

VITA:

### **Professional Licensure**

Registered Pharmacist (Wisconsin)

### **Professional Memberships**

American Heart Association (Fellow, Council on Basic Cardiovascular Sciences)

American Society for Pharmacology and Experimental Therapeutics

American Physiological Society

### **Editorial Activities**

Editorial Board: *Journal of Cardiovascular Pharmacology*

Ad hoc reviewer: *British Journal of Pharmacology, Circulation, Journal of Pharmacology and Experimental Therapeutics, Journal of Applied Physiology, American Journal of Physiology, and Vascular Pharmacology*

### **RESEARCH:**

The primary focus of our laboratory is to gain an increased understanding of the cellular mechanisms underlying local control of blood vessel diameter. Functional, biochemical, molecular and electrophysiological approaches are used to study vascular physiology and pharmacology, including interactions between nerves, endothelial cells and vascular smooth muscle cells. Current emphasis is on the role of potassium channels and endothelium-derived vasoactive factors in modulating vasomotor tone.

### **PUBLICATIONS:**

#### **Stephen O'Rourke Recent Publications**

Ghatta, S. and O'Rourke, S.T.: Nitroglycerin-induced release of calcitonin gene-related peptide from sensory nerves attenuates the development of nitrate tolerance. *Journal of Cardiovascular Pharmacology* 47: 175-181, 2006.

- Ghatta, S., Nimmagadda, D., Xu, X., and O'Rourke, S.T.: Large-conductance, calcium-activated potassium channels: structural and functional implications. *Pharmacology and Therapeutics* 110: 103-116, 2006.
- Ghatta, S., Hemmer, R.B., Uppala, S. and O'Rourke, S.T.: Role of endogenous hydrogen peroxide in the development of nitrate tolerance. *Vascular Pharmacology* 46: 247–252, 2007.
- Ghatta, S., Tunstall, R.R., Kareem, S., Rahman, M., and O'Rourke, S.T.: Sirolimus causes relaxation of human vascular smooth muscle: a novel action of sirolimus mediated via  $K_{ATP}$  channels. *Journal of Pharmacology and Experimental Therapeutics* 320: 1204–1208, 2007.
- Zeng, Q., Zhou, Q., Yao, F., O'Rourke, S.T., and Sun, C.: Endothelin-1 regulates cardiac L-type calcium channels via NAD(P)H oxidase-derived superoxide. *Journal of Pharmacology and Experimental Therapeutics* 326: 732-738, 2008.

TEACHING:

**Stephen O'Rourke**  
**Teaching**

Autonomic pharmacology (PSCI 413)

Cardiovascular pharmacology (PSCI 414)