Curriculum Vitae

James Herbert Patterson

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OFFICE:

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EDUCATION:

July 1979-June 1980:	
University of Tennessee Center for the Health Sciences/ City of Memphis Hospital	Post Pharm.D. Residency in Internal Medicine Pharmacy Practice
Sept. 1977-June 1979:	
University of Tennessee Center for the Health Sciences	Doctor of Pharmacy
Sept. 1974-June 1977:	
University of Tennessee Center for the Health Sciences	B.S. Pharmacy
Sept. 1971-June 1974:	
East Tennessee State University	Pre-Pharmacy

LICENSURE: Tennessee (License No. 4359)
North Carolina (License No. 008561)

PROFESSIONAL EMPLOYMENT EXPERIENCE:

October 2008 – Present	Research Professor of Medicine University of North Carolina School of Medicine Division of Cardiology
December 2007 – Present	Professor of Pharmacy University of North Carolina UNC Eshelman School of Pharmacy Division of Pharmacotherapy and Experimental Therapeutics
October 1990 – 2008	Research Associate Professor of Medicine University of North Carolina School of Medicine Division of Cardiology
August 1988 – 2007	Associate Professor of Pharmacy University of North Carolina School of Pharmacy Division of Pharmacotherapy and Experimental Therapeutics

July 1981-August 1988	Assistant Professor of Pharmacy University of North Carolina School of Pharmacy Division of Pharmacy Practice
July 1980-July 1981	Clinical Pharmacist, City of Memphis Hospital Assistant Professor of Pharmacy Practice University of Tennessee Center for the Health Sciences College of Pharmacy Memphis, TN
June 1977-July 1979	Part-time Pharmacist, Walgreen's, Memphis, TN
Oct. 1974-June 1977	Pharmacy Intern, Prescott Drug, Memphis, TN

ADMINISTRATIVE POSITIONS:

October 2011 – Present	Executive Vice Chair Division of Pharmacotherapy and Experimental Therapeutics UNC Eshelman School of Pharmacy, University of North Carolina
July 2005- September 2011	Vice Chair for Research and Graduate Education University of North Carolina UNC Eshelman School of Pharmacy Division of Pharmacotherapy and Experimental Therapeutics
March 2005 – Present	Co-Chair, Biomedical IRB University of North Carolina Office of Human Research Ethics

PROFESSIONAL MEMBERSHIPS AND ORGANIZATIONS:

American Association of Colleges of Pharmacy – Member
American College of Cardiology – Affiliate
American College of Clinical Pharmacy – Fellow
American Heart Association – Member
American Society of Health System Pharmacists – Fellow
Heart Failure Society of America – Member
Kappa Psi Pharmaceutical Fraternity
Rho Chi Pharmaceutical Honor Society

OFFICES, COMMITTEES, AND OTHER RECOGNITION

NATIONAL

American College of Clinical Pharmacy

1985 – 1986	Clinical Practice Affairs Committee (Member)
1994	Annual Program Committee (Member)
1994	Fellow
1995	Annual Program Committee (Vice Chair)
1996	Annual Program Committee (Chair)
1996 – 1997	Cardiology Practice Research Network (Chair-Elect)

1997 – 1998	Cardiology Practice Research Network (Chair)
1998	Awards Committee
1999 – 2002	Secretary
2005 – 2007	2007 Annual Program Committee (Member)
2008 – 2010	2010 Spring Program Committee (Member)
2011 – 2013	Nominations Committee

American Society of Health System Pharmacists

1991 – 1994	Research and Education Foundation Cardiovascular Drug Therapy Fellowship Selection Panel
1994 – 1996	Therapeutic Guidelines Panel "ACEI's in Heart Failure"
1994	Fellow
1997 – 1998	Network Facilitator for Cardiology

Heart Failure Society of America

1998 – 2006	Guideline/Clinical Positions Committee – Member
2004 – 2006	Annual Meeting Program Committee – Member
2006 – 2012	Education Committee – Member
2013 – Present	Annual Heart Failure Review Course – Member
2014 – Present	HFSA Lifetime Achievement Award Committee - Member

Advisory Boards/Panels

1988 – 1995	Merck Sharp and Dohme National Heart Failure Faculty
1992 – 1993	Boots Pharmaceuticals Flosequinan Pharmacy Advisory Board
1993 – 1997	Working Group on the Diagnosis and Treatment of Symptomatic Heart Failure/Left Ventricular Dysfunction
1995 – 1997	Glaxo-Wellcome Lanoxin Leadership Advisory Panel
1999	JCAHO Cardiovascular Conditions Advisory Panel
1999	Bayer Pharmaceuticals Natrecor® Clinical Pharmacy Advisory Board
2000 – 2008	Scios Inc. Natrecor® Clinical Pharmacy Advisory Board
2001 – 2005	Glaxo SmithKline Coreg® Pharmacy Advisory Board
2003 – 2010	STAMINA – HFP Publications Advisory Board
2003 – 2009	Vascular Biology Working Group.
2003 – 2004	Alza Corporation Cardiovascular Advisory Board
2004 – 2006	Abbott Levosimendan Advisory Board
2007 – 2008	Boston Scientific Bioengineering and Local Drug Delivery Scientific Advisory Board
2007 – 2009	ARCA Discovery Advisory Board
2009	Sanofi – Aventis Advisory Board (Multaq®)
2010 – 2013	Otsuka Advisory Board (Samsca®)
2011 – 2014	Novartis Pharmacuticals Pharmacy Advisory Board
2013 – 2014	Covis Lanoxin Advisory Board
2015-Present	Novartis LCZ696 Registry Study Steering Committee

Reviewer for the following journals:
- -The Annals of Pharmacotherapy
- -Pharmacotherapy
- -Lippincott's Hospital Pharmacy
- -American Journal of Pharmaceutical Education
- -American Journal of Cardiology
- -Journal of Cardiac Failure

-American Heart Journal
-Pharmacist's Letter
-Circulation: Heart Failure

Reviewer, Pharmacotherapy Self-Assessment Program II – Chapter on "Heart Failure", 1994, 1997

Local

Member, UNC School of Medicine Committee on the Protection of the Rights of Human Subjects, August 1991-present

Secretary-Treasurer, North Carolina-Triangle Chapter of Clinical Pharmacy, 1992

Chairman, UNC School of Pharmacy Primary Promotions Committee, 1992-1994

Co-Director, Pharmacy Practice Fellowship Program, September 1992-August 2000

President, North Carolina-Triangle Chapter of Clinical Pharmacy, 1993

Co-Chair, UNC School of Pharmacy Task Force to Review Pharmacokinetic Laboratory, 1993-1994

Member, Investigational Drug Service Oversight Committee, January 1993-2005

Chairman, UNC School of Pharmacy Faculty Development Committee, 1994-2004

Vice-Chair, UNC School of Medicine Committee on the Protection of the Rights of Human Subjects, July 1998–March 2005

Member, UNC Eshelman School of Pharmacy Conflict of Interest Advisory Committee, 2001-present

Member, Pharmacotherapy Appointment Review Committee, 2002-2009

Chair, UNC Eshelman School of Pharmacy, Search Committee for Division of Pharmacotherapy Chair, 2004 – 2005

Chair, UNC Eshelman School of Pharmacy, Scholastic Achievement and Progression Committee, 2004 – present

Member, UNC Eshelman School of Pharmacy, Search Committee for Associate Dean for Graduate Education and Research, 2006 – 2007

Member, UNC Eshelman School of Pharmacy Full Professors Committee, 2007 – present

Member, UNC Eshelman School of Pharmacy, Chapel Hill Drug Conference Planning Committee, 2009 – Present

Chair, UNC Eshelman School of Pharmacy, ACPE Self-Study Reaccreditation Committee, 2009 - 2011

Member, UNC Clinical Trials Task Force, 2010 - 2011

Member, UNC Eshelman School of Pharmacy Business Cluster Faculty Advisory Committee, 2011 - present

Member, UNC Office of Clinical Trials Advisory Committee, 2012 – present

Member, UNC Eshelman School of Pharmacy Bill and Karen Campbell Faculty Mentoring Program – Gang Fang, PharmD, MS, PhD (Mentee)

Member, UNC Eshelman School of Pharmacy, Educational Research Review Committee, 2013 – present

Member, UNC OHRE Director Search Committee, 2014 – Present

Member, UNC Eshelman School of Pharmacy Curricular Transformation Steering Committee, 2014 – Present

Chair, UNC Eshelman School of Pharmacy Full Professors Committee, 2014 - Present

Awards

Co-Preceptor, 1998 ACCP-Merck Cardiovascular Fellowship (Co-Preceptor-John A. Pieper, Pharm.D., Fellow-Donald W. Graff, Pharm.D.)

Received $10,000 grant from Merck Sharp & Dohme to fund Cardiovascular Pharmacotherapy Fellowship, 1991.

Received $30,000 from G.D. Searle and Co. for research on Magnesium in Heart Failure, 1991.

Received $5,000 grant from Merck Sharp & Dohme to fund UNC Heart Failure Program Educational activities, 1992.

Received $6,000 Faculty Seed Grant from UNC School of Pharmacy to fund pilot study of oral magnesium in CHF patients, 1995.

Received $5,000 grant from SmithKline Beecham Pharmaceuticals for unrestricted research activities, 1996.

Co-Preceptor, 1996 ACCP-Merck Cardiovascular Fellowship (Co-Preceptor-John A. Pieper, Pharm.D., Fellow-Kristin M. Williamson, Pharm.D.)

Received $20,000 grant from the UNC School of Medicine to purchase equipment for determination of Heart Rate Variability in Heart Failure Patients, 1997.

Received $35,000 grant from GlaxoSmithKline to fund Cardiovascular Pharmacotherapy Fellowship, 2001.

Received $100,000 grant from SCIOS to fund Heart Failure Pharmacotherapy Fellowship, 2007

Received $1,500 Academic Excellence Award from UNC School of Pharmacy in recognition of contributions to the School of Pharmacy's research mission, 2007

SELECTED PRESENTATIONS:

"Calcium Antagonists: An Overview," North Carolina Society of Hospital Pharmacy, September 1981, and the Wake County Pharmaceutical Association, October 1981.

"New Antiarrhythmics: The Search for the Ideal Drug," Clinical Pharmacy Grand Rounds, Charlotte AHEC, Charlotte, NC, November 23, 1982.

"Current Concepts in Anginal Therapy," Guilford County Society of Pharmacists, Greensboro, NC, March 8, 1983.

"Calcium Channel Blocking Drugs" for continuing education series on "Cardiovascular Diseases and Drugs," Chapel Hill, NC, April 19, 1983.

"Cardiac Drug Update: New Therapies in Angina," Northwest AHEC Pharmacy Continuing Education, Wilkesboro, NC, September 20, 1983, Boone, NC, October 25, 1983 and Salisbury, NC, October 26, 1983.

"Newer Calcium Blocking Agents," presented for Cardiology: Review and Update, Mountain AHEC, Asheville, NC, October 1, 1983.

"Clinical Interactions Between the Digitalis Glycosides and Antiarrhythmic Drugs," Clinical Pharmacology Conference, University of North Carolina, Chapel Hill, NC, April 18, 1984.

"Angina: New Concepts and Management, Part I," Alamance County Society of Pharmacists, Burlington, NC, September 26, 1984.

"Captopril Revisited: The Vasodilator of Choice in CHF," North Carolina Society of Hospital Pharmacists Clinical Pearls Sessions, Raleigh, NC, October 11, 1984.

"Cardiac Drug Update," Northwest AHEC Pharmacy Continuing Education, Salisbury, N.C., March 28, l985 and Boone, NC, April 25, l985.

"Update on Cardiovascular Drug Therapy," Pharmacy Update '85, Mountain AHEC, Asheville, NC, June 13, 1985.

"Calcium Channel Blockers," Wilmington AHEC and Columbus County Pharmacy Society, Whiteville, NC, October 22, 1985.

"Update on Antiarrhythmic Drugs," Area L AHEC, Halifax County Hospital, Roanoke Rapids, NC, December 19, 1985.

"Selection of Inotropic Agents in the Clinical Setting," Mississippi Society of Hospital Pharmacists, Jackson, MS, May 3, 1986.

"New Antiarrhythmics," Wake AHEC, Wake Medical Center, Raleigh, NC, September 18, 1986.

"Update on the Treatment of Heart Failure," Wake AHEC, Wake Medical Center, Raleigh, NC, January 20, 1987; Charlotte AHEC, Charlotte, NC, February 12, 1987; Greensboro AHEC, Greensboro, NC, April 12, 1987 and April 14, 1987; Burlington, NC, April 22, 1987; Wilmington AHEC, Whiteville, NC, May 3, 1987; Charlotte AHEC, Concord, NC, May 13, 1987.

"Current Concepts in Vasodilator Therapy," Trends in Cardiovascular Therapy, Research Triangle Park, NC, August 14, 1987.

"Update on Antiarrhythmics," East Carolina University, School of Medicine, Department of Family Practice, Greenville, NC, September 15, 1987.
"Overview of Calcium Antagonists," Wilmington, NC, January 19, 1988.

"Clinical Comparison of Antiarrhythmic Agents," American Society of Hospital Pharmacists, Annual Meeting, San Francisco, CA, June 6, 1988.

"Vasodilators in CHF: Emerging Strategies," Roerig Teleconference, UNC School of Pharmacy, Chapel Hill, NC, September 8, 1988.

"Congestive Heart Failure," Pharmacy Update, Cardiology Seminar, Asheville, NC, October 16, 1988.

"Pharmacology Update for Nurses," Wilmington, NC, October 3 and 4, 1988.

"Use of Vasodilators in Congestive Heart Failure," The First Annual Wilson Memorial Hospital Pharmacy Symposium, Wilson, NC, November 2, 1988.

"Inotropic Drugs in Heart Failure: Beneficial or Not?", presented at Heart Failure: New Strategies for Management, Kenan Center, University of North Carolina, Chapel Hill, NC, January 14, 1989.

"Therapeutic Approaches to Congestive Heart Failure", Northwest AHEC, Beech Mountain, NC, January 19, 1989

"Selection of Inotropic Drugs in the Clinical Setting," Memphis Area Society of Hospital Pharmacists, Memphis, TN, April 18, 1989.

"Cardiac Drug Update," Wilmington AHEC, Wilmington, NC, April 19, 1989.

"Antiarrhythmic Therapy in the Treatment of Ventricular Arrhythmias," Presented at the Kerr Drug Continuing Education Series, Raleigh, NC, April 25 and 26, 1989.

"New Trends in ACE Inhibition," Presented at New Trends in Pharmacotherapy: Focus on Gastrointestinal and Cardiovascular Diseases. Pinehurst, NC, April 30, 1989.

"Ventricular Arrhythmias and Oral Antiarrhythmic Drugs" presented at the 1989 Pharmacy Fall Series, Wake AHEC, Raleigh, NC, September 13, 1989 and the Area L AHEC, Rocky Mount, NC, October 25, 1989.

"Calcium Channel Blockers: A Comparison" presented to the Rutherford County Pharmaceutical Association, Rutherfordton, NC, October 8, 1989.

"Rationale for the Use of ACE Inhibitors in the Treatment of Heart Failure" presented to the Four County Pharmaceutical Association, Oxford, NC, November 29, 1989.

"Ventricular Arrhythmias and Oral Anti-Arrhythmic Drugs," Eastern AHEC, Ahoskie, NC, December 7, 1989.

"Rationale for the Use of ACEI's in the Treatment of Heart Failure" presented to the Durham-Orange Pharmaceutical Association, Durham, NC, February 21, 1990.

"The Influence of Calcium on the Anti-Ischemic Effects of Nifedipine" presented at the American College of Cardiology Meeting, New Orleans, LA, March 22, 1990.

"Problems and Solutions in the Management of Heart Failure" presented at the New Jersey Pharmaceutical Association Convention, Academy of Consultant Pharmacists, Atlantic City, NJ, June 26, 1990.

"Therapeutic Considerations in the Management of Heart Failure," Lumberton, NC, August 21, 1990.

"Inotropic Support with Dobutamine in Severe Congestive Heart Failure," presented at University of North Carolina Department of Medicine Grand Rounds, Chapel Hill, NC, December 20, 1990.

"Rationale for the Use of ACE Inhibitors in Heart Failure," Fayetteville, NC, January 15, 1991. Jeffersonville, IN, April 3, 1991.

"Cardiology Update," Wilmington AHEC, Wilmington, NC, April 23, 1991.

"Congestive Heart Failure: A Comparison of Traditional and Newer Therapies," Eastern AHEC, New Bern, NC, April 27, 1991. Pinehurst, NC, May 14, 1991.

"Management of Ventricular Arrhythmias in Heart Failure," Triangle Chapter of Clinical Pharmacy, Research Triangle Park, NC, May 22, 1991.

"Problems and Solutions in the Management of Heart Failure," Knoxville, TN., September 18, 1991 and Kenansville, NC, December 5, 1991.

"Rationale for the Use of ACE Inhibitors in the Treatment of Heart Failure," Mercy Hospital and Duquesne University, Pittsburgh, PA, September 25, 1991.

"Therapeutic Considerations in the Treatment of Heart Failure," Jackson, MS, September 28, 1991 and Norristown, PA, October 17, 1991.

"Newer Therapeutic Approaches in Cardiovascular Disease," Giant Pharmacy Chain, Baltimore, MD, October 1, 1991.

"Clinical Controversies in the Management of Heart Failure: Does Dosing ACEI Make a Difference?" Charlotte AHEC, Charlotte, NC, October 22, 1991.

"Overview of New Calcium Channel Blocking Drugs with Emphasis on Effects on Left Ventricular Function," UNC Hospitals Department of Pharmacy Continuing Education Series, Chapel Hill, NC, November 13, 1991.

Symposium on "Heart Failure in the 1990's," Twenty-sixth Annual ASHP Midyear Clinical Meeting, New Orleans, LA, December 12, 1991. Moderator and Presenter.

"Clinical Review of Mortality Studies in Congestive Heart Failure," Bowman Gray School of Medicine, Family Practice Department, Winston-Salem, NC, January 16, 1992.

"New Advances in ACE Inhibitors," Medical Staff, Clearfield Hospital, Clearfield, PA, April 9, 1992.

"Rationale for the use of ACE Inhibitors in the Treatment of Heart Failure," Medical Staff, Evans Hospital, Claxton, GA, May 4, 1992.

"Therapeutic Considerations in the Treatment of Heart Failure," Eastern AHEC, Albemarle Hospital, Elizabeth City, NC, May 13, 1992, Coastal AHEC, Wilmington, NC, November 3, 1992.

"Digitalis – New Information on an Old Drug," presented at the symposium New Concepts in Heart Failure Management, Wrightsville Beach, NC, June 6, 1992.

"Pathophysiology of Congestive Heart Failure," Williamsburg, VA, June 17, 1992.

"Pathophysiology of Heart Failure," presented at the Exhibitors Classroom Therapeutic and Research Strategies for Congestive Heart Failure, American College of Clinical Pharmacy Annual Meeting, Toronto, Canada, August 12, 1992.

"Therapeutic Considerations in the Management of Heart Failure," NCSHP Annual Carolina Seminar, Greensboro, NC, October 8, 1992.

"Problems and Solutions in the Management of Heart Failure," presented to consultant pharmacists, Indianapolis, IN, October 16, 1992.

"CHF Management Strategies: Update for the 90's," presented at the American Society of Consultant Pharmacists Meeting, Orlando, FL, November 14, 1992.

"Nursing Center Services CHF Update," Columbus, OH, December 2, 1992.

"Therapeutic Considerations in the Management of Heart Failure," presented at the Pennsylvania Society of Hospital Pharmacists Midyear Conference, Pittsburgh, PA, March 25, 1993.

"CHF Management Strategies: Pathophysiology of CHF," presented at the Post Graduate Workshop for Consultant Pharmacists, Charlotte, NC, April 4, 1993.

"Pathophysiology and Management of Congestive Heart Failure: A Practical Approach," presented at Medical West Associates – HMO Blue Program, West Springfield, MA, June 9, 1993.

"Therapeutic Considerations in the Management of Heart Failure," presented at the Eighth Annual Pharmacy Practice Seminar, Wilmington, NC, September 11, 1993, and the Roanoke Valley Pharmaceutical Association, Roanoke, VA, October 24, 1993.

"Treatment Strategies for Left Ventricular Dysfunction/Congestive Heart Failure," presented at Department of Medicine Grand Rounds, UNC School of Medicine, October 28, 1993.

Treatment Workshops for the Working Group on the Diagnosis and Treatment of Symptomatic Heart Failure/LV Dysfunction, Huntsville, AL, November 3, 1993, Guntersville, AL, November 11, 1993, and Chapel Hill, NC, February 1, 1994.

"Recent Advances in the Treatment of Congestive Heart Failure, presented as part of Cardiology Symposium at the Charlotte AHEC, Charlotte, NC, March 20, 1994.

"Digoxin: New Information About an Old Drug," presented at the 18th Annual Internal Medicine Conference, UNC Department of Medicine, Chapel Hill, NC, April 8, 1994.

"Congestive Heart Failure: Management Overview," presented at the Eastern AHEC, Greenville, NC, April 13, 1994.

"Angiotensin II Receptor Antagonists: Novel Therapy for Heart Failure?" presented as part of Heart Failure Management: Established Therapy and New Frontiers, Myrtle Beach, SC, June 10, 1995.

Evolving Concepts in the Treatment of Heart Failure, Symposium Moderator, 1995 ACCP Annual Meeting, Washington, DC, August 6, 1995.

"Current Approaches to the Management of Heart Failure," presented as part of the ACCP symposium Evolving Concepts in the Treatment of Heart Failure, Washington, DC, August 6, 1995.

"Beta Blockers in Heart Failure – Start Low-Go Slow!" presented at the Clinical Pearls Session, ASHP Midyear Clinical Meeting, Las Vegas, NV, December 6, 1995.

"Diagnosis and Treatment of Left Ventricular Systolic Dysfunction," presented to internists and family physicians, Cary, NC, April 30, 1996 and Sanford, NC, May 7, 1996.

"Drug Therapy of Hypertension," presented for the North Carolina Services for the Blind, Burlington, NC, May 21, 1996.

"Evolving Role of Calcium Channel Blockers in Heart Failure," presented as part of Heart Failure Management: Established Therapy and New Frontiers, Myrtle Beach, SC, June 29, 1996.

"Update on Recent Heart Failure Clinical Trials," Moderator, ACCP Annual Meeting, Nashville, TN, August 6, 1996.

"Heart Failure: What New Data Tells Us About Treatment and Outcomes," Moderator, Symposium held in conjunction with American Society of Consultant Pharmacists Annual Meeting, Nashville, TN, November 15, 1996.

"Approach to the Management of the Heart Failure Patient: The AHCPR and AHA/ACC Heart Failure Guidelines," presented as part of Heart Failure: Clinical Findings and Interventions, Greensboro AHEC, Greensboro, NC, December 14, 1996.

"Overview of Congestive Heart Failure and Its Treatment," presented as part of The 4th Annual Current Topics in Pharmacy Practice, Wake AHEC, Raleigh, NC, February 16, 1997.

"Revisiting the Role of Aldosterone Antagonists in Heart Failure," presented as part of Heart Failure Management 1997: Established Therapy and New Frontiers, Amelia Island, FL, July 19, 1997.

"New Treatment Strategies in Heart Failure: Neurohormonal Modulators", Area L AHEC, Wilson, NC, February 18, 1998.

"Reassessment of Digoxin Use in Heart Failure: Time to Abandon?" presented as part of Heart Failure Management 1998: Established Therapy and New Frontiers, Amelia Island, FL, July 17, 1998.

"Clinical Use of Angiotensin Receptor Blockers in Hypertension," presented as part of the Thirteenth Annual Seminar of the Tennessee Society of Long Term Care Pharmacists, Nashville, TN, August 12, 1998.

"Clinical use of Angiotensin Receptor Blockers in Hypertension," presented to the Fourth District Pharmacist Association, Bowling Green, KY, September 17, 1998.

"Medication Therapy for Patients with Cardiac Failure," presented as part of The Cutting Edge: Focus on Heart Failure Management, Chapel Hill, NC, October 19, 1998.

"Management of Medical Problems: Cardiovascular Disease – Atherosclerosis," Respondent, at Herbals and Nutritional Supplements Used by patients in Health Care: A Review of the Evidence, Biological and Clinical Effects, Chapel Hill, NC, October 23, 1998.

"The IRB" presented as part of Application of Clinical Research Standards, Glaxo Wellcome, International Medical Education and Development, Research Triangle Park, NC, August 12, 1998, October 15, 1998, November 12, 1998, March 31, 1999.

"The Clinical use of ACE Inhibitors and Angiotensin II Receptor Blockers in Heart Failure," Wilmington, NC, October 27 and November 16, 1998; Rocky Mount, NC, February 9, 1999; Ahoskie, NC, March 4, 1999; Zebulon, NC, March 24, 1999; Henderson, NC, March 26, 1999; Garner, NC, April 16, 1999; Raleigh, NC, April 28, 1999.

"Reassessment of the Use of Digoxin in Heart Failure: Time to Abandon?" presented as part of Heart Failure Management 2000: Established Therapy and New Frontiers, Amelia Island, FL, July 23, 1999.

"Case Presentations" presented as part of Evolution and Revolution in Chronic Heart Failure, ACCP 2000 Spring Practice and Research Forum, Monterey, CA, April 2, 2000.

"Renin Angiotensin Aldosterone System in Heart Failure" presented as part of Cardiology Update, The University of Michigan College of Pharmacy 22nd Annual Spring Seminar, Ann Arbor, MI, April 28, 2000.

"Are All Beta Blockers the Same" presented as part of Beta Blockers: Standard of Care in Heart Failure, National Consultants Meeting, Phoenix, AZ, May 7, 2000; Boca Raton, FL, June 25, 2000; Short Hills, NJ, July 9, 2000.

"Emerging Concepts in the Management of Heart Failure", Somerset, NJ, May 20, 2000.

"Current Approaches to the Management of Chronic Heart Failure: Application of HFSA Guidelines" presented at the New York State Chapter of ACCP, Albany, NY, October 6, 2000 and the Virginia Society of Health System Pharmacists, Richmond, VA, October 24, 2000.

"Beta Blockers as Part of the Standard of Care in Heart Failure." Buffalo, NY, February 21, 2001.

"Update on the Management of Congestive Heart Failure," (Moderator), North Carolina Association of Pharmacists, Greensboro, NC, March 2, 2001.

"The Role of Warfarin in Congestive Heart Failure: Have we FAILED Our Patients?" 4th Annual Carolina Anticoagulation Resource Group Meeting, Charlotte, NC, March 16, 2001.

"Beta Blockers: Pharmacokinetic Considerations" given as part of Expanding the Use of Beta Blockers in the Elderly, American Geriatrics Society Annual meeting, Chicago, IL, May 13, 2001.

"Beta Blockade: The New Paradigm in the Treatment of Heart Failure", McGuire VA Hospital Telemedicine Grand Rounds, Richmond, VA, May 29, 2001.

"Recent Advances in the Management of Heart Failure", Second Annual Horizon Blue Cross Blue Shield of New Jersey Continuing Education Meeting, Newark, NJ, June 16, 2001.

"Angiotensin II Receptor Antagonists for Heart Failure: What do New Trials Tell Us?" presented as part of Heart Failure Management 2001: Established Therapy and New Frontiers, Amelia Island, FL, July 20, 2001.

"Heart Failure Clinical Practice Guidelines Revisited: Strategies for the Next Guideline", Co-moderator, 5th Scientific Meeting of the Heart Failure Society of America, Washington, DC, September 12, 2001 (Note: This session was canceled due to the events of 9/11/01).

"Clinical Overview of nesiritide: Defining Its Role", Ohio College of Clinical Pharmacy, Cleveland, OH, October 9, 2001.

"Decompensated Heart Failure: A Growing Burden", presented as part of New Therapeutic Targets for Decompensated Heart Failure, ACCP Exhibitor Classroom, Tampa, FL, October 20, 2001.

"Pharmacologic Management of Heart Failure", presented as part of Advances in the Management of Heart Failure, University of Virginia Health System, Charlottesville, VA, November 2, 2001.

"Prevalence, Pathophysiology, and Diagnosis of CHF in the Senior Care Population", presented as part of Management of Congestive Heart Failure: The Role of Angiotensin Receptor Blockers, the American Society of Consultant Pharmacists 32nd Annual meeting, Chicago, IL, November 7, 2001.

"An Update on Heart Failure", presented as part of The Spectrum of Beta Blockade: Hypertension, Heart Failure and Beyond, New Orleans, LA, December 3, 2001.

"Beta Blockade: The New Paradigm in the Treatment of Heart Failure", Illinois Society of Health-System Pharmacists, St. Louis, MO, February 6, 2002.

"Pharmacologic Management of Heart Failure", presented at Clinical Pharmacy Grand Rounds, Columbus Regional Medical Center, Columbus, GA, February 7, 2002.

"Acute Congestive Heart Failure: The Role of Nesiritide", Rochester Area Society of Health-System Pharmacists, Rochester, NY, February 20, 2002.

"Overview of the Management of Heart Failure with an Emphasis on the HFSA Guidelines", Short Hills, NJ, March 13, 2002.

"Heart Failure Management 2002: Established Therapy and New Frontiers", Co-Director and Moderator, Amelia Island, FL, July 19-21, 2002.

"Formularies and Beta Blocker Coverage: Finding an Optimal Approach in Heart Failure", Dallas TX, November 2, 2002.

"Nesiritide Safety and Efficacy", presented as part of The Natrecor® Regional Advisory Board, Chicago, IL, November 9, 2002, Miami, FL, March 8, 2003, San Diego, CA, April 12, 2003.

"Translating the New ACC/AHA and HFSA Guidelines to Clinical Practice", presented as part of The Treatment Triangle of Cardiovascular Disease: The Pharmacists Role in Beta Blocker Therapy. ASHP Symposium, Atlanta, GA, December 10, 2002.

"Pharmacologic Management of Heart Failure", Georgia Society of Health-System Pharmacists 2003 Spring Meeting, Lake Lanier Islands, GA, March 19, 2003.

"Heart Failure Management 2003: Established Therapy and New Frontiers", Co-Director and Moderator, Amelia Island, FL, July 17-20, 2003.

"Heart Failure Management 2004: Established Therapy and New Frontiers", Co-Director and Moderator, Amelia Island, FL, July 15-18, 2004.

"Successes With Heart Failure: An Overview of Current Management of Chronic and Acute Heart Failure", National Teleconference, July 27, 2004.

"Make a Difference with Beta Blockades: Managing Patients with Heart Failure and Cardiovascular Disease, An Interactive Case-Based Program", Pharm-Med Update Program, Melville, NY, October 22, 2004.

"Make a Difference with Beta Blockades: Managing Patients with Heart Failure and Cardiovascular Disease, An Interactive Case-Based Program", Pharm-Med Update Program, Boston, MA, November 5, 2004.

"Evolving Treatment Strategies for HF: The Emerging Role of Selective Aldosterone Antagonists", Strategic Implications International, York, PA, January 6, 2005.

"Pharmacologic Management of Heart Failure", AHEC Spring Program, Wilmington, NC, March 1, 2005.

"Heart Failure Management 2005: Established Therapy and New Frontiers", Co-Director and Moderator, Amelia Island, FL, July 14-17, 2005.

"How to Start and Adjust Nerohormonal Therapies in Heart Failure", 9th Annual Scientific Meeting of the Heart Failure Society of America, Boca Raton, FL, September 19, 2005.

"Pharmacologic Management of Heart Failure", Oregon Society of Health-System Pharmacists, 2005 Fall Seminar, Portland, OR, October 15, 2005.

"ACC/AHA 2005 Guideline Update for the Diagnosis and Management of Chronic Heart Failure," Coreg® Clinical Pharmacy Advisory Board, San Francisco, CA, October 21, 2005.

"Heart Failure 2005: An Overview of Recently Revised Treatment Guidelines", ACCP Cardiology PRN Pre-meeting Symposium, San Francisco, CA, October 22, 2005.

"Evolving Role of Angiotensin II Receptor Blockade in Heart Failure", Tampa, FL, February 23, 2006; Toms River, NJ, March 15, 2006; Dallas, TX, September 20, 2006; Philadelphia, PA, November 8, 2006; Boston, MA, November 28, 2006; Detroit, MI, November 29, 2006; Ft. Lauderdale, FL, December 7, 2006.

"From Hypertension to Heart Failure: Management Strategies across the Spectrum", Program Chair, AMCP Satellite Symposium, Seattle, WA, April 16, 2006.

"Pharmacologic Management of Heart Failure", Northeastern NC Pharmacists Association, April 12, 2006.

"Overview of Heart Failure Management – Focus on the HFSA Guidelines", Amgen, Los Angeles, CA, April 27, 2006.

"New Guidelines for the Treatment of Chronic Heart Failure", Mountain AHEC, Asheville, NC, May 7, 2006.

"Heart Failure Management 2006: Established Therapy and New Frontiers", Program Co-Director, Amelia Island, FL, July 20-23, 2006.

"Integrating Current Knowledge into Consensus Guidelines for Acute Decompensated Heart Failure", ASHP Advantage Online Program, August 2006.

"2006 HFSA Comprehensive Heart Failure Practice Guidelines", Session Co-Moderator, Seattle, WA, September 11, 2006.

"Advisory Council on Core Optimization to Reduce Death Post MI: The Pharmacist's Perspective", Chicago, IL, November 10-11, 2006.

"Heart Failure Management 2007: Established Therapy and New Frontiers", Program Co-Director, Amelia Island, FL, July 12-15, 2007.

Heart Failure Society of America, Heart Failure Case Discussion, Washington, DC, September 15 –18, 2007.

"Heart Failure Management 2008: Established Therapy and New Frontiers", Moderator and Program Co-Director, Amelia Island, FL, July 2008.

Heart Failure Society of America, Heart Failure Case Discussion and Luncheon Workshop, Annual Scientific Meeting, Toronto, Canada, September 21-24, 2008

"Heart Failure Management 2009: Established Therapy and New Frontiers", Moderator and Conference Co-Director, Amelia Island, Fl, July 2009.

Heart Failure Society of America 13th Annual Scientific Meeting Symposium, "Teaching Patients with Heart Failure, What We Know and What We Need to Learn," Medication Management, Sept 13 – 16, 2009, Boston MA"

"Cardiology PRN and the Heart Failure Society of America Focus Session -- Moving Beyond the Guidelines: Evaluating Present and Future Management Strategies for the Patient with Heart Failure", Moderator, ACCP Annual Meeting, October 19, 2009.

"Heart Failure Management 2010: Established Therapy and New Frontiers", Moderator and Conference Co-Director, Amelia Island, FL, July 2010.

"Hyponatremia: Focus on Pharmacological Resolutions", Chairman, APhA Annual Meeting, Seattle, WA, March 27, 2011.

"Heart Failure Management 2011: Established Therapy and New Frontiers", Moderator and Conference Co-Director, Amelia Island, FL, July 2011.

"Focus on Hyponatremia: Understanding and Treating the Most Common Electrolyte Disorder"

Mississippi Society of Health-System Pharmacists Annual Meeting, Oxford, MS, July 28-30, 2011.

Kentucky Society of Health-System Pharmacists Fall Meeting, Lexington, KY, September 15-16, 2011.

Georgia Society of Health-System Pharmacists Annual Meeting, Young Harris, GA, October 7-9, 2011.

Louisiana Society of Health-System Pharmacists Fall Meeting, Shreveport, LA, October 8, 2011.

Connecticut Society of Health-System Pharmacists Annual Meeting, Croton, CT, October 15, 2011.

Virginia Society of Health-System Pharmacists Annual Fall Seminar, October 28-29, 2011.

Austin Society of Health-System Pharmacists Monthly Meeting, November 1, 2011.

"The Clinical Pharmacist's Role in Hyponatremia: Utilizing Evidence and Experience with Emerging Therapeutics", APhA Annual Meeting, New Orleans, LA, March 11, 2012

"Heart Failure Management 2012: Established Therapy and New Frontiers" Moderator and Conference Co-Director, Amelia Island, FL, July 2012.

"The Impact of Hyponatremia: Role of the Pharmacist in Improving Care"

Nashville Area Pharmacists Association Monthly Meeting, Nashville, TN, June 28, 2012.

Oregon Society of Health System Pharmacists Northern Chapter Monthly Meeting, Portland, OR, September 11, 2012.

Washington Metro Society of Health System Pharmacists Annual Meeting, Chevy Chase, MD, September 22, 2012.

Alabama Society of Health System Pharmacists Annual Meeting, Birmingham AL, October 19, 2012.

"Next Generation Beta-Blocker Therapy for Heart Failure: Genes, Targets, and Mechanisms" Symposium Co-Moderator, Heart Failure Society of America 16th Annual Scientific Meeting, Seattle, WA, September 10, 2012.

"Targeting Hyponatremia: Reducing Risk, Improving Outcomes" American College of Clinical Pharmacy Annual Meeting, Hollywood, FL, October 22, 2012

American College of Clinical Pharmacy and the Heart Failure Society of America Annual Meeting Heart Failure Symposium, Moderator, Hollywood, FL, October 22, 2012.

"Physician-Pharmacist Interaction: How Does the Interaction Benefit the Heart Failure Program?" American College of Clinical Pharmacy Annual Meeting, Hollywood, FL, October 22, 2012

"Heart Failure Cases" American College of Clinical Pharmacy Annual Meeting, Hollywood, FL, October 22, 2012

"The Impact of Hyponatremia: Role of the Pharmacist in Improving Care"

New York City Society of Health Systems Pharmacists Monthly Continuing Education Meeting, New York, NY, November 15, 2012.

Metroplex Society of Health System Pharmacists (Dallas/Ft. Worth, TX) Annual Meeting, Irving, TX, January 26, 2013.

Dallas-Ft. Worth Chapter of the American College of Clinical Pharmacy Monthly Dinner Meeting, Dallas, TX, May 28, 2013.
Greater Kansas City Society of Health System Pharmacists Bi-Monthly Dinner Meeting, Kansas City, MO, August 15, 2013.

Louisiana Pharmacists Association/Louisiana Society of Health-System Pharmacists Dinner Meeting, Baton Rouge, LA, September 5, 2013.

North Suburban Pharmacists of Chicagoland Association Monthly Dinner Meeting, Skokie, IL, October 15, 2013.

Atlanta Academy of Institutional Pharmacists Monthly Dinner Meeting, Atlanta, GA, October 24, 2013.

Long Island Society of Health-System Pharmacists Dinner Meeting, Melville, NY, December 4, 2013.

"Heart Failure Management 2013: Established Therapy and New Frontiers" Moderator and Conference Co-Director, Amelia Island, Fl, July 2013.

"How to Manage Existing Therapies" Heart Failure Society of America Comprehensive Review and Update, Chicago IL, November 1, 2013.

"How to Manage Cardiorenal Syndrome: New Therapies" Heart Failure Society of America Comprehensive Review and Update, Chicago IL, November 2, 2013.

"Biomarkers to Tailor Therapy for Acute Heart Failure," American Heart Association Scientific Sessions, November 17, 2013.

"Heart Failure Management 2014: Personalized Medicine to Optimize Care", Moderator and Conference Co-Director, Amelia Island, FL, July 2014

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"Extended Long-Term Treatment with Cilazapril in Patients with Chronic Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D., Co-Investigator: Deborah Bradley, B.S.N. Funded by Roche Laboratories.

"A Pilot Double-blind, Placebo-controlled Comparison of Fenoldopam Mesylate (SKF 82526-J) Taken b.i.d. or t.i.d. in Patients with NYHA Class II or III Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D., Co-Investigators: Deborah Bradley, B.S.N. and Lynda Jensen. Funded by Smith Kline & French Laboratories.

"A Double-blind, Placebo-controlled Comparison of 25, 50 and 100mg of Fenoldopam in Patients with NYHA Class II or III Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla Sueta, M.D., Ph.D., Deborah Bradley, B.S.N., Susan Clarke, B.S.N. and Lynda Jensen. Funded by Smith Kline & French Laboratories.

"Open Multicenter Trial of Fenoldopam Mesylate (SK & F 82526-J) in Patients with Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D., Co-Investigators: Deborah Bradley, B.S.N. and Lynda Jensen. Funded by Smith Kline & French Laboratories.

"Hemodynamic Effects and Safety of Oral Ramipril, an Inhibitor of Angiotensin Converting Enzyme, in Patients with Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D., Co-Investigators: Deborah A. Bradley, B.S.N. and Susan Clarke, B.S.N. Funded by Hoechst-Roussel Pharmaceuticals.

"Placebo-Controlled Double Blind Dose Response Study (1 week) of Oral Torasemide in Patients with Chronic Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D., Co-Investigators: Susan Clarke, B.S.N. and Lynda Jensen. Funded by Boehringer Mannheim Pharmaceuticals Corporation.

"A Phase III Randomized Double-Blind, Active-Control, Multicenter Study Comparing the Safety and Efficacy of Dopexamine Hydrochloride and Dobutamine Hydrochloride in the Treatment of Patients with Severe Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D., Co-Investigators: Carla Sueta, M.D.,Ph.D. and Susan Clarke, B.S.N. Funded by Fisons Corporation.

"The Influence of Calcium on the Anti-Ischemic Effects of Nifedipine." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: David H.W. Wohns, M.D., Stephanie Dunlap, D.O., Susan Clarke, B.S.N. and Stephen O'Quinn, Pharm.D. Funded by North Carolina Heart Association Grant.

"A One-Year Double Blind Dose Titration Comparison of the Oral Form of Torasemide Versus Furosemide in Patients with Chronic Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D.; Co-Investigators: Susan Clarke, B.S.N. and Lynda Jensen. Funded by Boehringer Mannheim Pharmaceuticals Corporation.

"A Multicenter Study of the Efficacy and Safety of Intravenous Torsemide versus Furosemide as Adjunctive Therapy in Patients with Pulmonary Edema." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla Sueta, M.D., Ph.D., Susan Clarke, B.S.N. and Stephanie Dunlap, D.O. Funded by Boehringer Mannheim Pharmaceutical Corporation.

"A Randomized Controlled Phase III Study of the Comparative Efficacy of Milrinone, Digoxin, and Captopril in Congestive Heart Failure Patients." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-investigators: Carla Sueta, M.D.,Ph.D., Stephanie Dunlap, D.O. and Stephen O'Quinn, Pharm.D. Funded by Sterling Drug Incorporated.

"A Prospective, Three-month, Randomized, Placebo-controlled Phase III Study of Oral Milrinone in Addition to Digoxin, Angiotensin Converting Enzyme Inhibitor and Diuretic Therapies in Patients with Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla Sueta, M.D., Ph.D., Stephanie Dunlap, D.O. and Stephen O'Quinn, Pharm.D. Funded by contract with Sterling Drug Incorporated.

"A Phase II, III Clinical Evaluation Study of Patients Receiving Oral Milrinone." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: Stephen O'Quinn, Pharm.D. Funded by Sterling Drug Incorporated.

"A Double-Blind Placebo Controlled, Parallel, Multicenter Study to Assess the Effect of Withdrawal of Benazepril on Exercise Tolerance and Clinical Signs and Symptoms in Patients with Chronic Congestive Heart Failure (NYHA Class II-III) Receiving Concomitant Diuretic Therapy." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D.,; Co-Investigators: Carla Sueta, M.D., Ph.D. Stephanie Dunlap, D.O., Stephen O'Quinn, Pharm.D. and Susan Clarke, B.S.N. Funded by Ciba-Geigy Corporation.

"A Double-Blind, Placebo-Controlled, Parallel, Multicenter Study to Assess the Effects of Digoxin Withdrawal On Exercise Tolerance and Other Measures of Clinical Efficacy in Patients With Chronic Congestive Heart Failure (NYHA Class II-III) in Normal Sinus Rhythm Receiving Concomitant Therapy With Diuretics and an Angiotensin Converting Enzyme Inhibitor." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D., and J. Herbert Patterson Pharm.D.; Co-Investigators: Carla Sueta, M.D., Ph.D., Stephanie Dunlap, D.O., Susan Clarke, B.S.N. and Stephen O'Quinn, Pharm.D.

"A Multicenter, Open, Randomized Comparison of the Safety and Efficacy of Chronic Flolan^{R} Infusions to Conventional Therapy in Patients with Severe Congestive Heart Failure: A Pilot Study." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla Sueta, M.D.,Ph.D., Stephanie Dunlap, D.O., Susan Clarke, B.S.N., Stephen O'Quinn, Pharm.D., and Lynda Jensen. Funded by Burroughs Wellcome Co.

"A Dose Range Finding Study of Intravenous 15AU81 in Patients with Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla A. Sueta, M.D.,Ph.D., Susan W. Clarke, R.N.,B.S.N., and Jyoti Patel, Pharm.D. Funded by contract with Burroughs Wellcome Company.

"Efficacy of Fosinopril Sodium in Patients with Chronic Heart Failure not Receiving Digoxin Therapy." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D., and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla Sueta, M.D.,Ph.D., Stephanie Dunlap, D.O., Susan Clarke, B.S.N., Stephen O'Quinn, Pharm.D. and Lynda Jensen. Funded by Bristol-Myers Squibb Co.

"A Dose-Range Finding Study of Intravenous 349U85 HCL in Patients with Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D.,Ph.D., Susan W. Clarke, R.N.,B.S.N., and Jyoti Patel, Pharm.D. Funded by contract with Burroughs Wellcome Company.

"Influence of Magnesium Supplementation on Ventricular Arrhythmia in Dilated Cardiomyopathy." Principal Investigator: Carla Sueta, M.D., Ph.D.; Co-Investigators: Kirkwood F. Adams, Jr., M.D., J. Herbert Patterson, Pharm.D., Stephanie Dunlap, D.O., Stephen O'Quinn, Pharm.D., Susan Clarke, B.S.N. and Lynda Jensen.

"A Dose-Range Finding Study of Oral 349U85 HCI in Patients with Severe Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D.,Ph.D., Susan W. Clarke, R.N.,B.S.N., Valerie Johnson, R.N., and J.P. Renfrow, Jr.,Pharm.D. Funded by contract with Burroughs Wellcome Co.

"Acute Hemodynamic Effects of Ascending Intravenous Doses of 349U85 HCI in Patients with Severe Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Susan W. Clarke, R.N., B.S.N., Valerie Johnson, R.N., J.P. Renfrow, Jr., Pharm.D., and Jacqueline Nolen, Pharm.D. Funded by contract with Burroughs Wellcome Co.

"A Double-Blind, Randomized, Placebo-Controlled Study of the Effect of Flosequinan on the Survival of Patients with Chronic Congestive Heart Failure (PROFILE). Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla A. Sueta, M.D.,Ph.D., Valerie Johnson, R.N., and Susan Clarke, R.N.,B.S.N. Funded by contract with Boots Pharmaceuticals.

"A Multicenter, Open, Randomized, Parallel Group Comparison of Chronic Epoprostenol Therapy Plus Conventional Therapy to Conventional Therapy Alone on Survival in Patients with Severe Refractory Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D.,Ph.D., and Susan W. Clarke, R.N.,B.S.N. Funded by contract with Burroughs Wellcome Company.

"Detection of a Procanamide-Ofloxacin Interaction with Signal Averaged Electrocardiography and Pharmacokinetics: Clinical Importance of the Organic Cation Transport System." Co-Principal Investigators: Ralph H. Raasch, Pharm.D., and David E. Martin, Pharm.D. Co-Investigators: J. Herbert Patterson, Pharm.D., James Griener, Pharm.D., and Wayne Cascio, M.D.

"A Dose Response Study of Oral Magnesium Lactate in Patients with Congestive Heart Failure." Co-Principal Investigators: Jamie Blose, Pharm.D., MIHM and J. Herbert Patterson, Pharm.D. Co-Investigators: Kirkwood F. Adams, Jr.,M.D., Carla A Sueta, M.D.,Ph.D., Susan W. Clarke, R.N.,B.S.N., and Valerie Johnson, R.N. Funded by UNC School of Pharmacy Faculty Seed Grant, $6,000.

"A Six Month, Double-Blind, Placebo-Controlled, Multicenter Dose-Ranging Comparison of Oral Carvedilol B.I.D. in Patients with Congestive Heart Failure NYHA Class II-IV." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D.,Ph.D., Susan W. Clarke, R.N.,B.S.N., and Valerie Johnson, R.N. Funded by contract with SmithKline Beecham Pharmaceuticals.

"A Twelve-Month Double-Blind Multicenter Comparison of Oral Carvedilol B.I.D. with Placebo in Patients with Mild Congestive Heart Failure, NYHA Class II." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., J. Herbert Patterson, Pharm.D., and Carla A. Sueta, M.D.,Ph.D. Co-Investigators: Susan W. Clarke, R.N.,B.S.N., and Valerie Johnson, R.N. Funded by contract with Smith Kline Beecham Pharmaceuticals.

"A Six-Month Double-Blind Multicenter Comparison of Oral Carvedilol B.I.D. with Placebo in Patients with Severe Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., J. Herbert Patterson, Pharm.D., and Carla A. Sueta, M.D.,Ph.D. Co-Investigators: Susan W. Clarke, R.N.,B.S.N., and Valerie Johnson, R.N. Funded by contract with Smith Kline Beecham Pharmaceuticals.

"A Multicenter Open Evaluation of the Safety of Chronic Epoprostenol Infusions in Patients with Severe Congestive Heart Failure: A Continuation Study." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D.; Co-Investigators: Carla A. Sueta, M.D.,Ph.D., and Susan W. Clarke, R.N.,B.S.N. Funded by contract with Burroughs Wellcome Company.

"A Randomized, Double-Blind, Placebo-Controlled, Multiple Dose Study of the Chronic Administration of Vesnarinone in Heart Failure (VEST)," Co-Principal Investigators: J. Herbert Patterson, Pharm.D. and Kirkwood F. Adams, Jr., M.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Susan W. Clarke, R.N., B.S.N., Valerie Johnson, R.N., and Kristin Williamson, Pharm.D. Funded by contract with Otsuka America Pharmaceuticals.

The Effect of Hepatic Enzyme Inhibition or Induction on the Disposition of Losartan in Normal Volunteers," Co-Principal Investigators: Kristin Williamson, Pharm.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: John A. Pieper, Pharm.D., Kirkwood F. Adams, Jr., M.D., and Robert McQueen, M.D.

"Frequency of Supra Therapeutic Digoxin Concentrations," Co-Principal Investigators: Kristin Williamson, Pharm.D., and J. Herbert Patterson, Pharm.D. Funded by grant from Glaxo-Wellcome, Inc., $5,000.

"The Use of Dextromethorphan as a Phenotyping Probe for CYP2D6 Activity in Patients with Heart Failure." Co-Principal Investigators: Kristin M. Williamson, Pharm.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: John A. Pieper, Pharm.D., Kirkwood F. Adams, Jr., and Kristie Reaves. Funded by grant from SmithKline Beecham, $5,000.

"Assessment of Treatment with Lisinopril and Survival (ATLAS)." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Susan W. Clarke, R.N., B.S.N., Valerie Johnson, R.N., and Jacqueline Nolen, Pharm.D. Funded by contract with ICI Pharmaceuticals.

"A One Year, Open-Label, Multicenter, Safety Study of Twice Daily Oral Carvedilol in Patients with NYHA Class I-IV CHF." Co-Principal Investigators: Kirkwood F. Adams, Jr.,M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A Sueta, M.D.,Ph.D., Susan W. Clarke, R.N.,B.S.N., and Valerie Johnson R.N. Funded by contract with Smith Kline Beecham Pharmaceuticals.

"The Effects of Cytochrome P450 2C9 Inhibition with Fluvastatin of Losartan Pharmacokinetics." Co-Principal Investigators: Amy L. Mewborn, Pharm.D. and John A. Pieper, Pharm.D. Co-Investigators: Kristin M. Williamson, Pharm.D., J. Herbert Patterson, Pharm.D. and Alan L. Hinderliter, M.D.

"A Phase 3, Randomized, Double-Blind, Placebo-Controlled Evaluation of the Acute and Chronic Efficacy and Safety of OPC-18790 in the Treatment of Patients with Decompensated Heart Failure," Otsuka America Pharmaceuticals, Inc. Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D., and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Susan W. Clarke, R.N., B.S.N., and Valerie Johnson, R.N. Funded by contract with Otsuka America Pharmaceuticals.

"A Phase 3, Randomized, Double-Blind, Placebo-Controlled Evaluation of the Onset and Offset of Hemodynamic Effects of OPC-18790 in Patients with Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Sagir Ahmed, M.D., Susan W. Clarke, R.N., Pharm.D. Funded by contract with Otsuka America Pharmaceuticals, Inc.

"A Pilot Study to Assess the Effect of Fluoxetine on Steady Stage Carvedilol Stereospecific Pharmacokinetics and Heart Rate Variability in Patients with Heart Failure." Co-Principal Investigators: J Herbert Patterson, Pharm.D. and Kirkwood F. Adams, Jr., M.D. Co-Investigators: Donald W. Graff, Pharm.D., Kristin Williamson, Pharm.D., John Pieper, Pharm.D., and Wayne Cascio, Pharm.D. Funded by contract with SmithKline Beecham Pharmaceuticals.

"Effects of concomitant CYP3A4 and CYP2C9 Inhibition on Losartan Pharmacokinetics." Co-Principal Investigators: John A. Pieper, Pharm.D. and Kimberly J. parnell, Pharm.D. Co-Investigators: J. Herbert Patterson, Pharm.D., Tracy L. Allen, Pharm.D., Donald W. Graff, Pharm.D., and Alan Hinderliter, M.D. Funded by a UNC School of Pharmacy Seed Grant.

"Evaluation of Potential Losartan-Phenytoin Drug Interactions in Normal Volunteers." Co-Principal Investigators: John A. Pieper, Pharm.D., and Tracy L. Allen, Pharm.D. Co-Investigators: J. Herbert Patterson, Pharm.D., Kimberly J. Parnell, Pharm.D., Donald W. Graff, Pharm.D., and Robert Greenwood, M.D. Funded by a grant from Merck & Co.

"PRAISE II - Prospective, Randomized Amlodipine Survival Evaluation - 2." Co-Principal Investigators: Kirkwood F. Adam, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Susan W. Clarke, RN, BSN, Valerie Johnson, RN, Kristin W. Williamson, Pharm.D., and Amy Mewborn, Pharm.D. Funded by contract with Pfizer, Inc.

"Outcomes of Prospective Trial of Intravenous Milrinone for Exacerbations of Chronic Heart Failure (OPTIME)." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Valerie Johnson, R.N., Linda Bailey, R.N., Donald W. Graff, Pharm.D., Kimberly Parnell, Pharm.D., and Tracy Allen, Pharm.D. Funded by contract with Sanofi Pharmaceuticals, Inc.

"A Double-Blind Multicenter Phase I Study of the Safety and Toleration of Single Doses of CP-316, 311 in Congestive Heart Failure." Co-Principal Investigators: Kirkwood F. Adams, Jr., M.D. and J. Herbert Patterson, Pharm.D. Co-Investigators: Carla A. Sueta, M.D., Ph.D., Valerie Johnson, R.N., Linda Bailey, R.N., Donald W. Graff, Pharm.D., Kimberly Parnell, Pharm.D., and Tracy Allen, Pharm.D. Funded by contract with Pfizer, Inc.

"Candesartan Cilexcetil in Heart Failure Assessment of Reduction in Mortality and Morbidity (CHARM). Principal Investigators: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, Pharm D., Jo E. Rodgers, Pharm.D., Valerie Johnson, R.N., Linda Mansmann, R.N., Michael Watkins, Pharm D., Korana Webster and Tasneem Islam. Funded by contract with Astra/Zeneca Pharmaceuticals.

"An Exploratory study of Intravenously Administered YM087 (CI-1025) to Assess Safety and Efficacy in Patients with Acute Decompensation of Chronic Heart Failure." Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, Pharm D., Valerie Johnson, R.N., Linda Mansmann, R.N., Korana Webster and Tasneem Islam. Funded by contract with Parke-Davis.

"Multicenter, Double-Blind, Randomized, Placebo-controlled, Phase II/III study of the effect of Recombinant Human Tumor Necrosis Factor (p75) Fusion Protein (TNFR:Fc) (Ethanercept) on Clinical Improvement in Patients with Chronic Heart Failure." Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, Pharm D., Valerie Johnson, R.N., Linda Mansmann, R.N., Korana Webster and Tasneem Islam. Funded by contract with Immunex Clinical Development.

"Influence of Ischemic Heart Disease Etiology and Degree of "Low Output" Syndrome on the Clinical Response to Milrinone in Patients with Decompensated Heart Failure." Principal Investigator: Kirkwood F Adams, Jr., M.D. Co-Principal Investigators: Jo E. Rodgers, Pharm D., J. Herbert Patterson, Pharm D., Valerie Johnson, R.N., Linda Mansmann, R.N., Korana Webster and Tasneem Islam. Funded by grant from Sanofi.

"A Double-Blind, Multicenter Phase I Study of the Safety and Toleration of Single Doses of CP-316, 311 in Congestive Heart Failure." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, RN, Linda Mannsmann, RN, Craig Lee, Pharm.D. Funded by contract from Pfizer, Inc.

"Phase II Double-Blind, Placebo Controlled, Sequential, Multiple Dose Evaluation of CP-424, 391 for Its Safety, Toleration and Efficacy in Men and Women with Mild-to-Moderate Heart Failure." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, RN, Linda Mannsmann, RN, Craig Lee, Pharm.D. Funded by contract from Pfizer, Inc.

"A Double-Blind, Parallel-Group, Multicenter, Randomized, Placebo-Controlled Study to Assess the Efficacy (symptomatology) and Safety of Ro61-0612 (tezosentan) in Patients with Acute Decompensated Heart Failure (RITZ-1)." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Carla A. Sueta, MD, Ph.D., Jana Glotzer, FNP, Heather Tangeman, Pharm.D. Funded by contract with Actelion, Ltd.

"A Double-Blind, Parallel Group, Multicenter, Randomized, Placebo-Controlled Study to Assess the Efficacy and Safety of Tezosentan in Patients with Acute Heart Failure Associated with Acute Coronary Syndrome (RITZ-4)." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Carla A. Sueta, MD, Ph.D., Jana Glotzer, FNP, Heather Tangeman, Pharm.D. Funded by contract with Actelion, Ltd.

"Double-blind, randomized, placebo-controlled, parallel group study evaluating the effects of different doses of LU 135252 on left ventricular dimensions, function, and left and right ventricular mass, neurohormone levels, and symptoms in patients with advanced congestive heart failure." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, RN and Craig Lee, Pharm.D. Funded by contract with Knoll Pharmaceuticals.

"OPC 41061 Acute and Chronic Therapeutic Impact of a Vasopressin Antagonist in Congestive Heart Failure (ACTIV)." Principal Investigator: Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, RN and Jana Glotzer, NP. The major goals of this project are to investigate the potential therapeutic effect of the selective ADH receptor antagonist OPC-41061 in patients with acute, decompensated congestive heart failure. 11/30/99-8/31/01. Funded by Otsuka/DCRI

"A 5-Week, Randomized, Double-Blind, Placebo-Controlled, Multi-Dose Safety, Tolerance, and Pharmacokinetics Study of CI-1034 in Patients with Secondary Pulmonary Hypertension Associated with Cardiopulmonary Disease." Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, PharmD., Sirisha Mallemala, M.D., Jana Glotzer, RN, MSN, CCRN, CS, NP, Valerie Johnson, R.N., Heather Tangeman, PharmD. GCRC #1771. 4/1/01-3/31/02. Funded by a grant from Pfizer, Inc.

"Evaluation Study of Congestive Heart Failure and Pulmonary Artery Catheterization Effectiveness (ESCAPE)." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Carla A. Sueta, MD, Ph.D., Jana Glotzer, FNP, Heather Tangeman, Pharm.D. Funded by NIH grant.

"Effect of β–adrenergic Receptor Polymorphisms on the Efficacy and Tolerability of Metoprolol in Heart Failure." University of Florida Principal Investigator: Julie A. Johnson, Pharm.D.; Co-Investigators: Steven G. Terra, Pharm.D., Daniel Pauly, MD, and Susan McGorray, Ph.D. University of North Carolina Principal Investigator: J. Herbert Patterson, Pharm.D.; Co-Investigators: Kirkwood F. Adams, Jr, MD, Craig Lee, Pharm.D., and Valerie Johnson, RN. Funded by contract with Orchid.

"A-HeFT (African American Heart Failure Trial). A Placebo-Controlled Trial of Bidil Added to Standard Therapy in African American Patients With Heart Failure". Principal Investigator: Kirkwood F. Adams, Jr., MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, RN and Jana Glotzer, NP. The major goal of this project is to demonstrate the safety and efficacy of BiDil versus placebo in AFA patients with moderate to severe symptomatic HF (NYHA Class III-IV) receiving standard treatment in a trial of sufficient size and duration to support approval of the NDA. 8/1/01-6/30/02. Funded by NitroMed.

"Management of Patients with CHF After Hospitalization, Follow Up Serial Infusion of Natrecor - FUSION 1, A Pilot Study" Principal Investigator: Kirkwood F. Adams, Jr., M.D.; Co-Investigators: J. Herbert Patterson, Pharm D., Jana Glotzer, N.P., Valerie Johnson, R.N., Elizabeth Miller, R.N. The purpose of the study is to determine how different doses of Natrecor can be used as weekly treatments for patients with CHF. 3/1/02-2/28/04. Funded by Scios Inc.

"Randomized Evaluation of Intravenous Levosimendan Efficacy Versus Placebo in the Short Term Treatment of Decompensated Chronic Heart Failure (The REVIVE Study)" Principal Investigator: Kirkwood F. Adams, Jr., MD; Co-Investigators: J. Herbert Patterson, Pharm.D.; Jana Glotzer, ANP, ACNP; Valerie Johnson, R.N.; Elizabeth Miller, R.N.; Kellie Buchanan, B.S.; Pinal Shah, Pharm.D. 6/3/02-5/31/04. Funded by Orion Pharma .

"A Double-Blind, Randomized, Placebo-controlled, Multicenter Study to Assess the Impact of Subcutaneous (SC) Darbepoetin Alfa Treatment on Exercise Tolerance in Subjects with Symptomatic Congestive Heart Failure (CHF) and Anemia." Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, PharmD., Carla A. Sueta, M.D., Ph.D., Patricia Chang, M.D., Robert H. McQueen, M.D., Valerie Johnson, R.N., Jana Glotzer, ANP, ACNP, Kellie Buchanan, B.S. The major goal of this project is to evaluate the effect of treatment with subcutaneous (SC) darbepoetin alfa on exercise tolerance in subjects with symptomatic congestive heart failure (CHF) and anemia. GCRC #1912. 5/1/02-4/30/03. Funded by Amgen, Inc.

"A Multi-center, Prospective, Observational Heart Failure Registry Study of STAMINA-HFP" Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, PharmD., Carla A. Sueta, M.D., Ph.D., Elizabeth Miller, R.N., Valerie Johnson, R.N., Jana Glotzer, ANP, ACNP, Amanda Garrand, B.A., Kellie Buchanan, B.S., Meghan Mulrenin, B.A., Tara Cook, B.A. The main goal of this project is to estimate the prevalence and incidence of anemia in heart failure patients who receive medical care from general cardiologists or heart failure specialists. 6/15/02-6/14/04. Funded by Amgen, Inc.

“PRESERVD-HF: Pilot Randomized Study of Nesiritide versus Dobutamine in Heart Failure.” Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, PharmD. Jana Glotzer, ANP, ACNP, Valerie Johnson, R.N., Elizabeth Miller, R.N., Kellie Buchanan, B.S., Pinal Shah, PharmD. The major goal of this study is to determine if a difference exists between troponin release among patients admitted with exacerbated heart failure treated with dobutamine as compared to nesiritide. 11/2/02-10/31/04. Funded by Duke Clinical Research Institute.

“Bio-Impedance CardioGraphy in Advanced Heart Failure (BIG): A Substudy of the Evaluation Study of Congestive Heart Failure and Pulmonary Artery Catheterization Effectiveness (ESCAPE). Co-Investigator: J. Herbert Patterson, Pharm.D. Completed Funded by NHLBI.

"ESSENTIAL - The Studies of Oral Enoximone Therapy in Advanced Heart Failure" Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, RN and Jana Glotzer, NP. The major goal of this project is to determine if low-dose enoximone therapy is an effective treatment for advanced chronic heart failure. 2/15/01-6/30/04. Funded by Myogen, Inc.

"Toprol-XL: A Multicenter, Double-Blind, Placebo-Controlled Trial to Evaluate the Effect of Extended Release Metoprolol Succinate (Toprol-XL) on Cardiac Remodeling in Asymptomatic Patients (NYHA Class I) with Left Ventricular Dysfunction (REVERT 276) " Principal Investigator: Kirkwood F. Adams, Jr, Co-Investigators: J. Herbert Patterson, Pharm.D., Valerie Johnson, R.N., and Jana Glotzer, N.P. The purpose of this study is to determine whether Toprol--XL is safe and effective in treating heart failure without symptoms. 10/15/01-6/21/03. Funded by Astra Zeneca.

"Acute Decompensated Heart Failure Registry (ADHERE)". Principal Investigator: Kirkwood F. Adams, Jr., M.D.; Co-Investigators: J. Herbert Patterson, Pharm.D., Amanda Garrand, B.A., Elizabeth Miller, R.N. The major goal of this project is to compile and maintain a hospital-based database registry of patients with acute heart failure. 2001 to Present. Funded by Scios, Inc.

"ADHERE (Acute Decompensated Heart Failure Registry) Longitudinal Module - Registry of Severe Heart Failure of Patients at High Risk for Re-Hospitalization." Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, PharmD., Betty Miller, R.N., Valerie Johnson, R.N., Jana Glotzer, ANP, ACNP, Amanda Garrand, B.A., Kellie Buchanan, B.S., Meghan Mulrenin, B.A. The major goal of this project is to gain a better understanding of patient outcomes and quality of care over time for patients with heart failure. 2002 to present. Funded by Scios, Inc.

"Identification of Biologic and Physiologic Correlates of Anemia in Patients with Congestive Heart Failure (CHF). Principal Investigator: Kirkwood F. Adams, Jr., M.D.; Co-Investigators: J. Herbert Patterson, Pharm.D., Jana Glotzer, NP, Valerie Johnson, R.N., Kellie A. Buchanan, B.S., Carla A. Sueta, M.D., Ph.D. The purpose of the study is to identify biologic and physiologic correlates of anemia in patients with symptomatic congestive heart failure (NYHA functional class II, III, IV) in order to better understand the underlying pathophysiology of the anemia associated associated with this congestive heart failure. 2002 to Present. Originally funded by Amgen Inc.

"Measurement of HbNO in Venous Blood in Humans by Electron Paramagnetic Resonance Spectroscopy." Principal Investigator: Jo E. Rodgers, Pharm.D. Co-Investigators: Karl Ruch, Pharm.D. Candidate, Kirkwood Adams, MD, Craig Lee, Pharm.D., J. Herbert Patterson, Pharm.D., Darryl Zeldin, MD, Ronald Mason, Ph.D., Ahmad Al-Hindi, MD. The primary objective of this pilot study is to evaluate the feasibility of detecting total HbNO levels in venous blood of healthy volunteers (n=3) and patients with CHF (n=3) using EPR spectroscopy following escalating doses of intravenous nitroglycerin treatment.

"Nesiritide in Low Cardiac Output Acute Heart Failure." Principle Investigator: Jo Ellen Rodgers, PharmD. Co-Investigators: J. Herbert Patterson, PharmD, Kirkwood Adams, Jr., MD, Carla Sueta, MD, PhD, Patrica P. Chang, MD, MHS, Ahmad Al-Hindi, MD, Yvette Yarn, RN. The purpose of this investigation is to obtain preliminary data on the clinical response and tolerability of intravenous nesiritide in patients with low cardiac output associated with ADHF.

"A Phase II, Randomized, Double-Blind, Parallel-Group, Placebo-Controlled, Multicenter Study to Examine the Effects of AC2592 Administered by Continuous Subcutaneous Infusion in Subjects with Congestive Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. Ongoing. Funded by Amylin Pharmaceuticals, Inc.

"A Multicenter Randomized, Double-Blind, Parallel Group, Placebo-Controlled Study to Assess the Effects of Immune Modulation Therapy (IMT) on Mortality and Morbidity in Patients with Chronic Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. 2004 to 2005. Funded by Vasogen, Inc.

"Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Long Term Efficacy and Safety of Oral Tolvaptan Tablets in Subjects Hospitalized with Worsening Congestive Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. 2004 to 2007. Funded by Otsuka Maryland Research Institute, Inc. Study to prospectively test the efficacy of tolvaptan, a vasopression antagonist, in improving the outcomes of patients hospitalized with acute heart failure.

"A Multicenter Prospective Observational Heart Failure Registry Study STAMINA-HFP (Study of Anemia in a Heart Failure Population)." Co-Investigator: J. Herbert Patterson, Pharm.D. 2002 to 2008. Originally funded by Amgen, Inc.

"ACTION-HF: A CHF Trial Investigating Outcomes of Exercise Testing." Principal Investigator: Kirkwood F. Adams, Jr., M.D. Co-Investigators: J. Herbert Patterson, PharmD., Carla A. Sueta, M.D., Ph.D., Paula F. Miller, M.D., Beth Rosnberg, M.D., Patricia Chang, M.D., Valerie Johnson, R.N., Jana Glotzer, ANP, ACNP, Elizabeth Miller, R.N., Kellie Buchanan, B.S. The major goal of this project is to determine whether exercise training represents an important, potential nonpharmacologic strategy for heart failure therapy. 2002 to 2008. Funded by NHLBI

"A Pilot Study to Assess Change in Exercise Heart Rate as a Dosing Strategy for Beta Blocker Therapy in Patients with Heart Failure Due to Left Ventricular Systolic Dysfunction (TARGET-HR)." Co-Investigator: J. Herbert Patterson, Pharm.D. 2004 to 2008. Funded by Astra Zeneca.

"Follow-up Serial Infusions of Natrecor (nesiritide) for the Management of Patients with Heart Failure-FUSION II." Co-Investigator: J. Herbert Patterson, Pharm.D. 2005 to 2007. Funded by Scios, Inc.

"A Multicenter Trial of the Orqis Medical CRS for the Enhanced Treatment of CHF Unresponsive to Medical Therapy." Principal Investigator: Kirkwood F. Adams, Jr, M.D.; Co-Investigator: J. Herbert Patterson, Pharm.D. 2005 to 2007. Funded by Orquis Medical Corporation.

"A Randomized, Double-Blind, Placebo-Controlled Dose Ranging Study of Effects of KW-3902, Both as Monotherapy and in Combination with Furosemide, on Diuresis and Renal Function in Patients with Congestive Heart Failure (CHF) and Renal Impairment Treatment with Oral Loop Diuretics who Require Hospitalization for Fluid Overload." Principal Investigator: Kirkwood F. Adams, Jr, M.D.; Co-Investigator: J. Herbert Patterson, Pharm.D. 2005 to 2007. Funded by Novacardia.

"A Multicenter, Randomized, Double-Blind, Double Dummy, Parallel Group Study to Compare Effects of Coreg CR and Coreg IR on Ejection Fraction in Subjects with Stable Chronic Heart Failure (The COMPARE TRIAL)." Principal Investigator: Kirkwood F. Adams, Jr, M.D.; Co-Investigator: J Herbert Patterson, Pharm.D. 2006 to 2008. Funded by University of California at San Diego.

"A Double-Blind Randomized Placebo-Controlled Multicenter Study to Evaluate the Effects of Treatment with 2 Regimens of Subcutaneous (SC) Darbepoetin Alfa (Weight-Based Dosing and Fixing Dosing) on Hemoglobin Concentration Response in Subjects with Symptomatic Congestive Heart Failure (CHF) and Anemia." Co-Investigator: J. Herbert Patterson, Pharm.D. 8/21/2006 to 2008. Funded by Amgen, Inc.

"A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study of the Effects of KW-3902 Injectable Emulsion on Heart Failure Signs and Symptoms and Renal Function in Subjects with Acute Heart Failure Syndrome and Renal Impairment who are Hospitalized for Volume Overload and Require Intravenous Diuretic Therapy." Co-Investigator: J. Herbert Patterson, Pharm.D. 2007 to 2008. Funded by Novacardia/ Duke Clinical Research Institute.

"Phase I/IIa, Multicenter Double Blind, Vehicle controlled, Randomized, Escalating, Single and Repeat Dose Study to Evaluate the Safety, Tolerability, Immunogenicity, Pharmacokinetics and Pharmacodynamics of Intravenous Cardeva (BNP Analog-Recombinant Human Albumin Fusion Protein) in Subjects with New York Heart Association Class II or III Heart Failure Attributable to Ischemic Heart Disease GCRC 2565." Co-Investigator: J. Herbert Patterson, Pharm.D. 2007 to 2008. Funded by CoGenesys.

"Double-blind, Placebo-Controlled, Multicenter Acute Study of Clinical Effectiveness of Nesirtide in Subjects with Decompensated Heart Failure, ASCEND-HF." Co-Investigator: J. Herbert Patterson, Pharm.D. 8/20/2007 to 6/28/2010. Funded by Scios, Inc.

"A Multicenter, Randomized, Double-Blind, Placebo-controlled Study of the Effects of KW-3902 Injectable Emulsion on Heart Failure Signs and Symptoms and Renal Function in Subjects with Acute Heart Failure Syndrome and Renal Impairment who are Hospitalized for Volume Overload and Require Intravenous and Require Intravenous Therapy (PROTECT)." Co-Investigator: J. Herbert Patterson, Pharm.D. 10/16/2007 to 10/6/2008. Funded by Merck, Sharp & Dohme.

"A Randomized Double-Blind, Placebo-Controlled Trial of Sertraline for Major Depression with Congestive Heart Failure (SADHART-CHF)." Principal Investigator: J. Herbert Patterson, Pharm.D. 1/10/2008 to 1/8/2009.

"GCRC-2050: A Congestive Heart Failure Trial Investigating Outcomes of Exercise Training (HF-ACTION)." Co-Investigator: J. Herbert Patterson, Pharm.D. 2/6/2008 to 2/2/2009.

"GCRC-2500: A Multicenter, Randomized, Double-Blind, Double-Dummy, Parallel Group Study to Compare Effects of Coreg CR and Coreg IR on Left Ventricular End Systolic Volume Index in Subjects with Stable Chronic Heart Failure (THE COMPARE TRIAL)." Co-Investigator: J. Herbert Patterson, Pharm.D. 5/19/2008 to 5/18/2009.

"A Phase II/III Multicenter, Randomized, Double-Blind, Placebo Controlled Study to Evaluate the Efficacy and Safety of Relaxin in Subjects with Acute Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. 7/24/2008 to 4/27/2009. Funded by BAS Medical.

"A Prospective, Randomized, Double-Blind, Double-Dummy, Parallel-Group, Multicenter, Event-Drive, Non-Inferiority Study Comparing the Efficacy and Safety of One-Daily Oral Rivaroxaban (BAY 59-7939) With Adjusted-Dose Oral Warfarin for the Prevention of Stroke and Non-Central Nervous System Systemic Embolism in Subjects with Non-Valvular Atrial Fibrillation (Rocket AF)." Co-Investigator: J. Herbert Patterson, Pharm.D. 1/26/2009 to 9/25/2009.

"CTRC- 2607: Pharmacokinetics of Enalapril and Carvedilol with Inhibition of Transporters by Famotidine." Co-Investigator: J. Herbert Patterson, Pharm.D. 5/11/2009 to 5/10/2010.

"A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Staggered Does-Escalating Phase IIb Study of the Safety and Efficacy of Istaroxime over 24 Hours at Three Doses in Acute Decompensated Heart Failure Patients." Co-Investigator: J. Herbert Patterson, Pharm.D. 7/14/2009 to 5/17/2010.

"Longitudinal Study of Beta-Blocker Utilization in Patients with Heart Failure." Principal Investigator: Kirkwood F. Adams, Jr, MD; Co-Investigators: J. Herbert Patterson, Pharm.D., Carla A. Sueta, MD, PhD, Sirisha Mallemala, MD, Valerie Johnson, RN, Jana Glotzer, NP, Kellie Buchanan, BS. The main goal of this project is to maintain a prospective database to follow care delivery in patients with heart failure, with particular focus on use of beta blockers. 2001 to 2011. Funded by Astra Zeneca.

A Phase II/III Multicenter, Randomized, Double-Blind, Placebo Controlled Study to Evaluate the Efficacy and Safety of Relaxin in Subjects with Acute Heart Failure (RELAX-AHF Main Phase)." Co-Investigator: J. Herbert Patterson, Pharm.D. 10/6/2011 to 10/2012. Funded by BAS Medical.

"Comparison of the Relative Oral Bioavailability of Tolvaptan Administered via Nasogastric Tube to Tolvaptan Tablets Swallowed Intact." Principal Investigator: J. Herbert Patterson, Pharm.D. 11/14/2011 to 12/2012. Funded By Otsuka America Pharmaceutical.

"A Double-blind, Randomized, Placebo-controlled, Multicenter Study to Assess the Efficacy and Safety of Darbepoetin Alfa Treatment on Mortality and Morbidity in Heart Failure (HF) Subjects with Symptomatic Left Ventricular Systolic Dysfunction and Anemia, RED-HF Trial – Reduction of Events with Darbepoetin alfa in Heart Failure Trial. Co-Investigator: J. Herbert Patterson, Pharm.D. 6/18/2008 to 1/2013. Funded by Amgen.

"A Multi-Center, Randomized, Double-blind Parallel Group, Placebo-controlled Study to Evaluate the 6 Months Efficacy and Safety of Aliskiren Therapy on Top of Standard Therapy, on Morbidity and Mortality when Initiated Early After Hospitalization for Acute Decompensated Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. 12/5/2011 to 2/8/2013. Funded by Novartis.

RESEARCH WORK IN PROGRESS:

"Investigation of the Roles of Genetic Variation in the Clinical Expression of Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. 2003 to Present. Unfunded.

"Pilot Study of the Relationship of Ambient Copeptin to the Aquaretic Effects of Tolvaptan in Patients with Heart Failure." Co-Investigator: J. Herbert Patterson, Pharm.D. 12/22/2011 to Present.

"A Double-blind, Randomized, Placebo-controlled, Multi-Center Study to Evaluate the Safety and Efficacy of IV Infusion Treatment with Omecamtiv Mecarbil in Subjects with Left Ventricular Systolic Dysfunction Hospitalized for Acute Heart Failure Atomic AHF: Acute Treatment with Mecarbil to Increase Contractility." Co-Investigator: J. Herbert Patterson, Pharm.D. 12/22/2011 to Present.

"The Targeting Acute Congestion with Tolvaptan in Congestive Heart Failure Study (TACTICS-HF). Co-Investigator: J. Herbert Patterson, Pharm.D. 12/28/2012 to Present. Funded by the Duke Clinical Research Institute.

STEP WISE: A Phase 2b, Randomized, Double-Blind, Multi-center Study Comparing Cross-linked Polyelectrolyte (CLP) With Placebo in Heart Failure Subjects. Co-Investigator: J. Herbert Patterson, Pharm.D. 3/21/2013 to Present. Funded by Sorbent Therapeutics, Inc.

COSMIC-HF: A Double-blind, Randomized, Placebo-controlled, Multi-center, Dose Escalation Study to Select and Evaluate an Oral Modified Release Formulation of Omecamtiv Mecarbil in Subjects with Heart Failure and Left Ventricular Systolic Dysfunction (COSMIC-HF). Co-Investigator: J. Herbert Patterson, Pharm.D. 3/21/2013 to Present. Funded by Amgen, Inc.

GUIDE-IT: Guiding Evidence Based Therapy Using Biomarker Intensified Treatment (GUIDE-IT). Co-Investigator: J. Herbert Patterson, Pharm.D. 2/8/2013 to Present. Funded by the NIH, sponsored by the Duke Clinical Research Institute.

TRUE-AHF: Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Efficacy and Safety of Ularitide (Urodilatin) Intravenous Infusion in Patients Suffering from Acute Decompensated Heart Failure. Co-Investigator: J. Herbert Patterson, Pharm.D. 3/21/2013 to Present. Funded by Cardiorentis in collaboration with Quintiles.

OCEAN: Omega-3 Supplementation for Co-Morbid Depression and Heart Failure Treatment. Co- Investigator: J. Herbert Patterson, Pharm.D. 08/12/2013 to Present. Funded by Duke University.

RELAX-2: A multicenter, randomized, double-blind, placebocontrolled phase III study to evaluate the efficacy, safety, and tolerability of Serelaxin when added to standard therapy in acute heart failure patients. Co- Investigator: J. Herbert Patterson, Pharm.D. 12/17/2013 to Present. Funded by contract with Novartis.

GUIDE-IT Echo Substudy: Guiding Evidence Based Therapy Using biomarker Intensified Treatment (GUIDE-IT) Echocardiographic Substudy. Co- Investigator: J. Herbert Patterson, Pharm.D. 01/21/2014 to Present. Funded by National Institutes of Health.

CXL-1427: A phase IIa study of the safety, tolerability and hemodynamic effects of a continuous 6-hour infusion of CXL-1427 in hospitalized patients with systolic heart failure. Co-Investigator: J. Herbert Patterson, Pharm.D. 06/01/2014 to Present. Funded by contract with Cardioxyl Pharmaceuticals, Inc.

REPEAT: Prospective, double-blind, multicenter study evaluating the safety of repeat doses of IV serelaxin in subjects with chronic heart failure. Co-Investigator: J. Herbert Patterson, Pharm.D. 06/15/2014 to Present. Funded by contract with Novartis.

PARAGON: A multicenter, randomized, double-blind, parallel group, active-controlled study to evaluate the efficacy and safety of LCZ696 compared to valsartan, on morbidity and mortality in heart failure patients (NYHA Class II-IV) with preserved ejection fraction. Co-Investigator: J. Herbert Patterson, Pharm.D. 08/10/2014 to Present. Funded by contract with Novartis.