

Title

Understanding sleepiness at the cellular and molecular level in order to achieve “controllable” sleepiness in individuals

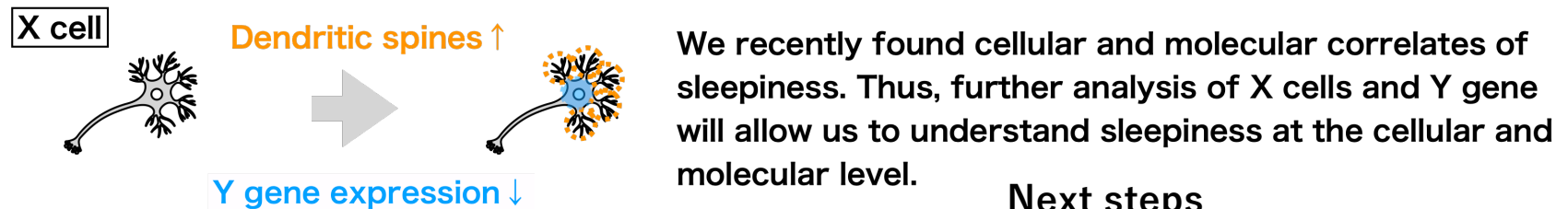
PI

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Back-ground



Inovative Idea



Next steps

Projects

- Analysis of X cells (i.e. gene expression, neuronal property)
- Analysis of mice with Y gene modified (i.e. KO, overexpression)
- Human genetic analysis (i.e. SNP in Y gene and Polysomnography)
- Find other correlates of sleepiness in X cells
- Examine those correlates in human

Updates

Analysis of mice with Y gene modified (i.e. KO, overexpression) have been done. We confirmed that Y gene KO induces shorter wake episode duration in mice. In contrast, Y gene overexpression only in X cells induces longer wake episode duration in mice. These results suggest that the expression level of Y gene may determine how long mice can keep awake.