

**BIOGRAPHICAL SKETCH**

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NAME	POSITION TITLE
Ann B. Kier	Professor, Department of Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University, College Station, TX

EDUCATION (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Texas, Austin, TX	B.A.	1971	Zoology
Texas A&M University, College Station, TX	B.S., D.V.M.	1974	Veterinary Medicine
University of Missouri, Columbia, MO	Ph.D.	1979	Comparative Pathology

NOTE: The Biographical Sketch may not exceed four pages. Items A and B may not exceed two of the four-page limit.

**A. Positions and Honors.** List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.**POSITIONS**

1976-1979	NIH Postdoctoral Fellow and Resident in Comparative Pathology and Laboratory Animal Medicine, Research Animal Diagnostic and Investigative Laboratory, University of Missouri, Columbia, MO
1979-1984	Assistant Professor, Pathology, VMDL, Department of Veterinary Pathology, University of Missouri, Columbia, MO
1984-1987	Associate Professor, Pathology and Microbiology, VMDL, University of Missouri, Columbia, MO
1987-1991	Associate Professor, Department of Pathology and Laboratory Medicine; University of Cincinnati College of Medicine, Cincinnati, OH
1991-1993	Professor and Director, Division of Comparative Pathology, Department of Pathology and Laboratory Medicine, University of Cincinnati College of Medicine, Cincinnati, OH
1993-2005	Professor and Head, Department of Pathobiology, TVMC, Texas A&M University, College Station, TX
1995-Present	Director, Transgenic Facility Core, Texas A&M University
2005-Present	Professor, Department of Pathobiology, TVMC, Texas A&M University, College Station, TX

**HONORS**

1980-1985	NIH Postdoctoral Fellowship; Diplomate, American College of Laboratory Animal Medicine; American Society of Investigative Pathology, FASEB; ASBMB, FASEB; NIH Special Emphasis Research Career Development Award (SERCA) in Laboratory Animal Science (KO1)
2004	Administrative Award, Women's Faculty Network, Texas A&M University
1986-1988	NIH/NCI Immunobiology Contract Review Study Section
1992-1996	NIH Comparative Medicine Study Section
2000-2001	Two Thousand Notable American Women
2002	Rhodes Faculty Abroad Program
1998-present	Editorial Board, Journal of Comparative Medicine
1997-present	ad hoc Study Sections, NIEHS, Mutant Mouse Resources, NCRR

**B. Selected (>180) peer-reviewed publications (in reverse chronological order).** Do not include publications submitted or in preparation.

- Fontaine RN, Gossett RE, Schroeder F, O'Toole BA, Doetschman T, Kier AB: Liver and intestinal FABPs in control and TGFβ1 gene targeted deficient mice. *Mol Cell Biol* 159: 149-153, 1996.
- Schroeder F, Atshaves B, Starodub O, Boedeker A, Smith R, Roths J, Foxworth W, Kier A: Expression of L-FABP alters growth and differentiation of ES cells. *Mol Cell Biochem* 219:127-138, 2001.
- Gallegos A, Atshaves B, Storey S, Starodub O, Petrescu A, Huang H, McIntosh A, Martin G, Chao H, Kier AB, Schroeder F: Gene structure, intracellular localization, and functions of SCP-2. *Prog Lip Res* 40: 498-563, 2001.
- Schroeder F, Gallegos AM, Atshaves BP, Storey SM, McIntosh AL, Petrescu AD, Huang H, Starodub O, Chao H, Yang Y, Frolov A, Kier AB: Recent advances in membrane microdomains: Rafts, caveolae, & intracellular cholesterol trafficking. *Exp Biol Med* 226:873-890, 2001.
- Huang H, Starodub O, McIntosh A, Kier A, Schroeder F: L-FABP targets fatty acids to nucleus: real time confocal and multiphoton fluorescence imaging in living cells. *J Biol Chem* 277:29139-29151, 2002.
- Chao H, Martin G, Russell W, Waghela S, Russell D, Schroeder F, Kier AB: Membrane charge & curvature determine interaction with ACBP and fatty acyl CoA targeting. *Biochemistry* 41:10540-10553, 2002.
- Petrescu AD, Hertz R, Bar-Tana J, Schroeder F, Kier AB: Ligand specificity and conformational dependence of the hepatic nuclear factor-4α (HNF-4α). *J Biol Chem* 277:23988-23999, 2002.

- Chao H, Zhou M, McIntosh A, Schroeder F, Kier A: ACBP and cholesterol differentially alter fatty acyl CoA utilization by microsomal acyl CoA:cholesterol acyltransferase. *J Lipid Res* 44:72-83, 2003.
- Petrescu AD, Payne HR, Boedecker A, Chao H, Hertz R, Bar-Tana J, Schroeder F, Kier AB: Physical and functional interaction of ACBP with HNF-4 $\alpha$ . *J Biol Chem* 278:51813-51824, 2003.
- Atshaves B, Gallegos A, McIntosh A, Kier A, Schroeder F: SCP-2 selectively alters lipid composition and cholesterol dynamics of caveolae/lipid raft vs nonraft domains in L-cell plasma membranes. *Biochemistry* 42:14583-14598, 2003.
- Huang H, Starodub O, McIntosh A, Atshaves B, Woldegiorgis G, Kier AB, Schroeder F: L-FABP colocalizes with PPAR $\alpha$  and enhances ligand distribution to nuclei of living cells. *Biochemistry* 43:2484-2500, 2004.
- Atshaves BP, Payne HR, McIntosh AL, Tichy SE, Russell D, Kier AB, Schroeder F: Sexually dimorphic metabolism of branched-chain lipids in C57Bl6/6J mice. *J Lipid Res* 45:812-830, 2004.
- Zhou M, Parr RD, Petrescu AD, Payne HR, Atshaves BP, Kier AB, Ball JM, Schroeder F: Sterol carrier protein-2 directly interacts with caveolin-1 *in vitro* and *in vivo*. *Biochemistry* 43:7288-7306, 2004.
- Atshaves B, McIntosh A, Payne H, Mackie J, Kier A, Schroeder F: Effect of branched-chain fatty acid on lipid dynamics in mice lacking the L-FABP gene. *Am J Physiol* 288:C543-C558, 2005.
- Petrescu AD, Hertz R, Bar-Tana J, Schroeder F, Kier AB: Role of regulatory F-domain in Hepatocyte Nuclear Factor-4 $\alpha$  ligand specificity. *J Biol Chem* 280:16714-16727, 2005.
- Schroeder F, Huang H, Hostetler HA, Petrescu AD, Hertz R, Bar-Tana J, Kier AB: Stability of fatty acyl CoA thioester ligands of HNF4 $\alpha$  and PPAR $\alpha$ . *Lipids* 40:559-568, 2005.
- Hostetler H, Petrescu A, Kier AB, Schroeder F: PPAR $\alpha$  interacts with high affinity and is conformationally responsive to endogenous ligands. *J Biol Chem* 280:18667-18682, 2005.
- Huang H, Atshaves BP, Frolov A, Kier AB, Schroeder F: Acyl-CoA binding protein expression alters liver fatty acyl CoA metabolism. *Biochemistry* 44:10282-10297.
- Martin GG, Atshaves BP, McIntosh AL, Mackie J, Kier AB, Schroeder F: L-FABP gene ablation alters liver bile acid metabolism in male mice. *Biochem. J.*, 391:549-560, 2005.
- Atshaves B, McIntosh A, Payne H, Mackie J, Kier A, Schroeder F: Effect of branched-chain fatty acid on lipid dynamics in mice lacking the L-FABP gene. *Am. J. Physiol.* 288:C543-C558, 2005.
- Martin GG, Atshaves BP, McIntosh A, Mackie J, Kier AB, Schroeder F: L-FABP gene ablation induces hypercholesterolemia in cholesterol-fed female mice. *Am. J. Physiol.* 290:G36-G48, 2006.
- Huang H, Atshaves BP, Frolov A, Kier AB, Schroeder F: Acyl-CoA binding protein expression alters liver fatty acyl CoA metabolism." *Biochemistry* 44:10282-10297, 2005.
- Martin GG, Atshaves BP, McIntosh AL, Mackie J, Kier AB, Schroeder F: L-FABP gene ablation alters liver bile acid metabolism in male mice. *Biochem. J.*, 391:549-560, 2005.
- Hostetler HA, Kier AB, Schroeder F: Very long chain & branched-chain fatty acyl CoAs are high affinity ligands for peroxisome proliferator activated receptor- $\alpha$  (PPAR- $\alpha$ ). *Biochemistry* 45:7669-7681, 2006.
- Bandichhor R, Petrescu AD, Vespa A, Kier AB, Schroeder F, Burgess K: Water soluble through bond energy transfer cassettes for intracellular imaging. *J Am Chem Soc* 128:10688-10689, 2006.
- Bandichhor R, Petrescu AD, Vespa A, Kier AB, Schroeder F, Burgess K: Synthesis of a new water soluble rhodamine derivative and application to protein labeling and intracellular imaging. *Bioconjugate Chem* 17:1219-1225, 2006.
- Gallegos AM, Storey SM, Kier AB, Schroeder F, Ball JM. Structure and cholesterol dynamics of caveolae/raft and non-raft plasma membrane domains. *Biochemistry* 45:12100-12116, 2006.
- Atshaves BP, McIntosh AM, Landrock D, Payne HR, Mackie, J, Maeda N, Ball J, Schroeder F, Kier AB. Effect of SCP-x gene ablation on branched-chain fatty acid metabolism. *Am J Physiol* 292:939-951, 2007.
- Parr RD, Martin G, Mir KD, Kier AB, Ball JM, Schroeder F: A new N-terminal recognition domain in Caveolin-1 interacts with Sterol Carrier Protein-2 (SCP-2). *Biochemistry*, in press, 2007.
- Storey SM, Gibbons TF, Williams CV, Parr RD, Schroeder F, Ball JM: Full-length, glycosylated NSP4 is localized to plasma membrane caveolae by a novel raft isolation technique. *Journal of Virology*, in press, 2007.
- Martin GG, Atshaves BP, McIntosh AL, Kier AB, Schroeder F: Effect of gender- and age-dependent obesity on lipid metabolism in Liver Fatty Acid Binding Protein (L-FABP) gene-ablated mice. *J Nutrition*, revision pending, 2007.
- Gallegos A, Storey A, Atshaves B, Martin G, Kier AB, Ball J, Schroeder F: Selective cholesterol dynamics between lipoproteins and caveolae/lipid rafts. *Biochemistry*, revision pending, 2007.
- Atshaves B, McIntosh A, Gallegos A, Payne H, Gallegos A, Landrock K, Maeda N, Kier AB, Schroeder F: Sterol carrier protein-2/sterol carrier protein-x gene ablation alters lipid raft domains in primary cultured mouse hepatocytes. *J Lipid Res.* in press, 2007.
- Atshaves BP, Jefferson JR, Kier AB, Schroeder F: SCP-2, a new sphingolipid binding protein, alters sphingolipid distribution in plasma membrane caveolae/lipid raft domains. In press, *Lipids*, 2007.