

CURRICULUM VITAE

Elizabeth R. Jacobs MD

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OFFICE ADDRESS:

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EDUCATION:

- 10/17/2004 - 10/29/2004 Harvard University School of Public Health Leadership Development for Physicians in Academic Health Centers
- 05/1974 BS, Marquette University, Milwaukee, WI
- 05/2009 MBA, University of Wisconsin-Milwaukee, Milwaukee, WI
- 05/1977 MD, University of Kansas School of Medicine, Kansas City, KS

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

- 07/1985 - 07/1989 Post graduate training electrophysiology with TE DeCoursey, Rush Medical College, Chicago, IL
- 06/1980 Residency, Internal Medicine, University of Kansas School of Medicine, KS
- 06/1982 Fellowship, Pulmonary and Critical Care Diseases, University of Arkansas Medical Science Center, AR

FACULTY APPOINTMENTS:

- 1982 - 1984 Assistant Professor of Medicine, University of Oklahoma Health Science Center
- 1984 - 1987 Assistant Professor of Medicine, Rush Presbyterian St. Luke's Medical Center
- 1987 - 1989 Associate Professor of Medicine, Rush Presbyterian St. Luke's Medical Center
- 1989 - 1999 Associate Professor Medicine and Physiology, Medical College of Wisconsin, Milwaukee, WI
- 1989 - Present Staff Physician, Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 1989 - Present Staff Physician, Clement J. Zablocki VA Medical Center, Milwaukee, WI
- 1999 - Present Professor of Medicine and Physiology, Medical College of Wisconsin, Milwaukee, WI

ADMINISTRATIVE APPOINTMENTS:

- 1984 - 1989 Director of Research, Pulmonary and Critical Care Medicine, Rush Presbyterian St. Luke's Medical Center
- 1987 - 1989 Co director, Patch Clamp Center, Rush Presbyterian St. Luke's Medical Center
- 1989 - 2002 Director of Research, Pulmonary and Critical Care Medicine, Medical College of Wisconsin, Milwaukee, WI
- 1999 - Present Associate Director, Cardiovascular Center, Medical College of Wisconsin, Milwaukee, WI
- 2001 - 2011 Chief, Medicine, Pulmonary and Critical Care Medicine, Medical College of Wisconsin, Milwaukee, WI
- 2004 - 2006 Co-Director, Translational Research Initiative, Medical College of Wisconsin, Milwaukee, WI
- 2005 - 2007 Clinical Director, Cardiovascular Research Center, Medical College of Wisconsin, Milwaukee, WI
- 2011 - Present Associate Dean of Research, Medical College of Wisconsin
- 2011 - Present Associate Chief of Staff, Research and Development, Clement J. Zablocki VA Medical Center

EDUCATIONAL ADMINISTRATIVE APPOINTMENTS:

1999 - 2014 Coordinator Research Experience, Medicine, Pulmonary and Critical Care Medicine, Medical College of Wisconsin, Milwaukee, WI

HOSPITAL AND CLINICAL ADMINISTRATIVE APPOINTMENTS:

- 1989 - Present Staff Physician, Clement J. Zablocki VA Medical Center, Milwaukee, WI
- 1989 - Present Staff Physician, Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2001 - 2011 Member, Hospital Advisory Committee, Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2002 Member Ambulatory Space subcommittee to review space allocations, Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2003 Participant Business planning retreat for Senior faculty and Board of Directors., Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2003 - 2011 Member Clinical Strategic Planning Committee Froedtert/MCW., Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2003 - 2011 Member Froedtert Hospital Advisory Board, Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2005 - 2008 Member Medical Executive Committee, Froedtert Hospital, Froedtert Memorial Lutheran Hospital, Milwaukee, WI
- 2011 - Present Dean's Committee VA, Clement J. Zablocki VA Medical Center, Milwaukee, WI
- 2011 - Present Medical Executive Committee, Clement J. Zablocki VA Medical Center, Milwaukee, WI
- 2011 - Present Research and Development Committee, Clement J. Zablocki VA Medical Center, Milwaukee, WI

RESEARCH ADMINISTRATIVE APPOINTMENTS:

- 2004 - 2006 Co-Director, Translational Research Initiative, Medical College of Wisconsin, Milwaukee, WI
- 2005 - 2007 Clinical Director, Cardiovascular Research Center, Medical College of Wisconsin, Milwaukee, WI
- 2011 - Present Associate Dean of Research, Medical College of Wisconsin, Milwaukee, WI
- 2011 - Present Associate Chief of Staff, Research and Development, Clement J. Zablocki VA Medical Center, Milwaukee, WI

HOSPITAL STAFF PRIVILEGES:

- 1982 - 1984 University of Oklahoma Health Science Center Medical Center, 1100 N Lindsay Ave, Oklahoma City, OK 73104
- 1984 - 1989 Rush Presbyterian St. Luke's Medical Center, 1653 W. Congress Parkway, Chicago, IL 60612
- 1989 - Present Clement J. Zablocki VA Medical Center, 5000 W. National, Milwaukee, WI 53295
- 1989 - Present Froedtert Memorial Lutheran Hospital, 9200 W Wisconsin Ave, Milwaukee, WI 53226

SPECIALTY BOARDS AND CERTIFICATION:

<u>Board Certified</u>	<u>Issue Date</u>	<u>Expiration</u>
American Board of Internal Medicine	06/1980	None
American Board of Internal Medicine, Pulmonary Diseases	06/1982	None

<u>Certificates</u>	<u>Issued By</u>	<u>Issue Date</u>	<u>Expiration</u>
ACLS	AHA	06/2013	06/2015

AWARDS AND HONORS:

- 2005 Distinguished Achievement Award, Milwaukee Academy of Medicine
- 2012 Graduate of the Decade, University of Wisconsin Milwaukee
- 2007 Women in Science , Medical College of Wisconsin
- 1983 Selected to participate in Pulmonary Physicians of the Future Conference, American College of Chest Physicians

- 2010 Distinguished Editorial Review Panel, Hematology and Cardiovascular-Respiratory Sciences section, NIH
- 2012 Distinguished Scientist Honor Lecture In Cardiopulmonary Physiology, American College of Chest Physicians
- 2009 Helen Dickie Woman Physician of the Year, Wisconsin ACP
- 1983 Judge, Alfred A. Richmond essay and research contest , American College of Chest Physicians

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

- American College of Chest Physicians (Active)
- American Physiological Society (Active)
- Central Society for Clinical Research (Active)
- American Association for the Advancement of Science (Active)
- American Heart Association (Active)
- American Thoracic Society (Active)

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers

1. Sweeney DC, Greenberg JS, McAfee JG, **Jacobs ER**. Benign bone lesions simulating metastases on Tc-99m diphosphonate imaging. *Clin Nucl Med*. 1992 Feb;17(2):134-6.
2. **Jacobs ER**, DeCoursey TE. Mechanisms of potassium channel block in rat alveolar epithelial cells. *J Pharmacol Exp Ther*. 1990 Nov;255(2):459-72.
3. Nelson DJ, **Jacobs ER**, Tang JM, Zeller JM, Bone RC. Immunoglobulin G-induced single ionic channels in human alveolar macrophage membranes. *J Clin Invest*. 1985 Aug;76(2):500-7. PMID: PMC423851
4. DeCoursey TE, **Jacobs ER**, Silver MR. Potassium currents in rat type II alveolar epithelial cells. *J Physiol*. 1988 Jan;395:487-505. PMID: PMC1192006
5. **Jacobs ER**, DeCoursey TE. Ion channels in the metabolic regulation of respiratory cells. *Clin Chest Med*. 1989 Mar;10(1):25-36.
6. Elpern EH, **Jacobs ER**, Bone RC. Incidence of aspiration in tracheally intubated adults. *Heart Lung*. 1987 Sep;16(5):527-31.
7. Bone RC, **Jacobs ER**, Wilson FJ Jr. Increased hemodynamic and survival with endotoxin and septic shock with ibuprofen treatment. *Prog Clin Biol Res*. 1987;236A:327-32.
8. **Jacobs ER**, Bone RC. Therapeutic implications of acute lung injury. *Crit Care Clin*. 1986 Jul;2(3):615-28.
9. **Jacobs ER**, Bone RC. Clinical indicators in sepsis and septic adult respiratory distress syndrome. *Med Clin North Am*. 1986 Jul;70(4):921-32.
10. Goodpasture HC, Dolan PJ Jr, **Jacobs ER**, Meredith WT. Pseudomembranous colitis & antibiotics. *Kans Med*. 1986 May;87(5):133, 146.
11. **Jacobs ER**, Bone RC. Mediators of septic lung injury. *Med Clin North Am*. 1983 May;67(3):701-15.
12. Bone RC, **Jacobs ER**. Research on ibuprofen for sepsis and respiratory failure. *Am J Med*. 1984 Jul 13;77(1A):114-20.
13. Soulsby ME, **Jacobs ER**, Perlmutter BH, Bone RC. Protection of myocardial function during endotoxin shock by ibuprofen. *Prostaglandins Leukot Med*. 1984 Mar;13(3):295-305.
14. **Jacobs ER**, Soulsby ME, Bone RC, Wilson FJ Jr, Hiller FC. Ibuprofen in canine endotoxin shock. *J Clin Invest*. 1982 Sep;70(3):536-41. PMID: PMC370254
15. Gerboth GD, Effros RM, Roman RJ, **Jacobs ER**. pH-induced calcium transients in type II alveolar epithelial cells. *Am J Physiol*. 1993 May;264(5 Pt 1):L448-57.
16. **Jacobs ER**, Cheliakine C, Gebremedhin D, Birks EK, Davies PF, Harder DR. Shear activated channels in cell-attached patches of cultured bovine aortic endothelial cells. *Pflugers Arch*. 1995 Nov;431(1):129-31.
17. Zou AP, Fleming JT, Falck JR, **Jacobs ER**, Gebremedhin D, Harder DR, Roman RJ. 20-HETE is an endogenous inhibitor of the large-conductance Ca(2+)-activated K+ channel in renal arterioles. *Am J Physiol*. 1996 Jan;270(1 Pt 2):R228-37.
18. Gebremedhin D, Kaldunski M, **Jacobs ER**, Harder DR, Roman RJ. Coexistence of two types of Ca(2+)-activated K+ channels in rat renal arterioles. *Am J Physiol*. 1996 Jan;270(1 Pt 2):F69-81.
19. Zou AP, Fleming JT, Falck JR, **Jacobs ER**, Gebremedhin D, Harder DR, Roman RJ. Stereospecific effects of epoxyeicosatrienoic acids on renal vascular tone and K(+)-channel activity. *Am J Physiol*. 1996

- May;270(5 Pt 2):F822-32.
20. Birks EK, Bousamra M, Presberg K, Marsh JA, Effros RM, **Jacobs ER**. Human pulmonary arteries dilate to 20-HETE, an endogenous eicosanoid of lung tissue. *Am J Physiol*. 1997 May;272(5 Pt 1):L823-9.
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 22. Gebremedhin D, Lange AR, Narayanan J, Aebly MR, **Jacobs ER**, Harder DR. Cat cerebral arterial smooth muscle cells express cytochrome P450 4A2 enzyme and produce the vasoconstrictor 20-HETE which enhances L-type Ca²⁺ current. *J Physiol*. 1998 Mar 15;507 (Pt 3)(Pt 3):771-81. PMID: PMC2230829
 23. Zhu D, Effros RM, Harder DR, Roman RJ, **Jacobs ER**. Tissue sources of cytochrome P450 4A and 20-HETE synthesis in rabbit lungs. *Am J Respir Cell Mol Biol*. 1998 Jul;19(1):121-8.
 24. Effros RM, Schapira R, Presberg K, Ozker K, **Jacobs ER**. Stop-flow studies of solute uptake in rat lungs. *J Appl Physiol* (1985). 1998 Sep;85(3):986-92.
 25. **Jacobs ER**, Effros RM, Falck JR, Reddy KM, Campbell WB, Zhu D. Airway synthesis of 20-hydroxyeicosatetraenoic acid: metabolism by cyclooxygenase to a bronchodilator. *Am J Physiol*. 1999 Feb;276(2):L280-8.
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 27. Effros RM, **Jacobs ER**, Schapira RM, Lin W, Presberg K. Increasing airway pressures can promote transvascular edema reabsorption. *Chest*. 1999 Jul;116(1 Suppl):30S-31S.
 28. Zhu D, Bousamra M 2nd, Zeldin DC, Falck JR, Townsley M, Harder DR, Roman RJ, **Jacobs ER**. Epoxyeicosatrienoic acids constrict isolated pressurized rabbit pulmonary arteries. *Am J Physiol Lung Cell Mol Physiol*. 2000 Feb;278(2):L335-43.
 29. Effros RM, **Jacobs ER**, Schapira RM, Biller J. Response of the lungs to aspiration. *Am J Med*. 2000 Mar 06;108 Suppl 4a:15S-19S.
 30. Zhu D, Birks EK, Dawson CA, Patel M, Falck JR, Presberg K, Roman RJ, **Jacobs ER**. Hypoxic pulmonary vasoconstriction is modified by P-450 metabolites. *Am J Physiol Heart Circ Physiol*. 2000 Oct;279(4):H1526-33.
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 33. Zhu D, Zhang C, Medhora M, **Jacobs ER**. CYP4A mRNA, protein, and product in rat lungs: novel localization in vascular endothelium. *J Appl Physiol* (1985). 2002 Jul;93(1):330-7.
 34. Serra A, Brozoski D, Simeon T, Yi J, Bastasic J, Franciosi R, **Jacobs ER**, Forster HV. Serotonin and serotonin receptor expression in the aorta of carotid intact and denervated newborns. *Respir Physiol Neurobiol*. 2002 Sep 04;132(3):253-64.
 35. Yu M, McAndrew RP, Al-Saghir R, Maier KG, Medhora M, Roman RJ, **Jacobs ER**. Nitric oxide contributes to 20-HETE-induced relaxation of pulmonary arteries. *J Appl Physiol* (1985). 2002 Oct;93(4):1391-9.
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 37. Zhu D, Medhora M, Campbell WB, Spitzbarth N, Baker JE, **Jacobs ER**. Chronic hypoxia activates lung 15-lipoxygenase, which catalyzes production of 15-HETE and enhances constriction in neonatal rabbit pulmonary arteries. *Circ Res*. 2003 May 16;92(9):992-1000.
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- H2O2, and PI3-kinase/Akt. *Am J Physiol Lung Cell Mol Physiol*. 2010 Apr;298(4):L564-74. PMID: PMC2853341
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62. Somberg L, Nirula R, Bousamra M 2nd, Friesema J, Zhu D, Medhora M, **Jacobs ER**. Effects of a localized high-flow anastomosis between the aorta and left lower lobe pulmonary artery on great vessel flow and pulmonary arterial reactivity in the contralateral lung. *J Thorac Cardiovasc Surg*. 2011 Feb;141(2):407-12. PMID: PMC3022966
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85. Patel JJ, Kozeniecki M, Biesboer A, Peppard W, Ray AS, Thomas S, **Jacobs ER**, Nanchal R, Kumar G. Early Trophic Enteral Nutrition Is Associated With Improved Outcomes in Mechanically Ventilated Patients With Septic Shock: A Retrospective Review. *J Intensive Care Med*. 2016 Aug;31(7):471-7.
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