# CURRICULUM VITAE

**MICHAEL J. JOYNER, M.D.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Home Address:** | 797 Brandon Lane SW, Rochester, MN 55902 | **Phone No.:** | (507) 287-9774 |
| **Business Address:** | 200 First Street SW, Rochester, MN 55905 | **Phone No.:** | (507) 255-4288 |
| **E-mail Address:** | joyner.michael@mayo.edu | **Fax No.:** | (507) 255-7300 |
| **Birthplace:** | Lafayette, Louisiana | **Date:** | August 8, 1958 |
| **Citizenship:** | U.S. |  |  |

## POSITIONS HELD

Director for Consortia Development, Mayo Clinic Center for 5/1/12 – 2/1/14

 Translational Science Activity

Frank R. and Shari Caywood Professor of Anesthesiology, Mayo Clinic 5/14/09 - present

Deputy Director and Associate Dean for Research, Mayo Clinic 1/1/2006 - 9/30/10

Vice-Chair, Department of Physiology, Mayo Clinic 1/15/2003 - 7/15/06

Associate Program Director, Mayo GCRC 12/01/2002 - 9/30/06

Associate Program Director, Mayo CTSA 11/01/2006 - 10

Professor of Anesthesiology, Mayo Medical School 7/1/1999 - present

Consultant, Department of Anesthesiology, Mayo Clinic 1/1/1996 - present

Associate Professor of Anesthesiology, Mayo Medical School 7/1/1996 - 7/1/99

Senior Associate Consultant, Department of Anesthesiology, Mayo Clinic 1/1/1993 - 12/31/95

Assistant Professor of Anesthesiology, Mayo Medical School 7/1/1991 - 7/1/96

Tucson City Lifeguard 1977, 1978

## EDUCATION

High School: Rincon High School, Tucson, Arizona 1976

College: University of Arizona – B.S. (Nutrition and Food Science) 1981

Medical School: University of Arizona – M.D. 1987

Internship: Mayo Clinic 1987-88

Residency: Mayo Graduate School of Medicine, Resident in Anesthesiology 1988-92

## BOARD CERTIFICATION MEDICAL LICENSURE

American Board of Anesthesiology, 1994 Minnesota (no. 31986)

 Arizona (no. 24618)

## CAREER GOALS

My career goals are: (1) continued development of my human-based integrative physiology research program; (2) continued excellence in clinical anesthesia; (3) continued contributions to the administrative and educational activities of the department and institution; (4) participation in extramural activities related to issues 1-3 above.

## RESEARCH INTERESTS

Autonomic control of the cardiovascular and respiratory systems

Oxygen transport and gas exchange

Limits of human athletic performance

Blood substitutes and clinical transfusion practices

**MAJOR HONORS**

1981 PAC-10/7-UP Post Graduate Scholarship for Athletic and Academic Excellence

1987 University of Arizona College of Medicine, Class of 1987, Excellence in Research Award

1991 Balfour Award for Outstanding Research by Mayo Resident

1993 Lamport Award for Contributions to Cardiovascular Physiology as a Young Investigator, American Physiological Society

2004 Wolff Memorial Lecture, American College of Medicine

2007 Alumni Achievement Award, University of Arizona

2007 Streeten Lecture, American Autonomic Society

2007 Spinoza Lecture, Academic Medical Center (Amsterdam)

2007 DeBurgh Daly Lecture, Physiological Soc (UK)

2009 Citation Award, American College of Sports Medicine

2009 Shepherd Lecture MOVD

2010 Distinguished Mayo Investigator

2011 Edward F. Adolph Distinguished Lecture, American Physiological Society (awarded 2010)

2011 American Society of Anesthesiology Mentorship Award

2011 American Society of Anesthesiology FAER Honorary Lecture

2013 Cannon Lecture, American Physiological Society

2014 Bodil M. Schmidt-Nielsen Distinguished Mentor and Scientist Award

## PROFESSIONAL MEMBERSHIPS AND SOCIETIES

American College of Sports Medicine 1981-

American Physiological Society 1986-

American Society of Anesthesiologists 1988-

 Research Committee

 Experimental Circulation

American Heart Association

 Council on Circulation 1993-

 Council on High Blood Pressure Research 2002-

Association of University Anesthesiologists 1998-

Physiological Society (U.K.) 2001-

Academy of Research Mentors in Anesthesiology 2006-

American Autonomic Society

 President 2011-2012

### EDITORIAL AND CONSULTANT DUTIES

Associate Editor, *Journal of Applied Physiology* 1999-2005

Associate Editor, *Exercise and Sports Sciences Reviews* 1999-2005

Reviewing Editor, *Journal of Physiology* 2001-2005

Consulting Editor, *Japanese Journal of Physiology* 2003-present

Senior Editor, *Journal of Physiology* 2005-2008

Consulting Editor, *Journal of Applied Physiology* 2005-present

Consultant, ExternalAdvisory Board for the University of Mississippi 2008-present

 Medical Center COBRE program

Editor, *Clinical Perspectives (Journal of Physiology)* 2008-present

Editorial Board Member, *American Journal of Physiology: 2014-present*

 *Heart and Circulatory Physiology*

#### Journals:

 *American Journal of Physiology* (reviewer)

*Anesthesia and Analgesia* (reviewer)

*Anesthesiology* (reviewer)

*Annals of General Psychiatry* (reviewer)

*British Medical Journal* (reviewer)

*Circulation* (reviewer)

*Circulation Research* (reviewer)

*Clinical Autonomic Research* (reviewer)

*Hypertension* (reviewer, editorial board)

*International Journal of Sports Medicine* (reviewer; editorial board)

*Journal of Applied Physiology* (reviewer; editorial board)

 *Journal of the Autonomic Nervous System* (reviewer)

 *Journal of Clinical Investigation* (reviewer)

 *Journal of Physiology (London)* (reviewer)

 *Mayo Clinic Proceedings*

 *Medicine and Science in Sports and Exercise* (reviewer)

 *New England Journal of Medicine* (reviewer)

 *News in Physiological Sciences* (reviewer)

Scientific Communications in Public Media

 Dr. Joyner has done blog posts for the *New York Times, Outside Magazine,* and *Psychology Today*. He also blogs at “Human Limits” and is frequently interviewed by the national and international print and electronic media, including the *New York Times, BBC, NPR,* and major commercial networks.

<http://www.drmichaeljoyner.com>

##### Research Funding Agencies:

NASA Site Visitor, University of Texas 1993

 Southwestern Medical School

NIH Site Visitor, Pennsylvania State University 1994

 and Hershey Medical School

NIH Special Study Section on Blood Substitutes 1994

Site Visitor to NASA NSCORT, University of 1997

 Texas Southwestern

VA Merit Award Reviewer 1998

NIH Respiratory and Applied Physiology Study Section, 1998-2001

 Ad Hoc Reviewer

NSF Ad-Hoc Reviewer 1998

NIH/FDA/US Army Ad-Hoc Panel on Blood Substitutes 1999-2001

NIH Respiratory and Applied Physiology Study Section, 1999-2001

Member

 American Society of Anesthesiology Research Committee 1999-2001

 Chair, Section of Experimental Circulation

 NIH Integrative, Functional and Cognitive Neuroscience 2000

 Study Section, Ad-Hoc Reviewer

 NIH Respiratory Physiology Study Section, member 2001-2004

 NIH Data and Safety Monitoring Board for the ACTION trial 2003-2004

 Site Visitor, NIH HCRA and Research Nursing Home, Harvard 2003

 NIH, HLBI PPG Review Panel 2003

 NIH Site Visitor to UCSF GCRC 2003

 NIH Site Visitor to UCSD GCRC 2004

 Helmholz Foundation Site Visitor 2005

 Berlin CRC, Munich Pulmonary Center

 Member, NIH Clinical and Integrative Cardiovascular Sciences 2006-2010

 Study Section

 Member, NIH CTSA Review Panel 2007

 Chair, NIH, CICS Study Section 2009-2010

## NASA Advisory Panel on Cardiovascular Risks 2009-present

## EDUCATIONAL ACTIVITIES

Mayo Medical School:

 MMSI Respiratory Physiology Labs

MMSII Cardiovascular Course (one lecture annually)

MMSII Clinical Pharmacology Course (one lecture annually)

Mayo Graduate School:

Advanced Physiology Course (approximately three lectures annually)

Topics in Integrative Physiology (30 classes every other year)

 Methods in Clinical Physiology (10 classes every other year)

Mayo Graduate School of Medicine:

Masters of Nurse Anesthesia (approximately one lecture annually)

 Multispecialty Case Conferences (approximately four lectures annually)

 Resident's Lectures (approximately three lectures annually)

 Mentor to Research Fellows (see below)

 Mentor to summer students (approximately four students per summer)

Danish Cardiovascular Foundation, Ph.D. Course (2003, 2004, 2005, 2006, 2007)

INSTITUTIONAL/DEPARTMENTAL ADMINISTRATIVE RESPONSIBILITIES, COMMITTEE MEMBERSHIPS, AND OTHER ACTIVITIES

Mayo Clinic/Foundation:

 Animal Care and Use Committee 1994-1996

 Federal Public Affairs Committee 1994-2001

 Cardiovascular Search Committee 1995

 Clinical Research Task Force 1996

 Clinical Research Subcommittee 1977-1999

 Clinical Investigator Program 1998-2001

 Indirect Cost Recovery Task Force, Chair 1999-present

 Research Committee 1999-2010

 Health Sciences Research Search Committee, Chair 2001

 NIH General Clinical Research Center (Associate Program 2002-2006

Director)

 Clinical and Translational Science Activities (CTSA) 2006-2014

Department of Anesthesiology:

 Education Council 1993-

 Research and Human Studies Committee 1993

 Appointments and Promotions Committee 1997

 Personnel and Recruitment Committee 1997

 Recruitment Task Force 1999-

Department of Physiology and Biophysics:

 Education Committee 1994-1998

 Promotion and Tenure Committee 2003-

**MAJOR EXTRAMURAL PRESENTATIONS (by topic):**

Metabolism and Glucose Homeostasis

 Department of Physiology, University of Oklahoma, 2013

 Oklahoma City, OK

Physiology, Reductionism and the New Biology

 Department of Integrative Physiology, University of Colorado, 2011

 Boulder, CO

 Adolph Lecture American Physiological Society 2011

 Directors of Graduate Studies in Physiology & Pharmacology

 Michigan State University, East Lansing, MI 2011

 MD/Ph.D. Program, University of Kansas, Kansas City, KS 2011

 Mt. Desert Island Biological Institute, Salisbury Cove, ME 2011

 American Society of Anesthesiology National Meeting, 2011

 Chicago, IL

 University of Western Australia, Perth WA, Australia 2011

 University of Sydney, Sydney, Australia 2011

 Indiana Physiological Society Annual Meeting, 2012

 Muncie, IN

 Buskirk Lecture, Penn State University, University Park, PA 2012

 Department of Anesthesiology, Vanderbilt University, 2012

 Nashville, TN

 ACSM Exercise is Medicine, University of Kansas Med Center, 2012

 Kansas City, KS

 Technion Institute, Haifa, Israel 2012

 International Union of Physiological Sciences, Birmingham, UK 2013

 Exercise and Sports Science Australia, Adelaide, Australia 2014

 Experimental Biology, San Diego, CA 2014

 Michigan Physiological Society, East Lansing, MI 2014

 Exercise Physiology, Muscle Blood Flow and Human Performance

 Department of Physiology, University of Arizona 1984

 Department of Exercise Science, University of Arizona 1984

 Department of Medicine, Section of Applied Physiology, 1985

 Washington University, St. Louis

 Department of Physiology, University of Arizona 1986

 Department of Physiology, University of Oklahoma 1986

 Section of Cardiology, Department of Medicine, University 1987

 of Arizona

 Department of Exercise Science, University of Arizona 1991

 Department of Biology, Brown University 1991

 Department of Exercise Science, Arizona State University 1994

 Department of Kinesiology, University of Colorado 1994

 Invited lecture, American College of Sports Medicine 1995

 National Meeting, Minneapolis, MN

 American College of Sports Medicine 44th Annual Meeting, 1997

 Denver, CO

 National Institute on Aging, Special Symposia, 1998

 Washington, DC

Department of Physiology, University of Texas Health 1998

 Science Center, San Antonio, TX

 Department of Kinesiology, University of Texas, Austin, TX 1998

 Department of Exercise Science, University of Texas, Arlington, TX 1998

 Department of Physiology (Advanced Undergraduate Physiology), 1999

 University of Arizona, Tucson, AZ

Copenhagen Muscle Research Symposia/*Acta Physiologica* 1999

 *Scandinavica* Symposia on Oxygen Transport and

 Muscle Blood Flow, Copenhagen, Denmark

 Department of Kinesiology and Applied Physiology,

 University of Colorado, Boulder, CO 2001

 International Congress of Physiological Sciences, Christchurch, 2001

 New Zealand

 International Sports Science Network Forum, Nagano, Japan 2001

 Department of Kinesiology, Texas A&M, College Station, TX 2002

 Department of Anesthesiology, University of New Mexico,

 Albuquerque, NM 2003

 Featured Speaker, American College of Sports Medicine, 2003

 San Francisco, CA

 Department of Kinesiology, University of Maryland, 2003

 College Park, MD

 Department of Physiology, University of Arizona, Tucson, AZ 2004

 Department of Physiology, Nitiroi State University, 2004

 Nitiroi, Brazil

 INCOR Research Institute, Sao Paolo, Brazil 2004

 Brazilian Society of Sports Medicine (3 lectures), 2004

 Rio de Janeiro, Brazil

 Shinshu University Medical School symposia, Matsumoto, Japan 2004

 American College of Sports Medicine, symposia presenter, 2005

 Nashville, TN

 Canadian Society for Exercise Physiology, plenary lecture, 2005

 Ottawa

 University of Mississippi Dept. of Physiology 2007

 University of Copenhagen Winter Symposia 2007

 University of Nijmegen Medical Center, The Netherlands 2008

 Department of Human Physiology, University of Oregon 2009

 Finish Society of Anesthesiologists, Helsinki, Finland 2009

 Krogh-Lindhard Symposia, University of Copenhagen, Denmark 2009

 University of Missouri, Dept. of Physiology 2010

 American College of Sports Medicine 2010

 University of Western Australian, Perth WA, Australia 2011

 Australian Physiological Society, Sydney, Australia 2011

 University of Arizona, Tuscon, AZ 2012

 ACSM Exercise is Medicine, Kansas City, KS 2012

 University of Illinois, Chicago, IL 2012

 Intersociety Meeting, American Physiological Society, Westminster, 2012

 CO

 University of Minnesota School of Kinesiology, Minneapolis, MN 2012

 University of Oklahoma, Oklahoma City, OK 2013

 American College of Sports Medicine, Southeast Regional Chapter, 2013

 Greenville, SC

 Nike Fuel Summit, Portland, OR 2013

 Hypoxia 2013, Lake Louise, Calgary, Canada 2013

 University of Alabama Center for Exercise Medicine, Birmingham, AL 2013

 Association of Specialty Professors Workshop, Washington, DC 2013

 Experimental Biology Symposium, Boston, MA 2013

 St. Catherine’s University, St. Paul, MN 2013

 Pediatric Academic Societies Annual Meeting, Washington, DC 2013

 American College of Sports Medicine, Indianapolis, IN 2013

 International Union of Physiological Sciences, Birmingham, UK 2013

 Twin Cities Marathon Expo, St. Paul, MN 2013

 6th International Symposium in Strength Traning, Madrid, Spain 2013

Exercise and Sports Science Australia, Adelaide, Australia 2014

 Experimental Biology, San Diego, CA 2014

 American College of Sports Medicine, Orlando, FL 2014

 Reflex Control of Circulation and Nitric Oxide

 Department of Kinesiology, University of Texas, Austin 1991

 Departments of Anesthesiology and Physiology, University 1991

 of Washington

 Biodynamics Laboratory, University of Wisconsin, Madison 1991

 Department of Anesthesiology, University of Texas Southwestern 1992

 Medical School, Dallas

 Department of Physiology, University of Arizona 1994

 Department of Physiology, University of Texas, 1994

 San Antonio, Health Sciences Center

 Department of Kinesiology, University of Texas, Austin 1994

 International Society of Cardiovascular Anesthesiologists, 1995

 Istanbul, Turkey

 Indiana Physiological Society, Muncie, IN 2012

 Sympathetic Nervous System Summit, Prague, Czech Republic 2012

 Buskirk Seminar, Penn State University 2012

 Association of Specialty Professors Workshop, Washington, DC 2013

 Pediatric Academic Societies Annual Meeting, Washington, DC 2013

 14th Annual Symposium, Clinical Update in Anesthesiology, 1996

 Aruba, NA

Department of Anesthesiology, University of Pennsylvania, 1997

 Philadelphia, PA

 Department of Anesthesiology, Beth Israel Deaconess 1997

 Medical Center, Boston, MA

 Department of Exercise Science, University of Iowa, 1998

 Iowa City, IA

 Department of Anesthesiology, Medical College of Wisconsin, 1998

 Milwaukee, WI

 Department of Kinesiology, Texas A&M, College Station, TX 1998

 Department of Physiology, Presbyterian Hospital, Dallas, TX 1998

 Department of Physiology, University of Northern Texas 1998

 Health Science Center, Fort Worth, TX

 American Autonomic Society, Plenary Lecture, Kona, HI 1999

 Department of Comparative Morphology, Brown University, 1999

 Providence, RI

Department of Veterinary, Anatomy and Physiology, 1999

 Kansas State University, Manhattan, KS

 August Krogh Institute, Copenhagen, Denmark 2000

 Clinical Research Center, Penn State University, 2000

Hershey Medical Center, Hershey, PA

Guest lecturer, Advanced Physiology Course, University of 2000

 Arizona, Tucson, AZ

 Department of Preventive Medicine, University of Wisconsin, 2000

 Madison, WI

 RAP Study Section, Bethesda, MD 2000

 Ontario Exercise Physiology Winter Meeting, Ontario, Canada 2001

 Department of Kinesiology, Queen’s University, Ontario, Canada 2001

 Department of Physiology, Hiroshima Medical School, Japan 2001

Department of Clinical Neurophysiology, University of 2002

 Goteborg (Gunnar Wallin Retirement Symposia),

 Goteborg, Sweden

NASA Space Medicine and Life Sciences Research Center, 2002

 Morehouse School of Medicine, Atlanta, GA

 Department of Anesthesiology, University of New Mexico, 2003

 Albuquerque, NM

Cardiovascular course (2 lectures), Copenhagen Muscle 2003

 Research Centre

 Department of Anesthesiology, Mayo Clinic Jacksonville 2003

 Department of Anesthesiology, University of Split, 2003

 Split, Croatia

 Department of Anesthesiology, Duke University, 2003

 Durham, NC

 Experimental Biology symposia, Washington, DC 2004

 Department of Anesthesiology, Washington University 2005

 St. Louis, MO

 Canadian Society for Exercise Physiology, plenary lecture, 2005

 Ottawa

 Experimental Biology Symposia , San Diego, CA 2005 Department of Integrative Biology, University of Colorado

 Boulder, Co 2006

 Experimental Biology Symposia, San Francisco, CO 2006

 ACSM/APS Integrative Biology of Exercise,

 Indianapolis, In 2006

 David Greenfield Symposium, University of Nottingham

 Medical School, United Kingdom 2006

 John Mores University, Liverpool 2006

 American Society of Anesthesiologists, San Francisco, CA 2007

 Department of Cellular and Integrative Physiology, 2007

 University of Nebraska

 Center for Cardiovascular Disease, Morehouse School of Medicine, 2008

 Atlanta, GA

 Department of Physiology, Wayne State University, 2009

 Detroit, MI

 The John B. Pierce Laboratory, Yale University, 2009

 New Haven, CT

 International Union of Physiological Sciences, Kyoto, Japan 2009

 International Society for Autonomic Neuroscience, Sydney, Australia 2009

 Center for Systems Biology, University of Chicago, Chicago, IL 2010

 University of Western Australia, Perth WA, Australia 2011

 Department of Physiology, University of Minnesota, 2012

 Minneapolis, MN

 Department of Physiology, University of Arizona, Tucson, AZ 2012

 Department of Anesthesiology, Vanderbilt University, 2012

 Nashville, TN

Blood Substitutes and Transfusion Practices

 3rd Annual “Current Topics in Anesthesiology,” 1994

 Department of Anesthesiology, Mayo Clinic Scottsdale

 Hemosol, Inc., Toronto, Canada 1994

 Current Issues in Blood Substitute Research and Development, 1996

 San Diego, CA

 Minnesota Associate of Blood Banks 1996 Fall Meeting 1996

 “Preparing for the 21st Century” Rochester, MN

 Combined Anesthesia and Surgery Grand Rounds, 1996

 Sloan Kettering Cancer Institute, New York, NY

 Mayo Seventh Annual Current Topics in Anesthesiology, 1997

 Phoenix, AZ

15th Annual Symposium, Clinical Update in Anesthesiology 1997

 and Advances in Techniques of Cardiopulmonary Bypass,

 Acapulco, Mexico

 807th Medical Brigade Physician’s Conference, Department 1997

 of the Army, San Antonio, TX

 Department of Anesthesiology, University of Pennsylvania, 1997

 Philadelphia, PA

 16th Annual Symposium, Clinical Update in Anesthesiology 1998

and Advances in Techniques of Cardiopulmonary Bypass,

San Juan, PR

Department of Anesthesiology, University of Iowa, Iowa City, IA 1998

Department of Anesthesiology, Medical College of Wisconsin, 1998

 Milwaukee, WI

Center for Bloodless Medicine, University of Miami, Miami, FL 2000

TransFUSE 2014 Meeting, Phoenix, AZ 2014

## CLINICAL PRACTICE, INTERESTS, AND ACCOMPLISHMENTS

Clinical anesthesia, transfusion practices, preoperative evaluation of surgical patients

VISITING SCIENTISTS, RESEARCH FELLOWS, RESEARCH TRAINEES, ETC.

##### Visiting Scientists

 Wouter Wieling, M.D. 1991

Academic Medical Center, Amsterdam

 Richard Hughson, Ph.D.

University of Waterloo, Canada 1996

 Barbara Morgan, Ph.D.

 University of Wisconsin, Madison, WI 2001

 Gunnar Wallin, M.D. 2004 (~1 month)

 University of Gothenburg, Sweden 2005 (~1 month)

 Farah Ramirez-Marrero, Ph.D. 2007-2009

 University of Puerto Rico, San Juan, PR

##### Post-Doctoral Fellows

 Niki M. Dietz, M.D. 1992-93

 David N. Proctor, Ph.D. 1994-1997

 Keith A. Engelke, Ph.D. 1994-1996

 John R. Halliwill, Ph.D. 1995-1996; 1997-2000

 Christopher T. Minson, Ph.D. 1997-2000

 Ann Reed 1999-2000

 Michael E. Tschakovsky, Ph.D. 1998-2000

 Nisha Charkoudian, Ph.D. 2000-2003

 Frank A. Dinenno, Ph.D. 2000-2003

 William G. Schrage, Ph.D. 2001-2006

 John Eisenach 2002-2004

 Kittaphong Sujirattanawmol 2000-2001

 Paul Krediet 2004-2005

 Jaya Rosenmeier, M.D. 2001-2002

 Shizue Masuki, Ph.D. 2003-2005

 Wayne T. Nicholson, M.D. 2004-2006

 Liu Zhong, M.D. 2004-2006

 Brad Wilkins, Ph.D. 2004-2007

 Elizabeth Martin, Ph.D. 2005-2008

 Christiane Hesse, M.D. 2005-2009

 Darren Casey, Ph.D. 2007-2011

 Emma Hart, Ph.D. 2007-2011

 Erica Wehrwein, Ph.D. 2008-2011

 John Schmidt, Ph.D. 2008-2011

 Thomas Olson, Ph.D. 2008-2011

 Jill Barnes, Ph.D. 2009-present

 Blair Johnson, Ph.D 2011-2014

 Sushant Ranadive, Ph.D. 2012-present

 Jacqueline Limberg, Ph.D. 2012-present

 Walter Holbein , Ph.D. 2014-present

 Sarah Baker, Ph.D. 2014-present

Residents

 Christine Kenyon 2007-2008

 Andrea Dutoit, M.D. 2007-2010

Residents with ~6-month Rotations

 Creston Martin, M.D. Spring/Summer 1996

Allison Albrecht, M.D. Fall 1996-Winter 1997

Klaus Torp, M.D. Spring 1999

 Kitiphong Sujirattanawimol, M.D. Fall 1999-Winter 2000

 Susanne Pfeffer, M.D. Winter/Spring 2000

 John Eisenach, M.D. Fall 2000-Winter 2001

 Timothy Curry, M.D. Winter/Spring 2005

##### Medical Students

 Christopher Dyke 1993-94

 (Sarnoff Fellow, UT Southwestern Medical School)

 Shurea Wilson 1997-98

 (University of Pittsburgh)

Ann S. Reed 1998

 (Mayo Medical School)

 Paul Odenbach (Luther College) 1997 (fall), 1999 (summer)

 (University of Minnesota-Duluth Medical School, 1998)

 Sarah Hager 1999, 2000 (summers)

 (University of North Dakota)

 Erin Clark 2000 (summer, fall)

 (Mayo Medical School)

 Beth Burrow 2001 (fall, winter)

 (Mayo Medical School)

 Kellie Hancock 2006

 (Mayo Medical School)

 Stephen Gleich 2007

 (Mayo Medical School)

 Jeff McKenzie 2007

 (Mayo Medical School)

 Lawrence Grietin 2007

 (University of Arizona College of Medicine)

 Judith Schmitt 2008

 (Paracelsus Medical School, Salzburg)

 Modupef’Oluwa Jegede 2008

 (Mayo Medical School)

 Claus Egidy 2008

 (Paracelsus Medical School, Salzburg)

 Sandy Fritzlar 2002 (spring, summer)

 (Mayo Medical School)

 David Wetter 2003 (winter)

 (Mayo Medical School)

 Hans Sviggum 2005 (fall)

 (Mayo Medical School)

 C.P.T Krediet 2006/07 (fall-winter)

 (Academic Medical Center, Amsterdam)

 Marcos Lopez 2009-2010

 (Mayo Medical School; 1 year CTSA M.S. Program)

 Ronee Harvey 2011- present

 (Mayo Medical School; CTSA based M.D./Ph.D program)

 Kathryn Farni 2013 (summer)

 Loyola University Chicago, Stritch School of Medicine)

 Noud van Helmond 2013

 Radboud University Medical Center Nijmegen

 Myrthe Kuijpers 2014

 Radboud University Medical Center Nijmegen

Lisa Veldhoven

 Radboud University Medical Center Njmegen 2014

 John Roger Shepherd 2014-2015

Mayo Medical School

##### Graduate Students

 Shubha Shastry 1996-2001

 (Ph.D., Mayo Graduate School, May 2001)

 Elizabeth Martin 2003-2006

 (Ph.D., Mayo Graduate School, May 2004)

 Maile Ceridon 2005-2007

 (Ph.D. candidate, Mayo Graduate School)

 Amin Issa 2006-2010

 (Ph.D. candidate, Mayo Graduate School)

 Miguel Bernal-Restrepo 2006-2011

 (Ph.D. candidate, Mayo Graduate School)

Undergraduate Students (since 1992)

|  |  |  |
| --- | --- | --- |
| Juanita Rivera Robert FixScott Eggener Abel Beltran-Del-Rio Peter Shen Terri SamuelKarin BataldenMalaika WilliamsRichard AshleyEthan EbersoldPaul OdenbachCara WeisbrodSara HagerThomas PittlekowLatoya BerryTamica YoungChristopher JohnsonAntonio McGuireJordan MillerIsaac KiefferEric Cornidez | Tasha PikeHans SviggumErik SviggumRachel SchwinglerRam ChettiarCheryl WickJessica AbensteinBrandon MaderyBrian WelchStephanie PedersenHeather TonyanJohn Roger ShepherdAlexander AllenRachel ElvebakDavid GonzalexJennifer Arroyo Andrew BaconCasey HinesAlexander WhiteEssa MohammadDavid Gonzales | Bernd BaderJudith SchmidtHaley SobeckBrianna VaaRam ChettiarAmanda PalmDiane WickDaniel ChantigianSarah KruseLuke WassKathryn ThomasZachariah ScruggsMarika PitotTimothy KruseSteve AmaefunaLuke MatzekJennifer TaylorMaja JohnsonMichael MozerKatherine Malterer |

## RESEARCH GRANTS AWARDED

##### As a Trainee

 Stuart Pharmaceuticals (co-investigator)

1984-1986 “Interactions of cardioselective and non-selective beta-blockade on endurance exercise responses of trained and untrained human subjects” (PI, Jack Wilmore, Ph.D.)

Approximately $75,000/year

 USPHS HL-07479

 1982-1987 “Medical student research training grant” (PI, M.H. Witte, M.D.)

Zuckerman Fund

 1985 “Exercise physiology graduate student salary support”

 $5,000/year

NIH GM 08288

 7/89 - 7/90, 7/91 - 7/92 “Research training program in anesthesiology”

 Research fellowship (PI, Kai Rehder, M.D.)

Principal Investigator

 American Heart Association (Minnesota Affiliate)

 Research Grant-in-Aid

 7/90 - 7/91 $20,850

 7/91 - 7/92 $23,815

United States Army Research and Development Command (No. 91283001)

5/93 - 5/96 “Mechanisms of hypertension after cross-linked hemoglobin blood substitute transfusion” (PI M.J. Joyner, M.D.; co-investigators, J.C. Romero, M.D., Z.S. Katusic, M.D., Ph.D., G.M. Tyce, Ph.D., D.K. Rorie, M.D., Ph.D.)

 $748,559 (direct costs)

NIH P01 NS32352-01A1 Program Project Grant

 1/95 - 12/99 “Vascular resistance during orthostatic stress in humans”

 (Project 3 of Autonomic Disorders Program Project, P. Low, PI)

 M.J. Joyner, M.D., P.I. of Project 3

 $707,212 (direct costs to M.J. Joyner)

 9/00 - 10/05 “Vascular resistance during orthostatic stress in humans”

 (Project 3 of Autonomic Disorders Program Project, P. Low, PI)

 M.J. Joyner, M.D., P.I. of Project 3

 $680,326 (direct costs to M.J. Joyner)

 10/05 - 10/10 “Vascular resistance during orthostatic stress in humans”

 (Project 3 of Autonomic Disorders Program Project, P. Low, PI)

 M.J. Joyner, M.D., P.I. of Project 3

 $800,000 (direct costs to M.J. Joyner)

 NIH R29 HL 46493

 12/91 - 12/96 “Perfusion of active muscles: Metabolites and nerves”

 $350,000 (direct costs)

NIH R01 HL 46493

 9/97 - 8/02 "Perfusion of active muscles: Metabolites and nerves"

 (originally funded 1991)

 $925,422 (direct costs)

 9/02 - 8/06 “Perfusion of active muscles: Metabolites and nerves”

 $1,125,000 (direct costs)

 Renewal received 1.1% score in Fall 2006, to be funded in early 2007 for years 15-20

 4/07 - 3/12 “Perfusion of active muscles: Metabolites and Nerves

 $1,250,000 (direct costs)

NIH R01 HL 63328

 7/00 - 6/05 “Nitric oxide and exercise vasodilation in human hyperlipidemia”

 (PI M.J. Joyner, M.D.)

 $1,125,000 (direct costs)

 NIH R01 HL083947

 7/07 - 6/12 “Neurovascular Control and Blood Pressure Regulation in Humans”

(PI M.J. Joyner, M.D.)

 $1,250,000 (direct costs)

8/13 - 6/17 “Neurovascular Control and Blood Pressure Regulation in Humans”

(PI M.J. Joyner, M.D.)

 $244,631/year (direct costs)

 NIH HL 07766

 9/02 - 8/04 “Institutional Short-Term Research Training for Minority Students”

NIH NCRR 00585

 12/04 - 11/06 “General Clinical Research Center”

 Dr. Joyner was Associate Program Director

 (This grant was replaced in the fall of 2006 by Mayo’s CTSA award)

 $5,700,000/year (direct costs)

 NIH R01 DK090541

 2/11 - 1/15 “Role of Carotid Bodies in Glucose Regulation and Counter Regulation in Humans”

 (PI M.J. Joyner, M.D.)

 $357,470/year (direct costs)

 NIH UL1 TR000135

 7/11 - 6/16 “Mayo Clinic Center for Translational Science Activities”

(PI R.A. Rizza, M.D.)

 $10,689,073 (direct costs)

 U.S. Army Institute of Surgical Research/Department of Defense

 9/11 - 8/12 “Preclinical Evaluation of a Decision Support Medical Monitoring System for Early Detection of Potential Hemodynamic Decompensation During Blood Loss in Humans”

 (PI M.J. Joyner, M.D.)

 $~190,000/year (direct costs)

W81XWH-13-2-0038

9/13 – 8/16 “Effects of Simulated Pathophysiology on the Performance of a Decision Support Medical Monitoring System for Early Detection of Hemodynamic Decomposition in Humans”

(PI M.J. Joyner, M.D.)

 $188,676/year (direct costs)

NIH R01HL119337

 7/14-6/18“Exercise Hyperemia in Humans” (PI MJ Joyner, MD)

 $493,024/year (direct costs)

NIH R44HL106851

9/14-8/16“Device for Measuring Capillary Blood Flow and the Onset of Shock” (PI J. Christian)

 $88,660/year (direct costs)

Co-Investigator

 NIH/NIDR DK50456-03S1

 9/97 – 9/99 “The Effect of Insulin on Vascular Regulation in Viscerally Obese Men”

 Minnesota Heart Association FNDT-1

 7/96 - 6/98 “Effects of Gender and Oral Contraceptives in Vascular Tone in Humans”

 NIH R01 DK 45343-5

 9/96 - 9/01 "Regional Fatty Acid Metabolism in Humans" (PI M.D. Jensen, M.D.)

 NIH R01 AG 09531

 7/99 - 6/05 “Mechanism of Muscle Wasting in Aging Man” (PI K.S. Nair, M.D.)

 NIDDKD R01 DK41973

 7/02 - 6/05 “In Vivo Regulation of Protein Turnover by Hormones” (PI K.S. Nair, M.D.)

NHLBI R01 HL 71478

 6/02 - 5/06 “Pulmonary Limitations in Chronic Heart Failure” (PI B.J. Johnson, Ph.D.)

American Heart Association

6/02 - 5/04 “Influence of Beta2-Adrenergic Receptor Polymorphism on the Cardiopulmonary Responses to Exercise” (PI B.J. Johnson, Ph.D.)

NHLBI R01 91867

 7/1/09 - 6/30/10 “Mechanisms of Endothelial Repair After Vascular Surgery” (PI Z.S. Katusic, M.D., Ph.D.)

NIH P50 AG044170-01

 9/12 - 8/17 “Sex-Specific Risk for Vascular Dysfunction and Cognitive Decline” (PI V.M. Miller, Ph.D.)

NIH UH2/UH3TR 000954-1

 6/13 - 5/16 “Therapeutic Strategy to Slow Progression of Calcific Aortic Valve Stenosis” (PI J.D. Miller, Ph.D.)

Consultant

NHLBI R01 HL 70928

5/02 - 4/06 “Mechanisms of Cutaneous Vasodilation in Humans” (PI C.T Minson, Ph.D.)

NHLBI R01 HL 68030

7/02 - 6/06 “Endothelial Abnormalities in Obesity/Insulin Resistance” (PI C. DeSouza, Ph.D.)

 $225,000 (direct costs)

 (no salary for Dr. Joyner)

Faculty

NIH GM 08288

 7/93 - 7/04 “Research Training Grant in Anesthesiology”

 (PI K. A. Jones, M.D.)

NIH T32GM08685-02

 7/03 - 6/08 "Training Grant in Clinical Pharmacology" (PI R.M. Weinshilboum, M.D.)

 7/08 - 6/13 “Training Grant in Clinical Pharmacology” (PI R.M. Weinshilboum, M.D.)

BIBLIOGRAPHY

\*indicates primary author was a trainee or student under Dr. Joyner’s supervision

**Articles Published or Accepted in Refereed Journals:**

|  |  |  |
| --- | --- | --- |
|  | 1. | Martin WH III, Coyle EF, Joyner MJ, Santeusanio D, Ehsani AA, Holloszy JO: Effects of stopping exercise training on epinephrine-induced lipolysis in humans. J Appl Physiol 56: 845-848, 1984 |
|  | 2. | Coyle EF, Martin WH III, Sinacore DR, Joyner MJ, Hagberg JM, Holloszy JO: Time course of loss of adaptations after stopping prolonged intense endurance training. J Appl Physiol 57: 1857-1864, 1984 |
|  | 3. | Wilmore JH, Freund BJ, Joyner MJ, Hetrick GA, Hartzell AA, Strother RT, Ewy GA, Faris WE: Acute response to submaximal and maximal exercise consequent to beta-adrenergic blockade: Implications for the prescription of exercise. Am J Cardiol 55: 135D-141D, 1985 |
|  | 4. | Wilmore JH, Ewy GA, Freund BJ, Hartzell AA, Jilka SM, Joyner MJ, Todd CA, Kinzer SM, Pepin EB: Cardiorespiratory alterations consequent to endurance exercise training during chronic beta-adrenergic blockade with atenolol and propranolol. Am J Cardiol 55: 142D-148D, 1985 |
|  | 5. | Anderson RL, Wilmore JH, Joyner MJ, Freund BJ, Hartzell AA, Todd CA, Ewy GA: Effects of cardioselective and non-selective beta-adrenergic blockade on the performance of highly trained runners. Am J Cardiol 55: 149D-154D, 1985 |
|  | 6. | Joyner MJ, Freund BJ, Jilka SM, Hetrick GA, Martinez E, Ewy GA, Wilmore JH: Effects of β-blockade on the exercise capacity of trained and untrained men: a hemodynamic comparison. J Appl Physiol 60: 1429-1434, 1986 |
|  | 7. | Hartzell AA, Freund BJ, Jilka SM, Joyner MJ, Anderson RL, Ewy GA, Wilmore JH: The effects of beta-adrenergic blockade on ratings of perceived exertion during submaximal exercise before and following endurance training. J Cardiopulm Rehab 6: 444-456, 1986 |
|  | 8. | Joyner MJ, Jilka SM, Taylor JA, Kalis JK, Nittolo J, Hicks RW, Lohman TG, Wilmore JH: β-blockade reduces tidal volume during heavy exercise in trained and untrained men. J Appl Physiol 62: 1819-1825, 1987 |
|  | 9. | Freund BJ, Joyner MJ, Jilka SM, Kalis J, Nittolo JM, Taylor JA, Peters H, Feese G, Wilmore JH: Thermoregulation during prolonged exercise in heat: alterations with β-adrenergic blockade. J Appl Physiol 63: 930-936, 1987 |
|  | 10. | Overton JM, Joyner MJ, Tipton CM: Reductions in blood pressure after acute exercise by hypertensive rats. J Appl Physiol 64: 748-752, 1988 |
|  | 11. | Kalis JK, Freund BJ, Joyner MJ, Jilka SM, Nittolo J, Wilmore JH: Effect of β-blockade on the drift in O2 consumption during prolonged exercise. J Appl Physiol 64: 753-758, 1988 |
|  | 12. | Enoka RM, Rankin LL, Joyner MJ, Stuart DG: Fatigue-related changes in neuromuscular excitability of rat hind limb muscles. Muscle and Nerve 11: 1123-1132, 1988 |
|  | 13. | Jilka SM, Joyner MJ, Nittolo JM, Kalis JK, Taylor JA, Lohman TG, Wilmore JH: Maximal exercise responses to acute and chronic beta-adrenergic blockade in healthy male subjects. Med Sci Sports Exerc 20: 570-573, 1988 |
|  | 14. | Joyner MJ, Chase PB, Allen HD, Seals RD: Response of upper limb blood flow to handgrip exercise after Blalock-Taussig operation (for tetralogy of Fallot) or subclavian flap operation (for aortic isthmic coarctation). Am J Cardiol 63: 1379-1384, 1989 |
|  | 15. | Morton AR, Stanforth PR, Freund BJ, Joyner MJ, Jilka SM, Hartzell AA, Ewy GA, Wilmore JH: Alterations in plasma lipids consequent to endurance training and beta-blockade. Med Sci Sports Exerc 21: 288-292, 1989 |
|  | 16. | Taylor JA, Joyner MJ, Chase PB, Seals DR: Differential control of vascular resistance in the contralateral forearm and calf vascular resistance during one-leg exercise. J Appl Physiol 67: 1791-1800, 1989 |
|  | 17. | Joyner MJ, Shepherd JT, Seals DR: Sustained increases in sympathetic outflow during prolonged lower body negative pressure in man. J Appl Physiol 68: 1004-1009, 1990 |
|  | 18. | Joyner MJ, Lennon RL, Wedel DJ, Rose SH, Shepherd JT: Blood flow to contracting human muscles: influence of increased sympathetic activity. J Appl Physiol 68: 1453-1457, 1990 |
|  | 19. | Joyner MJ: Modeling: optimal marathon performance on the basis of physiological factors. J Appl Physiol 70: 683-687, 1991 |
|  | 20. | Joyner MJ: Does the pressor response to ischemic exercise improve blood flow to contracting muscles in humans? J Appl Physiol 71: 1496-1501, 1991 |
|  | 21. | Joyner MJ, Warner DO, Rehder K: Halothane changes the relationships between lung resistances and lung volume. Anesthesiology 76: 229-235, 1992 |
|  | 22. | Warner DO, Joyner MJ, Rehder K: Electrical activation of expiratory muscles increases with time in pentobarbital-anesthetized dogs. J Appl Physiol 72: 2285-2291, 1992 |
|  | 23. | Joyner MJ, Nauss LA, Warner MA, Warner DO: Sympathetic modulation of blood flow and O2 uptake in rhythmically contracting human forearm muscles. Am J Physiol 263: H1078- H1083, 1992 |
|  | 24. | Seals DR, Suwarno NO, Joyner MJ, Iber C, Copeland JG, Dempsey JA: Respiratory modulation of muscle sympathetic nerve activity in intact and lung denervated humans. Circ Res 72: 440-454, 1993 |
|  | 25. | Joyner MJ, Wieling W: Increased muscle perfusion reduces muscle sympathetic nerve activity during handgripping. J Appl Physiol 75: 2450-2455, 1993 |
| \* | 26. | Dietz NM, Rivera JM, Warner DO, Joyner MJ: Is nitric oxide involved in cutaneous vasodilation during body heating in humans? J Appl Physiol 76: 2047-2053, 1994 |
|  | 27. | Warner DO, Joyner MJ, Ritman EL: Anesthesia and chest wall function in dogs. J Appl Physiol 76: 2802-2813, 1994 |
| \* | 28. | Dietz NM, Rivera JM, Eggener SE, Fix RT, Warner DO, Joyner MJ: Nitric oxide contributes to the rise in forearm blood flow during mental stress in humans. J Physiol 480: 361-368, 1994 |
| \* | 29. | Dyke CK, Proctor DN, Dietz NM, Joyner MJ: Role of nitric oxide in exercise hyperemia during prolonged rhythmic handgripping in humans. J Physiol 488: 259-265, 1995 |
|  | 30. | Ford MJ, Camilleri MJ, Hanson RB, Wiste JA, Joyner MJ: Hyperventilation, central autonomic control, and colonic tone in humans. Gut 37: 499-504, 1995 |
|  | 31. | Warner DO, Joyner MJ, Ritman EL: Chest wall responses to rebreathing in halothane-anesthetized dogs. Anesthesiology 83: 835-843, 1995 |
| \* | 32. | Martin CM, Beltran-del-Rio A, Albrecht A, Lorenz RR, Joyner MJ: Local cholinergic mechanisms mediate nitric oxide-dependent flow-induced vasorelaxation in vitro. Am J Physiol 270: H442-H446, 1996 |
| \* | 33. | Proctor DN, Sinning WE, Bredle DL, Joyner MJ: Cardiovascular and peak VO2 responses to supine exercise: effects of age and training status. Med Sci Sports Exerc 28: 892-899, 1996 |
| \* | 34. | Engelke KA, Halliwill JR, Proctor DN, Dietz NM, Joyner MJ: Contribution of nitric oxide and prostaglandins to reactive hyperemia in the human forearm. J Appl Physiol 81: 1807-1814, 1996 |
| \* | 35. | Proctor DN, Halliwill JR, Shen PH, Vlahakis NE, Joyner MJ: Peak calf blood flow estimates are higher with Dohn than with Whitney plethysmograph. J Appl Physiol 81: 1418-1422, 1996 |
|  | 36. | Ford MJ, Camilleri M, Joyner MJ, Hanson RB: Autonomic control of colonic tone and the cold pressor test. Gut 39: 125-129, 1996 |
| \* | 37. | Halliwill JR, Dietz NM, Joyner MJ: Active vasodilation during fainting: a hypothesis revisited. Clin Auton Res 6: 233-236, 1996 |
|  | 38. | Tucker RR, Berndt TJ, Thotharthri V, Newcome J, Joyner MJ, Knox FG: Propranolol blocks the hypophosphaturia of acute respiratory alkalosis in human subjects. J Lab Clin Med 128: 423-428, 1996 |
|  | 39. | Dietz NM, Engelke KA, Samuel TT, Fix RT, Joyner MJ: Evidence for nitric oxide-mediated sympathetic forearm vasodilatation in humans. J Physiol 498: 531-540, 1997 |
| \* | 40. | Engelke KA, Williams MM, Dietz NM, Joyner MJ: Does sympathetic activation blunt nitric oxide-mediated hyperemia in the human forearm? Clin Auton Res 7: 85-91, 1997 |
| \* | 41. | Proctor DN, Joyner MJ: Skeletal muscle mass and the reduction of VO2max in trained older subjects. J Appl Physiol 82: 1411-1415, 1997 |
|  | 42. | Dietz NM, Halliwill JR, Spielmann JM, Lawler LA, Papouchado BG, Eickhoff TJ, Joyner MJ: Sympathetic withdrawal and forearm vasodilation during vasovagal syncope in humans. J Appl Physiol 82: 1785-1793, 1997 |
|  | 43. | Dietz NM, Martin CM, Beltran-del-Rio AG, Joyner MJ: The effects of cross-linked hemoglobin on regional vascular conductance in dogs. Anesth Analg 85: 265-273, 1997 |
| \* | 44. | Halliwill JR, Lawler LA, Eickhoff TJ, Dietz NM, Nauss LA, Joyner MJ: Forearm sympathetic withdrawal and vasodilatation during mental stress in humans. J Physiol 504: 211-220, 1997 |
|  | 45. | Shoemaker JK, Halliwill JR, Hughson RL, Joyner MJ: Contributions of acetylcholine and nitric oxide to forearm blood flow at exercise onset and recovery. Am J Physiol 273: H2388-H2395, 1997 |
| \* | 46. | Halliwill JR, Lawler LA, Eickhoff TJ, Joyner MJ, Mulvagh SL: Reflex responses to regional venous pooling during lower body negative pressure in humans. J Appl Physiol 84: 454-458, 1998 |
| \* | 47. | Proctor DN, Beck KC, Shen PH, Eickhoff TJ, Halliwill JR, Joyner MJ: Influence of age and gender on cardiac output - VO2 relationships during submaximal cycle ergometry. J Appl Physiol 84: 599-605, 1998 |
| \* | 48. | Dyke CK, Dietz NM, Lennon RL, Warner DO, Joyner MJ: Forearm blood flow responses to handgripping after local neuromuscular blockade. J Appl Physiol 84: 754-758, 1998 |
|  | 49. | Warner DO, Warner MA, Joyner MJ, Ritman EL: The effect of nitrous oxide on chest wall function in humans and dogs. Anesth Analg 86: 1058-1064, 1998 |
| \* | 50. | Shastry S, Dietz NM, Halliwill JR, Reed AS, Joyner MJ: Effects of nitric oxide synthase inhibition on cutaneous vasodilation during body heating in humans. J Appl Physiol 84: 830-834, 1998 |
| \* | 51. | Proctor DN, Shen PH, Dietz NM, Eickhoff TJ, Lawler LA, Ebersold EJ, Loeffler DL, Joyner MJ: Reduced leg blood flow during dynamic exercise in older endurance-trained men. J Appl Physiol 85: 68-75, 1998 |
| \* | 52. | Lawler LA, Halliwill JR, Summer JM, Joyner MJ, Mulvagh SL: Leg mass and lower body negative pressure tolerance in men and women. J Appl Physiol 85: 1471-1475, 1998 |
|  | 53. | Brock RW, Tschakovsky ME, Shoemaker JK, Halliwill JR, Joyner MJ, Hughson RL: Effects of acetylcholine and nitric oxide on forearm blood flow at rest and after a single muscle contraction. J Appl Physiol 85: 2249-2254, 1998 |
| \* | 54. | Halliwill JR, Hewitt SA, Joyner MJ, Warner MA: Effect of various lithotomy positions on lower extremity blood pressure. Anesthesiology 89: 1373-1376, 1998 |
| \* | 55. | Halliwill JR, Minson CT, Joyner MJ: Measurement of limb venous compliance in humans: technical considerations and physiological findings. J Appl Physiol 87: 1555-1563, 1999 |
|  | 56. | Burguera B, Proctor D, Dietz N, Guo Z, Joyner M, Jensen MD: Leg free fatty acid kinetics during exercise in men and women. Am J Physiol Endocrinol Metab 278: E113-E117, 2000 |
| \* | 57. | Shastry S, Minson CT, Wilson SA, Dietz NM, Joyner MJ: Effects of atropine and L-NAME on cutaneous blood flow during body heating in humans. J Appl Physiol 88: 467-472, 2000 |
| \* | 58. | Minson CT, Halliwill JR, Young TM, Joyner MJ: Influence of the menstrual cycle on sympathetic activity, baroreflex sensitivity, and vascular transduction in young women. Circulation 101: 862-868, 2000 |
|  | 59. | Johnson BD, Beck KC, Proctor DN, Miller J, Dietz NM, Joyner MJ: Cardiac output during exercise by the open circuit acetylene washin method: comparison with direct Fick. J Appl Physiol 88: 1650-1658, 2000 |
| \* | 60. | Reed AS, Tschakovsky ME, Minson CT, Halliwill JR, Torp KD, Nauss LA, Joyner MJ: Skeletal muscle vasodilatation during sympathoexcitation is not neurally mediated in humans. J Physiol (Lond) 525: 253-262, 2000 |
| \* | 61. | Minson CT, Halliwill JR, Young TM, Joyner MJ: Sympathetic activity and baroreflex sensitivity in young women taking oral contraceptives. Circulation 102: 1473-1476, 2000 |
| \* | 62. | Halliwill JR, Minson CT, Joyner MJ: Effect of systemic nitric oxide synthase inhibition on post-exercise hypotension in humans. J Appl Physiol 89: 1830-1836, 2000 |
|  | 63. | Waggoner JR III, Wass CT, Polis TZ, Faust RJ, Schroeder DR, Offord KP, Piepgras DG, Joyner MJ: The effect of changing transfusion practice on rates of perioperative stroke and myocardial infarction in patients undergoing carotid endarterectomy: A retrospective analysis of 1114 Mayo Clinic patients. Mayo Clin Proc 76: 376-383, 2001 |
| \* | 64. | Torp KD, Tschakovsky ME, Halliwill JR, Minson CT, Joyner MJ: β-Receptor agonist activity of phenylephrine in the human forearm. J Appl Physiol 90: 1855-1859, 2001 |
| \* | 65. | Minson CT, Berry L, Joyner MJ: Nitric oxide and neurally mediated regulation of skin blood flow during local heating. J Appl Physiol 91: 1619-1626, 2001 |
|  | 66. | Proctor DN, Miller JD, Dietz NM, Minson CT, Joyner MJ: Reduced submaximal leg blood flow after high-intensity aerobic training. J Appl Physiol 91: 2619-2627, 2001 |
|  | 67. | Weisbrod CJ, Minson CT, Joyner MJ, Halliwill JR: Effects of regional phentolamine on hypoxic vasodilatation in healthy humans. J Physiol 537: 613-621, 2001 |
| \* | 68. | Charkoudian N, Eisenach JH, Atkinson JLD, Fealey RD, Joyner MJ: Effects of chronic sympathectomy on locally mediated cutaneous vasodilation in humans. J Appl Physiol 92: 685-690, 2002 |
| \* | 69. | Shastry S, Joyner MJ: Geldanamycin attenuates NO-mediated dilation in human skin. Am J Physiol Heart Circ Physiol 282: H232-H236, 2002 |
| \* | 70. | Eisenach JH, Clark ES, Charkoudian N, Dinenno FA, Atkinson JLD, Fealey RD, Dietz NM, Joyner MJ: Effects of chronic sympathectomy on vascular function in the human forearm. J Appl Physiol 92: 2019-2025, 2002 |
| \* | 71. | Dinenno FA, Eisenach JH, Dietz NM, Joyner MJ: Post-junctional α-adrenoceptors and basal limb vascular tone in healthy men. J Physiol 540: 1103-1110, 2002 |
| \* | 72. | Shastry S, Toft D, Joyner M: HSP70 and HSP90 expression in leucocytes after exercise in moderately trained humans. Acta Physiol Scand 175: 139-146, 2002 |
| \* | 73. | Miller JD, Beck KC, Joyner MJ, Brice AG, Johnson BD: Cardiorespiratory effects of inelastic chest wall restriction. J Appl Physiol 92: 2419-2428, 2002 |
| \* | 74. | Tschakovsky ME, Sujirattanawimol K, Ruble SB, Valic Z, Joyner MJ: Is sympathetic neural vasoconstriction blunted in the vascular bed of exercising human muscle? J Physiol (Lond) 541: 623-635, 2002 |
| \* | 75. | Charkoudian N, Vella A, Reed AS, Minson CT, Shah P, Rizza RA, Joyner MJ: Cutaneous vascular function during acute hyperglycemia in healthy young adults. J Appl Physiol 93: 1243-1250, 2002 |
| \* | 76. | Dinenno FA, Dietz NM, Joyner MJ: Aging and forearm post-junctional α-adrenergic vasoconstriction in healthy men. Circulation 106: 1349-1354, 2002 |
|  | 77. | Abraham MR, Olson LJ, Joyner MJ, Turner ST, Beck KC, Johnson BD: Angiotensin-converting enzyme genotype modulates pulmonary function and exercise capacity in treated patients with congestive stable heart failure. Circulation 106: 1794-1799, 2002 |
| \* | 78. | Rosenmeier JB, Dinenno FA, Fritzlar SJ, Joyner MJ: α1- and α2-adrenergic vasoconstriction is blunted in contracting human muscle. J Physiol 547: 971-976, 2003 |
|  | 79. | Garovic VD, Joyner MJ, Dietz NM, Boerwinkle E, Turner ST: β2-Adrenergic receptor polymorphism and nitric oxide-dependent forearm blood flow responses to isoproterenol in humans. J Physio1 546: 583-589, 2003 |
|  | 80. | Vella A, Reed AF, Charkoudian N, Shah P, Basu R, Basu A, Joyner MJ, Rizza RA: Glucose-induced suppression of endogenous glucose production: dynamic response to differing glucose profiles. Am J Physiol Endocrinol Metab 285: E25-E30, 2003 |
| \* | 81. | Dinenno FA, Joyner MJ, Halliwill JR: Failure of systemic hypoxia to blunt sympathetic neural vasoconstriction in the human forearm. J Physiol 549: 985-994, 2003 |
| \* | 82. | Charkoudian N, Halliwill JR, Morgan BJ, Eisenach JH, Joyner MJ: Influences of hydration on post-exercise cardiovascular control in humans. J Physiol 552: 635-644, 2003 |
|  | 83. | Toffolo G, Albright R, Joyner M, Dietz N, Cobelli C, Nair KS: Model to assess muscle protein turnover: domain of validity using amino acyl-tRNA vs. surrogate measures of precursor pool. Am J Physiol Endocrinol Metab 285: E1142-E1149, 2003 |
| \* | 84. | Rosenmeier JB, Fritzlar SJ, Dinenno FA, Joyner MJ: Exogenous NO administration and alpha-adrenergic vasoconstriction in human limbs. J Appl Physiol 95: 2370-2374, 2003 |
| \* | 85. | Dinenno FA, Joyner MJ: Blunted sympathetic vasoconstriction in contracting skeletal muscle of healthy humans: is nitric oxide obligatory? J Physiol 553: 281-292, 2003 |
| \* | 86. | Reed AS, Charkoudian N, Vella A, Shah P, Rizza RA, Joyner MJ: Forearm vascular control during acute hyperglycemia in healthy humans. Am J Physiol 286: E472-E480, 2003 |
| \* | 87. | Eisenach JH, McGuire AM, Schwingler RM, Turner ST, Joyner MJ: The Arg16/Gly β-2 adrenergic receptor polymorphism is associated with altered cardiovascular responses to isometric exercise. Physiol Genomics 16: 323-328, 2004 |
| \* | 88. | Schrage WG, Joyner MJ, Dinenno FA: Local inhibition of nitric oxide and prostaglandins independently reduces forearm exercise hyperaemia in humans. J Physiol 557: 599-611, 2004 |
|  | 89. | Nielsen S, Halliwill JR, Joyner MJ, Jensen MD: Vascular response to angiotensin II in upper body obesity. Hypertension 44: 435-441, 2004 |
| \* | 90. | Charkoudian N, Martin EA, Dinenno FA, Eisenach JH, Dietz NM, Joyner MJ: Influence of increased central venous pressure on baroreflex control of sympathetic activity in humans. Am J Physiol: Heart Circ Physiol 287: H1658-H1662, 2004 |
| \* | 91. | Schrage WG, Eisenach JH, Dinenno FA, Roberts SK, Johnson CP, Sandroni P, Low PA, Joyner MJ: Effects of midodrine on exercise-induced hypotension and blood pressure recovery in autonomic failure. J Appl Physiol 97: 1978-1984, 2004 |
| \* | 92. | Dinenno FA, Joyner MJ: Combined nitric oxide and prostaglandin inhibition augments α-adrenergic vasoconstriction in contracting human skeletal muscle. Am J Physiol: Heart Circ Physiol 287: H2576-H2584, 2004 |
|  | 93. | Warner DO, Joyner MJ, Charkoudian N: Nicotine increases initial blood flow responses to local heating of non-glabrous skin. J Physiol 559: 975-984, 2004 |
| \* | 94. | Schrage WG, Dietz NM, Eisenach JH, Joyner MJ: Agonist-dependent variability of contributions of nitric oxide and prostaglandins in human skeletal muscle. J Appl Physiol 98: 1251-1257, 2005 |
|  | 95. | Snyder EM, Joyner MJ, Turner ST, Johnson BD: Blood pressure variation in healthy humans: a possible interaction with β-2 adrenergic receptor genotype and renal epithelial sodium channels. Medical Hypothesis 65: 296-299, 2005 |
|  | 96. | Masuki S, Dinenno FA, Joyner MJ, Eisenach JH: Selective α2-adrenergic properties of dexmedetomidine over clonidine in the human forearm. J Appl Physiol 99: 587-592, 2005 |
| \* | 97. | Dinenno FA, Masuki S, Joyner MJ: Impaired modulation of sympathetic α-adrenergic vasoconstriction in contracting forearm muscle of aging men. J Physiol 15: 311-321, 2005 |
| \* | 98. | Schrage WG, Wilkins BW, Dean VL, Scott JP, Henry NK, Wylam ME, Joyner MJ: Exercise hyperemia and vasoconstrictor responses in humans with cystic fibrosis. J Appl Physiol 99: 1866-1871, 2005 |
|  | 99. | Charkoudian N, Joyner MJ, Johnson CP, Eisenach JH, Dietz NM, Wallin BG: Balance between cardiac output and sympathetic nerve activity in resting humans: role in arterial pressure regulation. J Physiol 568: 315-321, 2005 |
| \* | 100. | Eisenach JH, Barnes SA, Pike TL, Sokolnicki LA, Masuki S, Dietz NM, Rehfeldt KH, Turner ST, Joyner MJ: Arg 16/Gly beta-2 adrenergic receptor polymorphism alters the cardiac output response to isometric exercise. J Appl Physiol 99: 1776-1781, 2005 |
|  | 101. | Charkoudian N, Eisenach JH, Joyner MJ, Roberts SK, Wick DE: Interactions of plasma osmolality with arterial and central venous pressures in control of sympathetic activity and heart rate in humans. AJP Heart Circ Physiol 289: H2456-H2460, 2005 |
|  | 102. | Whalen FX, Gajic O, Thompson GB, Kendrick ML, Que FL, Williams BA, Joyner MJ, Hubmayr RD, Warner DO, Sprung J: The effects of the alveolar recruitment maneuver and positive end-expiratory pressure on arterial oxygenation during laparoscopic bariatric surgery. Anesth Analg 102: 298-305, 2006 |
|  | 103. | Snyder EM, Beck KC, Dietz NM, Eisenach JH, Joyner MJ, Turner ST, Johnson BD: Arg16Gly polymorphism of the β2-adrenergic receptor is associated with differences in cardiovascular function at rest and during exercise in humans. J Physiol 571: 121-130, 2006 |
| \* | 104. | Masuki S, Eisenach JH, Dinenno FA, Joyner MJ: Reduced forearm α1-adrenergic vasoconstriction is associated with enhanced heart rate fluctuations in humans. J Appl Physiol 100: 792-799, 2006 |
| \* | 105. | Liu Z, Barnes SA, Sokolnicki LA, Snyder EM, Johnson BD, Turner ST, Joyner MJ, Eisenach JH: Beta-2 adrenergic receptor polymorphisms and the forearm blood flow response to mental stress. Clin Auton Res 16: 105-112, 2006 |
|  | 106. | Snyder EM, Hulsebus ML, Turner ST, Joyner MJ, Johnson BD: Genotype related differences in beta-2 adrenergic receptor density and cardiac function. Med Sci Sports Exerc 38: 882-886, 2006 |
|  | 107. | Charkoudian N, Joyner MJ, Sokolnicki LA, Johnson CP, Eisenach JH, Dietz NM, Curry TB, Wallin BG: Vascular adrenergic responsiveness is inversely related to tonic activity of sympathetic vasoconstrictor nerves in humans. J Physiol 572: 821-827, 2006 |
|  | 108. | Snyder EM, Beck KC, Dietz NM, Joyner MJ, Turner ST, Johnson BD: Influence of β2-adrenergic receptor genotype on airway function during exercise in healthy adults. Chest 129: 762-770, 2006 |
|  | 109. | Eisenach JH, Schroeder DR, Pike TL, Johnson CP, Schrage WG, Snyder EM, Johnson BD, Garovic VD, Turner ST, Joyner MJ: Dietary sodium restriction and β2-adrenergic receptor polymorphism modulate cardiovascular function in humans. J Physiol 574: 955-965, 2006 |
|  | 110. | Snyder EM, Turner ST, Joyner MJ, Eisenach JH, Johnson BD: The Arg16Gly polymorphism of the β2-adrenergic receptor and the natriuretic response to rapid saline infusion in humans. J Physiol. 574: 947-954, 2006 |
| \* | 111. | Wilkins BW, Schrage WG, Liu Z, Hancock KC, Joyner MJ: Systemic hypoxia and vasoconstrictor responsiveness in exercising human muscle. J Appl Physiol 101: 1343-1350, 2006 |
|  | 112. | Charkoudian N, Joyner MJ, Barnes SA, Johnson CP, Eisenach JH, Dietz NM, Wallin BG: Relationship between muscle sympathetic nerve activity and systemic hemodynamics during nitric oxide synthase inhibition in humans. Am J Physiol Heart Circ Physiol 291: H1378-H1383, 2006 |
| \* | 113. | Martin EA, Nicholson WT, Eisenach JH, Charkoudian N, Joyner MJ: Bimodal distribution of vasodilator responsiveness to adenosine due to difference in nitric oxide contribution: implications for exercise hyperemia. J Appl Physiol 101: 492-499, 2006 |
|  | 114. | Basu A. Jensen MD, McCann F, Mukhopadhyay D, Joyner MJ, Rizza RA: Effects of pioglitazone versus glipizide on body fat distribution, body water content, and hemodynamics in type 2 diabetes. Diab Care 29: 510-514, 2006 |
| \* | 115. | Schrage WG, Dietz NM, Joyner MJ: Effects of combined inhibition of ATP-sensitive potassium channels, nitric oxide, and prostaglandins on hyperemia during moderate exercise. J Appl Physiol 100: 1506-1512, 2006 |
| \* | 116. | Martin EA, Nicholson WT, Eisenach JH, Charkoudian N, Joyner MJ: Influences of adenosine receptor antagonism on vasodilator responses to adenosine and exercise in adenosine responders and nonresponders. J Appl Physiol 101: 1678-1684, 2006  |
| \* | 117. | Martin EA, Nicholson WT, Curry TB, Eisenach JH, Charkoudian N, Joyner MJ: Adenosine transporter antagonism in humans augments vasodilator responsiveness to adenosine, but not exercise, in both adenosine responders and monresponders. J Physiol 579: 237-245, 2006 |
| \* | 118. | Schrage WG, Eisenach JH, Joyner MJ: Ageing reduces nitric-oxide and prostaglandin-mediated vasodilatation in exercising humans. J Physiol 579: 227-236, 2006 |
| \* | 119. | Masuki S, Eisenach JH, Johnson C, Dietz NM, Benrud-Larson L, Schrage WG, Curry TB, Sandroni P, Low PA, Joyner MJ: Excessive heart rate response to orthostatic stress in postural tachycardia syndrome is not caused by anxiety. J Appl Physiol 102: 896-903, 2006 |
| \* | 120. | Wilkins BW, Hesse C, Sviggum HP, Nicholson WT, Moyer TP, Joyner MJ, Eisenach JH: Alternative to ganglionic blockade with anticholinergic and alpha-2 receptor agents. Clin Auton Res 17: 77-84, 2007 |
|  | 121. | Wass CT, Long TR, Faust RJ, Yaszemski MJ, Joyner MJ: Changes in red blood cell transfusion practice during the past two decades: a retrospective analysis, with the Mayo database, of adult patients undergoing major spine surgery. Transfusion 47: 1022-1027, 2007 |
| \* | 122. | Snyder EM, Beck KC, Turner ST, Hoffman EA, Joyner MJ, Johnson BD: Genetic variation of the beta-2 adrenergic receptor is associated with differences in lung fluid accumulation in humans. J Appl Physiol 102: 2172-2179, 2007 |
| \* | 123. | Hesse C, Charkoudian N, Liu Z, Joyner MJ, Eisenach JH: Baroreflex sensitivity inversely correlates with ambulatory blood pressure in healthy normotensive humans. Hypertension 50: 41-46, 2007 |
| \* | 124. | Wilkins BW, Martin EA, Roberts SK, Joyner MJ: Preserved reflex cutaneous vasodilation in cystic fibrosis does not include an enhanced nitric oxide-dependent mechanism. J Appl Physiol 102: 2301-2306, 2007 |
| \* | 125. | Ivancev V, Palada I, Valic Z, Obad A, Bakovic D, Dietz NM, Joyner MJ, Dujic Z: Cerebrovascular reactivity to hypercapnia is unimpaired in breath-hold divers. J Physiol 15: 723-730, 2007 |
|  | 126. | Basu A, Charkoudian N, Schrage W, Rizza RA, Basu R, Joyner MJ: Beneficial effects of GLP-1 on endothelial function in humans: dampening by glyburide but not by glimepiride. Am J Physiol Endocrinol Metab 293: E1289-E1295, 2007 |
| \* | 127. | Wilkins BW, Hesse C, Charkoudian N, Nicholson WT, Sviggum HP, Moyer TP, Joyner MJ, Eisenach H: Autonomic cardiovascular control during a novel pharmacologic alternative to ganglionic blockade. Clin Pharmacol Ther 83: 692-701, 2007 |
| \* | 128. | Masuki S, Eisenach JH, Schrage WG, Johnson CP, Dietz NM, Wilkins BW, Sandroni P, Low PA, Joyner MJ: Reduced stroke volume during exercise in postural tachycardia syndrome. J Appl Physiol 103: 1128-1135, 2007 |
| \* | 129. | Masuki S, Eisenach JH, Schrage WG, Dietz NM, Johnson CP, Wilkins BW, Dierkhising RA, Sandroni P, Low PA, Joyner MJ: Arterial baroreflex control of heart rate during exercise in postural tachycardia syndrome. J Appl Physiol 103: 1136-1142, 2007 |
|  | 130. | Kaufman KR, Levine JA, Brey RH, Iverson BK, McCrady SK, Padgett DJ, Joyner MJ: Gait and balance of transfemoral amputees using passive mechanical and microprocessor-controlled prosthetic knees. Gait Posture 26: 489-493, 2007 |
| \* | 131 | Wilkins BW, Pike TL, Martin EA, Curry TB, Ceridon ML, Joyner MJ: Exercise intensity-dependent contribution of beta-adrenergic receptor-mediated vasodilatation in hypoxic humans. J Physiol 586: 1195-1205, 2008 |
|  | 132. | Dujic Z, Ivancev V, Heusser K, Dzamonja G, Palada I, Valic Z, Tank J, Obad A, Bakovic D, Diedrich A, Joyner MJ, Jordan J: Central chemoreflex sensitivity and sympathetic neural outflow in elite breath-hold divers. J Appl Physiol 104: 205-211, 2008 |
| \* | 133. | Ji Y, Snyder EM, Fridley BL, Salavaggione OE, Moon I, Batzler A, Yee VC, Schaid DJ, Joyner MJ, Johnson BD, Weinshilboum RM: Human phenylethanolamine N-methyltransferase genetic polymorphisms and exercise-induced epinephrine release. Physiol Genomics 33: 323-332, 2008  |
| \* | 134. | Ramirez-Marrero FA, Charkoudian N, Hart EC, Schroeder D, Zhong L, Eisenach JH, Joyner MJ: Cardiovascular dynamics in healthy subjects with differing heart rate responses to tilt. J Appl Physiol 105: 1448-1453, 2008 |
| \* | 135. | Liu Z, Hesse C, Curry TB, Pike TL, Issa A, Bernal M, Charkoudian N, Joyner MJ, Eisenach JH: Ambulatory arterial stiffness index is not correlated with the pressor response to laboratory stressors in normotensive humans. J Hypertens 27: 763-768, 2009 |
| \* | 136. | Hart EC, Charkoudian N, Wallin BGT, Curry TB, Eisenach JH, Joyner MJ: Sex differences in sympathetic neural-hemodynamic balance: implications for human blood pressure regulation. Hypertension 53: 571-576, 2009 |
| \* | 137. | Hart EC, Joyner MJ, Wallin BG, Johnson CP, Curry TB, Eisenach JH, Charkoudian N: Age-related differences in the sympathetic-hemodynamic balance in men. Hypertension 54: 127-133, 2009 |
| \* | 138. | Casey DP, Joyner MJ: Skeletal muscle blood flow responses to hypoperfusion at rest and during rhythmic exercise in humans. J Appl Physiol 107: 429-437, 2009 |
|  | 139. | He T, Joyner MJ, Katusic ZS: Aging decreases expression and activity of glutathione peroxidase-1 in human endothelial progenitor cells. Microvasc Res 78: 447-452, 2009 |
| \* | 140. | Casey DP, Madery BD, Pike TL, Eisenach JH, Dietz NM, Joyner MJ, Wilkins BW: Adenosine receptor antagonist and augmented vasodilation during hypoxic exercise. J Appl Physiol 107: 1128-1137, 2009 |
|  | 141. | Ivancev V, Bakovic D, Obad A, Breskovic T, Palada I, Joyner MJ, Dujic Z: Effects of indomethacin on cerebrovascular response to hypercapnia and hypocapnia in breath-hold diving and obstructive sleep apnea. Respir Physiol Neurobiol 166: 152-158, 2009 |
|  | 142. | Heusser K, Dzamonja G, Tank J, Palada I, Valic Z, Bakovic D, Obad A, Ivancev V, Breskovic T, Diedrich A, Joyner MJ, Luft FC, Jordan J, Dujic Z: Cardiovascular regulation during apnea in elite divers. Hypertension 53: 719-724, 2009 |
|  | 143. | Nicholson WT, Vaa B, Hesse C, Eisenach JH, Joyner MJ: Aging is associated with reduced prostacyclin-mediated dilation in the human forearm. Hypertension 53: 973-978, 2009 |
| \* | 144. | Casey DP, Madery BD, Curry TB, Eisenach JH, Wilkins BW, Joyner MJ: Nitric oxide contributes to the augmented vasodilatation during hypoxic exercise. J Physiol 588: 373-385, 2009 |
| \* | 145. | Casey DP, Joyner MJ: NOS inhibition blunts and delays the compensatory dilation in hypoperfused contracting human muscles. J Appl Physiol 107: 1685-1692, 2009 |
| \* | 146. | Wehrwein EA, Joyner MJ, Hart EC, Wallin BG, Karlsson T, Charkoudian N: Blood pressure regulation in humans: calculation of an “error signal” in control of sympathetic nerve activity. Hypertension 55: 264-269, 2009 |
| \* | 147. | Hart EC, Joyner MJ, Wallin BG, Karlsson T, Curry TB, Charkoudian N: Baroreflex control of muscle sympathetic nerve activity: a non-pharmacological measure of baroreflex sensitivity. Am J Physiol Heart Circ Physiol 298: H816-H822, 2009 |
|  | 148. | Charkoudian N, Gusman E. Joyner MJ, Wallin BG, Osborn JW: Integrative mechanisms of blood pressure regulation in humans and rats: cross-species similarities. Am J Physiol Regul Integr Comp Physiol 298: R755-R759, 2010 |
|  | 149. | Olson TP, Joyner MJ, Johnson BD: Influence of locomotor muscle metaboreceptor stimulation on the ventilatory response to exercise in heart failure. Circ Heart Fail 3: 212-219, 2010 |
| \* | 150. | Hesse C, Schroeder DR, Nicholson WT, Hart EC, Curry TB, Penheiter AR, Turner ST, Joyner MJ, Eisenach JH: Beta-2 adrenoceptor gene variation and systemic vasodilatation during ganglionic blockade. J Physiol 588: 2669-2678, 2010  |
|  | 151. | Lalande S, Okazaki K, Yamazaki T, Nose H, Joyner MJ, Johnson BD: Effects of interval walking on physical fitness in middle-aged individuals. J Primary Care Comm Health 1: 104-110, 2010 |
|  | 152. | Olson TP, Joyner MJ, Dietz NM, Eisenach JH, Curry TB, Johnson BD: Effects of respiratory muscle work on blood flow distribution during exercise in heart failure. J Physiol 588: 2487-2501, 2010  |
|  | 153. | Long TR, Curry TB, Stemmann JL, Bakken DP, Kennedy AM, Stringer TM, Bower TC, Joyner MJ, Wass CT: Changes in red blood cell transfusion practice during the turn of the millennium: a retrospective analysis of adult patients undergoing elective open abdominal aortic aneurysm repair using the Mayo database. Ann Vasc Surg 24: 447-454, 2010 |
|  | 154. | Wallin GB, Hart EC, Wehrwein EA, Charkoudian N, Joyner MJ: Relationship between breathing and cardiovascular function at rest: sex-related differences. Acta Physiol 200: 193-200, 2010 |
|  | 155. | Schmitt JA, Joyner MJ, Charkoudian N, Wallin BG, Hart EC: Sex differences in alpha-adrenergic support of blood pressure. Clin Auton Res 20: 271-275, 2010  |
|  | 156. | Schrage WG, Wilkins BW, Johnson CP, Eisenach JH, Limberg JK, Dietz NM, Curry TB, Joyner MJ: Roles of nitric oxide synthase and cyclooxygenase in leg vasodilation and oxygen consumption during prolonged low-intensity exercise in untrained humans. J Appl Physiol 109: 768-777, 2010  |
|  | 157. | Joyner MJ, Charkoudian N, Wallin BG: Sympathetic nervous system and blood pressure in humans: individualized patterns of regulation and their implications. Hypertension 56: 10-16, 2010 |
|  | 158. | Long TR, Curry TB, Stemmann JL, Bakken DP, Kennedy AM, Stringer TM, Bower TC, Joyner MJ, Wass CT: Changes in red blood cell transfusion practice during the turn of the millennium: a retrospective analysis of adult patients undergoing elective open abdominal aortic aneurysm repair using the Mayo database. Ann Vasc Surg 24: 447-454, 2010 |
| \* | 159. | Dutoit AP, Hart EC, Charkoudian N, Wallin BG, Curry TB, Joyner MJ: Cardiac baroreflex sensitivity is not correlated to sympathetic baroreflex sensitivity within healthy, young humans. Hypertension 56: 1118-1123, 2010 |
| \* | 160. | Elvebak RL, Eisenach JH, Joyner MJ, Nicholson WT: The function of vascular smooth muscle phosphodiesterase III is preserved in healthy human aging. CTS-Clinical and Translational Science 3: 239-242, 2010 |
| \* | 161. | Hart EC, Joyner MJ: The curse of the sympathetic nervous system: are men or women more unfortunate? J Physiol 588: 4345-4346, 2010 |
|  | 162. | Ramirez-Marrero FA, De Jesus E, Santana-Bagur J, Hunter R, Frontera W, Joyner MJ: Prevalence of cardiometabolic risk factors in Hispanics living with HIV. Ethnicity & Dis 30: 423-428, 2010 |
| \* | 163. | Wehrwein EA, Basu R, Basu A, Curry TB, Rizza RA, Joyner MJ: Hyperoxia blunts counterregulation during hypoglycemia in humans: possible role for the carotid bodies? J Physiol 588: 4593-4601, 2010 |
|  | 164. | Johnson T, Joyner M, DePourcq F, Drezner M, Hutchinson R, Newton K, Uscinski TK, Toussant K: Using research metrics to improve timelines: proceedings from the 2nd Annual CTSA Clinical Research Management Workshop. Clin Transl Sci 3: 305-308, 2010 |
| \* | 165. | Casey DP, Curry TB, Joyner MJ, Charkoudian N, Hart EC: Relationship between muscle sympathetic nerve activity and aortic wave reflection characteristics in young men and women. Hypertension 57: 421-427, 2011 |
| \* | 166. | Casey DP, Curry TB, Wilkins BW, Joyner MJ: Nitric oxide-mediated vasodilation becomes independent of beta-adrenergic receptor activation with increased intensity of hypoxic exercise. J Appl Physiol 110: 687-694, 2011 |
|  | 167. | Padilla J, Simmons GH, Fadel PJ, Laughlin MH, Joyner MJ, Casey DP: Impact of aging on conduit artery retrograde and oscillatory shear at rest and during exercise: role of nitric oxide. Hypertension 57: 484-489, 2011 |
| \* | 168. | Casey DP, Walker BG, Curry TB, Joyner MJ: Ageing reduces the compensatory vasodilatation during hypoxic exercise: the role of nitric oxide. J Physiol 589: 1477-1488, 2011 |
| \* | 169. | Casey DP, Joyner MJ: Contribution of adenosine to the compensatory dilation in hypoperfused contracting human muscles is independent of nitric oxide. J Appl Physiol 110: 1181-1189, 2011 |
| \* | 170. | Casey DP, Joyner MJ, Claus PL, Curry TB: Hyperbaric hyperoxia reduces exercising forearm blood flow in humans. Am J Physiol Heart Circ Physiol 300: H1892-H1897, 2011 |
|  | 171. | Curry TB, Roberts SK, Basu R, Basu A, Schroeder D, Joyner MJ, Miles JM: Gastric bypass surgery is associated with near-normal insulin suppression of lipolysis in nondiabetic individuals. Am J Physiol Endocrinol Metab 300: E746-E751, 2011  |
| \* | 172. | Hart EC, Wallin BG, Curry T, Joyner MJ, Karlsson T, Charkoudian N: Hysteresis in the sympathetic baroreflex: role of baseline nerve activity. J Physiol 589: 3395-3404, 2011 |
| \* | 173. | Casey DP, Joyner MJ: Prostaglandins do not contribute to the nitric oxide mediated compensatory vasodilation in hypoperfused exercising muscle. Am J Physiol Heart Circ Physiol 301: H261-H268, 2011 |
|  | 174. | He T, Smith LA, Lu T, Joyner MJ, Katusic ZS: Activation of peroxisome proliferator-activated receptor-δ enhances regenerative capacity of human endothelial progenitor cells by stimulating biosynthesis of tetrahydrobiopterin. Hypertension 58: 287-294, 2011 |
| \* | 175. | Hart EC, Charkoudian N, Wallin BG, Curry TB, Eisenach J, Joyner MJ: Sex and ageing differences in resting arterial pressure regulation: the role of the β-adrenergic receptors. J Physiol 589: 5285-5297, 2011 |
|  | 176. | Mantilla CB, Wass CT, Goodrich KA, Johanns CJ, Kool ML, Zhu X, Corredor JA, Warner DO, Joyner MJ, Berry DJ, Schroeder DR, Sprung J: Risk for perioperative myocardial infarction and mortality in patients undergoing hip or knee arthroplasty: the role of anemia. Transfusion 51: 82-91, 2011. |
| \* | 177. | Lopez MG, Silva BM, Joyner MJ, Casey DP: Ischemic exercise hyperemia in the human forearm: reproducibility and roles of adenosine and nitric oxide. Eur J Appl Physiol 112: 2065-2072, 2012 |
| \* | 178. | Schmidt JE, Joyner MJ, Tonyan HM, Reid KI, Hooten WM: Psychological and physiological correlates of a brief intervention to enhance self-regulation in patients with fibromyalgia. J Musculoskeletal Pain 20: 211-221, 2012 |
|  | 179. | Casey DP, Curry TB, Joyner MJ, Charkoudian N, Hart EC: Acute β-adrenergic blockade increases aortic wave reflection in young men and women: differing mechanisms between sexes. Hypertension 59: 145-150, 2012 |
|  | 180. | Lalande S, Kelsey JW, Joyner MJ, Johnson BD: Determination of blood volume by pulse CO-oximetry. Physiol Meas 33: 19-27, 2012 |
|  | 181. | Eisenach JH, Gullixson LR, Kost SL, Joyner MJ, Turner ST, Nicholson WT: Sex differences in salt sensitivity to nitric oxide dependent vasodilation in healthy young adults. J Appl Physiol 112: 1049-1053, 2012 |
|  | 182. | Vianna LC, Hart EC, Fairfax ST, Charkoudian N, Joyner MJ, Fadel PJ: Influence of age and sex on the pressor response following a spontaneous burst of muscle sympathetic nerve activity. Am J Physiol Heart Circ Physiol 302: H2419-H2427, 2012 |
| \* | 183. | Barnes JN, Schmidt JE, Nicholson WT, Joyner MJ: Cyclooxygenase inhibition abolishes age-related differences in cerebral vasodilator responses to hypercapnia. J Appl Physiol 112: 1884-1890, 2012 |
| \* | 184. | Barnes JN, Casey DP, Hines CN, Nicholson WT, Joyner MJ: Cyclooxygenase inhibition augments central blood pressure and aortic wave reflection in aging humans. Am J Physiol Heart Circ Physiol 302: H2629-H2634, 2012 |
| \* | 185. | Barnes JN, Matzek LJ, Charkoudian N, Joyner MJ, Curry TB, Hart EC: Association of cardiac baroreflex sensitivity with blood pressure transients: influence of sex and menopausal status. Front Physiol 3: 187, 2012 |
|  | 186. | Long TR, Stans AA, Shaughnessy WJ, Joyner MJ, Schroeder DR, Wass CT: Changes in red blood cell transfusion practice during the past quarter century: a retrospective analysis of pediatric patients undergoing elective scoliosis surgery using the Mayo database. Spine J 12: 455-462, 2012 |
|  | 187. | Carter JR, Schwartz CE, Yang H, Joyner MJ: Fish oil and neurovascular control in humans. Am J Physiol Heart Circ Physiol 303: H450-H456, 2012 |
| \* | 188. | Wehrwein EA, Curry TB, Basu A, Rizza RA, Basu R, Joyner MJ: Do the carotid bodies modulate hypoglycemic counterregulation and baroreflex control of blood pressure in humans? Adv Exp Med Biol 758: 129-135, 2012 |
| \* | 189. | Casey DP, Joyner MJ: Alpha-adrenergic blockade unmasks a greater compensatory vasodilation in hypoperfused contracting muscle. Front Physiol 3: 271, 2012 |
|  | 190. | Parsaik A, Allison TG, Singer W, Sletten DM, Joyner MJ, Benarroch EE, Low PA, Sandroni P: Deconditioning in patients with orthostatic intolerance. Neurology 79: 1435-1439, 2012 |
| \* | 191. | Casey DP, Joyner MJ: Influence of alpha-adrenergic vasoconstriction on the blunted skeletal muscle contraction-induced rapid vasodilation with aging. J Appl Physiol 113: 1201-1212, 2012 |
| \* | 192. | Casey DP, Padilla J, Joyner MJ: Alpha-adrenergic vasoconstriction contributes to the age-related increase in conduit artery retrograde and oscillatory shear. Hypertenion 60: 1016-1022, 2012 |
| \* | 193. | Casey DP, Joyner MJ: Compensatory vasodilatation during hypoxic exercise: mechanisms responsible for matching oxygen supply to demand. J Physiol 590: 6321-6366, 2012 |
|  | 194. | Farr JN, Charkoudian N, Barnes JN, Monroe DG, McReady LK, Atkinson EJ, Amin S, Melton LJ 3rd, Joyner MJ, Khosla S: Relationship of sympathetic activity to bone microstructure, turnover, and plasma osteopontin levels in women. J Clin Endocrnol Metab 97: 4219-4227, 2012 |
| \* | 195. | Casey DP, Mohamed EA, Joyner MJ: Role of nitric oxide and adenosine in the onset of vasodilation during dynamic forearm exercise. Eur J Appl Physiol 113: 295-303, 2012 |
|  | 196. | Findlay JY, Long TR, Joyner MJ, Heimbach JK, Wass CT: Changes in transfusion practice over time in adult patients undergoing liver transplantation. J Cardiothorac Vasc Anesth 27: 41-45, 2013 |
| \* | 197. | Casey DP, Joyner MJ, Claus PL, Curry TB: Vasoconstrictor responsiveness during hyperbaric hyperoxia in contracting human muscle. J Appl Physiol 114: 217-224, 2013 |
|  | 198. | Carter JR, Fu Q, Minson CT, Joyner MJ: Ovarian cycle and sympathoexcitation in premenopausal women. Hypertension 61: 395-399, 2013 |
| \* | 199. | Casey DP, Curry TB, Charkoudian N, Joyner MJ, Hart EC: The effects of acute beta-adrenergic blockade on aortic wave reflection in postmenopausal women. Am J Hypertens 26: 503-510, 2013 |
| \* | 200. | Lopez MG, Silva BM, Joyner MJ, Casey DP: Roles of nitric oxide and prostaglandins in the hyperemic response to a maximal metabolic stimulus: redundancy prevails. Eur J Appl Physiol 113: 1449-1456, 2013 |
| \* | 201. | Schmidt JE, Joyner MJ, Carlson CR, Hooten WM: Cardiac autonomic function associated with treatment adherence after a brief intervention in patients with chronic pain. Appl Psychophysiol Biofeedback 38: 193-201, 2013 |
|  | 202. | Parsaik AK, Singer W, Allison TG, Sletten DM, Joyner MJ, Benarroch EE, Low PA, Sandroni P: Orthostatic intolerance without postural tachycardia: how much dysautonomia? Clin Auton Res 23: 181-188, 2013 |
|  | 203. | Joyner MJ, Warner DO: The syntax of sin taxes: putting it together to improve physical, social, and fiscal health. Mayo Clin Proc 88: 536-539, 2013 |
| \* | 204. | Casey DP, Walker BG, Ranadive SM, Taylor JL, Joyner MJ: Contribution of nitric oxide in the contraction-induced rapid vasodilation in young and older adults. J Appl Physiol 115: 446-455, 2013 |
|  | 205. | Wheatley CM, Snyder EM, Joyner MJ, Johnson BD, Olson TP: Comparison of intra-arterial and manual auscultation of blood pressure during submaximal exercise in humans. Appl Physiol Nutr Metab 38: 537-544, 2013 |
|  | 206. | Carter JR, Fu Q, Minson CT, Joyner MJ: Response to roles of sex steroid hormones and nitric oxide in the regulation of sympathetic nerve activity in women. Hypertension 61: e37, 2013 |
|  | 207. | Carter JR, Schwartz CE, Yang H, Joyner MJ: Fish oil and neurovascular reactivity to mental stress in humans. Am J Physiol Regul Integr Comp Physiol 304: R523-R530, 2013 |
| \* | 208. | Hart EC, Charkoudian N, Joyner MJ, Barnes JN, Curry TB, Casey DP: Relationship between sympathetic nerve activity and aortic wave reflection characteristics in postmenopausal women. Menopause 20: 967-972, 2013 |
|  | 209. | Curry TB, Somaraju M, Hines CN, Groenewald CB, Miles JM, Joyner MJ, Charkoudian N: Sympathetic support of energy expenditure and sympathetic nervous system activity after gastric bypass surgery. Obesity (Silver Spring) 21: 480-485, 2013 |
| \* | 210. | Barnes JN, Taylor JL, Kluck BN, Johnson CP, Joyner MJ: Cerebrovascular reactivity is associated with maximal aerobic capacity in healthy older adults. J Appl Physiol 15: 1383-1387, 2013 |
| \* | 211. | Wehrwein EA, Joyner MJ: Regulation of blood pressure by the arterial baroreflex and autonomic nervous system. Handb Clin Neurol 117: 89-102, 2013 |
|  | 212. | Bacon AP, Carter RE, Ogle EA, Joyner MJ: VO2 max trainability and high intensity interval training in humans: a meta-analysis. PLoS One 8: e73182, 2013 |
| \* | 213. | Casey DP, Shepherd JR, Joyner MJ: Sex and vasodilator responses to hypoxia at rest and during exercise. J Appl Physiol 116: 927-936, 2013 |
|  | 214. | Ruiz JR, Joyner M, Lucia A: Cross talk opposing view: Prolonged intense exercise does not lead to cardiac damage. J Physiol 591: 4943-4945, 2013 |
|  | 215. | Joyner MJ, Limberg JK: Blood pressure regulation: every adaptation is an integration? Eur J Appl Physiol 114: 445-450, 2014 |
|  | 216. | Ramirez-Marrero FA, Miles J, Joyner MJ, Curry TB: Self-reported and objective physical activity in postgastric bypass surgery, obese and lean adults: association with body composition and cardiorespiratory fitness. J Phs Act Health 11: 145-151, 2014 |
|  | 217. | Joyner MJ, Casey DP: Muscle blood flow: hypoxia and hypoperfusion. J Appl Physiol 116: 852-857, 2014 |
|  | 218. | Olson TP, Joyner MJ, Eisenach JH, Curry TB, Johnson BD: Influence of locomotor muscle afferent inhibition on the ventilatory response to exercise in heart failure. Exp Physiol 99: 414-426, 2014 |
|  | 219. | Barnes JN, Hart EC, Curry TB, Nicholson WT, Eisenach JH, Wallin BG, Charkoudian N, Joyner MJ: Aging enhances autonomic support of blood pressure in women. Hypertension 63: 303-308, 2014 |
|  | 220. | Taylor JL, Curry TB, Matzek LJ, Joyner MJ, Casey DP: Acute effects of a mixed meal on arterial stiffness and central hemodynamics in healthy adults. Am J Hypertens 27: 331-337, 2014 |
|  | 221. | Bamman MM, Cooper DM, Booth FW, Chin ER, Neufer PD, Trappe S, Lightfoot T, Kraus WE, Joyner MJ: Exercise biology and medicine: innovative research to improve global health. Mayo Clin Proc 89: 148-153, 2014 |
| \* | 222. | Limberg JK, Taylor JL, Dube S, Basu R, Basu A, Joyner MJ, Wehrwein EA: Role of the carotid body chemoreceptors in baroreflex control of blood pressure during hypoglycaemia in humans. Exp Physiol 99: 640-650, 2014 |
| \* | 223. | Hart EC, Wallin BG, Barnes JN, Joyner MJ, Charkoudian N: Sympathetic nerve activity and peripheral vasodilatator capacity in young and older men. Am J Physiol Heart Circ Physiol 306: H904-H909, 2014 |
| \* | 224. | Keller-Ross ML, Johnson BD, Joyner MJ, Olson TP: Influence of the metaboreflex on arterial blood pressure in heart failure patients. Am Heart J 167: 521-528, 2014 |
|  | 225. | Curry TB, Hines CN, Barnes JN, Somaraju M, Basu R, iles JM, Joyner MJ, Charkoudian N: Relationship of muscle sympathetic nerve activity to insulin sensitivity. Clin Auton Res 24: 77-85, 2014 |
| \* | 226. | Limberg JK, Curry TB, Prabhakar NR, Joyner MJ: Is insulin the new intermittent hypoxia: Med Hypotheses 82: 730-735, 2014 |
|  | 227. | Du S, Joyner MJ, Curry TB, Eisenach JH, Johnson CP, Schrage WG, Jensen MD: Effect of β2-adrenergic receptor polymorphisms on epinephrine and exercise-stimulated lipolysis in humans. Physiol Rep 2: e12017, 2014 |
| \* | 228. | Taylor JL, Hines CN, Nicholson WT, Joyner MJ, Barnes JN: The effect of ageing and indomethacin on forearm reactive hyperaemia in healthy adults. Exp Physiol 99: 859-867, 2014 |
|  | 229. | Deaner RO, Carter RE, Joyner MJ, Hunter SK: Men are more likely than women to slow in the marathon. Med Sci Sports Exerc 2014 June 30 [Epub ahead of print] |
| \* | 230. | Harvey RE, Barnes JN, Charkoudian N, Curry TB, Eisenach JH, Hart EC, Joyner MJ: Forearm vasodilator responses to a beta-adrenergic receptor agonist in premenopausal and postmenopausal women. Physiol Rep 2: e12032, 2014 |
|  | 231. | Johnson BD, van Helmond N, Curry TB, van Buskirk CM, Convertino VA, Joyner MJ: Reductions in central venous pressure by lower body negative pressure or blood loss elicit similar hemodynamic responses. J Appl Physiol 2014 May 29 [Epub ahead of print] |
|  | 232. | Barnes JN, Charkoudian N, Matzek LJ, Johnson CP, Joyner MJ, Curry TB. Acute cyclooxygenase inhibition does not alter muscle sympathetic nerve activity or forearm vasodilator responsiveness in lean and obese adults. Physiol Rep. July 16; 2(7), 2014 |
|  | 233. | Eisenach JH, Schroeder DR, Pavey ES, Penheiter AR, Knutson JN, Turner ST, Joyner MJ. Interactions between beta-2 adrenoceptor gene variation, cardiovascular control and dietary sodium in healthy young adults. J Physiol. Sep. 25, 2014 [Epub ahead of print] |
|  | 234. | Limberg JK, Farni KE, Taylor JL, Dube S, Basu A, Basu R, Wehrwein EA, Joyner MJ. Autonomic control during acute hypoglycemia in type 1 diabetes mellitus. Clin Auton Res. Sep 27, 2014 [Epub a head of print] |
|  | 235. | Wehrwein EA, Limberg JK, Taylor JL, Dube S, Basu A, Basu R, Rizza RA, Curry TB, Joyner MJ. Effect of bilateral carotid body resection on the counterregulatory response of hypoglycemia in humans. Exp Physiol. Nov. 13, 2014 [Epub ahead of print] |
|  | 236. | Kruse TN, Carter RE, Rosedahl JK, Joyner MJ. Speed Trends in Male Distance Running. Nov 19; 9(11), 2014 |
|  | 237. | Singer, W. Joyner MJ, Sandroni P, Benarroch EE, Fealey RD, Mandrekar J, Low PA: Midodrine efficacy in orthostatic hypotension. J Gen Intern Med. Nov; 29(11):1440-1,2014. |
|  | 238. | Ranadive SM, Joyner MJ, Walker BG, Taylor JL, Casey DP. Effect of vitamin C on hyperoxia-induced vasoconstriction in exercising skeletal muscle. Nov 15; 117(10):1207-11, 2014 |
| **Invited Review Articles**  |
|  | 1. | Wilmore JH, Joyner MJ, Freund BJ, Ewy GA, Morton AR: Beta-blockade and response to exercise: Influence of training. Physician and Sports Med 13: 60-69, 1985 |
|  | 2. | Tipton CM, Overton JM, Joyner MJ, Hargens AR: Local fluid shifts in humans and rats: Comparison of simulation models with actual weightlessness. Physiologist 30: S117-S119, 1987 |
|  | 3. | Joyner MJ: Muscle chemoreflexes and exercise in humans (brief review). Clin Auton Res 2: 201-208, 1992 |
|  | 4. | Joyner MJ: Physiologic limiting factors and distance running: Influence of gender and age on record performances. Exerc Sport Sci Rev 21: 103-133, 1993 |
| \* | 5. | Dietz NM, Joyner MJ: Haemoglobin-based blood substitutes: What's on the horizon? Ann Acad Med Singapore 23:71S-76S, 1994 |
|  | 6. | Dietz NM, Joyner MJ, Warner MA: Blood substitutes: Fluids, drugs or miracle solutions? Anesth Analg 82: 390-405, 1996 |
|  | 7. | Joyner MJ: Blood use in the United States and at the Mayo Clinic. Anaesthesiology and Intensive Care (Kazakstan) 1: 52-54, 1996 |
|  | 8. | Dietz NM, Joyner MJ, Shepherd JT: Vasovagal syncope and skeletal muscle vasodilatation: The continuing conundrum. PACE 20: 775-780, 1997 |
|  | 9. | Joyner MJ, Dietz NM: Nitric oxide and vasodilation in human limbs (invited review). J Appl Physiol 83: 1785-1796, 1997 |
|  | 10. | Joyner MJ, Proctor DN: Muscle blood flow during exercise: the limits of reductionism. Med Sci Sports Exerc 31: 1036-1040, 1999 |
|  | 11. | Joyner MJ, Halliwill JR: Neurogenic vasodilation in human skeletal muscle: possible role in contraction-induced hyperaemia. Acta Physiol Scand 168: 481-488, 2000 |
|  | 12. | Joyner MJ, Halliwill JR: Sympathetic vasodilatation in human limbs. J Physiol 526: 471-480, 2000 |
|  | 13. | Joyner MJ: Over-the-counter supplements and strength training. Exerc Sport Sci Rev 28: 2-3, 2000 |
|  | 14. | Joyner MJ, Dietz NM, Shepherd JT: From Belfast to Mayo and Beyond: The use and future of plethysmography to study control of blood flow in human limbs. J Appl Physiol 91: 2431-2441, 2001 |
|  | 15. | Joyner MJ: Beta-adrenergic receptors in physiological function. Exerc Sport Sci Rev 29: 139-140, 2001 |
|  | 16. | Chakravarthy MV, Joyner MJ, Booth FW: An obligation for primary care physicians to prescribe physical activity to sedentary patients to reduce the risk of chronic health conditions. Mayo Clin Proc 77: 165-173, 2002 |
|  | 17. | Beck KC, Joyner MJ, Scanlon PD: Exercise-induced asthma: diagnosis, treatment, and regulatory issues. Exerc Sport Sci Rev 30: 1-3, 2002 |
|  | 18. | Joyner MJ, Dietz NM: Sympathetic vasodilation in human muscle. Acta Physiol Scand 177: 329-336, 2003 |
|  | 19. | Joyner MJ, Tschakovsky ME: Nitric oxide and physiologic vasodilation in human limbs: where do we go from here? Can J Appl Physiol 28: 475-490, 2003 |
|  | 20. | Joyner MJ: VO2Max, blood doping and erythropoietin. Br J Sports Med 37: 190-191, 2003 |
|  | 21. | Charkoudian N, Joyner MJ: Physiologic considerations for exercise performance in women. Clin Chest Med 25: 247-255, 2004 |
| \* | 22. | Dinenno FA, Joyner MJ: Alpha-adrenergic control of skeletal muscle circulation at rest and during exercise in aging humans. Microcirculation 13: 329-341, 2006 |
|  | 23. | Joyner MJ: Baroreceptor function during exercise: resetting the record. Exp. Physiol. 91: 27-36, 2006 |
|  | 24. | Joyner MJ, Masuki S: POTS versus deconditioning: the same or different? Clin Auton Res 18: 300-307, 2008 |
| \* | 25. | Casey DP, Curry TB, Joyner MJ: Measuring muscle blood flow: a key link between systemic and regional metabolism. Curr Opin Clin Nutr Metab Care 11: 580-586, 2008 |
|  | 26. | Tschakovsky ME, Joyner MJ: Nitric oxide and muscle blood flow in exercise. Appl Physiol Nutr Metab 33: 151-161, 2008 |
|  | 27. | Joyner MJ, Coyle EF: Endurance exercise performance: the physiology of champions. J Physiol 586: 35-44, 2008 |
| \* | 28. | Snyder EM, Johnson BD, Joyner MJ: Genetics of beta2-adrenergic receptors and the cardiopulmonary response to exercise. Exerc Sport Sci Rev 36: 98-105, 2008 |
|  | 29. | Tschakovsky ME, Joyner MJ: Nitric oxide and muscle blood flow in exercise. Appl Physiol Nutr Metab 33: 151-161, 2008 |
|  | 30. | Joyner MJ, Charkoudian N, Wallin BG: A sympathetic view of the sympathetic nervous system and human blood pressure regulation. Exp Physiol 93: 715-724, 2008 |
|  | 31. | Joyner MJ, Green DJ: Exercise protects the cardiovascular system: effects beyond traditional risk factors. J Physiol 587: 5551-5558, 2009 |
|  | 32. | Joyner MJ, Casey DP: The catecholamines strike back. What NO does not do. Circ J 73: 1783-1792, 2009 |
|  | 33. | Joyner MJ, Charkoudian N, Wallin BG: Sympathetic nervous system and blood pressure in humans: Individualized patterns of regulation and their implications. Hypertension 56: 10-16, 2010 |
|  | 34. | Calbet JA, Joyner MJ: Disparity in regional and systemic circulatory capacities. Do they affect the regulation of the circulation? Acta Physiol 199: 393-406, 2010 |
|  | 35. | Joyner MJ, Ruiz JR, Lucia A: The two-hour marathon: who and when? J Appl Physiol 110: 275-277, 2011 |
|  | 36. | Joyner MJ, Pedersen BK: Ten questions about systems biology. J Physiol 589: 1017-1030, 2011 |
|  | 37. | Joyner MJ: Why physiology still matters for medicine? Physiology 26: 72-75, 2011  |
|  | 38. | Joyner MJ: Giant sucking sound: can physiology fill the intellectual void left by the reductionists? J Appl Physiol 111: 335-342, 2011 |
| \* | 39. | Casey DP, Joyner MJ: Local control of skeletal muscle blood flow during exercise: influence of available oxygen. J Appl Physiol 111: 1527-1538, 2011 |
|  | 40. | Joyner MJ: John T. Shepherd (1919-2011). J Physiol 589: 5927-5928, 2011 |
| \* | 41. | Hart EC, Joyner MJ, Wallin BG, Charkoudian N: Sex, ageing and resting blood pressure: gaining insights from the integrated balance of neural and haemodynamic factors. J Physiol 590: 2069-2079, 2012 |
| \* | 42. | Joyner MJ, Limberg JK: Insulin and sympathoexcitation: it is not all in your head. Diabetes 62: 2654-2655, 2013 |
|  | 43. | Joyner MJ: Physiology and redundancy. Physiology (Bethesda) 28: 136-137, 2013 |
|  | 44. | Joyner MJ, Limberg JK: Blood pressure regulation: every adaptation is an integration? Eur J Appl Physiol 114: 445-450, 2014 |
|  | 45. | Joyner MJ: Food for thought – resveratrol vs. exercise training. J Physiol 591: 4953, 2013 |
|  | 46. | Joyner MJ, Casey DP: Muscle blood flow, hypoxia, and hypoperfusion. J Appl Physiol 116: 852-857, 2014 |
|  | 47. | Joyner MJ, Prendergast FG: Chasing Mendel: five questions for personalized medicine. J Physiol 592: 2381-2388, 2014 |
|  | 48.49. | Noble D, Jablonka E, Joyner MJ, Müller GB, Omholt SW: Evolution evolves: physiology returns to centre stage. J Physiol 592: 2237-2244, 2014Joyner MJ, Limberg JK. Hitting the wall: glycogen, glucose, and the carotid bodies. J Phyisol. Oct 15; 592(Pt. 20). 4413-4 |
| **Invited Editorials** |
|  | 1. | Joyner MJ: Significance of plasma lactate accumulation and distance running performance (guest editorial). Med Sci Sports Exerc 25: 1089-1090, 1993 |
|  | 2. | Sawka MN, Joyner MJ, Miles DS, Robertson RJ, Spriet LL, Young AJ: The use of blood doping as an ergogenic aid. American College of Sports Medicine Pronouncement 28: i-viii, 1996 |
|  | 3. | Joyner MJ: Invited Editorial on nitric oxide and thermoregulation during exercise in the horse. J Appl Physiol 82: 1033-1034, 1997 |
|  | 4. | Joyner MJ, Wieling W: Sympathetic nerves continue to regulate blood flow in exercising muscles. J Physiol 505: 549, 1997 |
|  | 5. | Joyner MJ: Effect of exercise on arterial compliance. Circulation 102: 1214-1215, 2000 |
|  | 6. | Joyner MJ: Blood pressure and exercise: failing the acid test. J Physiol (Lond) 537: 331, 2001 |
|  | 7. | Laughlin MH, Joyner MJ: Closer to the edge? Contractions, pressures, waterfalls and blood flow to contracting skeletal muscle. J Appl Physiol 94: 3-5, 2003 |
|  | 8. | Joyner MJ: Before automated database searches: let’s not forget the classics! Exerc Sports Sci Rev 31: 59-60, 2003 |
|  | 9. | Joyner MJ, Thomas GD: Having it both ways? Vasoconstriction in contracting muscles. J Physiol 550: 333, 2003 |
|  | 10. | Joyner MJ: Feeding the sleeping giant: muscle blood flow during whole body exercise. J Physiol 558: 1, 2004 |
|  | 11. | Joyner MJ: Congestive heart failure: more bad news from exercising muscle? Circulation 110: 2978-2979, 2004 |
|  | 12. | Holloszy JO, Joyner MJ: Adaptations of skeletal muscle mitochondria to endurance exercise: A personal perspective. Exerc Sport Sci Rev 32: 41-43, 2004 |
|  | 13. | Joyner MJ: Designer doping. Exerc Sport Sci Rev 32: 81-82, 2004 |
|  | 14. | Joyner MJ: Skeletal muscle hypertrophy. Exerc Sports Sci Rev 32: 127-128, 2004 |
|  | 15. | Joyner MJ: Found in translation: neural feedback from exercising muscles. J Physiol 567: 362-363, 2005 |
|  | 16. | Joyner MJ: Skeletal and cardiac muscle blood flow. Exerc Sports Sci Rev 33: 1-2, 2005 |
|  | 17. | Joyner MJ: Muscle strength, body composition, hormones, and aging. Exerc Sports Sci Rev 33: 61-62, 2005 |
|  | 18. | Joyner MJ: Exercise science: more questions than answers. Exerc Sport Sci Rev 33: 155-156, 2005 |
|  | 19. | Joyner MJ: Glutamine and arginine: immunonutrients and metabolic modulators? Exerc Sport Sci Rev 33: 105-106, 2005 |
|  | 20. | Joyner MJ: Exercise science: more questions than answers. Exerc Sport Sci Rev 33: 155-156, 2005 |
|  | 21. | Joyner MJ: Counterpoint: the muscle metaboreflex does restore blood flow to contracting muscles. J Appl Physiol 100: 358-360, 2006 |
|  | 22. | Joyner MJ: Go with the flow: sympathetic control of blood flow during recovery from heart failure. J Appl Physiol 101: 3-4, 2006 |
|  | 23. | Joyner MJ: Too much is not enough: hypertension and sympathetic vasoconstriction in contracting muscles. Hypertension 48: 560-561, 2006 |
|  | 24. | Joyner MJ: Exercise hyperemia: waiting for the reductionists? Am J Physiol Heart Circ Physiol 291: H1032-H1033, 2006 |
|  | 25. | O’Leary DS, Joyner MJ: Point: The muscle metaboreflex does restore blood flow to contracting muscles. J Appl Physiol 100: 357-361, 2006 |
|  | 26. | Benditt DG, Wieling W, Olshansky B, Abe H, Alboni P, Andresen D, Axelrod FB, Bennaroch E, Bergfeldt L, Blanc JJ, Brignole M, Camm AJ, Chelimsky T, Cortelli P, Van Dijk JG, Van Dijk N, Esler M, Fitzpatrick A, Fouad-Tarazi F, Freeman R, Goldstein M, Grubb B, Herweg B, Hilz MJ, Jacob G, Jardine D, Jordan J, Joyner MJ, Kapoor W, Kaufmann H, Kenny R-A, Krahn A, Lau C-P, Levine BD, Van Lieshout JJ, Lipsitz L, Low P, Lurie KG, Malik M, Mathias CJ, Moya A, Raj SR, Raviele A, Saksena S, Sarasin FP, Saul PJ: The ACCF/AHA scientific statement on syncope: a document in need of thoughtful revision. Clin Auton Res 16: 363-368, 2006 |
|  | 27. | Joyner MJ: Commentary on Viewpoint “Human experimentation: no accurate, quantitative data?” J Appl Physiol 102: 1295, 2007 |
|  | 28. | Joyner MJ: Exercise hyperaemia: are there any answers yet? J Physiol 583: 817, 2007 |
|  | 29. | Joyner MJ, Wilkins BW: Exercise hyperaemia: is anything obligatory but the hyperaemia? J Physiol 583: 855-860, 2007 |
|  | 30. | Joyner MJ, Saltin B: Exercise physiology and human performance: systems biology before systems biology! J Physiol 586: 9, 2008 |
|  | 31. | Joyner MJ: All the king’s horses and all the King’s men: maybe physiology can put Humpty Dumpty back together again. J Physiol 586: 4577, 2008 |
|  | 32. | Green DJ, O’Driscoll G, Joyner MJ, Cable NT: Exercise and cardiovascular risk reduction: time to update the rationale for exercise? J Appl Physiol 105: 766-768, 2008 |
|  | 33. | Joyner MJ, Saltin B: Exercise physiology and human performance: systems biology before systems biology! J Physiol 586: 9, 2008 |
|  | 34. | Joyner MJ: Endothelial dysfunction starting in utero: you are what your mother eats? J Physiol 586: 4579, 2008 |
|  | 35. | Joyner MJ, Johnson BD: Iron lung? New ideas about hypoxic pulmonary vasoconstriction. J Physiol 586: 5837-5838, 2008 |
|  | 36. | Joyner MJ: Not so fast: intrinsic heart rate vs. beta-adrenergic responsiveness in the aging human heart. J Appl Physiol 105: 3-4, 2008 |
|  | 37. | Delanghe JR, Joyner MJ: Testing for recombinant human erythropoietin. J Appl Physiol 105: 395-396, 2008 |
| \* | 38. | Dutoit AP, Hart EC, Joyner MJ: Drugs under pressure: the Valsalva maneuver. Clin Auton Res 19: 6-7, 2009 |
|  | 39. | Joyner MJ: Orthostatic stress, haemorrhage and a bankrupt cardiovascular system. J Physiol 587: 5015-5016, 2009 |
|  | 40. | Joyner MJ: Keeping the juices flowing with age: vitamin C and exercise hyperaemia. J Physiol 587: 2423, 2009 |
|  | 41. | Joyner MJ, Nattel S: Fast and furious: new ways to think about, study, and treat cardiac arrhythmias. J Physiol 587: 1383-1384, 2009 |
|  | 42. | Joyner MJ, Nose H: Physiological regulation linked with physical activity and health. J Physiol 587: 5525-5526, 2009 |
|  | 43. | Joyner MJ: Orthostatic stress, haemorrhage and a bankrupt cardiovascular system. J Physiol 587: 5015-5016, 2009 |
|  | 44. | Low PA, Sandroni P, Joyner M, Shen WK: Postural tachycardia syndrome (POTS). J Cardiovasc Electrophysiol 20: 352-358, 2009 |
|  | 45. | Joyner MJ: Cutaneous blood flow: uncomfortable in our own skin? Am J Physiol Heart Circ Physiol 296: H29-H30, 2009 |
|  | 46. | Joyner MJ: Wasting away in Mars-Aritaville. J Physiol 588: 4071, 2010 |
|  | 47. | Barnes JN, Joyner MJ: Cerebrovascular challenges in diabetic patients: the pressure is on to maintain perfusion. Hypertension 57: 674-675, 2011 |
|  | 48. | Joyner MJ, Charkoudian N, Curry TB, Eisenach JH, Wehrwein EA: What we talk about when we talk with medical students. Adv Physiol Educ 35: 16-21, 2011 |
|  | 49. | Joyner MJ: Physiology: alone at the bottom, alone at the top. J Physiol 589: 1005, 2011 |
|  | 50. | Joyner MJ: Exercise training in Postural Orthostatic Tachycardia syndrome: blocking the urge to block beta-receptors? Hypertension 58: 136-137, 2011 |
|  | 51. | Joyner MJ: Attack of the catabolic pathways: muscle wasting in the ICU. J Physiol 589: 3905-3906, 2011 |
|  | 52. | Joyner MJ: Exercise testing and disease risk: individualized medicine without the “omics”? J Appl Physiol 111: 1539, 2011 |
|  | 53. | Joyner MJ, Ruiz JR, Lucia A: Last Word on Viewpoint: The two-hour marathon: Who and when? J Appl Physiol 110: 294, 2011 |
|  | 54. | Joyner MJ: Why physiology matters in medicine. Physiology (Bethesda) 26: 72-75, 2011 |
|  | 55. | Bostwick JM, Joyner MJ: The limits of acceptable biological variation in elite athletes: should sex ambiguity be treated differently from other advantageous genetic traits? Mayo Clin Proc 87: 508-513, 2012 |
| \* | 56. | Barnes JN, Joyner MJ: Sugar highs and lows: the impact of diet on cognitive function. J Physiol 590: 2831, 2012 |
|  | 57. | Joyner MJ: Standing up for exercise: should deconditioning be medicalizes? J Physiol 590: 3413-3414, 2012 |
| \* | 58. | Wehrwein EA, Curry TB, Basu A, Rizza RA, Basu R, Joyner MJ: Do the carotid bodies modulate hypoglycemic counterregulation and baroreflex control of blood pressure in humans? Adv Exp Med Biol 758: 129-135, 2012 |
|  | 59. | Joyner MJ: Can physiology zap therapeutic sweet spots in hypertension? Hypertension 60: 1385-1386, 2012 |
|  | 60. | Joyner MJ, Barnes JN: I am 80 going on 18: Exercise and fountain of youth. J Appl Physiol 114: 1-2, 2013 |
| \* | 61. | Barnes JN, Taylor JL, Kluck BN, Johnson CP, Joyner MJ: Reply to Pancheva, Panchev, and Pancheva. J Appl Physiol 114: 1761, 2013 |
|  | 62. | Miller VM, Garovic VD, Kantarci K, Barnes JN, Jayachandran M, Mielke MM, Joyner MJ, Shuster LT, Rocca WA: Sex-specific risk of cardiovascular disease and cognitive decline: pregnancy and menopause. Biol Sex Differ 28: 6, 2013 |
| \* | 63. | Barnes JN, Joyner MJ: Physical activity and cardiovascular risk: ten metabolic equivalents or bust. Mayo Clin Proc 88: 1353-1355, 2013 |
|  | 64. | Johnson BD, Joyner MJ: Carotid body denervation: too soon to get breathless about heart failure? J Am Coll Cardiol 62: 2431-2432, 2013 |
|  | 65. | Joyner MJ, Limberg JK: Insulin and sympathoexcitation: it is not all in your head. Diabetes 62: 2654-2655, 2013 |
| \* | 66. | Barnes JN, Joyner MJ: Physical activity and cardiovascular risk: 10 metabolic equivalents or bust. Mayo Clin Proc 88: 1353-1355, 2013 |
|  | 67. | Joyner denervation: what next? Hypertension 64: 19-20, 2014MJ: Renal  |
| \* | 68. | Limberg JK, Joyner MJ: Should we be “doping” the peripheral chemoreceptors? J Physiol 592: 1177, 2014 |
|  | 69. | Joyner MJ: Buying into healthy blood vessels: exercise and aging. J Appl Physiol Sep 1;117 (5): 421-2, 2014.  |
|  | 70. | Joyner MJ: Rethinking animal models and human obesity. Physiology. Nov. 29(6): 384-5, 2014 |

|  |
| --- |
| **Book Chapters**  |
|  | 1. | Shepherd JT, Vanhoutte PM, Joyner MJ: The sensory systems involved in cardiovascular regulation. In: Mayo Clinic Textbook of Cardiology, 2nd ed. Ed. ER Giuliani, V Fuster, BJ Gersh, MD McGoon, DC McGoon. Mosby-Year Book, Inc., St. Louis, MO, pp. 166-186, 1991 |
|  | 2. | Joyner MJ, Shepherd JT: Arterial baroreceptor function and exercise. In: Baroreceptor Reflexes. Ed. PB Perrsson, HR Kirchheim, Springer-Verlag, Berlin, pp. 237-255, 1991 |
|  | 3. | Joyner MJ, Duprez D, Shepherd JT: Control of human limb blood vessels and lymphatics. In: Vascular Diseases in the Limbs: Mechanisms and Principles of Treatment. Ed. DL Clement and JT Shepherd. Mosby-Year Book, Inc., St. Louis, MO, pp. 31-44, 1993 |
|  | 4. | Joyner MJ, Shepherd JT: Autonomic control of circulation. In: Clinical Autonomic Disorders: Evaluation and Management. Ed. PA Low. Little, Brown and Co., Boston, pp. 55-67, 1993 |
|  | 5. | Joyner MJ, Faust RJ: Blood Substitutes: What is the Target? In: Blood Substitutes: New Challenges. Ed. RM Winslow, KD Vandegriff, and M Intaglietta. Birkhauser, Boston, MA, pp. 15-33, 1996  |
|  | 6. | Joyner MJ: Other cardiovascular reflexes. In: Primer on the Autonomic Nervous System. Ed. D Robertson, PA Low, RJ Polinsky. Academic Press, San Diego, CA, pp. 69-73, 1996 |
|  | 7. | Joyner MJ, Shepherd JT: Autonomic regulation of circulation. In: Clinical Autonomic Disorders (2nd Edition). Ed. PA Low. Lippincott-Raven Publishers, Philadelphia, pp 61-71, 1997 |
|  | 8. | Nuttall GA, Joyner MJ: Blood conservation and blood substitutes in the management of thoracic trauma. In: Cardiothoracic Trauma. Ed. S Westaby, JA Odell. Arnold, London, pp 86-96, 1999 |
|  | 9. | Joyner MJ: Local anesthetics: mechanisms of action. In: Anesthesiology Review, 3rd ed. Ed RJ Faust. Churchill Livingstone, New York, pp 283-284, 2002 |
|  | 10. | Joyner MJ, Vanhoutte PM, Halliwill JR, Shepherd JT: Sympathetic nerves and control of blood vessels to human limbs. In: Peripheral Neuropathy, 4th ed. Ed. PJ Dyck, PK Thomas. Elsevier Saunders, Philadelphia, pp 323-337, 2005 |
|  | 11. | Joyner MJ, Shepherd JT, Halliwill JR: Autonomic nerves to the systemic blood vessels. In: Peripheral Neuropathy, 4th ed. Ed. P Dyck, PK Thomas. WB Saunders, Philadelphia, in press |
|  | 12. | Joyner MJ, Schrage WG, Eisenach JH: Control of blood pressure: normal and abnormal. In: Neurobiology of Disease. Ed S Gilman. Elsevier Academic Press, Amsterdam, pp 997-1005, 2007 |
|  | 13. | Low PA, Sandroni P, Joyner MJ, Shen WK: Postural tachycardia syndrome. In: Clinical Autonomic Disorders, 3rd ed. Ed PA Low, EE Benarroch. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, pp 515-533, 2008 |
|  | 14. | Hart EC, Charkoudian N, Joyner MJ: Sex differences in autonomic function. In: Primer on the Autonomic Nervous System. Ed. D. Robertson, in press |

|  |
| --- |
| **Correspondence** |
|  | 1. | Dietz NM, Halliwill JR, Joyner MJ: Nitric oxide contributes to the rise in forearm blood flow during mental stress in humans. Am J Cardiol 81: 808, 1998 |
|  | 2. | Ruiz JR, Joyner MJ, Lucia A: Letter by Ruiz et al regarding article “Cardiac arrhythmogenic remodeling in a rat model of long-term intensive exercise training. Circulation 124: e250, 2011 |
|  |  |  |
| **Abstracts > 200** |