

## CURRICULUM VITAE

**NAME:** Michael Leon Jennings

**DATE:** May, 2016

### PRESENT POSITION AND ADDRESS:

Professor and Chairman  
Department of Physiology and Biophysics  
Endowed Professor in Sciences Basic to Medicine  
Executive Associate Dean for Basic Sciences  
College of Medicine  
University of Arkansas for Medical Sciences  
4301 W. Markham St., Slot 505  
Little Rock, Arkansas 72205  
Phone: 501 296 1438  
Fax: 501 686 8167  
Email: JenningsMichaelL@uams.edu

### BIOGRAPHICAL:

Born: June 10, 1948, Cleveland, Ohio  
Marital Status: Married Paula M. Jennings October 9, 1976  
Home Address: 2320 North Taylor St., Little Rock, AR 72207  
Citizenship: U.S.A.

### EDUCATION:

1970	Physics S.B.	Massachusetts Institute of Technology, Cambridge, MA
1976	Biophysics Ph.D.	Harvard University, Cambridge, MA

### POST-GRADUATE EDUCATION:

1976	Research Fellow in Biophysics in the Biophysical Laboratory, Harvard Medical School, Boston
1977-78	Research Fellow in the Max Planck Institut fur Biophysik, Frankfurt am Main, Germany

### PROFESSIONAL AND TEACHING EXPERIENCE:

1978-83	Assistant Professor, Department of Physiology and Biophysics, The University of Iowa, Iowa City
1983-87	Associate Professor (Tenured), Department of Physiology and Biophysics, The University of Iowa, Iowa City
1987-95	Professor, Department of Physiology and Biophysics, University of Texas Medical Branch, Galveston, Texas
1995-Pres.	Professor and Chair, Department of Physiology and Biophysics, University of Arkansas for Medical Sciences, Little Rock, Arkansas
1999-2001	Interim Dean, Graduate School, University of Arkansas for Medical Sciences
2012-Pres.	Endowed Professor in Sciences Basic to Medicine, College of Medicine, University of Arkansas for Medical Sciences
2014-Pres.	Executive Associate Dean for Basic Sciences, College of Medicine, University of Arkansas for Medical Sciences

**HONORS AND AWARDS:**

1970	NIH Predoctoral Fellowship
1983	NIH Research Career Development Award
1997	Elected President, Society of General Physiologists
1999	Red Sash Award (Medical School Teaching)
1999	Jacobs/Parpart/Ponder Lecture, Red Cell Club/Biophysical Society
2001	Elected Chair, Cell and Molecular Section, American Physiological Soc.
2002	Red Sash Award
2006	Red Sash Award
2007	American Journal of Physiology Cell Physiology Star Reviewer
2006	Mentor of the Year (Arkansas Mentoring and Networking Association)
2008	Mentor Award, UAMS Graduate School
2009	Red Sash Award
2010	Red Sash Award
2010	Chancellor's Faculty Teaching Award
2011	Red Sash Award
2012	College of Medicine Endowed Professor of Sciences Basic to Medicine

**AREAS OF RESEARCH INTEREST:**

Structure and function of biological membranes, with emphasis on anion transport proteins. Current projects include computational models of the mechanism of anion transport through the red cell band 3 protein; establishing the function of transporter SLC4A11 in mammalian hereditary congenital corneal dystrophy; the regulation of transport of sulfate and sulfide in *Saccharomyces cerevisiae*; and the regulation of iron transport in relation to bone development (collaboration with Haibo Zhao).

**GRANT SUPPORT:**

Dollar amounts are total Direct Costs for the indicated time period.

**Past:**

As Principal Investigator:

NIH 1 R21 EY021646-01A1, "Functional role of transporter Slc4a11 (BTR1/NaBC1) in the cornea" (Mark Parker, Case Western Reserve University was Co-PI; UAMS was submitting institution.)

12/01/11-11/30/14	\$298,018
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NIH R01GM026861-26, "Mechanisms of Sulfate Transport and Regulation"

3/1/04-2/28/08	\$865,000
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NIH R01GM026861, "Biochemical Studies of Erythrocyte Anion Transport"

Years 18-22: 3/1/98-2/28/02	\$547,279
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Years 14-17: 4/1/93-2/28/98	\$471,000
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Years 9-13: 7/1/87-3/31/93	\$437,000
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Years 4-8: 7/1/81-6/30/87	\$352,554
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Years 1-3: 7/1/79-6/30/81	\$113,012
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NSF EPS-9704712, "Arkansas Center for Membrane Biology"

7/97-6/00	\$588,600 plus ASTA (state) matching funds of \$ 641,000.
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NIH R01 HL037479, "Erythrocyte Potassium Transport and Volume Regulation"

Years 4-7: 8/91-7/96 \$380,000.

Years 1-3: 9/86-3/90 \$189,929

John Sealy Memorial Endowment Bridging Grant "Erythrocyte Potassium Transport and Volume Regulation"

1/91-8/91 \$15,000.

NIH K01DK01173 "Structure and Function of Erythrocyte Transport Proteins", Research Career Development Award

7/83-6/88 \$222,000.

American Heart Association, Iowa Affiliate, "Lactate Transport in Rat Red Blood Cells"

7/79-6/82 \$25,000.

NIH F32 HL08394 "Regulation of Potassium Transport in Erythrocytes" Training Grant to Lawrence C. Starke (Sponsor: M.L. Jennings). 12/90-11/93 \$85,500.

As Coinvestigator:

NIH HL33296 "Red Cell Sodium Transport". Component of Hypertension SCoR (A. Mark, P.I.). 9/84-9/87 \$56,914.

NIH P01 HL14388 "Red blood cell sodium countertransport". Component of Program Project: "Regulation of the Circulation in Pathophysiological States" (F.M.Abboud, P.I.) 9/80-9/85 \$75,509.

## **TEACHING EXPERIENCE (Iowa, UTMB and UAMS):**

### **Educational Administration:**

1982-84	Iowa; Co-Director, with K.P. Campbell, of Graduate Course in Membrane Structure and Function
1986-87	Iowa; Course Director, Medical Physiology
1992-94	UTMB; Acting Co-Director, M.D./Ph.D. Program
1999-2001	UAMS; Interim Dean, Graduate School
2010-11	UAMS; Co-Director, Medical Physiology
2013-15	UAMS; Director, Cardiovascular/Renal/Pulmonary Module for M2 Curriculum
2015-16	UAMS; Director, Pulmonary Module for M2 Curriculum

### **Classroom Teaching (Medical Students):**

1979-87	Iowa; Medical Physiology, 8-9 lectures yearly, respiratory physiology.
1988-95	UTMB; Medical Physiology, 3-6 lectures yearly, respiratory physiology.
1988-95	UTMB; Medical Physiology, 12 hr of small group conferences yearly, respiratory physiology.
1989-94	UTMB; Half of minicourse on sickle cell anemia.
1989-93	UTMB; Half of 4th year elective in respiratory physiology.
1996-11	UAMS; Medical Physiology, 9 Lectures on respiratory physiology.
1996-12	UAMS; Medical Physiology, pulmonary mechanics laboratory.
1998-01	UAMS; Medical Physiology, 5 lectures on cell and general physiology.

1998-11	UAMS; Medical Physiology, small group problem-based learning conferences, 2-4 yearly.
2002-11	UAMS; Medical Cell Biology, 5 lectures on membranes and transport.
2012-16	UAMS; Medical Cell Biology, and Molecules to Cells, 3 lectures and one team-based learning session (TBL) on membranes and transport.
2005-12	UAMS; Medical Physiology, Sim-Man exercises in cardiovascular and pulmonary physiology.
2006-10	UAMS; Review of Physiology for M2 students preparing for STEP1.
2009-12	UAMS; Medical Physiology, 1-3 lectures on cardiovascular physiology.
2012	UAMS; Medical Physiology, 5 lectures and one whole-class team-based learning (TBL) session in respiratory physiology.
2014-15	UAMS; M2 Cardiovascular/Renal/Pulmonary Module, 6 lectures, 2 reviews, 2 TBL's
2015-16	UAMS; Basic Science Preceptor in M2 Practice of Medicine Patient-Centered Learning Sessions (20 hours)
2016	UAMS; M2 Pulmonary Module, 6 lectures, 2 reviews, 2 TBL's

**Classroom Teaching (Graduate Students):**

1982-86	Iowa; Cell Biology (2 hours)
1982,84,86	Iowa; Membrane Structure and Function (12 hours)
1988	UTMB; Membrane Physiology (7 hours)
1989,91,93	UTMB; Membrane Structure and Biochemistry (12-15 hours)
1992,94	UTMB; Cardiovascular Pharmacology (2 hours)
1993	UTMB; Graduate Biochemistry (2 hours)
1995	UTMB; Ethics in Biomedical Research (3 hours)
1996-99	UAMS; General Physiology (3 hours)
1996-07	UAMS; Molecular Biophysics (6 hours)
1996-01	UAMS; Advanced Physiology (3 hours)
1996-07	UAMS; Cellular Endocrinology (1.5 hours)
2003,05	UAMS; Ethical Conduct of Research (4 hours)
2005-15	UAMS; Graduate Cell Biology (4 hours)
2006-16	UAMS; General Physiology (5 hours)

**Printed or online materials for Medical Physiology, Medical Cell Biology, or Molecules to Cells:**

1988-95	UTMB; 5 syllabus chapters.
1988-95	UTMB; 10-12 conference questions and annotated answers.
1988-97	UTMB; 18-30 examination questions.
1994-95	UTMB; 3 clinical case studies (1 written from the primary medical literature, 2 adapted from teaching publications).
1996	UAMS; 10 syllabus chapters; respiratory physiology.
1997	UAMS; 13 syllabus chapters; cell, general, and respiratory physiology.
1998	UAMS; 14 syllabus chapters; cell, general, and respiratory physiology.
1998	UAMS; Clinical case conference on asthma (with Stacie Jones, MD).
1999	UAMS; 12 syllabus chapters; cell, general, and respiratory physiology.
1999	UAMS; Clinical case conference on malignant hyperthermia.
2000	UAMS; 12 syllabus chapters; cell, general, and respiratory physiology.
2001-05	UAMS; 9 syllabus chapters, respiratory physiology.
2011-16	UAMS; self-directed learning module on fetal/neonatal circulation.

2011-14	UAMS; self-directed learning module on cardiovascular effects of exercise.
2012-14	UAMS; self-directed learning module on cardiac output and venous return
2012-15	UAMS; self-directed learning module on diffusion and osmosis.
2012-15	UAMS; self-directed learning module on the Arizona Goldman-Hodgkin-Katz equation simulator.
2012-16	UAMS; self-directed learning module on the regulation of breathing.

**Dissertation Advisor for the following Ph.D. students (year of degree):**

1986	Gerald A. Donovan (U. of Iowa, M.D./Ph.D.)
1989	Nayef Al-Rohil (U. of Iowa)
1990	Lynda S. Ostedgaard (U. of Iowa)
1997	Anil Namboodiripad (UTMB)
2000	Todd Howren (UAMS)
2009	Jian Cui (UAMS; deceased 2008; honorary posthumous degree)

**Ph.D. Dissertation Committee Member for the following students:**

**University of Iowa**

Kevin Kirk	George Richerson
Dan Halm	Ann Louise Olsen (Nutrition)
John Christman	Frank Haugland
Bruce Simon	Alan Sharp
Valerie Kalter	Peter Wilden
Arturo Comacho	Warren Johnson (Biochemistry)
Ranjana Deo	

**UTMB**

Yongxin Li	Chyansong Tzan
Bruns Watts	Philip Haynes (Biochemistry)
Erich Stabenau	Xiaodong Cheng (Biochemistry)
Chris Collaco (Microbiology)	Robert Friesen (Biochemistry)

**UAMS (past)**

Richard Wyeth	Christian Eyiuche
Jabbar Joshua	Brandon Jessup (Biochemistry)
Parag Chowdhury	Anthony Eddington
John Carrithers	Daniel Perrien
Seunghoon Lee	Fang Yu
Lu Sun	Thetsu Mon
Vishnu Ramani	Gautam Ghandi
Bruno Pereira	Richard Smith

**UAMS (current)**

Leslie Climer

**External Examiner for the following Ph.D. students:**

Pamela Werner (Student of R. Reithmeier, Biochemistry, University of Alberta, 1988)  
Rachel Behnke (Student of B. Forbush, Molecular Physiology, Yale University, 1999)

**COMMITTEE RESPONSIBILITIES (college or campus-wide):**

**University of Iowa:**

1980-83	Radiation Safety Committee
1982-87	Educational Opportunities Program Committee
1984	Search Committee, Division of Nephrology, Department of Medicine
1983-86	Dean's Executive (incl. Promotion and Tenure) Committee (elected)
1985	Search Committee, Division of Gastroenterology, Department of Medicine
1986-87	College of Medicine Curriculum Committee
1986-87	Search Committee, Department of Biochemistry

**UTMB:**

1990-91	Human Resources Advisory Group
1991	Search Committee, Department of Anesthesiology
1991	Library Review Committee for LCME report
1991	Review Committee, Department of Surgery
1990-93	Academic Planning Committee (elected), Chair (8/91-8/92)
1990-93	Chemical Safety Committee
1993	Review Committee, Department of Anatomy and Neuroscience
1990-94	M.D./Ph.D. Combined-Degree Program Committee
1992-94	Acting Co-Director, M.D./Ph.D. Combined-Degree Program
1991-95	Library Advisory Committee
1992-94	Graduate Program Review Committee, Chair
1993-95	Honor Council
1994-95	Appointment, Promotion, and Tenure Committee
1994-95	Committee to Review the Graduate School
1995	Task Force on Grade Inflation

**UAMS:**

1996-99	Dean's Distinguished Lecture Committee
1996-99	College of Medicine Executive Committee
1997	Blue Ribbon Panel on Basic Science Graduate Programs
1997	Anesthesiology Search Committee
1997-98	Chair, Search Committee for Chair of Molecular Genetics
1998	Chair, Subcommittee on Clinical Departments, LCME Self-Study
1998	Lutterloh Professor Selection Committee
1998-99	Faculty Advisory Committee for General Clinical Research Center
1998-99	Office of Research Administration Advisory Committee
1998-99	Search Committee, ACRC Director of Research
1998-99	Mentoring Committee for Mark Heulitt, Department of Pediatrics
1998-99	Minority Bridging Steering Committee
1999-01	Pathology Shared Resources Advisory Committee
1999-01	Chancellor's Cabinet
1999	Task Force for Consolidation of Support Services
2000-10	Mentoring Committee for Mohy Morris, Dept. of Pediatrics
2000-06	Mentoring Committee for Esther DuPont, Dept. of Geriatrics
2000-02	Clinical Decision Making/Biostatistics Course Design Committee
2000-02	Medical Cell Biology Course Design and Development Committee
2000-01	College of Medicine Teaching Awards Committee
2000-pres.	Dean's Distinguished Lecture Committee
2003-06	Chair, Dean's Distinguished Lecture Committee

2001-02	Search Committee for Chair of Department of Anesthesiology
2002	Molecular Medicine Advisory Group
2002-03	College of Medicine Executive Committee
2003	Search Committee for Chair of Department of Pathology
2003	Chair, Search Committee for Executive Associate Dean for Research
2003-04	College of Medicine Task Force on Teaching Incentives
2004-06	Organizer of UAMS Bioengineering Interest Group
2004	Search Committee for Head of Radiology Research
2004-07	Search Committee for Director of Arkansas Cancer Research Center
2004-05	Search Committee for Director of Division of Gastroenterology
2004-05	Search Committee for Eye Research Director
2004-05	Design Committee for Faculty Database FacFacts
2005	Search Committee for Director of Pediatric Cardiovascular Surgery
2005-pres.	First Year Medical Curriculum Integration Committee
2005-06	Vice-Chair, Search Committee for Chair of Orthopaedics
2005-06	Chair, Committee on Institutional Setting, LCME Accreditation Review
2006-07	Logistics Committee, Little Rock Meeting of International Society for Prevention of Tobacco-Inducted Diseases
2006-07	Chair, Basic Science Chairs Council
2006-07	Chair, Search Committee for Director of Laboratory Animal Medicine
2008	Proteomics Core Facility Steering Committee
2008	Disney Initiative Committee on Appearance Standards
2008	College of Medicine Professional Standards Committee
2008	College of Medicine Teaching Awards Committee
2009-10	Chair, Search Committee for Chair of Biochemistry and Molecular Biology
2010	Chair, Faculty Committee on Basic Science Compensation Plan
2010-12	College of Medicine Executive Committee
2011-12	College of Medicine Council of Dept. Chairs Committee on Diversity
2012	Lutterloh Professorship Selection Committee
2013-14	Chair, Council of Department Chairs, College of Medicine
2013-14	Steering Committee for Integrating 1 <sup>st</sup> and 2 <sup>nd</sup> Year Medical Curriculum
2013-14	Committee on the Medical Education Program for LCME Self-Study
2013-14	Search Committee for College of Medicine Associate Dean for Research
2014-15	Committee for Streamlining Service Contracts for Sterilizers
2014-pres.	Co-Chair, Emergency Preparedness Committee, Basic Sciences
2014	Search Committee for Dean, College of Medicine
2015	Research Shared Services Planning Committee
2015-pres.	College of Medicine Research Council
2015-pres.	College of Medicine Curriculum Committee

**SOCIETY MEMBERSHIPS, OFFICES HELD:**

American Heart Association

American Society for Biochemistry and Molecular Biology

American Physiological Society

1991-94 Technical Books Committee

2001-04 Chair, Cell and Molecular Physiology Section

2004-07 Senior Advisor (Sage), Cell and Molecular Physiology Section

2001-2004 Section Advisory Committee/Nominating Committee

Association of Chairs of Departments of Physiology

	2000-2002	Council
	2005-2007	Council
Biophysical Society	1984-85	Cole Award Selection Committee
	1989	Membrane Subgroup Chairman
	1993-95	Publications Committee
	1996-00	Awards Committee
	1997	Margaret Dayhoff Award Selection Committee
	2000	Nominee for Council
Red Cell Club		
	1984	Meeting Organizer
	1989	Meeting Organizer
	1997	Meeting Co-organizer
Sigma Xi		
Society of General Physiologists		
	1992	Co-organizer, Society of General Physiologists Symposium
	1993-95	Council Member
	1996-97	President-Elect
	1997-98	President

**PEER REVIEW ACTIVITIES:**

**Editorial Boards:**

1985-93	Physiological Reviews, Associate Editor 1990-93
1989-92	Biochimica et Biophysica Acta
1989-92	Biochimica et Biophysica Acta Reviews of Biomembranes
1983-98	Journal of General Physiology
1999-pres.	Journal of General Physiology Advisory Editor
1984-pres.	American Journal of Physiology-Cell
1994-99	Journal of Biological Chemistry
1997-2001	American Journal of Kidney Diseases

**Ad hoc Reviewer:**

American Journal of Physiology	Archives of Biochemistry and Biophysics
Biochemistry	Biochimica et Biophysica Acta
Biophysical Journal	Circulation Research
European Journal of Biochemistry	Hypertension
Journal of Applied Physiology	Journal of Biological Chemistry
Journal of Clinical Investigation	Journal of Haematological Malignancies
Journal of Membrane Biology	Journal of Membrane Science
Journal of Pharmaceutical Science	Journal of Physiology
Journal of Theoretical Biology	Kidney International
Metabolism	Molecular Membrane Biology
Nature	Neurochemical Research
Pfluegers Archiv	Photochemistry and Photobiology
PLoS One	PNAS
Science	



**Grant and other Peer Review:**

1981-86 Research Committee, Iowa Affiliate of American Heart Association  
1983-Pres. National Institutes of Health Special Study Sections (>20 total)  
1986 Ad Hoc Member of NIH Physiology Study Section  
1987 Ad Hoc Member of NIH Physiology Study Section  
1990-93 Member, National Science Foundation Biochemistry Advisory Panel  
1991 External Review Committee, Cardiovascular Diseases Group, University of Alberta  
1993 External Review Committee, Membrane Transport Group, University of Toronto  
1995 Research Committee, Texas Affiliate of American Heart Association  
1996 American Heart Association, Cell Transport and Metabolism Study Committee  
1996-98 Member, NIH Physiology Study Section  
1997 Member, NIH Pathophysiological Sciences IRG Ad Hoc Physiology Working Group  
1998-2000 Member, NIH Cell Development and Function 3 Study Section  
2000 Chair, NIDDK Special Study Section  
2001 Ad Hoc Member, NIH General Medicine B Study Section  
2003 External Reviewer of Department of Physiology and Biophysics, UMDNJ, Newark, NJ  
2013 Chair of External Review Committee for Graduate School of Biomedical Sciences, Texas Tech University Health Science Center  
2014 External Reviewer for the Department of Physiology and Biophysics, University of Mississippi Medical Center  
2016 External Reviewer of Research Centers, University of Texas Medical Branch, Galveston

**Outside Grant Reviewer for:**

National Institutes of Health  
National Science Foundation  
Veteran's Administration  
Medical Research Council (Canada)  
Israel Academy of Sciences  
North Carolina Biotechnology Center  
International Science Foundation  
The Wellcome Trust  
US-Israel Binational Science Foundation

**INVITED OFF-CAMPUS SEMINARS (since 1986):**

1986 Department of Physiology, University of Pennsylvania  
1986 Department of Physiology, Duke University

- 1987 Department of Physiology and Biophysics, University of Missouri
- 1987 Department of Physiology and Biophysics, Rush University
- 1987 Department of Physiology and Biophysics, Tufts University
- 1988 Department of Pathology, Yale University
- 1988 Department of Physiology, Wright State University
- 1988 Department of Physiology and Biophysics, Baylor College of Medicine
- 1989 Department of Biochemistry, University of Alberta
- 1989 Department of Physiology, Emory University
- 1990 Department of Physiology, University of Texas Health Science Center, Houston
- 1990 Department of Biophysics, University of Rochester
- 1990 Department of Physiology, University of Cincinnati
- 1990 Department of Pharmacology, University of Texas Southern Medical Center, Dallas
- 1990 Department of Biology, Syracuse University
- 1991 Department of Physiology, University of Calgary
- 1992 Department of Pharmacological and Physiological Sciences, University of Chicago
- 1993 Department of Cellular and Molecular Physiology, Yale University
- 1994 Department of Pharmacology, University of Kentucky
- 1994 Department of Physiology, Emory University
- 1994 Department of Molecular Physiology and Biophysics, Baylor College of Medicine
- 1996 National Center for Toxicological Research
- 1997 Dalton Cardiovascular Center, University of Missouri
- 1997 Department of Physiology, Texas Tech University
- 1998 Department of Physiology, Emory University
- 1998 Department of Cellular and Molecular Physiology, Yale University
- 1999 Department of Physiology and Biophysics, University of Texas Medical Branch
- 2000 Department of Physiology and Biophysics, University of Alabama, Birmingham
- 2001 Department of Physiology and Biophysics, Case Western Reserve University
- 2002 Department of Cellular and Molecular Physiology, Yale University
- 2006 Department of Chemistry and Physics, Arkansas State University
- 2009 Department of Cell Physiology and Molecular Biophysics, Texas Tech
- 2011 Department of Physiology and Biophysics, Weill Cornell College of Medicine
- 2012 Department of Cellular and Molecular Physiology, Case Western Reserve University
- 2013 Department of Cell Physiology and Molecular Biophysics, Texas Tech
- 2016 Department of Molecular Physiology and Biophysics, University of Iowa

**INVITED PRESENTATIONS AT NATIONAL OR INTERNATIONAL MEETINGS:**

- 1976 European Red Cell Club, Frankfurt, W. Germany.
- 1976 U.S. Red Cell Club, New Haven, Connecticut.
- 1977 Round Table at XIIth International Congress of Physiological Sciences, Paris.
- 1978 European Red Cell Club, Sandjberg, Denmark.
- 1979 Alfred Benzon Symposium, Copenhagen.
- 1980 Round Table Discussion at 9th ICN/UCLA Symposium, Keystone, Colorado.
- 1981 Gordon Conference, Tilton, New Hampshire.
- 1983 U.S. Red Cell Club, Chicago, Illinois.
- 1985 U.S. Red Cell Club, New Haven, Connecticut.
- 1986 Membrane Biophysics Subgroup, Biophysical Society, San Francisco.
- 1986 FASEB Research Conference, Vermont.
- 1987 Epithelial Transport Club, FASEB, Washington, D.C.

- 1987 Society of General Physiologists, Woods Hole.  
1988 APS Symposium, Las Vegas.  
1988 International Conference on Membranes, Lexington, Kentucky.  
1989 New York Academy of Science.  
1989 Membrane Biophysics Subgroup, Biophysical Society, Cincinnati.  
1989 Fukuoka Membrane Symposium, Japan, May.  
1989 NIH Minority Biomedical Research Support Symposium, Houston.  
1989 U.S. Red Cell Club, Chapel Hill, North Carolina.  
1990 International Congress on Membranes, Chicago.  
1991 American Physiological Society, Atlanta.  
1991 Martinsried Membrane Symposium, Germany.  
1991 Fogarty International Center Conference on Cell Volume Regulation, Bethesda.  
1993 Symposium in honor of John C. Parker, Chapel Hill, North Carolina.  
1993 Red Cell Gordon Conference, New Hampshire.  
1994 American Society of Nephrologists Conference on Membrane Structure, Orlando.  
1996 Kyushu Symposium on Membrane Proteins, Fukuoka, Japan.  
1996 Red Cell Club, Dayton Ohio.  
1998 Banff Symposium on Membrane Proteins, Alberta, Canada  
1998 Simon Fraser University Summer Biophysics School (3 Lectures)  
1999 Jacobs-Parpart-Ponder Lecture, Red Cell Club, Biophysical Society, Baltimore.  
1999 Red Cell Club, Emory University, Atlanta, GA.  
2001 Experimental Biology Symposium on Bicarbonate Transporters, Orlando, FL.  
2001 Red Cell Club, University of Toronto  
2002 Red Cell Club, Purdue University  
2004 Joseph F. Hoffman Symposium, New Haven, CT  
2006 Robert B. Gunn Memorial Symposium, Atlanta, GA  
2010 Bicarbonate Transporter Satellite Meeting, Canadian Biochemical Society, Banff

## BIBLIOGRAPHY

### ARTICLES:

- Jennings, M.L., Solomon, A.K. 1976. Interaction between phloretin and the red blood cell membrane. *J. Gen. Physiol.* 67: 381-397.
- Jennings, M.L. 1976. Proton fluxes associated with erythrocyte membrane anion exchange. *J. Membrane Biol.* 28: 187-205.
- Jennings, M.L. 1978. Characteristics of CO<sub>2</sub>-independent pH equilibration in human red blood cells. *J. Membrane Biol.* 40: 365-391.
- Jennings, M.L., Passow, H. 1979. Anion transport across the red cell membrane, in situ proteolysis of band 3 protein, and cross-linking of proteolytic fragments by H<sub>2</sub>DIDS. *Biochim. Biophys. Acta* 554: 498-519.
- Ku, C.P., Jennings, M.L., Passow, H. 1979. A comparison of the inhibitory potency of reversibly acting inhibitors of anion transport on Cl and SO<sub>4</sub> movements across the human red cell membrane. *Biochim. Biophys. Acta* 553: 132-141.

- Verkman, A.S., Pandiscio, A.A., Jennings, M., Solomon, A.K. 1980. An improved temperature-jump apparatus. *Analyt. Biochem.* 102: 189-195.
- Jennings, M.L., Adams, M.F. 1981. Modification by papain of the structure and function of band 3, the erythrocyte anion transport protein. *Biochem.* 20: 7118-7123.
- Jennings, M.L. 1982. Stoichiometry of a half turnover of band 3, the chloride transport protein of human erythrocytes. *J. Gen. Physiol.* 79: 169-185.
- Jennings, M.L. 1982. Reductive methylation of the two H<sub>2</sub>DIDS-binding lysine residues of Band 3, the human erythrocyte anion transport protein. *J. Biol. Chem.* 257: 7554-7559.
- Jennings, M.L., Adams-Lackey, M.F. 1982. A rabbit erythrocyte membrane protein associated with L-lactate transport. *J. Biol. Chem.* 257: 12866-12871.
- Jennings, M.L., Adams-Lackey, M., Denney, G.H. 1984. Peptides of human erythrocyte band 3 protein produced by extracellular papain cleavage. *J. Biol. Chem.* 259: 4652-4660.
- Jennings, M.L. 1984. Oligomeric structure and the anion transport function of human erythrocyte band 3 protein. *J. Memb. Biol.* 80: 105-117.
- Jennings, M.L., Nicknish, J.S. 1984. Erythrocyte band 3 protein: evidence for multiple membrane-crossing segments in the 17,000 dalton chymotryptic fragment. *Biochem.* 23: 6432-6436.
- Donovan, J.A, Jennings, M.L. 1985. A membrane polypeptide in rabbit erythrocytes associated with the inhibition of L-lactate transport by a synthetic anhydride of lactic acid. *Biochemistry* 24: 561-564.
- Jennings, M.L., Nicknish, J.S. 1985. Localization of a site of intermolecular crosslinking in human red blood cell band 3 protein. *J. Biol. Chem.* 260: 5472-5479.
- Jennings, M.L., Adams-Lackey, M., Cook, K.W. 1985. Absence of significant Na-H exchange by the rabbit erythrocyte Na-Li countertransporter. *Am. J. Physiol.* 249:C63-C68.
- Jennings, M.L., Monaghan, R., Douglas, S.M., Nicknish, J.S. 1985. Functions of extracellular lysine residues in the human erythrocyte anion transport protein. *J. Gen. Physiol.* 86: 653-669.
- Donovan, J.A., Jennings, M.L. 1986. N-Hydroxysulfosuccinimidyl active esters and the L-lactate transport protein in rabbit erythrocytes. *Biochemistry* 25: 1538-1545.
- Jennings, M.L., Douglas, S.M., McAndrew, P.E. 1986. Amiloride-sensitive sodium hydrogen exchange in osmotically shrunken rabbit red blood cells: Possible role of a pK<sub>A</sub> shift in transport activation. *Amer. J. Physiol.* 251:C32-C40.
- Jennings, M.L., Anderson, M.P., Monaghan, R. 1986. Monoclonal antibodies against human erythrocyte band 3 protein: localization of proteolytic cleavage sites and stilbenedisulfonate-binding lysine residues. *J. Biol. Chem.* 261: 9002-9010.

- Schuster, V.L., Bonsib, S.M., Jennings, M.L. 1986. Two types of collecting duct mitochondria-rich (intercalated) cells: lectin and band 3 cytochemistry. *Am. J. Physiol.* 251:C347-C355.
- Jennings, M.L., Anderson, M.P. 1987. Chemical modification and labeling of glutamate residues at the stilbenedisulfonate site of human red blood cell band 3 protein. *J. Biol. Chem.* 262: 1691-1697.
- Jennings, M.L., Al-Rhaiyel, S. 1988. Modification of a carboxyl group that appears to cross the permeability barrier in the red blood cell anion exchange protein. *J. Gen. Physiol.* 92: 161-178.
- Swanson, M.L., Keast, R.K., Jennings, M.L., Pessin, J.E. 1988. Heterogeneity in the human erythrocyte band 3 anion transporter revealed by Triton X-114 phase partitioning. *Biochem. J.* 255: 299-234.
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