

3-2-2. Projection Pathway of Specific FMRFamide-Producing Neurons in Terminal Abdominal Ganglia Terminating to Hindgut

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Tetrapeptide FMRFamide, originally isolated and characterized from the mollusc (clam) *Macrocallista*, had been demonstrated to have action as a cardioexcitatory agent. During the next two decades since its discovery, neuropeptide FMRFamide and a large family of related peptides have been shown to exist in the central nervous system and gut of a wide variety of invertebrates and vertebrates including insect species. Results on spatial and temporal distribution, and abundance of FMRFamide peptides suggested that they play important roles in animal physiology, such as affecting both neural and gastrointestinal functions. To trace finally specific functions of FMRFamide which some neurons in the terminal abdominal ganglia of insect ventral nerve cord synthesize and secrete to gut, projection pathway of some FMRFamide-producing neurons terminating to gut was examined in *Bombyx mori* by an immunohistochemical method and they were shown to project to the hindgut.