

Tina Machu, PhD
UNT System College of Pharmacy
Pharmaceutical Sciences
Email: Tina.Machu@unthsc.edu



Area of Expertise

My current scholarly interests include educational psychology and innovative learning strategies for professional students. I am particularly interested in pre- and post-matriculation non-cognitive attributes that influence academic success. During my career in biomedical research, I studied the structure and function of ligand-gated ion channels, with an emphasis on 5-Hydroxytryptamine₃ (5-HT₃) receptors. I investigated a putative alcohol-binding domain of the 5-HT₃ receptor. Another project focused on the 5-HT ligand (5-HT) binding domain of the receptor, with an emphasis on amino residues that couple agonist binding to conformational changes in the N-termini that initiate channel opening. The NIH, American Heart Association, and Alcoholic Beverage Medical Research Foundation have funded my research in this area.

Qualifications

PhD in Pharmacy, University of Texas at Austin
Award Date: 1 Jan 2001

BS in Pharmacy, University of Texas at Austin
Award Date: 1 Jan 2000

Recent Publications

Therapeutics of 5-HT₃ receptor antagonists: Current uses and future directions

MacHu, T. K., Jun 2011, In : *Pharmacology and Therapeutics*. 130, 3, p. 338-347 10 p.

Hydrophobic photolabeling studies identify the lipid-protein interface of the 5-HT_{3A} receptor

Sanghvi, M., Hamouda, A. K., Davis, M. I., Morton, R. A., Srivastava, S., Pandhare, A., Duddempudi, P. K., Machu, T. K., Lovinger, D. M., Cohen, J. B. & Blanton, M. P., 6 Oct 2009, In : *Biochemistry*. 48, 39, p. 9278-9286 9 p.

Colchicine: A novel positive allosteric modulator of the human 5-Hydroxytryptamine 3A receptor

De Oliveira-Pierce, A. N., Zhang, R. & Machu, T. K., 1 May 2009, In : *Journal of Pharmacology and Experimental Therapeutics*. 329, 2, p. 838-847 10 p.

The role of loop F residues in determining differential d-tubocurarine potencies in mouse and human 5-hydroxytryptamine 3A receptors

Zhang, R., Wen, X., Militante, J., Hester, B., Rhubottom, H. E., Sun, H., Leidenheimer, N. J., Yan, D., White, M. M. & Machu, T. K., 6 Feb 2007, In : *Biochemistry*. 46, 5, p. 1194-1204 11 p.

(3 chlorophenyl) biguanide

Machu, T., 1 Jan 2007, *xPharm: The Comprehensive Pharmacology Reference*. Elsevier Inc., p. 1-2 2 p.

GR65630

Machu, T., 1 Jan 2007, *xPharm: The Comprehensive Pharmacology Reference*. Elsevier Inc., p. 1-2 2 p.

LY278584

Machu, T., 1 Jan 2007, *xPharm: The Comprehensive Pharmacology Reference*. Elsevier Inc., p. 1-2 2 p.

SR57227A

Machu, T., 1 Jan 2007, *xPharm: The Comprehensive Pharmacology Reference*. Elsevier Inc., p. 1-2 2 p.

Zacopride

Machu, T., 1 Jan 2007, *xPharm: The Comprehensive Pharmacology Reference*. Elsevier Inc., p. 1-2 2 p.

N-terminal domains in mouse and human 5-hydroxytryptamine_{3A} receptors confer partial agonist and antagonist properties to benzylidene analogs of anabaseine

Zhang, R., White, N. A., Soti, F. S., Kem, W. R. & Machu, T. K., 1 Jun 2006, In : *Journal of Pharmacology and Experimental Therapeutics*. 317, 3, p. 1276-1284 9 p.