



## This Week in PLoS

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In *PLoS Genetics* this week, Patrick Schorderet and Denis Duboule at Switzerland's Federal Institute of Technology discuss the "structural and functional differences in the long, non-coding RNA Hotair in mouse and human." In particular, Schorderet and Duboule say that "the cognate mouse Hotair is poorly conserved in sequence" and add that "its absence, along with the deletion of the HoxC cluster, has surprisingly little effect *in vivo*, neither on the expression pattern or transcription efficiency, nor on the amount of K27me3 coverage of different Hoxd target genes."

A trio of investigators at the Centre for Genomic Regulation in Barcelona this week reports its use of an "integrative analysis and evolutionary conservation to identify features that predict when the loss of a regulatory interaction is detrimental in the ... transcription network of budding yeast." The researchers say that the strength of an interaction and its location and context in a promoter, among other properties, "associate to some extent with the interaction importance." Taken together, the team says that the features it describes in its *PLoS Genetics* paper "predict quite well whether the loss of a regulatory interaction is detrimental across many promoters and for many different transcription factors."

Over in *PLoS One*, researchers at Rutgers University in New Jersey, along with their colleagues, report on their computational exploration of the "transcriptional regulation of systemic inflammatory responses through a human endotoxemia model." Using a data set from human blood leukocytes, the team says it extracted a set of temporal dynamic pro-inflammatory responses. "Our analysis ... allows for the construction of a dynamic representation of the temporal transcriptional regulatory program across the host, deciphering possible combinatorial interactions among factors under which they might be active," the authors write.

And in *PLoS Computational Biology* this week, Sebastian Schultheiss at the Friedrich Miescher Laboratory of the Max Planck Society presents "ten simple rules for providing a scientific Web resource." Among them, Schultheiss says that researchers ought to know their user bases. "Come up with a use case: when and how will another researcher want to use what you are offering? When you know who you are developing for, many decisions become very straightforward," he says. Schultheiss adds that it's important to "provide ample documentation and listen to feedback. ... It will be worth your while to set up a channel of communication with your users."

