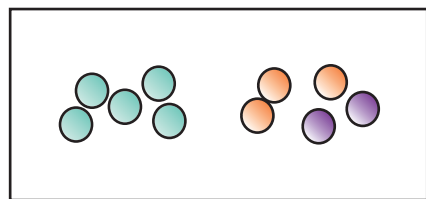
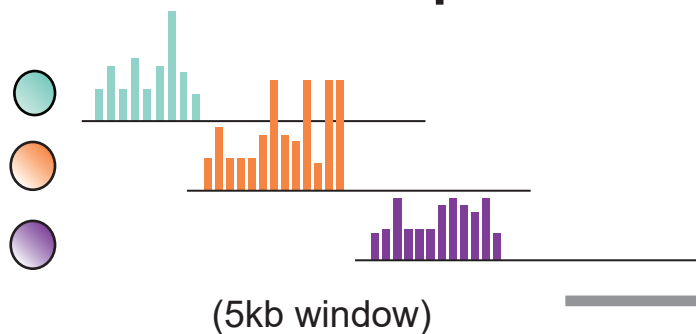


## Cell-type annotation

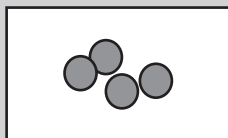


BICCN sci-ATAC-seq

## Pseudo-bulk profile



Small dataset



Meta-analytic  
marker

**Validation**

chr7,9

**Test**

chr1,3,5

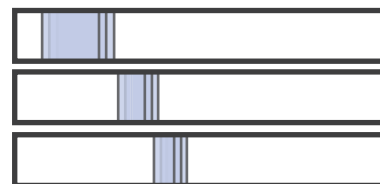
**Training**  
other chr

## Model training

DNA input  
(5kb window)

...ACGTCTGACTGA... one-hot encoding

3 convolution layers



200 filters

300 filters

300 filters

Fully connected layer



512 units

Sigmoid function

Binary signal