Reviewer's report

**Title:** Uncovering Mechanisms of Transcriptional Regulations by Systematic Mining of Cis Regulatory Elements with Gene Expression Profiles

**Version:** 1  **Date:** 19 February 2008

**Reviewer:** Jason Moore

**Reviewer's report:**

This is a well-written and interesting paper. Below are some suggestions for improving the paper.

**Major Compulsory Revisions**

1) Are these data available to the readers? Please indicate this in the paper. It would be very helpful if the data were available so that others trying your method could compare results.

2) Is the software available? How was the method implemented? Please provide these details.

3) Please provide a discussion of the claimed new biological insights. What new was learned?

4) Please discuss the advantages and disadvantages of this new method. Readers will want an honest assessment from you. Comparison of the advantages and disadvantages with those of other methods would be very helpful for readers interested in perhaps implementing your approach. Help them make this decision.

**Minor Essential Revisions**

1) One page 6, what does "potentially statistically significant" mean? Isn't it significant or not based on your decision rule?

**Discretionary Revisions**

1) The results took some work to decipher. Anything you can do to make the results section easier to follow will help the reader.

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.