

# BK21 Plus Seminar

## "Building Human Developmental Cell Atlas using Fast Batch Alignment across Multiple Single Cell RNA-seq Datasets"

[Jong-Eun Park, Ph. D.]

*Wellcome Sanger Institute*

Increasing numbers of large-scale single cell RNA-Seq projects are leading to a data explosion, which can only be fully exploited through integrated data analysis. To overcome the challenge of enormous datasets, we have developed BBKNN, an extremely fast graph-based data integration method for exploratory analysis. BBKNN successfully connects cell populations across experimentally heterogeneous single cell RNA-seq datasets, revealing underlying global structure of cell population based on RNA expression profile. We have applied BBKNN to recently obtained time course human developmental dataset, especially focusing on thymus development. This analysis unveils T cell differentiation trajectory into multiple lineages and novel dendritic cell type required for negative T cell selection.

- **Date: 4:30 PM/Oct. 30(Tue.)/2018**
- **Place: Auditorium(1F), Postech Biotech Center**
- **Inquiry: Prof. Yoontae Lee (279-2354)**

**\* This seminar will be given in English.**

**Please refrain from taking photos during seminars. \***