2023 年度　利用報告書

プロジェクト名（タイトル）: Measurement of Chromatin Architecture, and its Function in Regulating Neuronal Activity.

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1. 本プロジェクトの研究の背景、目的、関係するプロジェクトとの関係

The major goal was to investigate gene expression changes and chromatin structure in sensory neurons at when they are activated or silenced. We are also interested in testing neurons from mutants showing abnormal neuronal activities or under different conditions.

2. 具体的な利用内容、計算方法

We have used and will be using Hokusai to process sequencing data analysis.

3. 結果

After activating the sensory neurons with TrpA1 overexpression and higher temperature, we observed decreases in other genes related to signaling (ion channels and receptors). After analyzing the promoter regions upstream of those down-regulated genes, we were able to find enriched motif that indicating transcriptional machineries potentially modulate those genes.

4. まとめ

Activation of sensory neurons leads to expression changes in activity and signaling related genes. It might indicate that how sensory neurons balance signal input.

5. 今後の計画・展望

We would like to further confirm our finding with more replicates. We also plan to investigate where there is a overall change in the chromatin organizations.

6. 利用がなかった場合の理由

2023 年度　利用研究成果リスト

【雑誌に受理された論文】

【会議の予稿集】

【口頭発表】

【ポスター発表】

【その他（著書、プレスリリースなど）】

Tann JY, Xu F, Kimura M, Wilkes OR, Yoong L-F, Skibbe H, and Moore AW, Study of Dendrite Differentiation Using Drosophila Dendritic Arborization Neurons, 2023, Cold Spring Harb Protoc, in press

Xu F, Tann JY, Wilkes OR, Moore AW. 2023. Filleting and immunostaining of larvae to visualize Drosophila dendritic arborization neuron dendrite arbors. Cold Spring Harb Protoc, in press