Growth Properties of Specific Cerebral Neuronal Cells in Primary Culture from the Silkworm, *Bombyx mori*

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We have produced primary in vitro cell culture of specific cerebral cells dissociated from 5-stage pupa silkworm, *Bombyx mori.* These cultures leaded to classification of several morphological type of neuronal cells and could be performed by time lapse record including several labeling techniques (HRP staining) and additive of steroid hormone 20-hydroecdysone (20-HE). We show that cultured neuronal cell often develop morphological characteristics as monopolar, bipolar, multipolar cells, respectively. It was demonstrated by time lapse record that neuronal cells showing extensive cellular changes in shape, differentiates new neurite and remains viable for up to two weeks. HRP-stained neuronal cell express strong anti-HRP-immunoreactivity and contain light-refracting granules, inclusion. Depending on the various concentrations of steriod hormone 20-hydroxyecdysone (20-HE), cultured neuronal cells show larger neurite length in 20-HE treated cells than in untreated cells. Thus, our results provide an initial important step for further investigations on cellular an molecular cell culture.