PROGRESS IN NEUROSCIENCE PINS

Seminar Series of the
Brain & Mind Research Institute
Weill Cornell Medical College (WCMC)
&
The Graduate Program in Neuroscience of
WCMC and Sloan Kettering Institute

Thursday, 4/6/17, 4 PM, coffee at 3:45 PM
Weill Auditorium

"Novel Neural Messengers"

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Abstract

Work in our laboratory over several decades has addressed signaling by conventional and atypical messenger molecules. In the early 1970s receptors for opiates, diverse drugs, and neurotransmitters were identified by radioligand binding. Similar approaches characterized receptors for the second messenger IP3 leading to ongoing studies of inositol pyrophosphates. Atypical neurotransmitters such as D-serine, D-aspartate and neuromodulator gases such as NO, CO, and H2S were identified. Studies of H2S and its signaling via sulfhydration are a current focus.

Recent Relevant Publications:

1. Pert, C. and Snyder, S.H. Opiate receptor: demonstration in nervous tissue. Science 179:1011-1014, 1973.
2. Worley, P.F., Baraban, J.M., Colvin, J. S. and Snyder, S.H. Inositol trisphosphate receptor localization in brain: variable stoichiometry with protein kinase C. Nature 325:159-161, 1987.
3. Bredt, D.S., Hwang, P.M., Glatt, C.E., Lowenstein, C., Reed, R.R. and Snyder, S.H. Cloned and expressed nitric oxide synthase structurally resembles cytochrome P-450 reductase. Nature 351:714-718, 1991.

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