

True functions of genes that can be known after removing one gene

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Figure 1 Activities and cellular localization of γ secretase are determined by CALM.

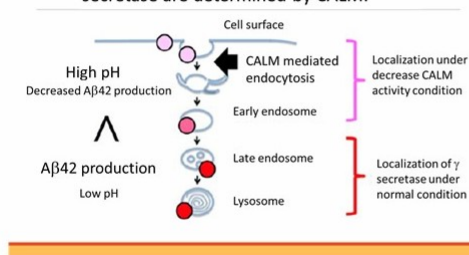


Figure 2

A fusion consisting of the minimal NES and AF10 induced leukemia

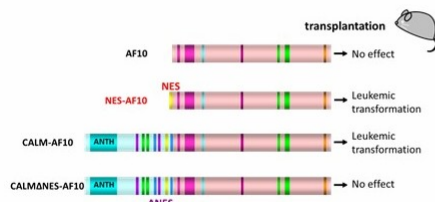


Figure 3

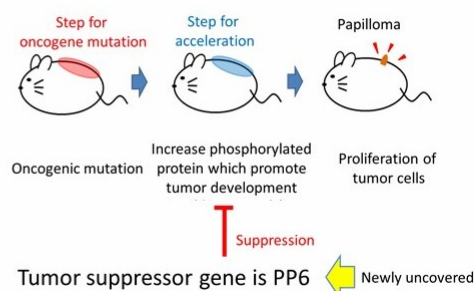


Fig.1 Functional Suppression of CALM May Be a Predictor of Alzheimer's Disease.

Fig.2 Epigenetic Factor AF10 Causes Leukemia by Fusing with CALM's Nuclear Export Signal Sequence.

Fig.3 Clarification of a Mechanism for Repressing Skin Cancer, which was not Previously Understood

In the Watanabe Research Laboratory, we create gene knockout mice to study what occurs at the cellular and organismal levels when one gene is lost. Using such mice, we perform research related to basic gene functions and the diseases that are caused by a functional abnormality. For our research targets, we select genes that are thought to be related to intracellular distribution and transport, and that are suspected of being related to human diseases such as Alzheimer's disease, leukemia and tumor development.

Keywords : Gene engineered mice, Membrane traffic, Human diseases, Low molecular weight G protein