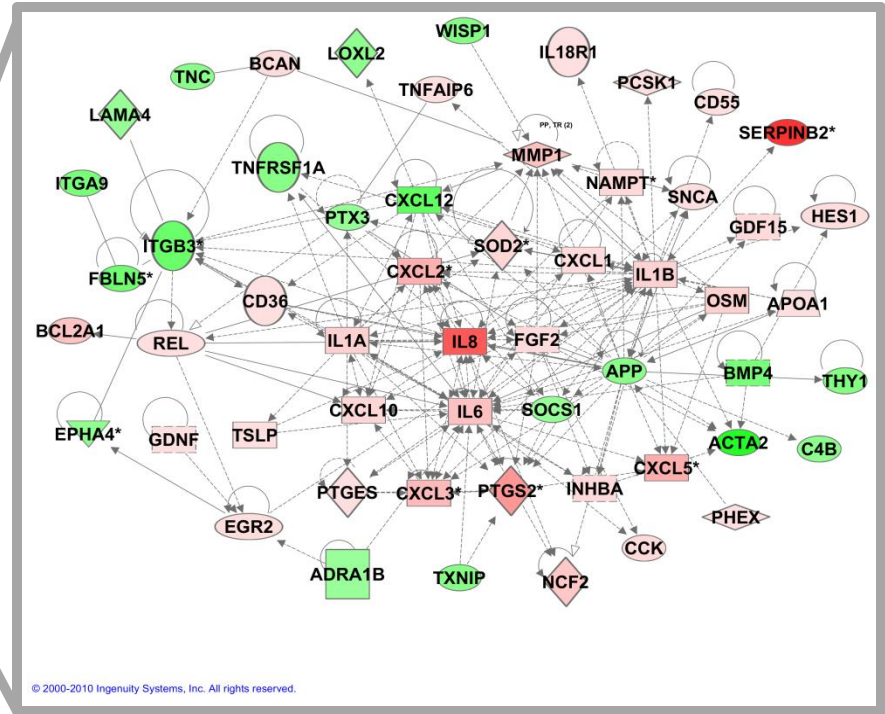


**Additional file 4. Comparison of pathway analysis in irradiated and bystander cells** A. IPA was used to compare two gene sets and display a score  $-\log_{10}(\text{p-value})$ , for inclusion of a subset of genes in a biological category. B. We illustrate the “cell-to-cell signaling” interactions gene subset and connected 70 genes changed in bystanders into a network. Arrows indicate direction of the relationship between molecules (nodes) and colors represent up-regulation (red) and down-regulation (green) of mRNA.

### Cell-To-Cell signaling interactions: Early gene expression in bystanders



- Irradiated, after 30 minutes
- Bystander, after 30 minutes