

## CURRICULUM VITAE

Name: James Arthur Will, D.V.M., Ph.D., PhD Hon (S.S. - 388-28-3388)

Born: November 2, 1930

Birthplace: Wauwatosa, Wisconsin

Citizenship: U.S. Citizen

Marital Status: Married; 3 children

EDUCATION: High school graduate from: Wauwatosa High School Year: 1948

<u>University Attended</u>	<u>Dates Attended</u>	<u>Degree</u>	<u>Date</u>	<u>Major and Minor</u>
Univ. of Wisconsin	Sept. 1948-June 1952	BS	6/52	Agriculture
Univ. of Wisconsin	June 1952-June 1953	MS	6/53	Animal Husbandry Animal Science Genetics
Kansas State Univ.	Sept. 1956-June 1960	DVM	6/60	Veterinary Medicine Pathology
Univ. of Wisconsin	Sept. 1964-Nov. 1967	PhD	11/67	Veterinary Science Comp. Cardiology

MILITARY SERVICE:

Branch: Army of the United States From: Feb. 1954 to Feb. 1956 QMC, 1st Lt  
Army of the United States (Reserves) Feb. 1956-62 Captain,  
Retired

ACADEMIC POSITIONS:

1952-1953	Research Assistant, Department of Meat and Animal Science, University of Wisconsin, Madison, Wisconsin.
1956-1960	Research Assistant, Kansas State University, Manhattan, Kansas.
1960-1961	Practicing Veterinarian, Columbus Veterinary Hospital, Columbus, Wisconsin.
1961-1964	Practicing Veterinarian, Self-employed, Columbus, Wisconsin.
1964-1967	Postdoctoral Research Fellowship, University of Wisconsin, Department of Medicine, Cardiovascular Research Laboratory and Department of Veterinary Science - NIH (Candidate for Ph.D.) (3+ years) December, 1967.
1960-1967	Consulting veterinarian, Avian Pathology.
1967-1971	Assistant Professor of Veterinary Science and Assistant Professor, Cardiovascular Research Laboratory, Department of Medicine, Medical School.
1971-1974	Associate Professor of Veterinary Science, College of Agricultural and Life Sciences and Department of Medicine, Medical School.
1972-1973	Special Fellow, NHLI, Department of Pathology, New Medical School, University of Liverpool, Liverpool, England.

- 1974-1978 Professor and Chairman of Veterinary Science, College of Agricultural and Life Sciences and Staff member, Cardiovascular Research Laboratory.
- 1979-1980 Professor of Veterinary Science, College of Agricultural and Life Sciences \
- 1980-2000 Affiliate Professor, Department of Anesthesiology, Medical School  
Professor of Animal Health and Biomedical Sciences, School of Veterinary Medicine.
- 1991-2001 Affiliate Professor, Department of Dairy Science, CALS
- 2000-2006 Emeritus Professor, Department of Surgery, School of Medicine and Public Health  
2000-2009 Emeritus Professor, Department of Biomedical Engineering, College of Engineering
- 2000-present Professor Emeritus, Department of Pathobiological Sciences, School of Veterinary Medicine.
- 2007-present Professor Emeritus, Department of Animal Sciences, College of Agricultural and Life Sciences

#### INDUSTRIAL POSITIONS

- 1993-1998 Vice-President, Clarion Pharmaceuticals, Inc
- 2006-2012 Vice-President and General Manager, Medical Engineering Innovations, Inc.  
2006-Present Board member, Secretary/Treasurer Medical Engineering Innovations, Inc.
- 2009-2113 Past Board member, iOGenetics, LLC

#### Other Appointments:

- 1981-1990 Director, Research Animal Resources Center for the Graduate School.  
(Responsible for all animal usage on the 26 campuses of the University of Wisconsin System).
- 2008-Present Science editing consultant, Faculty of Medicine, Faculty of Veterinary Science, faculty of Dentistry, Khon Kaen University, Thailand

#### Visiting Professorships:

1985. 1985  
2004 Department of Biochemistry, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand.

#### PROFESSIONAL SOCIETIES:

- American Physiological Society  
American Thoracic Society (terminated)  
Society For Experimental Biology and Medicine (terminated)

American Society of Anesthesiologists (terminated)  
Sigma Xi - National research fraternity, American Association for the Advancement of Science  
Alpha Zeta, Gamma Sigma Delta - Honorary Academic Societies  
Member - Wisconsin Heart, American Heart (terminated)  
Wisconsin, and American Veterinary Medical Associations (retired status)  
American Society of Veterinary Physiologists and Pharmacologists (terminated)  
American Heart Association – professional member (terminated)  
American Veterinary Medical Association (retired Honor Role member)  
Conference of Research Workers in Animal Diseases, Editorial Board (retired)  
Life Fellow, Royal Society of Medicine, London

HONORS RECEIVED: NIH Postdoctoral Fellow, 1964-1967.  
Burr Beach Award, 1967.  
NIH Special Postdoctoral Fellow, 1972-1973.  
Life Fellow, Royal Society of Medicine, London 1978-Present  
Honorary PhD from the Faculty of Medicine, Khon Kaen  
University, Khon Kaen, Thailand, 2012

SPECIAL APPOINTMENTS:

Member, World Health Organization Committee for meeting on "Primary Pulmonary Hypertension in Man." October 15-17, 1973, Geneva, Switzerland.  
Advisor and Member, Working Group on Pulmonary Circulation, European Society of Cardiology, 1980-1990.

SUMMARY OF ACTIVITIES IN THE VETERINARY PROFESSION:

1. Past President, Dodge County VMA
2. Past member and Chairman, Insurance Committee, WVMA
3. Past member, Education Committee, WVMA
4. Past member, Executive Board, WVMA
5. Member, Planning Council, 7th Symposium on Veterinary Medical Education
6. President, Association of American Veterinary Medical Colleges, 1979
7. Member Advisory Committee joint AVMA-AAVMC Washington office, 1976-1980

UNIVERSITY SPECIAL APPOINTMENTS:

University of Wisconsin, Member and Chairman, Biological Divisional Committee responsible for promotions to tenure and new courses and major programs.  
Director, for the Graduate School of Research Animal Resources for University of Wisconsin System.

CONSULTANCIES:

1974-1985 Consultant to Janssen Pharmaceutica, Beerse, Belgium for Life Sciences group, particularly in cardiovascular area, and animal health division but eventually with continual interactions with Dr. Paul Janssen as well.

1985-1990 Consultant to Upjohn Pharmaceuticals, Kalamazoo, MI in medical and Agricultural Divisions in Crawley, England, Brussels, Belgium and with scheduled meetings with Dr. Ted Cooper, Chairman.

1992-1995 Consultant staff of Weinberg group, Washington, DC.

#### BIBLIOGRAPHY:

##### Thesis:

J. A. Will: Ph.D. thesis, Allylamine Induced Cardiovascular Changes in Calves, January, 1968.

##### Books and Chapters in Books

1. Will, J. A. and R. W. Dougherty. Surgery of the Thoracic Inlet and Cavity in Experimental Surgery in Farm Animals. The Iowa State University State Press, Ames, Iowa, 1981, pages 135-142.
2. Will, J. A., I. M. Keith, C. K. Buckner, J. Chacko, E. B. Olson, Jr., and E.K. Weir. Serotonin and the pulmonary circulation. In: Becker, K. L., and A.F. Gazdar (eds.), The Endocrine Lung in Health and Disease, W.B. Saunders Co., Philadelphia, PA, pp. 137-154 (1984).
3. Will, J. A. and Coursin, D. B. Endotoxin and the lung. In: Handbook of Endotoxin, ed. L.B. Hinshaw, pp. 76-104, Elsevier, Amsterdam, New York, Oxford, 1985.
4. Will, J. A. The Case for the Use of Animals in Science. In: Fox, M.W., and L.D. Mickley (eds.), Advances in Animal Welfare Science 1986-87, The Humane Society of the United States, Washington, DC, 1986, pp. 205-213.
5. Will, J. A., C. A. Dawson, E. K. Weir, and C. K. Buckner, Editors. The Pulmonary Circulation in Health and Disease. Academic Press, Inc., Orlando, Florida, 1987.

##### Original Articles:

1. Forrest, J. C., J. A. Will, G. Schmidt, M. D. Judge, and E. J. Briskey. Homeostasis in Animals - (Sus Domesticus) During Exposure to a Warm Environment. J. Appl. Physiol. 24(1):33-39 (1968).
2. Will, J. A. Subvalvular Pulmonary Stenosis and an Aortico-pulmonary Septal Defect in the Cat. J.A.V.M.A. 154(7):913-916 (1969).
3. Will, J. A. The Circulatory System - Methods and Instruments. Proceedings, 21st Annual Reciprocal Meats Conference of the American Meat Science Ass'n, National Livestock and Meat Board, Chicago, Illinois, 184-193 (1968).
4. Lister, D., R. A. Sair, J. A. Will, G. R. Schmidt, R. G. Cassens, W. G. Hoekstra, and E. J. Briskey. Metabolism of Striated Muscle of Stress-Susceptible Pigs Breathing Oxygen or Nitrogen. Amer. J. Physiol. 218:102-107 (1970).
5. Weirich, W. E., J. A. Will, and C. W. Crumpton. A Technique for Placing Chronic Indwelling Catheters in Swine. J. Appl. Physiol. 117-119 (1970).
6. Will, J. A., and G. G. Rowe. Coronary Artery Fistula in a Dog. J. Amer. An. Hosp. Ass'n. 6:242-246 (1970).
7. Will, J. A., G. G. Rowe, C. Olson, and C. W. Crumpton. A Chemically Induced Acute Model

- of Myocardial Damage in Intact Calves. *Res. Comm. in Chem. Path. and Pharmacol.* 2:61-66 (1971).
8. Banchemo, N., R. F. Grover, and J. A. Will. High Altitude-induced Pulmonary Arterial Hypertension in the Llama (*Lama glama*). *Am. J. Physiol.* 220:422-427 (1971).
  9. Topel, D. G., D. E. Galloway, J. A. Will, W. E. Weirich, R. H. Grummer, R. G. Cassens, R. G. Kauffman, and E. J. Briskey. Effect of Environmental Temperature on Physiological Characteristics of Pigs with Fast and Slow Glycolyzing Muscles. *J. of An. Sci.* 32:1103-1106 (1971).
  10. Campbell, A. M., G. Onin, D. Thomas, W. Weirich, J. A. Will, R. G. Cassens, and E. J. Briskey. The Effect of Exercise on Muscle ATPase. *Histochemie* 25:372-375 (1971).
  11. Banchemo, N., R. F. Grover, and J. A. Will: Oxygen Transport in the Llama (*Lama glama*). *Resp. Physiol.* 13:102-115 (1971).
  12. Will, J. A., and G. E. Bisgard. Hemodynamic Effects of Oral Aminorex and Amphetamine in Unanesthetized Beagle Dogs. *Thorax* 27:120-126 (1972).
  13. McKenzie, B. E., J. A. Will, and A. Hardie. The Electrocardiogram of the Turkey. *J. Avian Dis.* 15:737-744 (1971).
  14. McKenzie, B. E., and J. A. Will. ECG Changes Following Influenza Infection in Turkeys. *J. Avian Dis.* 16:308-318 (1972).
  15. Bisgard, G. E., J. A. Orr, Tonny Ungerer, and J. A. Will. Effect of Training on Pulmonary and Systemic Hemodynamics in Beagle Dogs. *Lab. An. Sci.* 22:72-76 (1972).
  16. Will, J. A., and G. E. Bisgard. Cardiac Catheterization of Unanesthetized Large Domestic Animals. *J. Appl. Physiol.* 33(3):400-401 (1972).
  17. Orr, J., T. Ungerer, J. Will, and L. B. Curet. Effect of Exercise Stress on Carotid, Uterine, and Iliac Blood Flow in Pregnant and Nonpregnant Ewes. *J. Obst. and Gyn.* 114(2):213-217 (1972).
  18. McKenzie, B. E., B. C. Easterday, and J. A. Will. Light and Electron Microscopic Changes in the Myocardium of Influenza Infected Turkeys. *Amer. J. Path.* 69(2):239-254 (1972).
  19. Will, J. A., G. E. Bisgard, A. V. Ruiz, and R. F. Grover. Models of Cardiopulmonary Function in Calves. In: Research Animals in Medicine, Lowell T. Harmison, Ed. DHEW Pub. No. (NIH) 72-333, U. S. Government Printing Office, Washington, D.C. 20402, October 2, 1973.
  20. Ruiz, A. V., G. E. Bisgard, and J. A. Will. Hemodynamic Responses to Hypoxia and Hyperoxia in Calves at Sea Level and Altitude. *Pflugers Archives.* 344:275-286 (1973).
  21. Ruiz, A. V., G. E. Bisgard, I. B. Tyson, R. F. Grover, and J. A. Will. Regional Lung Function in Calves During Acute and Chronic Pulmonary Hypertension. *J. Appl. Physiol.* 37:384-391 (1974).
  22. Bisgard, G. E., A. V. Ruiz, R. F. Grover, and J. A. Will. Ventilatory Control in the Hereford Calf at 3400 Meters Altitude. *Resp. Physiol.* 21:271-296 (1974).
  23. Will, J. A., and J. M. Kay. Hypertensive Pulmonary Vascular Disease Associated with Papain Emphysema in Rats. *Respiration* 31:208-220 (1974).
  24. Zamora, C. S., T. Kowalczyk, W. G. Hoekstra, R. H. Grummer, and J. A. Will. Effects of Prednisone on Gastric Secretion and Development of Stomach Lesions in Swine. *Am. J. Vet. Res.* 36(1):33-39 (1975).
  25. Allin, E. F., J. M. Miller, G. G. Rowe, and J. A. Will. Effects of Intraperitoneal Administration of Propranolol on the Mouse Heart: Histochemical and Electron Microscopic Observations. *Am. J. Card.* 33:639-642 (1974).
  26. Bisgard, G. E., J. A. Will, I. B. Tyson, L. M. Dayton, R. R. Henderson, and R. F. Grover. Distribution of Regional Lung Function During Mild Exercise in Residents of 3100 m. *Res. Physiol.* 22:369-379 (1974).
  27. Bisgard, G. E., J. A. Orr, and J. A. Will. Hypoxic Pulmonary Hypertension in the Pony. *Am. J. Vet. Res.* 36(1):49-52 (1975).

28. Rawlings, C. A., G. E. Bisgard, J. H. Dufek, D. D. Buss, J. A. Will, M. L. Birnbaum, P. S. Chopra, and D. R. Kahn. Prolonged Perfusion with a Membrane Oxygenator in Awake Ponies. *J. of Thoracic and Cardio. Surg.* 69(4):539-551 (1975).
29. Orr, J. A., G. E. Bisgard, H. V. Forster, C. A. Rawlings, D. D. Buss, and J. A. Will. Cardiopulmonary Measurements in Nonanesthetized, Resting Normal Ponies. *Am. J. Vet. Res.* 36(11):1667-1670 (1975).
30. Kay, J. M., P. Smith, D. Heath, and J. A. Will. The Effects of Phenobarbitone, Cinnarizine and Zoxazolamine on the Development of Right Ventricular Hypertrophy and Hypertensive Pulmonary Vascular Disease in Rats Treated with Monocrotaline. *Cardio. Res.*, Volume X(2):200-205 (1976).
31. Orr, J. A., G. E. Bisgard, H. V. Forster, D. D. Buss, J. A. Dempsey, and J. A. Will. Cerebrospinal Fluid Alkalosis During High-altitude Sojourn in Unanesthetized Ponies. *Respir. Physiol.* 25:23-37 (1975).
32. Ungerer, T., J. A. Orr, G. E. Bisgard, and J. A. Will. Cardiopulmonary Effects of Mechanical Distension of the Rumen in Nonanesthetized Sheep. *Amer. J. Vet. Res.* 37(7):807-810 (1976).
33. Will, J. A., P. A. Katomski, and M. Manohar. The Influence of Species and Cardiac Hemodynamics on Removal of Norepinephrine (NE) by the Lung in Animal Subjects. *Chest* 71(2):287-289 (1977).
34. Hernandez-Vasquez, A., J. A. Will, and W. B. Quay. Quantitative Characteristics of the Feyrter (APUD) Cells of the Neonatal Rabbit Lung in Normoxia and Chronic Hypoxia. *Thorax* 32:449-456 (1977).
35. Will, J. A. Excellence-A Goal to Strive For. *J. Vet. Med. Ed.* 4(1):6-7 (Winter 1977).
36. Bisgard, Gerald E., and J. A. Will. Glucagon and Aminophylline as Pulmonary Vasodilators in the Calf with Hypoxic Pulmonary Hypertension. *Chest* 71(2) Suppl:263-265 (1977).
37. Hernandez-Vasquez, A., J. A. Will, and W. B. Quay. A Radioautographic Study of the Neuroepithelial Bodies of the Lungs in Fetal and Neonatal Rabbits. *Cell and Tiss. Res.* 186:203-207 (1978).
38. Demling, Robert, M. Manohar, and J. A. Will. The Effect of Glucagon on the Pulmonary Transvascular Fluid Filtration Rate. *Chest* 74:196-199 (1978).
39. Orr, J. A., T. Ungerer, G. E. Bisgard, and J. A. Will. Hemodynamic Effects of Acute Hypoxia and Minute Amounts of Endotoxin in Awake Swine. *Am. J. Vet. Res.* 38(11):1753-1756 (1977).
40. Emanuel, M. B., and J. A. Will. Cinnarizine in the Treatment of Peripheral Vascular Disease: Mechanisms Related to its Clinical Action. *Proc. of Royal Soc. Med.* 70(8):7-12 (1977).
41. Orr, J. A., T. Ungerer, E. Seavey, G. E. Bisgard, and J. A. Will. Hemodynamic Effects of Long Term Feeding of Sympathomimetic Amines to Swine. *J. Environ. Path. Tox.* 1:911-926 (1978).
42. Hernandez-Vasquez, A., J. A. Will, and W. B. Quay. Quantitative Characteristics of the Feyrter Cells and Neuroepithelial Bodies of the Fetal Rabbit Lung in Normoxia and Short Term Chronic Hypoxia. *Cell Tiss. Res.* 189:179-186 (1978).
43. Hayes, B. E., and J. A. Will. Pulmonary Artery Catheterization in the Rat. *Amer. J. Physiol.* 235(4):H452-H454 (1978).
44. Demling, R. H., and J. A. Will. Effect of Major Thermal Injury on the Pulmonary Microcirculation. *Surgery* 83:746-751 (1978).
45. Demling, R. H., and J. A. Will. Effect of Furosemide on the Pulmonary Transvascular Fluid Filtration Rate. *Critical Care Medicine* 6:317-319 (1978).
46. Demling, R., G. Niehaus, J. Will, and F. Belzer. Effect of Hemorrhagic Shock and Resuscitation on Pulmonary Microvascular Integrity. *Surgical Forum* 29:196-198 (1978).
47. Demling, R. H., M. Manohar, and J. A. Will. The Effect of Glucagon on the Pulmonary Transvascular Fluid Filtration Rate. *Chest* 74:196-199 (1978).
48. Manohar, M., G. E. Bisgard, V. Bullard, J. A. Will, D. Anderson, and J. H. G. Rankin. Myocardial Perfusion and Function During Acute Right Ventricular Systolic Hypertension.

- Am. J. Physiol. 235(6):H628-H636 (1978).
49. Demling, R. H., G. Niehaus, A. Perea, and J. A. Will. Effect of Burn Induced Hypoproteinemia on Pulmonary Transvascular Fluid Filtration Rate. *Surgery* 85,3:339-343 (1979).
  50. Niehaus, G., J. A. Will, and R. H. Demling. Lactic Dehydrogenase Activity in Lung Lymph During Hemorrhagic Shock, Resuscitation and Recovery. *Lymphology* 12:321-327 (1979).
  51. Demling, R. H., M. Manohar, J. A. Will, and F. O. Belzer. Effect of Plasma Oncotic Pressure on the Pulmonary Microcirculation After Hemorrhagic Shock. *Surgery* 86:323-328 (1979).
  52. Demling, R. H., M. Manohar, and J. A. Will. Relationship Between Pulmonary Transvascular Fluid Filtration Rate and Measured Starling Forces After Major Thermal Injury. *Chest* 76:448-453 (1979).
  53. Wharton, J., J. M. Polak, S. R. Bloom, J. A. Will, M. R. Brown, and A. G. E. Pearse. Substance P-like Immunoreactive Nerves in Mammalian Lung. *Invest. and Cell Path.* 2:3-10 (1979).
  54. Racznik, T. J., R. C. Shumaker, J. R. Allen, J. A. Will, and J. J. Lalich. Patho-physiology of Dehydromonocrotaline-Induced Pulmonary Fibrosis in the Beagle. *Respiration* 37:252-260 (1979).
  55. Demling, R. H., G. Niehaus, and J. A. Will. Pulmonary Microvascular Response to Hemorrhagic Shock, Resuscitation, and Recovery. *J. Appl. Physiol.: Respirat. Environ. Physiol.* 46(3):498-503 (1979).
  56. Manohar, M., G. E. Bisgard, V. Bullard, J. A. Will, D. Anderson, and J. H. G. Rankin. Regional Myocardial Blood Flow and Myocardial Function During Acute Right Ventricular Pressure Overload in Calves. *Circ. Res.* 44:531-539 (1979).
  57. Demling, R. H., J. A. Will, and A. L. Perea. Effect of Albumin Infusion of Pulmonary Microvascular Fluid and Protein Transport. *Journal of Surgical Research* 27:321-327 (1979).
  58. Wharton, J., J. M. Polak, A. G. E. Pearse, G. P. McGregor, M. C. Bryant, S. R. Bloom, P. C. Emson, G. E. Bisgard, and J. A. Will. Enkephalin-, Vasoactive Intestinal Peptide (VIP)-, and Substance P-like Immunoreactivity in the Carotid Body. *Nature* 284(5753):269-271 (1980).
  59. Demling, R. H., M. Manohar, and J. A. Will. Relationship Between Measured and Calculated Colloid Osmotic Pressure of Plasma and Lung Lymph in the Sheep. *Lymphology* 13:18-23 (1980).
  60. Demling, R. H., M. Manohar, and J. A. Will. Response of the Pulmonary Microcirculation to Fluid Loading After Hemorrhagic Shock and Resuscitation. *Surgery* 87:552-560 (1980).
  61. Demling, R. H., N. Duy, M. Manohar, J. A. Will, B. Hopps, and J. Starling. Changes in Plasma and Lung Lymph Lysosomal Enzymes After Major Thermal Injury. *The Journal of Trauma* 20(9):791-794 (1980).
  62. Ghodsi, F., and J. A. Will. Changes in Pulmonary Structure and Function Induced by Monocrotaline Intoxication. *Am. J. Physiol. (Heart Circ. Physiol.)* 9:H149-H155 (1981).
  63. Keith, I. M., L. A. Wiley, and J. A. Will. Pulmonary Neuroendocrine Cells: Decreased Serotonin Fluorescence and Stable Argyrophil-cell Numbers in Acute Hypoxia. *Cell and Tiss. Res.* 214:201-205 (1981).
  64. Will, J. A. Neuroendocrine and Metabolic Factors in Pulmonary Circulatory Control. *Adv. in Circ. Res.* 8:13-20 (1982).
  65. Keith, I. M., and J. A. Will. Hypoxia and the Neonatal Rabbit: Pulmonary Neuroendocrine Cell Numbers, 5-HT Fluorescence Intensity and the Relationship to Pulmonary Arterial Thickness. *Thorax* 36:767-773 (1981).
  66. Hand, J. M., J. A. Will, and C. K. Buckner. Effects of Leukotrienes on Isolated Guinea Pig Pulmonary Arteries. *Eu. J. Pharm.* 76:439-442 (1981).
  67. Will, J. A. Monocrotaline Also Causes Medial Hypertrophy of Pulmonary Veins. *Am. J. Physiol. (Heart Circ. Physiol.)* 10:H 894 (1981).
  68. Hand, J. M., and J. A. Will, and C. K. Buckner. Pharmacological Alteration of Antigen-induced Contraction of Pulmonary Arteries Isolated From the Actively Sensitized Guinea Pig. *J. Pharm. Exper. Therap.* 220(3):526-535 (1981)

69. Keith, I. M., and J. A. Will. Dynamics of the Neuroendocrine Cell-regulatory Peptide System in the Lung. *Exper. Lung Res.* 3:387-402 (1982).
70. Brown, M. J., D. F. Erichsen, R. Helgersen, and J. A. Will. A Modification for Preparing the Chronic Lung Lymph Fistula in Sheep. *J. Appl. Physiol.* 52(6): 1664-1666 (1982).
71. Buckner, C. K., S. Cueva, S. Abdalla, and J. A. Will. Studies on Segmental Differences in Sensitivity to Adrenergic Agonists in Pulmonary Arteries Isolated from the Guinea Pig. *Eur. J. Pharm.* 82:137-146 (1982).
72. Keith, I. M., L. A. Wiley, and J. A. Will. Standardization of Formaldehyde-Induced Fluorescence and Its Measurement to Quantify Serotonin Emission In Pulmonary Neuroendocrine Cells. *Histochem.* 75:251-258 (1982).
73. Keith, I. M., E. K. Weir, and J. A. Will. Captopril: Association with Fetal Death and Pulmonary Vascular Changes in the Rabbit. *Proc. Soc. Exper. Biol. Med.* 170:378-383 (1982).
74. Weir, E. K., and J. A. Will. Oxidants: A New Group of Pulmonary Vasodilators. *Bull. Europ. Physiopath. Resp.* 18(suppl. 4):81-85 (1982).
75. Weir, E. K., J. A. Will, L. J. Lundquist, J. W. Eaton, and E. Chesler. Diamide Inhibits Pulmonary Vasoconstriction Induced by Hypoxia or Prostaglandin F<sub>2a</sub>. *Proc. Soc. Exper. Biol. Med.* 173:96-103 (1983).
76. Van Caeteren, H., R. Marsboom, J. Vandenberghe, and J. A. Will. Safety Studies Evaluating the Effect of Mebendazole on Liver Function in Dogs. *J.A.V.M.A.* Vol. 183(1):93-98 (1983).
77. Malcorps, C. M., J. A. Will, and A. G. Herman. Kinetics of Serotonin Uptake in the Isolated Dog Lung. *Archives internationales de Pharmacodynamie et de Therapie* Vol. 262:319-321, No. 2, April 1983.
78. Hand, J. M., R. B. Laravuso, and J. A. Will. Relaxation of Isolated Guinea Pig Trachea, Bronchi and Pulmonary Arteries Produced by Vasoactive Intestinal Peptide (VIP). *Eur. J. Phar.* 98:279-284 (1984).
79. Hayes, B. E., J. A. Will, W. C. Zarnstorff, and G. E. Bisgard. The Limitations of Thermodilution Cardiac Output Measurements in the Rat. *Amer. J. Physiol.: Heart Circul. Physiol.* 246:H754-760 (1984).
80. Malcorps, C. M., C. A. Dawson, J. H. Linehan, T. A. Bronikowski, D. A. Rickaby, A. R. Herman and J. A. Will. Lung serotonin uptake kinetics from indicator-dilution and constant-infusion methods. *J. Appl. Physiol.* 57:720-730 (1984).
81. Dayer, A. M., J. DeMey, and J. A. Will. Localization of somatostatin-, bombesin-, and serotonin-like immunoreactivity in the lung of the fetal Rhesus monkey. *Cell Tissue Res.* 239:621-625 (1985).
82. Dayer, A. M., Y. K. Kapanci, A. Rademakers, L. M. Rusy, J. DeMey and J. A. Will. Increased numbers of neuroepithelial bodies (NEB) in lungs of fetal Rhesus monkeys following maternal dexamethasone treatment. *Cell Tissue Res.* 239:703-705 (1985).
83. Gonder, J. C., R. A. Proctor and J. A. Will. Genetic differences in oxygen toxicity are correlated with cytochrome P-450 inducibility. *Proc. Nat. Acad. Sci.* 82:6315-6320 (1985).
84. Burhop, K. E., R. A. Proctor, R. B. Helgersen, C. H. R Raetz, J. R. Starling, J. A. Will. Pulmonary Pathophysiologic Changes in Sheep Caused by the Endotoxin Precursor, lipid X. *J. Appl. Physiol.* 59:1726-1732 (1985).
85. Buckner, C. K., R. D. Krell, R. B. Laravuso, D. B. Coursin, P. R. Bernstein and J. A. Will. Pharmacological evidence that human intralobar airways do not contain different receptors that mediate contractions to leukotrine C<sub>4</sub> and leukotriene D<sub>4</sub>. *J. Pharm. Exp. Therapeutics.* 237(2):558-562 (1986).
86. Proctor, R. A., J. A. Will, K. E. Burhop, and C. R.H. Raetz. Protection of mice against lethal endotoxemia by a lipid A precursor. *Infect. Immun.* 52:905-907 (1986).
87. Burhop, K. E., R. A. Proctor, C. H. R. Raetz, and J. A. Will. Pulmonary pressor responses in



- sheep to chemically defined precursors of E. coli Endotoxin. *J. Appl. Physiol.* pp. 1141-1149 (1987).
88. Archer, S. L., J. A. Will, and E. K. Weir. Cor pulmonale due to diseases affecting primarily the pulmonary parenchyma. *Herz* 11:127-141 (1986).
  89. Golenbock, D. T., J. A. Will, C. R. H. Raetz, and R. A. Proctor. Lipid X ameliorates pulmonary hypertension and protects sheep from death due to endotoxin. *Infect. Immun.* 55:2471-2476 (1987).
  90. Golenbock, D. T., J. A. Will, C. R. H. Raetz, and R. A. Proctor. Elimination and distribution of the monosaccharide lipid A precursor, lipid X, in mice and sheep. *Antimicrobial Agents and Chemotherapy* 32:37-41 (Jan. 1988).
  91. Keith, I. M., J. A. Will, R. J. Huxtable, and K. Weir. Anti-platelet agents reduce morphological changes of chronic hypoxic pulmonary hypertension. *Histol. Histopath.* 2:203-206 (1987).
  92. Coursin, D. B., H. P. Cihla, J. A. Will, and J. L. McCreary. Adaptation to chronic hyperoxia: Biochemical effects and the response to subsequent lethal hyperoxia. *Am. Rev. Respir. Dis.* 135:1002-1006 (1987).
  93. Leblanc, P. H., C. K. Buckner, D. B. Brunson, R. B. Laravuso, and J. A. Will. Differential Effect of Ketamine on Cholinergic- and Noncholinergic-Induced Contractions of Isolated Guinea-Pig Bronchi. *Archives Internationales de Pharmacodynamie et de Therapie*, 287(1):120-132 (1987).
  94. Bellay, Y. M., A. M. Dayer, J. E. Grossman, and J. A. Will. An immunocytochemical method for quantification of lung tissue fibronectin. *Proc. Exptl. Biol. Med.* 188:159-168 (1988).
  95. Buckner, C. K., R. Saban, W. L. Castleman, and J. A. Will. Analysis of leukotriene receptor antagonists on isolated human intralobar airways. *Biology of Leukotrienes in Ann. NY Acad. Sci.* 524:181-186 (1988).
  96. Sufit, R. L., J. F. Kreul, Y. M. Bellay, P. Helmer, D. B. Brunson, and J. A. Will. Doxacurium and Mivacurium do not Trigger Malignant Hyperthermia in Susceptible Swine. *Anesth. Analg.* 71:285-287 (1990).
  97. Buckner, C. K., J. Ro, J. Brendel, R. I. Fishleder, J. A. Will, R. Conklin, and F. M. Graziano. Studies of desensitization and cross-desensitization to immunologic and non-immunologic stimuli that evoke contraction and histamine release in superfused guinea pig trachea. *J. Allergy Clin. Immunol.* 87:655-661 (1991).
  98. Buckner, C. K., S. V. Ghanekar, J. S. Kays, R. D. Krell, R. I. Fishleder, J. A. Will, and J.M. Vann. Pharmacological studies of tachykinin receptors mediating contraction of isolated airway smooth muscle. In "Advances in the Understanding and Treatment of Asthma", PJ Piper and RD Krell, Eds. *Annals NY Acad. Sci.* 629 (1991).
  99. Reasor, M. and J. Will. Assessing exposure to environmental tobacco smoke: Is it valid to extrapolate from active smoking? *J. of Smoking Related Disorders* 2(1); 111-127, Mar.(1991).
  100. Buckner, C.K., R.I. Fishleder, R. Conklin, J.A. Will, O. Doran, and F. M. Graziano. Pharmacologic modulation of the influence of the epithelium on immunologic- and nonimmunologic-induced histamine release and contraction in guinea pig superfused tracheal strips. *J. Pharm. Exp. Therapeutics.* 264(2):717-725(1993).
  101. Abdalla, S., R.B. Laravuso and J.A. Will. Mechanisms of the Inhibitory Effect of Ketamine on Guinea-Pig Isolated Main Pulmonary Artery. *Anesth Anal* 78: 17-22, 1994
  102. Peterson, AC, AJ La Loggia, LK Hammaker, RA Arend, PL Fisette, Y Ozaki, JA Will, RB Brown, and JM Cook. Evaluation of substituted b-carbolines as noncompetitive indolamine 2,3-dioxygenase inhibitors. *Med Chem Res* 3:473-482, 1993.
  103. Peterson, AC, MT Migawa, MJ Martin, LK Hamaker, KM Czerwinski, W Zhang, RA Arend, PL Fisette, Y Ozaki, JA Will, RB Brown, and JM Cook. Evaluation of functionalized tryptophan derivatives and related compounds as competitive inhibitors of indolamine 2,3-dioxygenase. *Med Chem Res* 3:531-544, 1994.
  104. Sparwasser, C, P Drescher, JA Will, and PO Madsen. Smooth muscle tone regulation in rabbit

- cavernosal and spongiosal tissue by cyclic AMP- and cyclicGMP-dependent mechanisms. *J Urol* 152:2159-2163, 1994.
105. Abdalla S. and J.A. Will. Effects of hypoxia, mechanical and chemical endothelium denudation on guinea-pig isolated pulmonary arteries. *Gen Pharmac.* 26:113-122, 1995.
  106. Abdalla, S. and J.A. Will. Potentiation of the hypoxic contraction of guinea-pig isolated pulmonary arteries by two inhibitors of superoxide dismutase. *Gen. Pharmac.* 26:785-792, 1995.
  107. F.J. Pereira, P. Drescher, D. Rauch, P.O. Madsen and J.A. Will. Comparative regulation of  $\alpha_1$ -adrenergic receptor mediated contraction in urogenitally derived smooth muscle. Effect of epidermal growth factor. *Urological Research*, 25: S 13 - S 19. 1997.
  108. N. Trakranrungsie and J.A. Will. Vaso-reactivity of isolated bovine intramammary artery to endogenous prostanoids and nitric oxide. *Journal of Veterinary Pharmacology and Therapeutics*, 20: No. 3, 209 - 215. 1997.
  109. Woo, E.J., S. Tungjitkusolmun, H. Cao, J.-Z. Tsai, J. G. Webster, V. R. Voperian, and J.A. Will. A new catheter design using needle electrode for subendocardial RF ablation of ventricular muscles: Finite element analysis and *in vitro* experiments. *IEEE Transactions on Biomed. Engr.* 47:No. 1, 23-32. 2000.
  110. Trakranrungsie, N. and J.A. Will Comparative vasodilation of peroxynitrate and 3-morpholinolinosydnonimine. *Life Sciences* 69, No. 20, 2349-2361, 2001
  111. Tsai, J.-Z., J.A. Will, S. Hubbard-Van Steele, H. Cao, S. Tungjitkusolmun, Y.B. Choy, D. Haemmerich, V. R. Voperian, and J. G. Webster. *In-Vivo* Measurement of Swine Myocardial resistivity. *IEEE Transactions on Biomed. Engr.* 49:No. 5, 472-484, 2002.
  112. Tsai, J.-Z., J.A. Will, S. Hubbard-Van Steele, H. Cao, S. Tungjitkusolmun, Y.B. Choy, D. Haemmerich, V. R. Voperian, and J. G. Webster. Error analysis of tissue resistivity measurement. *IEEE Transactions on Biomed. Engr.* 49:No. 5, 484-501, 2002.
  113. Severtson, D.J., L.C. Baumann, and J.A. Will. A participatory assessment of environmental health concerns in an Ojibwa community. *Public Health Nursing* 19:No. 1, 47-58, 2002
  114. Tsai, J.-Z., J. A. Will, V. R. Vorperian, S. Hubbard-Van Stelle, H. Cao, S. Tungjitkusolmun, Y. B. Choy, and J. G. Webster. In vitro measurement of myocardial impedivity anisotropy with a miniature rectangular tube, *IEEE Trans. Biomed. Eng.*, *IEEE Transactions on Biomed. Engr.* 50:No. 4, 528-532, 2003.
  115. 115. Zhang, J. J.-Z. Tsai, H. Cao, Y. Chen, J.A. Will, V.R. Vorperian and J.G. Webster. Non-contact radio-frequency ablation for obtaining deeper lesions. *IEEE Transactions on Biomed. Engr.* 50:No 2, 218-223, 2003.
  116. dos Santos, I., Will, J. A., da Rocha, A. F., Nascimento, F. A., Webster, J. G., Valvano, J. W., In vivo measurements of heat transfer on the endocardial surface, *Physiol. Meas.* 24, 793-804, 2003.
  117. 117. Chanchana Tangwongsan, James A. Will, John G. Webster, Kenneth L. Meredith, Jr., and David M. Mahvi. *In Vivo* Measurement of Swine Endocardial Convective Heat Transfer Coefficient. *IEEE Transactions On Biomedical Engineering*, Vol. 51, No. 8, 1478-1486, August 2004.
  118. 118. D. Yang, J. M. Bertram, M. C. Converse, A. P. O'Rourke, J. G. Webster, S. C. Hagness, J. A. Will, and D. M. Mahvi, A floating sleeve antenna yields localized hepatic microwave ablation, *IEEE Trans. Bomed. Eng.*, Vol. 53, No. 3, 533-538, March 2006.
  119. 119. Wu, J.-Y., H. Sun, A.P. O'Rourke, S. Huebner, P.S. Rahko, J.A. Will, and J.G. Webster. Taser dart-to-heart distance that causes ventricular fibrillation in pigs. *IEEE Trans. Bomed. Eng.*, Vol. 54, No. 3, 503-509, March 2007.
  120. 120. Kim, Cheolkyun, A.P. O'Rourke, J.A. Will, D.M. Mahvi, J.G. Webster. Finite-Analysis of Hepatic Cryoablation Around a Large Blood Vessel. *IEEE Trans.*

Abstracts:

1. Afonso, S., J. A. Will, and G. S. O'Brien. Temperature Changes in the Heart Muscle During the Cardiac Cycle. *The Physiologist* 8(3):98 (1965).
2. O'Brien, G. S., S. Afonso, J. A. Will, and G. G. Rowe. Beta-Adrenergic Blockade and Heart Rate in Dogs. *The Physiologist* 8(3):244 (1965).
3. Will, J. A., M. M. Evans, W. E. Weirich, and C. W. Crumpton. Production of Myocardial Infarction in the Intact Calf by a Thermal Catheter Technique. *Fed. Proc.* 28(2):709 (1969).
4. Banchemo, N., J. A. Will, and R. F. Grover. Oxygen Transport in the Llama. *The Physiologist* (1969):166.
5. Tucker, C. E., J. A. Will, and R. F. Grover. Pulmonary Hypertension in the Goat at High Altitude. *The Physiologist* (1969):378.
6. Bisgard, G. E., A. V. Ruiz, J. A. Will, and G. F. Filley. Ventilatory Response to Acute and Chronic Hypoxia in the Calf. *Fed. Proc.* 31(2):391 (1972).
7. Will, J. A., G. E. Bisgard, and R. F. Grover. Is High-Altitude Pulmonary Arterial Hypertension an Adaptive Phenomenon? *J. Path.* 109(1):Pvi-Pvii (1973).
8. Bisgard, G. E., A. V. Ruiz, and J. A. Will. Distribution of Ventilation and Perfusion of the Lung in Man and Animals at Sea Level and High Altitude. Supplement to V. 16, *Internat. J. of Biometeorology*. *Biometereology* 5:37-38 (1972).
9. Forester, H., L. Hamilton, and J. A. Will. Effect of Altitude Sojourn (3400 m) on Ventilation and Cerebral Spinal Fluid and Arterial Acid Base Status. *Fed. Proc.* 32(3):370 (1973).
10. Will, J. A., and G. E. Bisgard. Comparative Hemodynamics of Domestic Animals at High Altitude. *Pulmonary Circulation II, Prague, Czechoslovakia*, p.65 (1974).
11. Hayes, B., G. E. Bisgard, and J. A. Will. Sympathomimetic Amines, Hypoxia, and Pulmonary Hypertension in Rats at  $P_B$  740 and  $P_B$  380 mmHg. *Conf. Res. W. An. Dis., Chicago, Dec.* 2-3, 1974.
  
12. Ungerer, T., J. A. Orr, G. E. Bisgard, and J. A. Will. Hemodynamic Responses in the Pig: The Acute Effects of Serotonin, Hypoxia and Prostaglandins. *Conf. Res. Workers An. Dis., Chicago, Dec.* 2-3, 1974.
13. Will, J. A., P. Katomski, D. D. Buss, and D. H. Will. Norepinephrine Uptake in the Lung. A Relationship to Pulmonary Vascular Reactivity? Abstract, *The Physiologist* 18(3):451 (1975).
14. Hayes, B. E., and J. A. Will. Study in the Rat of Thermodilution Output: Comparison Between Different Sampling Sites. *Fed. Proc.* 36(3):483 (1977).
15. Hernandez-Vasquez, A., J. A. Will, and W. B. Quay. Quantitative Differences in the Feyrter (APUD) Cells of the Lung in Normoxic and Chronic Hypoxic Neonatal Rabbits. *Fed. Proc.* 36(3):533 (1977).
16. Will, J. A., and G. E. Bisgard. Comparative Hemodynamics of Domestic Animals at High Altitude. *Pulmonary Circulation II, Prague, Czechoslovakia*, p. 65 (1974).
17. Hayes, B., G. E. Bisgard, and J. A. Will. Sympathomimetic Amines, Hypoxia, and Pulmonary Hypertension in Rats at  $P_B$  740 and  $P_B$  380 mmHg. *Conf. Res. W. An. Dis., Chicago, Dec.* 2-3, 1974.
18. Ungerer, T., J. A. Orr, G. E. Bisgard, and J. A. Will. Hemodynamic Responses in the Pig: The Acute Effects of Serotonin, Hypoxia and Prostaglandins. *Conf. Res. Workers An. Dis., Chicago, Dec.* 2-3, 1974.
19. Will, J. A., P. Katomski, D. D. Buss, and D. H. Will. Norepinephrine Uptake in the Lung. A Relationship to Pulmonary Vascular Reactivity? Abstract, *The Physiologist* 18(3):451 (1975).
20. Hayes, B. E., and J. A. Will. Study in the Rat of Thermodilution Output: Comparison

- Between Different Sampling Sites. Fed. Proc. 36(3):483 (1977).
21. Hernandez-Vasquez, A., J. A. Will, and W. B. Quay. Quantitative Differences in the Feyrter (APUD) Cells of the Lung in Normoxic and Chronic Hypoxic Neonatal Rabbits. Fed. Proc. 36(3):533 (1977).
  22. Polak, J. M., S. R. Bloom, J. Wharton, M. Ghatei, M. Brown, and J. A. Will. Bombesin - A New Lung Peptide. Fed. Proc. 37(3):807 (1978).
  23. Will, J. A., and R. H. Demling. The Effects of Furosemide on the Pulmonary Microcirculation. Fed. Proc. 37(3):636 (1978).
  24. Manohar, M., G. E. Bisgard, V. Bullard, J. A. Will, D. Anderson, and J. H. G. Rankin. Regional Myocardial Blood Flow During Acute Right Ventricular Systolic Hypertension in Calves. Fed. Proc. 37(3):236 (1978).
  25. Cueva, S., C. K. Buckner, and J. A. Will. Responses of Guinea-pig Pulmonary Vascular Segments to Adrenergic Agonists. Fed. Proc. 38(3):1336 (1979).
  26. Will, J. A., S. W. Gewalt, and A. Pena. The Anthracycline Rabbit Model: A Quantitative Morphometric Analysis. VII European Congress of Cardiology; Paris, 22-26 June 1980.
  27. Will, J. A., I. Keith, and E. K. Weir. Captopril (SQ 14225) Protects Rabbit Fetuses and Neonates From Hypoxic Myocardial and Pulmonary Vascular Changes. XXVIII International Congress of Physiological Sciences. July 13-19, 1980 Budapest, Hungary.
  28. Brown, M. J., D. F. Erichsen, R. Helgersen, and J. A. Will. Modification of the Preparation of Chronic Lung Lymph Fistula In Sheep. 32nd Session Amer. Assoc. For Lab. Animal Sci., September 20-25, 1981 Salt Lake City, Utah.
  29. Brown, M. J., R. Sorenson, and J. A. Will. The Acute and Chronic Effects of Hemorrhagic Shock On Pulmonary Capillary Endothelium. Fed. Proc. March 1981.
  30. Keith, I., and J. Will. A Study of APUD Cell Function in the Rabbit Lung. The 60th Conference of Research Workers in Animal Diseases. 1979.
  31. Keith, I., J. Will, and E. Weir. Effects of Captopril (SQ 14225) on Fetal Survival in the Rabbit. The 60th Conference of Research Workers in Animal Diseases. 1979.
  32. Will, J., I. Keith, and E. Weir. Pulmonary Vasodilators in Experimental Chronic Pulmonary-Hypertension. Bull. Europ. Physiopath. Resp. 18:4, p. 91, 1982.
  33. Mesina, J., R. Proctor, G. Bisgard, A. Nielsen, and J. Will. Low Dose Endotoxin Protects Against 3-Methylindol Toxicity. Clin. Res. 29:739A, 1982.
  34. Will, J. A., A. M. Nielsen, J. W. Eaton, and E. K. Weir. Oxidants Cause Pulmonary Vasodilation. Bull. Europ. Physiopath. Resp. 18:4, p. 93, 1982.
  35. Weir, E. K., L. J. Lundquist, E. Chesler, J. Will, and J. W. Eaton. A New Group of Pulmonary Vasodilators. Circ. 91:49, 1982.
  36. Hand, J. M., R. B. Laravuso, and J. A. Will. A non-adrenergic relaxant response of isolated guinea-pig pulmonary artery to field stimulation. Fed. Proc. 42(3):490, 1983.
  37. Weir, E. K., A. M. Nielsen, and J. A. Will. Selenium and vitamin E deficiencies decrease the medial thickness of small pulmonary arteries. Fed. Proc. 42(3):490, 1983.
  38. Will, J. A., A. M. Nielsen, and J. T. Meehan. Chronic inhibition of angiotensin converting enzyme (ACE) with MK421 in normotensive, normoxic guinea pigs. Fed. Proc. 42(3):645, 1983.
  39. Coursin, D. B., R. M. Lackowicz, R. A. Proctor, and J. A. Will. Human lung appears to have indoleamine 2,3-dioxygenase activity; a potential oxygen radical scavenger. Fed. Proc. 42(4):798, 1983.
  40. Dayer, A. M., Y. Kapanci, A. Rademakers, P. J. Marangos, J. DeMey, and J. A. Will. Neuron specific enolase and serotonin distribution in the fetal Rhesus monkey lung by immunocytochemistry. Fed. Proc. 42(4):798, 1983.
  41. Gonder, J. C., J. A. Will, and R. A. Procter. Possible genetic relationship between cytochrome P-450 enzyme induction and oxidative stress. Fed. Proc. 42(4):799, 1983.
  42. Abdalla, S. S., R. B. Laravuso, and J. A. Will. Effects of ketamine on pulmonary arteries of the

- guinea-pig. Fed. Proc. 42(4):906, 1983.
43. Laravuso, R. B., L. Will, and J. A. Will. Effects of ketamine on airway smooth muscle. Fed. Proc. 42(4):906, 1983
  44. Burhop, K. E., R. B. Helgerson, R. A. Proctor, C. R. H. Raetz, and J. A. Will, Lipid X (LX), a monosaccharide subunit of lipid A reproduces the pathophysiological effects of endotoxin (LPS). Fed. Proc. 42(4):1108, 1983.
  45. Saban, R., J. A. Will, and C. K. Buckner. Enhancement of phentolamine of responses to 5-HT after tachyphylaxis. Fed. Proc. 42(4):1151, 1983.
  46. Malcorps, C. M., C. A. Dawson, J. H. Linehan, T. A. Bronikowski, A. G. Herman, E. N. Lightfoot, and J. A. Will. Impact of venous dispersion on lung serotonin uptake kinetics. Fed. Proc. 42(5):1265, 1983.
  47. Coursin, D. B., J. L. McCreary, and J. A. Will. Bleomycin does not decrease survival time of acute oxygen toxicity. Fed. Proc. 43(4):880, 1984.
  48. Will, J. A., A. M. Dayer, A. Rademakers, J. DeMey, and Y. Kapanci. Fetal monkey lung neuroepithelial body numbers increase following dexamethasone treatment. Fed. Proc. 43(4):880, 1984.
  
  49. Dayer, A. M., A. Rademakers, J. DeMey, and J. A. Will. Serotonin, bombesin, and somatostatin-like immunoreactivity in neuroepithelial bodies (NEBs) of Rhesus monkey fetal lung. Fed. Proc. 43(4):880, 1984.
  50. McCreary, J. L., D. B. Coursin, and J. A. Will. Indoleamine 2,3-dioxygenase (IDO) activity is low in mice resistant to hyperoxia. Fed. Proc. 43(4):889, 1984.
  51. Abdalla, S. S., R. B. Laravuso, and J. A. Will. No role for 5-HT histamine, prostaglandins, or leukotrienes in hypoxic pulmonary vasoconstriction of isolated guinea pig pulmonary arteries. Fed. Proc. 43(4):922, 1984.
  52. Laravuso, R. B., S. S. Abdall, and J. A. Will. Ketamine inhibits CA<sup>2+</sup> influx in isolated guinea pig pulmonary arteries. Fed. Proc. 43(4):939, 1984.
  53. Abdalla, S. S., B. F. Rusy, R. B. Laravuso, and J. A. Will. Effects of halothane on hypoxic contraction in isolated pulmonary arteries. Anesthesiology 61:3A, A518, Sept. 1984.
  54. Coursin, D.B., McCreary, J.L., Rademakers, A., Gendron-Fitzpatrick, A., and Will, J.A. Belomycin pulmonary toxicity with subsequent hyperoxic exposure is ameliorated by pretreatment with endotoxin. Anesthesiology 61:3A, A142, Sept. 1984.
  55. McCreary, J. L., D. B. Coursin, and J. A. Will. Genetic differences regulate indoleamine 2,3-dioxygenase (IDO) O<sub>2</sub> radical scavenging activity in hyperoxia. Anesthesiology 61:3A, A143, Sept. 1984.
  56. McCreary, J. L., D. B. Coursin, and J. A. Will. Dose dependence of indoleamine 2,3-dioxygenase (IDO) activity on substrates in human lung. Fed. Proc. 44(4):917, 1985.
  57. Coursin, D. B., J. L. McCreary, and J. A. Will. Superoxide dismutase (SOD) may protect bleomycin toxicity in oxygen. Fed. Proc. 44(4):917, 1985.
  58. Will, J. A., A. Rademakers, and A. M. Dayer. Cholecystinin-like immunoreactivity in neuroepithelial bodies (NEB) of the fetal Rhesus monkey lung. Fed. Proc. 44(4):917, 1985.
  59. Dayer, A. M., J. DeMey, and J. A. Will. Somatostatin (SOM), vasoactive intestinal peptide (VIP), and substance P (SP) immunoreactive (IR) nerves in the fetal Rhesus monkey lung. Fed. Proc. 44(4):917, 1985.
  60. Buckner, C. K., R. B. Laravuso, and J. A. Will. Relaxation of guinea-pig pulmonary artery by serotonin(s). Fed. Proc. 44(4):1244, 1985.

*Stopped listing abstracts in 1985*