



Dr. Heather Adam

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Dr. Adam is an active member of the Canadian Antibiotic Resistance Alliance (CARA). Accordingly, she is involved in the surveillance of antimicrobial resistant pathogens in centres across Canada. Heather is particularly interested in antibiotic resistant organisms with infection control implications such as MRSA and hVISA/VISA/VRSA.

Recent Publications

1. Adam HJ, V Allen, A Currie, B Borgundvaag, AJ McGeer, AE Simor, SE Richardson, L Louie, B Willey, T Rutledge, J Lee, R Goldman, A Sommers, P Ellis, A Sarabia, J Rizos, KC Katz, for the EMERGENT Working Group. CA-MRSA: Prevalence in Skin and Soft Tissue Infections Presenting at Emergency Departments in the Greater Toronto Area and Associated Risk Factors. 2009. *Can. J. Emerg. Med.* 11: 439-46.
2. Adam HJ, NM Laing, CR King, B Lulashnyk, DJ Hoban, GG Zhanel. In Vitro Activity of Nemonoxacin, a Novel Nonfluorinated Quinolone, against 2,440 Clinical isolates. 2009. *Antimicrob. Agents Chemother.* 53: 4915-20.
3. Adam HJ, DJ Hoban, AS Gin, GG Zhanel. Association between Fluoroquinolone Usage and a Dramatic Rise in Ciprofloxacin-resistant *S. pneumoniae* in Canada, 1997-2006. 2009. *International J. Antimicrob. Agents.* 34: 82-85.
4. Adam HJ, A McGeer, A Simor. Fatal Case of Post-influenza Community-associated MRSA Pneumonia in an Ontario Teenager with Subsequent Familial Transmission. 2007. *CCDR.* 33: 44 – 48.
5. Adam HJ, KN Schurek, KA Nichol, CJ Hoban, TJ Baudry, NM Laing, DJ Hoban, GG Zhanel. Molecular Characterization of Increasing Fluoroquinolone Resistance in *S. pneumoniae* in Canada, 1997-2005. 2007. *Antimicrob. Agents Chemother.* 51: 198 – 207.



Dr. Michelle Alfa

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Current research focuses on nosocomial infection transmission issues and involves studies related to; 1) the pathogenesis of *Clostridium difficile* and role of spores in the environment on nosocomial spread of this organism and 2) the role of biofilm and cleaning adequacy in infection transmission associated with complex medical devices.

Recent Publications

1. **Alfa MJ**, Olson N, Al-Fadhaly A. Cleaning efficacy of medical device washers in North American healthcare facilities. *J Hosp Infect.* 2009 Aug 27 [Epub ahead of print]
2. **Alfa MJ**, Howie R. Modeling microbial survival in buildup biofilm for complex medical devices. *BMC Infect Dis.* 2009 May 8; 9:56.
3. Murray R, Boyd D, Mulvey MR, Levett PN, **Alfa MJ**. Truncation in the *tcdC* region of the *Clostridium difficile* PathLoc of clinical isolates does not predict increased biological activity of Toxin B or Toxin A. *BMC Infect Dis.* 2009 June 28;9(1)103.
4. Marcel J-P, **Alfa M**, Baquero F, Etienne J, Goossens H, Harbarth S, Hryniewicz W, Jarvis W, et al. Healthcare-associated infections: think globally, act locally. *Clin Microbiol Infect.* 2008 Oct; 14(10): 895-907.
5. **Alfa MJ**, Dueck C, Olson N, DeGagne P, Papetti S, Wald A, Lo E, Harding G. UV-visible marker confirms that environmental persistence of *Clostridium difficile* spores in toilets of patients with *C. difficile*-associated diarrhea is associated with lack of compliance with cleaning protocol.e. *BMC Infect Dis.* 2008 May 12; 8:64.



Dr. Daryl Hoban:

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Current research interests include: molecular diagnostics, molecular basis of antimicrobial resistance, and the epidemiology of resistance in community and hospital acquired pathogens.

Recent Publications

1. Baudry PJ, Nichol K, DeCorby M, Mataseje L, Mulvey MR, Hoban DJ, Zhanel GG. Comparison of antimicrobial resistance profiles among extended-spectrum β -lactamase producing- and acquired AmpC β -lactamase producing *Escherichia coli* from Canadian Intensive Care Units. *Antimicrobial Agents and Chemotherapy*, 2008;52(5):1846-1849.
2. Scangarella-Oman NE, Shawar RM, Bouchillon S, Hoban D. Microbiological profile of a new topical antibacterial: retapamulin ointment 1%. *Expert Review of Anti Infective Therapy*; 2009;7(3):269-279.
3. Hoban DJ, Zhanel GG, DeCorby M, Nichol KA, Wierzbowski A, Baudry PJ, Tailor F, Lagacé-Wiens P, Walkty A, Schweizer F, Adam H, Karlowsky JA, McCracken M, Mulvey MR, Fanella S, Larios O, The Canadian Antimicrobial Resistance Alliance (CARA). *Canadian Journal of Infectious Diseases and Medical Microbiology*, 2009;20:Suppl A.
4. Hawser SP, Bouchillon SK, Hoban DJ, Badal RE, Hsueh P-R, Paterson DL. Emergence of high levels of extended-spectrum- β -lactamase-producing gram-negative bacilli in the Asia-Pacific region: data from the Study for Monitoring Antimicrobial Resistance Trends (SMART) Program, 2007. *Antimicrobial Agents and Chemotherapy*, 2009;53:3280-3284.
5. Hoban DJ, Bouchillon SK, Hawser SP, Badal RE. Trends in the frequency of multiple drug-resistant Enterobacteriaceae and their susceptibility to ertapenem, imipenem, and other antimicrobial agents: data from the Study for Monitoring Antimicrobial Resistance Trends 2002 to 2007. *Diagnostic Microbiology and Infectious Disease*, 2009; in press.

Dr. James Karlowsky:

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Current research interests include antimicrobial susceptibility testing methods, investigational antimicrobial agents, antimicrobial resistance surveillance studies, and clinical microbiology laboratory molecular diagnostic methods.

Recent Publications

1. Shuel M, Law D, Skinner S, Wylie J, Karlowsky JA, Tsang RSW. Characterization of non-typeable *Haemophilus influenzae* collected from respiratory infections and invasive disease in Manitoba, Canada. *FEMS Immunology and Medical Microbiology*, 2010;57(2): in press.
2. Karlowsky JA, Kaplan N, Hafkin B, Hoban DJ, Zhanel GG. AFN-1252, a FabI inhibitor, demonstrates a *Staphylococcus*-specific spectrum of activity. *Antimicrobial Agents and Chemotherapy*, 2009;53(8):3544-3548.
3. Karlowsky JA, Lagacé-Wiens PRS, Low DE, Zhanel GG. Annual macrolide prescription rates and the emergence of macrolide resistance among *Streptococcus pneumoniae* in Canada from 1995 to 2005. *International Journal of Antimicrobial Agents*, 2009;34(4):375-379.
4. Zhanel GG, Karlowsky JA. In vitro activity of iclaprim against respiratory and bacteremic isolates of *Streptococcus pneumoniae*. *Antimicrobial Agents and Chemotherapy*, 2009;53(4):1690-1692.
5. Skinner S, Murray M, Walus T, Karlowsky JA. Failure of cloxacillin in a patient with BORSA endocarditis. *Journal of Clinical Microbiology*, 2009;47(3):859-861.



Dr. Philippe Lagacé-Wiens :

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Current research interests are in antimicrobial resistance, with a focus on gram-negative organisms and global public health, specifically the impact of resistance on developing countries. Other interests include travel and tropical medicine and parasitology.

Recent Publications

1. **Lagacé-Wiens PRS**, Ormiston D, Nicolle LE, Hilderman T, Embil J. The diabetic foot clinic: Not a significant source for acquisition of methicillin-resistant *Staphylococcus aureus*. *Am J Infect Control*. 2009 Feb 23. [Epub ahead of print]
2. **Lagacé-Wiens PRS**, DeCorby MR, Baudry PJ, Hoban DJ, Karlowky JA, the CAN-ICU study group and Zhanel GG. Differences in Antimicrobial Susceptibility in *Escherichia coli* from Canadian Intensive Care Units Based on Regional and Demographic Variables. *Canadian Journal of Infectious Diseases and Medical Microbiology*. 2008.19(4):282-6.
3. **Lagacé-Wiens PRS**, Alfa M, Manickam K, Harding G. Reduction in Workload and Reporting Time of MRSA Screening with MRSA>SelectTM Medium versus Mannitol-Salt Medium Supplemented with Oxacillin. *Journal of Clinical Microbiology*. 2008. 46(4):1174-7.
4. **Lagacé-Wiens PRS**, Dookeran R, Skinner SJ, Leicht R, Colwell DD, Galloway TD. Human Ophthalmomyiasis Caused by *Hypoderma tarandi*, Northern Canada. *Emerging Infectious Diseases*. 2007. 14:64-6
5. **Lagacé-Wiens P**, Harding G. *Strongyloides stercoralis* and HTLV-1 co-infection in a Canadian Immigrant. *Canadian Medical Association Journal*. 177:451-3.

Dr. Kanchana Manickam

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Current research interests include; R&D for rapid diagnosis in the Microbiology lab, especially in the Mycobacteriology section.

Recent Publications

1. Walkty A, Lo E, **Manickam K**, Alfa M, Xiao L, Waites K. *Ureaplasma parvum* as a cause of sternal wound infection. *J Clin Microbiol*. 2009;47: 1976-1978
2. Haleis A Alfa M, Gottschalk M, Bernard K, Ronald A, **Manickam K**. Meningitis Caused by *Streptococcus suis* Serotype 14, North America. *Emerg Infect Dis* 2009; 15: 350-352
3. Lagacé-Wiens P, Alfa MJ, **Manickam K**, and Harding GKM. Reduction in Workload and Reporting Time by Use of Methicillin-Resistant *Staphylococcus aureus* Screening with MRSA>Select Medium Compared to Mannitol-Salt Medium Supplemented with Oxacillin. *J. Clin. Microbiol*. 2008; 46: 1174-1177
4. Lagacé-Wiens P, Alfa MJ, **Manickam K**, Karlowky JA. Thermostable DNase is superior to Tube Coagulase for Direct Detection of *Staphylococcus aureus* in positive blood cultures. *J Clin Microbiol* 2007; 45: 3478-3479



Kim Nichol

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Kim is an active member of the Canadian Antibiotic Resistance Alliance (CARA). Her current research interest is in the development and application of molecular diagnostics for the rapid detection and identification of pathogens. Current research projects include the comparison of community-associated and healthcare-associated methicillin-resistant *Staphylococcus aureus* (MRSA) in Canada.

Recent Publications:

1. Nichol KA, M McCracken, MR DeCorby, K Thompson, MR Mulvey, JA Karlowsky, DJ Hoban, GG Zhanel. Comparison of community-associated and health care-associated methicillin-resistant *Staphylococcus aureus* in Canada: results from CANWARD 2007. 2009. *Can. J. Infect. Dis. Med. Microbiol.* 20(Suppl.):31A-36A.
2. Nichol KA, HJ Adam, JA Karlowsky, GG Zhanel, DJ Hoban. Increasing genetic relatedness of ciprofloxacin-resistant *Streptococcus pneumoniae* isolated in Canada from 1997 to 2005. 2008. *Antimicrob. Agents Chemother.* 52:1190-1194.

Dr. Peter Pieroni

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Research interests include: point of care testing and rapid molecular diagnostics in microbiology, epidemiological surveillance and microbial resistance in urinary and gastro intestinal infections.

Recent Publications

1. Vergis, A. S., D. Thomson, P. Pieroni, and S. Dhalla. Reprocessing flexible gastrointestinal endoscopes after a period of disuse: is it necessary? *Endoscopy.* 39: 737 – 739. 2007.
2. Czarnecki, Andrew., G.H. f. Ong, P. Pieroni, E. Trepman, J.M. Embil, and L. Hurley. Gemella morbillorum septic arthritis of the knee and infective endocarditis. *Am. J. Orthop. Am. J. Orthop.* 2007; 36(1): E7-E9.
3. E. Chan, N. Antonishyn, R. McDonald, T. Maksymiw, P. Pieroni, E. Nagle, and G. B. Horsman. The use of TaqMan PCR assay for detection of Bordetella pertussis infection from clinical specimens. *Arch. Pathol. Lab Med.* 2002. Feb; 126(2): 173-6.
4. Pieroni, P., Caroline Mills, Colin Ohrt, Mary Anne Harrington, and Kevin C. Kain. A blinded evaluation of ParaSight F and the ICT malaria P.f. tests with PCR for the diagnosis of Plasmodium falciparum malaria in travellers. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 92: 166- 169, 1998.
5. Pieroni, P., J. Goodfellow, L. Reesor, M. Louie, and A. E. Simor. Antimicrobial susceptibility of blood culture isolates obtained before and after the introduction of ciprofloxacin. *J. Antimicrobial Chemotherapy* 39: 419 – 422, 1997.



Dr. Andrew Walkty

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Current research interests include: Antimicrobial resistance, including antimicrobial susceptibility and mechanisms of resistance.

Recent Publications

1. Walkty A, DeCorby M, Nichol K, Karlowsky JA, Hoban DJ, Zhanel GG. In vitro activity of colistin (polymyxin E) against 3,480 isolates of gram-negative bacilli obtained from patients in Canadian hospitals in the CANWARD study, 2007-2008. *Antimicrob Agents Chemother* 2009;53:4924-6.
2. Walkty A, Lo E, Manickam K, Alfa M, Xiao L, Waites K. *Ureaplasma parvum* as a cause of sternal wound infection. *J Clin Microbiol* 2009;47:1976-8.
3. Walkty A, DeCorby M, Nichol K, McCracken M, Mulvey MR, Karlowsky JA, Hoban DJ, Zhanel GG. Characterization of *P. aeruginosa* clinical isolates obtained from patients in Canadian Hospitals: Results of the CANWARD study, 2007. *Can J Infect Dis Med Microbiol.* 2009;20(Suppl A):54A-58A.
4. Walkty A, Smith D, Lopko B, Kasper K. Severe skin rash associated with atazanavir. *Can J Infect Dis Med Microbiol.* 2009;20:e10-e12.
5. Walkty A, DeCorby M, Nichol K, Karlowsky JA, Hoban DJ, Zhanel GG; Canadian Antimicrobial Resistance Alliance (CARA). In vitro activity of ceftobiprole against clinical isolates of *Pseudomonas aeruginosa* obtained from Canadian intensive care unit (ICU) patients as part of the CAN-ICU Study. *J Antimicrob Chemother.* 2008;62(1):206-8.