



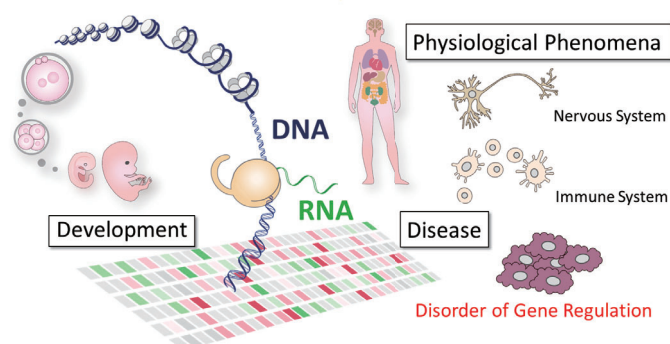
## Dynamics of Gene Regulation and Epigenetics

### Cell Biology Center

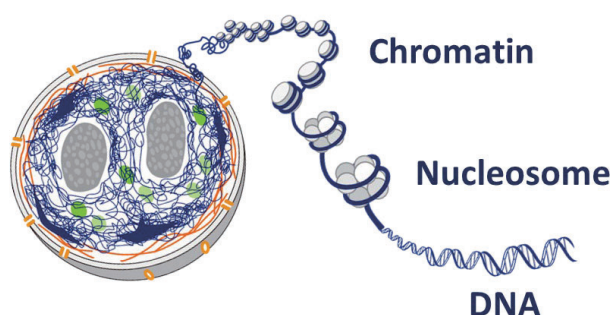
<http://kimura-lab.bio.titech.ac.jp/index.html>

To understand fundamental mechanism of gene regulation, we have been developing original tools that enable to visualize and quantify nuclear function in live

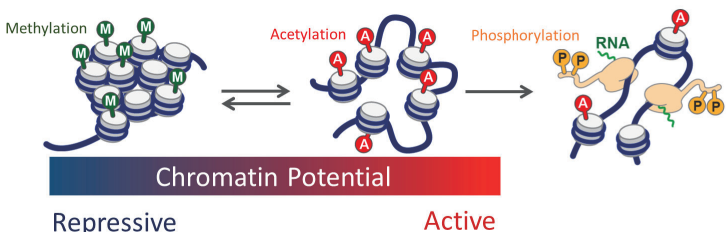
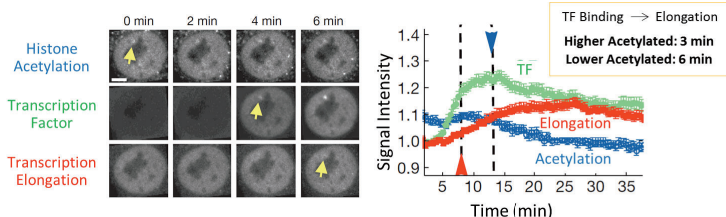
A Single Set of Genome → Gene Regulation → Differential Characteristics



Gene Regulation is Fundamental for Life



Genes are regulated at chromatin level



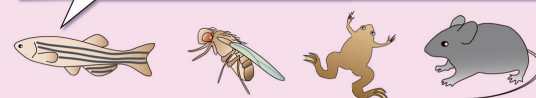
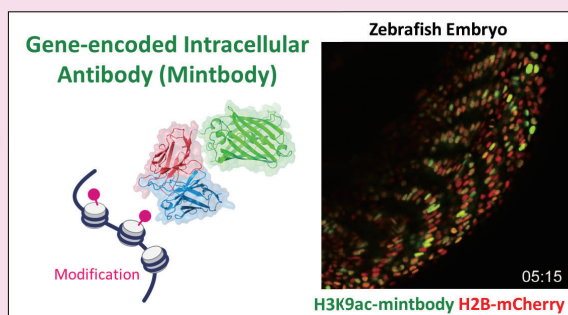
Chromatin Potential is Regulated by Histone Modifications

### Original Tools

• Live Imaging Technology to Visualize Chromatin Modifications

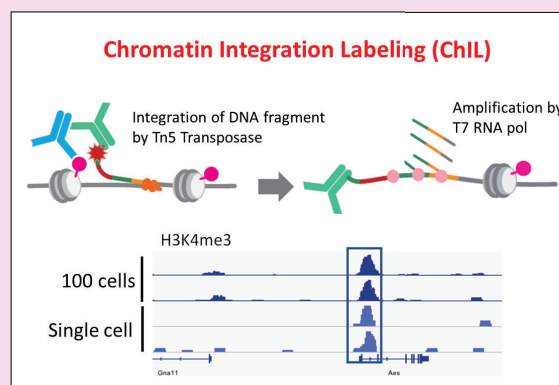
- FabLEM
- Mintbody

- Histone Modifications
- Transcription activation



Stably expressed in living organisms

• Low Input Epigenomic Profiling



### Impacts on Academic and Social Community

