

BRIAN L. ROBBINS PROFESSIONAL SUMMARY

Motivated, hardworking laboratory manager with a PhD in biochemistry is offering over 20 years of postgraduate experience in the sciences. This includes over 12 years of laboratory management, conducting research and developing assays in laboratories compliant with CLIA and CAP regulations. Can work independently or with a team to complete projects in a timely manner.

KEY SKILLS

- Knowledge of assay development including the use of LC-MS/MS, UPLC, HPLC, SPE cartridge sample preparation, RIA, ELISA, PAGE, radioisotope tracers and protein purification,
- Excellent administrative, organizational and time management skills.
- Experienced in recruitment, hiring and training of staff.
- Good customer interaction skills with multiple cultures, able to resolve issues from international sites.
- Excellent knowledge of regulatory guidelines associated with operating a CLIA/CAP compliant laboratory.
- Honest, intelligent and trustworthy, able to work unsupervised.
- Excellent computer skills with knowledge of Excel, Outlook, PowerPoint, Word, AB Sciex Analyst, Shimadzu Class VP, Statview, Kalidegraph, Laboratory Data Management System, BioTek KC4 software, Beckman-Coulter cell counting software.

CAREER HISTORY

Private Consulting, Omaha, NE

2014 to present

Responsible for development and validation of multidrug assays in urine using LC-MS/MS instrumentation. This includes writing the associated standard operating procedures and assay validation reports. Other consulting opportunities include participation in the development of a tutorial program for assay validation for the ACTG associated laboratories produced by the University of New York at Buffalo.

University of Nebraska Medical Center, Omaha, NE

2008 to 2014

The University of Nebraska Medical Center is one of 4 campuses associated with the University of Nebraska. It consists of 6 colleges and 2 institutes serving more than 3600 students. Included in the 6 colleges is the College of Pharmacy and specifically the Department of Pharmacy Practice.

Research Associate Professor, Department of Pharmacy Practice

Instrumental in the design, planning and initiation of the UNMC Antiviral Pharmacology Laboratory. Developed assays for measuring intracellular and plasma concentrations of HIV antiretroviral drugs. Managed personnel and budgets, conducted research including assay development and maintained the QA/QC program for the laboratory.

- Developed an ultrasensitive LC-MS/MS assay for the determination of intracellular raltegravir and a similar assay for measurement of plasma raltegravir concentration.
- Developed a dried blood spot assay for the determination of plasma atazanavir concentrations.
- Participated in the development of several assays using LC-MS/MS technology.
- Supervised the logistics of the acquisition of domestic and international samples (South Africa and Thailand) and provided any issue resolution.

Designed and implemented research experiments in the field of HIV drug analysis and metabolism. Learned and implemented a variety of techniques including HPLC, RIA, tissue culture, protein staining, Pharmacia fast protein liquid chromatography (FPLC), denaturing and native gel electrophoresis and electroelution.

- Learned HPLC for the determination of the intracellular metabolism of zidovudine.
- Learned and used a variety of protein purification techniques to isolate nucleoside diphosphate kinase, adenylate kinase, deoxyguanosine kinase and deoxycytidine kinase.
- Developed a competitive reverse transcriptase assay for the measurement of intracellular zidovudine triphosphate.

ACADEMIC CREDENTIALS

- 1988 Doctor of Philosophy in Biochemistry
UNIVERSITY OF NORTH DAKOTA
Grand Forks, North Dakota
- 1982 Bachelor of Science in Chemistry
BEMIDJI STATE UNIVERSITY
Bemidji, Minnesota
- 1982 Bachelor of Science in Biology
BEMIDJI STATE UNIVERSITY
Bemidji, Minnesota

PATENTS AWARDED

Fridland, A and Robbins, BL, Bioassay for Reverse Transcriptase Inhibitors. U.S. Utility Patent, 5,576,117, issued November 19, 1996.

Fridland, A and **Robbins, BL**, Bioassay for Reverse Transcriptase Inhibitors. Canadian Utility Patent, March 1994.

PROFESSIONAL DEVELOPMENT

Shipping of Hazardous Materials Training
CITI Training for the protection of human subjects

PUBLICATIONS**ABSTRACTS**

Nordlie RC, Sukalski KA and **Robbins BL**. Some Unique Kinetic Aspects of Multifunctional Glucose-6-Phosphatase (1984) *Fed Proc* 43:1960.

Nordlie RC and **Robbins BL**. Gluconeogenic Intermediates as Regulators of Glucose-6-Phosphatase: Importance of Inhibition by Fructose-1-Phosphate (1989) *Fed. Proc.* 48: A243.

Fridland A, **Robbins BL**, Connelly MC, Gould R and Marx PA. Inhibition of SIVmac by Zidovudine (AZT) and 2',3'-Dideoxy-2',3'-dideoxythymidine (D4T) in Combination with the Membrane-active Drug Dipyridamole (1990) Presented at the Symposium on Non-human Primate Models for AIDS, New Orleans, LA, Nov 28-30.

Robbins BL, Connelly MC and Fridland A. Regulation of Azidothymidine-5'-monophosphate Efflux from Human Lymphoid Cells (1990) *J. Cell.Biochem.* 14D: 159.

Robbins BL, McDonald C, Holden W, Flynn PM, Srinivas RV and Fridland A. A Novel Method for the Measurement of Intracellular Zidovudine Triphosphate (ZDV-TP) (1993) *J. Cell. Biochem.* 17E: 22.

Robbins BL, McDonald C, Flynn PM, Srinivas RV and Fridland A. An Enzymatic Bioassay for Reverse Transcriptase Inhibitors (1994) *J. Cell. Biochem.* 18B: 165.

Rodman JH, **Robbins BL**, Flynn PM and Fridland A. Maternal and Fetal Pharmacokinetics (PK) of Zidovudine (ZDV) (1996) *Am. Soc. Clin. Pharmacol, and Therap.* 61.:211.

Fridland A, **Robbins BL** and Srinivas RV. Antiretroviral Activity and Metabolism of Bis(POC)PMPA an Oral Bioavailable Prodrug of PMPA (1997) *Antiviral Res.* 34: A49.

Bischofberger N, Naeseu L, De Clercq, E, Fridland A, Srinivas RV, **Robbins BL**, Arimilli M, Lundy K, Kim C, Lacy S, Lee W and Shaw JP. Bis(POC)PMPA. An Orally Bioavailable Prodrug of the Antiretroviral Agent PMPA.(1997) *Fourth Conference on Retroviruses and Opportunistic Infections* 104.

Robbins BL, Tran TT, Pinkerton Jr. FH, Akeb F, Guedj R, Grassi J and Fridland A. Measurements of Intracellular Lamivudine and Zidovudine Metabolites in Peripheral Blood Mononuclear Cells (PBMC) from HIV-Infected Patients (1998) in *Program and Abstracts 5th Conference on Retroviruses and Opportunistic Infections* 146.

Fridland A, **Robbins BL**, Srinivas RV and Bischofberger N. Antiretroviral Activity and Metabolism of Bis(POC)PMPA, an Oral Bioavailable Prodrug of PMPA. (1998) in *Program and Abstracts Fifth Conference on Retroviruses and Opportunistic Infections* 198.

Fridland A, Paibir SG, Srinivas RV, Connelly MC, **Robbins BL**, Pinkerton, FH and Scheutz JD. Involvement of an Active Efflux Pump in the Cellular Resistance of Antiretroviral Nucleoside Analogs.(1998) *Eleventh International Conference on Antiviral Agents* 37, 40A.

Fridland A, **Robbins BL**, Rodman J, Tsai CC, Bischofberger N. Cellular Pharmacology of the Antiviral Agents PMPA and PMEA in vitro and in vivo (1998) *Twelfth World AIDS Conference* 554/41175.

Robbins BL, Harris M, Tran TT, Moore KHP, Paff M, Montaner JSG and Fridland A. Stavudine (d4T) and Lamivudine (3TC) Triphosphate in HIV Infected Patients With or Without Prior Zidovudine (ZDV) Experience (1999) *Thirty-ninth Interscience Conference on Antimicrobial Agents and Chemotherapy* 328.

Rodman JH, Flynn PM, **Robbins BL**, Blqinchard S, Jiminez E, Rodriguez J and Fridland A. Zidovudine Systemic Pharmacokinetics Intracellular Pharmacology in HIV Infected Women and Newborn Infants.(1999) Presented at 6th Conference on Retroviruses and Opportunistic Infections. January 31-February 4, Chicago IL.

Robbins BL, Harris M, Tran TT, Bishop J., Montaner JSG, Lange JMA, Gisolf EH, Gould J and Fridland A. Intracellular Triphosphate Concentrations of d4T and 3TC in HIV Infected Patients (2000) *Fortieth Interscience Conference on Antimicrobial Agents and Chemotherapy* 1168.

Rodman JH, Cross SJ, D'Angelo LJ, Rose C, **Robbins BL**, Yuen GK. Abacavir Clearance in Children is Highly Influenced by Glucuronidation Phenotype (2002) XIV International AIDS Conference.

Rodman JH, Wilcox C, Fridland A and **Robbins BL**. Intracellular Phosphorylation of Didanosine in the Presence and Absence of Tenofovir in Human Lymphocytes. (2002) 6th International Congress on Drug Therapy in HIV Infection, Glasgow Scotland, November 17-21.

Rodman JH, **Robbins BL**, Martinez J, Lindsey JC, Fridland A, Rodriguez JF, and Flynn PM Intracellular Phosphorylation of Zidovudine and Lamivudine in Peripheral Blood Mononuclear Cells in HIV-infected Adolescents and Young Adults on Once Versus Twice Daily regimens. (2003) *10th Conference on Retroviruses and Opportunistic Infections* Boston MS, (147) pg

Rodman JH, **Robbins BL**, Neal EF, Fernandes S and Zhou Z. Cellular Efflux is a Determinant of the Accumulation and Kinetics of Intracellular Zidovudine (ZDV) Tri-phosphate (TP) (2004). *11th Conference on Retroviruses and Opportunistic Infections (CROI)* February 8-11, 2004, San Francisco, CA. (Symposium Proceedings 11:598;pg 281)

Rodman JH, **Robbins BL**, Zhou Z, Wilcox CL, Neal EF and D'Argenio DZ. Determinants of Intracellular Phosphorylation of Lamivudine (3TC) in Human Peripheral Blood Mononuclear Cells (PBMCs). (2005) *6th International Workshop on Clinical Pharmacology of HIV Therapy* Quebec - Canada, 28-30 April (47).

Robbins BL, Havens P, Capparelli E, Chadwick E, Yogev R, Serchuck L, Aldrovandi G, Alvero C, Heckman B and Rodman J. Pharmacokinetics (PK) of High-Dose Lopinavir (LPV) Ritonavir (r) with and without Saquinavir (SQV) or Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs) in HIV Infected Pediatric and Adolescent Patients Previously Treated with Protease Inhibitors (PI). (2007) *14th Conference on Retroviruses and Opportunistic Infections (CROI)* February 25-28, 2007, Los Angeles, CA.

Johnson DH, Sutherland D, Richardson D, Erdem H, Acosta EP, Fletcher CV, **Robbins B**, Haas DW. Pharmacogenetics of raltegravir penetration into cerebrospinal fluid and peripheral blood mononuclear cells. *19th Conference on Retroviruses and Opportunistic Infections*. March 5-8, 2012 Seattle, WA.

Piatt J, Clatke L, Foti J, Fletcher CV, **Robbins B**. Pharmacokinetics in stable pediatric patients switching from liquid lopinavir/ritonavir to the pediatric 100/25 mg tablets: the tiny tabs study *19th Conference on Retroviruses and Opportunistic Infections*. March 5-8, 2012 Seattle, WA.

ARTICLES

Robbins BL, Foster JD and Nordlie RC. Metabolic Intermediates as Potential Regulators of Glucose-6-Phosphatase (1991) *Life Sci*. 48:1075.

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Srinivas RV, Gong Y, **Robbins BL**, Connelly MC, Bischofberger N and Fridland A. Metabolism and *in vitro* Antiretroviral Activities of the Bis(pivaloyloxymethyl) Prodrug of Acyclic Nucleoside Phosphonates (1993) *Antimicrob. Agents Chemother*. 37: 2247.

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Robbins BL and Fridland A. Metabolism and Therapeutic Activity of Acyclic Adenine Phosphonate Analogs (1996) *Inti. Antiviral News* 4: 57-58

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D'Argenio DZ, Rodman JH, **Robbins BL** and Fridland A. Modeling the Cellular Kinetics of the Antiviral Agents PMPA and PMEA. (1997) *Proceedings: EEE-EMB* 18:323-325.

Robbins BL, Srinivas RV, Choung K, Bischofberger N and Fridland A. Anti-Human Immunodeficiency Virus Activity and Cellular Metabolism of a Potential Prodrug of the Acyclic Nucleoside Phosphonate 9-R-(2-Phosphonomethoxypropyl)adenine (PMPA), Bis(isopropylloxymethylcarbonyl)PMPA (1998) *Antimicrob. Agents Chemother.* 42: 612-617.

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Rodman JH, Flynn PM, **Robbins BL**, Jimenez E, Bardequez AD, Rodriguez, JF, Blanchard S and Fridland A. Systemic Pharmacokinetics and Cellular Pharmacology of Zidovudine in Human Immunodeficiency Virus Type 1-Infected Women and Newborn Infants (1999) *J. Infect. Dis.* 180: 1844-1850.

Robbins BL, Greenhaw J and Fridland A. Cellular Phosphorylation of 2', 3'-Dideoxyadenosine-5'-monophosphate, A Key Intermediate in the Activation of the Antiviral Agent ddI, in Human Peripheral Blood Mononuclear Cells (2000) *Nucleosides and Nucleotides* 19(1&2): 405-413.

Fridland A, Connelly MC, **Robbins BL**. Cellular Factors for Resistance Against Antiretroviral Agents (2000) *Antiviral Therapy* 5:181 -185

Tran TT, **Robbins BL**, Pinkerton FH, Ferrua B, Grassi J, and Fridland A. A New Sensitive Cartridge-RIA Method for Determination of Stavudine (D4T) Triphosphate in Human Cells in vivo. (2003) *Antiviral Research* 58: 125-129.

Robbins BL, Wilcox CK, Fridland A and Rodman J. Metabolism of Tenofovir and Didanosine in Quiescent or Stimulated Human Peripheral Blood Mononuclear Cells. (2003) *Pharmacotherapy* 23: 695-701.

Zhou Z, D'Argenio DZ, **Robbins BL** and Rodman JH. Intracellular Metabolism of Lamivudine. (2004) *Advanced Methods of Pharmacokinetic and Pharmacodynamics Systems Analysis* 3:33-47.

Zhou Z, Rodman JH, Flynn PM, **Robbins BL**, Wilcox CK and D'Argenio DZ. (2006) Model for Intracellular Lamivudine Metabolism in Peripheral Blood Mononuclear Cell Ex Vivo and in Human Immunodeficiency Virus Type 1-Infected Adolescents (2006) *Antimicrob Agents Chemother* Aug 50(8):2686-94.

Robbins BL, Poston P, Neal EF, Slaughter C and Rodman J. Simultaneous Measurement of Intracellular Triphosphate Metabolites of Zidovudine, Lamivudine, and Abacavir (Carbovir) in Human Peripheral Blood Mononuclear Cells by Combined Anion Exchange Solid Phase Extraction and LC-MS/MS. (2007) *J Chromatogr B* 850:310-317. ¹

Mirochnick M, Rodman J, **Robbins B**, Fridland A, Gandia J, Hitti J, Bardequez A, Rathore M, et al Preliminary Pharmacokinetics of Oral Zidovudine Administered During Labor (2007) *HIV Medicine* Oct, 8(7): 451-6

Flynn PM, Rodman J, Lindsey J, **Robbins BL**, Capparelli E, Knapp K, Rodriguez J, McNamara J, Serchuck L, Heckman B, Sillio M, Martinez J and the PACTG 1012 Team. Intracellular Pharmacokinetics of Once vs. Twice Daily Zidovudine and Lamivudine in Adolescents (2007) *Antimicrob Agents Chemother.* Oct, 51(10): 3516-3522

Chadwick EG, Capparelli EV, Yogev R, Pinto JA, **Robbins BL**, Rodman J, Chen J, Palumbo P, Serchuck L, Hughes M for the PI 030 team. Pharmacokinetics, Safety and Efficacy of Lopinavir/ritonavir in Infants Less than Six Months of Age: 24 Week Results (2008) *AIDS* Jan 1;22(2):249-55.

Robbins BL, Havens PL, Capparelli EV, Chadwick EG, Yogev R, Serchuck L, Worrel C, Alvero C, Heckman B, Pelton SI, Aldrovandi G, Borokowsky W, and Rodman J for the P1038 Team. Pharmacokinetics of High- Dose Lopinavir/Ritonavir with and without Saquinavir or Non-Nucleoside Reverse Transcriptase Inhibitors in HIV Infected Pediatric and Adolescent Patients Previously Treated with Protease Inhibitors *Antimicrob Agents Chemother.* Sep; 52(9): 3276-83, 2008.

Cross SJ, Rodman JH, Lindsey J, **Robbins BL**, Rose C, Yuen GK and D'Angelo L. Abacavir Pharmacokinetics in HIV-1 Infected Children and Adolescents (2009) *J Acquir. Immune. Defic. Syndr.* May 1; 51(11): 54-9.

Chadwick EG, Pinto J, Yogev R, Alvero CG, Hughes MD, Palumbo P, **Robbins B**, Hazra R, Serchuck L, Heckman BE, Purdue L, Browning R, Luzuriaga K, Rodman J, Caparelli E International Maternal Pediatric Adolescent Clinical Trials Group (IMPAACT) P1030 Team. Early Initiation of Lopinavir/Ritonavir in Infants Less Than 6 Weeks of Age: Pharmacokinetics and 24-Week Safety and Efficacy (2009) *Pediatr Infect Dis J.* Mar 28(31):215-9.

Delahunty T, Bushman L, **Robbins B**, Fletcher CV. The Simultaneous Assay of Tenofovir and Emtricitabine in Plasma Using LC/MS/MS and Isotopically Labeled Internal Standards (2009) *J Chromatogr B Analyt Technol Biomed Life Sci.* Jul 1;877(20-21): 1907-14.

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Chadwick EG, Yogev R, Alvero CG, Hughes MD, Hazra R, Pinto JA, **Robbins BL**, Heckman BE, Palumbo PE, Capparelli EV, International Maternal Pediatric Adolescent Clinical Trials Group (IMPAACT) P1030 Team. Long term Outcomes for HIV-Infected Infants Less than 6 Months of Age at Initiation of Lopinavir/Ritonavir Combination Antiretroviral Therapy (2011) *AIDS* Mar 13; 25(5):643-9.

Flynn PM, Mirochnick M, Shapiro DE, Bardeguez A, Rodman J, **Robbins B**, Huang S, Fiscus SA, Van Rompay KK, Rooney JF, Kearney B, Mofenson LM, Watts DH, Jean-Philippe P, Heckman B, Thorpe E Jr., Cotter A, Purswani M, PACTG 394 Study Team, Pharmacokinetics and Safety of Single-Dose Tenofovir Disoproxil Fumarate and Emtricitabine in HIV-1-infected Pregnant Women and their Infants. (2011) *Antimicrob. Agents Chemother.* Dec;55(12):5914-22.

Nakanjam M, Chadwick EG, **Robbins B**, Alvero C, Palumbo P, Yogev R, Pinto J, Hazra R, Hughes ML, Heckman BE, Capparelli EV. Assessment of Lopinavir Pharmacokinetics With Respect to Developmental Changes in Infants and the Impact on Weight Band-Based Dosing. (2012) *Clin Pharmacol Ther.* Feb;91(2):243-9.

Robbins BL, Nelson SR, Fletcher CV. A Novel Ultrasensitive LC-MS/MS Assay for Quantification of Intracellular Raltegravir in Human Cell Extracts (2012) *J. Pharm Biomed Anal* Nov; 70:378-87.

Sandkovsky U, Swindells S, **Robbins BL**, Nelson SR, Acosta EF, Fletcher CV. Measurement of Plasma and Intracellular Concentrations of Raltegravir in Patients with HIV Infection. *AIDS* (2012) Nov 13;26(17):2257-9.

Podany AT, Winchester LC, **Robbins BL**, Fletcher CV Quantification of cell associated atazanavir, darunavir, lopinavir, ritonavir and efavirenz concentrations in human mononuclear cell extracts (2014) *Antimicrob. Agents Chemother* May;58(5):2866-70.

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Correlation between plasma, intracellular and cervical tissue levels of raltegravir at steady-state dosing in healthy women (2014) *Antimicrob. Agents Chemother.* Jun;58(6):3360-5

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