Bio

ACADEMIC APPOINTMENTS
• Professor, Biology
• Professor, Hopkins Marine Station
• Member, Wu Tsai Neurosciences Institute

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS
Neurobiology, signal transduction

Teaching

COURSES

2023-24
• Sensory Ecology of Marine Animals: BIO 12N, OCEANS 12N (Aut)

2022-23
• Frontiers in Marine Biology: OCEANS 3 (Aut)
• Natural History, Marine Biology, and Research: BIO 10SC (Sum)
• Sensory Ecology of Marine Animals: BIO 12N (Aut)

2021-22
• Frontiers in Marine Biology: BIO 3 (Aut)
• Natural History, Marine Biology, and Research: BIO 10SC (Sum)
• Sensory Ecology of Marine Animals: BIO 12N (Aut)

2020-21
• Frontiers in Marine Biology: BIO 3 (Aut, Spr)
• Sensory Ecology of Marine Animals: BIO 12N (Aut)

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS
• Biology (School of Humanities and Sciences) (Phd Program)
Publications

PUBLICATIONS

• Temperature effects on low-light vision in juvenile rockfish (Genus Sebastes) and consequences for habitat utilization. *Journal of Comparative Physiology A-Neuroethology Sensory Neurological and Behavioral Physiology*
  Reilly, C. R., Thompson, S. H.
  2007; 193 (9): 943-953

• The spectral sensitivity of the lens eyes of a box jellyfish, Tripedalia cystophora (Conant). *Journal of Experimental Biology*
  Coates, M. M., Garm, A., Theobald, J. C., Thompson, S. H., Nilsson, D.
  2006; 209 (19): 3758-3765

• Central pattern generator for swimming in Melibe. *Journal of Experimental Biology*
  Thompson, S., Watson, W. H.
  2005; 208 (7): 1347-1361

• Some precautions in using chelators to buffer metals in biological solutions. *Cell Calcium*
  Patton, C., Thompson, S., Epel, D.
  2004; 35 (5): 427-431

• NO is necessary and sufficient for egg activation at fertilization. *Nature*
  Kuo, R. K., Baxter, G. T., Thompson, S. H., Stricker, S. A., Patton, C., Bonaventura, J., Epel, D.
  2000; 406 (6796): 633-636

• Cholinergic modulation of the Ca2+ response to bradykinin in neuroblastoma cells. *American Journal of Physiology-Cell Physiology*
  Coggan, J. S., Thompson, S. H.
  1997; 273 (2): C612-C617

• Cyclic GMP-gated channels in a sympathetic neuron cell line. *Journal of General Physiology*
  Thompson, S. H.
  1997; 110 (2): 155-164

• Activation of the nitric oxide cGMP pathway is required for refilling intracellular Ca2+ stores in a sympathetic neuron cell line. *Cell Calcium*
  Harrington, M. A., Thompson, S. H.
  1996; 19 (5): 399-407

• The nitric oxide/cGMP pathway couples muscarinic receptors to the activation of Ca2+ influx. *Journal of Neuroscience*
  Mathes, C., Thompson, S. H.
  1996; 16 (5): 1702-1709

• THE RELATIONSHIP BETWEEN DEPLETION OF INTRACELLULAR CA2+ STORES AND ACTIVATION OF CA2+ CURRENT BY MUSCARINIC RECEPTORS IN NEUROBLASTOMA-CELLS. *Journal of General Physiology*
  Mathes, C., Thompson, S. H.
  1995; 106 (5): 975-993

• Local positive feedback by calcium in the propagation of intracellular calcium waves. *Biophysical Journal*
  Wang, S. S., Thompson, S. H.
  1995; 69 (5): 1683-1697

• INTRACELLULAR CALCIUM SIGNALS IN RESPONSE TO BRADYKININ IN INDIVIDUAL NEUROBLASTOMA-CELLS. *American Journal of Physiology-Cell Physiology*
  Coggan, J. S., Thompson, S. H.
  1995; 269 (4): C841-C848

• CALCIUM REQUIREMENT FOR CGMP PRODUCTION DURING MUSCARINIC ACTIVATION OF NIE-115 NEUROBLASTOMA-CELLS. *American Journal of Physiology-Cell Physiology*
  Thompson, S. H., Mathes, C., Alousi, A. A.
  1995; 269 (4): C979-C985
THE LIFETIME OF INOSITOL 1,4,5-TRISPHOSPHATE IN SINGLE CELLS  *Journal of General Physiology*
Wang, S. S., Alousi, A. A., Thompson, S. H.
1995; 105 (1): 149-171

FACILITATION OF CALCIUM-DEPENDENT POTASSIUM CURRENT  *Journal of Neuroscience*
Thompson, S. H.
1994; 14 (12): 7713-7725

CALCIUM CURRENT ACTIVATED BP MUSCARINIC RECEPTORS AND THAPSIGARGIN IN NEURONAL CELLS  *Journal of General Physiology*
Mathes, C., Thompson, S. H.
1994; 104 (1): 107-121

THE AMINOGLYCOSIDE G418 SUPPRESSES MUSCARINIC RECEPTOR-ACTIVATED CALCIUM-RELEASE IN STABLY TRANSFECTED MURINE N1-E-115 NEUROBLASTOMA-CELLS  *Neuroscience Letters*
Coggan, J. S., Kovacs, I., Thompson, S. H.
1994; 170 (2): 247-250

MEMBRANE TOXICITY OF THE PROTEIN-KINASE-C INHIBITOR CALPHOSTIN-A BY A FREE-RADICAL MECHANISM  *Neuroscience Letters*
Wang, S. S., Mathes, C., Thompson, S. H.
1993; 157 (1): 25-28

MEMBRANE TOXICITY OF THE PROTEIN-KINASE-C INHIBITOR CALPHOSTIN-A BY A FREE-RADICAL MECHANISM  *Neuroscience Letters*
Wang, S. S., Mathes, C., Thompson, S. H.
1993; 156 (1-2): 145-148

A-TYPE POTASSIUM CHANNEL CLUSTERS REVEALED USING A NEW STATISTICAL-ANALYSIS OF LOOSE PATCH DATA  *Biophysical Journal*
Wang, S. S., Thompson, S.
1992; 63 (4): 1018-1025

INTRACELLULAR CALCIUM RELEASE IN N1E-115 NEUROBLASTOMA-CELLS IS MEDIATED BY THE M1 MUSCARINIC RECEPTOR SUBTYPE AND IS ANTAGONIZED BY MCN-A-343  *Brain Research*
Mathes, C., Wang, S. S., Vargas, H. M., Thompson, S. H.
1992; 585 (1-2): 307-310

CLUSTERED DISTRIBUTION AND VARIABILITY IN KINETICS OF TRANSIENT-K CHANNELS IN MOLLUSCAN NEURON CELL-BODIES  *Journal of Neuroscience*
Premack, B. A., Thompson, S., COOMBSHAHN, J.
1989; 9 (11): 4089-4099

MEASUREMENT OF NONUNIFORM CURRENT DENSITIES AND CURRENT KINETICS IN APLYSIA NEURONS USING A LARGE PATCH METHOD  *Biophysical Journal*
Johnson, J. W., Thompson, S.
1989; 55 (2): 299-308

INWARD RECTIFICATION IN RESPONSE TO FMRFAMIDE IN APLYSIA NEURON-L2 - SUMMATION WITH TRANSIENT K-CURRENT  *Journal of Neuroscience*
Thompson, S., Ruben, P.
1988; 8 (9): 3200-3207

SPATIAL-DISTRIBUTION OF CA CURRENTS IN MOLLUSCAN NEURON CELL-BODIES AND REGIONAL DIFFERENCES IN THE STRENGTH OF INACTIVATION  *Journal of Neuroscience*
Thompson, S., Coombs, J.
1988; 8 (6): 1929-1939