

# Roger Lloyd Bertholf

## *Curriculum vitae*

### ADDRESS:

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### EDUCATION:

<b>Degree (Major)</b>	<b>Institution</b>	<b>Date</b>
B.S. (Chemistry)	James Madison University Harrisonburg, VA	May, 1977
M.S. (Chemistry)	University of Virginia Charlottesville, VA	August, 1981
Ph.D. (Biochemistry)	University of Virginia Charlottesville, VA	January, 1985

### APPOINTMENTS:

<b>Period</b>	<b>Title</b>	<b>Institution</b>
2008 – current	Professor (with tenure)	University of Florida College of Medicine
1993 – 2008	Associate Professor (with tenure)	University of Florida College of Medicine
1988 – 1993	Assistant Professor	University of Florida College of Medicine
1989 – current	Doctoral Research Faculty	University of Florida Graduate School
1985 – 1988	Post-Doctoral Research Associate	University of Virginia School of Medicine
1986 – 1987	Neuropathology Research Fellow	University of Virginia School of Medicine

### LICENSURE:

Clinical Laboratory Director license #DI28186, Florida Department of Health, Division of Medical Quality Assurance (issued April, 1989; current license valid through August 2010)

### CERTIFICATIONS:

<b>Date</b>	<b>Type</b>	<b>Board</b>	<b>Specialty</b>
1990	Diplomate	American Board of Clinical Chemistry	Clinical Chemistry
1994	Diplomate	American Board of Clinical Chemistry	Toxicological Chemistry

### **COURTESY APPOINTMENTS:**

<b>Period</b>	<b>Title</b>	<b>Institution</b>
2004 – current	Courtesy Professor, College of Arts and Sciences	University of South Florida

### **HONORS AND AWARDS:**

Delta Sigma Rho – Tau Kappa Alpha National Honorary Forensic Society  
Omicron Delta Kappa National Leadership Society  
James Madison Leadership Society  
Who's Who in America  
Who's Who in American Colleges and Universities  
Who's Who in Science and Medicine  
1999 Young Clinical Scientist Award (Association of Clinical Scientists)  
2003 Clinical Scientist of the Year Award (Association of Clinical Scientists)  
2003 Clinical Chemists Recognition Award (American Association for Clinical Chemistry)  
2005 Diploma of Honor (Association of Clinical Scientists)  
2007 Clinical Chemists Recognition Award (American Association for Clinical Chemistry)

### **ELECTED MEMBERSHIPS AND FELLOWSHIPS**

<b>Date</b>	<b>Category</b>	<b>Organization</b>
1987	Fellow	American Institute of Chemists
1992	Fellow	Association of Clinical Scientists
1995	Clinical Scientist	American Society of Clinical Pathologists
2000	Fellow	National Academy of Clinical Biochemistry

### **MEMBERSHIPS IN PROFESSIONAL SOCIETIES:**

<b>Date</b>	<b>Organization</b>
1981	American Chemical Society
1981	American Association for Clinical Chemistry
1985	American Association for the Advancement of Science
1985	American Institute of Chemists
1992	Association of Clinical Scientists
1995	American Society of Clinical Pathologists

**ELECTED OR APPOINTED OFFICES IN STATE AND NATIONAL ORGANIZATIONS:**

<b>Date</b>	<b>Office</b>	<b>Organization</b>
1999-	Scientific Council	Association of Clinical Scientists
2001-	Publications Committee	Association of Clinical Scientists
2002-04	Gulf Region Delegate	Association of Clinical Scientists
2002-05	Membership Committee	National Academy of Clinical Biochemistry
2002-06	Member (Appointed by Gov. Bush)	Florida Board of Clinical Laboratory Personnel
2007-10	Member (Appointed by Gov. Crist)	Florida Board of Clinical Laboratory Personnel
2002-	Chair, Examinations Sub-committee	Florida Board of Clinical Laboratory Personnel
2002-	Chair, Unlicensed Activity Sub-committee	Florida Board of Clinical Laboratory Personnel
2003-04	Vice-President and President-elect	Association of Clinical Scientists
2003-04	Chair, Membership Committee	Association of Clinical Scientists
2004-05	President	Association of Clinical Scientists
2005-	Vice-Chair, Clinical Biochemistry & Biotechnology Scientific Section	Association of Clinical Scientists
2005-06	Chair, Program Committee (2006 Annual Meeting)	Association of Clinical Scientists
2006-08	Treasurer	National Academy of Clinical Biochemistry
2006-	Chair, Finance Committee	National Academy of Clinical Biochemistry
2006-07	Vice-Chair	Florida Board of Clinical Laboratory Personnel
2008-	Chair	Florida Board of Clinical Laboratory Personnel
2006-08	Board of Directors	Florida Chapter of the American Association for Clinical Chemistry
2007-2011	Member, Clinical Chemistry Review Course Organizing Committee	American Association for Clinical Chemistry
2008-	Vice-Chair, Clinical Chemistry Review Course Organizing Committee	American Association for Clinical Chemistry

**CURRENT PROFESSIONAL ACTIVITIES:**

<b>Date</b>	<b>Activity</b>
1994	Director of Clinical Chemistry and Toxicology, Shands Jacksonville Hospital Clinical Laboratories
2001	Quality and Process Improvement Manager, Shands Jacksonville Hospital Clinical Laboratories
2002	Medical Director of Point-of-Care and Waived Laboratory Testing, Shands Jacksonville Hospital
2004	Medical Director of the School of Medical Technology, Shands Jacksonville Hospital

**PAST PROFESSIONAL ACTIVITIES:**

<b>Dates</b>	<b>Activity</b>
1997 – 2000	Medical Director of Outreach Laboratory Services, University Medical Center and University of Florida Health Science Center/Jacksonville, FL
1997 – 2000	Scientific Director of Forensic Drug Testing, Southern Reference Laboratory, Jacksonville, FL
1995 – 1998	Clinical Consultant, First Coast Medical Group Laboratory, Jacksonville, FL
1988 – 1994	Director of Toxicology and Therapeutic Drug Monitoring, Shands Hospital Clinical Laboratories, Gainesville, FL
1988 – 1994	Director of Forensic and Environmental Toxicology, University of Florida Diagnostic Referral Laboratories, Gainesville, FL
1990 – 1994	Safety Officer, Department of Pathology and Laboratory Medicine, University of Florida College of Medicine
1993 – 1994	Section Chief, Computer Support, Department of Pathology and Laboratory Medicine, University of Florida College of Medicine

**COMMITTEE ASSIGNMENTS:**

<b>Term</b>	<b>Committee</b>
2003 – 2006	University of Florida College of Medicine Associate Professor Promotion and Tenure Committee
1994 – current	Clinical Toxicology Advisory Committee, University of Florida Health Science Center/Jacksonville
2001 – current	Shands Jacksonville Physician's Systems Advisory Committee
1995 – 1997	Chair, Borland Library Advisory Committee
1996 – current	University of Florida Health Science Center Library Advisory Board
1998 – current	University of Florida Health Science Center/Jacksonville Sexual Harassment Committee

- 1999 – 2004 Chair, Dermatopathologist Search Committee, Department of Pathology, University of Florida Health Science Center/Jacksonville
- 2000 – 2003 Vice-Chair and alternate member, Institutional Review Board (IRB-03), University of Florida Health Science Center/Jacksonville
- 1998 – 2000 University of Florida Integrated Advanced Information Management Systems Task Force
- 1999 – 2000 Chair, Institutional Review Board (IRB-03), University of Florida Health Science Center/Jacksonville
- 1996 Chair, Clinical Microbiologist Search Committee, Department of Pathology, University of Florida Health Science Center/Jacksonville
- 1998 – 1999 Chair, Anatomical Pathologist Search Committee, Department of Pathology, University of Florida Health Science Center/Jacksonville
- 2000 – 2001 Chair, Clinical Microbiologist Search Committee, Department of Pathology, University of Florida Health Science Center/Jacksonville
- 1998 – 2000 University Medical Center Resource Management Committee
- 1998 – 1999 University Medical Center Year 2000 Committee
- 1988 – 1994 Executive Board, Center for Environmental and Human Toxicology, University of Florida
- 1989 – 1994 Computer Committee, Department of Pathology and Laboratory Medicine, University of Florida College of Medicine
- 1989 – 1994 Pharmacy and Therapeutics Committee, Shands Hospital
- 1990 – 1994 Interdisciplinary Graduate Toxicology Program Committee, Center for Environmental and Human Toxicology
- 1991 – 1994 Operations Committee, University of Florida Diagnostic Referral Laboratories
- 1991 – 1992 Graduate Program Committee, Department of Pathology and Laboratory Medicine, University of Florida College of Medicine
- 1992 Florida Environmental Regulation Commission *Ad Hoc* Committee on the Health Effects of Lead
- 1992 – 1994 Shands Hospital Laboratory Information Systems Steering Committee
- 1992 – 1994 Shands Hospital Emergency Room Advisory Committee
- 1993 – 1994 Chair, Biosafety Committee, Department of Pathology and Laboratory Medicine, University of Florida College of Medicine
- 1993 – 1994 Chair, Shands Hospital Medical Technology Program Admissions Committee
- 1993 – 1994 Chair, Computer Committee, Department of Pathology and Laboratory Medicine, University of Florida College of Medicine

**OTHER PROFESSIONAL ACTIVITIES:**

<b>Term</b>	<b>Activity</b>	<b>Association</b>
1999 – current	Editorial Board	<i>Annals of Clinical and Laboratory Science</i>
2002 – current	Editorial Board	<i>Journal of Analytical Toxicology</i>
1989 – 1994	Editorial Board	<i>The Chemist</i>

Current	Invited Reviewer	<i>Clinical Chemistry</i> <i>Journal of Analytical Toxicology</i> <i>The Chemist</i> <i>Annals of Clinical and Laboratory Science</i> <i>Clinical and Forensic Toxicology News</i> <i>American Journal of Transplantation</i> <i>Pediatrics</i>
1989 – current	Laboratory Inspector	College of American Pathologists Clinical Laboratory Accreditation Program

**TEACHING ACTIVITIES:**

<b>Period</b>	<b>Role</b>	<b>Course</b>
1994 – current	Director	<i>Clinical Chemistry and Toxicology Review: A comprehensive course for pathology residents</i>
1994 – current	Contributor	Shands Jacksonville School of Medical Technology: Lectures in spectrophotometry, electrochemistry, immunochemistry, statistics, electrophoresis, proteins, lipids, tumor markers, toxicology, and therapeutic drug monitoring
1989 – 1993	Director	GMS 6312 <i>Clinical Chemistry and Toxicology</i> : Graduate course in the Department of Pathology and Laboratory Medicine
1989 – 1994	Director	GMS 6393 <i>Seminars in Clinical Chemistry and Toxicology</i> : Journal club in the Department of Pathology and Laboratory Medicine
1989 – 1992	Contributor	<i>Laboratory Medicine</i> : Section of the General Pathology course in the University of Florida College of Medicine
1990 – 1993	Contributor	VME 6602 <i>General Toxicology</i> : Graduate course in the University of Florida College of Veterinary Medicine
1992 – 1996	Contributer	CHM 6180 <i>Recent Advances in Mass Spectrometry</i> : Graduate course in the University of Florida Department of Chemistry;

**GRADUATE STUDENTS:**

<b>Name</b>	<b>Degree</b>	<b>Year</b>	<b>Thesis/Dissertation Title</b>
Nadia Lombardero	M.S.	1991	<i>Laboratory evaluation of intrauterine cocaine exposure and metabolism</i>
Monique Huggins	M.S.	1994	<i>Detection of aluminum in white blood cells by flow cytometry and graphite furnace atomic absorption</i>
Ruth Winecker	Ph.D.	1996	<i>Determination of cocaine and its metabolites in specimens of neonatal and maternal origin</i>

**SUPERVISORY COMMITTEES:**

<b>Name</b>	<b>Degree</b>	<b>Year</b>	<b>Department</b>
Krishna Vaddi	Ph.D.	1992	Department of Food Science and Human Nutrition (Interdisciplinary Toxicology Program)
Brad Coopersmith	Ph.D.	1994	Department of Chemistry
Diane Phillips	Ph.D.	1995	Department of Pharmaceutics (College of Pharmacy)
Mark Bowman	Ph.D.	1995	Department of Pathology and Laboratory Medicine (College of Medicine)
Laura Cole	Ph.D.	1995	Department of Chemistry
Tim Griffin	Ph.D.	1995	Department of Chemistry
Vinayak Srinivasan	Ph.D.	1995	Department of Pharmaceutics (College of Pharmacy)
Jeri Roper	Ph.D.	1998	Department of Pathology and Laboratory Medicine (Interdisciplinary Toxicology Program)
Gretchen Miller	M.S.	2000	Department of Pathology and Laboratory Medicine
Michele Merves	Ph.D.	2007	Department of Pathology and Laboratory Medicine (Interdisciplinary Toxicology Program)

**GRANTS AND CONTRACTS:**

<b>Period</b>	<b>Amount</b>	<b>Sponsor and Title</b>	<b>Role</b>
2007	\$11,000	Roche Diagnostics: <i>Performance evaluation of phenobarbital OnLine® TDM on Hitachi systems</i>	Principal Investigator
2005	\$5,000	University of Florida Health Science Center/Jacksonville Dean's Fund Grant: <i>Influence of aluminum on magnesium-dependent enzymes: A potential model for aluminum toxicity.</i>	Principal Investigator
2004	\$6,000	Roche Diagnostics: <i>Performance evaluation of Roche Preciset TDM 1 multianalyte calibrators on Hitachi systems</i>	Principal Investigator
2002 - 2004	\$17,000	Roche Diagnostics: <i>Performance evaluation of phenytion, carbamazepine, and phenobarbital OnLine® TDM on Hitachi systems</i>	Principal Investigator
2002	\$10,000	Roche Diagnostics: <i>Performance evaluation of gentamicin and theophylline OnLine® TDM on Hitachi systems</i>	Principal Investigator
2001	\$7,500	Roche Diagnostics: <i>Multi-center evaluation</i>	Principal

2000 - 2001	\$5,000	<i>of Roche acetaminophen on Hitachi systems</i> University of Florida Health Science Center/Jacksonville Deans Fund Grant: <i>Development of a GC/MS method for measuring cocaine and metabolites in placenta</i>	Investigator Principal Investigator
2000	\$5,964	Roche Diagnostics: <i>Multicenter study for the evaluation of the technical performance and clinical validity of CK/CKI-MB/LDH (IFCC) liquid reagents</i>	Principal Investigator
1997 - 1998	\$4,100	University of Florida Health Science Center/Jacksonville Deans Fund Grant: <i>Validation of modified drug of abuse immunoassays at sub-threshold concentrations of cocaine, opiates, and cannabinoids</i>	Principal Investigator
1995 – 1998	\$96,517	Pfizer U.S. Pharmaceuticals Group and University of Florida Health Science Center/Jacksonville: <i>Disseminated Candidiasis: Role of urinary candidal casts, serum antigens, and fungal prophylaxis</i>	Co-Investigator
1994	\$1,600	Boehringer Mannheim Corporation: <i>Reference Lot Protocol--Alcohol</i>	Principal Investigator
1994	\$55,352	Coulter Corporation: <i>Flow cytometric assessment of coronary endothelial damage as a marker of Acute Myocardial Infarction</i>	Co-Investigator
1994 – 1995	\$15,000	Division of Sponsored Research, University of Florida: Award #94022414: <i>Flow cytometric assessment of coronary endothelial damage as a marker of acute myocardial infarction</i>	Co-Investigator
1994 – 1995	\$269,125	N.I.H. National Institute on Drug Abuse: <i>Fetal cocaine metabolism and immunopharmacologic effect</i>	Co-Investigator
1992	\$10,000	Boehringer Mannheim Diagnostics: <i>Evaluation of the Accu-Chek Easy blood glucose monitor using venous samples</i>	Principal Investigator
1992	\$7,250	Beckman Instruments: <i>Measurement of Valproic Acid on the Array 360 clinical analyzer</i>	Principal Investigator
1991 – 1996	\$2,297,293	N.I.H. National Institute on Drug Abuse: <i>Project CARE (Cocaine Abuse in the Rural</i>	Laboratory Consultant



1990	\$7,800	<i>Environment</i> ); Award #R01 DA05854-01A2 PB Diagnostics: <i>Evaluation of the OPUS clinical analyzer</i>	Principal Investigator
1990 – 1991	\$1,000	Abbott Laboratories: <i>Urinary cotinine assay</i>	Principal Investigator
1990	\$6,293	Division of Sponsored Research, University of Florida: <i>Neonatal cocaine metabolism</i> (Graduate Assistantship on behalf of Nadia Lombardero-Tuttle)	Mentor
1989 – 1991	\$168,380	American Health Assistance Foundation: <i>Aluminum induced cytoskeletal changes in cultured neurons</i> ; Award #88102727	Principal Investigator
1988 – 1989	\$8,800	Division of Sponsored Research, University of Florida: <i>In vitro aluminum neurotoxicity</i> ; Award #88092819	Principal Investigator

**PEER-REVIEWED PUBLICATIONS:**

1. Bruns DE, Emerson JC, **Bertholf RL**, Hill KE, Savory J. Lactate dehydrogenase isoenzyme-1 with the centrifugal analyzer after immunochemical removal of other isoenzymes. *Clinical Chemistry* 1981;27:922-3.
2. Bruns DE, Emerson JC, Intemann S, **Bertholf R**, Hill KE, Savory J. Lactate dehydrogenase isoenzyme-1: Changes during the first day after acute myocardial infarction. *Clinical Chemistry* 1981;27:1821-3.
3. **Bertholf RL**, Renoe BW. The determination of bismuth in serum and urine by electrothermal atomic absorption spectrometry. *Analytica Chimica Acta* 1982;139:287-95.
4. **Bertholf RL**, Brown S, Renoe BW, Wills MR, Savory J. Improved determination of aluminum in serum by electrothermal atomic absorption spectrophotometry. *Clinical Chemistry* 1983;29:1087-9.
5. Smith BJ, Herold DA, Ross RM, Marquis FG, **Bertholf RL**, Ayers CR, Wills MR, Savory J. Measurement of plasma prostaglandin E<sub>2</sub> using capillary gas chromatography negative ion chemical ionization mass spectrometry. *Research Communications in Chemical Pathology and Pharmacology* 1983;40:73-86.
6. **Bertholf RL**, Roman JM, Brown S, Savory J, Wills MR. Aluminum hydroxide-induced osteomalacia, encephalopathy and hyperaluminemia in CAPD. Treatment with desferrioxamine. *Peritoneal Dialysis Bulletin* 1984;4:30-2.
7. Brown S, **Bertholf RL**, Wills MR, Savory J. Electrothermal atomic absorption spectrometric determination of aluminum in serum using a new protein precipitation technique. *Clinical Chemistry* 1984;30:1216-8.
8. **Bertholf RL**, Wills MR, Savory J. Quantitative study of aluminum binding to human serum albumin and transferrin by a chelex competitive binding assay. *Biochemical and Biophysical Research Communications* 1984;125:1020-4.
9. Wills MR, Brown S, **Bertholf RL**, Ross R, Savory J. Serum and lymphocyte aluminum and nickel in chronic renal failure. *Clinica Chimica Acta* 1985;145:193-6.
10. **Bertholf RL**, Wills MR, Savory J. Evaluation of equilibrium gel filtration chromatography for the study of protein binding of aluminum in normal and uremic sera. *Clinical Physiology and Biochemistry* 1985;3:271-6.
11. **Bertholf RL**, Savory J, Wills MR. Desferrioxamine decreases protein-bound aluminum in

serum. *Trace Elements in Medicine* 1986;3:157-60.

12. Brown S, Mendoza N, **Bertholf RL**, Ross R, Wills MR, Savory J. Absorption of aluminum from aceglutamide aluminum in healthy adult males. *Research Communications in Chemical Pathology and Pharmacology* 1986;53:105-16.
13. Savory J, **Bertholf RL**, Wills MR. Trace metals and degenerative diseases of the skeleton. *Acta Pharmacologica et Toxicologica (Copenh)* 1986;59(Suppl 7):282-8.
14. Martin RB, Savory J, Brown S, **Bertholf RL**, Wills MR. Transferrin binding of  $Al^{3+}$  and  $Fe^{3+}$ . *Clinical Chemistry* 1987;33:405-7.
15. **Bertholf RL**, Nicholson JRP, Wills MR, Savory J. Measurement of lipid peroxidation products in rabbit brain and organs (Response to aluminum exposure). *Annals of Clinical and Laboratory Science* 1987;17:418-23.
16. **Bertholf RL**, Winn-Deen ES, Bruns DE. Amylase in urine as measured by a single step chromolytic method. *Clinical Chemistry* 1988;34:754-7.
17. **Bertholf RL**, Savory MG, Winborne KS, Hundley JC, Plummer GM, Savory J. Lithium determined in serum with an ion selective electrode. *Clinical Chemistry* 1988;34:1500-2.
18. **Bertholf RL**, Herman MM, Savory J, Carpenter RM, Sturgill BC, Katsetos CD, Vandenberg SR, Wills MR. A long-term model of aluminum maltol toxicity in rabbits: Tissue distribution, hepatic, renal, and neuronal cytoskeletal changes associated with systemic exposure. *Toxicology and Applied Pharmacology* 1989;98:58-74.
19. Vandeputte D, Van Grieken RE, Jacob WA, Savory J, **Bertholf RL**, Wills MR. Ultrastructural localization of aluminium in liver of aluminium maltol-treated rabbits by laser microprobe mass analysis. *Biomedical and Environmental Mass Spectrometry* 1989;18:598-602.
20. Winter WE, **Bertholf RL**, Riley WJ, Maclaren NK, Obata M, Allen L. Hypercholesterolemia: A common problem in Florida school-age children and adolescents. *Annals of the New York Academy of Sciences* 1991;623:472-5.
21. **Bertholf RL**, Sapp LM, Pittman DL. Failure of beta-glucuronidases from *Patella vulgata* to hydrolyze exogenous morphine glucuronide. *Clinical Chemistry* 1991;37:759-60.
22. **Bertholf RL**, Bertholf MF, Brown CM, Riley WJ. Ionized calcium buffering in the transfused anhepatic patient: *Ab initio* calculations of calcium ion concentrations. *Annals of Clinical and Laboratory Science* 1992;22:40-50.

23. Winter WE, Weber J, Sleater J, **Bertholf RL**. The Relationship of T-Uptake and T<sub>4</sub> in Hypo- and Hyperthyroid Patients. *Clinical Chemistry* 1993;39:554.
24. Lombardero N, Casanova O, Behnke M, Eyler FD, **Bertholf RL**. Measurement of cocaine and metabolites in urine, meconium, and diapers by gas chromatography/mass spectrometry. *Annals of Clinical and Laboratory Science* 1993;23:385-94.
25. Pokorski TL, Chen WW, **Bertholf RL**. Use of urine cotinine to validate self-reports in U.S. Navy recruits. *Addictive Behaviors* 1994;19:451-4.
26. Casanova OQ, Lombardero N, Behnke M, Eyler FD, Conlon M, **Bertholf RL**. Detection of cocaine exposure in the neonate: Analyses of urine, meconium, and amniotic fluid from mothers and infants exposed to cocaine. *Archives of Pathology and Laboratory Medicine* 1994;118:988-93.
27. Phillips DR, Tebbett I, **Bertholf RL**. Comparison of HPLC and GC-MS for measurement of cocaine and metabolites in human urine. *Journal of Analytical Toxicology* 1996;20:305-8.
28. Winecker RE, Goldberger BA, Tebbett I, Behnke M, Eyler FD, Conlon M, Wobie K, Karlix J, **Bertholf RL**. Quantitative determination of cocaine and its metabolites in amniotic fluid and umbilical cord tissue. *Journal of Analytical Toxicology* 1997;21:1-8.
29. Hattab EM, Goldberger BA, Johannsen LM, Kindland PW, Ticino F, Chronister CW, **Bertholf RL**. Modification of screening immunoassays to detect sub-threshold concentrations of cocaine, cannabinoids, and opiates in urine: Use for detecting maternal and neonatal drug exposure. *Annals of Clinical and Laboratory Science* 2000;30(1):85-91.
30. Bennett AE, **Bertholf RL**. Discordant results of CK-MB and troponin I measurements: A review of 14 cases. *Annals of Clinical and Laboratory Science* 2000;30(2):167-74.
31. **Bertholf RL**. Protecting human research subjects. *Annals of Clinical and Laboratory Science* 2001;31(1):119-127.
32. Winecker RE, Goldberger BA, Tebbett IR, Behnke M, Eyler FD, Karlix JL, Wobie K, Conlon M, Phillips D, **Bertholf RL**. Detection of cocaine and metabolites in breast milk. *Journal of Forensic Science* 2001;46:1221-1223.
33. **Bertholf RL**, Johannsen L, Benrubi G. False elevation of serum CA-125 level caused by human anti-mouse antibodies. *Annals of Clinical and Laboratory Science* 2002;32(4):414 – 8.

34. **Bertholf RL**, Johannsen LM, Bazooband A, Mansouri, VF. False-positive acetaminophen results in a hyperbilirubinemic patient. *Clinical Chemistry* 2003;49(4):695-8.
35. **Bertholf RL**, Menes M. Interpreting unusual results of thyroid function tests. *Immunonotes: AACC Clinical and Diagnostic Immunology Newsletter* 2003;18(1):1-6.
36. Sanchez-Ramos L, Mentel C, **Bertholf R**, Kaunitz AM, Delke I, Loge C. Human chorionic gonadotropin assay of cervicovaginal secretions as a predictor of preterm delivery. *International Journal of Gynecology and Obstetrics* 2003;83:151-7.
37. **Bertholf RL**. Statistical Methods for Establishing and Validating Reference Intervals. *Laboratory Medicine* 2006;37:306-10.
38. Reisfield GM, **Bertholf RL**, Barkin RL, Webb FJ, Wilson GR. Physicians' interpretative knowledge of urine drug tests. *Journal of Opioid Management* 2007;3(2):80-8.
39. Reisfield GM, Salazar E, **Bertholf RL**. Rational use and interpretation of urine drug testing in chronic opioid therapy. *Annals of Clinical and Laboratory Science* 2007;37(4):301-14.
40. Watson ID, **Bertholf RL**, Hammett-Stabler C. Drugs and ethanol testing at the point of care. *Point of Care* 2007;6:227-30.
41. Reisfield GM, Webb FJ, **Bertholf, RL**, Sloan PA, Wilson GR. Family physicians' proficiency in urine drug test interpretation. *Journal of Opioid Management* 2007;3(6):333-7.
42. Reisfield GM, Haddad J, Wilson GR, Johannsen LM, Voorhees KL, Chronister CW, Goldberger BA, Peele JD, **Bertholf RL**. Failure of amoxicillin to produce false positive urine screens for cocaine metabolite. *Journal of Analytical Toxicology* 2008;32(4):315-8

**INVITED PAPERS AND CRITICAL REVIEWS:**

1. **Bertholf R.** Biochemical analysis of bismuth. *Clinical Chemistry News* 1982;6:14-5.
2. **Bertholf RL.** Arsenic. *Clinical Chemistry News* 1985;11:6-10.
3. Savory J, **Bertholf RL**, Wills MR. Aluminum toxicity in chronic renal insufficiency. *Clinics in Endocrinology and Metabolism* 1985;14:681-701.
4. Savory J, **Bertholf RL**, Boyd JC, Bruns DE, Felder RA, Shipe JR, Wills MR, Czaban JD, Coffey KF, O'Connell KM. Advances in clinical chemistry over the past 25 years. *Analytica Chimica Acta* 1986;180:99-135.
5. **Bertholf RL.** Aluminum and Alzheimer's disease: Perspectives for a cytoskeletal mechanism. *CRC Critical Reviews in Clinical Laboratory Science* 1987;25:195-210.
6. Savory J, Brown S, **Bertholf RL**, Mendoza N, Wills MR. Aluminum. *Methods in Enzymology* 1988;158:289-301.
7. **Bertholf RL**, Bertholf MF. HELLP Syndrome. *Clinical Chemistry News* 1989;9:18-9.
8. **Bertholf RL.** Confirmatory testing for drugs of abuse in urine by gas chromatography/mass spectrometry. *The Chemist* 1990;67:7-20.
9. **Bertholf RL**, Clark WJ. 6-Mercaptopurine. *Clinical Chemistry News* 1992;5:12-4.
10. **Bertholf RL.** From dipsticks to space stations. Point-of-care testing and the portable laboratory. *Jacksonville Medicine* 1996;47:253-5.
11. **Bertholf RL.** Drug of abuse testing in the workplace. *Jacksonville Medicine*, 1996;47:341-3.
12. **Bertholf RL**, Bowman MA. Microbeads, magnets, and magic: The enchanting science of immunochemistry. *Annals of Clinical and Laboratory Science* 1996;26:377-88.
13. **Bertholf RL.** Laboratory methods for detecting cocaine use during pregnancy. *The Chemist* 1997;74(2):17-20.
14. **Bertholf RL.** The expanding role of molecular biology in clinical chemistry. *Cell Vision - Journal of Analytical Morphology* 1998;5(1):67-69.
15. **Bertholf RL.** Neonatal drug testing. *Clinical and Forensic Toxicology News*. 1999;June 1.

## **BOOKS**

**Bertholf RL** and Winecker RE, editors. *Chromatographic Methods in Clinical Chemistry and Toxicology*. John Wiley & Sons, Ltd., West Sussex, 2007.

## BOOK CHAPTERS:

1. **Bertholf RL**, Wills MR, Savory J. Aluminum binding in plasma. In: Wills MR, Savory J, eds. Aluminum Analyses in Biological Materials. Charlottesville: University of Virginia Press, 1983:126-33.
2. Savory J, **Bertholf RL**, Wills MR. Speciation and fractionation of toxic metals in biological materials. In: Brown SS, Savory J, eds. Chemical Toxicology and Clinical Chemistry of Metals. London: Academic Press, 1983:183-98.
3. **Bertholf R**. Bismuth. In: Hicks JM, Parker KM, eds. Selected Analytes in Clinical Chemistry. Washington: American Association for Clinical Chemistry, 1984:67-9.
4. Herold DA, Ross RM, Marquis F, Redpath G, Facciolo-Arlinghaus A, Smith BJ, **Bertholf RL**, Ayers CR, Wills MR, Savory J. Measurement of plasma prostaglandin E<sub>2</sub> and F<sub>2α</sub> using capillary gas chromatography negative ion chemical ionization mass spectrometry. In: Sunderman FW, ed. Seminar on the Clinical Pathology of Reproductive Systems. Philadelphia: Institute for Clinical Science, Inc., 1984:203-11.
5. Savory J, Brown S, **Bertholf RL**, Ross R, Wills MR. Serum and lymphocyte nickel and aluminum concentrations in patients with extracorporeal hemodialysis. In: Brown SS, Sunderman Jr FW, eds. Progress in Nickel Toxicology. Proceedings of the Third International Conference on Nickel Metabolism and Toxicology. Paris, 1984:137-40.
6. Savory J, Brown S, **Bertholf RL**, Wills MR. Quantitative determination of aluminum. In: Taylor A, ed. Aluminum and other Trace Elements in Renal Disease. London: Bailliere Tindall, 1986:246-59.
7. **Bertholf RL**, Wills MR, Savory J. Aluminum. In: Seiler, HG, Sigel H, Sigel A, eds. Handbook on the Toxicity of Inorganic Compounds. New York: Marcel Dekker, Inc., 1988:55-64.
8. **Bertholf RL**. Zinc. In: Seiler, HG, Sigel H, Sigel A, eds. Handbook on the Toxicity of Inorganic Compounds. New York: Marcel Dekker, Inc., 1988:787-800.
9. Savory J, **Bertholf RL**, Wills MR. General aspects of toxicology. In: Seiler HG, Sigel H, Sigel A, eds. Handbook on the Toxicity of Inorganic Compounds. New York: Marcel Dekker, Inc., 1988:27-37.
10. Savory J, Brown S, **Bertholf RL**, Mendoza N, Wills MR. Aluminum. In: Riordan JF, Valle BL, eds. Methods in Enzymology, vol 158(A). San Diego: Academic Press, Inc., 1988:289-301.



11. **Bertholf RL**, Estilong AJ. Forensic and clinical toxicology applications of ion trap mass spectrometry. In: Sunderman FW, ed. Applied Seminar on Six Major Advances in Laboratory Medicine and Their Clinical Applications. Philadelphia: Institute for Clinical Sciences, Inc., 1991:197-231.
12. Schuster SM, Wylie DE, **Bertholf RL**, Soderholm KJ. Mercury specific monoclonal antibodies as an analytical reagent for measurement of both soluble mercury and potential anti-mercury antibodies. In M.-M. Galteau, G. Siest, and J. Henry, eds. *Biologie Prospective. Comptes rendus du 8X Colloque de Pont-B-Mousson*. John Libby Eurotext, Paris, 1993:371-6.
13. **Bertholf RL**. Gas Chromatography and Mass Spectrometry in Clinical Chemistry. In: Meyers RA, ed. Encyclopedia of Analytical Chemistry: Instrumentation and Applications. John Wiley & Sons Ltd., Chichester, 2000:1314-36.
14. **Bertholf RL**. Environmental and chemical toxicology. In Wu A, ed.: Tietz Clinical Guide to Laboratory Tests, 4<sup>th</sup> Edition. Saunders Elsevier, St. Louis, 2006.
15. **Bertholf RL**. Statistical methods for clinical laboratorians. In Clarke WA and Dufour, DR, eds.: Contemporary Practice in Clinical Chemistry. AACC Press, Washington, DC, 2006:23-37.
16. Watson ID, **Bertholf R**, Hammett-Stabler C, Nicholes B, Smith B, George S, Welch S, Verstraete A, Goldberger B. Drugs and Ethanol. In Nichols J, ed.: Laboratory Medicine Practice Guideline: Point of Care Testing. AACC Press, 2007.
17. **Bertholf RL**, Endres DB, Clarke W, Rhodes DG, Hawker CD, Christenson RH. Pre-analytical variation, methods development, calculations, statistics, and evidence-based medicine. In: Wu A, ed. "Self-Assessment in Clinical Laboratory Science II," AACC Press, Washington DC, 2008;1-43.

**PUBLISHED ABSTRACTS:**

1. Bruns D, Emerson J, Intemann S, Hill K. **Bertholf, R**, Savory J. Immunochemical assay of lactate dehydrogenase isoenzyme-1: Application to the early diagnosis of acute myocardial infarction. *Journal of Clinical Chemistry and Clinical Biochemistry* 1981;19:628.
2. **Bertholf RL**, Renoe B, Wills MR, Savory J. Evaluation of a potential reference method for serum aluminum using electrothermal atomic absorption spectrometry. *Clinical Chemistry* 1982;28:1590.
3. **Bertholf RL**, Wills MR, Savory J. Ultrafiltrable and dialyzable aluminum in normal and uremic serum. *Clinical Chemistry* 1984;30:972.
4. Brown S, **Bertholf R**, Wills MR, Savory J. Measurement of aluminum in serum utilizing a protein precipitation technique and electrothermal atomic absorption spectrometry. *Clinical Chemistry* 1984;30:972-3.
5. Savory J, Brown S, **Bertholf RL**, Ross R, Savory G, Wills MR. Serum and lymphocyte nickel and aluminum concentrations in patients with extracorporeal hemodialysis. *Annals of Clinical and Laboratory Science* 1984;14:413-4.
6. **Bertholf RL**, Brown S, Mendoza N, Bruns DE, Wills MR, Savory J. Competitive binding assay of aluminum binding to serum proteins. *Clinical Chemistry* 1985;31:992.
7. Brown S, Mendoza N, **Bertholf RL**, Ross R, Wills MR, Savory J. Absorption of aluminum aceglutamide in normal subjects. *Trace Elements in Medicine* 1985;2:107-8.
8. **Bertholf RL**, Brown S, Wills MR, Savory J. Aluminum binding to proteins and small molecules in the serum of Alzheimer's disease patients. *Alzheimer's and Related Diseases: State of the Art in Research. Proceedings of a conference in Richmond, Virginia, March 11, 1985.*
9. **Bertholf RL**, Herman MM, Sturgill BC, Katsetos CD, VandenBerg SR, Carpenter RM, Savory J, Wills MR. Toxicity of intravenous aluminum maltol in young adult male rabbits. *Journal of Neuropathology and Experimental Neurology* 1988;47:360.
10. **Bertholf RL**, Savory MG, Winborne KH, Hundley JC, Savory J, Plummer GM. Evaluation of the lithium ion-selective electrode on a DuPont Na/K/Li analyzer. *Clinical Chemistry* 1988;34:1170.
11. Vandeputte D, Savory J, Van Grieken RE, Jacob WA, **Bertholf RL**, Wills MR. Detection of aluminum deposits in liver of rabbits treated with aluminum maltol. In: *Abstract papers of*

*the Seventh International Symposium on Mass Spectrometry in the Life Sciences*, Ghent, Belgium August, 1988.

12. Winter WE, **Bertholf RL**, Riley WJ, Maclaren NK, Allen L. Screening for pediatric hypercholesterolemia in Florida: A study of 3249 school age children and adolescents. *Clinical Chemistry* 1990;36:957-8.
13. Lombardero-Tuttle N, Casanova O, Behnke M, Eyler FD, **Bertholf RL**. Comparison of specimens for GC/MS detection of prenatal cocaine exposure. *Clinical Chemistry* 1992;38:960.
14. Casanova OQ, Lombardero-Tuttle N, Eyler FD, **Bertholf RL**, Behnke M. Comparison of drug history to maternal urine, infant's urine, and meconium for prenatal cocaine exposure. *Pediatric Research* 1992;31:243A.
15. **Bertholf RL**, Huggins M, Tennyson D, Lizer D, Hayden B. Immunoinhibition rate nephelometric measurement of valproic acid on Beckman's Array™ 360 System: Comparison to fluorescence polarization immunoassay. *Clinical Chemistry* 1993;39:1243.
16. Nichols J, **Bertholf R**, Hemphill G, McLawhon R, White R, Dorn A, Hurt C, Akers C, Ganser E, Robbins D, Foster-Swanson A. Multi-site evaluation of Boehringer Mannheim liquid-stable enzymatic ethanol reagent. *Clinical Chemistry* 1995;41:S125.
17. Winecker RE, Tebbett I, Goldberger BA, **Bertholf RL**. Utility of maternal hair for determining prenatal cocaine exposure. *Clinical Chemistry* 1996;42:S222.
18. **Bertholf RL**, Picklesimer FL, Jr., Kindland PW, Johannsen LM. Use of lower threshold concentrations of cocaine metabolite, cannabinoids, and opiates to enhance the clinical sensitivity of CEDIA drug of abuse assays for neonatal drug screening. *Clinical Chemistry* 1997;43:S202.
19. **Bertholf RL**. Soluble chemical markers of gastrointestinal and pancreatic tumors. *Annals of Clinical and Laboratory Science* 1997;27:444.
20. **Bertholf RL**, Bennett AE. Discordant results of CK-MB and troponin I measurements: A review of fourteen cases. *Annals of Clinical and Laboratory Science* 1999;29:231-2.
21. **Bertholf RL**. Application of molecular imprinting technology to immunoassays. *Annals of Clinical and Laboratory Science* 2000;30:117.
22. **Bertholf RL**, Johannsen L, Huang W, Mansouri V. Erroneous detection of acetaminophen in hyperbilirubinemic specimens. *Annals of Clinical and Laboratory Science* 2001;31:314-5.

23. **Bertholf RL**, Johannsen L, Coffing MJ. Performance and correlation studies of Roche Diagnostics LDH IFCC liquid, CK NAC liquid, and Immune-inhibited CK-MB liquid reagents. *Clinical Chemistry* 2001;47:A35.
24. Klein G, Berger A, **Bertholf R**, Braun S, Brockett M, Cottenceau D, Junge W, Luthe H, Treskes M. Multicenter evaluation of liquid reagents for CK, CK-MB and LDH with determination of reference intervals on Hitachi systems. *Clinical Chemistry* 2001;47:A30.
25. **Bertholf RL**. Case studies in human research ethics. *Clinical Chemistry* 2001;47:S14.
26. Otero CL, **Bertholf RL**. Correlation of surfactant/albumin (FLM II) and Lecithin Sphingomyelin (L/S) ratios at near-threshold values for determining fetal lung maturity. *American Journal of Clinical Pathology* 2001;116:589.
27. **Bertholf RL**, Johannsen L. Falsely elevated CA-125 in a patient with low HAMA concentration. *Clinical Chemistry* 2002;48(6) Supplement:A15.
28. Hon K, **Bertholf R**, Cobbaert CM, Engelmayer J, Johannsen L, LeGatt DF, Luthe H, Oellerich M, Domke I. Multicenter evaluation of acetaminophen on Roche/Hitachi analyzers. *Clinical Chemistry* 2002;48(6) Supplement:A141.
29. **Bertholf RL**. Susceptibility of immunoassays to interference from human anti-animal antibodies: How common a problem? *Annals of Clinical and Laboratory Science* 2002;32(3):318.
30. Sanchez-Ramos L, Mentel C, **Bertholf R**, Loge C, Delke I, Kaunitz AM. Quantitative  $\beta$ -hCG levels from cervico-vaginal secretions for predicting preterm birth in symptomatic patients. *American Journal of Obstetrics and Gynecology* 2002;187(6):s125.
31. Sanchez-Ramos L, Mentel C, Loge C, Kaunitz AM, **Bertholf R**, Delke I. Rapid hCG testing in cervico-vaginal secretions as a predictor of preterm birth in symptomatic patients. *Obstetrics and Gynecology* 2003;101(4):79S.
32. **Bertholf RL**, Johannsen L, Coffing MJ, Domke I, Engelmayer J, Flexer J, Lije D, Luthe H, Minon J-M, Oellerich M, Wustemberger M. Theophylline measured by kinetic interaction of microparticles in solution (KIMS) homogeneous immunoassay. *Clinical Chemistry* 2003;49(6):A124.
33. Lilje D, Flexer J, **Bertholf RL**, Coffing MJ, Domke I, Engelmayer J, Johannsen L, Luthe H, Minon J-M, Oellerich M, Wuertemberger M. Multicenter evaluation of Roche gentamicin OnLine® TDM on Hitachi systems. *Clinical Chemistry* 2003;49(6):A121.

34. **Bertholf RL**, Perry S, Wears RL. Anatomy of a laboratory error. *Annals of Clinical and Laboratory Science* 2003;33(3):360.
35. Roeddinger R, Luthe H, Rhode KH, Oellerich M, **Bertholf RL**, Johannsen L, Verstraete A, De Vleeschauwer A, De Bel A, Kroll M, Coffing MJ, Sauter H, Roeddiger R. Multicenter evaluation of the new Roche Carbamazepine OnLine TDM assay developed for use on Roche Diagnostics/Hitachi analyzer systems. *Clinical Chemistry* 2004;50(6):A128.
36. **Bertholf R**, Johannsen L, Verstraete A, DeBel A, Jones J, Sargent D, Luthe H, Oellerich M, Rhode KH, Roeddiger R, Sauter H, Coffing MJ. Phenytoin measured by kinetic interaction of microparticles in solution (KIMS) homogeneous immunoassay: Evaluation of the Roche OnLine TDM method in four hospital laboratories. *Clinical Chemistry* 2004;50(6):A133-4.
37. **Bertholf RL**, Huggins YM. Flow cytometric measurement of aluminum chloride, citrate, and maltolate uptake by leucocytes. *Annals of Clinical and Laboratory Science*. 2004;34(3):360.
38. **Bertholf RL**, Thompson O. A systematic approach to reducing specimen misidentification errors in the clinical laboratory. *Annals of Clinical and Laboratory Science*. 2004;34(3):368.
39. **Bertholf RL**. Medical errors: Finding the cause. *Annals of Clinical and Laboratory Science*. 2005;35(2):211.
40. **Bertholf RL**, Reisfield GM. Assessment of physicians' ability to interpret urine drug screening test results. *Annals of Clinical and Laboratory Science* 2007;37:201.
41. **Bertholf RL**, Reisfield GM. Cocaine metabolite assay results in patients taking amoxicillin: Is there interference? *Annals of Clinical and Laboratory Science* 2008;38(2):187-8.
42. **Bertholf R**, Luthe H, Verstraete A, Johannsen L, Johnson K, Rhode K, Boussey L, Coppens A, Coffing M J, Roeddiger R, Beck C. Multicenter Performance Evaluation of the Roche Phenobarbital ONLINE® TDM on Hitachi and Cobas Systems. *Clinical Chemistry* 2008;54(S6):A17.

#### UNPUBLISHED PRESENTATIONS:

1. **Bertholf RL**, Wills MR, Savory J. Aluminum binding in plasma. Presented at the Conference on Aluminum Analysis in Biological Materials, held in Charlottesville, VA, June 29-30, 1983.
2. **Bertholf RL**, Savory J, Brown S, Wills MR. Aluminum binding to plasma proteins in patients with dialysis encephalopathy and Alzheimer's disease. Presented at the Virginia Symposium on Research in Dementia and Related Diseases held in Norfolk, Virginia, May 18, 1984. (Presented by Dr. Savory).
3. **Bertholf RL**, Wills MR, Savory J. The effect of desferrioxamine on serum protein binding of aluminum. Presented to the Virginia Chapter of the National Kidney Foundation Annual Scientific Session held in Charlottesville, VA, November 3, 1984.
4. **Bertholf RL**, Wills MR, Savory J. Quantitative study of aluminum binding to human serum albumin and transferrin by a chelex competitive binding assay. Presented at the 7th Annual Instrumentation Symposium sponsored by the Capital Section of the AACC, held in Columbia, MD, December 5, 1984.
5. **Bertholf RL**. Aluminum and Alzheimer's disease. A historical and experimental perspective. Presented to the University of Virginia Department of Pathology, January 29, 1985.
6. **Bertholf RL**. Chemical and histological aspects of aluminum neurotoxicity in vivo and in vitro. Prospects for a model of Alzheimer's neuropathology. Presented to the University of Virginia Department of Pathology, June 2, 1987.
7. **Bertholf RL**. Clinical and experimental aspects of aluminum toxicity. Presented to the medical staff of the Veteran's Administration Hospital, Salem, VA, April 4, 1988.
8. Winter WE, **Bertholf RL**, Riley WJ, Maclaren NK, Obata M, Allen L. Hypercholesterolemia: A common problem in Florida school age children and adolescents. Presented at The NY Academy of Science Conference on Hyperlipidemia in Childhood and the Development of Atherosclerosis, held in Bethesda, MD, May 2-4, 1990. (Presented by Dr. Winter)
9. **Bertholf RL**. Drug Assay Equipment. Presented for the "Applying Clinical Pharmacokinetics" workshop, sponsored by Shands Hospital Department of Pharmacy Services, held in Gainesville, FL, May 20-24, 1991.
10. **Bertholf RL**. Confirming drugs of abuse by mass spectrometry. Presented at the 1992 Joint Annual Conference of Medical Laboratory Organizations, held in Altamonte Springs, FL,

February 26-29, 1992.

11. **Bertholf RL**, Lombardero N, Casanova O, Eyley FD, Behnke M. Laboratory detection of prenatal cocaine exposure. Presented at the 1994 Joint Annual Meeting of American Chemical Society Sections in Florida, held in Orlando, FL, May 5, 1994.
12. Phillips DL, Tebbett IR, **Bertholf RL**. Analysis of cocaine and metabolites by HPLC versus GC/MS. Presented at the 208th Annual meeting of the American Chemical Society (Division of Analytical Chemistry), August 21, 1994. (Presented by Diane Phillips)
13. **Bertholf RL**. Review of automated immunochemistry. Presented at the Oregon Spring Seminar, held in Eugene, Oregon, May 4, 1996.
14. **Bertholf RL**. The expanding role of molecular biology in clinical chemistry. Presented at The 5<sup>th</sup> International Conference on Molecular Morphology and Molecular Biology in Diagnostic and Prognostic Pathology in Immunocytochemistry in Jacksonville, FL, October 5, 1997.
15. **Bertholf RL**. Laboratory aspects of workplace drug testing. Presented at the Southern Reference Laboratories Seminar on workplace drug testing, in Jacksonville, FL, May 22, 1998.
16. **Bertholf RL**. Using drug of abuse screening immunoassays at sub-threshold concentrations: Ways to improve the clinical sensitivity of non-forensic urine drug testing. Roundtable presented at the American Association for Clinical Chemistry 50<sup>th</sup> Annual Meeting in Chicago, IL, August 3, 1998.
17. **Bertholf RL**, Goldberger BA, Johannsen LM, Chronister CW, Hattab E. Use of CEDIA screening methods for cocaine metabolite, cannabinoids, and opiates at sub-threshold concentrations: Improved sensitivity in clinical applications. Presented at the American Academy of Forensic Sciences 1999 Annual meeting in Orlando, FL, February 19, 1999.
18. Hattab EM, **Bertholf RL**, Goldberger BA, Chronister CW, Johannsen LM, Kindland PW, Ticino F. Modification of screening immunoassays to detect sub-threshold concentrations of cocaine, cannabinoids, and opiates in urine: Use for detecting maternal and neonatal drug exposure. Presented at the University of Florida Health Science Center Jacksonville Research Day 1999, in Jacksonville, FL, May 14, 1999. (Presented by Dr. Hattab)
19. **Bertholf RL**, Bennett AE. Discordant results of CK-MB and troponin I measurements: A review of fourteen cases. Presented at the University of Florida Health Science Center Jacksonville Research Day 1999, in Jacksonville, FL, May 14, 1999. (Presented by Dr. Bennett)

20. **Bertholf RL**. Laboratory methods for detection of prenatal exposure to cocaine. American Society of Clinical Pathologists Teleconference presented on October 12, 2000.
21. **Bertholf RL**. Automated heterogeneous and homogeneous immunoassays: A review of current technology. American Society of Clinical Pathologists Teleconference presented on March 22, 2001.
22. Otero CL, **Bertholf RL**. Correlation of surfactant/albumin (FLM II) and Lecithin Sphingomyelin (L/S) ratios at near-threshold values for determining fetal lung maturity. Presented at the University of Florida College of Medicine Jacksonville Research Day, May 23, 2001. (Presented by Dr. Otero)
23. Mansouri VC, **Bertholf RL**, Johannsen L, Huang W. Hyperbilirubinemia interferes with quantification of acetaminophen levels. Presented at the University of Florida College of Medicine Jacksonville Research Day, May 23, 2001. (Presented by Dr. Mansouri)
24. **Bertholf RL**. Applications of immunochemical methods in the clinical laboratory. Keynote address at James Madison University Spring Research Symposium, April 12, 2002.
25. Hsieh E, Sanchez-Ramos L, Otero C, **Bertholf R**. Can the maturity threshold for the TDx-FLM II test be safely lowered? Poster presentation at the UFHSC/Jacksonville Research Day, May, 2002. (Presented by Dr. Hsieh)
26. Mentel C, Sanchez-Ramos L, **Bertholf R**, Loge C, Delke I, Kaunitz A. Quantitative hCG levels from cervico-vaginal secretions for predicting preterm birth in symptomatic patients. Platform presentation at the UFHSC/J research day, April 9, 2003. (Presented by Dr. Mentel)
27. Luthe,H, **Bertholf RL**, Coffing MJ, Domke I, Engelmayer J, Flexer J, Hohannsen L, Lilje D, Minon JM, Oellerich M. Multicenter evaluation of new OnLine<sup>®</sup> TDM assays for determination of gentamicin and theophylline on Roche/Hitachi systems. Poster presentation at the 15<sup>th</sup> European Congress of Clinical Chemistry and Laboratory Medicine in Barcelona, Spain, June 1-5, 2003. (Presented by Dr. Luthe)
28. Röddiger R, Luthe H, Rhode K, Oellerich M, **Bertholf R**, Verstraete A, De Bel A, Jones J, Coffing MJ, Sauter H. Multicenter evaluation of the new Roche phenytoin OnLine<sup>®</sup> TDM assay developed for use on RD/Hitachi analyzer systems. Poster presentation at the 15<sup>th</sup> European Congress of Clinical Chemistry and Laboratory Medicine in Barcelona, Spain, June 1-5, 2003. (Presented by Dr. Röddiger)
29. **Bertholf RL**, Nelson D. Protecting human research subjects: A review and case studies. Edutrak session presented at the American Association for Clinical Chemistry Annual



Meeting in Philadelphia, PA, July, 23, 2003.

30. **Bertholf RL.** Florida laws and rules governing clinical laboratory personnel. Presented at the Joint CLMA-AACC Clinical Laboratory Symposium in St. Petersburg FL, October 7, 2004.
31. **Bertholf RL.** The emerging role of cardiac markers in emergency medicine. Presented at the First Coast Point of Care Group meeting at St. Luke's Hospital, Jacksonville, FL November 5, 2004.
32. **Bertholf RL.** Medical Errors: Causes and Prevention. Presented at the Jacksonville Area Microbiology Society meeting at Shands Jacksonville Hospital, January 11, 2005.
33. **Bertholf RL.** Medical Errors: Causes and Prevention. Presented at the Transfusion Services Supervisors meeting at Florida Georgia Blood Alliance, Jacksonville FL, June 1, 2005.
34. **Bertholf RL.** Florida laws and rules governing clinical laboratory personnel. Presented at the Jacksonville Area Microbiology Society meeting at St. Luke's Hospital, Jacksonville, FL, November 1, 2005.
35. **Bertholf RL.** Medical Errors: Causes and Prevention. Presented at Baptist Health, Jacksonville FL, December 13, 2005 and January 17, 2006.
36. **Bertholf RL.** Prognostic value of troponin T and B-type natriuretic peptide in acute coronary syndrome. Pathology Grand Rounds, University of Florida Health Science Center/Jacksonville, March 24, 2006.
37. **Bertholf RL.** Medical Errors: Causes and Prevention. Presented to the Jacksonville Area Microbiology Society meeting Memorial Hospital, Jacksonville FL, January 9, 2007.
38. **Bertholf RL.** Medical Errors: Causes and Prevention. Presented at St. Vincent's Hospital, Jacksonville FL, February 13 and March 13, 2007.
39. **Bertholf RL.** The decentralized laboratory: Laws and regulations relating to point of care testing. Presented at the Department of Anesthesiology Morning Conference M&M QA, May 30, 2007.
40. **Bertholf RL.** State and federal regulation of clinical laboratories in the United States. Presented at Children's Hospital in St. Petersburg, Russia, September 4, 2007.
41. Reisfield GM, Sloan PA, **Bertholf RL**, Webb FJ, Wilson GR. Urine drug test interpretation: What do family medicine physicians know? Presented at the 3rd Symposium on Addictive & Health Behaviors Research at Amelia Island Plantation, FL, September 24-25, 2007.

(Presented by Dr. Reisfield)

42. **Bertholf RL.** Florida laws and rules governing clinical laboratory personnel. Presented at Mayo Clinic, Jacksonville, FL, November 27, 2007.
43. **Bertholf RL.** Florida laws and rules governing clinical laboratory personnel. Presented at the Jacksonville Area Microbiology Society meeting at Memorial Hospital, Jacksonville, FL, January 8, 2008.
44. **Bertholf RL.** Florida laws and rules governing clinical laboratory personnel. Presented at Magnolia Educational Treasures Seminar (sponsored by the Southeastern state societies of American Medical Technologists and the Florida Coalition of Laboratory Professional Organizations), Panama City Beach, FL, February 22, 2008.
45. **Bertholf RL.** Florida laws and rules governing clinical laboratory personnel. Presented at St. Vincent's Hospital, Jacksonville, FL, April 8, 2008.
46. **Bertholf RL.** Creating Practice Standards on the use of Urine Drug monitoring in clinical practice. Presented at the Tufts Health Care Institute Program on Opioid Risk Management: The role of urine drug monitoring and other biofluid assays in pain management. June 26, 2008.
47. **Bertholf RL.** Measuring free thyroxine: Challenges and controversies. Presented at the University of Florida Health Science Center/Jacksonville Department of Medicine Research Conference, September 19, 2008.

## WORKSHOPS FOR NATIONAL ORGANIZATIONS:

1. Shipe JR, **Bertholf RL**, Taylor HE. GC/MS data systems for qualitative and quantitative analysis of drugs. Presented at the 3rd International Congress of Therapeutic Drug Monitoring and Clinical Toxicology, Philadelphia PA, May 26, 1993.
2. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Columbus OH, November 3, 1993.
3. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Chicago IL, May 11, 1994.
4. Winter WE, **Bertholf RL**. Autoimmune endocrinopathies. Presented at the American Association for Clinical Chemistry Annual Meeting, in New Orleans LA, July 18, 1994.
5. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Washington DC, May 24, 1995.
6. Winter WE, **Bertholf RL**. Autoimmune endocrinopathies. Presented at the American Association for Clinical Chemistry 47<sup>th</sup> Annual meeting in Anaheim, CA, July 17, 1995.
7. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in San Antonio TX, November 29, 1995.
8. **Bertholf RL**. Statistics in the clinical laboratory: Keys to understanding. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Anaheim CA, February 17, 1996.
9. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in San Francisco CA, March 27, 1996.
10. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Secaucus NJ, March 14, 1997.
11. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical chemistry laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical

Technology in Orange CA, May 5, 1997.

12. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Cleveland OH, September 10, 1998.
13. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical laboratory. Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Charlotte NC, October 29, 1998.
14. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical laboratory. Presented at American Society of Clinical Pathologists Workshop Week in Medical Technology in San Francisco CA, March 1, 1999.
15. **Bertholf RL**, Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry. Presented at the American Society of Clinical Pathologists Workshop Week for Medical Technology in Philadelphia PA, October 12, 1999.
16. **Bertholf RL**, Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Atlanta GA, September 27, 2000.
17. **Bertholf RL**. Practical applications of statistical methods in the clinical laboratory. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in San Antonio TX, November 29, 2000.
18. **Bertholf RL**, Bowman MA. Immunochemical methods in the clinical laboratory. Presented at American Society of Clinical Pathologists Workshop Week in Medical Technology, in Anaheim CA, April 8, 2002.
19. **Bertholf RL**. Practical applications of statistical methods in the clinical laboratory. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Anaheim CA, April 9, 2002.
20. **Bertholf RL**. Create more powerful presentations. [Workshop] Presented at the American Association for Clinical Chemistry Annual Meeting in Orlando FL, July 29, 2002.
21. **Bertholf RL**, Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry [Workshop]. Presented at the American Society of Clinical Pathologists Workshop Week for Medical Technology in Minneapolis MN, September 25, 2002.

22. **Bertholf RL.** Practical applications of statistical methods in the clinical laboratory [Workshop]. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Minneapolis MN, September 26, 2002.
23. **Bertholf RL,** Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry. Part 1 [Workshop]. Presented at the American Society of Clinical Pathologists Workshop Week for Medical Technology in Chicago IL, April 23, 2003.
24. **Bertholf RL,** Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry. Part 2 [Workshop]. Presented at the American Society of Clinical Pathologists Workshop Week for Medical Technology in Chicago IL, April 24, 2003.
25. **Bertholf RL.** Create more powerful presentations. [Workshop] Presented at the American Association for Clinical Chemistry Annual Meeting in Philadelphia PA, July 22, 2003.
26. **Bertholf RL,** Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry. Part 1. [Workshop] Presented at the American Society of Clinical Pathologists Workshop Week for Medical Technology in San Francisco CA, April 22, 2004.
27. **Bertholf RL,** Bowman MA. Interpreting Laboratory Tests—A case-oriented review of clinical chemistry. Part 2. [Workshop] Presented at the American Society of Clinical Pathologists Workshop Week for Medical Technology in San Francisco CA, April 23, 2004.
28. **Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] To be presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Baltimore MD, May 4, 2004.
29. **Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in San Francisco CA, April 7, 2005.
30. **Bertholf RL,** Bowman MA. Immunochemical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshop Week in Medical Technology in Baltimore MD, May 4, 2005.
31. **Bertholf RL.** Laboratory statistics. [Review] Presented at Professional Practice in Clinical Chemistry: A Review and Update, sponsored by the American Association for Clinical Chemistry, in Alexandria VA, May 15, 2005.
32. **Bertholf RL.** Chromatography and Ion Selective Electrodes. [Review] Presented at Professional Practice in Clinical Chemistry: A Review and Update, sponsored by the American Association for Clinical Chemistry, in Alexandria VA, May 16, 2005.

- 33. Bertholf RL.** Immunoassay. [Review] Presented at Professional Practice in Clinical Chemistry: A Review and Update, sponsored by the American Association for Clinical Chemistry, in Alexandria VA, May 16, 2005.
- 34. Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Chicago IL, May 26, 2005.
- 35. Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Kansas City MO, September 21, 2005.
- 36. Bertholf RL, Bowman MA.** Interpreting Laboratory Tests—A case-oriented review of clinical chemistry [Workshop]. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Indianapolis, IN, September 21, 2006.
- 37. Bertholf RL, Bowman MA.** Interpreting Laboratory Tests—A case-oriented review of clinical chemistry [Workshop]. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Phoenix, AZ, November 9, 2006.
- 38. Bertholf RL, Bowman MA.** Immunochemical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in San Francisco, CA, March 8, 2007.
- 39. Bertholf RL.** Laboratory statistics. [Review] Presented at Professional Practice in Clinical Chemistry: A Review and Update, Washington, DC, April 22, 2007.
- 40. Bertholf RL.** Pre-analytical variation. [Review] Presented at Professional Practice in Clinical Chemistry: A Review and Update, Washington, DC, April 22, 2007.
- 41. Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Secaucus, NJ, May 15, 2007.
- 42. Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Springfield, MA, October 30, 2007.
- 43. Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Phoenix, AZ, November 9, 2007.

- 44. Bertholf RL.** Measuring free thyroxine. In Winter WE, moderator: Controversies in thyroid function testing and interpretation: FT4, TSH, pregnancy, and MCT8. [Workshop] Presented at the American Association for Clinical Chemistry annual meeting in Washington DC, July 30, 2008.
  
- 45. Bertholf RL, Bowman MA.** Immunochemical methods in the clinical laboratory. [Workshop] Presented at the American Society for Clinical Laboratory Science annual meeting in Washington DC, July 29, 2008.
  
- 46. Bertholf RL.** Practical applications of statistical methods in the clinical laboratory. [Workshop] Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Atlanta GA, October 2, 2008.
  
- 47. Bertholf RL, Bowman MA.** Interpreting Laboratory Tests—A case-oriented review of clinical chemistry [Workshop]. Presented at the American Society of Clinical Pathologists Workshops for Laboratory Professionals in Dallas, TX, October 30, 2008.

## BOOK REVIEWS, EDITORIALS, AND MISCELLANEOUS

1. **Bertholf RL.** Clinical Analyses of Bismuth: Analytical Considerations for Furnace Atomic Absorption Spectrometry [Thesis]. Charlottesville, VA: University of Virginia, 1981:78pp.
2. **Bertholf RL.** Aluminum Binding to Plasma Proteins: A Study of the Speciation of Aluminum in the Sera of Healthy, Uremic, and Alzheimer's Diseased Individuals [Dissertation]. Charlottesville, VA: University of Virginia, 1985:173pp.
3. **Bertholf RL.** Review of "Therapeutic drug monitoring and toxicology by liquid chromatography," Wong SHY, ed. [Book Review]. *Clinical Chemistry* 1985;31:1255.
4. **Bertholf RL.** Essential and toxic metals [Quiz of the Month]. *Clinical Chemistry News* 1985;11:20.
5. **Bertholf RL, Savory J.** Aluminum toxicity in chronic renal failure: Treatment with desferrioxamine [Case Study]. *ASCP Check Sample Clinical Chemistry* 1986;26:4.
6. **Bertholf RL.** Certification [Letter]. *Clinical Chemistry News* 1990;4:4.
7. **Bertholf RL.** Review of *Protein Structure. New approaches to disease and therapy*, by Max Perutz. [Book review] *The Chemist* 1994;71(2):7.
8. **Bertholf RL.** Review of *Bound Carbohydrates in Nature*, by Leonard Warren [Book review]. *The Chemist* 1995;72:15.
9. **Bertholf R.** Flawed assumptions [Letter]. *Roundel*, June 1999.
10. **Bertholf RL.** Explaining kinetics [Letter]. *Laboratory Medicine* 2000;1:5.
11. **Bertholf RL.** Y2K effort too costly [Letter]. *The Florida Times-Union* January 14, 2000.
12. **Bertholf RL.** Biochemistry, professional ethics, and the legacy of Linus Pauling [Editorial]. *The Chemist* 2000;77(5):2.
13. **Bertholf RL.** Review of *Introduction to Biochemical Toxicology*. [Book review] *The Chemist* 2001;78:19.
14. **Bertholf RL.** Drug Testing: High standards upheld [Letter]. *The Florida Times-Union* December 5, 2001.
15. **Bertholf RL, Goodison S.** Television viewing and attention deficits in children. [Letter]



*Pediatrics* 2004;114(2):511-2.

- 16. Bertholf RL.** You gotta pass to score. Guest editorial for jaguars.com  
<http://www.jaguars.com/story/4446.asp>. July, 2005.
- 17. Reisfield GM, Bertholf RL, Wilson GR.** Opiates and opioids: What a difference a name makes. *Journal of Opioid Management* 2007;3(4):179-80 [Editorial].
- 18. Bertholf RL.** Report on the Association's Field Trip to St. Petersburg, Russia, in September 2007. *Clinical Science Trumpet: Newsletter of the Association of Clinical Scientists* 2007;27(3):1-2.
- 19. Reisfield GM, Bertholf RL.** "Practical guide" to urine drug screening clarified. *Mayo Clinic Proceedings* 2008;83:848-9 [Letter].

**IN PRESS, SUBMITTED, OR IN PREPARATION:**

1. **Bertholf RL.** Laboratory statistics and quality control [Review]. To be presented at the Professional Practice in Clinical Chemistry: Review and Update, in Alexandria VA, April 19, 2009.
2. **Bertholf RL.** Pre-analytical variation [Review]. To be presented at the Professional Practice in Clinical Chemistry: Review and Update, in Alexandria VA, April 19, 2009.
3. **Bertholf RL.** Classic poisonings. [Review]. To be presented at the Professional Practice in Clinical Chemistry: Review and Update, in Alexandria VA, April 20, 2009.
4. **Bertholf RL.** Thyroid [Review]. To be presented at the Professional Practice in Clinical Chemistry: Review and Update, in Alexandria VA, April 21, 2009.
5. Reisfield GM, Chronister CW, Goldberger BA, **Bertholf RL.** Unexpected urine drug monitoring results in a hospice patient on high dose morphine therapy. *Clinical Chemistry* [In press]
6. **Bertholf RL** and Reisfield GM. Minor metabolic products of opiate metabolism: potential for misinterpretation of urine drug testing results. Accepted for presentation at the Association of Clinical Scientists Annual Meeting in Tampa, FL, May 13 – 17, 2009.
7. **Bertholf RL.** Measuring free thyroxine. In: Controversies in thyroid function testing and interpretation: FT4, TSH, pregnancy, and MCT8. [Workshop] Accepted for presentation at the American Association for Clinical Chemistry annual meeting in Chicago IL, July 20, 2009.
8. **Bertholf RL.** Urine drug testing in pain management: Challenges and opportunities. [Roundtable] Accepted for presentation at the American Association for Clinical Chemistry annual meeting in Chicago IL, July 22, 2009.

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