

## **CURRICULUM VITAE**

### **JAMES MERRITT DOWNEY**

#### **BRIEF CHRONOLOGY OF TRAINING AND EMPLOYMENT:**

1967 Bachelor of Science in Biology from Manchester College , North Manchester , Indiana .  
1969 Masters of Science in Physiology from University of Illinois , Urbana , Illinois .  
1970 Research Assistant, Marine Biological Laboratory, Woods Hole, Mass. (Summer).  
1971 Doctor of Philosophy, University of Illinois , Urbana , Illinois .  
1971-1972 Research Fellow, Peter Bent Brigham Hospital, Boston, Mass. - Harvard Medical School  
1972-1975 Assistant Professor, Department of Physiology, University of South Florida, College of Medicine.  
1975 Visiting Assistant Professor of Physiology, Southwestern Medical School , Dallas , Texas .  
1975-1980 Associate Professor, Department of Physiology, University of South Alabama, Mobile, Alabama  
1980-present Full Professor, Department of Physiology, University of South Alabama, Mobile, Alabama  
1981 - 1988 Visiting Scientist, The Rayne Institute, St. Thomas' Hospital, London.  
1988 - 1993 Honorary Senior Lecturer, Dept of Biochemistry, United Medical and Dental Schools of Guy's and St. Thomas ' Hospitals, London , England  
2013 - Professor Emeritus, Department of Physiology, University of South Alabama, Mobile, Alabama

#### **HONORS**

Elected to Circulation Group Am. Physiological Society 1979)  
Fellow American Heart Association (Fellow of the former Circulation Council, 1985)  
Fellow of the International Society for Heart Research (2001).  
Honorary Professor, North China Coal Medical University, Tangshan, China (2006).  
Doctor Honoris Causa (DHC), National and Kapodistrian University of Athens, Athens Greece (2006).  
Winner ISHR Peter Harris Award, 2010 World Congress, Kyoto Japan

#### **PROFESSIONAL SOCIETIES:**

American Physiological Society, American Heart Association, Basic Cardiovascular Sciences Council  
American Physiological Society, Circulation Section  
International Society for Heart Research (President 2001-2004),

**MILITARY SERVICE:** U.S. Army Reservist, Honorably Discharged, 1970.

#### **ADDRESS:**

James M. Downey, PhD  
MSB 3074,  
University of South Alabama,  
Mobile, AL 36688

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fax 251 460 6464

## **RESEARCH SUPPORT PAST AND PRESENT**

Florida Heart Association, "Determinants of Coronary Blood Flow", July 1973 - June 1974,  
Burroughs Wellcome Research Laboratories, "Effects of BW 70-129 during Myocardial Ischemia", January 1973 - September 1974, \$5,000.

American Heart Association, "Determinants of Coronary Blood Flow", July 1974 - June 1977, \$42,570.

American Heart Association, "The Extravascular Coronary Resistance", July 1977 - June 1979, \$44,440.

NIH "Physical Factors and Coronary Flow" HL20648 July 1978 - June 1982 (35% effort)

American Heart Association, "Ba<sup>++</sup> Contracture in the Whole Heart", 1982 -1985,

Burroughs Wellcome Co., "The Effect of Oxypurinol on Infarct Size in the Dog", 1985, \$8,320.

Tanabe Pharmaceutical Co. (Japan), Diltiazem and Infarct Size, 1985,\$7,000.

Sapporo Medical College (Subcontract), "The Direct Metabolic Effect of Dobutamine on Myocardial Infarct Size in the Dog", Jan 1986, \$6,754

Ayerst Pharmaceutical Co., "The Effect of Cetamolol Administration on Infarct Size following Permanent Coronary Occlusion in Closed Chest Dogs", Aug 1983, \$8,000

NIH Heart Lung and Blood Institute, "Coronary Collateral Function", PI: Michael Cohen, Apr-Jun 1987, \$7,500

Pharmacia AB, "Is the Effect of SOD Only to Delay Necrosis in Reperfused Rabbit Myocardium?", Apr 1987, \$10,160

Burroughs Wellcome Co., "Intravenous Allopurinol Versus Oxypurinol in a Reperfusion Protocol in the Scavenging of Myocardial Muscle in Ischemia", May 1985, \$12,705

Upjohn Co., "The Effect of Early and Late Administration of Ibuprofen on Myocardial Infarct Size in a Model of Ischemia-Reperfusion in the Rabbit, Aug 1986, \$2,400

Pharmacia AB, "Human Superoxide Dismutase, its effect in infarcting rabbit heart", January, 1988, \$42,982.

Hoffman LaRoche, "Intracellular Anti-oxidants in infarcting rabbit myocardium", December 1988, \$21,000

Marion Laboratories "effect of a new antioxidant on infarct size in the rabbit heart" August, 1989, \$4400

NIH, "Anti infarct effects in the denervated heart", PI: Carl Jones, Texas College of Osteopathic Medicine, Subcontract to USA, 1991 -1994, \$131,835.

Alabama Heart Assn., "Mechanism of A1 induced cardioprotection", \$24,990, 1991-1992.

Gensia Pharmaceuticals Inc. Pretreatment with AICAR and the temporal threshold for preconditioning \$2750, April 1991

Sandoz Pharmaceuticals, Geneva: Cardioprotective effects of a new A1-selective compound, WAG. \$10,000. September 1992

NIH "Catechols and Adenosine in Myocardial Preconditioning" HL50688 Michael V. Cohen PI \$351,510 (5% effort for JMD) Sept 93 - Aug 96

NIH "Physical Factors and Coronary Flow" HL20648 July 1994 - June 1999, \$527,000 direct costs. (35% effort)

Gensia Pharmaceuticals Inc. Protection of the ischemic heart with A3-based compounds . \$200,000 April 1993- March 1995 (10% effort)

Chugai Pharmaceuticals, Tokyo Japan, "Cardioprotective effects of nicorandil" Jan-Dec 1995, \$10,000

NIH "Catechols and Adenosine in Myocardial Preconditioning" HL50688 Michael V. Cohen PI \$135,000/year direct costs (5% effort for JMD) Sept 97 - Aug 2001 This grant is in its 5th year

NIH "Physical Factors and Coronary Flow" HL20648 July 1999 - June 2003, \$740,122 direct costs. (35% effort)

Rhone-Poulenc Rorer "AMP579 in myocardial infarction in the rabbit" 1999, \$5000

Bheringer Ingleheim "p38 MAPK inhibitors in Rabbit models of myocardial infarction" 1999, \$5000  
Aventis "AMP579 in myocardial infarction" 2001, \$75,000  
NIH "Physical Factors and Coronary Flow" HL20648 July 2003 - June 2007, \$175,000 /year direct costs. (35% effort)  
NIH "Physical Factors and Coronary Flow" HL20648 April 2007 - Jan 2014. \$201,600/year direct costs (35% effort). **This grant enjoyed 32 years of funding.**  
The Medicines Company. "Cangrelor and Cardioprotection" May 2014-Dec 2014. Sub contract to U South Alabama \$77,200 direct costs (20% effort).

#### **EDITORIAL BOARD MEMBERSHIP:**

Circulation Research, 1978 - 1983, 1994 - 2012

Basic Research in Cardiology 1995-present

J. Molecular and Cellular Cardiology, 1986-present

Cardiovascular Pharmacology and Therapeutics 2009-present

Cardiovascular Pharmacology 2001 - 2004

American Journal of Physiology, 1987 - 1993

Cardiovascular Research, 1991-1998

Guest Editor: Focused Issue on the Protective Effects of Adenosine. Cardiovascular Research Vol 27: No 1, 1993

Guest Editor: Focused Issue: Spotlight in preconditioning. Cardiovascular Research Vol 55, No3, 2002

Andromeda Interactive: Multimedia interactive lectures in cardiac physiology on CD ROM. 1995-1998

Merk Cardiovascular: Nicorandil in angina pectoris. An educational CD ROM 2001

#### **MEDICAL SCHOOL COMMITTEES**

Admissions Committee (2 years).

Admissions: Ad Hoc Interviewer

Curriculum Committee (6 years)

Patent Committee (2 years)

Ethics Committee

Faculty Promotions (5 years)

Research Committee (3 years)

Director Summer Research Program (1 year)

Executive Committee, Graduate Program (2 years)

MD-PhD graduate Committee (1 year)

Institutional Review Board (2 year)

Graduate School Accreditation Self-Study Panel (1 year)

Radiation safety (4 years)

Faculty Senate (3 years)

Committee on Committees (2 years)

Research Advisory Committee (chair 2 years)

Cytometry Core Oversight Committee (chair 3 years)

COM Scientific Core Executive Committee (3 years)

Student Evaluation Committee (Chair,1 year)

## **PEER REVIEW ACTIVITIES:**

Research Committee, Alabama Heart Assn.(1982 - 1984, 1995 - present).GLAXO Cardiovascular Discovery Grant Program (1988 - 1989)  
Consultant to Canadian Heart Assn. as Reviewer (1980 - 1983).  
Abstract grader, American Heart Assn. Scientific Sessions: 1980, 1981, 1984, 1985, 1989-2004  
Member of NIH Site Visit Teams and Study Sections. (See NIH Consulting below)  
Judge for the Upjohn Young Investigator award (ISHR) 1987, 1990, 1991  
External examiner for Ph.D. thesis, University of Toronto, 1980.  
Abstract grader, American College of Cardiology, 1993

## **INDUSTRIAL CONSULTANTSHIPS:**

Contracted Consultant: Hoffman LaRoche; Dr. Ann Sullivan and Dr. Lawrence Klevans (1984 - 1989)  
Contracted Consultant: Burroughs Wellcome: (1985)  
Pharmacia-Chiron Partnership: (1988-1990)  
GLAXO: Advisory Board, Cardiovascular Discovery Grant Program (1988 - 1990)  
Contracted Consultant: Gensia Inc: (1993-1995)  
Advisory Board Member, Rhone-Poulenc Rorer AMP579 Project: (1998-2000)  
Contracted Consultant: Cognetix (2002-2003)  
Contracted Consultant: Guidant Corp. (2005-present)

## **INVITED PRESENTATIONS: (1993-present)**

Sep 2016 Blocking Pyroptosis in the Heart: Invited presentation at Huntington Hospital Research Inst., Pasadena CA  
May 2016 Ischemic conditioning and targeting reperfusion injury: invited speaker, Barcelona Spain  
Apr 2016 The Preconditioning Conference, invited speaker, Amherst, MA  
Jan 2016 8th Biannual Hatter Cardiovascular workshop, invited speaker, Chobe Chilwero Lodge, Botswana  
Oct 2015 Int. Conference on Geriatric Med. invited speaker, Tangshan China  
Oct 2015 Pflugers Archiv Symposium, Invited Speaker, Busan, South Korea  
Aug 2012 7th Biannual Hatter Cardiovascular workshop, invited speaker, Sabi Sabi Bush Lodge, South Africa  
Aug 2012 UK/SA Cardiovascular workshop, invited speaker, Cape Town South Africa  
Nov 2012 Cardioprotection Colloquium invited speaker, Los Angeles, CA  
May 2011 Symposium speaker ISHR American Section meeting, Philadelphia, PA  
Sept 2010 Participant NIH New Horizons Cardioprotection Workshop, Bethesda MD  
Aug 2010 Symposium speaker AHA's BCVS summer meeting, Palm Springs  
July 2010 Invited discussant and speaker Cardioprotection Symposium, Mauritius  
May 2010 Symposium speaker ISHR world congress Kyoto, Japan  
June 2009 Invited Speaker, The cGMP meeting, Regensburg, Germany  
May 2009 Invited Speaker, Heart Protection Symposium, Amman Jordan  
March 2009 Invited Speaker, Japanese Cardiology Society Annual Meeting, Osaka  
Feb 2009 Symposium Participant, UCLA Cardiology Symposium, Los Angeles

Dec 2008 Invited Speaker, BSCR Workshop, London  
Nov 2008 Invited Speaker, Beijing Joint Conference of Physiological Sciences  
May 2008 Invited Speaker, ISHR European Section Annual Meeting, Athens  
April 2008 Invited Participant, Hatter Cardioprotection Workshop, Lion Sands, South Africa  
Nov 2007 Visiting Scientist and Speaker, R.M. Berne CV Res. Center, University of Virginia  
Nov 2006 Invited speaker 2<sup>nd</sup> Annual International Cardiology Congress, Athens, Greece  
Oct 2006 Invited speaker North China Coal Medical University, Tang Shan China  
June 2006 Symposium organizer & Participant ISHR American Section Meeting, Toronto  
April 2006 Invited Speaker Second Conference of Jordanian Medical Schools, Irbid Jordan  
Dec 2005 Symposium Participant ISHR Japanese Section Meeting, Osaka  
Nov 2005 Invited speaker Sunday program AHA Scientific Sessions, Dallas TX  
Sept 2005 Invited Speaker Turkish Congress Pharmacology, Izmir Turkey  
May 2005 Symposium Participant ISHR American Section Meeting, New Orleans  
April 2005 Program Participant Hatter Workshop, Victoria Falls Zambia  
March 2005 Visiting Scientist and Speaker Guidant Corp, St Paul MN  
Dec 2004 Invited speaker Hellenic College of Cardiology and Cardiac Surgery, Athens Greece  
Nov 2004 Invited speaker Sunday program AHA Scientific Sessions, New Orleans  
Aug 2004 Symposium Participant ISHR World Congress, Brisbane  
May 2004 Visiting Scientist and Speaker, UCLA, Los Angeles, CA  
April 2004 Visiting Scientist and Speaker, CV Therapeutics, Palo Alto, CA  
March 2004 Ask the Expert presenter, American College of Cardiology meeting, New Orleans, LA  
Jan 2004 Symposium Speaker Athens Exchange of CV Research Ideas, Athens, Greece  
Nov 2003 Symposium Speaker ISHR Japanese section, Tokyo, Japan  
Nov 2003 Symposium Speaker AHA Scientific Sessions, Orlando, FL  
Oct 2003 Visiting Scientist and Speaker, Medical College of Georgia, Augusta, GA  
Oct 2003 Visiting Scientist and Speaker, LSU Medical School, New Orleans, LA  
Oct 2003 Visiting Scientist and Speaker, New York Medical College, Valhalla, NY  
August 2003 Session Chair AHA Basic CV Science Council meeting, Snowbird, UT  
July 2003 Invited Speaker ISHR American section meeting, Mystic, CN  
June 2003 Session Chair ISHR European section meeting, Strausbourg France  
April 2003 Invited Speaker in International Symposium for Cardiac Anesthesia, Morioka Japan  
Nov 2002 Session Chair, American Heart association Scientific Sessions, Chicago, IL  
Oct 2002 Symposium speaker in International Society for Heart Research, Japanese Section, Yamagata, Japan  
Sept 2002 Invited Speaker in Evolving Concepts in Ischemic Injury, Antwerp, Belgium  
August 2002 Participant in the 3<sup>rd</sup> International Hatter Workshop, Clivden, UK  
July 2002 Symposium Speaker International Society for Heart Research, American Section, Madison WI  
June 2002 Invited Speaker The Failing Heart, Stara Lesna, Slovak Republic  
June 2002 Symposium Speaker International Society for Heart Research, European Section, Szeged, Hungary  
April 2002 Invited Speaker at the 66<sup>th</sup> Japanese Circulatory Society Meeting, Sapporo, Japan  
April 2002 Invited Speaker at the International Symposium on Ischemic Heart Disease, Bilbao Spain  
Nov 2001 Two symposium talks at the American Heart Association Scientific Sessions, Anaheim CA  
August 2001 Molecular, Integrative & Clinical Approaches to Myocardial Ischemia, Symposium Presenter, Seattle WA  
August 2001 ISHR Australasian section annual meeting, Symposium Presenter, Brisbane Australia  
July 2001 ISHR World Congress, Symposium Presenter, Winnipeg Canada  
April 2001 Alcohol & Wine in Health and disease, Invited Speaker, Palo Alto Ca

Feb 2001 New York University, Medical Grand Rounds, New York, NY  
Nov 2000 National Minority Symposium, Invited Presenter, Washington DC  
Nov 2000 Symposium Speaker, American Heart Association Scientific Sessions, New Orleans, LA  
Sept 2000 Grand Rounds, Dept of Critical Care Medicine, University of Chicago  
August 2000 Invited Symposium Speaker, European Society of Cardiology, Amsterdam  
June 2000 Invited Symposium speaker and session chair , ISHR American section meeting, Louisville, KY  
June 2000 Invited Speaker. Shock Society Annual Meeting, Snowbird, Utah  
April 2000 Japanese Circulatory Society, Symposium Speaker, Osaka, Japan  
April 2000 Yamagata University, Departmental of Pharmacology Seminar Speaker, Yamagata City, Japan  
April 2000 The Hatter Institute, University College London, Seminar Speaker, London, England  
April, 2000 Participant: Hatter Workshop on Myocardial Ischemia, Le Toussrok, Mauritius  
Nov 1999 Sunday Symposium Speaker, Circulation Council, American Heart Association Scientific Sessions, Atlanta Georgia  
Oct 1999 Invited Speaker: Turkish Pharmacology Soc., Malatya Turkey  
Oct 1999 Visiting Scientist: Medical College of Wisconsin, Pharmacology Dept., Milwaukee WI  
June 1999 Invited Lecturer British Cardiac Society Workshop on ischemic preconditioning, London UK  
April 1999 Grand Rounds. University of Louisville, Louisville KY  
June 1998 Symposium speaker, ISHR American Section Meeting, San Diego CA  
Dec 1998 Invited Speaker and Session Chair, Japanese Section ISHR meeting, Tokyo, Japan  
Nov 1998 Seminar Speaker, Texas Tech University, Physiology Dept., Lubbock, TX  
Nov 1998 Plenary Speaker, American Heart Assn, Dallas, TX  
Oct 1998 Invited Speaker, Pathophysiology of Stunning, Hibernation & Preconditioning, Taormina, Sicily  
August 1998 Invited Speaker CSDS meeting, Gent, Belgium  
August 1998 Invited Speaker Tromso Seminar in Medicine, Tromso Norway  
June 1998 Seminar Speaker, Physiology Department, Kuwait Medical School, Kuwait City  
May 1998 Symposium Speaker, ISHR World Congress, Rhodes, Greece  
April 1998 Invited Speaker Preconditioning Workshop, Cape town, South Africa  
Feb 1998 Symposium Speaker, AHA Circulation Council Meeting, Lake Tahoe, NV  
October 1997 Cardiology Rounds, Cincinnati, OH  
November 1997 PKC debate, American Heart Assn Scientific Sessions, Orlando, FL  
August 1997 Invited Speaker, European Cardiological Society, Stockholm, Sweden  
June 1997 Invited Speaker, Myocardial adaptation, High Tatras, Slovak Republic  
April 1997 Session chair, Heat Shock Proteins and Ischemia symposium, Experimental Biology, New Orleans LA  
April 1997 Invited speaker, New Approaches to Ischemia-Reperfusion, Buenos Aires, Argentina  
March 1997 Keynote speaker, Hypertension 2000, New York NY  
December 1996 Invited speaker, Technion, Haifa, Israel  
November 1996 Session chair, American Heart Association, New Orleans LA  
August 1996 Invited speaker, Alfred Benzon Symposium. Copenhagen, Denmark  
August 1996 Session chair, European Society of Cardiology, Birmingham, England  
May 1996 Invited speaker, East Tennessee State College of Medicine, Johnson City, TN  
April 1996 Invited speaker, North East Ohio College of Medicine, Rootstown, OH  
March 1996 Session chair, American College of Cardiology, Orlando FL  
Dec 1995 Invited speaker, Adaptive Medicine Meeting, Madras, India  
Dec 1995 Invited speaker, 4th Annual Mol Path Symposium, Univ College, London  
Nov 1995 Symposium speaker, ISHR Japan section, Osaka, Japan  
Nov 1995 Invited speaker, Adenosine Cardioprotection, Long Beach CA

Nov 1995 Plenary speaker, Scientific Session AHA, Anaheim CA  
Sept 1995 Invited speaker, Glaxo Pharmaceuticals, Ascot U.K.  
July 1995 Symposium speaker, Int. Soc. for Heart Research, Prague  
May 1995 Symposium speaker, Int. Soc. for Heart Research, Gulf Shores, AL  
April 1995 Symposium speaker, German Cardiac Society, Mannheim, Germany  
Jan 1995 Invited speaker, New ischemic syndromes, Cape Town South Africa  
Jan 1995 Invited speaker, University of Connecticut, Dept of Surgery  
Nov 1994 State of the art lecture, AHA Scientific Sessions, Dallas TX  
Sept 1994 Invited lecture, Louisiana State University, Shreveport, LA  
Oct 1994 Symposium speaker, Myocardial Ischemia, Nice, France  
Oct 1994 Invited Speaker, The Rayne Institute, St Thomas' Hosp, London England  
Oct 1994 Invited Speaker, The Hatter Institute, University College, London England  
Oct 1994 Invited Speaker, The Brompton Hospital, London England  
June 1994 Grand rounds: University of Tromso, Tromso, Norway  
June 1994 Invited speaker: Cerebral ischemia and the Heart, Timmendorf, Germany  
June 1994 Symposium speaker: ISHR Copenhagen  
May 1994 Invited speaker: The Int. Adenosine Meeting, Philadelphia PA  
May 1994 Symposium speaker: British Cardiac Society, Torquay, England  
May 1994 Invited speaker: Glaxo Pharmaceuticals, Ware, England  
April 1994 Symposium speaker: ASPET symposium at Experimental Biology, Anaheim  
Jan 1994 William Harvey Lecture Series: London, England  
Dec 1993 Pfizer Pharmaceuticals, Groton CT  
Dec 1993 Grand rounds: Dept. Cardiology, Univ. California San Francisco CA  
Nov 1993 Post-graduate seminar speaker, AHA Scientific Sessions, Atlanta GA  
Nov 1993 State of the art lecture, AHA Scientific Sessions, Atlanta GA  
Oct 1993 Syntex, Palo Alto, CA  
August 1993 Symposium speaker, Int Symp Cardiovasc Pharmacology, Minneapolis  
July 1993 Symposium speaker, IUPS Glasgow, Scotland  
July 1993 Faculty presenter, New York Academy of Sciences, New York NY  
June 1993 Symposium speaker, ISHR, Columbia MO  
May 1993 Parke Davis, Ann Arbor, MI  
April 1993 Symposium speaker, FASEB New Orleans LA  
March 1993 Faculty presenter, Ischemic Heart Disease (E. Merck spons.), Newcastle, UK  
March 1993 Medical grand rounds, University College, London Uk  
Feb 1993 Physiology Dept., Uniformed Services U., Bethesda, MD  
Jan 1993 Invited Speaker, First Annual Adenosine Symposium, Tokyo, Japan  
Jan 1993 Pharmacology Dept., Yamagata University, Yamagata, Japan

#### **NIH CONSULTING: (1985-present)**

May 2012 Reviewer: Board of Scientific Councilors Site Visit  
June 2004 Chair: Special Study Section  
1998-2000 CVB Study Section: Regular Member  
1989-1993 CVB Study Section: Regular Member  
February 1989 University of Iowa (SCORE site visit team)  
January 1989 Baylor University, Houston (SCORE site visit team)

December 1988 Johns Hopkins (SCORE site visit team)  
October 1988 Houston, TX (site visit team, HLBI)  
October 1988 Bethesda, Study Section: Clinical Investigator Award, NHLBI. Manpower Review Committee.  
May 1988 Univ. Michigan, Ann Arbor, MI (Site visit team, General Medicine)  
Feb 1988 Bethesda, Study Section CV B, NHLBI Review Branch.  
Jan 1988 Bethesda, Study Section: Clinical Investigator Award, NHLBI; Manpower Review Committee  
Dec 1987 in NHLBI Research Review Committee A, ad hoc consultant  
Sept 1987 Cardiovascular Res. Inst., San Francisco, CA (Site visit team, NHLBI)  
May 1987 Univ. Michigan, Ann Arbor, MI (Site visit team, General Medicine)  
Jan 1987 Univ. Missouri, Columbia, MO (Site visit team, NHLBI)  
Feb 1986 Bethesda, Study Section CV A, NHLBI Review Branch  
Jan 1986 Peter Bent Brigham Hospital, Boston (Site visit team, NHLBI)  
Jan 1986 Univ. Missouri, Columbia, MO (Site visit team, NHLBI)  
Oct 1985 Bethesda, Study Section CV A, NHLBI Review Branch

### **COMMUNITY SERVICE:**

Program Advisory Committee, American Physiological Society (1985-1988)  
Program Executive Committee, American Physiological Society (1989-1991)  
Steering Committee, Cardiovascular Section, American Physiological Society (1985-1989)  
Nominating committee, Cardiovascular section, Am. Physiological Society (1989-1991)  
Governance Council Member, International Society for Heart Research: American section (1988-1997)  
Governance Council Member, International Society for Heart Research: International (1995-present)  
Program committee, Circulation Council, American Heart Association (1991-1999)  
Executive Committee Member at Large, Circulation Council, American Heart Association (1993-1999)  
American Heart Association Alabama Affiliate Grant review committee (1995-1997)  
Chairman, Melvin Marcus Young Investigator Award review committee, Circulation Council (1996-1998)  
Nominating Committee, Circulation Council, American Heart Association, (1996-1999)  
Treasurer, International Society for Heart Research: American section (1997-1998)  
External Examiner to the physiology teaching program, Kuwait University College of Medicine, Kuwait (1998)  
President, International Society for Heart Research: International (2001-2004)  
American Heart Association Mobile county board of directors (2001-present)

### **MEETINGS ORGANIZED:**

May 2009 Co-organizer Heart Protection Symposium, Amman, Jordan  
Nov 2008 Co-organizer Adenosine, Cardioprotection and its Clinical Application, New Orleans  
Nov 2007 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Orlando  
Nov 2006 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Chicago  
Nov 2005 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Dallas  
Nov 2004 Co-organizer Adenosine, Cardioprotection and its Clinical Application, New Orleans  
Nov 2003 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Orlando  
Nov 2002 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Chicago  
Nov 2000 Co-organizer Adenosine, Cardioprotection and its Clinical Application, New Orleans  
Nov 1999 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Atlanta  
Nov 1998 Co-organizer Adenosine, Cardioprotection and its Clinical Application, Dallas

Nov 1997 Co-organizer,, Adenosine, Cardioprotection and its Clinical Application, Orlando  
April 1996 Co-organizer, New Approaches to Ischemia-Reperfusion, Buenos Aires  
Nov 1996 Co-organizer, Adenosine, Cardioprotection and its Clinical Application, New Orleans  
Nov 1995 Co-organizer, Adenosine, Cardioprotection and its Clinical Application, Long Beach  
June 1995 Co-organizer, ISHR annual meeting, American Section, Mobile  
Nov 1994 Organizer, Sunday Circulation Council Session at the AHA meeting, Dallas  
Nov 1994 Co-organizer, Adenosine Satellite, (AHA meeting) Dallas  
May 1992 Co-organizer, Sapporo ISHR satellite, Sapporo Japan  
May 1991 ISHR annual meeting organizing committee, Cincinnati  
May 1988 FASEB theme co-organizer, Ischemic Heart Disease, Las Vegas  
March 1988 Organizer, Free Radicals and Reperfusion Injury, Point Clear, AL  
Oct 1987 APS Fall Meeting theme organizer, Membrane Biophysics and Molecular Kinetics in the Cardiovascular System, San Diego  
March 1986 Co-organizer, Free Radicals and Reperfusion Injury, Point Clear, AL

### **STUDENTS TRAINED**

#### **PhD Students: as Mentor**

David E. Chambers (1983) "Pharmacologic modification of infarct size"  
Jon D. Thornton (1993) "Adenosine receptors and Ischemic Preconditioning"  
Yongge Liu (1994) "The signal transduction pathway for the anti-infarct effect of ischemic preconditioning in the rabbit and rat heart"  
Christopher Baines (1999) "The roles of kinases and ATP-sensitive potassium channels in the mechanism of ischemic preconditioning.  
Qining Qin (2005) "Myocardial signal transduction pathways linking muscarinic receptors to the mitochondrial K<sub>ATP</sub>channel-dependent ROS production in the heart".  
Amanda Davis (2006 -2009) no degree

#### **PhD Students: as Committee member**

Dale Parks (1982)  
Ranjan Roy (1985)  
Simon Allo (1989)  
W. John Russell (1989)  
Bassam Omar (1990)

#### **Post-Doctoral Trainees:**

Douglas Munch, Ph.D., 1977-1979  
Shigeo Yoshida, M.D., Ph.D., 1982-1984  
Satoshi Akazuki, M.D., 1982-1984  
Tetsuji Miura, M.D., Ph.D., 1984-1986  
Takayuki Matsuki, M.D., 1986-1988

Chiaki Shirato, M.D. 1986-1988  
Donna Van Winkle, Ph.D., 1988-1990  
Hitoshi Ooiwa, M.D., 1989-1990  
Guang Shun Liu, MD, 1989-1999  
Akihito Tsuchida, MD, 1991-1993  
Mahiko Goto, MD, 1993-1995  
Christof Weinbrenner, MD, 1995-1997  
Takayuki Miki, MD, 1995-1997  
Susan Pain, PhD, 1997-1999  
Atsushi Nakano, MD, 1998-2000  
Maike Krenz, MD, 1999-2001  
Zhelong Xu, PhD, 1999-2001  
Olaf Oldenburg, MD, 2000-2003  
Thomas Krieg, MD, 2001-2003  
Natalia Solenkova, PhD, 2003-2005  
Sebastian Philipp, MD, 2003-2005  
Lin Cui, MD, 2003-2012  
Atsushi Kuno, MD, 2005-2007  
YanPing Liu, PhD 2006-2010  
Turhan Dost 2007- 2009  
Xiulan Yang 2008-2011  
Fang Di Hu 2009-2010

## JOURNAL ARTICLES

1. Hermsmeyer , Kent , and James M. Downey. Audile monitor for microelectrode experiments. *J. Appl. Physiol.* 28:858-859, 1970.
2. Downey , James M. The Determinants of the Intramyocardial Distribution of the Coronary Blood Flow. Ph.D. thesis, University of Illinois , Urbana , Illinois ,1971.
3. Kirk, Edward S., James M. Downey, and H. Fred Downey. The determinants of the non-uniform distribution of coronary blood flow in systole. International Symposium on Myocardial Blood Flow in Man. Pisa , Italy , 1971.
4. Cohn, Peter, Edward Kirk, James Downey, Edmund Sonnenblick, and Richard Gorlin. Autoradiographic evaluation of myocardial collateral circulation in the canine heart. *Cardiovascular Research* 7:181-185, 1973.
5. Forman, Robert, Edward S. Kirk, James M. Downey, and Edmund H. Sonnenblick. Nitroglycerine and heterogeneity of myocardial blood flow: Reduced subendocardial blood flow and contractile force. *J. Clin. Invest.* 52:905-911, 1973.
6. Cohen, Michael V., James M. Downey, Edmund H. Sonnenblick, and Edward S. Kirk. The effects of Nitroglycerine on Coronary Collaterals and Myocardial Contractility. *J. Clin. Invest.* 52:2836-2847, 1973.

7. Downey , J.M., H.F. Downey, and E.S. Kirk. Effects of myocardial strains on coronary blood flow. *Circulation Research* 34:286-292, 1974.
8. Downey , J.M., and E.S. Kirk. The distribution of coronary blood flow across the canine heart wall during systole. *Circulation Research* 34:251-257, 1974.
9. Snyder, R., J.M. Downey, and E.S. Kirk. The active and passive components of extravascular coronary resistance. *Cardiovascular Research* 9:161-166, 1975.
10. Downey , J.M., and E.S. Kirk. Inhibition of coronary blood flow by a vascular waterfall mechanism. *Circ. Res.* 36:753-760, 1975.
11. Downey , J.M., and E.S. Kirk. The transmural distribution of coronary blood flow during maximal vasodilation. *Proc. Soc. 150:189-193, 1975.*
12. Downey , J.M., D.F. Cowan, Edmund H. Sonnenblick, C.W. Urschel and E.S. Kirk. The adequacy of coronary blood flow during acute hypotension. *Circulatory Shock* 3:83-91, 1976.
13. Downey , J.M. Subendocardial contractile force as a function of coronary blood flow in the autoregulating dog heart. *Am. J. Physiol.* 230:1-6,1976.
14. Downey , J.M. Compression of the coronary arteries by the fibrillating canine heart. *Circ. Res.* 39:53-57, 1976.
15. Downey , J.M. and R. Chagrasulis. The effect of cardiac contraction on collateral resistance in the canine heart. *Circ. Res.* 39:797, 1976.
16. Longenecker, H.E. and J.M. Downey. Multitrace display for a single beam oscilloscope. *J. Electrophysiological Techniques* 5(2):57-60, 1976.
17. Chagrasulis, R.W. and J.M. Downey. Selective coronary embolization inclosed chest dogs. *Am. J. Physiol.* 232:335-337, 1977.
18. Singh, B.N., D.E. Jewitt, J.M. Downey, E.S. Kirk, and E.H. Sonnenblick. Effects of amiodarone and L8040, novel antianginal and antiarrhythmic drugs, on cardiac and coronary hemodynamics and on cardiac intracellular potentials. *Clin.Exp. Pharm. and Physiol.* 3:427-443, 1976.
19. Russell, R.E., R.W. Chagrasulis and J.M. Downey. The inhibitory effect of cardiac contraction on coronary collateral blood flow. *Am. J. Physiol.* 233:H541, 1977.
20. Downey , J.M. The effect of propranolol on direct coronary vasomotion. *European J. Pharm.* 46:119-124, 1977.
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