

Michael Salvatore, PhD  
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## Area of Expertise

I aim to understand the molecular basis for locomotor impairment in aging and Parkinson's disease. My immediate and long-term goals are to discover molecular, pharmacological, and non-invasive (exercise, calorie restriction) approaches that can target proteins associated with motor impairment, thereby reducing or eliminating locomotor impairment associated with aging and Parkinson's disease.

## Qualifications

PhD in Neuroscience, Louisiana State University Health Sciences Center  
BA, Ohio Wesleyan University

## Recent Publications

### **Glatiramer Acetate Reverses Motor Dysfunction and the Decrease in Tyrosine Hydroxylase Levels in a Mouse Model of Parkinson's Disease**

Churchill, M. J., Cantu, M. A., Kasanga, E. A., Moore, C., Salvatore, M. F. & Meshul, C. K., 21 Aug 2019, In : Neuroscience. 414, p. 8-27 20 p.

### **Tyrosine Hydroxylase Inhibition in Substantia Nigra Decreases Movement Frequency**

Salvatore, M. F., McInnis, T. R., Cantu, M. A., Apple, D. M. & Pruet, B. S., 1 Apr 2019, In : Molecular Neurobiology. 56, 4, p. 2728-2740 13 p.

### **Prolonged increase in ser31 tyrosine hydroxylase phosphorylation in substantia nigra following cessation of chronic methamphetamine**

Salvatore, M. F., Nejtek, V. A. & Khoshbouei, H., 1 Jul 2018, In : NeuroToxicology. 67, p. 121-128 8 p.

### **Tyrosine hydroxylase as a sentinel for central and peripheral tissue responses in Parkinson's progression: Evidence from clinical studies and neurotoxin models**

Johnson, M. E., Salvatore, M. F., Maiolo, S. A. & Bobrovskaya, L., 1 Jun 2018, In : Progress in Neurobiology. 165-167, p. 1-25 25 p.

### **Constitutive Ret signaling leads to long-lasting expression of amphetamine-induced place conditioning via elevation of mesolimbic dopamine**

Kopra, J., Villarta-Aguilera, M., Savolainen, M., Weingerl, S., Myöhänen, T. T., Rannanpää, S., Salvatore, M. F., Andressoo, J. O. & Piepponen, T. P., 1 Jan 2018, In : Neuropharmacology. 128, p. 221-230 10 p.

### **Dissociation of striatal dopamine and tyrosine hydroxylase expression from aging-related motor decline: Evidence from calorie restriction intervention**

Salvatore, M. F., Terrebonne, J., Cantu, M. A., McInnis, T. R., Venable, K., Kelley, P., Kasanga, E. A., Latimer, B., Owens, C. L., Pruet, B. S., Yu, Y., Luedtke, R. T., Forster, M. J., Sumien, N. & Ingram, D. K., 1 Jan 2018, In : Journals of Gerontology - Series A Biological Sciences and Medical Sciences. 73, 1, p. 11-20 10 p.

### **Aging-related limit of exercise efficacy on motor decline**

Arnold, J. C., Cantu, M. A., Kasanga, E. A., Nejtek, V. A., Papa, E. V., Bugnariu, N. & Salvatore, M. F., 1 Nov 2017, In : PLoS ONE. 12, 11, e0188538.

### **Ceftriaxone reduces L-dopa-induced dyskinesia severity in 6-hydroxydopamine parkinson's disease model**

Chotibut, T., Meadows, S., Kasanga, E. A., McInnis, T., Cantu, M. A., Bishop, C. & Salvatore, M. F., 1 Nov 2017, In : Movement Disorders. 32, 11, p. 1547-1556 10 p.

**Phosphorylation at serine 31 targets tyrosine hydroxylase to vesicles for transport along microtubules**

Jorge-Finnigan, A., Kleppe, R., Jung-KC, K., Ying, M., Marie, M., Rios-Mondragon, I., Salvatore, M. F., Saraste, J. & Martinez, A., 25 Aug 2017, In : Journal of Biological Chemistry. 292, 34, p. 14092-14107 16 p.

**Regulation of Tyrosine Hydroxylase Expression and Phosphorylation in Dopamine Transporter-Deficient Mice**

Salvatore, M. F., Calipari, E. S. & Jones, S. R., 20 Jul 2016, In : ACS Chemical Neuroscience. 7, 7, p. 941-951 11 p.

## **Sponsored Projects**

**Targeting Nigral Tyrosine Hydroxylase to Improve Locomotion in Aging**

Salvatore, M.

NIA: National Institute on Aging

5/01/15 → 31/03/16

**Translation of Evaluating Exercise-impact on Aging-related Motor Function Between Rats and Humans**

Salvatore, M. & Bugnariu, N.

Intramural Research(UNTHSC)

1/01/17 → 30/06/18