REV 7/21/14

CURRICULUM VITAE

James C. Parker

PERSONAL INFORMATION:

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

Martial 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.

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, C
Department

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 Grievence 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

TEXTBOOKS:

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

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. Circ.Cchuis il

Recent Advances in Microcirculatory Research (Ed.) P. Gaethtgens, 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. Kvietys, 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. Kvietys, 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.

35. Parker, J.C., D. Martin, and A.E. Taylor. Extravascular fluid compartmentation and lymph flow in edematous lungs. In: Advances in Lympholosy. (Ed.) V. Bartos and J.W. Davidson, Avicenum, Czech., Medical Press, Prague, pp. 192-202, 1982.

36. Parker, J.C., P.R. Kvietys, 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., (39.)Tj ( )Tj 0.03 Tw 3 0 Td [(j ( )T3r)3((hy)]TJ 0. (34(r)3(wD4(t)-(, a)4(nd A)2(.E)1

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.

60. Pitt, R.M., J.C. Parker, G.J. Jurkovich, A.E. Taylor, and P.W. Curreri. 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 Kf,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,

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73. Barman, Scott A., Jeffrey L. Ardell, J.C. Parker, Michele L. Perry, and A.E. Taylor.

85. Parker, J.C., D.K. Cope, and M.P. Houston. Regional pulmonary vascular pressures and resistances during unilateral hypoxia. [letter] Crit. Care Med. 18:1493-1494, 1990.

86. Parker, J.C., L.A. Hernandez, and K. Peevy. What is the mechanism of pulmonary edema during high volume ventilation? [letter, reply] Am. Rev. Respir. Dis. 143:1198-1200, 1991.

87. Fujimoto, K., J.C. Parker, and S.G. Kayes. O_2 radical scavengers protect against eosinophil-induced injury in isolated perfused rat lungs. J. Appl. Physiol. 73:687-694,1992.

88. Shibamoto, T. and J.C. Parker. Fructose 1,6-diphosphate augments paraquat injury in isolated dog lungs. J. Appl. Physiol. 71(5):1830-36, 1991.

89. Parker, J.C., L.A. Hernandez, and K.J. Peevy. High Volume Stress Failure of Pulmonary Capillaries. In: High Altitude Medicine. Eds. G. Ueda, J.T. Reeves, and M. Sekiguchi. Shinshu Univ. Press, Matsumoto, Japan, pp.139-144,1992.

90. Coker, P.J., L.A. Hernandez, K.J. Peevy, W.K. Adkins, and J.C. Parker. Increased sensitivity to mechanical ventilation in non-compliant young rabbit lungs.

98. Parker, J.C., J.A. Ardell, C.R. Hamm, S. A. Barman, and P.A. Coker. Regional pulmonary blood flow during rest, tilt, and exercise in unanesthetized dogs. J. Appl. Physiol. 78:838-846, 1995.

99. Cavanagh,K.A., H.F. Hill, W. Wojciechowski, and J.C. Parker. Regional tracheal blood flow during conventional and high-frequency ventilation in sucking pigs. Crit. Care Med. 24: 280-286, 1996.

100. Yoshikawa, S., S.G. Kayes, S. L. Martin, and J.C. Parker. Eosinophilia induced vascular and

137. Hamanaka, K., M-Y. Jian, M.I. Townsley, J.A. King, W. Liedtke, D. S. Weber, F. G. Eyal, M. M. Clapp and J.C. Parker. TRPV4 channels augment macrophage activation and ventilator induced lung injury. Am. J. Physiol.: Lung Cell. Mol. Physiol. 299: L353-L262, 2010

138. Tracheal liquid insufflation assisted total liquid ventilation. Parker, J. C., A. Sakla, F.M. Donovan, D. Beam, A. Chekuri, C. R. Hamm, and F. Eyal. Proc. Int. Conference on Applied Bionics & Biomechanics. 2011

139. Parker, J.C. Acute lung injury and pulmonary vascular permeability: Use of transgenic models. Chapt. 40. In: Comprehensive Physiology: Respiration, Vol. 1, Circulation and non-respiratory functions; Genetics and experimental models; Eds. M. Gillespie, T. Stevens, W. Wagner, I. McMurtry., Am. Physiol. Soc., Bethesda, MD. Compr Physiol 1:835-882, 2011. 10.1002/cphy.c100013

140. Francis M, Qian X, Charbel C, Ledoux J, Parker JC and Taylor MS. Automated region of interest analysis of dynamic Ca2+ signals in image sequences. American Journal of Physiology - Cell Physiology303: C236-C243, 2012.

141. Hashizume, M., M. Mouner, J. M. Chouteau, O.M. Gorodya, M.V. Ruchko, B.J. Potter, G.L. Wilson, M. N. Gillespie, and J. C. Parker. Mitochondrial targeted DNA repair enzyme 8-oxoguanine DNA glycosylase 1 protects against ventilator induced lung injury in intact mice. Am J Physiol: Lung Cell. Mol. Physiol. 304: L287-L297, 2013.

142. Parker, J.C., Hashizumi, M., Kelly, S. V., Francis, M., Mouner, M., Meyer, A. L., Townsley, M.I., Wu, S., Cioffi, D. L., and Taylor, M.S. TRPV4 calcium entry and surface expression attenuated by inhibition of myosin light chain kinase in rat pulmonary microvascular endothelial cells. Physiological Reports. 1 (5), 2013, e00121, doi: 10.1002/phy2.121, ISSN 2051-817X

PAPERS ACCEPTED, IN PRESS, AND SUBMITTED FOR PUBLICATION

1. Hashizume, M., Mouner, M., Chouteau, J., Gorodnya, O., Rushko, M., Gillespie, M., Parker, J.C. Mitochondrial targeted Endonuclease III DNA repair enzyme protects against ventilator induced lung injury in mice. Pharmaceuticals: Special Issue: Mitochondrial Target-Based Drug Discovery. In Press.

ABSTRACTS:

1. Smith, E.E., J.C. Parker, and D. Hinton. Intestinal enteritis and fluid loss associated with hemorrhagic shock. Fed. Proc., 1969.

2. Parker, J.C., and E.E. Smith. Serum uric acid levels during cardiac arrest. J. Miss. Aca. Sci. 15, 1970.

3. Parker, J.C., C.E. Jones, and E.E. Smith. Determination of myocardial purines during cardiac arrest and recovery. J. Miss. Acad. Sci. 16, 1971.

4. Parker, J.C. and E.E. Smith. Myocardial free energy purines during cardiac arrest and recovery. The Physiologist 14:206, 1971.

5. Parker, J.C. and E.E. Smith. Adenosine nucleotide substrate depletion and survival in cardiac arrest. Fed. Proc., 1972.

6. Parker, J.C., C.E. Jones, and E.E. Smith. A concept of adenosine nucleotide substrate washout in cardiac arrest. J. Miss. Acad. Sci. 17, 1972.

7. Ferguson, J.D., J.C. Parker, C.E. Jones, and E.E. Smith. Effect of allopurinol on adenine nucleotide degradation in cardiac arrest. J. Miss. Acad. Sci. 17, 1972.
8. Parker, J.C. Computer stimulation of adenine nucleotide kinetics in the arrested myocardium. J. Miss. Acad. Sci. 18, 1973.

9. Parker, J.C., and C.E. Jones. Changes in energy conservation in ischemic and non-ischemic myocardium following coronary occlusion. J. Miss. Acad. Sci. 18, 1973.

10. Thomas, J.X., C.E. Jones, and J.C. Parker. Studies of adenine nucleotides and metabolites following coronary occlusion. Fed. Proc. 33:262, 1974.

11. Thomas, J.X., C.E. Jones, and J.C. Parker. Acute and chronic studies of adenine nucleotides and metabolites following coronary occlusion. J. Miss. Acad. Sci. 19, 1974.

12. Parker, J.C., C.E. Jones, and J.X. Thomas, Jr. Regional contractility studies in left ventricular following coronary occlusion. J. Miss. Acad. Sci., 1974.

13. Thomas, J.X., C.E. Jones, and J.C. Parker. Acute changes in adenine nucleotides and contractile force in ischemic and non-ischemic myocardium following coronary occlusion. The Physiologist 17:344, 1974.

14. Parker, J.C., C.E. Jones, and J.X. Thomas. Inotropic effects of nucleoside infusion on ischemic and non-ischemic myocardium. J. Miss. Acad. Sci. 20 (Suppl), 1975.

15. Parker, J.C., A.C. Guyton, and A.E. Taylor. Estimation of pulmonary interstitial fluid pressures. The Physiologist 19:322, 1976.

16. Parker, J.C., A.E. Taylor, and A.C. Guyton. Relationship of capillary, interstitial and interdependance forces in the lung. Fed. Proc. 36:536, 1977.

17. Parker, J.C., and A.E. Taylor. Determinants of the vertical gradient in pulmonary extravascular fluid iTw -3 - tit T3n3 0 T

32. Taylor, A.E., J.C. Parker, and D.N. Granger. Convective and diffusive transport of endogenous proteins in lung lymph. Physiologist 22:122, 1979.

33. Grimbert, F.A., J.C. Parker, D.N., Granger, and A.E. Taylor. Lung vascular permeability changes following acid aspiration: Effect of altering plasma protein concentration. Physiologist 22:48, 1979.

34. Granger, D.N., N.A., Mortillaro, P.R. Kvietys, and J.C. Parker. Effects of volume absorption on intestinal exclusion of albumin in the small bowel. Physiologist 22:47, 1979.

35. Rutili, G., P. Kvietys, J.C. Parker, and A.E. Taylor. Studies of lung protein

46. Parker, J.C., R.C. Allison, and A.E. Taylor. Total lung lymph flow in normally hydrated dog lungs. The Physiologist 24:17, 1981.

47. Allison, R., J.C. Parker, and A.E. Taylor. Effect of air embolization on termal dye estimates of extravascular lung water. The Physiologist 24:18, 1981.

48. Taylor, A.E., M.A. Perry, D.W. Shin, D.N. Granger, and J.C. Parker. Calculation of the effective pore radii in dog hind-paw capillaries using lymph endogenous proteins. Microvasc. Res. 23:276, 1982.

49. 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. Gaethtgens, S. Karger, Basel., pp. 251-254, 1981.

50. Martin, D., D.N. Granger, J. McCord, J.C. Parker, and A.E. Taylor. The protective effects of superoxide dismutase on pulmonary endothelial damage associated with ANTU. Microvasc. Res. 23:265, 1982.

51. Martin, D., J.C. Parker, and A.E. Taylor. Comparison of right duct (RD) and tracheobronchial (TB) lymphatic flows and protein concentrations in the dog. Fed. Proc. 41:1245, 1982.

52. Allison, R.C., R. Parker, J.C. Parker, and A.E. Taylor. Thermal volume estimates of total lung mass in isolated dog lobes. Fed Proc. 41:1362, 17c.

59. Martin, D., J.C. Parker, and A.E. Taylor. Effects of dimethylsulfoxide (DMSO) and catalase on the protein permeability of dog lung capillaries damaged with a-naphthylthiourea (ANTU). Physiologist 25:204, 1982.

60. Taylor, A.E., D. Martin, and J.C. Parker. Effects of leukocyte reduction on lung vascular permeability changes associated with a-naphthylthiourea (ANTU) endothelial damage. Physiologist 25:204, 1982.

61. Taylor, A.E.., B. Rippe, R.C. Allison, and J.C. Parker. Osmotic reflection coefficient for total protein in an isolated dog lung lobe. Fed. Proc. 42:1273, 1983.

62. Allison, R.C., B. Rippe, J.C. Parker, and A.E. Taylor. ANTU increased permeability in isolated dog lung lobes. Fed. Proc. 42:1108, 1983.

63. Martin, D.J., J.C. Parker, and A.E. Taylor. Effect of fructose 1-6, diphosphate (FDP) on the pulmonary vascular damage associated with alpha-naphthylthiourea (ANTU). Fed. Proc. 42:1108, 1983.

64. Davidson, L., A.E. Taylor, D. Martin, and J.C. Parker. The effect of ibuprofen on lung vascular permeability associated with ANTU damage. Fed. Proc. 42:1108, 1983.

65. Parker, J.C., L.H. Campbell, and A.E. Taylor. Failure of myocardial ischemia to acutely increased microvascular permeability in the lung. Fed. Proc. 42:1106, 1983.

66. Rippe, B., R.C. Allison, J.C. Parker, and A.E. Taylor. Effects of histamine, serotonin, and norepinephrine on vascular resistances, pressures, and volumes and on capillary permeability in isolated left lower lung lobes. Fed. Proc. 42:733, 1983.

67. Parker, J.C.,

86. Cope, D.K., J.C. Parker, M.D. Taylor, K.T. Marble, and A.E. Taylor. Site of hypoxic pulmonary vasoconstriction in dog and human lungs. Southern Soc. Anesth, 1988.

87. Parker, J.C., T. Leach, P. Coker, L. Hernandez, A. Taylor, S. Barman, and R. Pitt. Pulmonary capillary filtration coefficients during edema and varied perfusate protein concentration (CP). Physiologist 30(4):145, 1987.

88. Parker, J.C., T. Leach, L. Hernandez, K. Adkins, K. Peevy, and P. Coker. Protamine increases pulmonary microvascular permeability in the presence and absence of albumin and leukocytes. FASEB J. 2:A1293, 1988.

89. Peevy, K.J., L.A. Hernandez, and J.C. Parker. Barotrauma-associated microvascular injury after ventilation with short inspiratory times and high flow rates. J. Clin. Res. 36:80A, 1988.

90. Pitt, R.M., J.C. Parker, and A.E. Taylor. Starling force changes in burned tissue. Physiologist 30:218, 1987.

91. Parker, J.C., L.A. Hernandez, T. Shibamoto, P. Coker, and B. Buchanan. Leukocyte mediation of protamine microvascular damage in dog lungs. The Physiologist 31:A58, 1988.

92. Shibamoto, T., L.A. Hernandez, A. Moise, K. Peevy, A.E. Taylor, and J.C. Parker. Effect of hyperoxia and hypoxia on paraquat-induced increases in pulmonary vascular permeability. The Physiologist 31:A59, 1988.

93. Adkins, K., L. Hernandez, A. Moise, K. Peevy, B. Buchanan, and J.C. Parker. High peak airway pressures increase microvascular permeability in adult rabbit lungs. The Physiologist 31:A59, 1988.

99. Parker, J.C., M.I. Townsley, L.A. Hernandez, B. Twohig, M. Perry, K. Adkins, and A.E. Taylor. Allometric study of pulmonary capillary filtration coefficient (Kf,c). FASEB J. 3:A1141, 1989.

100. Hernandez, L.A., K.J. Peevy, and J.C. Parker. Response to mechanical ventilation after oleic acid induced lung injury. FASEB J. 3:A1141, 1989.

101. Ishibashi, M., R.K. Reed, M.I. Townsley, J.C. Parker, and A.E. Taylor. Permeability surface area 36 SURGXFWV DQG UHIOHFWLRQ FRHIILFLHQW 1 DW PD[LP
Physiologist 32:A201, 1989.

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168. Anghelescu, M., T. Miyahara, and J. C. Parker. Activation of TRPV4 in the microvessels of isolated rat lung. FASEB J. 19: A726, 2005

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171. Parker, J.C., J. R. Frost, D.S. Weber, and L. K. Pannell. Proteomic analysis of tyrosine phosphorylated lung proteins after high airway pressure injury in mice. The Physiologist: Physiological genomics and proteomics of lung disease. 49 (6):C2-12, 2006.

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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 G01chant h, [t G01c19 h,5 0 scn 62(e)4(,>>BD

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 cahrged 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 continous 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, Glascow, Scotland, "Gravity dependent and independent pulmonary blood flow gradients in unanesthetized dogs," August 1993.

6HPLQDU VSHDNHU ³$OWHUHG IUDFWDO GLPHQVLRQ 'V 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