

CURRICULUM VITAE

WENDELL SCOTT AKERS, Pharm.D, Ph.D.

April 08

I. PERSONAL INFORMATION

Residence: 906 Buford Place, Nashville, TN 37204
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Nashville, TN 37204
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II. LICENSURE AND CERTIFICATION

Pharmacy License: State of Tennessee, #C008277 (1991)
State of Kentucky, #011972 (2000)

Clinical Certification: Board Certified Pharmacotherapy Specialist (1993)
Pharmacy Preceptor, State of Kentucky (2000)

Research Certification: Protecting Study Volunteers in Research (2002)

III. EDUCATION

1981 – 85 Karns High School, Knoxville, Tennessee

1985 – 87 Roane State Community College, Harriman, Tennessee

1987 – 91 Doctor of Pharmacy, University of Tennessee, College of Pharmacy, Memphis, Tennessee

1991 – 92 Pharmacy Practice Resident, University of Tennessee Medical Center, Department of Pharmacy, Knoxville, Tennessee

1992 – 94 Cardiovascular Pharmacy Fellowship, University of Tennessee, Department of Clinical Pharmacy, Memphis, Tennessee

1994 – 98 Doctor of Philosophy, Pharmaceutical Sciences, University of Kentucky, College of Pharmacy, Lexington, Kentucky

IV. PROFESSIONAL EXPERIENCE

1986 – 87 Pharmacy Technician, Eckerd Drug, Oak Ridge, Tennessee

1988 – 90 Pharmacy Intern, Saint Francis Hospital, Memphis, Tennessee

V. ACADEMIC APPOINTMENTS

- 1998 – 04 Assistant Professor (Tenure Track - Special Title Series), University of Kentucky, College of Pharmacy, Department of Pharmacy Practice and Science
- 1998 – 04 Associate Member, Graduate Faculty for the Pharmaceutical Sciences, University of Kentucky, College of Pharmacy, Department of Pharmaceutical Sciences
- 2004 – 07 Associate Professor with Tenure (Special Title Series), University of Kentucky, College of Pharmacy, Department of Pharmacy Practice and Science
- 2004 – Full Member, Graduate Faculty for the Pharmaceutical Sciences, University of Kentucky, College of Pharmacy, Department of Pharmaceutical Sciences
- 2006 – 07 Coordinator, Clinical & Experimental Therapeutics Graduate Track, University of Kentucky, Department of Pharmaceutical Sciences,
- 2007 – Chair, Department of Pharmaceutical Sciences, Lipscomb University, College of Pharmacy
- 2007 – Associate Clinical Professor of Medicine, Division of Clinical Pharmacology, Vanderbilt University

VI. HOSPITAL OR CLINICAL APPOINTMENTS

- 1998 – 07 Clinical Pharmacy Specialist, Department of Pharmacy Services, University of Kentucky, Chandler Medical Center, Lexington, KY
- 2002 – 06 Clinical Research Faculty (Without Compensation), Department of Veterans Affairs, Veteran Affairs Medical Center, Lexington, KY

VII. TEACHING ACTIVITY

University of Tennessee

Pharmacy Curriculum:

- 1992 – 93 CLPH 313: Cardiovascular Therapeutics Module (70 students)
- 1992 – 93 CLPH 311: Applied Clinical Pharmacokinetics (10 students/group)
- 1992 – 93 CLPH 410: Cardiology Clerkship, Co-preceptor

University of Kentucky

Pharmacy Curriculum:

- 1994 PHR 806: Biopharmaceutics/Pharmacokinetics; Teaching assistant
- 1995 PHR 860: Cardiovascular/Pulmonary Physiology; Teaching assistant
- 1995 – 96 PHR 849: Dispensing Laboratory; Teaching assistant

1998 – 07	<p>PHR 957 Integrated Cardiovascular Therapeutics (103 students) †</p> <ul style="list-style-type: none"> • Introduction to Cardiovascular Module Lecture (2 CH) • Atrial Fibrillation Lecture (1 CH) • Atrial Fibrillation Case Study (1CH) • Antiarrhythmic Pharmacokinetics Lecture (1 CH) • Diabetes Related CV Disease Lecture (2 CH) • Diabetes Case Study (1 CH) • Hypertension I and II Lecture (2 CH) • Hyperlipidemia I and II Lecture (2 CH) • Metabolic Syndrome/PVD Lecture (2 CH) • Metabolic Syndrome/Lipid/HTN Case Study (1 CH) • Ischemic Heart Disease I and II Lecture (2 CH) • Infective Endocarditis Lecture (2 CH) • Acute Coronary Syndromes I and II Lecture (2 CH) • Acute Coronary Syndrome Case Study (2 CH) • Heart Failure I and II Lecture (2 CH) • Heart Failure Case Study (2 CH) • Capstone Preparations Case Study (2 CH) • Capstone Presentations Case Study (2 CH) • Exam Review Review (2 CH) <p style="text-align: right;">TOTAL 33 Contact hours</p>
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† Served as the Cardiovascular Module Leader for PHR 957 from 2003 to 2006 Fall Semesters.

2003 – 04 PHR 952 Disease Processes I (92 students) †
 † Served as the Cardiovascular Module Leader for PHR 952 during the 2003 Fall Semester that included attending classes and preparing examination questions for a total of 9 contact hours on cardiovascular pathology topics.

1999 – 07 PHR 988 Pharmacy Practice Clerkship (20 Pharm.D. students since 1999)
 Coronary Intensive Care Unit, Chandler Medical Center

1999 – 07 Pharmacy Academic Exchange Program (12 Pharmacy students since 1999)
 Kitasato University, Tokyo, Japan

Medicine Curriculum:

1999 – MD 842 Advanced Clinical Pharmacology/Anesthesiology (1 contact hour/year)

Pharmacy Graduate Curriculum:

1999 – 07 PHR 760 Introduction to Pharmaceutical Sciences
 Lab Infomercials – Pharmacology (0.5 contact hours per year)

1999 – 07 Clinical Pharmaceutical Sciences Ph.D. Program
 Clinical Research Rotation (2 students per year; 6-week rotation)

2004 – 07 PHR 760 Topics in Pharmaceutical Sciences: Introduction to Clinical and
 Translational Research (2 Contact Hours)

2005 – 07 PHR 764 Special Topics in Pharmaceutical Sciences: Drug Development
Regulation and Clinical Research (1 Contact Hour)
Lecture: Use of Surrogate Markers in Phase 2/3 Cardiovascular Research

University Hospital Pharmacy Residency Program:

1998 Medical Intensive Care Unit Preceptor (3 Pharm.D. Residents since 1998):

1998 – 07 Coronary Intensive Care Unit Preceptor (30 Pharm.D. Residents since 1998)

1999 – 03 Cardiothoracic Intensive Care Unit Preceptor (12 Pharm.D. Residents since 1999)

1998 – 07 Critical Care Resident Lecture Series (3 Critical Care Residents/year)

- Cardiovascular hemodynamic monitoring 2 CH per year
- Regulation of cardiac contractility/Heart failure 1 CH per year
- 12-lead Electrocardiography 2 CH per year
- Drug-Induced QTc Monitoring 1 CH per year
- Acute Coronary Syndromes 4 CH per year
- Cardiac Antiarrhythmic Pharmacology 1 CH per year

Vanderbilt University Master of Science Nursing Program

Adult Nurse Practitioner Specialty Program

2007 - N307 Pharmacotherapeutics

- Hypertension Lectures 4 CH per year

Family Nurse Practitioner Specialty Program

2008 - N307 Advanced Pharmacotherapeutics:

- Antithrombin/Antiplatelet Agents 1 CH per year
- Antiarrhythmics 1 CH per year
- Heart Failure 1 CH per year

VIII. ADVISING ACTIVITY

Pre-Pharmacy Student Advisor (2):

2002 High School Research Apprentice Program (HS-RAP) Mentor
Justin Mullins, Whitesburg High School, Letcher County, KY

2006 Summer Undergraduate Research Program; Mentor
Brent Roach, Transylvania University, Lexington, KY

Pharmacy Student Advisor (8):

2000 – 04 Doug Black, Andy France, James Bottom,
Mariana Fraile, Jennifer Flannery, Jill Blancett

2003 – 07 Kori Gilfedder, Phillip McCreary

Pharmacy Resident Advisor (5):

1998 Jennifer Justice, Pharm.D., Pharmacy Practice Resident

1998 Phillip Empey, Pharm.D., Pharmacy Practice Resident

2001 Sandy Cuellar, Pharm.D., Pharmacy Practice Resident
2004 Felix Yam, Pharm.D., Pharmacy Practice Resident
2005 April Miller, PharmD., Pharmacy Practice Resident

Pharmacy Resident Research Advisor (7):

1998 Sara Douglas-Brouse, Pharm.D., Critical Care Resident (Co-Advisor)
1999 Phillip Empey, Pharm.D., Critical Care Resident (Co-Advisor)
2000 Jeremy Flynn, Pharm.D., Critical Care Resident
Project: *The Role of the Cardiac Renin-Angiotensin System in Ischemia-Reperfusion Injury.*
2000 Shilpa Shah, Pharm.D., Critical Care Resident
Project: *The Effect of Clonidine on Cardiac Norepinephrine Spillover.*
2001 Bonnie Rosbolt, Pharm.D., Critical Care Resident
Project: *The Effect of Ischemia-Reperfusion Injury on Angiotensin II Receptor Subtype Expression.*
2002 Natasa Stevkovic, Pharm.D., Critical Care Resident
Project: *The Safety of Clopidogrel Administration in Combination with Aspirin After Off-Pump Coronary Artery Bypass Surgery.*
2003 Diane H. Rhee, Pharm.D., Pharmacy Practice Resident
Project: *Evaluation of Chest Tube Output and Antiplatelet Therapy Following Coronary Artery Bypass Graft Surgery*
2005 Kyle Weant, Pharm.D., Critical Care Resident
Project: *Clinical Utility of the RPFA following Off-Pump Coronary Artery Bypass Surgery.*

Fellow Research Advisor (2):

2001 – 03 Jeremy D. Flynn, Pharm.D., Cardiovascular Critical Care Fellow
Project: *Cardioprotective Effects of Losartan on the Functional Recovery of Isolated Rat Hearts.*
2004 – 06 Jennifer Oh, Pharm.D., Cardiovascular Critical Care Fellow
Project: *Double-Blind Study of the Safety of Clopidogrel in Combination with Aspirin after OFF-Pump Coronary Artery Bypass Surgery.*

Graduate Student Advisory Committee (9):

1999 – 00 Member, Steve Phipps, Pharm.D.; Ph.D. Clinical Pharmaceutical Sciences
2000 – 01 Member, Sherry Hsu; Ph.D. Pharmaceutical Sciences Program
2001 – 04 Member, Carine Boustany, Pharm.D.; Ph.D. Pharmaceutical Sciences
2004 – 04 Member, Gerome Burke; Ph.D. Toxicology
2004 – Member, Leah Allen; Ph.D. Pharmaceutical Sciences Program
2005 Outside Examiner, Tracy Henriques; Ph.D. Nutritional Sciences
2005 – Mentor, Julie Oestreich, Pharm.D.; Ph.D. Clinical Pharmaceutical Sciences
2005 – 06 Mentor, Jennifer Oh, Pharm.D.; Clinical Pharmaceutical Sciences (Masters)
2006 – Member, Shaojing Ye; Ph.D Department of Molecular and Cellular Biochemistry

IX. ADMINISTRATIVE ACTIVITY AND UNIVERSITY SERVICE

University of Tennessee

College of Pharmacy:

1993 – 94 Pharmacokinetic Course Subcommittee
1993 – 94 Drug Information Subcommittee

University of Kentucky

Chandler Medical Center:

Pharmacy Residency Program:

- 1998 – 07 Pharmacy Practice Resident Preceptor, Cardiology
- 1998 – 07 Critical Care Resident Preceptor, Cardiology
- 1999 – 07 Pharmacy Practice and Critical Care Resident Interviews

Hospital Pharmacy Patient Care Services:

- 1998 Medical Intensive Care Unit, Clinical Pharmacy Specialist
- 1998 – 07 Coronary Intensive Care Unit, Clinical Pharmacy Specialist
- 1999 – 03 Cardiothoracic Intensive Care Unit, Clinical Pharmacy Specialist

Hospital Pharmacy Service/Committees:

- 1998 – 00 Pharmacy & Therapeutics Critical Care Subcommittee
- 1999 Great Lakes Pharmacy Resident Conference Planning Committee
- 1999 Enoxaparin Medication Use Evaluation Task Force
- 2000 Low Molecular Weight Heparin Task Force (Consultant)
- 2000 Thrombolytic Policy Revisions for Emergency Department
- 2000 – 01 Eptifibatide Medication Use Evaluation (Coordinator)
- 2000 – 01 Amiodarone Medication Use Evaluation Task Force (Coordinator)
- 2000 – 01 Coumadin Medication Use Evaluation Task Force
- 2001 Anthem PTCA Patient Education Multidisciplinary Team (Member)
- 2001 Anthem CABG Patient Education Multidisciplinary Team (Member)
- 2001 Tirofiban Formulary Evaluation (Consultant)
- 2001 Antiarrhythmic Formulary Evaluation (Consultant)
- 2001 – 02 Natreacor Drug Evaluation (Consultant)
- 2003 Dofetilide Administration/Dispensing Guideline Document (Consultant)
- 2003 Bivalirudin Dosing Administration Card (Consultant)
- 2004 Cardiothoracic Surgery Post-Operative Atrial Fibrillation Protocol (Consultant)
- 2004 GP IIb/IIIa Receptor Antagonist Formulary/Cost Analysis (Consultant)
- 2004 ACE Inhibitor & Angiotensin II Receptor Blocker Formulary (Consultant)
- 2004 University of Kentucky AHA Get with the Guidelines Planning Committee
- 2004 ASHP Residency Accreditation Visit, Faculty Participant
- 2005 Cardiology Specialist Search Committee (Member)

Hospital Special Service Projects:

- 2003 – 07 Prospective QTc Interval Monitoring Program (Coordinator)
Pilot program to develop a multidisciplinary team to evaluate the frequency and type of drug exposures that may predispose critically ill patients to develop drug-induced QT interval prolongation at the University of Kentucky Medical Center.
- 2003 – 06 Hemostasis Monitoring Program following Cardiac Surgery (Co-Coordinator)
Establishment of a Clinical Monitoring Service to prospectively monitor patients at risk for developing excessive postoperative bleeding following cardiac surgery.

College of Pharmacy:

- 1997 – 98 Graduate Task Force Committee
- 1998 – 99 Research Challenge Trust Fund Faculty Search Committee
- 1998 – 00 Seminar Advisory Committee
- 1999 – 00 Pharmacy Practice & Science Search Committee, Transplant position
- 1999 – 05 Clinical Pharmaceutical Sciences Focus Group
- 1999 – 07 Molecular and Cellular Pharmacology Area of Graduate Study (Member)

- 2000 – 01 Pharmaceutical Sciences Faculty Search Committee, Drug Delivery position
2000 – 07 Safety Committee
2001 Clinical Pharmaceutical Sciences Graduate Student Recruitment, ASHP Midyear
Clinical Meeting, New Orleans, LA
2003 ACPE Self-Study Subcommittee: Faculty Standards
2003 Pathology and Therapeutics Review Committee
2003 – 07 Pharmaceutical Sciences Faculty Search Committee, Faculty position
2003 Pharmaceutical Sciences Ph.D. Program Open House
2003 Clinical Pharmaceutical Sciences Fellow/Graduate Student Recruitment, American
College of Clinical Pharmacy Recruitment Forum, Atlanta, GA
2003 Clinical Pharmaceutical Sciences Graduate Student Recruitment, ASHP Midyear
Clinical Meeting, New Orleans, LA
2004 – 05 Ad Hoc Committee for Residency Planning and Clinical Fellowship Retreat
2004 – 05 PPS Faculty Search Committee, Clinical Pharmaceutical Scientist Position
2004 – 06 PPS Governance Document Committee
2004 – 06 Clinical Pharmaceutical Sciences Strategic Plan Workgroup
2004 Clinical Pharmaceutical Sciences Graduate Student Recruitment, ASHP Midyear
Clinical Meeting, Orlando, FL
2005 – 06 Chair, Graduate Education and Research Committee, Department of
Pharmaceutical Practice and Science
2005 – 06 Member, Executive Committee, Department of Pharmacy Practice and Science
2005 – 07 Member, Graduate Education and Research Committee, Department of
Pharmaceutical Practice and Science
2006 Clinical & Experimental Therapeutics Graduate Student Recruitment, ASHP
Midyear Clinical Meeting, Anaheim, CA
2006 College of Pharmacy Building/Research Committee, PPS Representative
2006 Summer Undergraduate Research Program Mentor, Pharmaceutical Sciences
2006 – 07 Coordinator, Clinical & Experimental Therapeutics Graduate Track, Department of
Pharmaceutical Sciences
2006 – 07 Chair, Clinical and Experimental Therapeutics Track Steering Committee,
Departments of Pharmacy Practice & Science and Pharmaceutical Sciences
2006 – 07 Member, Department Chair Search Committee, Pharmacy Practice and Science

University of Kentucky:

- 2002 Research Challenge Trust Fund Reception, Kentucky General Assembly, Holiday
Inn Capital Plaza, Frankfort, KY
2006 – 07 Member, Clinical and Translational Science Training Core Committee

Lipscomb University

University

- 2008 - New Science Facility Programming Committee

College of Pharmacy

- 2007 - Department Chair, Pharmaceutical Sciences

X. SCHOLARLY SERVICE

Grant Review Committees:

- 1999 – 05 Internal Grant Reviewer, UK Chandler Medical Center
2004 – 07 Invited Grant Reviewer, UK General Clinical Research Center
2006 – American Heart Association, Ohio Valley Peer Review Committee 2b

Editorial Appointments:

1999 Editor, "Acute Myocardial Infarction Module", UK CE Office

Journal Referee:

1995 *Clinical Pharmacy*
1997 – *Journal of Pharmacology and Experimental Therapeutics*
2001 – *Cardiovascular Research*
2003 – *Pharmacotherapy*
2003 – *The Annals of Pharmacotherapy*
2006 *Pharmaceutical Research*

Other Scholarly Service:

2002 – 07 Poster Judge, UK Gill Heart Institute Cardiovascular Research Day
2003 Invited Participant, *Pharmacotherapy* Focus Group
2004 – 05 Society of Critical Care Medicine, Multidisciplinary Model Research Committee
2004 – 05 Research/Scholarly Activity Mentor for UK Pharmacy ICU Team
2004 – American College of Clinical Pharmacy, Abstract Reviewer
2005 – 07 Manuscript Reviewer, Residency Research Awards
2006 – 07 Poster Judge, Clinical and Translational Science Spring Conference
2006 Representative, NIH PharmD Pathways to Biomedical Research Conference

XI. PUBLIC SERVICE

1997 – 2000 Member, Florence Church of Christ, Florence, KY
2000 – 07 Member, Southside Church of Christ, Lexington, KY
2004 Pharmacy Team Leader, Gill Heart Institute, American Heart Association Walk, Ohio Valley Affiliate, Lexington, KY

XII. CONSULTING ACTIVITY

1999 – 00 Poulenc Rorer Pharmaceuticals, Inc., Delaware, PA
2000 – 01 Quest Medical, Inc., Allen, Tx
2000 - 07 Sanofi-Aventis Pharmaceuticals, Inc., New Jersey
2004 - 05 Pfizer Pharmaceuticals, Inc., New York, NY
2004 - 05 Guilford Pharmaceuticals, Inc.

XIII. PROFESSIONAL ACTIVITY AND DEVELOPMENT

Professional Affiliations:

1987 – 88 Member, The Academy of Students of Pharmacy
1987 – Member, Kappa Psi Pharmaceutical Fraternity
1991 – 92 Member, Knoxville Society of Hospital Pharmacists
1991 – Member, American Society of Hospital Pharmacists
1992 – 94 Member, Memphis Area Resident/Fellow Society
1992 – 94 Member, Mid-South College of Clinical Pharmacy
1992 – Member, American College of Clinical Pharmacy
1998 – Member, Rho Chi Honor Society
1998 – Member, American Association of Colleges of Pharmacy
2001 – Member, Society of Critical Care Medicine
2002 – Member, American Heart Association
2003 – 07 Member, Bluegrass Pharmacists Association
2006 – Member, American College of Clinical Pharmacology

Professional Development:

- 1992 Advanced Cardiac Life Support
University of Tennessee Medical Center at Knoxville
- 1992 Educational Effectiveness Seminar
University of Tennessee, College of Pharmacy
- 1992 Leadership Effectiveness Seminar
University of Tennessee, College of Pharmacy
- 1992 Biostatistics for the Sciences I
University of Tennessee, Memphis
- 1993 Pharmacotherapy Review Course
University of Tennessee, Department of Clinical Pharmacy
- 1993 Advanced Pharmacokinetic/Pharmacodynamics Course
University of Tennessee, Department of Clinical Pharmacy
- 1998 Pharmacotherapy Self-Assessment Program, Third Edition
American College of Clinical Pharmacy
- 1999 Development of Laboratory Techniques in the Isolated Perfused Rat Heart
Preparation, Drs. Joseph Janicki and Greg Brower, Department of Anatomy,
Physiology, and Pharmacology, Auburn University
- 1999 Development of Laboratory Techniques in the Isolated Perfused Rat Heart
Preparation with Attached Cardiac Sympathetic Nerves. Dr. Subramaniam
Apparsundaram, Department of Pharmacology and Center for Molecular
Neuroscience, Vanderbilt University Medical School
- 2001 Orientation to Blackboard 5. WT Young Library, University of Kentucky.
- 2001 K30 Fall Retreat Mini-Workshops: Authorship Ethics, Conflict of Interest.
University of Kentucky.
- 2001 K30 December Journal Club. Coaching: The Opportunity to Realize Dreams.
University of Kentucky.
- 2002 Development of Laboratory Techniques using Gel Shift Assays and Western Blots.
Drs. Hollie Swanson and Ginell Post, University of Kentucky
- 2002 Certification of Human Subject Protection Education
- 2003 NIH Peer Review Policies and Procedures: Grant Writing for Success, Anthony M.
Coelho, Ph.D., NIH Review Policy Officer. Presented at the University of
Kentucky, Lexington, KY.
- 2003 NIH R03 and R21 Workshop. University of Kentucky, Lexington, KY.
- 2003 Clinical Research Skills Workshop, Pfizer Pharmaceuticals, Lexington, KY
- 2004 Uniform IRB, IBC, GCRC Unanticipated Problems/Adverse Event Reporting in
Human Research Projects. University of Kentucky IRB, Lexington, KY.
- 2004 NIH Grant Workshop: R03 and R21. OSPA, University of Kentucky, Lexington, KY.

XIV. HONORS, AWARDS AND ACHIEVEMENTS

- 1985 – 86 Dean's List, Roane State Community College
- 1988 – 91 Scholarship Honors, Kappa Psi Pharmaceutical Fraternity
- 1993 Upjohn Research Award, University of Tennessee
- 1993 American College of Clinical Pharmacy Cardiovascular Fellowship
- 2000 American Foundation of Pharmaceutical Education Fellowship
- 2001 Rho Chi Honor Society
- 2001 American College of Clinical Pharmacy Critical Care Fellowship (Mentor)
- 2001 AACP New Investigator Award
- 2001 UK Pharmacy Practice & Science Research Enhancement Award
- 2001 UK K30 Career Training Award in Translation Research (Mentor)

- 2002 UK Gill Heart Institute Cardiovascular Research Conference Fellow Poster Award
1st Place Winner: Jeremy Flynn, Pharm.D. (Mentor: Akers)
- 2003 Society of Critical Care Outcomes Pharmacy Fellowship Program Award
- 2003 American College of Clinical Pharmacy Best Fellow Award
Fellow: Jeremy Flynn, Pharm.D. (Mentor: Akers)
- 2006 K30 Mentor Recognition Award, Clinical and Translational Science Spring
Conference, University of Kentucky, Lexington, KY
- 2006 Student Abstract Award (Julie Oestreich, PharmD; Mentor: Akers)
American College of Clinical Pharmacology, Cambridge, MA
- 2006 Wayne A. Colburn Memorial Award (Julie Oestreich, PharmD; Mentor: Akers)
American College of Clinical Pharmacology, Cambridge, MA
- 2006 Finalist, Best Student Poster (Julie Oestreich, PharmD; Mentor: Akers)
American College of Clinical Pharmacy, St. Louis, MO

XV. SCHOLARLY PRESENTATIONS

Local Presentations:

Racial differences in antihypertensive response to beta-blockade. Podium: University of Tennessee, College of Pharmacy, Department of Clinical Pharmacy Research Seminar, Memphis, TN, July 1993.

Racial differences in antihypertensive response to beta-blockade. Podium: University of Tennessee, College of Pharmacy, Department of Clinical Pharmacy Research Seminar, Memphis, TN, June 1994.

Angiotensin II in congestive heart failure. Podium: University of Kentucky, College of Pharmacy, Division of Pharmacology and Experimental Therapeutics Research Seminar, Lexington, KY, March 1995.

Characterization of the renin-angiotensin system in a pressure-overload rat model. Podium: University of Kentucky, College of Pharmacy, Division of Pharmacology and Experimental Therapeutics Research Seminar, Lexington, KY, February 1996.

Angiotensin II regulates cardiac beta-adrenergic receptors in a rat model of pressure-overload. Podium: University of Kentucky, College of Pharmacy, Division of Pharmacology and Experimental Therapeutics Research Seminar, Lexington, KY, March 1997.

Enhanced cardiac sympathetic neurotransmission in a rat model of pressure-overload. Podium: University of Kentucky, College of Pharmacy, Department of Pharmacy Practice and Science, Lexington, KY, September 1997.

Enhanced Cardiac Neurotransmission in Rat Left Ventricle Following Pressure-Overload. Podium: Gill Heart Research Seminar, University of Kentucky, October 1998.

Suppressing Cardiac Sympathetic Neurotransmission. Podium: Pharmacy Practice and Science Research Seminar Series, University of Kentucky, March 1999.

Low Molecular Weight Heparins. Podium: Department of Emergency Medicine Grand Rounds, College of Medicine, University of Kentucky, Lexington, KY (CE Provided), November 1999.

Suppressing Cardiac Neurotransmission. Podium: American Association of Pharmaceutical Scientists: University of Kentucky Chapter. Session III: Clinical Pharmacology. Lexington, KY, April 2000.

Clinical Pharmacology of Nitrovasodilators. Podium: Cardiology Catheterization Report, College of Medicine, University of Kentucky, April 2000.

Building Community Partnership for Heart Failure Care: A Multi-Disciplinarian Approach. Podium Discussion Panel: Heart Failure - From Cell to Bedside. Hyatt Regency Lexington, Lexington, KY (CE Provided), September 2000.

Clinical Pearls: Drug-Induced QT Interval Prolongation. Podium: Pharmacy Grand Rounds, University of Kentucky Chandler Medical Center, September 2002.

Losartan and Ischemic Preconditioning Inhibits p38 Kinase Activation During Ischemia and Enhances Akt Activation During Reperfusion in Isolated Rat Hearts. Flynn J, Post G, Kilpatrick E, Cassis L, Pauly J, Akers WS. Poster: University of Kentucky Gill Heart Research Institute Conference, November 2002.

Optimizing the Diabetic Formulary to Improve Cardiovascular Outcomes. Podium: Bluegrass Pharmacists Association Meeting, Lexington, KY (CE Provided), May 2003.

Initiation of a Prospective QT Interval Monitoring Program in the Intensive Care Units. Presented to the Pharmacy & Therapeutics Committee, University of Kentucky Medical Center, Lexington, KY, September 2003.

Improving Drug Therapy and Outcomes in the Cardiothoracic Surgical Population. Podium: University of Tennessee, College of Pharmacy, Department of Clinical Pharmacy Research Seminar, Memphis, TN, January 2004.

Inhibition of platelet function by clopidogrel is attenuated when initiated during Cangrelor therapy. Oestreich JH, Ferraris S, Wagner R, Locklar A, Kaibas A, Akers WS, and Steinhubl SR. Poster: Rho Chi Research Day, Lexington, KY, April 2006.

The effect of the H2 haplotype and receptor antagonism on platelet activation and aggregation in healthy volunteers. Oestreich JH, Locklar A, Oh J, and Akers WS. Poster: Clinical and Translational Science Spring Conference, Lexington, KY, June 2006.

Integrating and Applying Pharmacokinetic, Pharmacodynamic, and Pharmacogenomic Tools to Discover and Define Relationships Between Drug Concentration and Response: Focus on Antiplatelet Agents. Podium: Center for Clinical and Translation Science Fall Conference, Lexington, KY, October 2006.

State/Regional Presentations:

Chronic imipramine treatment as a rodent model for nutritionally related congestive heart failure. Burke GV, Cross A, Akers WS, Cassis LA. Poster: University of Kentucky Gill Heart Research Institute Conference, October 1998.

Alterations in cardiac sympathetic neurotransmission following pressure-overload. Akers W, English V, Cross A, Cassis L. Poster: University of Kentucky Gill Heart Research Institute Conference, October 1998.

Management of Acute Coronary Syndromes: Low Molecular Weight Heparins. Podium: Nursing Health Education. Baptist East Hospital, Louisville, Kentucky (CE Provided), April 1999.

Presynaptic Modulation of Norepinephrine Release Contributes to Cardiac Sympathetic Activation. Akers WS, English VL, Cassis LA. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, October 2000.

Chronic Imipramine Administration as a Rodent Model for Cardiac Failure with Associated Cardiac Cachexia. Burke G, Akers S, Cassis L. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, October 2000.

Effects of Losartan on Ischemia/Reperfusion Injury in Isolated Rat Hearts. Akers WS, Flynn J, Narayan P. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, October 2001.

The Effect of Clonidine on Norepinephrine Spillover in the isolated rat heart. Akers WS, Shah SK, Oak K, Apparsundaram S. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, October 2001.

Chronic Imipramine Administration Reduces Cardiac Contractility. Burke G, Akers W, Narayan P, Cassis L. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, October 2001.

Management of Acute Coronary Syndromes: Case-based Workshop. Podium: Aventis Pharmaceuticals Consultant Meeting. Ritz Carlton, Amelia Island, Florida, March 2002.

The Effects of the Cardiac Renin-Angiotensin System on Myocardial Ischemia-Reperfusion Injury. Podium: Flynn JD, Akers WS. 32nd Annual Southeastern Residency Conference, Athens, GA, April, 2001.

Reduction in Cardiac Norepinephrine Spillover Using Clonidine. Podium: Shah SK, Akers WS. 32nd Annual Southeastern Residency Conference, Athens, GA, April, 2001.

Effect of Ischemia-Reperfusion Injury on Angiotensin II Receptor Subtype Expression. Podium: Rosbolt MB, Flynn JD, Akers WS. 33rd Annual Southeastern Residency Conference, Athens, GA, April, 2002.

Enhancing Cardiac Protection Through Sodium-Hydrogen Exchange Inhibition. Podium: Grand Rounds Meriter Hospital, Madison, WI (CE Provided), October 2002.

Safety of Clopidogrel in Combination with Aspirin After Off-Pump Coronary Artery Bypass Surgery. Podium: Stevkovic N, Flynn JD, Ramaiah C, Akers WS. 34th Annual Southeastern Residency Conference. Athens, GA, April 2003.

Vitamin K1 for the Reversal of Warfarin Anticoagulation: An Outcomes Evaluation. Podium: Martin CA, Akers WS, Armitstead JA, Davis GA. 34th Annual Southeastern Residency Conference. Athens, GA, April 2003.

Vitamin K1 for the reversal of warfarin anticoagulation: evaluation of an educational program at a university hospital. Davis GA, Martin CA, Armitstead JA, Akers WS. Poster: University of Kentucky Gill Heart Research Institute Conference, October 2003.

Differential Regulation of Serine/Threonine Protein Kinases by Angiotensin II Receptor Subtypes During Myocardial Ischemia-Reperfusion Injury. Akers WS, Flynn JD, Post G. Poster: University of Kentucky Gill Heart Research Institute Conference, October 2003.

Clonidine Suppression of Cardiac Norepinephrine Spillover in the Isolated Rat Heart. Akers WS, Flynn JD, Apparsundaram S. Poster: University of Kentucky Gill Heart Research Institute Conference, October 2003.

Frequency of P2Y12 haplotype and GPIIb/IIIa genotype in African American and Caucasian populations. Akers WS, Flynn JD, Carmichael EM, Davis GA. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference. A(76), 2004.

Optimization of Agonist-stimulated [³⁵S]GTP γ S Binding in Rat Heart Tissue Sections. Oestreich J, Locklar A, Pauly J, Akers WS. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference. A(50), 2004.

Inhibition of platelet function by clopidogrel is attenuated when initiated during Cangrelor therapy. Oestreich JH, Ferraris S, Wagner R, Locklar A, Kaibas A, Akers WS, and Steinhubl SR. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, Lexington, KY, October 2005.

Effect of intravenous cangrelor, a reversible platelet P2Y12 receptor antagonist, on ADP-induced platelet aggregation. Oh J, Ferraris S, Wethington M, Dulin B, Steinhubl SR, and Akers WS. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, Lexington, KY, October 2005.

Recent and Ongoing Clinical Trials with Other Antithrombins: Implications in the Management of Acute Coronary Syndromes. Podium: Sanofi-Aventis Pharmaceuticals, Pharmacy Working Group Meeting, Dallas, TX, November 2005.

Interventions to improve compliance with guidelines in patients following coronary artery bypass grafting. Yam FK, Akers WS, Ferraris VA, Smith K, Ramaiah C, Camp PC, Flynn JD. Poster: Central Surgical Association Annual Meeting, Louisville, KY, March 2006.

The effect of the H2 haplotype and receptor antagonism on platelet activation and aggregation in healthy volunteers. Oestreich JH, Locklar A, Oh J, and Akers WS. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, Lexington, KY, October 2006.

Effect of increased maintenance dose of clopidogrel on platelet aggregation. Holt J, Akers WS, Oestreich JH, and Steinhubl SR. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, Lexington, KY, October 2006.

Variability in ADP-induced platelet activation and aggregation by light transmittance aggregometry. Roach B, Oestreich JH, and Akers WS. Poster: University of Kentucky Gill Heart Institute Cardiovascular Research Conference, Lexington, KY, October 2006.

Overview of Platelet Assays: Applications for Interpreting Clinical Trial Data. Podium: Sanofi-Aventis Pharmaceuticals, Regional Cardiovascular Medical Training Meeting, Jackson Hole, WY, February 2007.

National Presentations:

Racial differences in response to beta-blockade. Podium: ACCP Genentech Research Fellowship Award presented at the 15th Annual Meeting of the American College of Clinical Pharmacy, St. Louis, MO, July 1994.

R- and S-verapamil protein binding: characterization and effect of metabolites. Akers WS, Johnson JA. Poster: 15th Annual Meeting of the American College of Clinical Pharmacy, St. Louis, MO, July 1994.

Effect of pressure-overload on angiotensin receptors in rat heart. Akers W, Dowell T, Cassis L. Poster: FASEB, Washington D.C., April 1996.

Differential effects of propranolol and labetalol on nighttime blood pressure. Akers WS, Johnson JA. Poster: American Society of Hypertension, New York City, New York, April 1998.

Alterations in cardiac sympathetic neurotransmission following pressure-overload. English V; Akers W; Cassis L. Poster: FASEB April 1999.

The Renin-Angiotensin System in Heart Failure: Angiotensin II Receptor Blockers. Podium: AstraZeneca Pharmaceuticals, Dallas, TX, August 2000.

The Renin-Angiotensin System in Heart Failure. Podium: Aventis Pharmaceuticals, Cincinnati, OH, October 2000.

Increased Cardiac Sympathetic Neurotransmission in Cardiac Hypertrophy. Podium: American College of Clinical Pharmacy Annual Meeting. Los Angeles, CA, November 2000.

Severe isolated thrombocytopenia following antiplatelet administration during acute myocardial infarction. Brouse S, Akers WS. Poster: ASHP Midyear Clinical Meeting, Las Vegas, NV, December 2000.

The renin-angiotensin system in myocardial ischemia-reperfusion injury. Flynn JD, Narayan P, Akers WS. Poster: The American College of Clinical Pharmacy Spring Practice and Research Forum, Salt Lake City, UT, April 2001.

The Effect of Clonidine on Norepinephrine Spillover in the isolated rat heart. Akers WS, Shah SK, Oak K, Apparsundaram S. Poster: The American College of Clinical Pharmacy Annual Meeting, Tampa, FL, October 2001.

Effect of Nesiritide Versus Milrinone on Patient Outcomes in the Treatment of Acutely Decompensated Heart Failure. Lewis DA, Gurram NR, Abraham WT, Akers WS. Poster: The American College of Clinical Pharmacy Spring Meeting, Palm Springs, CA, April 2003.

Safety of Clopidogrel in Combination with Aspirin After Off-Pump Coronary Artery Bypass Surgery (OPCAB): The CLOPCAB Trial. Flynn JD, Ramaiah C, Ferraris S, Ferraris V, Akers WS. Poster: Cardiology PRN, The American College of Clinical Pharmacy Annual Meeting, Atlanta, GA, November 2003.

A Comparison of Rate Control and Rhythm Control in Patients with Atrial Fibrillation: The AFFIRM Trial. Significant Papers in Pharmacotherapy (Cardiology). Podium: The American College of Clinical Pharmacy Annual Meeting, Atlanta, GA, November 2003.

Differential Regulation of Mitogen Activated Protein Kinases by Angiotensin II Receptor Subtypes During Myocardial Ischemia-Reperfusion Injury. Flynn JD, Post G, Akers W.S. Poster: American College of Clinical Pharmacy, November 2003.

Cardioprotective Effects of Losartan during Myocardial Ischemia-Reperfusion Injury. Flynn JD, Post GR, Akers WS. Podium: ACCP Research Institute, Scientific Paper Platform Presentation, American College of Clinical Pharmacy, November 2003.

Vitamin K1 for the reversal of warfarin anticoagulation: an outcomes evaluation. Poster: Martin CA, Akers WS, Armitstead JA, Davis GA. American Society of Health-System Pharmacists Midyear Clinical Meeting. New Orleans, LA. December 2003.

Impact of P2Y12 Haplotype on the Antiplatelet Effects of Clopidogrel in Off-Pump Bypass Surgery Patients. Oh J, Flynn JD, Davis GA, Ferraris S, Akers WS. Podium: Cardiology PRN, American College of Clinical Pharmacy Annual Meeting, Dallas, TX. October 2004.

Development of a multidisciplinary hemostasis monitoring program for post-cardiac surgery patient. Flynn JD, Akers WS. Poster: The American College of Clinical Pharmacy Annual Meeting, Dallas, TX. October 2004.

Frequency of P2Y12 haplotype and GPIIb/IIIa genotype in African American and Caucasian populations. Davis GA, Flynn JD, Carmichael EM, Akers WS. Podium: The American College of Clinical Pharmacy Annual Meeting, Dallas, TX. October 2004.

Implementation of a pharmacy directed, multidisciplinary practice to improve compliance with published guidelines and quality indicators in post coronary artery bypass graft patients. Yam FK, Smith K, Akers WS, Camp PC, Flynn JD. Poster: The American College of Clinical Pharmacy Spring Practice and Research Forum, Myrtle Beach, SC, April 2005.

The effect of the P2Y12 receptor haplotype and receptor antagonism on platelet activation and aggregation in healthy volunteers. Oestreich JH, Akers WS. Poster/Podium: The American College of Clinical Pharmacology Annual Meeting, Boston, MA, September 2006.

Pharmacodynamics of Cangrelor when Administered Alone or in Combination with Clopidogrel. Oestreich JH, Steinhubl SR, Ferraris S, Oh J, Wethington M, Akers WS. Poster: The American College of Clinical Pharmacy Annual Meeting, St. Louis, MO, October 2006.

Risk-adjusted outcomes of patients receiving either e-aminocaproic acid or Aprotinin for antifibrinolytic prophylaxis during on-pump cardiac surgery. Flynn JD, Ramsey EZ, Akers WS, Stienke D, Smith K, Camp PC, Ramaiah C, Ferraris VA. Poster: The American College of Clinical Pharmacy Annual Meeting, St. Louis, MO, October 2006.

International Presentations:

Therapy for Secondary Prevention following Coronary Artery Bypass Graft Surgery. Poster: Rhee DH, Flynn JD, Ramaiah C, Davis GA, Akers WS. ACCP-ESCP International Conference on Clinical Pharmacy. Paris, France. April 2004.

Use of Recombinant Factor VIIa for the Treatment of Refractory Bleeding in Heart Transplantation. Poster: Jahania SA, Camp PC, Flynn JD, Akers WS, and Saha SP. 46th Annual World Congress of the International College of Angiology. Lexington, Kentucky. July 2004

XVI. GRANTS

Grants Funded:

Title: Racial differences in antihypertensive response to beta-blockade.
Award: 1993 Genentech Cardiovascular Research Fellowship
Sponsor: American College of Clinical Pharmacy Research Institute
Amount: \$ 19,000 (7/1/93 – 6/30/94)
Date: 7/1/93 – 6/30/94
Role (% Effort): Wendell Akers, Pharm.D. (Co-I/Fellow; 75%)
Mentor: Julie A. Johnson, Pharm.D. (PI)

Title: Angiotensin II Regulates Cardiac Beta-Adrenergic Receptors in a Rat Model of Pressure-Overload.
Award: 1997 AFPE Fellowship
Sponsor: American Foundation of Pharmaceutical Education
Amount: \$ 6,000
Date: 5/1/97 – 4/30/98
Role (% Effort): Wendell Akers, Pharm.D. (Co-I/Graduate Student; 75%)
Mentor: Lisa A. Cassis, Ph.D. (PI)

Title: The role of angiotensin II in cardiac hypertrophy of the senescent heart.
Award: 1999 Pilot Grant in the Biology of Aging
Sponsor: UK Department of Physiology
Amount: \$ 20,000
Date: 1/1/00 – 12/31/00
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 10%)
Lisa A. Cassis, Ph.D. (Co-PI)

Title: Alterations in the Cardiac Renin-Angiotensin System during Myocardial Ischemia-Reperfusion Injury.
Award: 2001 Research Enhancement Award
Sponsor: UK Division of Pharmacy Practice & Science
Amount: \$ 30,000
Date: 7/01/01 – 6/30/02
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 15%)

Title: Role of the Cardiac Renin-Angiotensin System in Myocardial Ischemia-Reperfusion Injury.
Award: 2001 Bayer Critical Care Fellowship
Sponsor: American College of Clinical Pharmacy Research Institute
Amount: \$ 22,500
Date: 7/1/01 – 6/30/03
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI/Mentor)
Jeremy D. Flynn, Pharm.D. (Co-I/Fellow; 75%)

Title: The Role of Endogenous Angiotensin II on Myocardial Ischemia-Reperfusion Injury.
Award: 2001 Medical Center Research Grant
Sponsor: UK Medical Center
Amount: \$ 15,000
Date: 7/01/01 – 6/30/02
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 5%)

Title: Role of Angiotensin II in Myocardial Ischemia-Reperfusion Injury.
Award: 2001 New Investigator Program
Sponsor: American Association of Colleges of Pharmacy
Amount: \$ 10,000
Date: 5/1/02 – 12/31/03
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 2%)

Title: Monitoring Hemostasis in the Cardiac/Cardiothoracic ICU
Award: Unrestricted Educational Grant
Sponsor: Aventis Pharmaceuticals
Amount: \$ 5,000
Date: 5/1/02 – 12/31/03
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 5%)

Title: Establishment of an Ex-Vivo Model of Myocardial Ischemia-Reperfusion Injury Using Human Atrial Trabeculae to Evaluate Cardioprotective Strategies.
Award: 2001 K30 Career Training Award
Sponsor: University of Kentucky K30 Clinical Research Training Program
Amount: \$ 5,000
Date: 7/01/02 – 12/31/02
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 5%)
Jeremy Flynn, Pharm.D. (K30 Fellow/Co-PI; 5%)

Title: Pilot Study on the Effects of Clopidogrel on Platelet Function and Postoperative Bleeding following Off-Pump Coronary Artery Bypass Surgery
Award: 2001 K30 Career Training Award
Sponsor: University of Kentucky K30 Clinical Research Training Program
Amount: \$ 5,000
Date: 7/01/02 – 6/30/04
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 5%)
Jeremy D. Flynn, Pharm.D. (K30 Fellow/Co-PI; 10%)

Title: Double-Blind Study of the Safety of Clopidogrel in Combination with Aspirin after OFF-Pump Coronary Artery Bypass Surgery.
Award: 2002 Ortho Biotech/Critical Care Outcomes Pharmacy Fellowship Program
Sponsor: Society of Critical Care Medicine
Amount: \$ 30,000
Date: 7/1/03 – 6/30/05
Role (% Effort): Post-doctoral Fellow (Co-I/Fellow; 75%)
Mentor: Wendell S. Akers, Pharm.D., Ph.D. (PI)

Title: Angiotensin II Coupling to G-proteins in Rat Heart Tissue Sections.
Award: 2003 Medical Center Research Grant
Sponsor: UK Medical Center
Amount: \$15,000
Date: 7/1/03 – 6/30/04
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 10%)

Title: Effects of Clopidogrel on Platelet Function Determined by the Rapid Platelet Function Analyzer in Patients Undergoing Off-Pump Coronary Artery Bypass Surgery.
Sponsor: Accumetrics, Inc.
Amount: \$ 5,000
Date: 8/1/03 – 6/30/05
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 5%)

Title: Regulation of Ras Signaling by Rlf in Hypertrophy.
Award: R01-HL075241
Sponsor: National Institutes of Health
Amount: \$1,589,616
Date: 12/1/03 – 11/30/08
Role (% Effort): Steve Post, M.D., Ph.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Co-I; 5%)

Title: The Effects of Aprotinin on Thrombin-Induced Proteolytic Cleavage of the Proteinase-Activated Receptor-1 (PAR-1) on Human Platelets.
Sponsor: Bayer Pharmaceuticals
Amount: \$14,300
Date: 1/1/04 – 12/31/04
Role (% Effort): Victor Ferraris, M.D., (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 5%)

Title: Double-Blind Study of the Safety of Clopidogrel in Combination with Aspirin after Off-Pump Coronary Artery Bypass Surgery.
Award: USPHS #M01RR02602
Sponsor: UK General Clinical Research Center
Amount: \$ 20,290
Date: 2/1/04 – 6/30/05
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 10%)

Title: Effects of Clopidogrel on Graft Patency by Magnetic Resonance Imaging following Off-Pump Coronary Artery Bypass Surgery.
Sponsor: UK MRISC Grant
Amount: \$6,000
Date: 3/1/04 – 6/30/05
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 5%)
Chand Ramaiah, M.D. (Co-PI)

Title: Differential Regulation of MAP Kinases and Protein Kinase B by Angiotensin II Subtype Receptors during Myocardial Ischemia-Reperfusion.
Award: Grant-in-Aid
Sponsor: American Heart Association, Ohio Valley Affiliate

Amount: \$121,000
Date: 7/1/04 – 6/30/06
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 15%)

Title: Clinical Utility of the Rapid Platelet Function Analyzer
Sponsor: American College of Clinical Pharmacy
Amount: \$15,000
Date: 7/1/04 – 6/30/05
Role (% Effort): Jeremy D. Flynn, Pharm.D. (PI; 10%)
Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 5%)

Title: An open-label study assessing the pharmacokinetics and pharmacodynamics of a cangrelor bolus plus infusion in healthy volunteers.
Sponsor: The Medicines Company
Amount: \$353,400
Date: 1/01/05 – 12/31/06
Role (% Effort): Steven Steinhubl, M.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 10%)

Title: A Double Blind, Randomized Comparison Between Two Different Clopidogrel Maintenance Doses
Sponsor: UK General Clinical Research Center
Amount: \$2,520
Date: 9/01/05 – 1/01/07
Role (% Effort): John Holt, M.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Co-I; 2%); Platelet Function Laboratory support

Title: EMERALD-ACS
Sponsor: UK General Clinical Research Center
Amount: \$7,650
Date: 9/01/05 –
Role (% Effort): Debabrata Mukherjee, M.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Co-I; 2%); Platelet Function Laboratory support

Title: The effects of P2Y12 polymorphisms on platelet receptor density and activation
Sponsor: Sigma XI Grant-in-Aid
Amount: \$400
Date: 7/01/06 – 6/30/07
Role (% Effort): Julie Oestreich, Pharm.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Mentor)

Title: The effects of P2Y12 polymorphisms on platelet receptor density and activation
Sponsor: AHA Predoctoral Fellowship
Amount: \$42,000
Date: 7/01/06 – 6/30/08
Role (% Effort): Julie Oestreich, Pharm.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Mentor)

Title: The effects of P2Y12 polymorphisms on platelet receptor density and activation
Sponsor: Sigma XI Grant-in-Aid
Amount: \$1000
Date: 7/01/07 – 6/30/08
Role (% Effort): Julie Oestreich, Pharm.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Mentor)

Title: A Pharmacodynamic Comparison of Prasugrel vs Clopidogrel in Subjects with ACS who have recently Undergone Percutaneous Coronary Intervention and are Receiving Clopidogrel
Sponsor: Eli Lilly and Company
Amount: \$177,786
Date: 9/01/05 – 1/01/08
Role (% Effort): Steven Steinhubl, M.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (Co-I; 5%)

Title: The Effect of RB006 and RB007 on In Vitro Platelet Activation in Human Blood
Sponsor: Regado Biosciences
Amount: \$68,872
Date: 1/01/07 – 7/30/08
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (PI; 5%)

Title: The Cellular, Inflammatory, Oxidative, and Genomic Effects of Aluminum Oxide Nanoparticles on Blood and Endothelial Cells
Sponsor: UK Got Grants Program
Amount: \$22,020
Date: 7/01/06 – 6/30/07
Role (% Effort): Wendell S. Akers, Pharm.D., Ph.D. (Co-PI; 2%)

Title: The Effect of RB006 and RB007 on In Vitro Platelet Activation in Human Blood
Award: AFPE Gateway Research Scholarship/PharmD Student
Sponsor: American Foundation for Pharmaceutical Education
Amount: \$5,000
Date: 7/01/07 – 6/30/08
Role (% Effort): Tyler Whisman, Pharm.D. (Student)
Wendell S. Akers, Pharm.D., Ph.D. (Mentor 3%)

Title: The effects of P2Y12 polymorphisms on platelet receptor density and activation
Sponsor: UK General Clinical Research Center
Amount: \$40,000
Date: 6/01/06 – 12/31/08
Role (% Effort): Julie Oestreich, Pharm.D. (Mentee)
Wendell S. Akers, Pharm.D., Ph.D. (Mentor)

Title: Champion PCI Study/Platelet Pharmacodynamic Substudy
Sponsor: The Medicines Company

Amount: \$163,632
Date: 7/01/07 – 4/01/09
Role (% Effort): Steven Steinhubl, M.D. (PI)
Wendell S. Akers, Pharm.D., Ph.D. (PI for Substudy; 5%)

XVII. PUBLICATIONS

Published Peer Reviewed:

Johnson JA; **Akers WS**; Miller ST; Applegate WB. Lymphocyte beta 2-receptor activity, metoprolol kinetics, and response to metoprolol in hypertensive black men. *Pharmacotherapy* 15(2):150-157, 1995.

Johnson JA; **Akers WS**; Miller ST; Applegate WB. Metoprolol minimizes nighttime blood pressure dip in hypertensive black males. *Am J Hypertens* 8(3):254-259, 1995.

Johnson JA; **Akers WS**. Influence of metabolites on protein binding of verapamil enantiomers. *Br J Clin Pharmacol* 39:536-538, 1995.

Cassis L; Laughter A; Fettinger M; **Akers WS**; Speth R; Burke G; King V; Dvoskin L. Cold exposure regulates the renin-angiotensin system. *J Pharmacol Exp Ther* 286(2):718-726, 1998.

Johnson JA, **Akers WS**, Herring VL, Wolfe MS, Sullivan JM. Gender differences in labetalol kinetics: Importance of determining stereoisomer kinetics for racemic drugs. *Pharmacotherapy* 20:622-628, 2000.

Akers WS, Cross A, Speth B, Dvoskin LP, Cassis LA. The renin-angiotensin system and the sympathetic nervous system in cardiac pressure-overload hypertrophy. *Am J Physiol Heart Circ Physiol* 279:H2797-H2806, 2000.

Akers WS, Cassis LA. Presynaptic Modulation of Cardiac Sympathetic Neurotransmission in Rat Left Ventricle Slices: Effect of Pressure Overload. *J Neural Transm* 107:885-902, 2000.

Lewis DA, Gurram NR, Abraham WT, **Akers WS**. Effect of nesiritide versus milrinone in the treatment of acute decompensated heart failure. *AJHP* 60(4):S16-S20, 2003.

Flynn JD, **Akers WS**. The effects of the angiotensin AT1 receptor antagonist, losartan, on the functional recovery of isolated rat hearts undergoing global myocardial ischemia-reperfusion. *Pharmacotherapy* 23(11):1401-1410, 2003.

Akers WS, Flynn JD, Davis GA, Green AE, Winstead PS, Strobel G. Prolonged cardiac repolarization following tacrolimus and haloperidol administration in the critically ill patient. *Pharmacotherapy* 24(3):404-408, 2004.

Akers WS, Cassis LA. Presynaptic modulation of evoked norepinephrine release contributes to sympathetic activation following pressure overload. *Am J Physiol Heart Circ Physiol* 286:H2151-H2158, 2004.

Akers WS, Shah SK, Flynn JD, Apparsundaram S. Effect of clonidine on cardiac norepinephrine spillover in isolated rat heart. *J Cardiovasc Pharmacol* 43(6):830-838, 2004.

Flynn JD, **Akers WS**, Jones M, Stevkovic N, Waid T, Mullett T, Jahania S. Treatment of Respiratory Syncytial Virus Pneumonia in a Lung Transplant Recipient: Case Report and Review. *Pharmacotherapy* 24(7):932-938, 2004.

Flynn JD, Camp PC, Jahania S, Ramaiah C, **Akers WS**. Successful Treatment of Life Threatening Bleeding following Bridging from Acute-to-Chronic Ventricular Assist Device Support with Recombinant Activated Factor VII (rFVIIa). *ASAIO Journal* 50(5):519-521, 2004.

Flynn JD, Pajoumand M, Lockhart D, Camp PC, Jahania S, Ramaiah C, **Akers WS**. Successful Treatment of Life Threatening Bleeding following an Orthotopic Heart Transplantation with Recombinant Activated Factor VII (rFVIIa). *Ann Pharmacother* 38:1639-1642, 2004.

Oh JJ, Robon MJ, **Akers WS**. Optimizing antiplatelet and anticoagulant agents in the perioperative orthopedic surgery patient. *Orthopedics*. May;28(5):453-8, 2005.

Koziara JM, Oh JJ, **Akers WS**, Ferraris SP, Mumper RJ. Blood Compatibility of Cetyl Alcohol/Polysorbate-Based Nanoparticles. *Pharm Res* 22(11):1821-8, 2005.

Blancett JR, Smith KM, **Akers WS**, Flynn JD. Staying in Rhythm: Identifying Risk Factors for Torsade de pointes. *Orthopedics* 28(12):1417-20, 2006.

Blancett JR, Smith KM, **Akers WS**, Flynn JD. Staying in Rhythm: Management of Patients at Risk for Torsade de pointes. *Orthopedics* 29(1):31-3, 2006.

Oh JJ, **Akers WS**, Lewis D, Ramaiah C, Flynn JD. Recombinant Factor VIIa for Refractory Bleeding Following Cardiac Surgery Secondary to Anticoagulation with the Direct Thrombin Inhibitor Lepirudin. *Pharmacotherapy* 26(4):569-577, 2006.

Boustany CM, Gong M, **Akers WS**, Guo Z, Cassis LA. Enhanced Vascular Contractility and Diminished Coronary Artery Flow in Rats made Hypertensive from Diet-Induced Obesity. *Int J Obes* Jul 4 2006 (Epub ahead of print).

Weant KA, Flynn JD, **Akers WS**. Management of antiplatelet therapy for minimization of bleeding risk before cardiac surgery. *Pharmacotherapy* Nov;26(11):1616-25, 2006.

Akers WS, Oh JJ, Oestreich JH, Ferraris S, Nessel CC, Wethington M, Wong J, Steinhubl SR. The Pharmacokinetics and Pharmacodynamics of a Bolus and Infusion of Cangrelor: A Direct, Parenteral P2Y₁₂ Receptor Antagonist. (*Accepted Pending Revisions*) *J Clin Pharmacol*

Steinhubl SR, Oh JJ, Oestreich JH, Ferraris S, Nessel CC, Wethington M, Wong J, **Akers WS**. Initiation of Clopidogrel Therapy During Treatment with Cangrelor Prevents the Antiplatelet Affects of Clopidogrel. (*Accepted Pending Revisions*) *J Thromb Hemostas*

Manuscripts Submitted or In Preparation

Akers WS, Flynn JD, Post G. Differential Regulation of Mitogen Activated Protein Kinases by AT₁ and AT₂ Receptors in Isolated Rat Hearts following Ischemia-Reperfusion Injury. (*Submitted*)

Rhee DH, Flynn JD, Davis GA, Ramaiah C, **Akers WS**. Drug Therapy for Secondary Prevention following Coronary Artery Bypass Graft Surgery. (*Submitted*)

Oh JJ, Ferraris SP, Oestreich JH, Locklar A, Steinhubl SR, **Akers WS**. Optimizing P2Y₁₂ Inhibition: Cangrelor In Vitro Studies with Healthy Volunteers (*Submitted*)

Burke G, **Akers WS**, Narayan P, Cassis LA. Chronic Imipramine Administration as a Rodent Model for Cardiac Failure with Associated Cardiac Cachexia. (*In Preparation*)

Phipps SD, Pauly J, Cassis LA, **Akers WS**. Angiotensin II Receptor Subtype Regulation in Deoxycorticosterone (DOCA)-Salt and Angiotensin II-Induced Hypertension. (*In Preparation*)

Oestreich J, Locklar A, Pauly J, **Akers WS**. Optimization of Agonist-stimulated [³⁵S]GTP γ S Binding in Rat Heart Tissue Sections. (*In Preparation*)

Abstracts:

Johnson JA; **Akers WS**; Miller ST; Applegate WB. Blood pressure response to metoprolol is related to lymphocyte beta-receptor cAMP production. *Pharmacotherapy* 13:297, 1993.

Akers WS; Johnson JA. R- and S-verapamil protein binding: characterization and effect of metabolites. *Pharmacotherapy* 14(3):375, 1994.

Akers WS; Sullivan JM; Johnson JA. Racial differences in antihypertensive response to beta-blockade. *Pharmacotherapy* 14(3):380, 1994.

Akers W; Dowell T; Cassis L. Effect of pressure-overload on angiotensin receptors in rat heart. *FASEB* 10(3):A308, 1996.

Akers WS; Johnson JA. Differential effects of propranolol and labetalol on nighttime blood pressure. American Society of Hypertension #E038, 1998.

Akers W; English V; Cross A; Cassis L. Enhanced cardiac neurotransmission in rat left ventricle following pressure-overload. University of Kentucky Gill Heart Research Institute Conference. A(51):26, 1998.

Burke GV, Cross A, **Akers WS**, Cassis LA. Chronic imipramine treatment as a rodent model for nutritionally related congestive heart failure. University of Kentucky Gill Heart Research Institute Conference. A(62):32, 1998.

English V; **Akers W**; Cassis L. Alterations in cardiac sympathetic neurotransmission following pressure-overload. *FASEB* April 1999.

Akers WS; English VL; Cassis LA. Increased cardiac sympathetic neurotransmission in cardiac hypertrophy. *Pharmacotherapy* 20:1232, 2000.

Akers WS, English VL, Cassis LA. Presynaptic Modulation of Norepinephrine Release Contributes to Cardiac Sympathetic Activation. University of Kentucky Gill Heart Research Institute Conference. A(34):36, October 2000.

Burke G, **Akers S**, Cassis L. Chronic Imipramine Administration as a Rodent Model for Cardiac Failure with Associated Cardiac Cachexia. University of Kentucky Gill Heart Research Institute Conference. A(17):19, 2000.

Brouse S, **Akers WS**. Severe isolated thrombocytopenia following antiplatelet administration during acute myocardial infarction. *Internat Pharmaceut Abst.* 37(21):224, 2000.

Flynn JD, Narayan P, **Akers WS**. The renin-angiotensin system in myocardial ischemia/reperfusion injury. *Pharmacotherapy* 21(3):390, 2001.

Shah SK, Oak K, Apparsundaram S, **Akers WS**. The Effect of Clonidine on Norepinephrine Spillover in the isolated rat heart. *Pharmacotherapy* 21(10):1263, 2001.

Akers WS, Shah SK, Oak K, Apparsundaram S. The Effect of Clonidine on Norepinephrine Spillover in the isolated rat heart. University of Kentucky Gill Heart Research Institute Conference. A(36), 2001.

Akers WS, Flynn J, Narayan P. Effects of Losartan on Ischemia-Reperfusion Injury in Isolated Rat Hearts. University of Kentucky Gill Heart Research Institute Conference. A(35), 2001.

Burke G, **Akers WS**, Narayan P, Cassis LA. Chronic Imipramine Administration Reduces Cardiac Contractility. University of Kentucky Gill Heart Research Institute Conference. A(40), 2001.

Flynn JD, **Akers WS**. The Effects of the Cardiac Renin-Angiotensin System on Myocardial Ischemia-Reperfusion Injury. 32nd Annual Southeastern Residency Conference, Athens, GA, April, 2001.

Shah SK, **Akers WS**. Reduction in Cardiac Norepinephrine Spillover Using Clonidine. 32nd Annual Southeastern Residency Conference, Athens, GA, April, 2001.

Rosbolt MB, Flynn JD, **Akers WS**. Effect of Ischemia-Reperfusion Injury on Angiotensin II Receptor Subtype Expression. 33rd Annual Southeastern Residency Conference, Athens, GA, April, 2002.

Lewis DA, Gurram NR, **Akers WS**, Abraham WT. Effect of Nesiritide Versus Milrinone on Patient Outcomes in the Treatment of Acutely Decompensated Heart Failure. *Pharmacotherapy* 23(3):392, 2003.

Stevkovic N, Flynn JD, Ramaiah C, **Akers WS**. Safety of Clopidogrel in Combination with Aspirin After Off-Pump Coronary Artery Bypass Surgery. 34th Annual Southeastern Residency Conference. Athens, GA, April 2003.

Martin CA, **Akers WS**, Armitstead JA, Davis GA. Vitamin K1 for the Reversal of Warfarin Anticoagulation: An Outcomes Evaluation. 34th Annual Southeastern Residency Conference. Athens, GA, April 2003.

Davis GA, Martin CA, Armitstead JA, **Akers WS**. Vitamin K1 for the reversal of warfarin anticoagulation: evaluation of an educational program at a university hospital. University of Kentucky Gill Heart Research Institute Conference. A(31), 2003.

Akers WS, Flynn JD, Post G. Differential Regulation of Serine-Threonine Protein Kinases by Angiotensin II Receptor Subtypes During Myocardial Ischemia-Reperfusion Injury. University of Kentucky Gill Heart Research Institute Conference. A(42), 2003.

Akers WS, Flynn JD, Apparsundaram S. Clonidine Suppression of Cardiac Norepinephrine Spillover in the Isolated Rat Heart. University of Kentucky Gill Heart Research Institute Conference. A(46), 2003.

Flynn JD, Post G, **Akers WS**. Differential Regulation of Mitogen Activated Protein Kinases by Angiotensin II Receptor Subtypes During Myocardial Ischemia-Reperfusion Injury. *Pharmacotherapy* 20(10):1330, 2003.

Flynn JD, Post GR, **Akers WS**. Cardioprotective Effects of Losartan during Myocardial Ischemia-Reperfusion Injury. *Pharmacotherapy* 20(10):1374, 2003.

Davis GA, Flynn JD, Carmichael EM, **Akers WS**. Frequency of P2Y₁₂ haplotype and GPIIb/IIIa genotype in African American and Caucasian populations. *Pharmacotherapy* 24(10):1458, 2003.

Flynn JD, **Akers WS**. Development of a multidisciplinary hemostasis monitoring program for post-cardiac surgery patients. *Pharmacotherapy* 24(10):1470, 2003.

Flynn JD, **Akers WS**. Development of a multidisciplinary hemostasis monitoring program for post-cardiac surgery patient. *Pharmacotherapy* 24(10): 1470, 2004.

Davis GA, Flynn JD, Carmichael EM, **Akers WS**. Frequency of P2Y₁₂ haplotype and GPIIb/IIIa genotype in African American and Caucasian populations. *Pharmacotherapy* 24(10): 1458, 2004.

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