

## Exercise: reproducible analysis in the Genomic HyperBrowser

In this exercise you will carry out an analysis of whether the transcription factor c-Myc in embryonic stem cells (H1-hESC) binds **more** in active promoter areas (as expected biologically).

Track 1: *Gene regulation:Transcription factor regulation:Experimentally determined (ChIP-seq peaks):wgEncodeAwgTfbsUniform:H1-hESC:c-Myc:Stanford-None-IgG-rab-wgEncodeEH001834*

Track 2: *Chromatin:Chromatin State Segmentation:wgEncodeBroadHmmH1heschMM:1\_Active\_Promoter*

Use the "Overlap?" hypothesis test with any null model that you see fit.

Create a Galaxy Page with the history showing the results of your analysis.

### To create a Galaxy Page with your history:

- User->Saved Pages
- “Add new page”, type your name and click “Submit”
- Click the name of your new page under “Title” and select “edit content”
- Describe your analysis with text (using headers and other formatting as you see fit)\*
- “Embed Galaxy object” => "Embed history" => Select your history
- “Save”, “Close” and “Share or Publish”
- Share the page, using the email of your neighbor
- The page will appear in the bottom table under “Saved Pages”

\* The implementation of Galaxy Pages contains a bug complicating the creation of pages (resulting in content not being displayed in the output). In our experience, some simple measures avoids the issue: First, when beginning a page, add several blank lines and end the document with a period: "." After having embedding histories or other elements, make sure to manually jump to the next pre-entered line (by clicking) instead of creating a new line from the end of the line with the embedded content.