

To whom it might concern

I am writing this report with regard to the dissertation submitted by Mr. Jan Tuma titled "Cognitive and emotional abnormalities in cerebellar mutant mice". The aim of the dissertation was to determine the putative role of cerebellar circuits in the generation of spatial-orientation and emotional behaviors. As an experimental model, Mr. Tuma used *Lurcher* and *Purkinje cell degeneration (pcd)* mice, two well-known models of cerebellar degeneration and dis-functions. Main collected results indicate that these mutant mice presents deficits in cognitive, sensory, motor, and affective functions. These deficits explain their main difficulties for a proper spatial orientation and for the development of appropriate emotional responses. The putative regenerative role of cerebellar grafts aimed to recover cerebellar functions in these mutant mice was discarded in the present study.

In my opinion, the present study is very well presented and was carried out with the appropriate experimental approaches. Experiments were sound and performed with the most adequate experimental techniques. Mr. Tuma used a consistent multidisciplinary approach to address the different questions and aims raised in the present dissertation. A proof of that is the whole bunch of scientific publications originated from the present study, both directly and indirectly related to the main objectives of the dissertation. The text is presented in a concise and convincing way. References are timed and adjusted to the different aspects of the dissertation. The text is full of appropriated and well-designed illustrations.

As a result of the above comments and contentions, I can firmly recommend this Doctoral Thesis for its oral presentation and defense.

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Prof. José María Delgado García
Professor and Head
Division of Neurosciences