappas PG, Balajee SA. Surveillance for fungal infections in transplant recipients (TRANSNET): *Aspergillus fumigatus* remains the predominant species within the section *Fumigati* to cause Invasive Aspergillosis. Submitted

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88. Nett J, Marchillo K, **Andes D**. Reduced Biocide Susceptibility in *Candida albicans* Biofilms. In press Antimicrob Agents Chemother. 2008 Jun 23. [Epub ahead of print]

89. Baddley JW, Patel M, Bhavnani, Moser SA, **Andes D**. Association of Fluconazole Pharmacodynamics with Mortality in Candidemia. Antimicrob Agents Chemother. 2008; Jun 30. [Epub ahead of print]

90. **Andes D**, Marchillo K, Ashbeck J. In vivo Pharmacodynamic Target Identification of Micafungin Against *Candida albicans* and *Candida glabrata*. In press Antimicrob Agents Chemother

91. Nett J, **Andes D**. Advances in Antifungal Therapy. J Infect Dis. In press

92. Ostrosky-Zeichner L, Rex JH, Pfaller MA, Diekema DJ, Alexander BD, **Andes D**, Brown SD, Chaturvedi V, Ghannoum MA, Knapp CC, Sheehan DJ, Walsh TJ. Rationale for reading *Candida spp.* Fluconazole MICs at 24h rather than 48h when testing by the CLSI M27-A2 method. In press J Clin Microbiol

93. Pfaller MA, Diekema DJ, Rex JH, Alexander BD, **Andes D**, Brown SD, Chaturvedi V, Ghannoum MA, Knapp CC, Ostrosky-Zeichner L, Sheehan DJ, Walsh TJ. Correlation of MIC with outcome for *Candida* species tested against caspofungin, anidulafungin, and micafungin: analysis and proposal for interpretive MIC breakpoints. J Clin Microbiol. 2008; Jun 25. [Epub ahead of print]

94. Vakil R, Knilans K, **Andes D**, Kwon GS. Combination Antifungal Therapy Involving Amphotericin B, Rapamycin and 5-Fluorocytosine Using PEG-Phospholipid Micelles. Pharm Res. 2008 Apr 16; [Epub ahead of print]

95. **Andes D**, Pascual A, Marchetti, O. Antifungal Therapeutic Drug Monitoring – Established and Emerging Indications. Submitted.
96. Nobile CJ, Schneider HA, Nett JE, Sheppard DC, Filler SG, **Andes D**, Mitchell AP. Complementary adhesin function in *C. albicans* biofilm formation. *Curr Biol* In press
97. Dagenais TR, Chung D, Giles SS, Hull CM, **Andes D**, Keller NP.. Defects in conidiophore development and conidium-macrophage interactions in a dioxygenase mutant of *Aspergillus fumigatus*. *Infect Immun*. 2008 Jul;76(7):3214-20. Epub 2008 Apr 28.

Book Chapters

1. **Andes, D**. Chapter 1: Antimicrobial Pharmacokinetics and Pharmacodynamics. In: Gorbach S.L. and Baddour L.M. (eds) *Therapy of Infectious Diseases*. 2003 W.B. Saunders.
2. **Andes, D.**, Craig, W.A. Pharmacodynamics of Fluoroquinolones. In: Hooper D.C. and Rubinstein E. (eds) 3rd Edition *Quinolone Antimicrobial Agents*. 2003. ASM Press Books
3. **Andes, D.**, Craig, W.A. Treatment of Community-Acquired Respiratory Infections with Other Antibiotics. In: File T (ed) *Community Acquired Respiratory Tract Infections*. Marcel Dekker.
4. **Andes, D**. Antifungal Drug Evaluation – Candidemia Animal Models. In: Ernst EJ and Rogers PD. (eds) *Methods in Molecular Medicine – Antifungal Agents*. 2005 Humana Press, Totowa, New Jersey
5. **Andes, D.**, WA Craig. Understanding Pharmacokinetics and Pharmacodynamics: Application to the Antimicrobial Formulary Decision Process. In: Owens RC, Ambrose PG, and Nightengale CH. (eds) *Antibiotic Optimization Through Innovative Programs, Guidelines and Formulary Changes*. 2005.
6. **Andes, D.**, Craig W.A. Cephalosporins. In: Mandell GL, Bennett JE, and Dolin R. (eds) *Principles and Practice of Infectious Diseases*. 2005 Elsevier Churchill Livingstone, Philadelphia, Penn
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8. **Andes D**. Polyene Pharmacodynamics. In: Nightengale, Ambrose, Murakawa, Drusano (eds). *Antimicrobial Pharmacodynamics in Theory and Practice*. Marcel Dekker. 2005
9. **Andes D**. Tetracycline Pharmacodynamics. In: Nightengale, Ambrose, Murakawa, Drusano (eds). *Antimicrobial Pharmacodynamics in Theory and Practice*. Marcel Dekker. 2005

10. R. Vakil, A. Kuldipkumar, **D. Andes**, Y. Tan, and G. S. Kwon, Polymeric micelles for the delivery of polyene antibiotics, in S. Svenson (Ed.), Polymeric Drug Delivery Vol. I - Particulate Drug Carriers, ACS Symposium Series Vol. 923, New York, 2006, 14-26.
11. Nett J, **Andes D**. Fluconazole. In Kucers Use of Antibiotics, 6th Edition, Hodder & Stoughton In press
12. Nett J, **Andes D**. Itraconazole. In Kucers Use of Antibiotics, 6th Edition, Hodder & Stoughton In press
13. Nett J, **Andes D**. Voriconazole. In Kucers Use of Antibiotics, 6th Edition, Hodder & Stoughton In press
14. Nett J, **Andes D**. Posaconazole. In Kucers Use of Antibiotics, 6th Edition, Hodder & Stoughton In press

Monographs

Rex JH, Alexander BD, **Andes D**, Arthington-Skaggs B, Brown SD, Chaturvedi V, Ghannoum MA, Espinel-Ingroff A, Knapp CC, Ostrosky-Zeichner L, Pfaller MA, Sheehan DJ, Walsh TJ. Reference method for broth dilution antifungal susceptibility testing of yeasts, M27-A3; approved standard – third edition. Clinical Laboratory Standards Institute

Rex JH, Alexander BD, **Andes D**, Arthington-Skaggs B, Brown SD, Chaturvedi V, Ghannoum MA, Espinel-Ingroff A, Knapp CC, Ostrosky-Zeichner L, Pfaller MA, Sheehan DJ, Walsh TJ. Reference method for broth dilution antifungal susceptibility testing of yeasts, M38-A2; approved standard – third edition. Clinical Laboratory Standards Institute

Abstracts

1. **Andes D**, Walker R, Ebert S, Craig WA. Increasing protein binding of cefonicid enhances its in-vivo activity in an animal model. 34th Interscience Conference of Antimicrobial Agents and Chemotherapy, American Society for Microbiology, 1994.
2. Craig W, **Andes D**, Walker R, Urban A, and Ebert S. Pharmacodynamic activities of a quinolonyl-penem carbamate in an animal infection model. 34th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology, 1994.
3. Walker R, **Andes D**, Ebert S, Conklin R, and Craig W. Pharmacodynamic comparison of 6-demethyl 6-deoxytetracycline and minocycline in an animal infection model. 34th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology, 1994.
4. Walker R, **Andes D**, Ebert S, Conklin R, and Craig W. Pharmacodynamic comparison of meropenem in an animal infection model. 34th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology, 1994.
5. **Andes DR**, Craig WA. In-vivo activity of cefpodoxime against penicillin-resistant pneumococci. 19th International Congress of Chemotherapy, Montreal, Canada, 1995.

6. **Andes D**, Urban A, Craig W. Pharmacodynamics of fluoroquinolones in experimental endocarditis. Symposium on Pharmacodynamics of Antimicrobials, International Society of Antimicrobial Pharmacology, Quebec City, Quebec, Canada, 1995.
7. **Andes D**, Jacoby G, Craig W. Impact of extended-spectrum beta-lactamase production in *K. pneumoniae* on activity of four beta-lactams in an animal infection model. 35th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology. 1995.
8. **Andes D**, Urban A, Craig W. In vivo activity of amoxicillin and amoxicillin/clavulanate against penicillin-resistant pneumococci. 35th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology. 1995.
9. Vesga O, **Andes D**, Craig W. Correlation of bacterial counts at 24 hours with survival after 4-days of therapy. 2nd International Symposium on Infection Models in Antimicrobial Chemotherapy, Rjkekavik, Iceland, 1996.
10. **Andes D**, Vesga O, Batts D, Craig WA. Pharmacodynamic activity of a tribactam in an animal infection model. 36th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology. 1996.
11. **Andes D**, Vesga O, Batts D, Craig WA. Pharmacodynamic activity of an oxazolidinone in an animal infection model. 36th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology. 1996.
12. Vesga O, **Andes D**, Craig WA. In-vivo activity of synercid (RP59500) against multiple bacterial pathogens. 36th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology. 1996.
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14. Vesga O, **Andes D**, Craig WA. Comparative in-vivo activity of HMR 3647, Azithromycin, Clarithromycin, and Roxithromycin against *S. pneumoniae* and *S. aureus*. 37th Interscience Conference on Antimicrobial Agents and Chemotherapy, American Society for Microbiology. 1997.
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139. Bhavnani, SM, Okusanya OO, Hammel JP., Forrest A, Drusano, GL, **Andes D**, Craig WA, Pace JL, Young CL, Xerri L, Ambrose PG. Population pharmacokinetic and monte carlo simulation analyses to support phase 2/3 PZ-601 dosing strategies for complicated skin and skin structure infections. Interscience Conference on Antimicrobial Agents and Chemotherapy 2007.
140. Forrest A, Rubino CM, Craig WA, **Andes DR**, Sorgel F, Bhavnani SM, Kinzig-Schippers M, Rodamer M, Jones RN, Ambrose PG. Use of pharmacokinetics-pharmacodynamics and monte carlo simulations as decision support for determination of penicillin VK susceptibility breakpoints for *Streptococcus pneumoniae*. Interscience Conference on Antimicrobial Agents and Chemotherapy 2007.
141. Thompson, J, Ludwig B, Jagodzinski J, **Andes D**, Squire M. In vitro comparison of commercially available antibiotic impregnated bone cements. Abstract 1866. Orthopedic Research Society Transactions, San Diego, CA 2007.

142. Jagodzinski J, Ludwig, B, Thompson, J, **Andes D**, Squire M. Antibiotic elution of synergid, linezolid, and daptomycin from palcos bone cement. Abstract 1641. Orthopedic Research Society Transactions, San Diego, CA 2007.
143. Squire MW, Ludwig B, Thompson J, Jagodzinski J, Hall D, **Andes D**. Antimicrobial efficacy of five commercially available antibiotic bone cements: an in vitro comparison. Abstract 37. American Association of Hip and Knees Surgeons 17th Annual Meeting, 2007.
144. **Andes D**. Impact of antifungal dosing on clinical efficacy and resistance development. Abstract W16.2 3rd Trends in Medical Mycology, Turin, Italy, 2007 (J Chemother. 19;Suppl 3:Oct 2007).
145. Kano R, Perrone G, Peterson S, Baddley JW, Marr KA, Alexander B, **Andes D**, Kontoyiannis D, Pappas PG, Balajee SA. Comparative sequence analyses of multiple loci reveal rare *Aspergillus* species in transplant recipients. Advances in Aspergillosis. 2008
146. Nett J, **Andes D**. The role of *Fks1* in biofilm formation and drug resistance. 9th ASM Candida and Candidiasis Meeting 2008.
147. Nett J, **Andes D**. *C. albicans* biofilm infection of an *in vivo* denture model. 9th ASM Candida and Candidiasis Meeting 2008.
148. Uppuluri P, Nett J, Heitman J, **Andes D**. Synergistic effect of calcineurin inhibitors and fluconazole against *Candida albicans* biofilms. 9th ASM Candida and Candidiasis Meeting 2008.
149. Andes D. Pharmacodynamics of antifungal drugs: a strategy to optimize efficacy. 13th International Congress on Infectious Diseases. Abstr 12.002. 2008

Invited Research Presentations

Years	Location	Title
UNIVERSITY OF WISONSIN		
2001	Pharmaceutical Sciences Seminar	Antimicrobial Pharmacodynamics and Drug Resistance
2003	Medical Microbiology and Immunology Research Seminar	Resistance in <i>Candida albicans</i> : Pharmacodynamic and In vivo Considerations
2004	Meeting Co-Chair	Fungal Disease – Bridging the Gap Between the Bench and Bedside
2008	Meeting Co-Chair	William Craig – International Society of Antimicrobial Pharmacology Symposium
NATIONAL		
1998	International Society of Antimicrobial Pharmacology	Pharmacodynamics of Antifungals
2001	41 st Interscience	Use of pharmacodynamics as an

	Conference on Antimicrobial Agents and Chemotherapy	alternative for human trials in the evaluation of antifungals?
2001	41 st Interscience Conference on Antimicrobial Agents and Chemotherapy	Session Chair – Topics in Pharmacokinetics and Pharmacodynamics
2002	Infectious Disease Society of America – 2002 Annual Meeting	Clinical Impact of Antibacterial and Antifungal Pharmacodynamics
2002	University of Missouri School of Medicine – Alumni Lecture	Advances in Anti-Infective Therapy
2003	43 rd Interscience Conference on Antimicrobial Agents and Chemotherapy	Clinical relevance of antifungal pharmacokinetics and pharmacodynamics
2003	International Forum on Antibiotic Resistance Colloquium Outcomes, Resistance and Regulation	Animal Models: Improving prediction and performance with PK/PD studies
2004	Workshop on Animal Models of Infection – Novartis	Pharmacodynamic Characterization of Antimicrobials In vivo
2004	Antifungal Workshop – University of Texas Pediatric Pharmacology	Antifungal Pharmacodynamics
2004	44 th Interscience Conference on Antimicrobial Agents and Chemotherapy	Deep Infections in the eye, brain, and bone – Tissue penetration of antifungal drugs
2004	FDA Workshop – Antimicrobial Development	Use of Animal Model PK/PD for Dose Selection
2004	44 th Interscience Conference on Antimicrobial Agents and Chemotherapy	Clinical Relevance of Pharmacokinetics and Pharmacodynamics on Anti-Infective Agents
2005	International Immunocompromised Host Society – Fungal Infections In Solid Organ Transplant	Epidemiology and Risk Factors for Invasive Fungal Infections In Solid Organ Transplantation
2005	Merck Research Symposium	Use of Animal Model Pharmacodynamics in Antimicrobial Drug Development
2005	105 th American Society for Microbiology General	Use of Animal Models of Fungal Infection in Drug Development

	Meeting	
2005	45 th Interscience Conference on Antimicrobial Agents and Chemotherapy	Application of Preclinical Pharmacokinetics and Pharmacodynamics in Drug Development
2005	Pediatric Infectious Disease Roundtable	Treatment of Infection Due to ESBL Producing Organisms – What Really Matters?
2005	University of Alabama – Birmingham, Transplant Grand Rounds	Fungal Infections in Solid Organ Transplantation
2005	Cornell University – Infectious Diseases	Fungal Infections in Solid Organ Transplantation
2005	45 th Interscience Conference on Antimicrobial Agents and Chemotherapy	Meet the Experts – Antifungal Therapeutic Drug Monitoring
2006	San Diego Naval Hospital	Candidemia Epidemiology and Management
2006	46 th Interscience Conference on Antimicrobial Agents and Chemotherapy	CNS Antifungal Pharmacokinetics
2006	Molecular Mycology – Marine Biological Institute, Woods Hole	Mechanisms of Candida Biofilm Resistance
2007	47 th Interscience Conference on Antimicrobial Agents and Chemotherapy	Clinical Relevance of Antifungal Pharmacodynamics – Meet the Experts
2007	FOCUS on Fungal Infections	Antifungal Pharmacogenomics
2007	Infectious Diseases Society of America	Pharmacodynamics in Therapy of caMRSA Infections
2007	Infectious Diseases Society of America	Echinocandin Pharmacokinetics and Pharmacodynamics
2007	Duke	Antifungal Pharmacodynamics
2008	UW Seattle	Antifungal Pharmacodynamics
2008	9 th ASM Candida and Candidiasis	<i>C. albicans</i> Biofilm Infection in an In vivo Denture Model
2008	New England Microbiology Laboratory Directors Conference	Clinical and laboratory implications of antifungal pharmacodynamics
2008	International Society for Anti-Infective Pharmacology – Madison, WI	Pharmacodynamics and genomic endpoints
2009	Annual meeting of the American Society of Clinical Pharmacology and	Antifungal Therapeutic Drug Monitoring

	Therapeutics	
INTERNATIONAL		
1999	University of Nijmegen, the Netherlands Microbiology Rounds	Pharmacodynamics of Antifungals
1999	1 st Annual Asia-Pacific Infectious Disease Meeting, Hong Kong, China	Pharmacodynamics in the Selection of Antibiotics for Respiratory Tract Infections
2000	10 th European Congress of Clinical Microbiology and Infectious Diseases, Stockholm, Sweden	Antifungal Pharmacodynamics
2000	40 th Interscience Conference on Antimicrobial Agents and Chemotherapy Pharmacokinetics and Pharmacodynamics, Toronto, CA	Pharmacokinetics and Pharmacodynamics: The Rational Basis for Antifungal Selection and Dosing
2001	7 th International Symposium on New Quinolones, Edinburgh, Scotland	Pharmacokinetics and Pharmacodynamics of the Non- Fluorinated Quinolones
2001	10 th International Society for Anti-infective Pharmacology, Nijmegen, Netherlands	Critical review of animal models in antimicrobial pharmacodynamics
2002	International Forum on Severe Fungal Infections, Paris, France	Central Vascular Catheter Candidiasis
2004	14 th European Congress of Clinical Microbiology and Infectious Diseases, Prague, Czech	Novel Advances in Antifungal Therapy – Relevance of Antifungal Pharmacokinetics and Pharmacodynamics
2005	15 th European Congress of Clinical Microbiology and Infectious Diseases Copenhagen, Denmark	Pharmacodynamic Considerations in Treatment Infections Caused by ESBL-Producing Bacteria
2005	2 nd Trends in Medical Mycology, Berlin, Germany	Antifungal Pharmacodynamics From Bench to Bedside
2006	International Society for Human and Animal Mycology, Paris, France	Critical Appraisal of Antifungal Pharmacodynamics
2007	Antifungal Seminar, Copenhagen, Denmark	Understanding Polyene Pharmacokinetics to Optimize Outcome
2007	Trends in Medical	Drug Resistance Development and

	Mycology, Torino, Italy	Antifungal Pharmacodynamics
2007	10th International Congress of Therapeutic Drug Monitoring & Clinical Toxicology, Nice, France	Antifungal Therapeutic Drug Monitoring
2008	13 th International Congress on Infectious Diseases, Kuala Lumpur, Malaysia	Using PK/PD Characteristics to Optimize Antifungal Therapy

Visiting Professor

Years	Location
2005	Gunderson Clinic – Lacrosse, WI
2006	Albert Einstein School of Medicine, NY
2006	University of Alabama – Birmingham
2006	University of California – Los Angeles
2007	Ordway Research Institute – Albany, NY
2007	Cornell – Sloan Kettering
2007	State Serum Institute – Copenhagen, Denmark
2007	Duke University
2008	University of Washington - Seattle
2008	University of Alabama - Birmingham

Research Support

Active Grants

PI: RO1 Mechanism of *Candida albicans* Biofilm Antifungal Resistance

Sponsor: NIH NIAID 1 R01 AI073289-01 – 7/1/08 – 6/30/13

Co-PI (Aaron Mitchell – Columbia Univ): Genetic Control of *C. albicans* Biofilm Formation

Sponsor: NIH-NIAID RO1 1/06 – 1/11 R01 AI067703-01

Co-PI (Nancy Keller – UW Plant Pathology): Mechanisms of an *Aspergillus fumigatus* virulence mutant

Sponsor: NIH – NIAID R01 AI65728-01A1

Collaborator (Glen Kwon – UW School of Pharmacy)

Artificial Polymeric Lipoproteins as Drug Carriers

Sponsor: NIH R01 AI43346-10

Active 04/06/07-03/31/11

Collaborator: (Lucy Ling – NovoBiotics) Developing Novel Antibiotics Against *Yersina pestis*

Sponsor: NIH-SBIR 2R44AI063616-03

Active : 03/01/2006 - 02/28/2009

Collaborator (John Baddley –University of Alabama, Birmingham): Mortality in Transplant Patients with Aspergillosis

Sponsor: NIH-NIAID K23 AI064613-01

Mentor for Jeniel Nett: Kirschstein National Research Service Award - (NIH National Heart, Lung, and Blood Institute Grant: T32 HL07899)
2005-2009

PI: PathAlliance – Invasive Fungal Infection Surveillance Network
Sponsor: Astellas Pharmaceuticals

PI: Characterization of the In vivo Pharmacokinetics and Pharmacodynamics of a New Echinocandin, Anidulafungin, Against *Candida albicans* and *Candida glabrata*. 2007
Sponsor: Pfizer Pharmaceuticals
2006-2007

PI: Characterization of the In vivo Pharmacokinetics and Pharmacodynamics of a New Echinocandin, Micafungin, Against *Candida albicans* and *Candida glabrata*.
Sponsor: Astella Pharmaceuticals
2006-2007

PI: Characterization of the In vivo Pharmacokinetics and Pharmacodynamics of a Novel Plectasin Compound Against Multi-Drug Resistant Gram Positive Bacteria. 2007-2008
Sponsor: Novozyme

PI: In vivo Characterization of the Pharmacodynamics of a New Carbapenem
Sponsor: Cerexa
2007-2008

PI: In vivo Determination of the Caspofungin Pharmacodynamic Target Against *Candida parapsilosis*.
Sponsor: Merck
2008-2009

PI: In vivo Determination of the Micafungin Pharmacodynamic Target Against *Candida parapsilosis*.
Sponsor: Astellas
2008-2009

PI: Clinical Pharmacodynamics of Micafungin in Invasive Candidiasis
Sponsor: Astellas
2008-2009

PI: Candidemia Trial Meta-analysis
Sponsor: Mycosis Study Group
2008-2009

Completed Grants

PI NIH K08: Pharmacodynamics and Gene Expression in Antifungal Drug Resistance
4/01 – 4/06 AI01767-01A1 (no cost extension 4/07)
Sponsor: NIH-NIAID

Principle Investigator (UW site) for CDC PA#00055 – Prospective Surveillance of Invasive Fungal Infections Among Transplant Recipients 4/01 – 4/06
Sponsor: CDC

Co-PI: Validation of NCCLS Methods and Breakpoints for Extend-Spectrum Beta-Lactamase.

Co-PI William A. Craig

Sponsor: National Center for Infectious Diseases, CDC
Applied Research on Antimicrobial Resistance

PI: BAMSG 2-01 A Randomized Double-Blind Placebo-Controlled Trial of Caspofungin versus Placebo as Prophylaxis of Invasive Candidiasis in High-risk Adults in the Critical Care Setting

Sponsor: NIH

PI: Mycosis Study Group #44: Fungal Infections in Liver Transplantation

Sponsor: NIH/NIAID

Collaborator with Influx: Potentiators of fluconazole activity against *Candida sp.*

Sponsor: NIH-SBIR AI45271-02

NIH/GCRC: 2002-2003 Mentored Medical Student Clinical

NIH GCRC M01 RR03186

Research Program – Student: Alex Lepak

Sponsor: NIH-GCRC

NIH/GCRC: 2002 Mentored Medical Student Clinical Summer

NIH GCRC M01 RR03186

Research Program – Student: Jason Clark

Sponsor: NIH-GCRC

NIH/GCRC: 2006 Mentored Medical Student Clinical

NIH GCRC M01 RR03186

Research Program – Student: Herrforth, Casey

Infectious Complications Associated with Alemtuzumab (Campath = anti-CD52) in Solid Organ Transplant Recipients: A Case Control Study

Sponsor: NIH-GCRC

NIH/GCRC: 2006 Mentored Medical Student Clinical

NIH GCRC M01 RR03186

Research Program – Student: Sherkow, Colleen

Epidemiology and Outcome of Osteomyelitis in Solid Organ Transplant Recipients: A Case Control Study

Sponsor: NIH-GCRC

NIH/GCRC: 2006 Mentored Medical Student Clinical

NIH GCRC M01 RR03186

Research Program – Student: Vujnovich, Kristie

Impact of Inhibitors of Fungal Cell Wall Synthesis and Integrity on Antifungal Drug Resistance Associated with *Candida albicans* Biofilm Growth

Sponsor: NIH-GCRC

Co-PI: In vitro Susceptibility of Fungal Isolates From Reptiles to Antifungal Drugs.
Co-PI Jean Pare, DVM – UW School of Veterinary Medicine
Sponsor: ARAV Conservation

PI: Pharmacodynamics of a New Glycopeptide, Dalbavancin, in a Murine Thigh Infection Model
Sponsor: Vicuron Pharmaceuticals

PI: Pharmacodynamics of a New Streptogramin, XRP2868, Against Gram Positive Bacteria in the Murine Thigh and Lung Infection Models
Sponsor: Aventis Pharmaceuticals

PI: Pharmacodynamics of a New Topoisomerase Inhibitor, AVE 6971, Against Gram Positive Bacteria in a Murine Thigh Infection Model
Sponsor: Aventis Pharmaceuticals

PI: Pharmacodynamics of a New Cephalosporin, TAK 599, in the Murine Thigh and Lung Infection Models
Sponsor: Peninsula Pharmaceuticals

PI: In vivo Characterization and Quantitation of the Pharmacodynamics of an Echinocandin, HMR3270
Sponsor: Aventis

PI: In vivo Pharmacodynamics of a New Generation Triazole, Ravuconazole
Sponsor: Bristol-Myers Squibb

PI: In vivo Pharmacodynamic Characterization of Voriconazole Against *Candida glabrata*
Sponsor: Pfizer

PI: In-vivo Characterization and Quantitation of the Pharmacodynamics of the New Triazole Posaconazole
Sponsor: Schering-Plough

PI: In-vivo Efficacy and Toxicity of Novel Nystatin Nanosphere Vehicles in a Neutropenic Murine Candidiasis Model
Sponsor: NanoCarrier
Amount: \$20,548

PI: Clear II Registry-Collaborative Exchange of Antifungal Research
Sponsor: Enzon Pharmaceuticals, Inc

Research Mentoring
Infectious Disease Fellows
Sue Wang 2001
John Christianson 2001
Jeannina Smith 2002-2005
Wendy Slattery 2003-2004

Nasia Safdar
Shravan Kethireddy 2007

Medical Students and Residents

Alex Lepak 2002-2003
Jason Clark Summer 2002
Jeniell Nett – 2003 – Internal Medicine Resident
Kristie Vujnovich
Colleen Sherkow - 2006 NIH/GCRC Shapiro award
Casey Herreforth - 2006 NIH/GCRC Shapiro award

Graduate Students

Jeniell Nett (Cellular and Molecular Biology/Hematology T32) Present

Graduate/Postgraduate Training Programs

2005-present Trainer: Microbiology Doctoral Training Program
2005-present Trainer: Kirschstein National Research Service Award - (NIH
National Heart, Lung, and Blood Institute Grant: T32
HL07899)
2005-present Trainer: Cellular and Molecular Biology Program

Undergraduate

Jonathan Wong, 2006 Research honors
Kathleen Holoyda, 2006 Mycology research honors
Brian Hoff, 2005 Biology 152
Megan Hichwa, 2006 Biology 152
Lane Benes, 2007 Biology 152
Gwen Bone, 2007-present
Alex Ringeisen, 2007-present
Katherine Kozarek 2008
Mike Cain 2008

Thesis Committee Member

1. DaWoon Chung – Nancy Keller mentor (Plant Pathology)
2. Spencer Hoover – Rob Stricker mentor (Medical Microbiology)
3. Fang Li – Sean Palecek mentor (School of Engineering)
4. Greg Gauthier NIH Career Development Mentor Committee – Bruce Klein mentor

Journal Review

Editorial Board

1. Antimicrobial Agents and Chemotherapy
2. Journal of Infectious Diseases
3. Diagnostic Microbiology and Infectious Diseases
4. Current Fungal Infection Reports
5. Mayo Clinic Proceedings

Ad Hoc Reviewer

6. PLoS Pathogens
7. Eukaryotic Cell
8. Infection and Immunity
9. Clinical Infectious Diseases

10. Clinical Pharmacokinetics
11. Expert Opinion on Pharmacotherapy
12. Journal of Antimicrobial Chemotherapy
13. Clinical Microbiology and Infection
14. Mayo Clinic Proceedings
15. Journal of Respiratory Diseases
16. Drug Disposition and Biopharmaceutics
17. Drugs
18. Research in Veterinary Science
18. Medical Mycology
20. European Journal of Clinical Microbiology and Infectious Diseases
21. Mycoses
22. Journal of Medical Microbiology
23. Scandinavian Journal of Infectious Diseases
24. Biomed Central – Infectious Diseases
25. FEMS Yeast Research
26. Emerging Infectious Diseases Journal – CDC
27. Biochemical Pharmacology
28. Journal of Clinical Microbiology
29. Transplantation
30. Pediatric Infectious Diseases Journal
31. Oral Diseases
32. Infection Control Hospital Epidemiology
33. The Lancet Infectious Diseases
34. Faculty of 1000
35. Future Microbiology
36. Mycopathologia

Grant Review

Years	Grant Source/Role
2001, 2002, 2003	VA Merit, ad hoc
2004	NIH/NIAID R44, ad hoc
2004	CDC Transplant Infectious Diseases, ad hoc
2005	The Wellcome Trust, ad hoc
2005	University of Wisconsin, GCRC CReF Grant
2005	CDC Epi-Center for Prevention of Health Care Associated Infection, ad hoc
2006	University of Texas, Houston, Career Development Grants, ad hoc
2006	NIH/NIAID R34 and UO1, ad hoc
2007	Infectious Diseases Clinical Research Program of The Uniformed Services University
2007	University of Wisconsin - Medical Education and Research Committee (MERC) New Investigator Program.
2007	CDC RFA-AI-07-002 KO1 Young

	Investigator - Special Emphasis Panel
2007	NIH-NIAID RFA AI 07 002 Asthma and Allergic Diseases Cooperative Research Centers
2008	NIH-NIAID RFA RFA-AI-07-025 Pharmacological Approaches to Combating Antimicrobial Resistance
2008	The Wellcome Trust, ad hoc
2008	University of Maryland School of Medicine

Service/Committees:

Years	Service/Role
1995-96, 1999-2002	Medical Practice Committee
1995-96	Clinical Practice Committee
1994-96	Resident/Fellow Committee
1999-present	Antimicrobial Use Subcommittee, Pharmacy and Therapeutic Committee
2000	Community-Acquired Pneumonia Guidelines Committee
2002-present	UW Department of Medicine Information Systems Committee, Chair
2005	Pediatric Infectious Diseases Search Committee
2006-present	Dept of Medicine Executive Committee
2006	Dept of Medicine Research Administrator Search Committee
1999-present	Infectious Diseases Clinical Consult Service
1999-present	Infectious Diseases Outpatient Clinic
2007	UW Hospital Cellulitis Guideline
2007-present	UW Dept of Medicine Post-Promotion Committee
2007-	UW Faculty Senate
1998-present	Chair, Research Biosafety Committee
1999	Search Committee for position of Director of the Office of Clinical Trials at the University of Wisconsin, Madison
2002-present	General Clinical Research Center – Proposal Review Committee
2003-present	VA Animal Research Committee
2004-present	Dept of Medicine Research Committee
2005	WISLE Site Visit
2005-2007	Microbial Doctoral Training Program Admissions Committee
2008-	UW Dept of Medicine Post-Tenure Review Committee
2008-	UW Medical School Research Committee
2003, 2004, 2006	Infectious Diseases Society of America Abstract Review Committee
2003-present	CDC TRANSNET Oversight Committee
2000-present	NIH/Mycoses Study Group Member
2004-2006	Clinical Laboratory Standards Institute (Antifungal Subcommittee) Advisor 2004-2006, Elected Voting Member 2006-present
2005-present	Frontline Fungal Infection Education Steering Committee
2006-present	Mycoses Study Group Education Committee
2006-2007	Infectious Diseases Society of America – Expert panel to update

	Candidiasis treatment guideline
2006-2007	American Academy of Otolaryngology, Head and Neck Surgery Sinusitis Guidelines Group
2007-	ASM Candidiasis Finance Committee
2007-	Co-Chair, Mycosis Study Group Education Committee
2002-2006	International Society of Anti-infective Pharmacology - treasurer
2006-present	International Society of Anti-infective Pharmacology – president elect

Teaching Activities Undergraduate

Years	Course Title	Role	Time
1998-present	MMI410 Medical Mycology	Lecturer and Honors project mentor	1 h lecture 4 times per year, 20 h per year honor project
		Lecture titles: 1. Antifungal therapy 2. Fungal diagnosis 3. Candida -Clinical 4. Candida - Pathogenesis	

Graduate School

Years	Course Title	Role	Time
1999-present	MMI504 Infectious Diseases	Lecturer	1 h lecture 1 time per year
		Lecture titles: 1. Fungal infections	
2005-present	MMM655 Biology and Genetics of Fungi	Lecturer	1 h lecture 2 times per year
		Lecture titles: 1. Candida - clinical 2. Candida - pathogenesis	
2006-present	MMI773 Eukaryotic Pathogenesis	Lecturer	1 h lecture 1 time per year
		Lecture title: Candida biofilms and drug resistance	

Medical Students

Years	Course Title	Role	Time
1994-1996	Clinical Medicine and Practice	Discussant of multiple clinical topics	1 h per week for 1 semester
1996-2001	3rd year mentor – internal medicine	Discussant of multiple clinical topics	10 h per week for 1 month per year
1997-present	MMI701-702 Infection and Immunity	Small group discussant of multiple topics	1-2 h up to 6 times per year
2001-present	Pharmacology 727	Lecturer	1 h per lecture 3 times per year
		Lecture titles: 1. Antifungals 1 2. Antifungals 2 3. Clinical antivirals	
2001-present	Senior Therapeutics	Lecturer:	1 h lecture 1 time per

		Lecture title: Antifungal therapy	year
2006-present	Infection and Immunity	Lecturer: Lecture titles 1. Antifungal drug resistance	2 h lecture 1 time per year
1999-present	Infectious Diseases Clinical Service	Bedside teaching and daily didactic sessions	4-5 two week blocks, 1 h per day didactic, 3-4 h per day bedside teaching

Resident and Fellows

Years	Course Title	Role	Time
1994-1995	Internal Medicine Morning Report	Discussant of multiple clinical topics	1 h per day for 200 days
1999-present	Infectious diseases fellowship curriculum	Lecturer Titles: antifungal therapy, fungal diagnosis, candidiasis, aspergillosis, outpatient mycology, histoplasmosis, vulvovaginal candidiasis, antifungal prophylaxis and febrile neutropenia, asymptomatic bacteriuria, bacterial meningitis, intra- abdominal infections	1 h up to 11 times per year
1999-present	Infectious disease fellowship	Clinical bedside teaching	2-4 h per day up to 9 weeks per year
1997-present	Internal Medicine Tissue Conference	Discussant; Topics: tuberculosis meningitis 1997, septic thrombosis 1997, ehrlichiosis 1998, hematologic diagnosis of infection 1998, candidiasis 1998, histoplasmosis 2001, fungal brain abscess 2003	1 h each topic
2004-present	Infection diseases fellowship	Create and update web-based curriculum	200 h initial, 40 h per year since
2005-2006	Internal Medicine Resident Career Week	Lecturer: topics 1. finding your nitch, 2. time management	1 h each
1999-present	Infectious Diseases Clinical Service	Bedside teaching and daily didactic sessions	4-5 two week blocks, 1 h per day didactic, 3-4 h per day bedside teaching
2008	Hematology Fellows	Antifungal Therapy	1 h

*Infectious Disease Section Web Curriculum

<http://www.medicine.wisc.edu/mainweb/DOMPAGES.php?section=infectiousdisease&page=infectiousdiseasemain>

Continuing Medical Education

Years	Course Title	Lecture	Location
1999	University of Wisconsin Grand Rounds	Community-acquired pneumonia	University of Wisconsin
	University of Wisconsin Radio Lecture	Community-acquired pneumonia	University of Wisconsin
	Meriter Hospital Grand Rounds	Community-acquired pneumonia	Meriter Hospital, Madison, WI
	University of Wisconsin - Update in Infectious Diseases	Antifungal therapy	Madison
	University of Wisconsin - Update in Infectious Diseases	Community-acquired pneumonia	Madison
2000	Wisconsin Infectious Diseases Society of America	Community-acquired pneumonia	Madison
	University of Wisconsin Website lecture	Antifungal therapy	University of Wisconsin
2001	University of Wisconsin Pulmonary Grand Rounds	Invasive aspergillosis	University of Wisconsin
	Sinusitis Update	Customizing Antibiotic Therapy of Sinusitis: Use of Pharmacodynamics	Coral Gables, FL
	Infectious Diseases Society, University of Wisconsin, Lacrosse	Systemic antifungal therapy	University of Wisconsin Lacrosse, WI
	University of Wisconsin – Lacrosse Internal Medicine Resident Conferene	Nosocomial candidiasis	University of Wisconsin, Lacrosse, WI
	University of Wisconsin - Update in Infectious Diseases	Outpatient fungal infection management	University of Wisconsin
	University of Wisconsin - Update in Infectious Diseases	Management of Upper respiratory tract infections	University of Wisconsin
	University of Wisconsin Grand Rounds	Community-acquired pneumonia	University of Wisconsin
2002	University of Wisconsin Dept of Medicine Grand Rounds	Management of chronic sinusitis	University of Wisconsin

	University of Wisconsin Transplant Grand Rounds	Advances in systemic antifungal therapy	University of Wisconsin
	National webcast	Advances in management of sinusitis in the era of antibiotic resistance – pharmacodynamic impact	
2003	Meriter Hospital Grand Rounds	Advances in management of acute and chronic rhinosinusitis	Meriter Hospital, Madison, WI
	Regional CME	Advances in management of otitis media in an era of antibiotic resistance	Minneapolis, MN
	University of Wisconsin – Lacrosse Internal Medicine Grand Rounds	Advances in the epidemiology and therapy of fungal infections.	University of Wisconsin, Lacrosse, WI
	University of Wisconsin – Surgery /Trauma Grand Rounds	Candidiasis in the surgical intensive care unit	University of Wisconsin
2004	University of Wisconsin - Update in Infectious Diseases	Fungal infections – frequently asked questions	University of Wisconsin
	University of Wisconsin - Update in Infectious Diseases	Management of upper respiratory tract infection	University of Wisconsin
	University of Wisconsin Medical Grand Rounds	Fungal infections – frequently asked questions	University of Wisconsin
2005	Gunderson Clinic Medical Grand Rounds	Fungal infections – frequently asked questions	Gunderson Clinic
	University of Wisconsin - Update in Infectious Diseases	Community-acquired pneumonia	University of Wisconsin
	University of Wisconsin - Update in Infectious Diseases	Antifungal update	University of Wisconsin
2006	University of Wisconsin Pulmonary Grand Rounds	Candidemia	University of Wisconsin
	Medical College of Wisconsin Transplant Grand Rounds	Antifungal therapy	Medical College of Wisconsin, Milwaukee, WI
2008	University of Wisconsin - Update in Infectious Diseases	Fungal infections – frequently asked questions	University of Wisconsin
	University of Wisconsin - Update in Infectious Diseases	Management of upper respiratory tract infection	University of Wisconsin

