



Memorandum

Date August 22, 1988
From Marshall Nirenberg MN
Subject Accomplishments of the Laboratory of Biochemical Genetics
To Dr. Claude Lenfant

The major accomplishments of the Laboratory of Biochemical Genetics during the last ten years are as follows:

1. Demonstrated that treatment of neuroblastoma cells with cAMP results in increases in the abundance of some species of poly A⁺ RNA and the expression of voltage-sensitive ion channel proteins and other neuronal proteins that are required for synaptogenesis.
2. Elucidated the mechanism by which cellular metabolites regulate the activity of E. coli adenylate cyclase.
3. Demonstrated complex synergistic regulation of genes coding for enkephalin and neuropeptide Y by cAMP, glucocorticoids, activators of protein kinase C, and nerve growth factor.
4. Elucidated mechanisms involved in the formation, stabilization, and elimination of nicotinic acetylcholine receptor aggregates during the development of neuromuscular synapses.