The Microcirculatory Society, Inc. Newsletter

Volume 31, Number 3

Winter 2004

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Officers

President: G.W. Schmid-Schönbein

gwss@bioeng.ucsd.edu

President-elect: H. Glenn Bohlen

gbohlen@iupui.edu

Secretary: Cynthia J. Meininger

cim@tamu.edu

Treasurer: Ann Baldwin abaldwin@u.arizona.edu

Web Site: http://microcirc.org

President's Message

Geert W. Schmid-Schönbein

As I indicated to you in the Fall Newsletter, the Executive Council of the Society met in November for a retreat at UCSD (Paul Kubes in Alberta was connected through a well-functioning video conference connection). We deliberated on several key issues facing the Society and many interesting and refreshing ideas were expressed. I would like to report back to you on some of these ideas.

The Annual Meeting. A major item on the agenda was our future plans for the annual meeting of the Society. While there was a consensus that the current integrated format as guest of the American Physiological Society with Experimental Biology offers a number of advantages, there was also strong expression of a desire to organize an annual meeting of the society in which our uniqueness is highlighted. To deal with this need the Executive Council voted unanimously to introduce a self-standing *Fall Meeting of the Microcirculatory Society*. The Fall Meetings will last about three days, with the meeting starting on Sunday. The mornings will be filled with scientific sessions and the afternoons will remain open for personal interactions (similar to Summer

Gordon Conferences). Evening sessions will include plenary presentations and specialty sessions. The poster sessions will be given a prominent place in the program to optimize discussions. The President-Elect will be in charge of the organization of the Fall Meeting in collaboration with the Program and Meetings Committee.

The first of the Fall Meetings will take place in September 2005 at the University of New Hampshire. The plans for this first Fall Meeting are already being formulated. As I reported last summer to you, it will be held jointly with the British Microcirculatory Society at the new Conference Center of the University of New Hampshire. Ann Baldwin chairs the steering committee. Please contact her directly if you have ideas for topics, sessions, symposia, or any aspect of the program.

The second Fall Meeting will take place in September of 2006. The Council has charged Robert Hester, myself, and the President-Elect for 2006 (you will vote for this position shortly) with the initial development of a scientific program. Ann Baldwin has

agreed again to help with the selection of the meeting site. We plan to make a proposal to the Council shortly and will announce the meeting as soon as it is approved.

In 2007 the World Congress for Microcirculation will take place in Milwaukee. No Fall Meeting will be organized in this particular year. Instead, the third Fall Meeting will take place in 2008. The time and site is yet to be determined. If you have a suggestion, please tell Paul McDonagh (Chair of the Long Range Planning Committee), Glenn Bohlen (President-Elect), or me.

Thus, in the next years the Microcirculatory Society will host two meetings every year. In the spring we will continue to take advantage of the integration and the exposure provided by the larger Experimental Biology Meeting of FASEB. In the fall we will meet more among ourselves, in a smaller more intimate format, able to vigorously recruit new members, and with a program that reflects entirely our own vision.

On-Line Capabilities. Key administrative requirements for the Society are now being facilitated by the Web. In this regard special thanks to Bob Gore for the continuous development of our Website. You can and should now pay your dues on-line (http://microcirc.org/MEMBER/DuesPayment.html). It is easy indeed. Furthermore you now have the option to vote on-line for the new officers of the Society (see instructions in this newsletter).

Research Topics. During the UCSD retreat, the Council spent a considerable amount of time discussing future liaison and scientific directions. Many exciting ideas were mentioned which will have a major impact on our Society: molecular mechanisms of inflammation (a field which is rapidly assuming center stage in clinical medicine), stem cells, molecular genetics and its impact on microvascular development, molecular signaling mechanisms in the microcirculation, microvascular aspects of gene delivery, angiogenesis, microvascular mechanisms responsible for the discrepancy between preclinical and clinical research, microvascular aspects of inflam-

mation in hypertension, exercise, mechanotransduction and inflammation, new directions in sepsis research, molecular mechanisms for bacterial adhesion, molecular mechanisms for insulin transport in the microcirculation, the new generation of blood substitutes and their mode of operation, to name just a few. In addition to the need to develop as well as embrace new techniques and promote their use in microvascular research, the council expressed the need to keep focus on important medical problems. In just about all diseases, understanding of the events at the microvascular level forms the bridge between molecular analysis and medical application. This gives us the opportunity to enhance our clinical and medical interactions and to organize meetings with organizations and societies that benefit from microvascular research. At the same time we wish to expand our involvement in Genetics and Systems Biology. We need to hear your thoughts on forward-looking topics and on new angles of traditional topics.

Spring 2004 Meeting. I remind you of the 50th Anniversary Meeting in Washington DC on April 16-18, 2004. The program at the Natcher Center on the campus of the NIH is published at the following website: http://microcirc.org/NEWS/FALL2003/ ARTICLES/MeetInfo.html. The regular program will occur as part of Experimental Biology 2004. I would like to thank the National Heart Lung and Blood Institute for its generous support of our meeting at the Natcher Conference Center. In the evening of April 16th we will meet for the 50th Anniversary Banquet at the National Academies of Science Bldg. in Washington DC (tickets will go on sale this week - see details in this newsletter). There will be several presentations at the banquet, and a slate of historical posters will be presented celebrating 50 years of Discovery and Innovation in the Microcirculatory Society. These posters will also be on display at the EB meeting (details to follow at a later time).

Landis Award. It is a great pleasure to congratulate Robert McCuskey on his selection as the recipient of the Landis Award 2004. Well deserved! We are looking forward to Bob's lecture; it will be a great education for all of us.

Committee News. Finally I want to thank Ingrid Sarelius for agreeing to accept the Chairmanship of the Program and Meetings Committee starting in April 2004. Bill Jackson, the current chair, is our new Editor of Microcirculation, and has asked to resign in order to focus his energies on the Journal. Bill has served the Society as the Chair of the Programming and Meetings Committee in an outstanding fashion. The program he has assembled for this year is included in this newsletter.

See you in Washington D.C.

With best regards and many thanks. Geert

Welcome to New MCS Members

Regular Members

Risuke Mizuno Shisnhu University, Matsumoto, Japan

Sam Wells Vanderbilt University

Rodney Levick St. Georges Hospital Medical School London, UK

Shue ren Xue Shan Xi Cardiovascular Institute China

Jerome Breslin The Texas A&M University System HSC

Tailoi Chan-Ling University of Sydney

Student Members

Eric Bridenbaugh The Texas A&M University System HSC

Erion Qamirani The Texas A&M University System HSC

VERY IMPORTANT

Vote for New Officers

ON-LINE VOTING NOW IN PLACE!!!

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

See Mini CVs for Candidates on Pages 4-11

Get your votes in soon!
Polls Close on March 1st, 5 p.m. EST

(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!



Candidates for Office

President-Elect

Robert L. Hester, Ph.D.

Present Position: Professor of Physiology, University of Mississippi Medical Center, Jackson, MS

Education: B.S., Mississippi State University, Biological Engineering (1975); Ph.D., University of Mississippi School of Medicine and Mississippi State University, Biomedical Engineering (1982), Post-Doctoral Fellow, University of Virginia, Department of Physiology (1982-1985)

Professional Societies: Microcirculatory Society (Membership Committee 1998-2001, Council member 2001-), American Physiological Society (1981-, Education Committee 2000-), Council for High Blood Pressure (Fellow 1994-), Biomedical Engineering Society (Membership Committee 1995-1998)

Honors and Awards: National Institutes of health National Research Service Award 1983-1985

National Funding: NIH Grant HL-63958, Metabolic Regulation of Muscle Blood Flow

Editorial Boards: Microcirculation, American Journal of Physiology: Heart and Circulatory Section, American Journal of Physiology: Regulatory, Integrative and Comparative Physiology

Grant Review: American Heart Association Alabama Affiliate study section (1995-1998), Southeastern AHA Study Section (1999-, Chairman Southeastern AHA Study Section 2003)

Peer Review: Microcirculation, American Journal of Physiology, Microvascular Research, International Society of Hypertension (Abstracts), Journal of Physiology, Journal of Biomechanical Engineering, Journal of Vascular Research, Hypertension

Current Research Interests: Regulation of blood flow and oxygen delivery to tissue, particularly the regulation of arteriolar diameter and blood flow during exercise

Personal Statment: This is an exciting time for the Microcirculatory Society. New technology and the explosion of information relating to physiological and pathophysiological mechanisms provide the members of the Society unique opportunities to be on the forefront of science. The members of the Society are some of the most talented researchers in science; however the vitality of the Society requires input from all members. A goal for the next year is to increase the exposure of the research by the members of the Society, through publications, and presentations at meetings. The quality of the journal is strong and we need to promote the journal by contributing our best work. Our spring meeting has always provided exciting opportunities for interaction, and the addition of a fall meeting will provide additional exposure for the Society. We need to make members of other societies aware of the Microcirculatory Society through direct mailings. We need to continue to recruit young investigators into the Society and provide them with a venue for presentation of their work. The Society will need support and help from all of the members and I would be honored to serve the Society to the best of my ability.

Timothy W. Secomb, Ph.D.

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

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

Professional Societies: Microcirculatory Society (Awards Committee 1992-1995, Executive 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 Grant R01 HL34555, Blood Flow and Structural Adaptation in Microcirculation. NIH Grant R01 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)

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 Reviews; 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 enhace 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 free-standing meetings would help to develop interactions among investigators and the involvement of young investigators, while maintaining the distinctive character and vitality of the Society.

Treasurer

Jeff Falcone, Ph.D.

Present Position: Associate Professor, Department of Physiology & 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), Post-Doctoral Fellow, Department of Medical Physiology, Texas A&M University, College Station, Texas (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; Frontiers/Exploration in Physiology, 2000-2001. American Heart Association: Member since 1990, High Blood Pressure Council, 1990; Research Awareness Team, 1995-2000; Advocacy Committee, 2000-Present; Greater Louisville & Southern Indiana, Board of Directors, 2002-Present; Ohio Valley Affiliate, Board of Directors, 2003-Present

Honors and Awards: Indiana University Northwest Student Fund Trustee, 1980-1982; Indiana University School of Medicine Sigma Pi Alpha Scholastic Honor Society, 1984-1989; Fifth World Congress for Microcirculation, Travel Award, 1991; Microcirculatory Society August Krogh Young Investigator Award, 1992; European Society for Microcirculation, Travel Award, 1994; Microcirculatory Society Travel Award for Outstanding young Investigator, 1998; University of Louisville, College Faculty Teaching Development Award, 1999; National Institutes of Health National Research Service Award 1990-1992

Funding: National Institutes of Health: National Institute on Aging, National Heart Lung and Blood Institute, American Heart Association, Ohio Valley Affiliate, United States Department of Agriculture

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

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.

Personnel Statement: The Microcirculatory Society is family. The Society has always invested in the young and those who seek a greater understanding of our science. The Society has been home to many notable scientists; not just a home but an arena to discuss, to think and to dream! We have always prided ourselves on our interactions, sessions and presentations. 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 to discover and solve this puzzle we live - called life!

Mary D. (Molly) Frame, Ph.D.

Present Position: Assistant Professor of Biomedical Engineering and Physiology/Biophysics, Stony Brook University, Stony Brook, NY.

Education: B.S., University of Missouri-Columbia, Biology (1980), Ph.D., University of Missouri-Columbia, Physiology (1990), Post-Doctoral Fellow, University of Rochester, Department of Biophysics (1990-1993).

Professional Societies: Biophysical Society (1990); American Physiological Society (1990); American Heart Association, Circulation (1994); Biomedical Engineering Society (1999); American Association for the Advancement of Science (1990); Microcirculatory Society (1991), [Program Committee, 1996-2000; Membership Committee, 2001-2005, Chair, 2002-2005]; Registered Outside User of the Cornell Nanofabrication Facility (1994-2002).

Honors and Awards: Curator's Scholarship, University of Missouri (1976), National Institutes of Health Pre-Doctoral Fellowship (1986-1989), National Institutes of Health Post-Doctoral Fellowship (1990-1993), Travel Award, 5th World Congress for Microcirculation (1991), American Heart Association, Finalist Melvin L. Marcus Young Investigator Award (1994), Whitaker Foundation Research Grant (1995-1999), National Institutes of Health R29 (FIRST) Award (1996-2000); American Heart Association Established Investigator Award (2000-2003), National Institutes of Health RO1 (2001-2005).

Funding: National Institutes of Health R01 (1996-2006)

Grant Review: Ad hoc Member of National Institutes of Health Experimental Cardiovascular Sciences Study Section (2001, 2002); National Institutes of Health Special Emphasis Panel (1999, 2001); American Heart Association Northeast (2004)

Peer Review: American Journal of Physiology, Journal of Applied Physiology, Cancer Research, FASEB Journal, Journal of Vascular Research, Microcirculation, Microvascular Research, Thrombosis Research

Current Research Interests: Among the goals of our recent work is the *in vitro* construction of transplantable microvascular networks, using bionanotechnology to create the sturdy scaffolding and verification of nanofabricated drug delivery units within the vasculature. We are interested in the mechanotransduction of the physical forces associated with flow change (i.e., wall shear stress), the pharmacologic signal transduction systems involved (which guide drug discovery and intervention), and the molecular basis for the committed step that ensures healthy flow delivery. Our work employs computational modeling of the fluid mechanics, the physiology of arteriolar network blood flow (*in vivo* and *in vitro*), and precise genomic manipulation of key proteins in healthy and vascular disease states.

Personal Statement: The Microcirculatory Society has successfully flowed through many cross-roads. Within the next leadership period, the Society must blend three paths together, establishing a leadership position in microfluidics, genomics, and angiogenesis. Microfluidics because how cells respond to their mechanical environment is predictive of their longevity. Genomics because determination of the molecular basis of the pathology of peripheral vascular disease will facilitate drug design. Angiogenesis because tissue engineering of stable vascular networks will prolong a better quality of life.

Executive Council

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); Post-doctoral Fellowship, Departments of Biological Chemistry and Molecular Pharmacology and Pathology, Harvard Medical School (1985-1990)

Professional Societies: Microcirculatory Society (Membership Committee, 2000-2002), American Physiological Society (Women in Science Committee, 2203-2005), Fellow of the High Blood Pressure Council of the American Heart Association, American Society for Cell Biology

Funding: NIH RO1 – 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)

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 a councilor to aid in the governance and maintenance of this vital scientific society.

Jefferson C. Frisbee, Ph.D.

Present Position: Assistant Professor of Physiology, Medical College of Wisconsin, Milwaukee, WI.

Education: B.Sc., University of Guelph, Human Kinetics (1991), M.Sc., University of Guelph, Human Biology (1993), Ph.D., University of Guelph, Biophysics (Physiology) (1996), 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 (1997-present), American Physiological Society (1994-present), American Heart Association (2001-present), American College of Sports Medicine (1994-1999).

Honors and Awards: National Institutes of Health National Research Service Award 1998-2000.

National Funding: AHA Scientist Development Grant "Mechanisms of Impaired Skeletal Muscle Arteriolar Dilation to Reduced PO₂ in Obese Zucker Rats".

Editorial Boards: Associate Editor, Microcirculation.

Grant Review: American Heart Association National Center (2001-present).

Peer Review: Microcirculation, American Journal of Physiology, Microvascular Research, Journal of Vascular Research, Journal of Applied Physiology, Annals of Biomedical Engineering.

Current Research Interests: Mechanisms underlying alterations to organ perfusion with the development of the metabolic syndrome X; regulation of arteriolar reactivity and microvessel density perfusion, impact of metabolic syndrome X on microvascular structure and function.

Personal Statement: I believe that the Microcirculatory Society is facing a growing challenge to its membership, its role as a viable entity in the scientific community, and its long-term sustainability. Specifically, that challenge is the ability to attract and retain young, vibrant investigators to its ranks and to encourage these individuals to support the society through active participation in its meetings, submission of manuscripts to its official journal, and the further recruitment of new investigators to join and actively participate in the Society. Failure in successfully meeting this challenge may have severe negative implications for the ultimate future of the MCS. If elected, my primary goal as an officer of the Microcirculatory Society will be to further develop both the environment and the opportunities wherein young investigators with an interest in the study of the microcirculation will be encouraged not only to become members of the MCS, but to also be active in supporting the different components of the Microcirculatory Society.

Richard J. Price, Ph.D.

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

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); Post-Doctoral Fellow, University of Virginia, Biomedical Engineering (1995-1997).

Professional Societies: Microcirculatory Society (Membership committee 1998-2001), Biomedical Engineering Society, North American Vascular Biology Organization.

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).

National Funding: NIH RO1 HL-66037, Extracellular Matrix Guidance of Capillary Sprouting; NIH RO1 HL-065958, Integrated Control of Vascular Pattern Formation; AHA 9730025N, Hemodynamic Stress and Molecular Signaling for Arteriolar Pattern Formation In Vivo (Completed). Whitaker Foundation RG-98-0402, Targeted Gene and Drug Delivery to Muscle with Contrast Ultrasound (Completed).

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

Grant Review: NIH Cardiovascular and Renal (CVB) Study Section Ad Hoc Reviewer (2003).

Peer Review: Microcirculation, American Journal of Physiology: Modeling in Physiology, American Journal of Physiology: Heart & Circulatory Physiology, Journal of Vascular Research, Journal of Biomechanical Engineering, Journal of Leukocyte Biology, American Journal of Drug Delivery.

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 positive 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 session 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.

Sarah Y. Yuan, M.D., Ph.D.

Present Position: Professor of Surgery and Medical Physiology, The Raleigh White Centennial Chair in Surgery, and Director of Surgical Research Division, Texas A & M University Health Science Center, Scott and White Hospital and Foundation, Temple, TX.

Education: M.D., First Military Medical College, Canton; Ph.D., Physiology and Surgery, Second Military Medical University, Shanghai; Postdoctoral training, Physiology and Surgery, University of Kentucky, Lexington, KY; Postdoctoral training, Physiology, Texas A&M University, College Station, TX.

Professional Societies: The Microcirculatory Society (1989–present), American Physiology Society Cardiovascular Section (1993-present), American Heart Association Circulation Council (1994-present), American Society for Cell Biology (1996–present).

Honors and Awards: Young Investigator Award: Heart Institute for Children/American Heart Association (1992), Research Career Award: NIH (1997), Montague Center for Teaching Excellence Awards (1999), Excellence in Research, TAMU College of Medicine (1999), The Microcirculatory Society Travel Award (2000), Fellow: American Physiology Society Cardiovascular Section (2001), JVR/European Society for Microcirculation Prize (w/John Tinsley) (2002), Abstract Award (w/Michael Guo): Rachmiel Levine Diabetes and Obesity Symposium (2003), Travel Award (w/Michael Guo), American Physiology Society Conference: Understanding renal and CV function through physiological genomics (2003).

National Funding: NIH RO1 HL61507 Neutrophil dependent regulation of venular permeability (1998-2007); NIH RO1 HL70752 Microvascular barrier dysfunction in thermal trauma (2002-2007).

Editorial Boards: Associate Editor: Microcirculation; Associate Editor: Microvascular Research, Editorial Board: Encyclopedia of the Microvasculature.

Grant Review: Regular member: NIH Renal and Cardiovascular (CVB) study section (2000-2003); Regular member: NIH Vascular Cell Molecular Biology (CVMB) study section (2004); Regular member: NIH Surgery, Anesthesiology and Trauma (2004-2008).

Peer Review: Circulation, Circ Res, J Biol Chem, Am J Physiol, J Vas Res, J Physiol, J Appl Physiol, Diabetes, J Diabet Complication, Diabetologia, J Cell Sci, Burns, Shock, J Mol Cell Cardiol, Thromb Haem.

Current Research Interests: Molecular control of microvascular barrier function; Leukocyte-endothelium interactions in inflammation and trauma; Signal transduction and gene regulation in diabetic cardiovascular complications.

Personal Statement: As the biomedical science advances into a new era of technology and discovery, the Microcirculatory Society is facing the challenge of thriving on changes and major growth. The solid base membership of MCS has provided foundational strength, maturity and the ability to develop for national prominence. As an active member for more than 15 years, I have greatly benefited from my association with other microvascular researchers. I have chosen to run for office, because I want to continue to be part of the foundation of this influential society, and at the same time be a driving force behind it's growth. I would work toward three major goals for the further development of the society. First, I would like to see that the society establishes new and lasting affiliations between national and international scientists. Growth of strong international relationship carries not only the promise of rejuvenation to an ebbing area of science but the visibility of the society. Second, I would encourage our members to actively recruit the participation of young scientists into the field through our networking activities and conferences. Lastly, as Associate Editor of the society journal, I am committed to bring to the table both professional leadership and editorial skills. I strongly believe that the integration of microcirculationists with researchers in other areas through publications and society activities will restore much needed vitality and visibility to our respected Society.



2004-2005 Microcirculatory Society Ballot **DO NOT USE if you utilize the on-line voting system**

Vote for ONE of the following for President-Elect:

| Robert Hester | | |
|---|--|--|
| | | |
| Vote for ON | E of the following for Treasurer: | |
| Jeff Falcone | | |
| Molly Frame | | |
| Vote for TWO of the following for Council: | | |
| Debbie Damon | | |
| Jefferson Frisbee | | |
| Richard Price | | |
| Sarah Yuan | | |

DEADLINE FOR RECEIPT: 5:00 P.M. EST, March 1, 2004

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, Connectic5t 06519 Telephone: 203-562-9901 x253

Fax: 203-624-4950

E-mail: sssegal@jbpierce.org OR steven.segal@yale.edu

Meeting Information

MICROCIRCULATORY SOCIETY 50th Anniversary Symposium

Natcher Conference Center Auditorium, National Institutes of Health, Bethesda, MD:

FRIDAY APRIL 16th

8:00 AM - 9 AM

Registration

9:00AM - 12:00 PM

Session I: Established Microcirculatory Research Topics. Where Do They Stand Today? Topics and Speakers:

- ♦ Microvascular Rheology and Hemodynamics: Herbert Lipowsky
- ♦ Microvascular Solute and Water Transport: Fitz-Roy Curry
- ♦ Microvascular Adaptation and Remodeling: Geert Schmid-Schonbein
- ♦ Regulation of Blood Flow in the Microcirculation: Steven Segal
- ♦ Angiogenesis and Vasculogenesis: Thomas Skalak
- ♦ Oxygen Transport and Exchange: Roland Pittman

1:30 PM -4:30PM

Session II: Emerging Microcirculatory Research Topics.

Topics and Speakers:

- ♦ Lymphatic Biology: David C. Zawieja
- ♦ Microvascular Endothelial Cell Biology: F. William Luscinskas
- ♦ Cell Traffiicking in the Microcirculation: Paul Kubes
- ♦ Integrins and Regulation of the Microcirculation: Gerald Meininger
- ♦ Microvascular Ion Channel Biology: William F. Jackson
- ♦ Molecular Genetics in Microvascular Research: Mary Gerritsen

The symposium will be followed by a Banquet/Celebration to be held at the **New National Academies of Science Building, Washington DC.** (See Banquet Ticket Information following Meeting Information for purchasing instructions)

- ♦ 7 PM Reception and Historical Poster Viewing
- ♦ 8 PM Dinner
- ◆ Dr. Gabor Kaley: The History of the Microcirculatory Society
- ♦ Dr. Robert McCuskey: Historical Microvascular Recordings
- ♦ Past-Presidents of the Microcirculatory Society, Cake Cutting

Saturday April 17, 2004

MCS Presidential Symposium: 3:15-5:15 PM, Room 146C Convention Center

Molecular Genetic Approaches to Microvascular Research

Organized by Geert W. Schmid-Schöbein, Univ. Cal. San Diego

Topics and Speakers:

- ◆ Convergence of molecular genetics and proteomics in the microcirculation: Andrew Green, Medical College of Wisconsin
- ◆ Landscaping heme oxygenase-1-mediated biological actions: Multiplicity revealed by transcriptome analyses
 - Makoto Suematsu and Misato Kashiba, Keio University School of Medicine
- ♦ The use of knockout mice to dissect molecular mechanisms in the microcirculation Klaus Ley, University of Virginia
- Spatial approaches to endothelial gene expression using amplification techniques applicable to the microcirculation
 Peter Davies, University of Pennsylvania

MCS General Business Meeting: 5:30-7:00 PM, Room 146C Convention Center

Congratulations!!!! Landis Award 2004

Robert S. McCuskey

Department of Cell Biology and Anatomy
Professor
University of Arizona
Tucson, Arizona

Sunday, April 18, 2004

MCS Landis Award Lecture: 10:30-11:30 AM in Room 146 C Convention Center Dr. Robert S. McCuskey — "The Hepatic Microvascular System in Health and Disease"

Monday, April 19, 2004

MCS Young Investigator Featured Topic: 8:00-10:00 AM in Room 140B Convention Center.

Regulation of Microvascular Tone by Endothelial Ion Channels and Gap Junctions. Organized by Donald G. Welsh, University of Calgary

The following poster sessions will be included as a part of the Microcirculatory Society's Annual Meeting:

Sunday, April 18

Microvascular Permeability/Exchange Microvascular Pharmacology/Vascular Control Angiogenesis/Microvascular Remodeling

Monday, April 19

Microvascular Cell Interactions
Ischemia/Reperfusion
Microvascular Pathophysiology
Cell-Cell Communication and Conducted Responses
Flow Regulation; Oxygen Delivery
Microvascular Mechanics and Hemodynamics



Microcirculatory Society 50th Anniversary Celebration Banquet

National Academies of Science Building Washington, D.C. Friday, April 16th

Reception: 7:00-8:00 pm (to include viewing of historical posters)

Dínner: 8:00-10:00 pm

Roasted Fresh Tomato and Basil Soup, Herbed Croutons; Salad of Petite Greens with Artichoke and Sundried Tomato, Fresh Herb Vinaigrette; Fresh Vegetables and Bread; Lemon Grilled Salmon with Black Beans and Seared Corn; Pear Tart with Tropical Sauce

~ Dr. Gabor Kaley will present a history of the Society. ~

~ Dr. Robert McCuskey will present a collection of historical microcirculation recordings. ~

Tickets: \$75 (\$50 for students who have paid their dues) (please go to the Society website - microcirc.org - to order tickets)

IMPORTANT: There will only be **225 tickets** available for this function. Purchase your tickets early or you may not get a seat! Please contact Cindy Meininger, MCS Secretary, if you have a fish allergy or would like a vegetarian meal.

van Leeuwenhooek Distinctive Travel Award

Travel Award Deadline Approaching - February 28th

Dear Colleagues,

We are approaching the deadline for the van Leeuwenhoek Distinctive Travel Award and up to now the inflow of applications is very limited indeed. It is very relevant for our European Microcirculation Society that its awards are donated for high quality research and in the case of the van Leeuwenhoek Distinctive Travel Award for young researchers with a keen interest to become respected research personalities in the area of vascular biology and microcirculation.

Therefore, I would like to urge you to consider any person who would fit the application criteria (see below) and stimulate a respective application. I will accept all applications that reach me by February 28, 2004.

Thank you very much for your attention.

Sincerely, Prof. Dr. A.R. Pries

Van Leeuwenhoek Distinctive Travel Award

This award entails a donation of 2,500 EUR to allow younger researchers (less than 12 years after examination) in the area of microcirculatory and vascular biology research to visit research laboratories to learn new techniques and discuss topics, methods and perspectives with established researchers. A number of centers of reference within Europe, most of them led by members of the Society, are willing to consider applications to host such visits. In addition, the recipient of the award is free to suggest other laboratories and places. Personal applications as well as suggestions are invited. The candidate should provide a two page curriculum vitae including a short section on scientific development and future perspectives. The top ranking applications will be rewarded by a free subscription of the Journal of Vascular Research for two years.

Prof. Dr. A.R. Pries
ESM General Secretary
Charité - Universitätsmedizin Berlin
Campus Benjamin Franklin
Dept. of Physiology
Arnimallee 22, 14195 Berlin

Tel.: (030) 84 45-16 32 o. -16 31 (Sekr.) Fax: (030) 84 45-16 34 e-mail: esmmail@zedat.fu-berlin.de www.medizin.fu-berlin.de/esm

Proposed Changes to Society By-Laws

The by-laws were updated and amended last year. The proposed changes to Section 11 were not included in that revision, and reflect experience gained over the last several months as we undertook the search for, and appointment of, our next journal editor.

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. Honorary 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 rolling 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.

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 Com-

monwealth 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 email 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 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. 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.

