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### Statut universitaire / University status

Professeur titulaire, Département de Neurologie et neurochirurgie, Faculté de médecine, Université McGill

### Appartenance à d'autres groupes / Affiliation with other groups

Professor, Department of Anatomy & Cell Biology, McGill University

Professor, Department of Psychology, McGill University

Membre associé, Département de neurosciences, Université de Montréal

Membre associé, Groupe de recherche sur le système nerveux central (GRSNC) du FRQS

### Formation / Training

S.B., Biology, Massachusetts Institute of Technology, Cambridge, MA, États-Unis, 1984

S.B., Computer Science, Massachusetts Institute of Technology, Cambridge, MA, États-Unis, 1984

Ph.D., Biological Sciences, Stanford University, Stanford, CA, États-Unis, 1989

### Orientations de la recherche

- Mécanismes biochimiques de l'emprunte synaptique
- Régulation de la libération des neurotransmetteurs
- Protéine kinase C et mémoire

### Principaux projets en cours

- Rôle de polysomes en panne à la plasticité synaptique
- Rôle de eEF2 à la plasticité synaptique
- Régulation de PKM et mémoire

### Research orientations

- Biochemical mechanisms of synaptic tagging
- Regulation of transmitter release
- Protein kinase C and memory

### Current research projects

- Role of stalled polysomes in synaptic plasticity
- Role of eEF2 phosphorylation in memory
- PKM formation and memory

### Publications choisies / Selected publications

Graber, T. E., Freemantle, E., Anadolu, M., Hébert-Seropian, S., MacAdam, R., Shin, U., Hoang, H. D., Alain, T., Lacaille, J. C. and Sossin, W. S. (2017). UPF1 governs synaptic plasticity through association with a STAU2 RNA granule. *J Neurosci*, [Epub ahead of print].

Hu, J., Ferguson, L., Adler, K., Farah, C. A., Hastings, M. H., Sossin, W. S. and Schacher, S. (2017). Selective Erasure of Distinct Forms of Long-Term Synaptic Plasticity Underlying Different Forms of Memory in the Same Postsynaptic Neuron. *Curr Biol*, 27 (13): 1888-1899.e4.

McAdam, R. L., Varga, K. T., Jiang, Z., Young, F. B., Blandford, V., McPherson, P. S., Gong, L. W. and Sossin, W. S. (2015). The juxtamembrane region of synaptotagmin 1 interacts with dynamin 1 and regulates vesicle fission during compensatory endocytosis in endocrine cells. *J Cell Sci*, 128 (12): 2229-35.

McCamphill, P. K., Farah, C. A., Anadolu, M. N., Hoque, S. and Sossin, W. S. (2015). Bidirectional regulation of eEF2 phosphorylation controls synaptic plasticity by decoding neuronal activity patterns. *J Neurosci*, 35 (10): 4403-17.

Graber, T. E., Hébert-Seropian, S., Khoutorsky, A., David, A., Yewdell, J. W., Lacaille, J. C. and Sossin, W. S. (2013). Reactivation of stalled polyribosomes in synaptic plasticity. *Proc Natl Acad Sci U S A*, 110: 16205-10.

Bougie, J. K., Cai, D., Hastings, M., Farah, C. A., Chen, S., Fan, X., McCamphill, P. K., Glanzman, D. L. and Sossin, W. S. (2012). Serotonin-induced cleavage of the atypical protein kinase C Apl III in Aplysia. *J Neurosci*, 32: 14630-40.

Dunn, T. W., Farah, C. A. and Sossin, W. S. (2012). Inhibitory responses in Aplysia pleural sensory neurons act to block excitability, transmitter release, and PKC Apl II activation. *J Neurophysiol*, 107: 292-305.

Lebeau, G., Miller, L. C., Tartas, M., McAdam, R., Laplante, I., Badeaux, F., DesGroseillers, L., Sossin, W. S. and Lacaille, J. C. (2011). Staufien 2 regulates mGluR long-term depression and Map1b mRNA distribution in hippocampal neurons. *Learn Mem*, 18: 314-26.