Editorial Review: Karas

Thanks for your submission, which presents some intriguing original results for the p53 network that warrant further investigation. It was enthusiastically received by the editor and one peer reviewer (apologies for not having two, there was a mix-up in assigning reviewers). Before proceeding with publication, please address comments by the reviewer, as well as the editorial feedback below.

* Your model description section should include more details relevant to the analysis presented to aid interpretation of your results by the reader. In particular, data on the attractors found previously could be included here. You might also clarify how many initial conditions were sampled for measuring the information theoretic quantities and definitions of the measures used.
* Transfer energy should be entropy
* The paper would benefit from more detailed interpretation of your results. For example, the role of p53 appears to change rather dramatically in your active information from Fig. 4 to Fig. 5 – this would be an interesting point to discuss along with the changes in other nodes.
* Where does p53 fall in Fig. 6 and Fig. 7. Is there any significance to the high TE node pairs? Do they change between the normal and damaged network?
* What is the significance of the node pairs that acquire TE>0 in Fig. 8 after introduction of damage? Are they implicated in cancer? You talk in general about the relationship to feedback in the network, but it would be interesting to know more about potential biological interpretation.
* For the left panel of Fig. 8, any speculations on why the active information and TE are clustered as they are?