## 165<sup>th</sup> WPI-IIIS Seminar

## Data-driven and technical approaches to understand spatial gene regulation

Gene expression is precisely regulated by transcription factors and chromatin structures, but their combinatorial actions for cell typespecific expression are not fully understood. Here, I developed a database designated ChIP-Atlas (https://chip-atlas.org), which integrates all of public ChIP-seq data (~120,000 experiments). Furthermore, I established a novel spatial genomics technology, named photo-isolation chemistry, which allows to isolate gene expression and epigenetic profiles only from photo-irradiated regions out of whole tissues. Combination of those data-driven and technical approaches will accelerate to gain deeper insight into spatial gene regulatory mechanisms.



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Date: Monday, January 20, 2020 Time: 12:00 – 13:00 Venue: 1F Auditorium, IIIS Building



SLEEP MEDICINE

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