

CURRICULUM VITAE

James C. Parker

PERSONAL INFORMATION:

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| Current Position Title: | Professor Emeritus |
| Address: | 4 Yacht Club Dr. #90 Daphne, Alabama 36526 |
| Professional Address: | University of South Alabama College of Medicine Department of Physiology MSB 3024 Mobile, Alabama 36688 |
| Date and Place of Birth: | June 29, 1939 New Orleans, Louisiana |
| Citizenship: | United States |
| Marital Status: | Married |

EDUCATION:

High School Education:

Metairie County Day School, Metairie, Louisiana -1957.

Undergraduate Education:

B.S. - Biology & Chemistry - Washington and Lee University, Lexington, VA - 1961.

Graduate Education:

Doctorate: Ph.D. - Physiology - University of Mississippi, Graduate School of
Medical Sciences, Jackson, Mississippi - 1972.

Honorary Awards:

Dean's List; Honor Roll - Washington and Lee University.
Pharmacia Travel Award of the Microcirculatory Society, 1981 - Funds for travel to European Research Laboratories.

Fellowship Awards:

Mississippi Heart Association Research Fellowship, 1973-74.
NIH Predoctoral Fellowship, Cardiovascular Physiology, University of Mississippi Medical Center, 1968-72.
Mayo Research Foundation Fellowship, June-August 1963, Experimental Pathology.

PROFESSIONAL QUALIFICATIONS:

National Committees and Offices:

NIH CVA-AHR Cardiovascular and Pulmonary Study Section, Washington, D.C.,
February 13-15, 1979.
Awards Committee, United States Microcirculatory Society, 1981-84, Chairman, 1983-84.
Research Advisory Committee, Alabama Heart Association, 1983-86.
NIH HLI Respiratory and Applied Physiology Study Section, Washington, D.C.,
1984 - 1987.
Editorial Board, J. Appl. Physiol., 1984-93.
Reviewer; American Journal of Respiratory and Critical Care Medicine,
Circulation Research, Microvascular Research, American Journal of Physiology,
Journal of Applied. Physiology, Journal of Physiology (Lond.),
Journal of Clinical Investigation, Critical Care Medicine
NIH Trauma and Burn Research Fellowship Review Committee, 1984.
NIH NIGMS Site Visit Committee, 1986, 1987.
NIH Program Project Review Site Visit, Seattle, WA, 1987.
NIH Cancer Therapeutics Review Committee Site Visit, Richmond, VA., 1987.
NIH ARDS SCOR Review Committee Site Visit, Seattle, WA, 1988.
NIH NLS Review Committee Site Visit, San Francisco, CA, 1987.
NIH Physiologic Sciences Study Section, Bethesda, MD March 1-3, 1995.
NIH SBIR/STTR Study Section, Bethesda, MD 1999.
NIH SBIR Study Section SSS-3, Chevy Chase, MD, Feb. 27-28, 2002
Am. Heart Assoc. S. E. Region Peer Review Committee, Tampa, FL, April 7-9, 2002
NIH NHLBI Program Project Review Committee, Bethesda, MD, May 8, 2002
NIH Neuro SBIR ZRG1 BSCT 10 B study section, Bethesda, MD, Dec. 4, 2003
Gulf Coast Physiologic Society. Treasurer. 2003-4.
NIH NIGMS Trauma, burn and perioperative injury center study section. March 9-10, 2004
NIH NIGMS Special Emphasis on Perioperative injury, Program Project Study Section ,
March 29-30, 2006
Am. Heart Assoc. S. E. Region Peer Review Committee, Tampa, FL, 2006-9
Editorial board. International Journal of Physiology, Pathology and Pharmacology
2011-present

Veterans Administration Pulmonary Medicine Research Study Section. June 6, 2014

Professional Society Memberships:

American Physiological Society
Circulation and Respiratory Sections of American Physiological Society
Microcirculatory Society
Sigma Xi
Lung Water Club
International Lymphology Society
Alabama Heart Association
American Heart Association, Circulation Council
North American Vascular Biology Organization
New York Academy of Sciences
American Thoracic Society

Past Professional Experience:

Professor, 1983-2012, University of South Alabama, College of Medicine,
Department of Physiology, Mobile, Alabama.
Associate Professor, 1980-83, University of South Alabama, College of Medicine,
Department of Physiology, Mobile, Alabama.
Assistant Professor, 1977-80, University of South Alabama, College of Medicine,
Department of Physiology, Mobile, Alabama.
Assistant Professor, 1973-77, University of Mississippi Medical Center,
Department of Physiology, Jackson, Mississippi.
Research Associate, 1972-73, University of Mississippi Medical Center,
Department of Physiology and Biophysics, Jackson, Mississippi.

ACADEMIC QUALIFICATIONS:

Present Appointment:

Professor Emeritus, 2012- present, University of South Alabama, College of Medicine,
Department of Physiology, Mobile, Alabama.

Faculty Teaching Assignments:

:
1979-2003- Pulmonary Physiology: COM I Medical Physiology course
2003-2012 Gastrointestinal physiology: COM I Medical Physiology course
1980- Senior elective in Physiology
1985-2000- Advanced Respiratory Physiology
1981-1990 - Advanced Cardiovascular Physiology
1984- 2008 BEAR Physiology course for minority students.

1990-2003-Journal Club
2001-Pres. Lung Biology and Pathobiology courses
2008-2010 DREAM Physiology course for minority students
2008-Present Cardiology Fellows Basic Physiology lectures

Hematology:

1978 - COM I Medical Physiology course

Student Laboratories:

1978-Pres.- COM I Medical Physiology
1985-1998 Intro. to Laboratory Physiology

Committee Assignments:

USAMC Research Advisory Committee, 1979-83
Graduate Student Promotions Committee, 1982-85
USAMC Medical School Admissions Committee, member 1980-84, Ad Hoc 1992-2009
American Heart Association, Alabama Affiliate Research Advisory Committee, 1982-86
North American Microcirculatory Society Awards Committee, 1981-84;
Chairman 1983-84
USAMC Animal Health and Welfare Committee, 1984-87
USAMC Radiation Safety Committee, 1984-87, 1996-1999
USAMC Medical Student Summer Research Committee, 1983-2006, Chairman, 1985-86
USAMC Continuing Education Committee 1990-1991
USAMC Committee on Ethics in Research 1991-1992
USAMC Patent Committee 1993-1995, Chairman, 2003-6
USAMC Faculty Committee on Appointments, Promotions, and Evaluations 1993-1995
USAMC Biomedical Library Committee 1993-1995
USAMC University Faculty Grievance Committee 1994-1997
USAMC Curriculum Committee 1995-1998
Alabama Regional Science Fair Judge 1992-1999
USAMC Graduate recruiting committee 2003-4
BEAR & DREAM committees 2002-2009
Biomedical Sciences Graduate Program Student Evaluation Committee 2007-2010,
Chairman, 2009-10

Research Grants:

As Principal Investigator:

NIH 1R01 HL092992-01A1. "TRPV4 initiates ventilator induced lung injury",
7/1/09-6/30/11, \$711,300, J.C. Parker, P. I., \$355,200 annual
NIH 2 R42 HL57040 - 02 Phase II STTR, "Airway perfusion assisted liquid ventilator",
7/1/01-6/31/03, \$500,000, J.C. Parker, P.I., \$250,000 annual
NIH 1 P01 HL66299 Project 2, J. C. Parker, P.I., \$220,000 annual, In: "Lung endothelial
cell phenotypes", 12/01/01-11/31/06, \$6,941,491, Troy Stevens, P.I.
NIH 1 R01 HL66347 "Mechanical Injury to Lung Endothelium," 12/1/2000
-11/31/2005, \$1,244,615, J.C. Parker, P.I., \$248,923 annual.
NIH 1 R41 HL57040-01A1 STTR, "Airway perfusion assisted liquid ventilator,"

2/1/99-1/30/00, \$105,000, J.C. Parker, P.I.
 American Heart Association, Southeast Affiliate, 98101 80SE, "Mechanical ventilation induced lung injury," 7/1/98-6/30/00, \$70,000, J.C.Parker, P.I.
 American Heart Association, #94013094, "Heterogeneity of pulmonary blood flow and injury". 7/1/94-6/30/97, \$136,000, J.C.Parker, P.I.
 American Heart Association, #91011060, "Eosinophil and neutrophil effects on microvascular permeability in the lung," 7/1/91-6/30/94, \$74,272, J.C.Parker, P.I.
 American Heart Association, Alabama Affiliate, AL-G-920030, "Tracheal blood flow during high frequency Jet Ventilation," 7/1/92-6/30/93, \$25,000, J.C.Parker, P.I.
 NIH 1 RO1 HL37341, "Lung Microvascular Injury due to Airway Pressure", 4/1/87-3/31/90, \$197,271
 NIH 2 RO1 HL24571, "Interstitial Fluid Pressure and Excluded Volume in the Lung"; 8/1/79-7/31/82, \$186,268; Renewal 8/1/82-7/31/87, \$316,000; Renewal 8/1/87-7/31/92, \$526,000; J.C. Parker P.I.
 American Lung Association, "Interstitial Pressure and Excluded Volume in the Lung", 6/1/79-5/30/81, \$25,666.
 American Heart Association, "Interstitial Pressure and Excluded Volume in the Lung", 7/1/79-6/30/82, \$61,820.
 Intramural - University of South Alabama, 2/15/78-2/15/79, "Pulmonary Capillary and Interstitial Protein Transport", \$5,000.
 Mississippi Heart Association, "Dynamics of Pulmonary Vascular and Extravascular Forces", 6/1/77-5/31/79, \$18,974 (not transferred).
 Mississippi Heart Association, "Energy Metabolism in the Ischemic Myocardium", 6/1/75-5/31/77, \$16,780.

As Co-Investigator:

NIH R01 HL67461-01., "Tlymphocyte role in lung ischemia - reperfusion injury.", 4/1/01-2/28/05, \$200,000/yr., (A. E. Taylor, P.I.; J.C. Parker, 20% effort).
 NIH R01 HL63302-01A2 "Airway submucosal glands and cystic fibrosis disease" 4/1/01-3/31/06, \$1,486,263 (Stephen T. Ballard, P.I.; J.C. Parker, 5% effort)
 NIH 1 P01 HL66299 Project 2, J. C. Parker, P.I., \$220,000 annual, In: "Lung endothelial cell phenotypes", 12/01/01-11/31/06, \$6,941,491, Troy Stevens, P.I.
 American Lung Association, "Diaphragmatic function during mechanical ventilation in ewes.", \$50,000 (Max Ferrigno, P.I., 7/1/95-6/30/97; J.C. Parker, 15%).
 American Heart Association, Alabama Affiliate, "Nitric Oxide Modulation of Oleic Acid Injured Lungs," 7/1/95-6/30/97, \$55,450, (Michael M. Zayek, P.I; J.C.Parker, 10% effort.
 NIH, "Transport Across Alveolar Capillary Membrane", 9/1/77-8/31/82, \$200,715; renewal 9/1/81-8/31/87, \$545,000 (A.E. Taylor, P.I.). (Renewal 9/1/87-8/31/92, \$640,000; J.C. Parker, 15%).
 Parker B. Francis Foundation Fellowship, 9/1/78-8/31/81, \$72,000; renewal

9/1/81-8/31/83, \$72,000 (A.E. Taylor, P.I.).
American Lung Association, "Barotrauma and Microvascular Injury in the
Immature Lung", \$35,000 (Alicia Moise, P.I., 7/1/88-6/30/90;
J.C. Parker, 15%).

Patents Awarded: U. S. Patent No. 5,706,830 awarded on Jan. 13, 1998, entitled "Liquid ventilator and use thereof", to J.C. Parker, ref. No. 87647.97R243.

Ph.D Dissertation Committees

| | |
|----------------------|------|
| Michelle Lynn Perry | 1988 |
| William Keith Adkins | 1991 |
| Peter S. Wilson | 1993 |
| Laura Trout | 2001 |
| Judy Creighton | 2006 |
| Donna Cioffi | 2006 |
| Diego Alvarez | 2005 |
| Sarah Sayner | 2006 |
| Brad Swiger | 2009 |
| Kevin Lowe M.D. | 2009 |
| Patricia Villarta | 2013 |

Masters Thesis Committees

| | |
|----------------|------------------|
| Anu S. Chekuri | M.Mech.Eng. 2005 |
|----------------|------------------|

Undergraduate research honors committee

| | |
|---------------|------|
| Pavan Kapadia | 2008 |
|---------------|------|

Post-Doctoral Trainees

Roger M. Pitt M.D.
Lucretia A. Hernandez M.D., Ph.D.
Toshishiga Shibamoto M.D., Ph.D.
Keisaku Fujimoto M.D., Ph.D.
Sawako Yoshikawa M.D., Ph.D.
Mircea Anghelescu M.D.
Siobhan Tarpey Ph.D.
Tokashige Miyahara M.D., Ph.D.
Kazatoshi Hamanaka M.D., Ph.D.
Masahiro Hashizume M.D.

Medical Student Honors Program in Physiology 2005

Jarrod Adkison B.Ch.E., M.D.

PUBLICATIONS:

TEXTBOOKS:

1. Taylor, A.E., K. Rehder, R. Hyatt, and J.C. Parker. *Clinical Pulmonary Physiology*, Saunders Publishing Co: Philadelphia, PA, 1989.

SCIENTIFIC PAPERS AND CHAPTERS:

1. Jones, C.E., J.C. Parker, and E.E. Smith. Determination of myocardial acid soluble adenine nucleotides on anion exchange thin layers. J. Chromatography 64:378-344, 1972.
2. Parker, J.C., and E.E. Smith. Effects of xanthine oxidase inhibition in cardiac arrest. Surgery 71:339-344, 1972.
3. Parker, J.C., C.E. Jones, and E.E. Smith. Determination of acid soluble nucleosides and bases in myocardium by thin layer methods. J. Chromatography 79:360-363, 1973.
4. Guyton, A.C., A.E. Taylor, R.E. Drake, and J.C. Parker. Dynamics of subatmospheric pressure in pulmonary interstitial fluid. In: Lung Liquids, a CIBA Foundation Symposium. Elsevier, Amsterdam, 1976.
5. Parker, J.C., C.E. Jones, and J.X. Thomas, Jr. Effect of ischemia and infarction on regional content of adenine nucleotides and derivatives in canine left ventricle. Cardiology 61:279-288, 1976.
6. Parker, J.C., E.E. Smith, and C.E. Jones. The role of nucleoside and nucleobase metabolism in myocardial adenine nucleotide regeneration after cardiac arrest. Circulatory Shock 3(1):11-20, 1976.
7. Jones, C.E., J.X. Thomas, J.C. Parker, and R.E. Parker. Acute changes in adenine nucleotides, nucleotide derivatives and contractile force in ischemic and non-ischemic canine myocardium following coronary occlusion. Cardiovascular Research 10:275-282, 1976.
8. Parker, J.C., and D.H. Pearce. Computation of indicator dilution flows and transit times with a pocket calculator. Am. Heart J. 91:826-827, 1976.
9. Parker, J.C., C.E. Jones, J.X. Thomas, and H.J. Granger. A dynamic analysis of energy and contractility transients in ischemic myocardium. Proceedings of Summer Computer Simulation Conference, pp. 539-544, 1977.
10. Parker, J.C., A.C. Guyton, and A.E. Taylor. Pulmonary transcapillary exchange and pulmonary edema. In: A.C. Guyton (ed.) International Review of Physiology, Cardiovascular Physiology III. University Park Press, Baltimore, 1978.

11. Parker, J.C., A.C. Guyton, and A.E. Taylor. Pulmonary interstitial and capillary pressures estimated from intra-alveolar fluid pressures. J. Appl. Physiology 44:267-276, 1978.
12. Guyton, A.C., J.C. Parker, A.E. Taylor, T.E. Jackson, and D.S. Moffatt. Forces governing water movement in the lung. In: Pulmonary edema. A.P. Fishman and E.M. Renkin, eds., Am. Physiological Society, Bethesda, MD, 1979.
13. Parker, J.C., and A.E. Taylor. Pulmonary interstitial and capillary pressures estimated from intra-alveolar fluid pressures (Letter), J. Appl. Physiol. 47-643-644, 1979.
14. Parker, J.C., A.E. Taylor, R.E. Parker, and D.N. Granger. Vertical gradient in regional vascular resistance and pre- to post-capillary resistance ratios in the dog lung. Lymphology 12:191-200, 1979.
15. Parker, J.C., J.H. Falgout, R.E. Parker, D.N. Granger, and A.E. Taylor. The effect of volume loading on interstitial albumin exclusion and lymph flow in the lung. Circ. Res. 45:440-450, 1979.
16. Granger, D.N., T. Miller, R.E. Allen, R.E. Parker, J.C. Parker, and A.E. Taylor. Permselectivity of the cat blood-lymph barrier to endogenous macromolecules. Gastroenterology 77:103-109, 1979.
17. Granger, D.N., N.A. Mortillaro, P.R. Kvietys, G. Rutili, J.C. Parker, and A.E. Taylor. Role of the interstitial matrix during intestinal volume absorption. Am. J. Physiol. 238:G183-G189, 1980.
18. Parker, J.C., R.E. Parker, D.N. Granger, and A.E. Taylor. Vascular permeability and transvascular fluid and proteins transport in the dog lung. Circ. Res. 48:549-561, 1981.
19. Parker, J.C., H.J. Falgout, F.A. Grimbert, and A.E. Taylor. The effect of increased vascular pressure on albumin excluded volume and lymph flow in the dog lymph. Circ. Res. 47:866-875, 1980.
20. Taylor, A.E., J.C. Parker, D.N. Granger, and G. Rutili. Pulmonary edema: Changes in Starling Forces and Lymph Flow. In: Tissue Fluid Pressure and Composition. (Ed.) Alan Hargens, Williams and Wilkins Co., pp. 135-143, 1981.
21. Perry, M.A., and J.C. Parker. Indicator measurement of splanchnic blood flow. In: Measurement of Blood Flow. (Eds.) D.N. Granger and G.B. Bulkley, Williams and Wilkins Co., pp. 159-176, 1981.
22. Parker, J.C., F. Grimbert, G. Rutili, and A.E. Taylor. Pulmonary lymph plasma oncotic pressure gradients after hemodilution, increased vascular pressures, and albumin infusion. In:

Recent Advances in Microcirculatory Research (Ed.) P. Gaethgens, S. Karger, Basel, pp. 251-254, 1981.

23. Taylor, A.E., J.C. Parker, D.N. Granger, N.A. Motrillaro, and G.Rutili. Assessment of capillary permeability using lymphatic protein flux: Estimation of the osmotic reflection coefficient. In: The Microcirculation, (Ed.) R. Effros, H. Schmid-Schonbein, and J. Ditzel, Academic Press, pp. 19-32, 1981.
24. Parker, J.C., R.C. Allison, and A.E. Taylor. Edema affects intralveolar fluid pressures and interdependence in dog lungs. J. Appl. Physiol. 51:911-921, 1981.
25. Grimbert, F.A., J.C. Parker, and A.E. Taylor. Increased pulmonary vascular permeability following acid aspiration. J. Appl. Physiol. 51:335-345, 1981.
26. Kinnebrew, P.S., J.C. Parker, J.J. Falgout, and A.E. Taylor. Pulmonary microvascular permeability following E. coli endotoxin and hemorrhage. J. Appl. Physiol. 52:403-409, 1982.
27. Rutili, G., P. Kvietyts, J.C. Parker, and A.E. Taylor. Increased microvascular permeability induced by ANTU. J. Appl. Physiol. 52:1316-1323, 1982.
28. Rutili, G., D.N. Granger, A.E. Taylor, J.C. Parker, and N.A. Mortillaro. Analysis of lymphatic protein data IV. Comparison of the different methods used to estimate reflection coefficients and permeability-surface area products. Microvasc. Res. 23:347-360, 1982.
29. Parker, J.C., M. Crain, F. Grimbert, G. Rutili, and A.E. Taylor. Total lung lymph flow and fluid compartmentation in edematous dog lungs. J. Appl. Physiol. 51:1268-1277, 1981.
30. Taylor, A.E., J.C. Parker, P.R. Kvietyts, and M. Perry. Pulmonary interstitium in capillary exchange. In: Mechanisms of Lung Microvascular Injury. (Ed.) N.C. Staub and A. Malik, N.Y. Acad. Sci. 384:146-165, 1982.
31. Taylor, A.E., J.C. Parker, and R.C. Allison. Capillary exchange of fluid and protein. In: Critical Care Vol. 3. (Ed.) W.C. Shoemaker and W.L. Thompson. Soc. Crit. Care, Fullerton, CA, pp. III B 1-26, 1982.
32. Parker, J.C., and A.E. Taylor. Comparison of capsular and intra-alveolar fluid pressures in the lung. J. Appl. Physiol. 52:1444-1454, 1982.
33. Martin, D.J., J.C. Parker, and A.E. Taylor. Simultaneous comparison of tracheobronchial and right duct lymph dynamics in dogs. J. Appl. Physiol. 54:199-207, 1983.
34. Holloway, H.M. Perry, J. Downey, J.C. Parker, and A.E. Taylor. Estimation of effective capillary pressure in intact lungs. J. Appl. Physiol. 54:846-851, 1983.

35. Parker, J.C., D. Martin, and A.E. Taylor. Extravascular fluid compartmentation and lymph flow in edematous lungs. In: Advances in Lymphology. (Ed.) V. Bartos and J.W. Davidson, Avicenum, Czech., Medical Press, Prague, pp. 192-202, 1982.
36. Parker, J.C., P.R. Kviety, K.P. Ryan, and A.E. Taylor. Comparison of isogravimetric and venous occlusion pressures in isolated dog. J. Appl. Physiol. 55:964-968, 1983.
37. Parker, J.C., L. Campbell, S. Gilchrist, G. Longenecker, and A.E. Taylor. Failure of myocardial ischemia to increase pulmonary microvascular permeability in dogs. J. Appl. Physiol. 56:691-699, 1984.
38. Taylor, A.E., D. Martin, and J.C. Parker. The effects of oxygen radicals on pulmonary edema formation. Surgery 94:433-438, 1983.
39. Parker, J.C., D. Martin, G. Rutili, and A.E. Taylor. Prevention of Free Radical Mediated Vascular Permeability Increases in Lung Using Superoxide Dismutase. Chest 83:52S-54S, 1983.
40. Rutili, G., J.C. Parker, and A.E. Taylor. Fluid balance in ANTU-injured lungs during crystalloid and colloid infusions. J. Appl. Physiol. 56:983-998, 1984.
41. Perry, M.A., C.A. Navia, D.N. Granger, J.C. Parker, and A.E. Taylor. Calculation of equivalent pore radii in dog hind paw capillaries using endogenous lymph and plasma proteins. Microvasc. Res. 26:250-253, 1983.
42. Allison, R.C., J.C. Parker, C.E. Duncan, and A.E. Taylor. Effect of air embolism on the measurement of extravascular lung thermal volume. J. Appl. Physiol.: Respirat. Environ. Exercise Physiol. 54(4):943-949, 1983.
43. Martin, D., K. Rehder, J.C. Parker, and A.E. Taylor. High-frequency ventilation: lymph protein flux, and lung water. J. Appl. Physiol.: Respirat. Environ. Exercise Physiol. 57(1):240-245, 1984.
44. Rippe, B., R.C. Allison, J.C. Parker, and A.E. Taylor. Effects of histamine serotonin, and norepinephrine on circulation of dog lungs. J. Appl. Physiol.: Respirat. Environ. Exercise Physiol. 57(1):223-232, 1984.
45. Rippe, B., M. Townsley, J. Thigpen, J.C. Parker, R.J. Korthuis, and A.E. Taylor. Effects of vascular pressure on the pulmonary microvasculature in isolated dog lungs. J. Appl. Physiol.: Respirat. Environ. Exercise Physiol. 57(1):233-239, 1984.
46. Parker, J.C., M.A. Perry, and A.E. Taylor. Permeability of the microvascular barrier. In: Edema. Eds. N.C. Staub and A.E. Taylor. Chap. 7. Raven Press, New York, 1984, pp. 143-187.

47. Parker, J.C., J. Ryan, and A.E. Taylor. Plasma-lymph albumin kinetics, total lymph flow and tissue hematocrit in normally hydrated dog lungs. Microvasc. Res. 28:254-269, 1984.
48. Parker, J.C., M.I. Townsley, B. Rippe, and J. Thigpen. Increased microvascular permeability in dog lungs due to high peak airway pressures. J. Appl. Physiol. 57:1809-1816, 1984.
49. Taylor, A.E., B. Rippe, M. Townsley, R. Korthuis, and J.C. Parker. Interstitial lung tissue fluid resistance. In: Frontiers in Physiology Research, ed., by D.G. Garlick and P.I. Korner. Australian Academy of Science, pp. 120-161, 1984.
50. Gilchrist, S.A., and J.C. Parker. Exclusion of charged macromolecules in the pulmonary interstitium. Microvasc. Res. 30:88-98, 1985.
51. Taylor, A.E., and J.C. Parker. The interstitial spaces in lymph flow. In: Handbook of Physiology: Respiration, Vol. 4, A.P. Fishman and A.B. Fisher (eds.), Am. Physiol. Soc., Bethesda, MD 1985, pp. 167-320.
52. Rippe, B., M. Townsley, J.C. Parker, and A.E. Taylor. The osmotic reflection coefficient for total plasma protein in lung microvessels. J. Appl. Physiol. 58:436-442, 1985.
53. Parker, J.C., S. Gilchrist, and A.E. Taylor. Plasma-lymph exchange and interstitial distribution volumes of charged macromolecules. J. Appl. Physiol. 59:1128-1136, 1985.
54. Parker, J.C., B. Rippe, and A.E. Taylor. Fluid filtration and protein clearances through large and small pore populations in dog lung capillaries. Microvas. Res. 31:1-17, 1986.
55. Parker, J.C. Transvascular clearance and distribution of charged macromolecules in ANTU lung injury. J. Appl. Physiol. 60:1221-1229, 1986.
56. Taylor, A.E., J.C. Parker, and B. Rippe. Edema and the tissue resistance safety factor. Chapter 9. In: Tissue Nutrition and Viability, Ed. by A.R. Hargens. Springer-Verlag, New York, NY, 1986. pp. 185-196.
57. Rippe, B., J.C. Parker, M.I. Townsley, N.A. Mortillaro, and A.E. Taylor. Segmental vascular resistances and compliances in dog lung. J. Appl. Physiol. 62:1206-1215, 1987.
58. Parker, J.C., M. Miniati, R. Pitt, and A.E. Taylor. Interstitial distribution of charged macromolecules in the dog lung: A kinetic model. Ann. Biomed. Eng. 15:157-172, 1987.
59. Townsley, M.I., R.J. Korthuis, B. Rippe, J.C. Parker, and A.E. Taylor. Validation of double vascular occlusion method for $P_{c,i}$ in lung and skeletal muscle. J. Appl. Physiol. 61:127-132, 1986.

60. Pitt, R.M., J.C. Parker, G.J. Jurkovich, A.E. Taylor, and P.W. Curreli. Analysis of altered capillary pressure and permeability after thermal injury. J. Surg. Res. 42:693-702, 1987.
61. Townsley, M.I., J.C. Parker, R.J. Korthuis, and A.E. Taylor. Alterations in hemodynamics and K_{f,c} during lung mass resection. J. Appl. Physiol. 63:2460-2466, 1987.
62. Parker, J.C. Transport and distribution of charged macromolecules in lungs. Adv. Microcirc. 13:150-159, 1987.
63. Miniati, M., J.C. Parker, M. Pistolesi, J. Cartledge, C. Giuntini, and A.E. Taylor. Albumin reabsorption kinetics from the pleural spaces of dogs. Am. J. Physiol. 255:H375-H385, 1988.
64. Parker, J.C. Transvascular transport and distribution volumes of charged macromolecules in normal and injured lungs. In: Interstitial Fluid Dynamics, ed. by N.C. Staub and A. Hargens. S. Karger, Basel, 1988.
65. Parker, J.C., M. Miniati, A.E. Taylor, and R. Pitt. Pulmonary microvascular permeability of charged isozymes of lactate dehydrogenase (LDH) in isolated dog lungs. In: M. Tsuchiya (Ed.) Microcirculation - An Update, Vol. 1 (1987).
66. Taylor, A.E., J.C. Parker, R.C. Allison, and M. Perry. Capillary exchange of fluid and protein. In: Textbook of Critical Care, ed. by W. Shoemaker, W.L. Thompson, and P.R. Holbrook. Saunders Publishing Co: Philadelphia, PA, 1988.
67. Grimbert, F.A., D. Martin, J.C. Parker, and A.E. Taylor. Pulmonary blood flow vs. microvascular pressure effects on lung lymph flow in dogs. Am. J. Physiol. 255:H1149-H1155, 1988.
68. Townsley, M.I., J.C. Parker, G.L. Longenecker, M.L. Perry, R.M. Pitt, and A.E. Taylor. Pulmonary embolism: Analysis of endothelial pore sizes in canine lung. Am. J. Physiol. 255:H1075-H1083, 1988.
69. Taylor, A.E., K. Rehder, R. Hyatt, and J.C. Parker. Clinical Pulmonary Physiology, Saunders Publishing Co: Philadelphia, PA, 1989.
70. Cope, D.K., J.C. Parker, R.C. Allison, and A.E. Taylor. The Gaar equation is not a reliable predictor of pulmonary capillary pressure. Critical Care Medicine 17:300, 1989.
71. Parker, J.C., M.I. Townsley, and J.T. Cartledge. Edema increases transvascular filtration rate but not filtration coefficient in dog lungs. J. Appl. Physiol. 66:1553-1560, 1989.
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PAPERS ACCEPTED, IN PRESS, AND SUBMITTED FOR PUBLICATION

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ABSTRACTS:

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light chain kinase regulates the surface expression and calcium entry through transient receptor potential vanilloid 4 channels in rat pulmonary microvascular endothelial cells. *FASEB J* March 17, 2011 25:1101.1

INVITED PAPERS AND ABSTRACTS:

1. December 9-13, 1978. Postgraduate assembly of New York Society of Anesthesiologists. Symposium on lung fluid balance.
2. Seminar at Albany Medical College, Department of Physiology, 6/16/80.
3. August 1978, Seminar on vertical distribution of lung water, Resp. Disease Unit, St. Paul's Hospital, Vancouver, B.C.
4. 1979, Int. Conf. on Lung Water, University of B.C. School of Medicine, Vancouver, B.C.
5. Gordon Research Conference, Plymouth, NH, June 9-13, 1980. Invited discussant, "Excluded volumes in lung tissue".
6. Visiting professor, Department of Physiology, Albany Medical College, Albany, NY, June 16, 1980, "Albumin excluded volume in the lung".
7. European Conference for Microcirculation, Garmisch, West Germany, September, 15-16, 1980, "Oncotic buffering in the lung after hemodilution, albumin infusion and elevated pressure".
8. Visiting professor, Institute of Medical Physiology, Copenhagen, Denmark, September 25-26, 1980, "Permeability of lung vessels to macromolecules".
9. Visiting professor, Institute of Physiology, Bergen, Norway, September 29-30, 1980, "Albumin excluded volumes in the lung".
10. Pharmacia Travel Award lecture, Department of Experimental Medicine, Pharmacia AP, Uppsala, Sweden, October 3, 1980, "Estimates of permeability coefficients in the lung using lymph protein fluxes".
11. Visiting professor, Respiratory Disease Unit, John Radcliffe Hospital, Oxford, England, October 8, 1980, "Albumin excluded volume and transcapillary fluxes in the lung".
12. Nordic Microcirculatory Society, Geilo, Norway, February 4-7, 1981, "Estimates of interstitial 'equivalent pore' dimensions in normal and edematous lungs".
13. Visiting professor, Department of Physiology, University of Goteborg, Sweden, February 16, 1981, "Vascular permeability in the lung".

14. Visiting professor, Department of Surgery, Sahlgrenska Hospital, Goteborg, Sweden, February 17, 1981, "Studies on vascular permeability in the lung".
15. IUPS XXIXth Congress, Sydney, Australia, "Plasma-lymph transport and distribution of charged macromolecules," 8/28/83-9/3/83.
16. Third World Congress for Microcirculation. Symposium on the Interstitium. "Exclusion and change effects in the lung". September 9-14, 1984. Oxford, England.
17. Am. Burn Assoc., Chicago, IL., April, 1986, "Decreased capillary protein sieving after scald burn".
18. FASEB, Biomedical Engineering Society Symposium on Quantitative Analysis of Lung Fluid Balance. "Interstitial distribution of charged macromolecules in the dog lung: A kinetic model", St. Louis, MO., April, 1986.
19. Sixth European Congress on Diseases of the Chest. Tel Aviv, Israel, "Capillary filtration and macromolecular permeability in the lung", June 16-20, 1986.
20. Satellite Symposium IUPS on Interstitial-Lymphatic Solute and Water Movement. Victoria, British Columbia, Canada. "Transvascular transport and interstitial distribution volumes of charged macromolecules in normal and injured lungs", July 21-25, 1986.
21. Fourth World Congress for Microcirculation, Tokyo, Japan. "Pulmonary microvascular permeability to differently charged isozymes of lactate dehydrogenase", July 26-August 2, 1987.
22. Symposium organizer, "Charge related selectivity of continuous capillary beds", APS Fall meeting, San Diego, CA, October 12-15, 1987.
23. Visiting professor, "Effect of charge on microvascular permeability", Department of Physiology, Univ. of Arizona, Tucson, AZ, May 7, 1988.
24. Invited Speaker, "Increased transcapillary filtration during hydrostatic pulmonary edema". International School of Thoracic Medicine course on "Interstitium, pleural space, and lymphatics". Ettore Magorana Centre, Erice, Sicily, Italy, 9/29/88-10/5/88.
25. IUPS XXXI Congress, Helsinki, Finland, July 9-14, 1989, "Transcapillary influx, efflux and interstitial equilibration of albumin in dog lungs".
26. Symposium speaker, "Role of bronchial circulation and pulmonary circulation in lung liquid and protein exchange", XXXI IUPS Leningrad Satellite Symposium, Leningrad, U.S.S.R., 7/17/89-7/19/89.

27. Invited speaker, "Measurement of capillary permeability using tissue and lymph protein clearances". Conferences de la Commission de la Recherche, Faculte de Medicine de Grenoble, Grenoble, France, 28 November 1989.
28. Seminar in French, "Desertion capillaire dans le poumon lese" (Capillary derecruitment in the injured lung), La reunion scientifique du laboratoire de physiologie, Faculte de Medicine de Grenoble, Grenoble, France, 14 December 1989.
29. Invited speaker, "Pulmonary barotraume due to mechanical ventilation", Institute of Clinical Pulmonary Pathophysiology of the C.N.R., University Hospital, Palermo, Italy, 20 November 1989.
30. Visiting Professor, Department of Surgical Research, University of Mannitoba, Winnipeg, Manitoba, Canada, August 1990.
31. Invited speaker, "Pulmonary capillary filtration coefficient using laser densitometry," Department of Human Physiology, University of California at Davis, Davis, CA, 9 May 1991.
32. Invited speaker, "High volume stress failure of pulmonary capillaries," Matsumoto High Altitude Medicine Conference, Matsumoto, Japan, September 31, 1991.
33. Invited speaker for two lectures, "Ventilation induced stress failure of pulmonary capillaries", and "Eosinophil induced lung damage in rats." Departments of Pediatrics and Cardiaolgy, Univ. of Utah, Salt Lake City, UT, Feb. 1992.
34. IUPS XXVII Congress, Glasgow, Scotland, "Gravity dependent and independent pulmonary blood flow gradients in unanesthetized dogs," August 1993.
35. Seminar speaker, "Altered fractal dimension (Ds) and distance correlation (ρ_{xyz}) of regional blood flow in oleic acid injured rabbit lungs." Department of Physiology, University of Washington, Seattle, WA, April 24, 1998.
36. Invited speaker, "Factors affecting vascular permeability during ventilator associated lung injury," International consensus conference on intensive care medicine, Toronto, Ont., Oct. 29-31, 1998.
37. Symposium speaker, "Pharmacologic modulation of ventilator induced lung injury," Am. Thoracic Soc. International Conference, San Diego, CA, April 26, 1999.
38. Symposium speaker, "High airway pressure stress induces cytokine release from perfused mouse lungs," 1999 Biomedical Engineering Conference, Big Sky, MT. June 16-20, 1999.
39. Seminar speaker, "Mechanisms of ventilator induced lung injury," Dept. of Pulmonary and Critical Care Medicine, Mayo Clinic, Rochester, MN, 11/10/00.

40. Seminar speaker, "Total Liquid Ventilation Cooling to Protect against Ischemia". Medical College of Georgia, Dept. of Physiology, Augusta, GA, March 9, 2006
41. Surgery Grand Rounds, "Total Liquid Ventilation Cooling to Protect against Ischemia" ., University of South Alabama Medical Center, Mobile, AL, Nov. 9, 2007.
42. Critical Care Conference, "Ventilator induced lung injury", University of South Alabama Medical Center, Mobile, AL, Dec. 14, 2007.
43. Cardiology Conference, "Starling forces", University of South Alabama Medical Center, Mobile, AL, May 16, 2008.
43. Cardiology Conference, "Starling forces", University of South Alabama Medical Center, Mobile, AL, May 15, 2009.
44. Invited speaker. Cardiology Conference, "Starling forces", University of South Alabama Medical Center, Mobile, AL, May 15, 2010.
45. Invited speaker. "Tracheal liquid insufflation assisted total liquid ventilation", Symposium, "Liquid ventilators, are they ready for clinical trials?" In: 1st International conference on applied bionics and biometrics, ICABB-2-10, Venice, Italy, Oct 14-16, 2010.
46. Invited speaker. "Myosin light chain kinase regulates the surface expression and calcium entry through transient receptor potential vanilloid 4 channels in rat pulmonary microvascular endothelial cells. " Experimental Biology, Washington, D. C., April 14, 2011