

The Microcirculatory Society, Inc.

Newsletter

Volume 32, Number 3

Winter 2005

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Officers

President:	H. Glenn Bohlen gbohlen@iupui.edu
President-elect:	Robert Hester rhester@physiology.umsmmed.edu
Secretary:	Cynthia J. Meininger cjm@tamu.edu
Treasurer:	Mary (Molly) Frame mframe@notes.cc.sunysb.edu
Web Site:	http://microcirc.org

President's Message

H. Glenn Bohlen

This past year has seen a substantial number of new opportunities arise for the Microcirculatory Society, plus I will be asking your consideration of some changes that need to occur in the Society for our continued progress and well-being. We have also had an expensive year due to the new Fall Meetings, preparations for the World Congress, and some interesting financial issues with the upcoming International Congress of Physiological Sciences in March-April of 2005.

Let me begin with some very good news. The Society has seen an improvement in Membership payment of dues, which has been a perennial problem. Our Treasurer, Molly Frame, has gently reminded the Members to pay their dues. While there is an improvement in participation, we have substantial room for improvement. Have you paid your 2005 dues? If so, thanks. If not, please do. The Web Site allows you to pay your dues either directly or through your institution, if they have a credit card arrangement.

Our Society continues to grow with the addition of members at the rate of about one or two per month. Most of the new members are young scientists, which I think is very important. While we welcome members at any stage of their career, the future of the Society is based on mem-

bers who support the Society over time and eventually become members of committees and elected officials to oversee our needs. Please encourage your graduate students to join as student members, your postdoctoral fellows as regular or student members, and colleagues that would benefit both themselves and the Society by being members.

The two Fall Meetings are in place and you can learn all the available details of these meetings on the Web Site. At the annual meeting, you will hear much more about the upcoming Fall Meeting from Ann Baldwin and her organization group. Please look over the meeting timing

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on the Web Site and plan on attending the Fall Meetings. The goal of these meetings is to foster communication and identity of our Society and this will only happen if we support the Society through participation in the Fall Meetings. The upcoming World Congress is progressing and the Society has assisted by paying the reservation fees for the venue location. Our financial commitment will continue as financial needs of the organizers arise over the next several years.

At the 2005 Meeting, we were fortunate to have our Landis Award Lecture and President's Symposia remain on the program. I would like to thank Ingrid Sarelius of our Program Committee and Linda Allen of the American Physiological Society for helping to keep our Program intact. Most of our scientific activities will occur on the first three days of the meeting and our Banquet will be held on Sunday, April 3. Both the Newsletter and Web Site will have more details on the timing of the meeting and arrangements for the Banquet.

As President, I have asked the Long Range Planning Committee to consider two changes in the Bylaws to enhance and protect the Society. We had a bit of a problem with the Internal Revenue Service in 2003 because something did not go exactly right with our filing as a non-profit organization. The consequence was a \$2600 penalty. Fortunately, I have a son who is an attorney. He helped me explain our problem to the IRS and how we would avoid the problem in the future. They excused us this time. To prevent this problem in the future, we need only require of the Treasurer to submit the IRS filing by September 1 (businesses file in the fall) of each year and inform the President and Council. The second change in the Bylaws is to make official something we have been doing unofficially for many years. Bob Gore has been outstanding in making our Web Site work. This is a great deal of work and responsibility for one person. We need to consider making a permanent Electronic Communications Committee to oversee the Web Site, its financial transactions, and communications with the Membership. To explore how the Electronic Communications Committee would work and where the computer home might be located, Robert Hester, our President-Elect, has been serving as Chair of an ad hoc committee to begin this process. His Committee's insights will be used to help propose the future permanent committee. As soon as the Long Range Planning Committee has a draft of the proposed committee, a copy will be e-mailed to the Membership. We can amend and vote on the changes in the

Bylaws at the Annual Business Meeting. If you have opinions on these issues, please feel free to contact Geert Schmid-Schonbein or myself.

On the financial matters I mentioned at the beginning of this message, this has been an unusually expensive year for the Society. We have contributed to both the upcoming Fall Meetings, the World Congress, and the Congress of the International Union of Physiological Sciences (IUPS). When we meet with the Experimental Biology Meeting with the American Physiological Society, they refund to us \$10,000 for our Society attendance. This is a very fortunate arrangement. However, the IUPS does not have this arrangement and instead, we agreed some years ago to contribute \$5,000 to support the San Diego meeting. Fortunately, our savings and investments have done reasonably well the past year, more members are paying dues, and the growth of new members is helping with finances. We are financially solvent and future predicted costs for meetings are not large and likely to be substantially recouped by attendance.

As a final thought, I have enjoyed serving the Society this year and hope in some ways I have partially repaid the many years of support and assistance the Membership of the Society has given to me personally and my career. I will leave you with a paragraph of the letter I sent to the Internal Revenue Service explaining what our Society does and how you, our Membership, serve the greater good.

“Before you decide about whether you could consider lifting the penalty against the Society, let me tell you what the Society does. The Microcirculatory Society supports research on issues of the tiny blood vessels that carry blood to the tissues. Members in our Society work on issues of cancer, high blood pressure, diabetes, and many other diseases. If you or someone you know takes a medication to treat cardiovascular problems, members of our Society contributed to the research required to develop the medication. What little money we raise each year by voluntary membership fees is used to support graduate student travel to research meetings, travel of invited scientists to speak at our annual meeting, and a limited number of awards for distinguished research accomplishments by members of our Society. Our Society also uses most of the membership dues to publish a prestigious journal, *Microcirculation*, that is recognized as a major source of state-of-the-art research on vascular regulation and disease issues.”

VERY IMPORTANT

Vote for New Officers

On-Line Voting Now in Place!!!

Go to the Microcirculatory Society Website (microcirc.org) and follow the instructions.

See Mini CVs for Candidates on Page 5-12

Get your votes in soon!

Polls Close on Monday, March 14, 2005

(If you prefer to fax your vote, a paper ballot is included in this newsletter.)

We need your involvement in choosing our Society's leaders. You can make a difference!

Welcome to New MCS Members

Regular Members

Shannon Campbell, Ph.D.
Nellcor/Tyco Healthcare
Pleasanton, California

Steven J. Miller, Ph.D.
Department of Surgery
Indiana University
Indianapolis, Indiana

Mack H. Wu
Department of Surgery
UC Davis Medical Center
Sacramento, California

Patricia Parsons-Wingerter
BioScience and Engineering
Microgravity Science Division
NASA Glenn Research Center
Cleveland, Ohio

Associate Members

Wei Wang, M.D.
Department of Medical Physiology
The Texas A&M University System
Health Science Center
College Station, Texas

Fabiola Sanchez, Ph.D.
Department of Pharmacology and Physiology
University of Medicine
and Dentistry of New Jersey
Newark, New Jersey

Takehito Kentaka, M.D., Ph.D.
Department of Pharmacology and Physiology
University of Medicine
and Dentistry of New Jersey
Newark, New Jersey

Pedro Montero-Huerta, M.D.
Department of Anesthesiology
and Perioperative Medicine
Medical College of Georgia
Augusta, Georgia

Student Members

Jacob Rullo
Department of Medicine
McMaster University
Hamilton, Ontario, Canada

Kira E. Smith
Department of Physiology
New York Medical College
Valhalla, New York

Michael A. Tevald
Department of Physiology
School of Medicine
Virginia Commonwealth University
Richmond, Virginia

Timothy Domeier
John B. Pearce Laboratory
Yale University
New Haven, Connecticut

Frederick Gaskin
Department of Medical Pharmacology
and Physiology
University of Missouri
Columbia, Missouri

2005-2006 Microcirculatory Society Ballot

**** DO NOT USE if you utilize the on-line voting system ****

Vote for **ONE** of the following for President-Elect:

Aleksander S. Popel _____

Timothy W. Secomb _____

Vote for **ONE** of the following for Secretary:

Deborah H. Damon _____

Jeff C. Falcone _____

Vote for **TWO** of the following for Council:

Jefferson C. Frisbee _____

Tara L. Haas _____

Richard J. Price _____

Rolando E. Rumbaut _____

Deadline for Receipt: 5:00 P.M. EST, March 14, 2005

Please return ballots to:

Steven S. Segal, Ph.D.
Chair, Nominating Committee, The Microcirculatory Society
Yale University School of Medicine
290 Congress Avenue
New Haven, Connecticut 06519
Telephone: 203-562-9901 x253
Fax: 203-624-4950
E-mail: ssegal@jbpierce.org OR steven.segal@yale.edu



Candidates for Office

President-Elect

Aleksander S. Popel, Ph.D.

Present Position: Professor of Biomedical Engineering, Johns Hopkins University.

Education: M.S. (1967), Ph.D. (1972), Fluid Mechanics/Biofluidmechanics, Moscow University

Professional Societies: Microcirculatory Society (Program Committee 1991-1996; Finance Committee 1990-1993); Biomedical Engineering Society (BMES); American Physiological Society; North American Vascular Biology Organization; Co-Chair, International Union of Physiological. Sciences (IUPS); Physiome & Bioeng. Committee (2001-); Member at Large, U.S. National Committee for the IUPS at the NAS (2000-2006); Chair, AIMBE Fellow Membership Committee (2001-2004); Member, AIMBE Academic Council; Program Chair, BMES Annual Meeting (2003).

Selected Honors and Awards: Fellow, American Heart Association, Council for Basic Cardiovascular Sciences (2001); Fellow, American Physiological Society, Cardiovascular Section (1995); Fellow, American Institute of Medical and Biological Engineering, AIMBE (1994); Fellow, American Society of Mechanical Engineers, Bioengineering Division (1992); William H. Huggins Excellence in Teaching Award, JHU (1993); Senior Member, Biomedical Engineering Society (1987).

National Funding: NHLBI grants (PI or Co-PI) “Quantitative Analysis of Angiogenesis in Skeletal Muscle,” “Vasodilation and Microvascular Oxygen Delivery,” “Blood Flow and Rheology in the Microcirculation,” “Microvascular Responses to Hemorrhage and Resuscitation.”

Editorial Boards: Microcirculation (1999-present); American Journal of Physiology, Heart and Circulatory Physiology (1999-present); Microvascular Research (1994-present); Annals of Biomedical Engineering (Review Board, 1994-present).

Grant Review: NIH reviews since 1979, e.g., NIH Hypertension and Microcirculation Study Section, 2005; NIH NCI Program Project Grant reviews 2003, 2005; NIGMS Centers of Excellence in Biomedical Computing; NIGMS Centers of Excellence in Complex Biomedical Systems Research. Also, National Science Foundation, Whittaker Foundation, Naval Medical Research, Veterans Administration, Australian Research Council, Austrian Research Council, Canadian Research Council, International Science Foundation, US-Israel Binational Science Foundation, U.K. Engineering and Physical Sciences Research Council.

Peer Review: American Journal of Physiology, Annals of Biomedical Engineering, ASAIO Journal, Biophysical Journal, Biorheology, Biotechnology Progress, Circulation Research, Experimental Cell Research, Journal of Applied Physiology, Journal of Biomechanical Engineering, Journal of Biomechanics, Journal of Cerebral Blood Flow and Metabolism, Journal of Mathematical Biology, Journal of Theoretical Biology, Mathematical Biosciences, Medical & Biological Engineering & Computing, Medical Engineering

and Physics, Microcirculation, Microvascular Research, Pfluegers Archive, Physical Review Letters, Physics of Fluids, PNAS.

Current Research Interests: Computational medicine and biology; microcirculation; angiogenesis, including the role of growth factors and matrix metalloproteinases; nitric oxide; signal transduction, cell mechanics; molecular transport.

Personal Statement: Microcirculatory research has always been at the cutting edge of technological developments, capitalizing on advances in microscopy, microdevices, and mathematical modeling. The Microcirculatory Society has drawn members with unusual breadth of interests and backgrounds, including physiologists, cell biologists, bioengineers and clinicians, making it a heaven for multidisciplinary (and sometimes heated) interactions. In the last decade, the influx of new methodologies from genetics and molecular biology and the corresponding in silico computational approaches are once again energizing our field and attracting a new breed of scientists to the Society. If elected President of the Society, my goals would be to ensure the Society's growth by reaching out to our new members with diverse interests, to help make the Society meetings exciting and attractive forums both scientifically and socially, and to strengthen ties with its sister societies nationally and internationally.

Timothy W. Secomb, Ph.D.

Present Position: Professor of Physiology, Professor of Mathematics, University of Arizona, Tucson, Arizona.

Education: B.Sc. (1975), M.Sc. (1976), Mathematics, University of Melbourne, Australia; Ph.D. (1979), Applied Mathematics, University of Cambridge, U.K.; Postdoctoral Fellow, Columbia University, New York, Department of Civil Engineering and Engineering Mechanics (1979-1981).

Professional Societies: Microcirculatory Society (Awards Committee 1992-1995, Council 1995-1998), International Society of Biorheology (Treasurer 1986-1992), American Physiological Society, European Microcirculation Society, Biomedical Engineering Society, SIAM, Sigma Xi

Honors and Awards: Lamport Young Investigator Award, Microcirculatory Society, 1982; Fellow, Cardiovascular Section, American Physiological Society, 1996; Fellow, American Institute of Medical and Biological Engineering, 2000.

National Funding: NIH Grants HL34555, Blood flow and structural adaptation in microcirculation; HL70657, Flow regulation and oxygen transport in microcirculation.

Editorial Boards: Microcirculation (Associate Editor, 1999-2003), ASME Journal of Biomechanical Engineering (Associate Technical Editor, 1992-1998), American Journal of Physiology, Heart and Circulatory Section (1993-1998).

Grant Review: NIH Cardiovascular and Renal Study Section (2003), NIH Hypertension and Microcirculation Study Section (2004-2006).

Peer Review: Biophysical Journal, Annals of Biomedical Engineering, Physics of Fluids, Journal of Biomechanical Engineering, Medical Engineering and Physics, Mathematical Biosciences, Cancer Research,

American Journal of Physiology, Circulation, The Lancet Oncology, Exercise and Sports Science Review, Journal of Theoretical Biology, Neoplasia, Microcirculation, Journal of Radiation Research, Journal of Fluid Mechanics, Proceedings of the National Academy of Sciences.

Current Research Interests: Theoretical modeling of microcirculatory phenomena, including blood flow, mass transport, structural adaptation and regulation of blood flow.

Personal Statement: The major goal of biology in the twenty-first century is to understand how molecular and cellular level processes determine systemic functions. With regard to the cardiovascular system, the microcirculation represents a critical link in the chain from molecule to organism. My goal as President would be to maintain and enhance the Society's role as a forum for interactions among investigators studying microcirculatory phenomena at molecular, cellular microscopic and systems levels, using the full range of available techniques, including theoretical approaches. The format of the Society's meetings has been evolving for several years, but a totally satisfactory solution has not yet been found. I believe that a combination of joint meetings with other societies and freestanding meetings would help to develop interactions among investigators and the involvement of young investigators, while maintaining the distinctive character and vitality of the Society.

Secretary

Deborah H. Damon, Ph.D.

Present Position: Research Associate Professor of Pharmacology, University of Vermont, Burlington, VT

Education: B.A. in Biology, Hartwick College (1978); Ph.D. in Physiology, University of Virginia (1984); Postdoctoral Fellowship, Departments of Biological Chemistry and Molecular Pharmacology and Pathology, Harvard Medical School (1985-1990).

Professional Societies: Microcirculatory Society (Membership Committee, 2000-2002; Councillor, 2004-present), American Physiological Society (Women in Science Committee, 2003-2005), Fellow of the High Blood Pressure Council of the American Heart Association.

Funding: NIH R01 - Vascular/sympathetic interactions; AHA Grant-in-Aid (Northeast Affiliate) - Vascular mechanisms underlying sympathetic innervation of blood vessels.

Editorial Boards: Microcirculation, American Journal of Physiology, Heart and Circulatory Physiology

Grant Review: Central Research Review Committee, Texas Affiliate of the American Heart Association (1992-1994). Affiliate Study Group, American Heart Association (1995-1996), Clinical and Integrative Cardiovascular Physiology and Pathophysiology II Study Committee, American Heart Association (1996-1997), Cardiorenal/CV Regulation/Lung Committee, Northeast Affiliate of the American Heart Association (2000-2003), Ad Hoc Member of CVB Study Section of the NIH (2002-2003), NIH Program Project Review Committee (October 2002), NIH Special Emphasis Panel (December 2002), Temporary Member of NIH Thrombosis and Hemostasis Study Section (February 2005), Northeast Affiliate of the American Heart Association (April 2005).

Peer Review: Brain Research, Journal of Cardiovascular Pharmacology, Journal of Cell Biology, Journal of Neuroscience, Journal of Vascular Research, Microvascular Research.

Current Research Interests: Neurovascular interactions as determinants of the development and function of blood vessels and their sympathetic innervation.

Personal Statement: I have been a member of the Microcirculatory Society since I was a graduate student. The society has always been a resource for me throughout my scientific career. I would like to become secretary to aid in the governance and maintenance of this vital scientific society.

Jeff C. Falcone, Ph.D.

Present Position: Associate Professor, Department of Physiology and Biophysics, Health Sciences Center, University of Louisville, Louisville, Kentucky.

Education: B.A. Indiana University Northwest, Gary, Indiana (1982); M.S. Indiana University, School of Medicine, Indianapolis, Indiana (1985); Ph.D. Indiana University, School of Medicine, Indianapolis, Indiana (1989); Postdoctoral Fellowship, Department of Medical Physiology, Texas A&M University, College Station, TX (1989-1994).

Professional Societies: Microcirculatory Society: Member since 1990; Nominating Committee, 1994-1997; Executive Council, 1999-2002; Development Committee 2003-present. American Physiological Society: Member since 1990. American Heart Association: Member since 1990, Greater Louisville & Southern Indiana, Board of Directors, 2002-present; Ohio Valley Affiliate, Board of Directors, 2003-present.

Funding: Current: None. Previously: National Institute on Aging, National Heart, Lung and Blood Institute, American Heart Association, Ohio Valley Affiliate.

Editorial Boards: American Journal of Physiology, Heart and Circulatory Section; Microcirculation.

Grant Review: American Heart Association, Mid-America Study Section, 1997-1998; Southeastern AHA Study Section, 1999-2003; Kentucky, Tobacco and Health Research Institute, 1998-1999; Department of Defense, American Biological Institute, 1998; National Institutes of Health, 2002; AHA-National Study Section, 2004-present.

Peer Review: American Journal of Physiology, Microcirculation, Microvascular Research, Journal of Physiology, Journal of Vascular Research, Hypertension.

Current Research Interests: Microvascular regulation in aging, hypertension and/or diabetes.

Personal Statement: As a member of the Microcirculatory Society, I have always sought to generate an openness in discussions, thoughts and visions. We need to stay the course while letting our new colleagues explore who we are and how we can work together towards discovery.

Council

Jefferson C. Frisbee, Ph.D.

Present Position: Assistant Professor of Physiology and Pharmacology, Center for Interdisciplinary Research in Cardiovascular Sciences; West Virginia University School of Medicine, Morgantown, West Virginia

Education: B.Sc. (Human Kinetics, 1991); M.Sci. (Human Biology, 1993); Ph.D. (Biophysics, 1996), University of Guelph, Canada; Postdoctoral Fellow, University of Washington, Department of Bioengineering (1996-1997), Postdoctoral Fellow, Medical College of Wisconsin, Department of Physiology (1997-2000).

Professional Societies: Microcirculatory Society, American Heart Association, American Diabetes Association, American Physiological Society (Member, Nominating Committee)

National Funding: NIH Grant R01 DK64668. "Skeletal muscle microcirculation in obese Zucker rats." AHA SDG 0330194N. "Alterations to hypoxic dilation in the metabolic syndrome."

Honors and Awards: Young Investigators Award (American Physiological Society - Cardiovascular Section 2001)

Editorial Boards: Microcirculation (Associate Editor, 2004-2008)

Grant Review: National Institutes of Health - Atherosclerosis and Inflammation Cardiovascular Sciences Study Section (AICS; October 2004-February 2005, *Temporary Member*); AHA Vascular Biology and Blood Pressure Regulation; Special Emphasis Panels: National Science Foundation (04-607) and National Institutes of Health (HL 04-013)

Peer Review: American Journal of Physiology, Annals of Biomedical Engineering, Circulation, Circulation Research, Diabetes, Hypertension, Journal of Applied Physiology, Journal of Pharmacology and Experimental Therapeutics, Journal of Physiology, Journal of Vascular Research, Kidney International, Microcirculation, Microvascular Research, Physiological Genomics

Current Research Interests: Alterations to vascular structure and reactivity during development of the metabolic syndrome, regulation of tissue/organ perfusion.

Personal Statement: The Microcirculatory Society has a special role to play in the larger realm of biomedical research. With ongoing and expanding emphasis on mechanisms through which myriad pathological states such as insulin resistance, dyslipidemia and hypertension manifest themselves, the Microcirculatory Society occupies a unique niche, as many of these conditions impact individuals in part through compromised microvascular structure and function, and thus, organ perfusion. The challenge to the Microcirculatory Society is to attract and retain outstanding scientists, from the plethora of relevant scientific sub-disciplines, to its membership such that these problems can be attacked from multiple angles.

Beyond simply attracting new and diverse members, we must encourage them to strongly support the society through active participation in its meetings, submission of manuscripts to its official journal, and the ongoing recruitment of new investigators. If elected, my primary goal as an officer of the Microcirculatory Society will be to further develop both the environment and the opportunities wherein both new and established investigators with an interest in projects of relevance to the microcirculation will be encouraged to not only become members, but to also be active in supporting the different components of the Microcirculatory Society.

Tara L. Haas, Ph.D.

Present Position: Assistant Professor, School of Kinesiology and Health Sciences, York University, Toronto, Ontario, Canada.

Education: B.Sc. in Human Kinetics, University of Guelph (1990); Ph.D. in Physiology, University of Virginia (1995); Postdoctoral Fellowship, Department of Pathology, Yale University Medical School (1995-1999).

Professional Societies: Microcirculatory Society (Nominating Committee, 2004-2005), American Physiological Society, American Society for Investigative Pathology (Program Committee, 2002-2004), Canadian Society for Exercise Physiology.

Funding: CIHR - Role of mechanotransduction in the stimulation of angiogenesis; NSERC - Regulation of matrix metalloproteinases in angiogenesis.

Honors and Awards: CIHR New Investigator Award (2002); Premier's Research Excellence Award (2000); Experimental Pathologist in Training Award, American Society for Investigative Pathology (1999); Research Career Enhancement Award, American Physiological Society (1998); Post Award, Vascular Biology '97 Conference, New Orleans (1997); Harold Lamport Young Investigator's Award, Cardiovascular Section, American Physiological Society (1996); Caroline Tum Suden Professional Opportunity Award, American Physiological Society (1994).

Grant Review: Member, Doctoral and Masters Student Awards Committee, CIHR (2002-2005); Ontario Graduate Student Scholarship Selection, Panel 23 (2004-2005).

Peer Review: Microcirculation; Blood; Laboratory Investigation; American Journal of Physiology; Canadian Journal of Applied Physiology; Medicine and Science in Sports and Exercise.

Current Research Interests: Transcriptional regulation of key mediators of angiogenesis (such as matrix metalloproteinases), with emphasis on the stimulation of angiogenesis in skeletal muscle.

Personal Statement: I have enjoyed attending the Microcirculatory Society annual meetings since I was a graduate student. The society has provided many resources for me as a constructive sounding board for ideas relating to teaching, mentoring, and research. I would like to become a councilor to help ensure that these resources may continue to benefit future trainees in our Society.

Richard J. Price, Ph.D.

Present Position: Associate Professor of Biomedical Engineering, University of Virginia, Charlottesville, Virginia.

Education: B.S., Rochester Institute of Technology, Mechanical Engineering (1990); M.S., University of Virginia, Biomedical Engineering (1992); Ph.D., University of Virginia, Biomedical Engineering (1995); Postdoctoral Fellow, University of Virginia, Biomedical Engineering (1995-1997).

Professional Societies: Microcirculatory Society (Membership Committee 1998-2001; Publications Committee 2004-2007), Biomedical Engineering Society, North American Vascular Biology Organization.

Funding: NIH R01 HL-66037, Extracellular Matrix Guidance of Capillary Sprouting (PI-Active). NIH R01 HL-065958, Integrated Control of Vascular Pattern Formation (CoPI-Active). AHA 9730025N, Hemodynamic Stress and Molecular Signaling for Arteriolar Pattern Formation in Vivo (PI-Completed). Whitaker Foundation RG-98-0402, Targeted Gene and Drug Delivery to Muscle with Contrast Ultrasound (PI-Completed).

Honors and Awards: Microcirculatory Society's Mary E. Gerritsen Award for Most Cited Review Article (2001), AHA Postdoctoral Fellowship Award (1995-1997), Sigma Xi President's and Visitors Award for Research in Life Sciences (1996), Tau Beta Pi-Engineering Honors Fraternity (1990), Pi Tau Sigma - Mechanical Engineering Honors Fraternity (1989).

Editorial: Associate Editor of *Microcirculation* (2004-2009).

Grant Review: NIH Cardiovascular and Renal (CV) Study Section Ad Hoc Reviewer (2003). Austrian Science Foundation (2004).

Peer Review: *Microcirculation*, *American Journal of Physiology: Modeling in Physiology*, *American Journal of Physiology: Heart and Circulatory Physiology*, *Journal of Vascular Research*, *Journal of Biomechanical Engineering*, *Journal of Leukocyte Biology*, *American Journal of Drug Delivery*, *Critical Reviews in Biomedical Engineering*.

Current Research Interests: Integrated molecular control of microvascular network patterning during angiogenesis; regulation of angiogenic endothelial cell phenotype; ECM guidance of capillary sprouting; targeted therapeutic applications for ultrasonic contrast agents.

Personal Statement: The Microcirculatory Society has had a tremendous impact on my development as a graduate student, postdoctoral fellow, and independent investigator. However, I believe that recent but necessary changes in the society's annual meeting have diminished the society's energy and ability to make a similar impact on the scientists of the future. Working within our current fiscal constraints, we must find ways to increase our active membership, make the society more visible and attractive to scientists in other disciplines, and restore the spirit of community that makes this society so unique. I support the recent initiative for adding stand-alone fall meetings, and I believe we should explore potential modifications to the structure and content of the spring meeting. These modifications could include, for example, the addition of cutting edge plenary talks and new poster sessions topics that are attractive to investigators in

related disciplines. Ultimately, the future of the society is dependent on the commitment and dedication of its membership. If elected, I will do my best to energize the membership, and I will make a commitment to ensuring that the society remains strong for the future.

Rolando E. Rumbaut, M.D., Ph.D.

Present Position: Assistant Professor of Medicine and Pediatrics, Baylor College of Medicine; Staff Physician, Michael E. DeBakey V.A. Medical Center, Houston, Texas.

Education: M.D., Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico (1988); Internal Medicine Residency, Baylor College of Medicine (1992); Pulmonary & Critical Care Medicine Subspecialty, Baylor College of Medicine and University of Missouri, Columbia, Missouri (1995); Ph.D. in Physiology, University of Missouri, Columbia, Missouri (1998).

Professional Societies: Microcirculatory Society (Program Committee 2001-2004), American Physiological Society, American College of Chest Physicians, American Thoracic Society, American College of Physicians.

Honors and Awards: Microcirculatory Society Travel Award for Outstanding Young Investigators, 2004; Superior Graduate Achievement Award, University of Missouri-Columbia, 1997; Fellow, American College of Chest Physicians, 1997; Chief Medical Resident, Baylor College of Medicine, 1991.

National Funding: NIH R01 HL64721, Regulation of microvascular permeability by nitric oxide (PI-Active); AHA National Grant-in-Aid, Regulation of microvascular permeability to solutes by nitric oxide (PI-Completed); NIH R01 HL-070537 (Co-I, Active); Department of Veterans Affairs Merit Award (Co-I, Active).

Editorial Boards: Microcirculation (1998-2003).

Grant Review: American Heart Association Western Review Consortium member (2003-present); NIH Cardiovascular and Renal Study Section (CVB, 2002: Ad hoc); NIH Clinical Cardiovascular Sciences (CCVS, 2002: Ad hoc).

Peer Review: American Journal of Physiology, FASEB Journal, Journal of Applied Physiology, Circulation, Microcirculation, Journal of Pharmacology and Experimental Therapeutics, Journal of Leukocyte Biology.

Current Research Interests: Regulation of microvascular permeability platelet-microvessel interactions.

Personal Statement: The Microcirculatory Society has been tremendously helpful to my career development. While its current activities represent a wonderful opportunity to discuss science, share ideas and interact with colleagues, there is room for improvement. One particular area that I wish to strengthen is that of interactions with physician-scientists. Multiple national groups, including the NIH, promote integration of clinical and basic research as a means to enhance both disciplines. As councilor of the Microcirculatory Society, I welcome the opportunity to encourage other physician-scientists to join our society and participate in future activities that are mutually beneficial.

Obituary

Johannes Rhodin

Johannes (John) Arne Gosta Rhodin, M.D., Ph.D., Professor Emeritus, former Chairman of the Department of Anatomy at the University of South Florida Medical School, and an internationally recognized member of the Microcirculatory Society, died Friday, December 10, 2004 of a cancer-related illness. He was 82 years old.

A world famous pioneer in electron microscopy and its application in the study of the microcirculation, Dr. Rhodin most recently focused his attention on the etiology and histology of Alzheimer's disease. He also made extraordinary contributions to the education of medical students and graduate students and his influence on their professional and personal lives is lasting. Recently, he commented that he estimated he had taught 5,000 future doctors in the course of his career.

Dr. Rhodin was born in Lund, Sweden, in 1922. He graduated from the University in Gothenburg, Sweden, and subsequently received his M.D. degree from the Karolinska Institute in Stockholm. After serving in the Swedish Army, he then practiced as a general surgeon for several years before returning to the Karolinska to pursue a Ph.D. in Anatomy. Dr. Rhodin said when his thesis was published in 194, on the ultrastructure of the kidney: "The world opened up for me." After receiving his Ph.D., he was invited to New York University for an extended project and soon became an Associate Professor there. His family emigrated with him from Stockholm in 1958 to a home in Bronxville, New York.

From New York University he advanced to the position of Chairman of Anatomy at New York Medical College in Valhalla, New York, and while at Valhalla, he was honored as the first recipient of the Eugene M. Landis Research Award (1970), the highest national award for excellence in microvascular research. It was one of the many achievements and awards that distinguished his long career.

He was the author of three renowned medical texts: "An Atlas of Ultrastructure" first published in 1963; "Histology: A Text and Atlas" published in 1974; and, "An Atlas of Histology" published in 1975. His books were translated into several languages and continue to be used in medical schools around the world. In addition, he authored hundreds of scientific research articles, dealing most notably with electron microscopy of the microcirculation.

In 1974 he accepted the Chair of Anatomy at the University of Michigan, then 3 years later was recruited back to Sweden as the Chairman and Professor of Anatomy at the Karolinska Institute, his alma mater. During 1977-1979, Dr. Rhodin served on the Selection Committee for the Nobel Prize in Physiology and Medicine.

Two Swedish winters sent him searching for sunshine and in 1979 he accepted the position at the University of South Florida Medical School. He said about this professional move: "It brought personal renewal and presented an exciting challenge joining such a young institution."

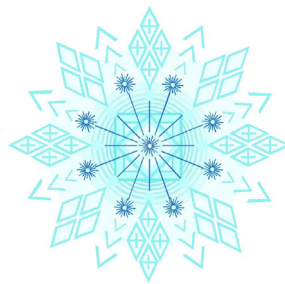
In May 2004, he received an honorary Doctorate Degree from the Karolinska Institute at ceremonies in Stockholm, Sweden. He retired June 1, 2004 from the University of South Florida and was specially honored by the University for 25 years of service. In his leisure time, Dr. Rhodin particularly enjoyed boating

and spending many idyllic hours with his wife, Judie, and their family on Tampa Bay and cruising the Gulf Coast waters. He was a member of Tampa Palms Country Club and the Tampa Yacht and Country Club.

Dr. Rhodin married Judie Laurent Taggart in 1994 in Tampa. In addition to his wife, he is survived by two sons in Massachusetts: Anders Rhodin, M.D., and his companion Carol Rehm Conroy, and Erik Rhodin and his wife, Taina; two step-daughters, Shara White and her husband, Keith, of Maitland, Florida, Jennifer Novellas and her husband, Scott, of Atlanta, Georgia; and 5 grandchildren: Michael, Emil, and Henrik Rhodin, and Justin and Lauren Novellas.

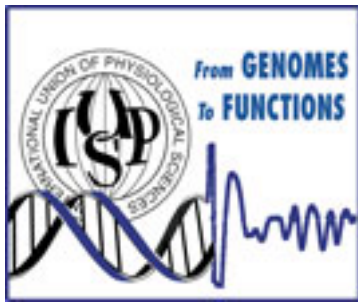
A memorial service was held December 16, 2004 at Temple Terrace Community Church in Tampa. A private graveside committal service will be held in Onsala, Sweden, later this year.

The entire microvascular community will miss Dr. Rhodin. His careful and elegant electron micrographic studies, performed over a period of more than 50 years, did more than any other single body of similar work to advancing our knowledge of the details of the ultrastructure of the microcirculation. His work shall remain as a permanent stepping-stone in the advancement and evolution of knowledge in this field of science. We will also remember him as the dignified, kind and gracious person that he always was.



Postdoctoral Positions Available

Two postdoctoral positions are available in the laboratory of Dr. Aleksander S. Popel in the Department of Biomedical Engineering at Johns Hopkins University. To conduct research on computational and mathematical modeling in the area of: (1) Angiogenesis with a focus on the effects of growth factors (VEGF) and metalloproteinases in endothelial cells; (2) Transport of nitric oxide and oxygen in the microcirculation and their effects on the vascular wall, including conditions of hemorrhagic shock and resuscitation. Work closely with experimental collaborators. Requirements: Ph.D. in physiology, biochemistry, molecular/cell biology, biophysics, engineering, applied mathematics or equivalent. Strong background and experience in biology and computational/systems biology. Send applications including curriculum vitae and names of three references to: Dr. A.S. Popel, Dept. of Biomedical Engineering, School of Medicine, Johns Hopkins University, Baltimore, MD 21205. Telephone 410-955-6419, E-mail apopel@jhu.edu.



XXXV International Congress of Physiological Sciences



March 31-April 5
San Diego, California

For Further Information:

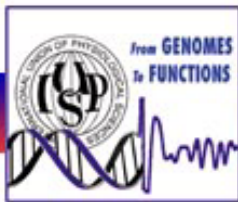
IUPS 2005 Secretariat
c/o The American Physiological Society
9650 Rockville Pike
Bethesda, Maryland (USA) 20814

Phone: 301-634-7967
Fax: 301-634-7241
E-mail: info@iups2005.org
Web: www.iups2005.org

...held in conjunction with EB 2005

Reminder!!

**Housing possibilities are
going fast. Make housing
arrangements soon!**



XXXV International Congress of Physiological Sciences

From GENOMES To FUNCTIONS

San Diego, CA, March 31 - April 5, 2005



Friday, April 1, 2005

Room 30 B/C

2:00 PM

Landis Award

Lecture:

Microvascular Permeability: Perspectives from the Interface

Dr. Virginia Huxley

Department of Pharmacology and Physiology

University of Missouri-Columbia

Symposium:

The Microcirculatory Society President's Symposium: Vascular Regulatory Abnormalities in Obesity: Consequences of the Epidemic

Sponsored by: The Microcirculatory Society

Chaired: H. Glenn Bohlen

3:15 PM

Altered vascular regulation in animal models of obesity

John Hall

University of Mississippi

4:15 PM

Impaired vascular regulation in human obesity

Alain Baron

Amylin Pharmaceuticals, Inc.

5:30 - 7:00 PM

Microcirculatory Society General Business Meeting

MCS Awards Banquet

San Diego Grand Horton Hotel

Southwest Buffet

Fresh Medley of Greens with Assorted Dressings
La Paz Seafood Salad
Roasted Pepper Salad with Orange Jicama
Seared Beef with Tomatillo Verde Sauce
Bean and Cheese Enchilada
with Red Pepper Sour Cream Sauce
Chicken Vera Cruz
Santa Fe Rice
Southwestern Ratatouille
Rolls and Butter
Horton Grand Coffee and Tea
Assorted Desserts

Monday, April 4, 2005

Pre-Banquet Reception on the Patio
with a Cash Bar - 6 p.m. to 7 p.m.

Dinner and Awards
Presentations - 7 p.m. to 10 p.m.

Ticket Prices

\$40 for students and postdocs; \$50 for others

*You may purchase tickets on-line. See the newsletter posted
on the Society website for the ticket purchase link.*

*If you prefer to purchase tickets by mail,
turn to the next page for the form to send in with your check.*

MCS Awards Banquet

San Diego Grand Horton Hotel

Monday, April 4, 2005

*Pre-Banquet Reception on the Patio
with a Cash Bar - 6 p.m. to 7 p.m.*

*Dinner and Awards
Presentations - 7 p.m. to 10 p.m.*

Students and Postdoctoral Research Associates \$40 each

Regular Price Tickets \$50 each

Number of Student/Postdoctoral Tickets -----

Number of Regular Price Tickets -----

Total Cost -----

*Please enclose a check with this completed form
and mail to:*

Dr. Molly Frame
Department of Biomedical Engineering
Stony Brook University HSC T 18-030
Stony Brook, NY 11794-8181

Dear Microcirculatory Members,

If you are interested in socializing with your APS Cardiovascular colleagues consider attending the APS Cardiovascular Section Banquet. Cardiovascular Section Banquet tickets for this year's meeting in San Diego are now on sale. The banquet will be held **Monday, April 4, 2005, 7:30 p.m.** at the El Cortez, 702 Ash Street, San Diego, California 92101.

Website: <http://www.elc.cc/home.htm>

Opened on Thanksgiving Day 1927 and nestled atop San Diego's Cortez Hill stands the historic El Cortez. Built on the site of Ulysses S. Grant, Jr.'s former home this carefully restored landmark has traditional Spanish revival architecture and a banquet room, the Don Room, that is one of the most exquisitely designed rooms in the state of California. It will provide a memorable venue for our banquet and the Wiggers Award lecture.

I am happy to announce that ticket prices are unchanged from last year. Ticket price is \$50.00 for regular members and \$40.00 for postdoctoral fellows and students. **Deadline for pre-meeting purchase is March 21, 2005.**

Please send a check or money order written out to APS-CVS to me at the address below. Credit Card payment is possible. E-mail me below and I will send the appropriate credit card payment form to you.

Don't delay - DO IT NOW - we have a limited number of tickets available!

Sincerely,

Gerry M.

Gerald A. Meininger, Ph.D.
Regents Professor and Associate Head
Department of Medical Physiology
Director for Division of Vascular Biology
Cardiovascular Research Institute
College of Medicine
Reynolds Medical Building, Rm. 349
Texas A&M University Health Science Center
College Station, Texas 77843-1114
USA

Work Tel: 979-845-7491

Work Fax: 979-862-4638

E-mail: gam@tamu.edu

New Directions in Exercise Physiology Official Satellite Conference to the 35th International Union of Physiological Sciences

Dates:

March 29-30, 2005

Location:

San Diego, California, USA

Website:

www.exercisephysiology.elsevier.com

Organizers:

Organized and hosted by Elsevier in association with *Respiratory Physiology and Neurobiology*

Secretariat:

Nina Woods

Exercise Physiology Conference Secretariat

Elsevier, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK

Telephone: +44 (0) 1865 843297





A Special Transatlantic Meeting of The Microcirculatory Society, Inc. and The British Microcirculatory Society

September 11 - 13, 2005
Abstract Deadline: June 10, 2005

University of New Hampshire
Durham, New Hampshire, USA

Email Dr. Ann Baldwin: abaldwin@u.arizona.edu

The Microcirculatory Society, Inc.
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Microcirculatory Society, Inc. and British Microcirculatory Society Meeting Program Information

Oral and Poster Communications Categories:

Angiogenesis	Renal Microcirculation
EDHF, NO and other EDRFs	Blood Brain Barrier
Endothelial Cell Biology	Synovial Microcirculation
Cell-Cell and Cell Matrix Interactions	Tumor Microvasculature
Interstitium	Diabetes
Inflammation	Lymphatic Biology
Vascular Permeability	Other Aspects of Microcirculation

Oral communications will be selected from submitted abstracts and are welcome on all aspects of microvascular and endothelial biology. Those not selected for oral presentation will be presented as posters.

Keynote Lecture:

Interactions Between Circulating Blood Cells and the Endothelium in the Microcirculation in Oxidative Stress.

Dr. D. Neil Granger, Louisiana Health Sciences Medical Center, Shreveport, LA, USA

Joint Societal Symposium:

Role of Reactive Oxygen Radicals in Vascular Cell Signaling in Health and Disease.

[Co-organizers: Professor Ann Baldwin (USA) and Professor Giovanni E. Mann (UK)]

The Microcirculatory Society, Inc.
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Microcirculatory Society, Inc. and British Microcirculatory Society Meeting Joint Symposium Schedule

Sunday 11 September

- 09:00 - 09:05** Introduction.
- 09:05 - 09:35** Reactive oxygen radicals: Intracellular mediators of altered protein kinase activity and gene expression
Dr. Kathy K. Griendling
Division of Cardiology, Emory University, Atlanta, Georgia, USA
- 09:35 - 10:05** Nrf2-mediated regulation of antioxidant gene expression in endothelial and smooth muscle cells in oxidative stress
Prof Giovanni E. Mann:
Centre for Cardiovascular Biology & Medicine, King's College London, Guy's Campus, London, UK
- 10:05 - 10:30** Mechanisms underlying oxidative stress-induced vascular leakage, in vivo
Dr. Ann L. Baldwin
Department of Physiology, College of Medicine, University of Arizona, Tucson, Arizona, USA.
- 10:30 - 11:00** Bifunctional role for VEGF-induced heme oxygenase-1 in vivo: Induction of angiogenesis and inhibition of leukocytic infiltration
Dr. Justin C. Mason
British Heart Foundation Cardiovascular Medicine Unit, Imperial College London, Hammersmith Hospital, London, UK

-
- 11:00 - 11:30** [Pentose phosphate pathway coordinates multiple redox-controlled relaxing mechanisms in coronary arteries](#)
Prof. Michael S. Wolin
Department of Physiology, New York Medical College, Valhalla, New York, NY, USA
- 11:30 - 12:00** [NADPH oxidase-derived reactive oxygen species and their role in generating Ca²⁺ oscillations in agonist stimulated endothelial cells](#)
Dr. Roy C. Ziegelstein
Department of Medicine, Division of Cardiology, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
- 12:00 - 12:30** [Regulation of endothelial pro-inflammatory responses in the lung capillary by compartmental production of diffusible oxidants](#)
Dr. Jahar Bhattacharya
Department of Physiology and Cellular Biophysics, St. Luke's-Roosevelt Hospital Center, Columbia University, New York, NY, USA
- 12:30 - 13:00** [Mechanisms underlying the programming of small artery dysfunction in vascular disease](#)
Prof. Lucilla Poston
Fetal and Maternal Health Unit, King's College London, St. Thomas' Campus, London, UK

The Microcirculatory Society, Inc.
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Proposed Changes to Society By-Laws

Proposed Changes for 2005

ARTICLE I. Microcirculatory Society

Section 1. The name of this organization is The Microcirculatory Society, Inc. (hereinafter known as the Society). The official abbreviation for the name is MCS.

ARTICLE II. Purposes

Section 1. The purposes of the Society are to actively encourage and promote all forms of innovative research and teaching leading to an increase in understanding of microcirculatory function in health and disease.

ARTICLE III. Membership

Section 1. The Society shall consist of regular members, student members, associate members, emeritus members, honorary members, supporting members, and sustaining members.

Section 2. Regular Members.

Any person who has contributed to the increase in knowledge of the microcirculation, and is presently engaged in such work, shall be eligible for election to regular membership in the Society. Except in unusual circumstances, a regular member shall hold a doctoral degree. A regular member may attend and participate in the business meetings of the Society and is entitled to one vote.

Section 3. Student Members.

Any person who is engaged as a full-time graduate student in a recognized University program, and is actively involved in research on the microcirculation or associated phenomena shall be eligible for election to student membership in the Society. Except in unusual circumstances, a student member shall not hold a doctoral degree. A student member may attend and participate in the business meetings of the Society, but shall not have the right to vote.

Section 4. Associate members.

Individuals who are interested in and engaged in work related to the microcirculation, but who do not meet the requirements for regular or student membership, shall be eligible for election to associate membership. Associate members may attend and participate in the business meetings of the Society but shall not have the right to vote.

Section 5. Emeritus Members.

On approval by the Council, a regular member, after 20 years of regular membership or on retirement from regular employment, may, upon his or her written request, become an emeritus member. Emeritus members may attend and participate in business meetings of the Society and shall have the right to vote.

Section 6. Honorary members.

Individuals who have distinguished themselves by outstanding contributions in the study of microcirculatory phenomena may be elected honorary members by a special act of commendation. Honor-

ary members may attend and participate in the business meetings of the Society, but shall not have the right to vote.

Section 7. Supporting members.

Any regular member who voluntarily contributes \$250 or more annually over and above the dues of regular members shall be denoted a supporting member.

Section 8. Sustaining members.

Individuals and organizations that have an interest in the purposes of the Society and wish to contribute to its support may be invited by the President, with the approval of the Council, to become sustaining members. Any such membership may be terminated by the President with the approval of the Council. Sustaining members may not attend or participate in business meetings of the Society and shall not have the right to vote.

Section 9. Nomination and election of members.

Two regular members of the Society shall join in the proposal of the person for regular, student, or associate or honorary membership on appropriate forms provided by the Secretary through the Society's web site or other available means of communication. The Membership Committee shall receive these proposals and refer them with its recommendations to the President for approval. Those persons whose proposals are approved by the President shall be nominated for election to membership by a mail (including e-mail, fax) ballot of the Council. A two-thirds (2/3) majority positive vote by Council shall be required for election. Receipt of nominations and election to membership shall be carried out on a continuing basis throughout the year.

ARTICLE IV. Officers

Section 1. Council.

The management of the Society shall be vested in its Council (all of whom must be regular members of the Society), with powers of direction, consisting of the President, President-Elect, immediate Past-President, Secretary, Treasurer, and six additional regular members elected by the members by vote of the membership (through available means of communication). The President and President-Elect shall not succeed themselves after having served a full term. The terms of President and President-Elect shall be for one year. The Secretary and Treasurer shall be elected to two-year terms and these officers may succeed themselves for one term. The Secretary and Treasurer shall be elected on an alternating year basis, and the terms of the six additional elected Councilors shall be three years, so elected that only two Councilors are elected each year. Councilors may not succeed themselves to serve consecutive terms. All terms of office shall begin at the close of the annual regular meeting of the Society. The Council, by majority vote of its remaining qualified members, shall fill any interim vacancy in the office of the President-Elect, the Secretary, the Treasurer, and the Clerk, and may fill a vacancy of a Councilor. The term of office of a person elected to fill an interim vacancy shall expire following the tally of a valid regular ballot to elect his/her successor.

Section 2. Executive Committee.

The Executive Committee of the Society shall be defined as the principal officers, namely the President, the President-Elect, the Past-President, the Secretary and the Treasurer. They shall attend to the ordinary running of the Society, making the decisions required for its smooth functioning. All major decisions shall be subject to the approval of Council or the full membership.

Section 3. President.

The President shall preside at all meetings of the Council and business meetings of the Society, and shall be an ex-officio member of all standing committees, and shall have other duties as prescribed in the appendix of these bylaws. The President, after consultation with the Council, shall appoint members of the standing committees where called for in these bylaws.

Section 4. President-Elect.

The President-Elect shall undertake duties as may be delegated by the President. The President-Elect shall become the next regular President of the Society after completion of the regular term as the President-Elect. In the absence or during the disability of the President, the President-Elect shall have all of the powers and perform all of the duties of the President. Any service as an interim president of the Society shall not reduce the term of the President-Elect as the next regular President of the Society.

Section 5. Past President.

The immediate Past President shall chair the Long-range Planning Committee and shall review, and where needed, recommend revisions of the Society's Bylaws, as described in Article X, Section 2.

Section 6. Secretary.

The Secretary shall give bond to the Society, if required by the Council, for the faithful performance of his/her duties. The Secretary shall have custody of all documents and papers belonging to the Society (except his/her own bond which shall be kept by the President) and shall safely keep the same, and disburse the orders and rules of the Council. The Secretary shall have co-custody of a bank account to meet the day-to-day operational expenses of the Society. The Secretary shall give notice of all meetings as required by the bylaws, send out the various customary mailings to the membership, and shall inform the membership whatever the President or Council desires. The Secretary shall use the available means of communication to perform these duties. The Secretary shall also keep a directory with the complete list of the name, title and address of each member of the Society. The Secretary shall keep the minutes of the Council and of Business Meetings of the Society and shall have other duties as prescribed in the Operations Manual. In the absence of the Secretary, the President shall appoint a temporary secretary to record the minutes.

Section 7. Treasurer.

The Treasurer shall give bond to the Society, if required by the Council, for the faithful performance of his/her duties. The Treasurer shall have custody of all monies, debts, obligations, contracts, and other property belonging to the Society (except his/her own bond which shall be kept by the President) and shall safely keep the same, and shall collect all properties and all monies from time to time due and owing to the Society. The Treasurer shall also keep a directory with the complete list of the name, title and address of each member of the Society and will verify at least annually the status of each member. Access to the directory information for individual members shall be made available on the Society's website. The Treasurer shall be chair of the Finance Committee to disburse the provision of Article VI, Section 4 of these bylaws.

The due date for Internal Revenue Service (IRS) filing for the Society is October 1; this reflects the fiscal tax year from the prior June 1 to the current May 31. The Treasurer will prepare the financial summary of the MCS for the fiscal year ending May 31 by August 1 of that year. This information will be sent to the MCS-approved Certified Public Accountant (CPA) firm during the first week of August, using certified mail. Upon mailing, the Treasurer will inform the President and Council that the appropriate documentation has been sent to the CPA firm. The CPA firm will use certified mail to

return the completed US Form 990, Return of Organization Exempt from Income Tax and the Massachusetts Office of the Attorney General, Division of Public Charities, Form PC, to the Treasurer no later than September 15. Once the Treasurer has received the completed IRS Form 990, the Treasurer will have five business days to sign and mail the forms to the IRS, using certified mail to verify the posting date of before October 1. Upon mailing, the Treasurer will inform the President and Council that the IRS forms have been sent. During this time, the Treasurer will also mail the annual Not-For-Profit Organization registration FORM PC with the filing fee of \$35 to the State of Massachusetts. The current CPA firm approved by the MCS is: Neil, Williamson & Staker, CPA, 1609 West Babcock, P.O. Box 1865, Bozeman, MT 59711-1865.

Section 8. Clerk.

The Clerk shall be a resident of the Commonwealth of Massachusetts, and need not be a member of the Society. (The office is required as a condition of incorporation by the Commonwealth of Massachusetts.) The duties of the Clerk of this Society shall be those required by the statutes of the Commonwealth of Massachusetts. Such duties, to the extent permitted by law, may be assigned to others by the Council. The Clerk shall be appointed annually by the President of the Society, and may serve in the Council and Business Meetings, without vote except as a member of the Society.

Section 9. Nomination and election of Officers and Councilors.

Nomination for all Officers and Council members of the Society will be obtained by mail, fax, or e-mail on or before December 1 by requesting the membership to propose nominees. The request for nominations will be made in the Society Newsletter preceding the December 1 deadline. Nominations will be sent to the Chair of the Nominating Committee. For each office, the two persons (who agree to stand for election) with the highest number of nominations will be included on the ballot. In years in which two members of the Council are to be elected, a total of not more than four nominees will be included on the ballot. Once the nominations are complete, each member will receive and return by mail, fax, or e-mail, the ballot of officers and Council members. The ballots will be returned to the Chair of the Nominating Committee for tabulation and determination of outcome. In the event that a majority vote for a given office is not obtained by regular vote, the Chair of the Nominating Committee will call immediately for a run-off election between the two candidates with the highest votes. The election will be conducted promptly by mail, fax, or e-mail.

ARTICLE V. Council

Section 1. Management of the Society.

The property and affairs of the Society shall be managed and conducted by the Council with powers of directors. The members of the Council shall serve without compensation and shall be called Councilors.

Section 2. Qualifications, Elections and Vacancies.

Specified in Article IV, Section 1 and Section 9.

Section 3. Meetings.

At least one regular meeting of the Council shall be held during each annual meeting of the Society members, and for this regular meeting no notices shall be required. Other meetings of the Council shall be held as often as the needs of the Society may require. They may be held at regular intervals determined by the Council, or they may be called by the President or any three members of the Council. The Secretary shall notify each Councilor of each meeting of the Council. Notice of any meeting may be dispensed with if each member of the Council, by writing filed with the records of

the meeting, waives such notice. No notices shall be required to be given of any adjourned meeting of the Council.

Section 4. Quorum.

A majority of the Council shall constitute a quorum for the transaction of business, but a lesser number may adjourn any meeting from time to time, and a meeting may be held as adjourned without further notice. A majority vote of Councilors in attendance (unless otherwise specified elsewhere), with each entitled to one vote, shall decide any question brought before the Council, except that a majority of the qualified Councilors shall be required for temporarily filling a vacancy of an office. In the event of a tie vote, the President shall then be entitled to two votes.

ARTICLE VI. Standing Committees

Section 1. Standing Committees.

Standing committees and their Chairs shall be appointed by the President in consultation with the Council. The term of all standing committee members, except as otherwise provided elsewhere, shall be for three years. However, on adoption of these bylaws, the term shall be one, two, or three years for various committee members, as determined by the Council, so as to provide continuity of committee operation. Emeritus, Honorary, and Sustaining members may be appointed from time to time for terms up to one year. Sustaining members so appointed shall not have the right to vote. The President shall be an ex-officio member of all committees. Guidelines for committee operation shall be approved by Council. The President, in consultation with Council and upon recommendation and evidence submitted by the Committee Chair or committee members, will be empowered to terminate at any time the term of committee members failing to discharge their duties.

Section 2. Membership Committee.

A Membership Committee, composed of three or more regular members of the Society, shall receive and review proposals for nomination to membership, and shall recommend regular, associate, and student nominees for membership to the Society according to Article III, Section 9.

Section 3. Finance Committee.

A Finance Committee consisting of the Treasurer (who shall Chair the Committee) and two or more regular members appointed by the President shall receive and evaluate the impact of the various proposed budgets, shall determine the budgets and make recommendations and shall recommend a budget to the Council. This Committee shall supervise the capital investments of the Society, subject to the full authority of direction by the Council.

Section 4. Nominating Committee.

A Nominating Committee shall consist of three or more-regular members, none of whom shall simultaneously be an officer of the Society or the immediate Past-President. This Committee shall obtain nominations and conduct elections for officers and councilors as prescribed in Article IV, Section 9.

Section 5. Liaison Committee.

The Liaison Committee shall consist of the President (who shall serve as Committee Chair), the MCS representative to the US National Committee for the International Union of Physiological Sciences (USNC for IUPS), the MCS member appointed liaison to the European Societies of Microcirculation, the MCS members appointed to the International Liaison committee, and the Secretary

of the Society, and may include any other members at the pleasure of the President. This Committee shall maintain communication with scientific organizations that have interests in common with the Society, and shall officially represent the Society in the international community.

Section 6. Long-range Planning Committee. The Long-range Planning Committee shall consist of the ten (10) most recent Past-Presidents and shall be chaired by the immediate Past-President of the Society. This committee shall consider all aspects of society affairs to identify major issues of importance to the Society and to recommend future strategies, plan meetings for the Society for a minimum of 5 years in advance of the next annual meeting, and new policy directions for society function.

Section 7. Development Committee.

The Development Committee shall consist of three or more regular members of the Society. This committee shall seek new supporting and sustaining members of the Society, and shall consider and recommend fund-raising activities for Council consideration. Upon request of the President, this committee shall implement Council-approved fund-raising activities on behalf of the Society.

Section 8. Historical Committee.

The Historical Committee shall consist of three or more regular members of the Society. This committee shall seek, identify, and obtain information, documents, films, and other items which have historical significance to the Society. This committee shall maintain updated lists of past officers and recipients of Society Awards.

Section 9. Awards Committee.

An Awards Committee, composed of six regular members, shall solicit from the voting membership the names of candidates for any awards that the Council has authorized. After selection of the candidates is made by the Awards Committee, the names of the candidates shall be approved by the President and the Council prior to any announcement of the awardees. Announcements of the winners of awardees should be made known to voting members of the Society prior to the Annual Society scientific meeting.

Section 10. Programs and Meetings Committee.

The Program Committee shall be chaired by an officer appointed by the President of the Society, and will serve a three year term. Members of the Committee shall be appointed for 3 years, by the President. The Committee shall: a) follow up on the recommendations to Council and the membership from the Long Range Planning Committee for the meeting(s) proposed for at least three years in advance. b) Serve as the liaison to the program committees of other societies or associations with whom the MCS may meet, with the Program Committee Chair as the official representative. c) Make recommendations, to be approved by the Executive Committee of the MCS, with respect to: program style and format, commitments to other societies, local arrangements, appointments to the program committees of umbrella associations.

Section 11. Publications Committee.

The Publications Committee shall consist of a Chair and at least two other members of the Society, appointed by the President and responsible to the Council of the Society. The Chair of the Committee is an ex-officio member of Council, without vote. The President, Treasurer, and Secretary of the Society are ex-officio members of the Committee, without vote. The duties are to oversee the journals and other publications of the Society, particularly with respect to the scientific quality of the journals and the fiscal interests of the Society. They shall appoint Editors and editorial boards,

prepare an annual summary report and an annual financial report, and in general, manage the publications of the Society under the policies determined by Council. The ownership of the title “Microcirculation” and the copyright of material published in the journal shall be held by MCS. The term of the Publications Chair will be set to provide continuity during the time that contracts with publishers are negotiated or Editors of the Journal are chosen. When these decisions are being made, the term will likely be for two consecutive years.

The Editor of the journal will be appointed by Council for a five year term and no individual will serve more than two consecutive five year terms.

The appointment of Editor will be at the recommendation to Council by a committee which will consist of the Publications Committee plus the President of the Society. The Chair of the Publications Committee will chair this committee.

The Publications Committee, plus the President of the Society and the Editor of the journal, is responsible for oversight of contractual agreements between the publisher of the journal and MCS.

The Editor will nominate the Associate Editors and the Editorial Board. These appointments will be submitted to Council for approval. The Editorial Board members will be appointed for a two year term with one-third of the Editorial Board being ineligible for reappointment to a consecutive term. All members of the Editorial Board must be members of MCS.

Section 12. Representative of the MCS to the US National Committee of the International Union of Physiological Sciences.

This position is to be filled by an appointee of the President of the MCS. The appointment is for three years, or four, designed to fit with the time interval between IUPS Congresses. The appointee should be a senior member of the Society, suitable to represent the Society’s interests in international planning not only of scientific meetings but in providing international leadership in science and education. Reappointment for a second term is allowable, in accord with IUPS committee rules.

Section 13. Representative of the MCS to the European Societies for Microcirculation (ESM).

This position is to be filled by an appointee of the President of the MCS. The appointment is for three years, or four, designed to fit with the requirement of ESM. The appointee should be a senior member of the Society, who participates in the European Microcirculatory Society meeting, suitable to represent the MCS’s interests in international planning not only of scientific meetings but in providing international leadership in science and education. Reappointment for a second term is allowable, in accord with ESM rules.

Section 14. Representatives of the MCS to the International Liaison Committee.

These three positions are to be filled by appointees of the President of the MCS. The appointment is for three years, or four, designed to fit with the time interval between World Congresses. The appointees should be senior members of the Society, suitable to represent the Society’s interests in international planning not only of scientific meetings but in providing international leadership in science and education.

Section 15. Communications Committee.

The Communications Committee shall consist of a Chair and at least three other members of the Society, appointed by the President of the Society for up to three year terms. This committee shall be responsible for the oversight of the Society’s web page. The Society website address, microcirc.org, is the property of MCS. The committee’s other primary function is to coordinate with the Program

and Meetings committee, the Liaison Committee, the Publications Committee, as well as the parties who collect directory, dues, and newsletter information, to keep the membership informed of MCS activities. The Communications committee will develop an annual report and budget for review by Council.

Section 16. Electronic Communications Committee

The Chair of the Committee will be a former member of the Electronic Communications Committee to preserve continuity of performance. The Chair will be appointed for a two-year term by the President in consultation with the Council. The Committee will be composed of the Chair, the Treasurer of the Society, four or five additional members appointed for three-year terms by the Chair and the President, and the Secretary of the Society will serve as an Ad Hoc member. The Treasurer must be a member of the Committee to oversee and be responsible for all financial issues that are carried out over the Web Site. Any dealings with financial matters, such as credit card companies, banks, or other organizations in which money will be involved will be discussed with the President and Council before final agreements are made. The members of the Committee will have various parts of the Web Site delegated to them so that no one person has too great a service. The key areas for upkeep will include but not be limited to:

- (a) Membership information
- (b) Updating Web Site information
- (c) Electronic voting, as needed
- (d) Electronic emails to the membership
- (e) Financial issues handled via the Web Site through consultation with the Treasurer as the responsible party
- (f) Any information the Secretary needs to communicate to the Membership
- (g) Advertisements, if approved jointly by the Committee, President, and Council to have such. Advertisements could include, but are not limited to, companies wishing to link to the MCS Web Site for a negotiable fee, members wishing to advertise employment opportunities for a small fee, Universities or Companies wishing to advertise employment opportunities for a small fee, and other opportunities as they arise in the future.
- (h) Preparation of mailing labels for the hard copy of the Society's Journal and communications with members for their online access number for the Journal.

Section 17. Other Committees.

The President may appoint temporary (ad hoc) committees as desired. The term of office of these temporary committees shall end with the next annual business meeting of the Society following such appointment, or earlier as the President desires.

ARTICLE VII. Dues

Section 1. Annual Dues.

Dues for members, in accordance with Article III, shall be proposed by the Council but shall be determined by majority vote of those voting at the annual business meeting of the Society. Dues shall be paid January 1 for the current fiscal year and shall be in arrears on April 1. Special assess-

ments may be proposed by the Council but shall be determined by majority vote of those voting at the annual business meeting of the Society.

Section 2. Nonpayment of Dues.

Any member whose dues are one year in arrears shall become an inactive member of the Society, and will be notified by the Treasurer. An inactive member will not receive the journal, will be ineligible to vote, and may not serve on committees. If an inactive member is in arrears for an additional year, he/she may reactivate membership in the Society by payment of all outstanding dues. The Treasurer shall notify the delinquent of the right to request reinstatement of membership at least one time after dues are two years in arrears before they cease to be a member of the Society.

Section 3. Emeritus Members.

A regular member who has been granted emeritus membership will be relieved from dues payment for the current and subsequent fiscal years.

ARTICLE VIII. Meetings of Society Members

Section 1. Annual Meeting of Members.

The Society shall hold an annual meeting of members, for the transaction of business, and for presentation of scientific communications and related activities. Such annual meetings shall be held each year at a time and place designated by the Council and approved by the membership. The time and place for the annual meeting shall be chosen at least eleven months in advance at an annual business meeting. The place, day, and hour shall be specified in the notice of any meeting of the Society.

Section 2. Special Meetings of Members.

Special meetings of members shall be called by the Secretary or any other officer upon the request of the President or the Council or on the written request of one-quarter of the members entitled to vote. The current list of members with their addresses shall promptly be made available to any member entitled to vote, on request, but shall not be utilized by anyone for purposes not directly pertaining to the business of the Society without the written permission of the President.

Section 3. Notice to Members.

Notice of all a meetings of the members shall be made known to each member not less than 30 nor more than 180 days before the meeting, but no notice shall be required if every member entitled thereto, or his/her attorney thereunto, authorizes, by a writing which is filed with the records of such a meeting, a waiver of such notice.

Section 4. Quorum for Annual and Special Meetings.

At all meetings of members of the Society, 40 regular members, present in person and entitled to vote, shall constitute a quorum, but less than a quorum shall have power to adjourn from time to time until a quorum be present. No member shall cast a ballot by proxy at any meeting of the Society.

Section 5. Parliamentary Authority.

The rules contained in Robert's Rules of Order, Revised, shall govern the conduct of the business meetings of the Society in all cases to which they are applicable and in which they are not inconsistent with the bylaws or special rules of order of the Society.

ARTICLE IX. Miscellaneous

Section 1. Prohibitions.

Notwithstanding any provision of these by laws which might be susceptible to contrary interpretation:

- a. The Society is organized and operated exclusively for scientific and educational purposes.
- b. No part of the net earnings of the Society shall accrue to the personal benefit of any member except as provided by the Society awards (Article VI, section 9).
- c. No substantial part of the activities of the Society shall consist of carrying on propaganda, or otherwise attempting to influence local, state, or national legislation, except with respect to science policy or to other special issues such as the obligations to perform biological experimental studies. The Society shall not participate in or intervene in any campaign of any candidate for government public office.
- d. No substantial part of the activities of the Society shall consist of carrying on propaganda, or otherwise attempting to influence local, state or national legislation. The Society shall not participate in or intervene (including publishing or distribution of statements) in any campaign of any candidate for governmental public office.
- e. The Society is not organized for, nor is it to be operated for profit.
- f. The membership list of the Society shall not be supplied to anyone for any purpose except as provided under Article VIII, Section 2, or except as specifically provided by Council.

Section 2. Fiscal Year.

The fiscal year of the Society shall end with the 31st day of March of each year.

Section 3. Audit.

All statements of net assets and related statements of income, expenditures, fund capital, and liabilities shall be audited annually in accord with the statutes of the Commonwealth of Massachusetts. The audit will be made annually by the Finance Committee and every third year by an independent auditing firm.

Section 4. Term of Office.

Where a term of office is stated in years, a year is to be considered as extending from the end of one annual business meeting to the end of the following one.

Section 5. Operations Manual.

The Secretary of the Society shall maintain an operations manual providing outlines of procedures found useful by the Executive Council and Committees of the Society.

ARTICLE X. Amendments

Section 1. Amendments.

These bylaws may be amended, altered or repealed at any business meeting of the Society members by a vote of two-thirds (2/3) of the regular members in attendance or by mail (e-mail, fax) ballot of the Society members by a vote of three-quarters (3/4) of the regular members and entitled to vote, provided notice of the proposed repeal, alteration or amendment, with a statement of the substance

thereof and of the Articles to be affected thereby, is given in the call for the meeting. Approved bylaw changes will be added to the published bylaws by the immediate Past-President as stipulated in Article IV, Section 5.

Section 2. The Past-President shall review the Society Bylaws, incorporate approved changes following the annual business meeting of the Society, and submit a complete copy of the Bylaws to the President at least 3 months prior to the next annual meeting. Any proposed changes that require Council and membership approval shall be presented in a complete copy of the Bylaws, labeled with proposed revisions. All words and phrases deleted from existing approved Bylaws shall be indicated by a horizontal line through them. Continuous underlining, italics or a different color shall indicate all new words and phrases.

