Curriculum Vitae

NAME: Thomas Charles Dowling

WORK Ferris State University
ADDRESS College of Pharmacy

25 Michigan Ave NE, Suite 7000

Grand Rapids, MI, 49503 Phone/Fax: 616-643-1139

Email: ThomasDowling@ferris.edu

EDUCATION

Sept. 1994- July 1999 Doctor of Philosophy – Pharmaceutical Sciences

School of Pharmacy, Department of Pharmaceutical Sciences,

University of Pittsburgh, Pittsburgh, PA

July 1993-July 1994 Pharmacy Practice Residency, University of Maryland Medical System,

Baltimore, MD

May 1988-May 1993 Doctor of Pharmacy (High Distinction); May 1993

Associate of Arts and Sciences (Distinction); May 1990 Ferris State University College of Pharmacy, Big Rapids, MI

May 1987- May 1988 Alpena Community College, Alpena, MI

EMPLOYMENT

Nov 2014 – Present Assistant Dean, Research Professional Development (2014 -)

Department Head – Pharmacy Practice (2014-2015)

Professor (Tenured)

Director, Office of Research and Sponsored Programs (2014 -)

Institutional Official for IRB and IBC (2021 -)

Ferris State University, College of Pharmacy

Grand Rapids, MI

July 2014 – Oct 2014 Professor (tenured)

Vice Chair for Research and Scholarship (2008 - 2014)

Department of Pharmacy Practice and Science

University of Maryland School of Pharmacy, Baltimore MD

July 2005 – June 2014 Associate Professor (tenured)

Vice Chair for Research and Scholarship (2008 - 2014)

Department of Pharmacy Practice and Science

University of Maryland School of Pharmacy, Baltimore MD



Aug. 1999 – Jul. 2005 Assistant Professor

Department of Pharmacy Practice and Science

University of Maryland School of Pharmacy, Baltimore MD

Nov. 1994- June 1997 Pharmacist, Veteran's Administration Hospital, Pittsburgh PA

July - Sept. 1994 Clinical Pharmacist (Nephrology), University of Maryland Medical System,

Baltimore MD

SCHOLARLY ACTIVITY

Publications (peer-reviewed journals):

- Morris JG, Shay DK, Hebden JN, McCarter RJ, Perdue BE, Jarvis W. Johnson JA, <u>Dowling TC</u>, Polish LB, Schwalbe RS. Enterococci resistant to multiple agents, including vancomycin: establishment of endemicity in a University Medical Center. *Ann Intern Med* 1995;123:250-259.
- 2. <u>Dowling TC</u>, Frye RF, Zemaitis M. Simultaneous determination of p-aminohippuric acid, acetyl-p-aminohippuric acid and iothalamate in human plasma and urine by high-performance liquid chromatography. *J Chromatogr B* 1998;716:305-313.
- 3. **Dowling TC**, Frye RF. Determination of famotidine in human plasma and urine by HPLC. *J Chromatogr B* 1999; 732:239-243.
- 4. <u>Dowling TC</u>, Frye RF, Fraley DS, Matzke GR. Comparison of iothalamate clearance methods for measuring GFR. *Pharmacotherapy* 1999;19(8):943-950.
- 5. **Dowling TC**, Frye RF, Fraley DS, Matzke GR. Characterization of tubular functional capacity in man using PAH and famotidine. *Kidney Int* 2001;59:295-303.
- 6. Raje S, **Dowling TC**, Eddington ND. Determination of the benztropine analog AHN-1055, a dopamine uptake inhibitor, in rat plasma and brain by HPLC with UV detection. *J Chromatogr B* 2002;768:305-313.
- Karyekar CS, Eddington ND, <u>Dowling TC</u>. Effect of St. John's Wort on CYP1A2 in LS180 cells. J Postgrad Med 2002;48:100-104.
- 8. Karyekar CS, Fasano A, Raje S, Lu R, **Dowling TC**, Eddington ND. Zonula occludens toxin increases the permeability of molecular weight markers and chemotherapeutic agents across the bovine brain microvessel endothelial cells. *J Pharm Sci* 2003 Feb;92(2):414-23.
- 9. Karyekar CS, Garimella T, Eddington ND, <u>Dowling TC</u>. Evaluation of the P-glycoprotein-mediated interactions between cimetidine, PSC833 and itraconazole in MDR1-MDCK cells. *Pharmacotherapy* 2003 Apr;23(4):436-42.
- Dowling TC, Briglia A, Fink J, Hanes D, Light P, Stackewicz L, Karyekar CS, Eddington N, Weir M, Henrich WL. Characterization of hepatic CYP3A activity in ESRD patients. *Clin Pharmacol Ther* 2003 May;73(5):427-34.



- 11. Iqbal T, Karyekar CS, Kinjo M, Ngan G, **Dowling TC**. Validation of a simplified method for determination of cimetidine in human plasma and urine by HPLC with ultraviolet detection. *J Chromatogr B* 2004;799(2):337-341.
- 12. Karyekar CS, Eddington ND, Briglia AE, Gubbins PO, **Dowling TC**. Renal interaction between itraconazole and cimetidine. *J Clin Pharmacol* 2004;44:919-927.
- 13. Wang DJ, **Dowling TC**, Meadows D, Ayala T, Marshall J, Minshall S, Greenberg N, Thattassery E, Fisher ML, Rao K, Gottlieb SS. Nesiritide Does Not Improve Renal Function in Patients with Chronic Heart Failure and Worsening Serum Creatinine. *Circulation* 2004 Sep 21;110(12):1620-5.
- 14. <u>Dowling TC</u>, Arjomand M, Lin ET, Allen LV, McPherson ML. Systemic absorption of topically applied single dose ketoprofen 20% in pluronic lecithin organogel (PLO). *Am J Health Syst Pharm* 2004 Dec 1;61(23):2541-4.
- 15. Iqbal T, Kinjo MT, **Dowling TC**. Determination of Rhodamine-123 in cell lysate buffer using HPLC with visible UV detection. *J Chromatogr B* 2005 Jan 25;814(2):259-262.
- 16. **Dowling TC**, Edelman R, Chavaillaz P, Young D, O'Brien A, Khazaeli D, Roberson C, Tacket CO. Phase I safety and pharmacokinetic study of chimeric murine-human monoclonal antibody cαStx2 in healthy adults. *Antimicrob Agents Chemother* 2005;49:1808-1812.
- 17. Jones JM, Johnson JJ, Vizcaino D, Park JJ, Hand BD, Ferrell RE, Weir MR, **Dowling T**, Obisesan TO, Brown MD. Renin-Angiotensin System Genes and Exercise Training-Induced Changes in Sodium Excretion in African American Hypertensives. *Ethnic Dis* 2006;16(3):666-674.
- 18. Jones J, Park JJ, <u>Dowling T</u>, Phares D, Park JY, Brown MD. Role of potassium excretion and percent body fat on ethnic differences in plasma aldosterone levels. *Ethnic Dis* 2006;16(3 suppl 4):S4-S10.
- 19. Jones-Burton C, Vessal G, <u>Dowling TC</u>, Brown J, Fink JC. Urinary Cotinine as an Objective Measure of Cigarette Smoking in Chronic Kidney Disease. *Nephrol Dial Transplant* 2007 Jul;22(7):1950-4.
- 20. Jones JM, **Dowling TC**, Park JJ, Roth S, Phares DA, Park JY, Brown MD. Differential Aerobic Exercise-Induced Changes in Plasma Aldosterone between African Americans and Whites. *Exp Physiol* 2007 Sep;92(5):871-9.
- 21. <u>Dowling TC</u>. Prevalence, etiology, and consequences of anemia and clinical and economic benefits of anemia correction in patients with chronic kidney disease: an overview. *Am J Health Syst Pharm* 2007 Jul 1;64(13 Suppl 8):S3-7.
- 22. Dittrich HC, Gupta DK, Hack TC, **Dowling T**, Callahan J, Thomson S. The effect of KW-3902, an adenosine A1 receptor antagonist, on renal function and renal plasma flow in ambulatory patients with heart failure and renal impairment. *J Card Fail* 2007 Oct;13(8):609-17.
- 23. Rogers HL, Marshall J, Brock J, **Dowling TC**, Feller E, Robinson S, Gottlieb SS. A Randomized, Controlled Trial of the Renal Effects of Ultrafiltration as Compared to Furosemide. *J Card Fail* 2008 Feb;14(1):1-5.



- 24. Howell CD, **Dowling TC**, Paul M, et al. Peginterferon pharmacokinetics in African American and Caucasian American in patients with hepatitis C virus genotype 1 infection. *Clin Gastroenterol Hepatol* 2008 May;6(5):575-83.
- 25. Sturgeon KM, Fenty-Stewart NM, Diaz KM, Brinkley TE, <u>Dowling TC</u>, Brown MD. The Relationship of Oxidative Stress and Cholesterol with Dipping Status Before and After Aerobic Exercise Training. *Blood Pressure* 2009 Jun 18:1-9.
- 26. Bivins A, Hou K, Ayesu N, Ellsworth B, Montenegro S, Tu X, Boyle C, **Dowling T**, Shaya FT. Clinical evaluation of natalizumab for formulary consideration. *Expert Opin Biol Ther* 2010 Aug;10(8):1279-87.
- 27. <u>Dowling TC</u>, Murphy JE, Matzke GR, Burkhart GJ. Evaluation of renal drug dosing: Prescribing information and clinical pharmacist approaches. *Pharmacotherapy* 2010;30(8):776–786.
- 28. Klein-Schwartz W, Doyon S, **Dowling TC**. Drug Adsorption Efficacy and Palatability of a Novel Charcoal Cookie Formulation. *Pharmacotherapy* 2010; 30(9):888–894.
- 29. Denetclaw T, Oshima N, **Dowling TC**. Dofetilide Dose Calculation Errors in Elderly Associated with Use of the MDRD eGFR Equation. *Ann Pharmacother* 2011;45(7-8):e44.
- 30. Nyman HA, **Dowling TC**, Hudson JQ, St. Peter WL, Joy MS, Nolin TD. Use of the Cockcroft-Gault versus the MDRD Study Equation to Dose Medications: An Opinion of the Nephrology Practice and Research Network of the American College of Clinical Pharmacy. *Pharmacotherapy* 2011 Nov;31(11):1130-44.
- 31. Jin R, Fossler MJ, McHutchison JG, Howell CD, **Dowling TC**. Population Pharmacokinetics and Pharmacodynamics of Ribavirin in Patients with Chronic Hepatitis C Genotype 1 Infection. *AAPS J* 2012;14(3):571-80.
- 32. Shao C, <u>Dowling TC</u>, Haidar S, Yu LX, Polli JE, Kane MA. Quantification of acyclovir in human plasma by ultraperformance liquid chromatography heated electrospray ionization tandem mass spectrometry for bioequivalence evaluation. *J Anal Bioanal Techniques* 2012;3(4):1-6. doi:10.4172/2155-9872.1000139
- 33. Jin R, Cai L, Tan M, McHutchison JG, <u>Dowling TC</u>, Howell CD. Optimum ribavirin exposure overcomes racial disparity in efficacy of peginterferon and ribavirin treatment for hepatitis C genotype 1. *Am J Gastroenterol* 2012 Nov;107(11):1675-83. doi: 10.1038/ajg.2012.306.
- 34. <u>Dowling TC</u>, Rodriguez de Bittner M, Perez Z, Briglia A, Peralta L. Evaluation of Drug Metabolism in Hispanic Americans with Type 2 Diabetes. *Diab Res Clin Metab* 2012; Dec 21:doi:10.7243/2050-0866-1-22.
- 35. Congdon HB, **Dowling TC**, Cheng I, Truong HA. Impact of Medication Therapy Management (MTM) Visit Frequency on Diabetes Control in a Health Resources and Services Administration Patient Safety and Clinical Pharmacy Services Collaborative. *Ann Pharmacother* 2013 May;47(5):665-70.
- 36. <u>Dowling TC</u>, Wang ES, Ferrucci L, Sorkin JD. Glomerular Filtration Rate Equations Overestimate Creatinine Clearance in Older Individuals Enrolled in the Baltimore Longitudinal Study on Aging: Impact on Renal Drug Dosing. *Pharmacotherapy* 2013;33(9):912-21. doi: 10.1002/phar.1282.



- 37. Sheth N, <u>Dowling TC</u>, Congdon H. Evaluation of synchronous versus live instructional delivery methods on student academic outcomes and perceptions at a multi-campus school. *Curr Pharm Teach Learn* 2013;5(5):381-386. doi: 10.1016/j.cptl.2013.03.005
- 38. Chang Y, Burckart GJ, Lesko LJ, <u>Dowling TC</u>. Evaluation of Hepatic Impairment Dosing Recommendations in FDA-Approved Product Labels. *J Clin Pharmacol* 2013 Sep;53(9):962-6. DOI: 10.1002/jcph.128.
- 39. Denetclaw T, <u>Dowling TC</u>, Steinke D. Evaluation of a Divided-Load Intravenous Vancomycin Dosing Strategy for Critically III Patients. *Ann Pharmacother* 2013 Dec;47(12):1611-7. doi: 10.1177/1060028013510395.
- 40. Volpe DA, Tobin GA, Tavakkoli F, **Dowling TC**, Light PD, Parker RJ. Effect of uremic serum and uremic toxins on drug metabolism in human microsomes. *Regul Toxicol Pharmacol* 2014; 68(2):297-303. doi: 10.1016/j.yrtph.2013.10.006.
- 41. Mindikoglu AL, **Dowling TC**, Weir MR, Seliger SL, Christenson RH, Magder LS. Performance of chronic kidney disease epidemiology collaboration (CKD-EPI) creatinine-Cystatin C equation for estimating kidney function in cirrhosis. *Hepatology* 2014;59(4):1532-42. doi: 10.1002/hep.26556.
- 42. Mindikoglu AL, **Dowling TC**, Cheong JJ, Christenson RH, Magder LS, Hutson W, Seliger SL, Weir MR. A Pilot Study to Evaluate Renal Hemodynamics in Cirrhosis by Simultaneous Glomerular Filtration Rate, Renal Plasma Flow, Renal Resistive Indices and Biomarkers Measurements. *Am J Nephrol* 2014; 39 (6), pp. 543-552. doi: 10.1159/000363584
- 43. Mindikoglu AL, **Dowling TC**, Magder LS, Christenson RH, Weir MR, Seliger SL, Hutson WR, Howell CD. Estimating Glomerular Filtration Rate in Patients with Cirrhosis: Refinement of the Chronic Kidney Disease Epidemiology Collaboration Creatinine-Cystatin C Equation. *Clin Gastroenterol Hepatol.* 2015 Jun 29. pii: S1542-3565(15)00845-9. doi: 10.1016/j.cgh.2015.06.021.
- 44. Hollis AL, Heil EL, Nicolau DP, Odonkor P, **Dowling TC**, Thom KA. Validation of a Dosing Strategy for Cefazolin for Surgery Requiring Cardiopulmonary Bypass. *Surg Infect* 2015 Dec;16(6):829-32.
- 45. Matzke GR, **Dowling TC**, Marks SA, Murphy JE. Influence of kidney disease on drug disposition: An assessment of industry studies submitted to FDA for new chemical entities 1999-2010. *J Clin Pharmacol.* 2015 Aug 4. doi: 10.1002/jcph.604.
- 46. Mindikoglu AL, **Dowling TC**, Schaub DJ, Hutson WR, Potosky DR, Christenson RH, Barth RN, LaMattina JC, Hanish SI, Weir MR, Raufman JP. Pharmacokinetics and Tolerability of Intravenous Sildenafil in Two Subjects with Child-Turcotte-Pugh Class C Cirrhosis and Renal Dysfunction. *Dig Dis Sci* 2015;60(11):3491-4. doi: 10.1007/s10620-015-3771-0.
- 47. Denetclaw TH, Yu MK, Moua M, <u>Dowling TC</u>, Steinke D. Performance of a Divided-Load Intravenous Vancomycin Dosing Strategy for Obese Patients. *Ann Pharmacother* 2015 Aug;49(8):861-8. doi: 10.1177/1060028015586423
- 48. Vaithianathan S, Haidar SH, Zhang X, Jiang W, Avon C, **Dowling TC**, Shao C, Kane M, Hoag SW, Flasar MH, Ting TY, Polli JE. Effect of Common Excipients on the Oral Drug Absorption of



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