1. Alignment
2. Peak calling
3. Test for differential peaks (all)
4. Intersect with annotations
   1. TAD boundaries
   2. ChromHMM
   3. LAD Domains defined in Klein et al paper
   4. (maybe other domains from Klein)
   5. Intersect with expression changes

H3K9ac

|  |  |  |
| --- | --- | --- |
| Contrast |  |  |
| KD\_vs\_control |  |  |
| OE\_vs\_control |  |  |
| **(maybe: KD** |  |  |
| **Check first:** |  |  |
| KD\_Glu\_vs\_KD |  |  |
| OE\_Glu\_vs\_OE |  |  |
| Control\_Glu\_vs\_Control |  |  |

Variable names:

Protocol: 1hr

Control

1:Test differentiql peaks

* Gene ontology of differential peaks (what genes have differential peaks in OE, or KD)

2:Intersect with LADs

3: Permutation test or hypergeo,etric test

If control glu = control

Then consider them all controls