

**ROBERT LEE ST. CLAIRE III**  
**204 Wyndham Dr.**  
**Chapel Hill, North Carolina 27516**  
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**EDUCATION:**

<b>Ph.D. in Analytical Chemistry</b> University of North Carolina Chapel Hill, North Carolina	September 1986
<b>M.A. in Biochemistry</b> University of Texas Medical Branch Galveston, Texas	December 1981
<b>B.S. in Biochemistry, Magna Cum Laude and in Honors</b> Virginia Polytechnic Institute and State University Blacksburg, Virginia	June 1978

**AWARDS AND HONORS:**

- Research Excellence Award, Gilead Sciences - 2004
- Triangle Award For Excellence, Triangle Pharmaceuticals, Inc. - 2000
- Invited to serve a three year term on the Advisory Panel for the journal *Analytical Chemistry* - 1997
- Shirley Patricia Parker Memorial Award for Research with Applications to Cancer, University of Texas Medical Branch - 1981
- National Institutes of Health Fellowship (4 years), University of Texas Medical Branch - 1979
- James Lewis Howe Award - Biochemistry, American Chemical Society - 1978
- Phi Beta Kappa, Virginia Polytechnic Institute and State University - 1978
- Alpha Zeta Outstanding Student Award (Biochemistry), Virginia Polytechnic Institute and State University - 1978
- Most Outstanding Research Award, Department of Biochemistry and Nutrition, Virginia Polytechnic Institute and State University - 1978
- Phi Lambda Upsilon (Honorary Chemistry), Department of Chemistry, Virginia Polytechnic Institute and State University - 1977

**PROFESSIONAL EXPERIENCE:**

- August 2021 to Present      **DIRECTOR OF OPERATIONS ATPAC CORE**  
UNC Eshelman School of Pharmacy
- Responsible for the leadership of technical operations associated with the Advanced Translational Pharmacology and Analytical Chemistry Core facility.
- March 2020 to August 2021      **SENIOR PRINCIPAL SCIENTIST**  
OpAns, LLC
- Responsible for LC/MS- based bioanalytical methods development, GLP validations and GLP analysis in support of Duke University Medical Center Pediatric Clinical Research.
- August 2015 to January 2020      **SENIOR PRINCIPAL SCIENTIST**  
BioIVT, Inc. and  
Qualyst Transporter Solutions, LLC
- Responsible for overall scientific leadership of corporate bioanalytical chemistry including direct participation in lab activities focused on quantitative LC/MS/MS and MS-based metabolic characterization in support of ongoing Service and R&D. Responsibilities include development of new bioanalytical technology, advanced LC/MS/MS and fluorescence-based methods development, and training of bioanalytical staff in chromatographic and mass spectrometry theory. Additional scientific interests include physical biochemistry, materials science, and microfluidics.
- April 2012 to August 2015      **VICE PRESIDENT OF SCIENTIFIC OPERATIONS**  
Qualyst Transporter Solutions, LLC
- Responsible for all scientific operations pertaining to product R&D, kit production, bioanalytical chemistry, automation, and laboratory operations. Specific in-lab activities include quantitative LC/MS/MS and metabolic characterization in support of ongoing Service and R&D.
- April 2004 to March 2012      **VICE PRESIDENT OF CHEMISTRY**  
Qualyst, Inc.
- Scientific leader of the Chemistry Department, which includes an Automation Section and a Bioanalytical Section. Specific activities include quantitative LC/MS/MS and qualitative MS in support of ongoing Service and R&D, and laboratory safety. Research interests also include materials science and microfluidics.
- August 1998 to March 2004      **SENIOR PRINCIPAL SCIENTIST (Technical Career Ladder)**  
Triangle Pharmaceuticals, Inc. / Gilead Sciences, Analytical Chemistry
- Responsible for bioanalytical methods development and problem solving, new technology evaluation and development, and teaching of analytical chemistry

fundamentals across the R & D organization.

September 1995  
to July 1998

**SENIOR RESEARCH LEADER (Level 28 - Technical Career Ladder)**  
**RESEARCH LEADER (Level 27 - Technical Career Ladder)**  
Glaxo Wellcome, Analytical Sciences Division

Responsible for leadership of the Separation Science Focus Group and Matrix Team within Analytical Sciences' Centers For Excellence Program. This responsibility included methods development problem solving, new technology evaluation/development, and teaching of staff in Pharmaceutical Development.

January 1991 to  
September 1995

**RESEARCH LEADER (Level 27 - Technical Career Ladder)**  
Glaxo Inc., Department of Drug Metabolism

Responsible for leadership of the Bioanalytical Separations Group within Drug Metabolism. Responsible for bioanalytical separations methods development and validation in support of new chemical entities in Discovery and pre-clinical Development. Responsible for the evaluation and development of new separation technology relevant to Drug Metabolism including, microdialysis, microcolumn liquid chromatography, capillary zone electrophoresis, preparative isoelectric focusing, chiral separations, ELISA, Western Blot techniques, image analysis, LASER - induced fluorescence, multidimensional separations, and quantitative LC/MS.

October 1988  
to December 1990

**RESEARCH INVESTIGATOR (Level 26)**  
Glaxo Inc., Department of Drug Metabolism

Responsible for bioanalytical separations methods development in support of new chemical entities in Discovery and pre-clinical Development. Responsible for the evaluation and development of new separation technology relevant to Drug Metabolism, including microdialysis, microcolumn liquid chromatography, capillary zone electrophoresis, preparative isoelectric focusing, and chiral separations.

September 1986  
to September 1988

**SENIOR SCIENTIST II**  
Glaxo Inc., Department of Analytical Chemistry

Responsible for the start-up of a new department and HPLC methods development in support of stability studies for drug line extensions. Directed a team effort that was responsible for the isolation and identification of a degradation product responsible for product discoloration.

May. 1983  
to August 1986

**GRADUATE RESEARCH ASSISTANT**  
University of North Carolina

Research Advisor: James W. Jorgenson

Development and characterization of porous glass surfaces as support phases in open-tubular capillary liquid chromatography. Characterization of a single graphite fiber microelectrode used for electrochemical detection with open-tubular capillary liquid chromatography. Development of chromatographic systems for single-cell analysis.

- August 1982  
to September 1985
- GRADUATE TEACHING ASSISTANT**  
University of North Carolina  
Responsible for development of a new liquid chromatography experiment for a sophomore level analytical/organic laboratory. In addition to teaching duties, was supervisor of teaching assistants for sophomore level analytical/organic laboratory one day/week.
- November 1981  
to August 1982
- RESEARCH ASSOCIATE**  
University of Texas Medical Branch  
Supervisor: Dr. Walter J. Decker  
Development of chromatographic methods for Departments of Pharmacology, Toxicology, and Surgery. Routine forensic and toxicological chemistry for Galveston County, Texas.
- August 1978  
to November 1981
- GRADUATE RESEARCH ASSISTANT**  
Department of Human Biological Chemistry and Genetics  
Biochemistry Division  
University of Texas Medical Branch  
Research Advisor: Dr. Creed Abell  
Analysis of tetrahydroisoquinolines in alcoholics and schizophrenics using liquid chromatography and mass spectrometry.
- May 1978  
to August 1978
- RESEARCH TECHNICIAN**  
Department of Biochemistry and Nutrition  
Virginia Polytechnic Institute and State University  
Supervisor: Dr. Ross Brown  
Enzyme kinetic studies for the B-Glucosidase of Trichoderma viride
- January 1976  
to June 1978
- UNDERGRADUATE HONORS RESEARCH**  
Department of Biochemistry and Nutrition  
Virginia Polytechnic Institute and State University  
Supervisor: Dr. Ross Brown  
Enzyme kinetic studies for the B-Glucosidase of Trichoderma viride
- May 1976  
to September 1976
- RESEARCH FELLOW**  
Gulf Oil Company  
Merriam, Kansas  
Research Advisor: Dr. George Emert  
Development of analytical methods for following progress of biomass conversion

**PUBLICATIONS:**

Jackson, Jonathan P, **St Claire, Robert L**, Freeman, Kimberly M, Black, Chris B., and Brouwer, Kenneth R; Cholestatic Drug Induced Liver Injury: A Function of Bile Salt Export Pump Inhibition and Farnesoid X Receptor Antagonism Applied In Vitro Toxicology, ISSN 2332-1512, 09/2018, Volume 4, Issue 3, pp. 265 – 279

Zhang Y, Jackson JP, **St. Claire III RL**, Freeman KM, Brouwer KR, and Edwards JE. Obeticholic acid, a selective Farnesoid X receptor agonist, regulates bile acid homeostasis in sandwich-cultured human hepatocytes. *Pharmacol Res Perspect.* 2017 5(4): 1-11.

Jackson JP, Freeman KM, Friley WW, **St. Claire III RL**, Black CB, and Brouwer KR. Basolateral Efflux Transporters: A Potentially Important Pathway for the Prevention of Cholestatic Hepatotoxicity. *Applied In Vitro Toxicology.* 2016 2: 1019-1026.

Guo, Cen; Yang, Kyunghye; Brouwer, Kenneth R; **St Claire, 3rd, Robert L**; Brouwer, Kim L R. Prediction of Altered Bile Acid Disposition Due to Inhibition of Multiple Transporters: An Integrated Approach Using Sandwich-Cultured Hepatocytes, Mechanistic Modeling, and Simulation. *J. Pharm. and Exp. Therap.* Aug 2016 358 (2) 324-333.

Slizgi, JR; Lu, Y; Brouwer, KR; **St Claire, RL**; Freeman, KM; Pan, M; Brock, WJ; Brouwer, KLR. Inhibition of Human Hepatic Bile Acid Transporters by Tolvaptan and Metabolites: Contributing Factors to Drug-Induced Liver Injury? *Tox. Sci.*, Jan 2016, 149(1).

Lu, Yang; Slizgi, Jason R; Brouwer, Kenneth R; **St Claire, Robert L**; Freeman, Kimberly M; Pan, Maxwell; Brock, William J; Brouwer, Kim L. R. Hepatocellular disposition and transporter interactions with tolvaptan and metabolites in sandwich-cultured human hepatocytes. *Drug Metab. and Disp.*, June 2016, 44(6).

Lepist, EI; Gillies, H; Smith, W; Hao, J; Hubert, C; St Claire, RL; **Brouwer, KR**; Ray, AS. Evaluation of the Endothelin Receptor Antagonists Ambrisentan, Bosentan, Macitentan, and Sitaxsentan as Hepatobiliary Transporter Inhibitors and Substrates in Sandwich-Cultured Hepatocytes. *PLOS ONE*, Jan 2014, 9(1).

Jackson, J.P., Freeman, K.M., Friley, W.W., St. Claire III, R. L., Edwards, J.E., and **Brouwer, K.R.** Basolateral Efflux Transporters: A Potentially Important Pathway for the Prevention of Cholestatic Hepatotoxicity. *Drug Metabolism and Disposition*, V2:4, 2016.

L. M. Griffin, P. B. Watkins, C. H. Perry, **R. L. St. Claire, III**, and K. L. Brouwer. "Combination Lopinavir and Ritonavir Alter Exogenous and Endogenous Bile Acid Disposition in Sandwich-Cultured Rat Hepatocytes". *Drug Metabolism and Disposition*, 41 (1) (2013), 188-196.

T. L. Marion, C. H. Perry, **R. L. St Claire, III**, and K. L. Brouwer. "Endogenous Bile Acid Disposition in Rat and Human Sandwich-Cultured Hepatocytes". *Toxicology and Applied Pharmacology*, 261(1) (2012), 1-9.

T. L. Marion, C. H. Perry, **R. L. St. Claire, III**, W. Yue, and K. L. Brouwer. "Differential Disposition of Chenodeoxycholic Acid versus Taurocholic Acid in Response to Acute Troglitazone Exposure in Rat Hepatocytes". *Toxicological Sciences*, 120(2) (2011), 371-380.

C. H. Perry, W. R. Smith, **R. L. St. Claire, III**, and K. R. Brouwer. "Automated Applications of Sandwich-Cultured Hepatocytes in the Evaluation of Hepatic Drug Transport". *Journal of Biomolecular*

*Screening*, 16(4) (2011), 427-435.

J. H. Ansele, W. R. Smith, **R. L. St. Claire, III**, C. H. Perry, K. R. Brouwer. "Development of an In Vitro Assay to Assess Inhibition of Bile Acid Uptake and Efflux in Sandwich-Cultured Hepatocytes Using Deuterium Labeled Taurocholate". *Drug Metabolism and Disposition*, 38(2) (2010), 276-280.

John H. Ansele, Matthew R. Wright, **Robert L. St. Claire III**, Robert W. Hart, Holly A. Gefroh, and Kenneth R. Brouwer. "Characterization of Sandwich-Cultured Hepatocytes as an In Vitro Model to Assess the Hepatobiliary Disposition of Copper". *Drug Metabolism and Disposition*, 37(5) (2009), 969-976.

Trevor Hawkins, Wenoah Veikley, **Robert L. St. Claire III**, Bill Guyer, Nicole Clark, and Brian P. Kearney. "Intracellular Pharmacokinetics of Tenofovir Diphosphate, Carbovir Triphosphate, and Lamivudine Triphosphate in Patients Receiving Triple-Nucleoside Regimens". *Journal of Acquired Immune Deficiency Syndromes*, 39(4) (2005), 406-411.

Laurene H. Wang, John Begley, **Robert L. St. Claire III**, Jeanette Harris, Charles Wakeford, and Franck S. Rousseau. "Pharmacokinetic and Pharmacodynamic Characteristics of Emtricitabine Support Its Once Daily Dosing for Treatment of HIV Infection". *AIDS Research and Human Retroviruses*, 20(11) (2004), 1173-1182.

**Robert L. St. Claire III**. "Positive Ion Electrospray Ionization Tandem Mass Spectrometry Coupled to Ion-Pairing High-Performance Liquid Chromatography with a Phosphate Buffer for the Quantitative Analysis of Intracellular Nucleotides". *Rapid Communications In Mass Spectrometry*, 14 (2000), 1625-1634.

**Robert L. St. Claire III**. "Capillary Electrophoresis". *Analytical Chemistry*, 68 No.12 (1996), 569-586.

C.G. Stafford and **R.L. St. Claire III**. "High-Performance Liquid Chromatography Analysis of the Lactone and Carboxylate Forms of a Topoisomerase I Inhibitor in Plasma". *Journal of Chromatography*, 663 (1995), 119-126.

**Robert L. St. Claire III** and Kenneth R. Brouwer. "Chemical Analysis of Bis(5-Amidino-2-Benzimidazolyl) Methane in the Arthritic Rat Knee Using Microdialysis and Microcolumn Liquid Chromatography". *Journal of Microcolumn Separations*, 3 (1991), 531-437.

A. Lahey and **R.L. St. Claire III**. "A Comparison of Ion-Pairing Liquid Chromatography and Micellar Electrokinetic Capillary Chromatography in the Separation of Nucleosides and Nucleotides". *American Laboratory*, January 1991.

**R.L. St. Claire III**. "Ion-Association Reversed Phase Chromatography of Nucleosides and Nucleotides On Polymeric and Silica Stationary Phase Supports. *Analytical Chemistry*, 63 (1991), 2657-2660.

**R.L. St. Claire III**, D.M. Domdohmiere, and J.W. Jorgenson, "Preparation of Reversed Phase Open Tubular Liquid Chromatography Columns From Borosilicate Glass". *Journal of Microcolumn Separations*, 3 (1991), 303-309.

K. R. Brouwer, **R.L. St. Claire III**, J. Lagarde, J. Walsh, J. Patanella, and G.T. Miwa. "The Pharmacokinetics of (-) -Carbovir in the Rat: Evidence of Nonlinear Elimination". *Drug Metabolism and Disposition*, 18 (6) (1990), 1078-1083.

**R.L. St. Claire III** and W.L. Caudill. "Stability of Cefuroxime Axetil in Beverages". *Journal of Hospital Pharmacy*, 46 (1989), 256-257.

**R.L. St. Claire III** and W.L. Caudill, "Stability of Cefuroxime Axetil in Apple Juice". *Pediatric Infectious Disease Journal*, 76 (1988), 744.

J.W. Jorgenson, R.T. Kennedy, **R.L. St. Claire**, J.G. White, and P.R. Dluzneski. "Open -Tubular Liquid Chromatography and the Analysis of Single Neurons". *Journal of Research of the National Bureau of Standards*, 93 (1988), 403-406.

R.T. Kennedy, **R.L. St. Claire**, J.G. White, and J.W. Jorgenson. "Chemical Analysis of Single Neurons by Open-Tubular Liquid Chromatography". *Microchimica Acta*, 2 (1987), 37-45.

Jackie G. White, **Robert L. St. Claire III**, and James W. Jorgenson. "A Scanning On-Column Voltammetric Detector for Open-Tubular Liquid Chromatography". *Analytical Chemistry*, 58 (1986), 293-298.

**Robert L. St. Claire III** and James W. Jorgenson. "Characterization of an On-Column Electrochemical Detector for Open-Tubular Liquid Chromatography". *Journal of Chromatographic Science*, 23 (1985), 186-191.

James W. Jorgenson, Edward J. Guthrie, **Robert L. St. Claire III**, Peter R. Dluzneski, and Lawrence A. Knecht. "New Techniques for Liquid Chromatography in Open-Tubular Columns". *Journal of Pharmaceutical and Biomedical Analysis*, 2 (1984), 191-196.

Walter J. Decker, **Robert L. St. Claire III**, and Donald G. Corby. "Psyllim Mucilloid: A Potential Trapping Agent for Ingested Solvents". *Veterinary and Human Toxicology*, 24 (1982), 149-151.

**Robert L. St. Claire III**, G.A.S. Ansari, and Creed W. Abell. "Determination of Tetrahydroisoquinolines by Reversed-Phase Liquid Chromatography with Gradient Elution and Amperometric Detection". *Analytical Chemistry*, 54 (1982), 186-189.

### **TECHNICAL PRESENTATIONS (ORAL):**

( \* = presenter)

**R. L. St. Claire III \***. "LC versus MS: The Battle for Dual Optimization". **American Chemical Society 17<sup>th</sup> Triangle Chromatography Symposium** (2000) (Invited Speaker).

**R. L. St. Claire III \***. "An Overview of LC/MS in the Pharmaceutical Industry - Fundamentals and Applied Aspects". **American Association Of Pharmaceutical Scientists Southeastern Regional Meeting** (1999) (Invited Speaker).

**R. L. St. Claire III \***. "Drug Metabolism Studies at the Active Site Using Microscale Separation Methods". **American Association Of Pharmaceutical Scientists Southeastern Regional Meeting** (1993) (Invited Speaker).

**R. L. St. Claire III \***. "Microcolumn Separation Methods in Drug Metabolism". **American Chemical Society National Meeting** (1992) (Invited Speaker).

**R. L. St. Claire III \*** and K. R. Brouwer. "Chemical Analysis Within the Rat Knee Joint Using Microdialysis and Microcolumn Liquid Chromatography". **University of Stockholm** (1990) (Invited Speaker).

R. Kennedy \*, **R. L. St. Claire III**, J. G. White, and J. W. Jorgenson. "Chemical Analysis of Single Cells by Open-Tubular LC with Voltammetric Detection". **1987 Pittsburgh Conference and Exposition**.

**R. L. St. Claire III** \* and J. W. Jorgenson. "Fabrication of Reversed-Phase Open-Tubular LC Columns on Etched Borosilicate Glass". **1986 Pittsburgh Conference and Exposition**.

R. Kennedy \*, **R. L. St. Claire III**, J. G. White, and J. W. Jorgenson. "Open-Tubular LC with EC Detection for the Analysis of the Intracellular Fluid of Single Neurons". **1986 Pittsburgh Conference and Exposition**.

J. G. White \*, **R. L. St. Claire III**, and J. W. Jorgenson. "Graphite Fiber Microelectrodes for On-Column Voltammetric Detection in Open-Tubular Liquid Chromatography". **National American Chemical Society Meeting** (1986).

**R. L. St. Claire III** \*, J. G. White, and J. W. Jorgenson. "On-Column Electrochemical Detection for Open-Tubular Capillary Liquid Chromatography". **1985 Pittsburgh Conference and Exposition**.

Walter J. Decker, **Robert L. St. Claire III**, \* and Donald G. Corby. "Psyllium Mucilloid: A Potential Trapping Agent for Ingested Solvents". **1982 International Congress of Clinical Toxicology**.

**Robert L. St. Claire III** \* and Walter J. Decker. "Some New Approaches to Gastrointestinal Decontamination" **Southwestern Association of Toxicologists** (1982).

**R. L. St. Claire III** \*, E. K. Gum, and R. D. Brown. "Specificity and Action Mechanism of Beta-Glucosidase of *Trichoderma Viride*". **National American Chemical Society Meeting** (1978).

#### **TECHNICAL PRESENTATIONS (POSTERS):**

Jonathan P. Jackson, Kimberly M. Freeman, **Robert L. St. Claire III**, and Kenneth R. Brouwer. An Integrated In Vitro Screen Using Sandwich-Cultured Human Hepatocytes for Prediction of Cholestatic Hepatotoxicity. 22nd North American ISSX Meeting – 2018

Jonathan P. Jackson, Kimberly M. Freeman, **Robert L. St. Claire III**, and Kenneth R. Brouwer. Prediction of Cholestatic Hepatotoxicity: A New Mechanism-Based Human In Vitro Screen (C-DILI™) That Integrates Transporter Regulation and Adaptive Response. Society of Toxicology Annual Meeting and ToxExpo™ (San Antonio, TX 2018)

Jonathan P. Jackson, Kimberly M. Freeman, **Robert L. St. Claire III**, and Kenneth R. Brouwer. Prediction of Cholestatic Hepatotoxicity: Role of Transporter Regulation and Adaptive Response. Society of Toxicology Annual Meeting and ToxExpo™ (Baltimore, MD 2017)

Jonathan P. Jackson, Kimberly M. Freeman, Chris B. Black, **Robert L. St. Claire III**, Kenneth R. Brouwer. Bile Acid Basolateral Efflux: A Compensatory Mechanism that Prevents Cholestatic DILI Society of Toxicology Annual Meeting and ToxExpo™ (Baltimore, MD 2017)

Jonathan P. Jackson, Kimberly M. Freeman, Matthew K. Palmer, **Robert L. St. Claire III**, Christopher B. Black, and Kenneth R. Brouwer. A New Mechanism-Based Human *In Vitro* Screen (C-DILI™ Assay) that Accurately Predicts Cholestatic Liver Toxicity. Society of Toxicology Annual Meeting and ToxExpo™ (Baltimore, MD 2017)



K. R. Brouwer, J. P. Jackson, K. M. Freeman, W. W. Friley, **R. L. St. Claire III**, M. Pan, and W. J. Brockwell. "Effect of Tolvaptan on the Hepatobiliary Disposition of Bile Acids in Human B-CLEAR<sup>®</sup> Hepatocytes". **Society of Toxicology Annual Meeting and ToxExpo<sup>™</sup>** (2015).

J. P. Jackson, K. M. Freeman, W. W. Friley, **R. L. St. Claire III**, J. E. Edwards, and K. R. Brouwer. "Basolateral Efflux Transporters: A Potentially Important Pathway for the Prevention of Cholestatic Hepatotoxicity". **AAPS Transporter Workshop** (2015).

T. L. Marion, W. R. Smith, C. Hubert, **R. L. St. Claire III**, and K. P. Brouwer. "Use of B-CLEAR<sup>®</sup> Human Sandwich-Cultured Hepatocytes to Screen Compounds for Cholestatic Potential". **Society of Toxicology Annual Meeting and ToxExpo<sup>™</sup>** (2013).

T. L. Marion, W. R. Smith, C. Hubert, **R. L. St. Claire III**, and K. R. Brouwer. "Towards a More Predictive Model: Effect of Telmisartan on Taurocholate Disposition in B-CLEAR<sup>®</sup> Cryopreserved Sandwich-Cultured Hepatocytes Compared to BSEP-Expressing Membrane Vesicles". **20<sup>th</sup> North American ISSX Meeting** (2013).

H. Gillies, I. Lepist, W. R. Smith, C. Hubert, **R. L. St. Claire III**, K. R. Brouwer, and R. Ray. "Intracellular accumulation and effects on bile acid transport of endothelin receptor antagonists in sandwich-cultured hepatocytes". **European Respiratory Society Annual Congress** (2013).

W. R. Smith, T. L. Marion, C. Hubert, **R. L. St. Claire, III**, and K. R. Brouwer. "Miniaturization of B-CLEAR<sup>®</sup> Sandwich-Cultured Hepatocyte Cultures to Determine the Bile Acid-Mediated Toxicity of Inhibitors of Bile Acid Transport Proteins". **International Society for the Study of Xenobiotics 18<sup>th</sup> North American Regional ISSX Meeting** (2012).

T. L. Marion, W. R. Smith, C. Hubert, **R. L. St. Claire, III**, and K. R. Brouwer. "Bile Acid Disposition and Transport Function in Optimized B-CLEAR<sup>®</sup> Human Sandwich-Cultured Hepatocytes". **International Society for the Study of Xenobiotics 18<sup>th</sup> North American Regional ISSX Meeting** (2012).

R. Hart, T. L. Marion, W. R. Smith, C. Hubert, and **R. L. St. Claire, III**. "Development and Use of LC-UV and LC-MS/MS Methods to Measure Changes in Metabolism and Efflux of Bilirubin and Bilirubin Glucuronides in B-CLEAR<sup>®</sup> Sandwich-Cultured Hepatocytes. **International Society for the Study of Xenobiotics 18<sup>th</sup> North American Regional ISSX Meeting** (2012).

K. R. Brouwer, W. R. Smith, T. L. Marion, C. Hubert, and **R. L. St. Claire, III**. "Importance of Integrated Systems in the Evaluation of Hepatic Transporter Interactions. **International Society for the Study of Xenobiotics 18<sup>th</sup> North American Regional ISSX Meeting** (2012).

T. L. Marion, W. R. Smith, C. H. Perry, **R. L. St. Claire, III**, and K. R. Brouwer. "Optimization of Culture Conditions for Bile Acid Profiling in B-CLEAR<sup>®</sup> Human Sandwich-Cultured Hepatocytes. **Society of Toxicology 51<sup>st</sup> Annual Meeting** (2012).

T. L. Marion, C. Perry, **R. L. St. Claire, III**, and K. L. Brouwer. "Effect of Troglitazone on Endogenous Bile Acid Disposition in Rat and Human Sandwich-Cultured Hepatocytes". **Society of Toxicology 50<sup>th</sup> Annual Meeting** (2011).

T. L. Marion, C. Perry, **R. L. St. Claire, III**, and K. L. Brouwer. "Effect of Troglitazone on the Disposition of Bile Acids in Rat Sandwich-Cultured Hepatocytes". **Society of Toxicology 49<sup>th</sup> Annual Meeting** (2010).

J. Lee, Y. LaForge, C. H. Perry, W. Smith, **R. L. St. Claire III**, A. Li, and K. R. Brouwer. "Characterization of Functional Activity of Hepatic Transport Proteins in Sandwich-Cultured Monkey Hepatocytes (SCMH) from Cryopreservation and Fresh-Isolation". **AAPS Workshop on Drug Transporters in ADME: From the Bench to the Bedside** (2011).

J. Lee, C. H. Perry, C. Parsons, **R. L. St. Claire, III**, and K. R. Brouwer. "Predicting Transporter-Mediated Drug-Drug Interactions Based on the B-CLEAR®-Rapid Transport Screen in Sandwich-Cultured Hepatocytes". **ISSX 9<sup>th</sup> International Meeting** (2010) .

C. H. Perry, W. R. Smith, **R. L. St. Claire, III**, and K. R. Brouwer. "Automation of B-CLEAR® Technology to Evaluate Drug Transport". **SBS 16<sup>th</sup> Annual Conference & Exhibition** (2010).

C. J. Parsons, W. R. Smith, C. H. Perry, **R. L. St. Claire, III**, and K. R. Brouwer. "Application of Fluorescent-labeled Bile Salts to Evaluate Alterations in Bile Acid Hepatobiliary Disposition". **16<sup>th</sup> North American ISSX** (2009).

K. R. Brouwer, W. R. Smith, **R. L. St. Claire, III**, and C. H. Perry. "Inhibition of Bile Acid Transport and Determination of the Cholestatic Potential of Drug Candidates". **Drug – Drug Interaction** (2009).

K. R. Brouwer, W. R. Smith, **R. L. St. Claire, III**, C. H. Perry, and J. H. Ansele. "Determination of the Inhibition of Bile Acid Transport and Cholestatic Potential of Drug Candidates". **World Pharmaceutical Congress** (2008).

William R. Smith, John H. Ansele, Cassandra H. Perry, **Robert L. St. Claire III**, and Kenneth R. Brouwer. "Development of a 24-Well B-CLEAR®-RT System (Sandwich-Cultured Rat Hepatocytes) for Assessing the Hepatobiliary Disposition of Drugs". **AAPS** (2008).

Kenneth R. Brouwer, William R. Smith, **Robert L. St. Claire III**, Cassandra H. Perry, and John H. Ansele. "The Use of Sandwich-Cultured Hepatocytes (B-CLEAR®) to Assess the Inhibition of Bile Acid Transport and Cholestatic Potential of Drug Candidates". **ISSX** (2008).

Cassandra H. Perry, Ali Safavi, William R. Smith, John H. Ansele, Kenneth R. Brouwer, and **Robert L. St. Claire III**. "Automation of an In Vitro Method to Evaluate Hepatobiliary Disposition and Drug Transport". **2008 Pittsburgh Conference and Exposition** (2008).

J. C. Hartman, R. J. Gorczynski, **R. L. St. Claire III**, K. R. Wille, C. H. Perry, and K. R. Brouwer. "Effects of Ambrisentan, Darusentan, Bosentan, and Sitaxsentan on Human Hepatic Uptake Efflux Transporters". **10<sup>th</sup> International Conference on Endothelin** (2007).

J. H. Ansele, M. R. Wright, H. A. Gefroh, **R. L. St. Claire**, and K. R. Brouwer. "The Expression and Function of the Copper Transporter, ATP7b, in B-CLEAR® (Sandwich-Cultured Hepatocytes) and Its Application as a Model for Assessing Drug-Induced Copper Toxicity". **14<sup>th</sup> North American International Society for the Study of Xenobiotics** (2006).

L. H. Wang , J. W. Bigley, **Robert L. St. Claire**, N. D. Sista, and F. Rousseau. "Preliminary Assessments of The Pharmacokinetics of DAPD and Its Active Metabolite DXG in HIV-Infected Subjects". **13<sup>th</sup> International AIDS Conference** (2000).

L. Keilholz , J. Walsh, B. Lampert, J. Begley, **R. St. Claire**, and R. Hart. "Analysis of a Potent Antiviral Compound in Biological Matrices Using a Direct – Injection LC/MS/MS Method". **2000 Pittsburgh Conference and Exposition** (2000).

C. A. Ress, **R. L. St. Claire III**, and A. P. Zavitsanos. "Quantitative LC/MS Analysis of a Steroid in a Complex Formulation Matrix". **46th American Society Of Mass Spectrometry Conference On Mass Spectrometry And Allied Topics** (1998).

F. DeMartin, K. Erford, J. Lemmo, and **R. L. St. Claire III**. "Strategies For Fast-HPLC In Pharmaceutical Development". **1998 Pittsburgh Conference and Exposition** (1998).

M. Whight, P. Childers, and **R. L. St. Claire III**. "Comparison of Capillary Electrophoresis and Fast-LC in Comparator Studies". **1997 Frederick Conference on Capillary Electrophoresis** (1997).

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#### **ACADEMIC SERVICE:**

Invited speaker on "Leading a Team" as part of the 2012 Tibbs Summer Series on *Essential Skills for Success in Industry*, Graduate School, University of North Carolina-Chapel Hill, NC (June 2012)

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