

**EMORY UNIVERSITY SCHOOL OF MEDICINE  
CURRICULUM VITAE**



Revised:09-01-2010

1. **NAME: Corinne Renee Fantz, Ph.D.**

2. **OFFICE ADDRESS:**

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4. **CITIZENSHIP:** U.S.A.

5. **CURRENT TITLES AND AFFILIATIONS:**

**a. Academic Appointments:**

**I. Primary Appointment:**

Assistant Professor CT, Department of Pathology & Laboratory Medicine, Emory University School of Medicine, 2004-2010

Associate Professor CT, Department of Pathology & Laboratory Medicine, Emory University School of Medicine, 2010-

**b. Clinical Appointments:**

Director Clinical Laboratories, Emory Midtown Hospital, 09/2007-present

Co-Director, Core Laboratories, Emory Medical Laboratories, 2004-present

Director, Support Services, Emory Medical Laboratories, 2007-present

Director of Point of Care, Emory Medical Laboratories, 2004-present

Serious Communicable Disease Unit, Laboratory Director 2007-

Quality Officer, Clinical Pathology, Emory University School of Medicine, 09/2007-present

**c. Other Administrative Appointments:**

Fellowship Director: ComACC accredited Clinical Chemistry Fellowship Program Co-Director, 2005-Present

6. **PREVIOUS ACADEMIC AND PROFESSIONAL APPOINTMENTS:**

2002 August-December Visiting Professor, Department of Chemistry, Wake Forest University.  
General Chemistry Laboratory Coordinator

7. **LICENSURE/BOARDS:**

Georgia Department of Human Resources, Clinical Laboratory Director, 2005-present .

8. **SPECIALITY BOARDS:**

American Board of Clinical Chemistry (ABCC) (Certified in 2004) Certificate #984

## 9. EDUCATION

1993 - B.A., Biology and Chemistry, Columbia College, Columbia, South Carolina, Majors: Biology and Chemistry, Minor: Mathematics

1998 - Ph.D., Chemistry and Biochemistry, University of South Carolina, Columbia, South Carolina, supervisors R. Bruce Dunlap, Ph.D., H. Trent Spencer, Ph.D.

## 10. POST GRADUATE TRAINING

Postdoctoral Research Fellow, Department of Internal Medicine, Division of Bone Marrow Transplantation, Washington University School of Medicine, 1998-2001, supervisor Mark S. Sands, Ph.D.

Clinical Chemistry Trainee, Department of Pathology and Immunology, Division of Laboratory Medicine, Washington University School of Medicine, Barnes Jewish Healthcare and St. Louis Children's Hospital, 1998-2002, supervisor Jack Ladenson, Ph.D.

## 11. COMMITTEE MEMBERSHIPS:

### **National and International:**

American Association for Clinical Chemistry (AACC)

Press Board 2005-2007

Nominating Committee 2008,2009

Point of Care Certificate Program Committee 2007-

Critical and Point of Care Testing Division AACC, Division Treasurer 2007, 2008

Annual Meeting Task Force 2010

Commission on Accreditation in Clinical Chemistry (ComACC)

Board of Directors 2007-2011

Sec/Treasurer 2010-

National Registry of Certified Chemists (NRCC)

Board of Directors 2007-2010

Vice President 2008, 2009,2010

Exam Committee 2007, 2008,2009,2010

American Board of Clinical Chemistry (ABCC)

Board of Directors 2007-2012

Chemistry Exam Committee Member 2007, 2008,2009,2010

Chair, Continuing Education 2009,2010

President 2010-2012

Clinical Laboratory Standards Institute (CLSI) EP28

Member, 2009-2011 The Use of Delta Checks in the Clinical Laboratory

National Laboratory System (An Alliance of laboratories responsive to the health needs of the nation)

Steering Committee Member, representing the interests of AACC

### **Regional and State:**

State of Georgia Lab Advisory Committee, Alternate 2006, 2007,2008, 2009, 2010

Southeast Section AACC, past chair, 2007

Southeast Section AACC, chair, 2006

Southeast Section AACC, chair elect, 2005

Southeast Section AACC, nominating committee chair 2007-2008

**Institutional:**

Laboratory Advisory Committee, The Emory Clinic, 2004-present  
Surgical Care Committee, Emory Crawford Long Hospital, 2004-2008  
Point of Care Advisory Committee, Emory Medical Labs, 2004-present  
Critical Value Reporting Committee, Emory Medical Labs, 2007-present  
Downtime Operation Committee, Emory Medical Labs, 2007-present  
Emory University Hospital Midtown Medical Practice Committee 2007-present  
Quality Council, Emory Healthcare 2010-present

**12. CONSULTANTSHIPS:**

Hx Diagnostics, Scientific Advisory Board 2007-  
Beckman Coulter 2007, 2008, 2009  
Beckman Coulter, Scientific Advisory Board (Endocrine), 2008  
Center for Disease Control: Division of Laboratory Sciences, Laboratory Medicine Best Practices:  
Evidence Review Expert Panel "CRITICAL VALUES REPORTING AND COMMUNICATION" 2008-  
Siemens Healthcare Diagnostics Inc., Customer Connection Week (Sept 2008)  
Clinical Laboratory and Standards Institute (CLSI), beta site tester for *StatPro*. 2010  
Lab Medicine Best Practices website, beta tester 2010

**13. MANUSCRIPT REVIEWER:**

American Journal of Obstetrics (2005)  
Clinical Chemistry Acta (2007)  
Clinical Chemistry (2006, 2007, 2008, 2009)  
Journal Virology (2008)  
Diabetes Technology and Therapeutics (2009)

**14. HONORS AND AWARDS:**

Order of the Purple Seal, 1992 - 1993  
ACS Chemistry Student of the Year, 1992 - 1993  
Chemistry Scholarship, 1992 - 1993  
Biology, Mercer Scholarship, 1992 - 1993  
Bouknight Teaching Award, 1994  
South Carolina Academy of Science Award, 1998  
Oakwood Products Chemistry Award, 1998  
Hunter's Hope Postdoctoral Fellowship Award (\$103,864), 1999 - 2001  
The Golden Apple, Resident Teaching Award in Clinical Pathology, 2006  
Siemens Medical Solutions Diagnostics Division Executive Management Program Scholarship 2007  
AACC Outstanding Speaker Award 2007, 2008  
Society of Young Clinical Laboratorians Service Award 2009  
Chris Frings Travel Award, Southeast Section AACC 2010  
The Laboratory Information Systems and Medical Informatics Division of AACC best poster 2010

**15. SOCIETY MEMBERSHIPS:**

American Chemical Society, 1992-1993  
American Society of Biochemistry and Molecular Biology, 1993-1998  
American Association of Clinical Chemistry, 1998-

American Society of Cell Biology, 1998  
American Society of Gene Therapy, 2001-2002  
National Academy of Clinical Biochemistry, 2004-  
Academy of Clinical Laboratory Physicians and Scientists 2006-

16. **ORGANIZATION OF NATIONAL OR INTERNATIONAL CONFERENCES:**

**a. Administrative Positions:**

National (AACC)

Annual Meeting Organizing Committee (AMOC), AACC Atlanta, GA 2011

Regional (Southeast Section AACC)

Pharmacogenetics-an update, St. Jude Children's Research Hospital, Sept. 2006

Point of Care Testing-evidence based, Charleston, SC, Nov. 2006

**b. Sessions as Chair:**

International: (AACC CPOCT Division) CPOCT 2010 International Symposium Boston, MA  
Co-Chair of Scientific Sessions

17. **RESEARCH FOCUS:**

My research interests are in quality measures/process improvement for laboratories (6 sigma, lean processes, critical value result reporting). As a postdoctoral fellow, my research focused on inborn errors of metabolism. Other areas of interest include evidence based outcome studies for point of care testing in a variety of clinical situations.

18. **GRANT SUPPORT:**

**a. Active Support:** CDC grant to support the Serious Communicable Disease Unit (5% of salary)

**b. Previous Support:**

Hunter's Hope Postdoctoral Fellowship (\$103,864), 1999-2001

**c. Pending/Applied Support**

19. **CLINICAL SERVICE CONTRIBUTIONS:**

**EUHM Committees:**

Laboratory Services 2003-

Surgical Care 2003-2008

ER Faculty Committee Meetings

Point of care Connectivity and oversight

Technical Laboratory consultant for IVF lab in MOT 2007-

Medical Practice Committee 2007-

**EUH Committees:**

Laboratory Services 2003

Laboratory Operations 2005

Downtime Committee (EML) 2007

Critical Calling Committee (EML) 2007

New Clinic Building Primary Care Committee 2007

20. **FORMAL TEACHING:**

**a. Graduate Program:****Residency Program:****Organize and lecture in Clinical Pathology Didactic Series:**

- “Molecular Pathology Lecture #2”, December 2004
- “POCT Testing”, April 2005
- “Enzyme Kinetics”, May 2005
- “Method Validation”, May 2005
- “Thyroid Testing”, June 2005
- “Reproductive Hormone Testing”, July 2005
- “Intro to Molecular Pathology”, December 2006
- “Cardiac Testing” May 2007
- “Point of Care Testing” April 2007, May 2009
- “Thyroid Testing and Tumor Markers” May 2007, June 2009
- “Reproductive hormone, pregnancy and prenatal testing” August 2007, June 2009

**b. Medical Technology Program:****Chemistry:**

- “General Endocrine” 2008, 2009
- “Classifications and Descriptions of Proteins, Lipids, and Carbohydrates” 2008
- “Adrenal Hormones and Hypertension” 2008
- “Thyroid” 2008,2009
- “Pregnancy and Fetal Development” 2008
- “Reproductive Development and Laboratory Testing” 2009
- “Cardiac Biomarker Testing” 2009

**Urinalysis:**

- “Renal Function” 2008
- “Physical Examination of Urine” 2008

**21. SUPERVISORY TEACHING:****Residency Program:**

Pathology Residents rotation in Clinical Chemistry and Toxicology

**Clinical Chemistry Fellowship Program:**

Co-Director: Postdoctoral Fellow Education in Clinical Chemistry, COMACC

Graduating Fellows and Current Positions:

- Dr. Laurie Sani, Research and Development, The Clorox Company, Oakland, CA, 2005-2007
- Dr. Ross Molinaro, Assistant Professor Pathology, Emory University, Atlanta, GA, 2006-2008
- Dr. Marion Snyder, Director Toxicology, Brigham and Women’s Hospital, Boston, MA, 2007-2009
- Dr. Alex Chin, Clinical Biochemist, University of Calgary, 2008-2010
- Dr. Charbel Abou Diwan, in training 2009-2011
- Dr. Tiffney Roberts, in training 2010-2012

**22. LECTURESHIPS, SEMINAR INVITATIONS, AND VISITING PROFESSORSHIPS:**

- Univ. S. Carolina Department of Chemistry and Biochemistry. Sponsored by SYCL, AACC, “Career Opportunities for PhDs in Laboratory Medicine and the In Vitro Diagnostics Industry.” Oct 2005.

- Univ. N. Carolina, Department of Pathology and Laboratory Medicine, “Point of Care Testing.” Nov 2005.
- College of American Pathologist Competency Assessment, Media Lab, Inc., “Electrolytes, Acid Base, anion and osmol gaps.” 2007.
- SES-AACC/ASCLS-GA, “Improving Laboratory Efficiency through Automation.” April 2007.
- Clinical Laboratory Science Investigations, Emory Medical Laboratory Educational Symposium, “Munchausen’s Syndrome by Proxy: A Medical Legal Nightmare.” Oct 2007.
- Beckman Scientific Sessions at Annual AACC meeting Washington, DC, “Defining and Reporting Critical Values.” July 2008.
- Beckman Scientific Sessions at Annual AACC meeting Chicago, IL, “Improving Quality of Patient Care, A Shared Responsibility” July 2009.
- Clinical Laboratory Science Investigations, Emory Medical Laboratory Educational Symposium. “Defining Critical Values for an Adult Population: The Emory Experience.” Oct 2008.
- Southeast Section AACC, “Defining and Reporting Critical Values: The Emory Experience.” April 2009.

#### **Monthly Periodicals:**

- Clinical Laboratory News, Invited review: Anti-Factor Xa Activity Improved laboratory Monitoring of patients on Heparin Therapy. Dec 2006.
- Clinical Laboratory News, Invited comments for the article: Unnecessary Lab Tests, Can Laboratorians Stop Clinicians from Ordering them? (Sept 2006)
- Winkler, AM Sheppard CA, and **Fantz CR**. 2007 Lab Medicine Invited Review. CE UPDATE Laboratory Monitoring of Heparin: Challenges and Opportunities
- Emory Medical Laboratory Quality 411. September 2009-
- Clinical Laboratory News, Invited comments for the article: Interpretive Comments on Tests Results? November 2009
- Agency for Healthcare research and Quality (AHRQ) *Innovations Exchange* 2010. Improving the quality of care in an Emergency Department

### **23. INVITATIONS TO NATIONAL OR INTERNATIONAL CONFERENCES:**

- UTHSC National Teleconference. “Thyroid Disease in Pregnancy”, May 2005.
- Chair’s Breakfast, “Activity in the Southeast Section” National AACC meeting Chicago, IL July 2006.
- UTHSC National Teleconference. “Fetal Lung Maturity Testing”, Nov. 2006.
- Moderator for National AACC Audioconference “The Expanding Role of HIV Testing in Healthcare Settings” June 2007.
- Moderator for Symposia at National AACC Meeting in Washington DC. “Critical Values”, 2008.
- Speaker: National AACC Meeting in Washington DC. “Defining and Reporting Critical Values in an Adult Hospital”, 2008.
- Expert Access: AACC On-line Q&A. Defining and Reporting Critical Values, April 2009.
- UTHSC National Teleconference. “Defining and Reporting Critical Values in an Adult Hospital”, August 2009.
- ASCP National Teleconference. “Strategies to Evaluate Critical Value Limits: Opportunities to Save Time and Money”, September 2009.

### **24. OTHER ACTIVITIES:**

- Wrote and reviewed questions for the ABCC Clinical Chemistry Exam 2007-2010
- Wrote questions for the Clinical Pathology, Chemistry Section RISE exam, 2007, 2009, 2010
- Abstract Reviewer for AACC Annual Meeting 2006,2007
- Judge: AACC Student Poster Contest held at the Annual Meeting in LA, CA 2005
- Judge: AACC Student Poster Contest held at the Annual Meeting in Chicago, IL 2006
- Understudy for the Student Poster and Oral Contest for the AACC Annual Meeting in San Diego, CA 2007.
- Organizer for the Student Poster and Oral Contest for the AACC Annual Meeting in Washington, DC 2008, 2009, 2010
- CAP inspector for Emory Crawford Long Hospital (outside hospital GA, Chemistry/Toxicology) 2004
- CAP inspector for Emory Crawford Long Hospital (outside hospital GA, Chemistry/Toxicology) 2006
- CAP inspector for Grady Memorial Hospital (outside hospital TN, Point of Care Testing) 2008
- CAP inspector *Team Leader* for Emory University Hospital (self inspection) 2008
- CAP inspector *Team Leader* for Emory Crawford Long Hospital (outside hospital GA) 2008
- CAP inspector for Emory University Hospital (outside hospital TN, Point of Care Testing) 2008
- Mentor for Emory Healthcare Quality Academy 2009. Angela Hickman and Bridget Strong “Untimely Billing Form Submissions”.
- INTEL International Science and Engineering Fair, Special Awards Judge for AACC 2008

### **Continuing Education**

University of Notre Dame and Siemens Medical Solutions, Executive Management Program, 2007  
 Practical Methods for Healthcare Improvement, Emory Healthcare Quality Academy, 2008  
 Leadership for Healthcare Improvement, Emory Healthcare Quality Academy, 2008  
 Point of care Specialist, Certificate, 2009

## 30. **BIBLIOGRAPHY:**

### **a. PUBLICATIONS IN SCIENTIFIC JOURNALS:**

1. **Fantz CR**, Shaw D, Moore J, and Spencer HT. 1998. Co-Expression of Dihydrofolate Reductase and Thymidylate Synthase Confers Resistance to Antifolates and Fluoropyrimidines. *Biochem. Biophys. Res. Comm.* 243: 6-12.
2. **Fantz CR**, Dagogo-Jack S, Ladenson JH, Gronowski AM. 1999. Thyroid Function During Pregnancy. *Clin. Chem.* 45 (12): 2250-2258.
3. **Fantz C**, Shaw D, Jennings W, Forsthoefel A, Kitchens M, Phan J, Minor W, Lebioda L, Berger F, and Spencer HT. 2000. Drug-resistant Variants of *Escherichia coli* Thymidylate Synthase: Effects of Substitutions at Pro254. *Mol. Pharm.* 57: 359-366.
4. **Fantz CR**, Powell C, Karon B, Dayal M, Sadovsky Y, Johari V, Apple F, and Gronowski AM. 2002. Assessing the Diagnostic Efficiency of TDx-FLM II to Predict RDS in the Newborn. *Clin Chem* 48(5):761-765.
5. Young PP, **Fantz CR**, and Sands MS. 2004. VEGF disrupts the neonatal blood-brain barrier and increases life span after non-ablative BMT in a murine model of congenital neurodegeneration caused by a lysosomal enzyme deficiency. *Exp Neurol* 188(1) 104-114.

6. Sheppard CA, Allen RC, Austin GE, Young AN, Ribeiro MA, and **Fantz CR**. 2005. Paraprotein Interference in Automated Chemistry Analyzers. *Clin Chem* 51: 1077-1078.
7. Lin D, **Fantz CR**, Levy B, Rafi MA, Vogler C, Wenger DA, Sands MS. 2005. AAV2/5 vector expressing galactocerebrosidase ameliorates CNS disease in the murine model of globoid-cell leukodystrophy more efficiently than AAV2. *Mol Ther. Sep*; 12(3):422-30.
8. Gronowski AM, **Fantz CR**, Parvin CA, Sokoll LJ, Wiley CL, Wener MH, Grenache DG. 2008. Use of Serum FSH to Identify Perimenopausal Women with Pituitary hCG. *Clin Chem. Apr*; 54(4):652-6.
9. Molinaro RJ, Szlam F, Levy JH, **Fantz CR**, Tanaka KA. 2008. Low Fibrinogen Levels with Clauss Method during Anticoagulation with Bivalirudin. *Anesthesiology* 109:1-1.
10. Snyder ML, **Fantz CR**. 2008. Cirrhosis originally diagnosed as nonalcoholic steatohepatitis. *Clin Chem. Aug*; 54(8):1395-8.
11. Sheppard CA, Franks N, Nolte FS, **Fantz CR**. 2008. Improving Quality in an Emergency Department: A Laboratory Perspective. *AJCP* 130:573-577
12. Hofling AA, Kim JH, **Fantz CR**, Sands MS, Song S-K. 2009. Diffusion tensor imaging detects axonal injury and demyelination in the spinal cord and cranial nerves of a murine model of globoid cell leukodystrophy. *NMR in Biomedicine* DOI:10.1002/nbm.1420
13. Snyder ML, **Fantz CR**. 2009. What's your guess? *Clin Chem. June* 55(6):1255.
14. Whittington, J; Gronowski A; **Fantz, CR**; McCudden, C; Sokoll L; Mullins, R; Wiley, CL, Grenache, DG. The analytical specificity of human chorionic gonadotropin assays determined using WHO International Reference Reagents, *Clin Chim Acta* (2009), doi:10.1016/j.cca.2009.10.009
15. Grenache, DG, Greene, DN, Dighe, AS, **Fantz, CR**, Hoefner, DH, McCudden, C, Sokoll, L, Wiley, CL, and Gronowski, AM. Falsely Decreased Human Chorionic Gonadotropin (hCG) Results Due to Elevated Concentrations of the Free Beta Subunit and the Beta Core Fragment in Quantitative hCG Assays. *Clin Chem* (2010) Accepted for publication in *Clin Chem*
16. Snyder ML, Carter A, and **Fantz CR**. Patient Mis-identification due to Errors in Standard Barcode Technology. Accepted for publication in *Clin Chem*

**c. BOOK CHAPTERS:**

1. **Fantz CR**, and Gronowski, AM. 2002. Pregnancy and Hyperthyroidism. Chapter 16 *In* "Thyroid Eye Disease," Eds. Dutton, J.J. and Haik, B. G. Marcel Dekker, New York. 143-153.
2. **Fantz CR**, and Gronowski, AM. 2004. Thyroid Disease and Pregnancy: Assessment of the Mother. Chapter 8 *In* "Handbook of Clinical Laboratory Testing During Pregnancy." Humana Press, Totowa, NJ. 167-179.
3. Sheppard CA, and **Fantz CR**. 2006. Bad to the bone, PTH: Low-turnover versus high-turnover osteodystrophy. *In* "Tietz's Applied Laboratory Medicine."

**d. ABSTRACTS:**

1. **Fantz CR**, and Spencer HT. 1997. Retroviral Gene Transfer of a Thymidylate Synthase-Dihydrofolate Reductase Chimera Confers Fluoropyrimidine and Antifolate Resistance. *Biology and Marking Studies*. American Society for Hematology.
2. Shaw D, Jennings W, Gambrell E, **Fantz CR**, Spencer HT. 1998. American Society for Hematology.
3. **Fantz CR**, Powell C, Karon B, Parvin CA, Hankins KB, Dayal M, Sadovsky Y, Johari V, Apple F, Gronowski AM. 2000. Assessing the Diagnostic Efficiency of TDx-FLM II to Predict RDS in the Newborn. AACC, San Francisco, CA.
4. **Fantz CR**, Wenger DA, and Sands MS. 2001. Neonatal and *In Utero* Gene Transfer Utilizing Adeno-Associated Virus and Lentiviral Vectors for the Treatment of Krabbe's Disease. American Society of Gene Therapy. Seattle, WA.
5. Rugari A, Gartzke M, and **Fantz CR**. 2002. Establishing a prevalence for Krabbe Leukodystrophy. AACC: Newborn Screening Meeting. Lexington, KY.
6. **Fantz CR**, Langford KE, Wilhite T, Luchtman-Jones L. 2002. *In vitro* stability of reticulocyte counts.
7. **Fantz CR**, and Landt M. 2002. The prevalence of borderline sweat-tests. AACC, Orlando, FL.
8. Kossover C, Ritchie JC, **Fantz CR**. 2006. The effect of hemolysis on PT and PTT. AACC, Chicago, IL
9. Sheppard C, and **Fantz CR**. 2006. The effect of providing a phlebotomist on ER sample turn around time. AACC, Chicago, IL.
10. Sheppard C, and **Fantz CR**. 2007. Comparison of ACT methods from patients on Cardiopulmonary Bypass. AACC, Chicago, IL.
11. Schmotzer CL, and **Fantz CR**. 2007. Impact of Critical Value Cutoffs on Laboratory Operations ACLPS, San Diego, CA.
12. Molinaro RJ, Szlam F, **Fantz CR**, and Tanaka KA. 2008. Low Fibrinogen Levels with Clauss Method during Anticoagulation with Bivalirudin. AACC, Washington DC
13. Snyder ML, Winkler AM, Brierre F, **Fantz CR**, Ritchie JC, Molinaro RJ. 2009. "Validation of a novel ultra-performance liquid chromatography tandem mass spectrometry method for direct monitoring of argatroban anticoagulation," Academy of Clinical and Laboratory Physicians and Scientists, 44<sup>th</sup> Annual Meeting, Los Angeles, CA.
14. Snyder ML, Winkler AM, Brierre F, **Fantz CR**, Ritchie JC, Molinaro RJ. 2009. "Development and validation of a novel ultra-performance liquid chromatography tandem mass spectrometry method for direct monitoring of argatroban anticoagulation," *Mass Spectrometry: Applications to the Clinical Laboratory 2010 (MSACL 2010)* San Diego, CA

15. Chin AC, **Fantz CR**, Ritchie JC 2009 “Adaptation of a D-Dimer Assay on an Automated High Throughput Chemistry Analyzer to Reduce Turn Around Times” AACC/CSCC Chicago, IL.
16. Snyder ML, Carter A, **Fantz CR** Patient Misidentifications caused by errors in standard barcode technology. AACC Anaheim, CA 2010