

Thesis Title IMMUNOCYTOCHEMICAL LOCALIZATION OF
PUTATIVE AMINO ACID NEUROTRANSMITTERS
OF RAT INFERIOR OLIVE

Name Soawaluk Meequamdee

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Thesis Supervisory Committee:

Naiphinich Kotchabhakdi Ph.D.
Piyarat Klangkalya Ph.D.
Vilai Chentanez Ph.D.

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ABSTRACT

Localization of putative neurotransmitters in the inferior olive was studied in the serial sections of the inferior olive (IO) from the rat stained by immunocytochemical technique with antisera raised against Gamma amino butylic acid (GABA), Glutamate, and Aspartate(Asp). Almost all of IO neurons showed Glu and/or Asp like immunoreactivity(+). Glu(+) and Asp(+) were mostly medium sized, either round or oval shaped cells with a few cells containing two nucleoli. GABA(+) puncta were found distributing widely through IO with very few small sized GABA (+) neurons in the periphery of dorsal accessory olivary nucleus (DAO) of the inferior olive. The most striking appearance was the presence of intraregional differences of the distribution of Glu(+) and or Asp (+) pattern

corresponding well with those of GABA (+) pattern ,
suggesting the presence of specific topographic
organizations of neurochemical system in the IO.