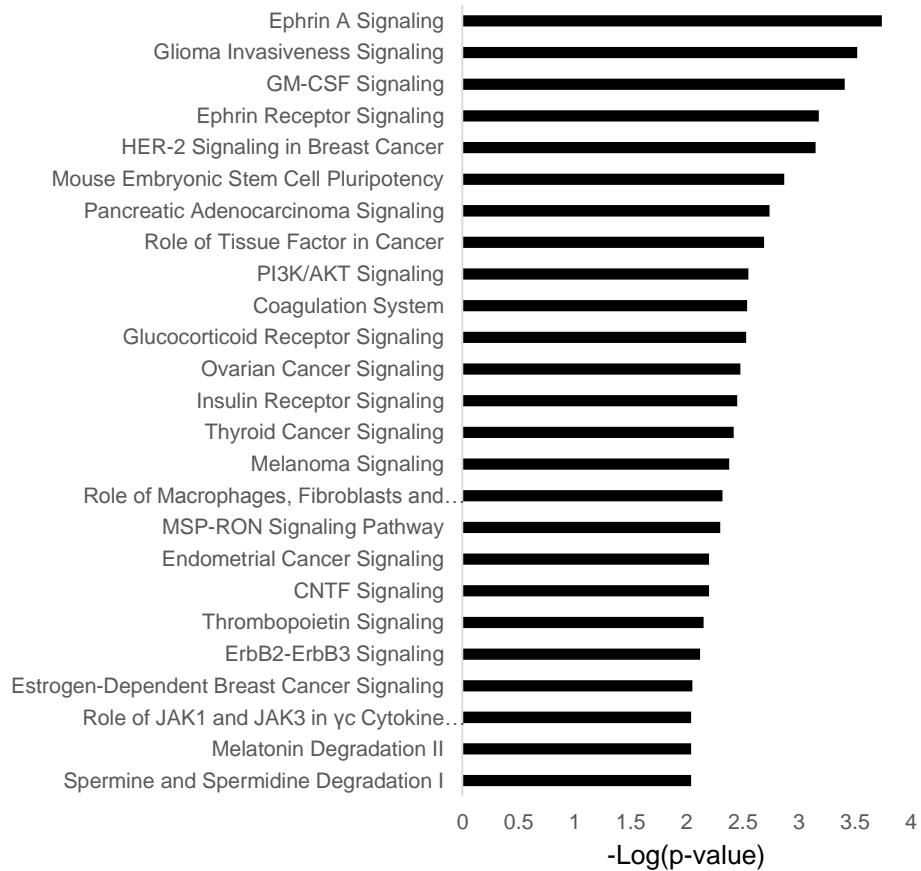


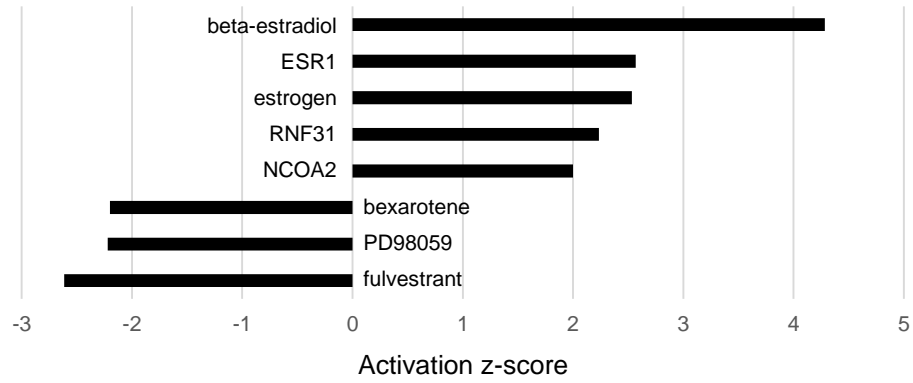
Supplemental Figures for

**Moving Toward Integrating Gene Expression Profiling into High-throughput Testing:  
A Gene Expression Biomarker Accurately Predicts Estrogen Receptor  $\alpha$  Modulation in a  
Microarray Compendium**

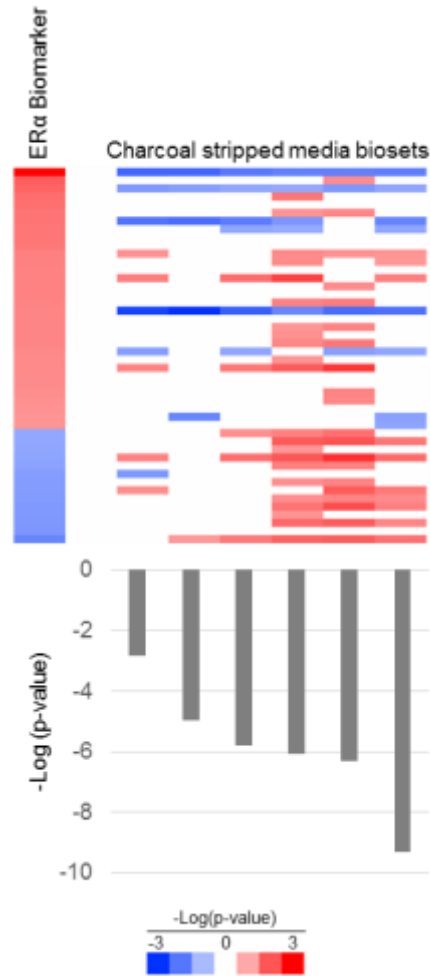
by Ryan *et al.*



**Supplemental Figure 1. IPA Canonical Pathways.** Top 25 canonical pathways represented by the genes in the ER $\alpha$  biomarker, as indicated by Ingenuity Pathways Analysis.



**Supplemental Figure 2. IPA Upstream Regulators.** Transcription factors (TFs) and chemicals predicted to act as upstream regulators of ER $\alpha$  biomarker genes, as determined by Ingenuity Pathways Analysis. Only TFs or chemicals with activation z-scores  $\geq 2$  are shown.



**Supplemental Figure 3. Stripping media of steroids results in suppression of ER $\alpha$ .** (Top) Heat map showing expression behavior of 6 biosets from GSE51448 in which MCF-7 cells were grown in charcoal stripped media (CSM) vs. unstripped media. Note that culture medium with 10% fetal bovine serum contains approximately 20 pM E2. While many of the positive biomarker genes were suppressed, most of the negative biomarker genes exhibited increased expression. (Bottom)  $-\log(p\text{-values})$  from predictions using the ER $\alpha$  biomarker. Of the 6 biosets, 5 exhibited significant suppression of ER $\alpha$ .