**Workshop announcement, VISION project**

Ross Hardison and Cheryl Keller will hold a workshop on VISION resources at 3 pm on Monday. This workshop is an informal gathering for meeting participants interested in working with our resources at an early stage (no resources are mature yet). VISION is a project to

(1) generate, curate, and visualize genome-wide epigenetic data and chromatin interaction data on many hematopoietic cell types (with an emphasis on erythropoiesis),

(2) integrate the data to predict regulatory elements and their targets,

(3) construct quantitative models for regulation and test them experimentally, and

(4) provide guides for translation on insights between mouse and human.

The goal of the project is to develop resources that enhance the ability of investigators in the larger research community to utilize these data to enhance their own research. This is an on-going project in its early phases, but we have some resources for (1) and (2) that we think are useful now. The goal of the workshop is to encourage interested meeting participants to work with our initial resources and to suggest improvements.

We understand that there is wifi access all over the campus, and we will announce a specific location once we've checked out the facilities.

For the workshop, we are providing three URLs (below) that you can work from; just enter the URL into the appropriate search window of your internet browser. Of course, you can work from these URLs at any time. During the workshop, Cheryl and I will be there to try to answer questions in a group setting.

(1) This is URL for the VISION website:

<http://www.bx.psu.edu/~giardine/vision/>

From here, there are links to many resources for visualizing and analyzing:

-  epigenomic data (the PSU BX VISION Browser, Bertie Gottgens CODEX, Bodine lab's SBR-Blood),

-  3D interaction data (PSU 3D Genome Browser and BX VISION Browser),

- predictions of candidate regulatory elements (ENCODE's SCREEN, BX VISION Browser)

- IDEASs method and results (Yu Zhang)

- single cell maps of HSPCs (Gottgens)

- an initial guide to translation between mouse and human

- a database of hemoglobin variants and thalassemia mutations (HbVar)

(2) This is a URL that takes you to a "browser session" that shows our predictions of candidate regulatory elements, the genome segmentations based on epigenetic states, and selected TF binding tracks.

<http://main.genome-browser.bx.psu.edu/cgi-bin/hgTracks?hgS_doOtherUser=submit&hgS_otherUserName=ross&hgS_otherUserSessionName=VISION_ATACpks_IDEAS_TFs>

The "session" is a good starting point, with a set of informative tracks already set up, and then you can use the browser to examine those data for any locus of interest.  The URL is long, be sure you copy the whole thing to paste into a browser. In some e-mail servers, the URL link may be live.

(3) This is a URL that takes you to a "browser session" that shows the compartment scores and calls, directionality index, and TAD assignments for mouse ES cells, HPC7 cells (model for CMP) and G1E-ER4 cells (model for committed erythroid cell).

<http://main.genome-browser.bx.psu.edu/cgi-bin/hgTracks?hgS_doOtherUser=submit&hgS_otherUserName=ross&hgS_otherUserSessionName=VISION_HiCtracks_2017July15>

We are grateful to NIDDK for supporting this multi-lab, collaborative team science project.

Look forward to seeing you at the conference,

Ross Hardison

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