

Curriculum Vitae

Charles D. Loftin, Ph. D.

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Citizenship: USA

Education

Ph. D., Toxicology, 1995
University of North Carolina at Chapel Hill

B. S., Pharmacy, 1989
Auburn University School of Pharmacy

Chronology of Employment

1988 - 1989 Pharmacist, Charter Hospital Corporation
1989 - 1991 National Toxicology Program Predoctoral Fellowship
1991 - 1995 Intramural Research Training Award, NIEHS
1995 - 2000 Postdoctoral Fellow, NIEHS
2000 - 2002 Research Fellow, NIEHS
2002 - date Assistant Professor, Pharmaceutical Sciences, University of Kentucky

Honors

National Institute of Health Award of Merit for "The Development and Characterization of Mice in which the Cyclooxygenase-1 and Cyclooxygenase-2 Genes have been Disrupted as Models for the Study of Human Disease. 1996, *NIEHS, Research Triangle Park, North Carolina*

First Place Award, Graduate Student Poster Presentation, "Reduced COX-2 Expression Attenuates Ductus Arteriosus Constriction in Preterm Fetal Mice." .Cardiovascular Research Day 2004, *Lexington, Kentucky*.

Professional Memberships

American Heart Association Council on Arteriosclerosis, Thrombosis and Vascular Biology

Ohio Valley Society of Toxicology

Department and University Responsibilities

2002 - 2004	Academic Performance Committee, College of Pharmacy
2004 - 2006	Department Curriculum Graduate Research Committee, Department of Pharmaceutical Sciences
2004 - 2006	College of Pharmacy Curriculum Committee
2003 - 2005	Graduate Advisory Committee, Xue Luo (Daniel Tai)
2002 - 2006	Gill Heart Institute Cardiovascular Research Day Committee
2002 - 2006	Gill Heart Institute Cardiovascular Seminar Series Committee
2004 - 2006	Pharmacology AGS Coordinator, Department of Pharmaceutical Sciences
2004 - 2006	Graduate Advisory Committee, Matt Kelso (Jim Pauly)
2005 - 2006	Graduate Advisory Committee, Julie Oestreich (Scott Akers)
2005 - 2006	University Honors Code Committee

Teaching Experience

PHR 941 Cardiovascular, Renal and Pulmonary Pharmacology
Pharm. D. students, 2004 - 2006
University of Kentucky

PHR 921 Physiological Basis for Therapeutics II (Cardiovascular Physiology Section)
Pharm. D. students
Spring 2003
University of Kentucky

Mentoring Responsibilities

Post-doctoral Scholars

Pharmaceutical Sciences, University of Kentucky
July 2004 - 2006
Jonathan Gitlin

Graduate Students

Pharmaceutical Sciences, University of Kentucky
January 2003 - 2006
Darshini Trivedi

Undergraduate Students

Pharmaceutical Sciences Summer Research Program
University of Kentucky, KY
May 19-July 25, 2003
Dana Tucker

Summers of Discovery

National Institute of Environmental Health Sciences, NC
1996-2001
Alisha Sessoms
Alex Garcia
Mehul Trivedi

Publications

Morham SG, Langenbach R, **Loftin CD**, Tiano HF, Vouloumanos N, Jennette JC, Mahler JF, Kluckman KD, Ledford A, Lee CA and Smithies O. Prostaglandin synthase 2 gene disruption causes severe renal pathology in the mouse. *Cell*; 83(3):473-82, 1995.

Langenbach R, Morham SG, Tiano HF, **Loftin CD**, Ghanayem BI, Chulada PC, Mahler JF, Lee CA, Goulding EH, Kluckman KD, Kim HS and Smithies O. Prostaglandin synthase 1 gene disruption in mice reduces arachidonic acid-induced inflammation and indomethacin-induced gastric ulceration. *Cell*; 83(3):483-92, 1995.

Chulada PC, **Loftin CD**, Winn VD, Young D, Tiano HF, Eling TE and Langenbach R. Relative activities of retrovirally expressed murine prostaglandin synthase-1 and -2 depend on the source of arachidonic acid. *Archives of Biochemistry and Biophysics*; 330(2):301-13, 1996.

Loftin CD and Eling TE. Prostaglandin synthase 2 expression in epidermal growth factor-dependent proliferation of mouse keratinocytes. *Archives of Biochemistry and Biophysics*; 330(2):419-29, 1996.

Langenbach R, Morham SG, Tiano HF, **Loftin CD**, Ghanayem BI, Chulada PC, Mahler JF, Davis BJ, Lee CA. Disruption of the mouse cyclooxygenase 1 gene. Characteristics of the mutant and areas of future study. *Advances in Experimental Medicine and Biology*; 407:87-92, 1997.

Langenbach R, **Loftin CD**, Lee C, Tiano H. Cyclooxygenase-deficient mice. A summary of their characteristics and susceptibilities to inflammation and carcinogenesis. *Annals of the New York Academy of Sciences*; 889:52-61, 1999.

Langenbach R, **Loftin CD**, Lee C and Tiano H. Cyclooxygenase knockout mice - Models for elucidating isoform-specific functions. *Biochemical Pharmacology*; 58:1237-1246, 1999.

Xu H, Izon DJ, **Loftin CD**, and Spain LM. The COX-2 Inhibitor NS-398 Causes T Cell Developmental Disruptions Independent of COX-2 Enzyme Inhibition. *Cellular Immunology*; 214(2):184-93, 2001.

Gray T, **Loftin CD**, Tiano H, Langenbach R and Nettesheim P. COX-2 mediates IL-1beta-induced MUC5AC mucin secretion in human tracheobronchial epithelium. Submitted.

Loftin CD, Trivedi DB, Tiano HF, Clark JA, Lee CA, Epstein JA, Morham SG, Breyer MD, Nguyen M, Hawkins BM, Goulet JL, Smithies O, Koller BH and Langenbach R. Failure of Ductus Arteriosus Closure and Remodeling in Neonatal Mice Deficient in Cyclooxygenase-1 and Cyclooxygenase-2. *Proceedings of the National Academy of Sciences*; 98(3):1059-1064, 2001.

Kim K, Baek SJ, Flake GP, **Loftin CD**, Calvo BF and Eling TE. Expression and regulation of NAG-1, a anti-tumorigenic protein, in human and mouse colorectal tissue. *Gastroenterology*; 122(5):1388-98, 2002.

Loftin CD, Tiano HF, Langenbach R. Phenotypes of the COX-deficient mice indicate physiological and pathophysiological roles for COX-1 and COX-2. *Prostaglandins Other Lipid Mediat.* 2002 Aug;68-69:177-85.

Tiano HF, **Loftin CD**, Lee CA, Dunson DB, Rogan EG, Smart RC, Morham SG, Langenbach R. Deficiency of Either Cyclooxygenase-1 or Cyclooxygenase-2 Alters Epidermal Differentiation and Reduces Mouse Skin Tumorigenesis. *Cancer Research*; 62: 3395-3401, 2002.

Loftin CD, Trivedi DB and Langenbach R. Cyclooxygenase-1-Selective Inhibition Delays Labor in Mice and Lacks the Adverse Fetal and Neonatal Effects of Cyclooxygenase-2-Selective inhibition. *Journal of Clinical Investigation*; 110(4):549-57, 2002.

Gray T, Nettesheim P, **Loftin C**, Koo JS, Bonner J, Peddada S, Langenbach R. Interleukin-1beta-induced mucin production in human airway epithelium is mediated by cyclooxygenase-2, prostaglandin E2 receptors, and cyclic AMP-protein kinase A signaling. *Mol Pharmacol.* 2004 Aug; 66(2):337-46.

Schneider A, Guan Y, Zhang Y, Magnuson MA, Pettepher C, **Loftin CD**, Langenbach R, Breyer RM, Breyer MD. Generation of a conditional allele of the mouse prostaglandin EP(4) receptor. *Genesis.* 2004 Sep; 40(1):7-14.

King VL, Trivedi D, Gitlin JM, **Loftin CD**. Selective Cyclooxygenase-2 Inhibition With Celecoxib Decreases Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice. *Arterioscler Thromb Vasc Biol.* 2006 Mar 2.

Abstracts and Presentations

"Failure of Functional Closure of the Ductus Arteriosus in Mice Deficient in Both Isoforms of Cyclooxygenase." **Loftin CD** and Langenbach R. *International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation & Related Diseases.* September, 1999. Boston, Massachusetts.

"Studies with the COX-Deficient Mice Implicating COX-2 in Closure of the Ductus Arteriosus" **Loftin CD** and Langenbach R *Fourth International Workshop on COX-2.* February, 2001. San Juan, Puerto Rico.

"Failure of Postnatal Cardiovascular Remodeling in Mice Deficient in COX-1 and COX-2. " **Loftin CD** and Langenbach R. *University of Pennsylvania.* April 2001. Philadelphia, Pennsylvania

"Cyclooxygenase-2-Selective Inhibition Induces Patent Ductus Arteriosus Resulting in Neonatal Mortality in Mice. " **Loftin CD** and Langenbach R. *NIH Research Festival*. October, 2001. Bethesda, Maryland.

"Cyclooxygenase-2-Specific Inhibitors Induce Patent Ductus Arteriosus in Mice Resulting in Neonatal Mortality." **Loftin CD** and Langenbach R. *International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation & Related Diseases*. October, 2001. Nashville, Tennessee.

"Regulation of Ductus Arteriosus Closure in Neonatal Mice by COX-1 and COX-2. " **Loftin CD**. *Linda and Jack Gill Heart Institute Seminar Series, University of Kentucky*. May 2003.

"COX-2-Dependent Closure of the Ductus Arteriosus in Neonatal Mice." Trivedi D and **Loftin CD**. *Cardiovascular Research Day 2003, Lexington, Kentucky*.

"Deficiency or Inhibition of Cyclooxygenase-2 Decreased Angiotensin II-induced Abdominal Aortic Aneurysm Formation in B6/129Ola and C57BL/6 ApolipoproteinE^{-/-} Mice." Victoria L. King, Lisa A. Cassis, and Alan Daugherty and **Charles Loftin**. *Cardiovascular Research Day 2003, Lexington, Kentucky*.

"Selective Pharmacologic Cyclooxygenase-2 Inhibition Decreases Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Apolipoprotein E-Deficient Mice. " King VL, Daugherty A, Cassis LA and **Loftin CD**. *5th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology*. May 2004, San Francisco, California.

"Genetic or Pharmacological Inactivation of Cyclooxygenase-2 Decreases Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice. " **Loftin CD**, Trivedi D, Daugherty A, Cassis LA and King VL. *5th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology*. May 2004, San Francisco, California.

"Attenuated Cyclooxygenase-2 Expression Contributes to Patent Ductus Arteriosus in Preterm Neonatal Mice. " Trivedi D and **Loftin CD**. *5th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology*. May 2004, San Francisco, California.

"Reduced COX-2 Expression Attenuates Ductus Arteriosus Constriction in Preterm Fetal Mice." Trivedi D and **Loftin CD**. *Cardiovascular Research Day 2004, Lexington, Kentucky*.

"Genetic Deficiency of COX-2 Significantly Attenuates Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice." Gitlin JM, Trivedi DA and **Loftin CD**. *6th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology*. April 2005, Washington D.C.

"Reduced COX-2 Expression Attenuates Closure of the Ductus Arteriosus in Preterm Mice." Trivedi D and **Loftin CD**. *9th International Conference in Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases*. September 2005, San Francisco, California.

"Genetic or Pharmacological Inactivation of COX-2 Attenuates Abdominal Aortic Aneurysm Formation in Mice." Gitlin JM, Trivedi DA and **Loftin CD**. *9th International Conference in Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases*. September 2005, San Francisco, California.

"Attenuated COX-2 Expression in the Ductus Arteriosus of Preterm Wild-type Mice and Full-term EP4 Receptor-Deficient Mice". Trivedi D and **Loftin CD**. *Cardiovascular Research Day 2005, Lexington, Kentucky*.

"Genetic Deficiency of COX-2 Significantly Attenuates Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice." Gitlin JM, Trivedi DA and **Loftin CD**. *Cardiovascular Research Day 2005, Lexington, Kentucky*.

"COX-2-Selective Inhibition Induces Patent Ductus Arteriosus in Neonatal Mice". Trivedi D and **Loftin CD**. *Ohio Valley Society of Toxicology, Annual Meeting, 2005*. Louisville, Kentucky.

"Genetic Inactivation of COX-2 Attenuates Abdominal Aortic Aneurysm Formation in Mice." Gitlin JM, Trivedi DA and **Loftin CD**. *Keystone Symposia on Eicosanoids in Inflammation and Chronic Diseases, 2006*, Park City, Utah.

"Attenuated COX-2 Expression in the Ductus Arteriosus of Preterm Wild-Type Mice and Full-Term EP4 Receptor-Deficient Mice." Trivedi D and **Loftin CD**. *Keystone Symposia on Eicosanoids in Inflammation and Chronic Diseases, 2006*, Park City, Utah.