Figure 8

INTER-DEPENDENCIES OF STRESS PHENOTYPES SHARED BY DIFFERENT TYPES OF CANCER

ONCOGENIC ACTIVATION

1. Up-regulation of the chromosomal instability (CIN)-related gene signature
   - Up-regulation of the CIN signature predicts worse survival in all breast cancer data sets but not in other types of cancer.

2. Activation of a transcriptional programme related to senescence-bypass
   - CIN-positive tumors significantly up-regulate RB-E2F targets and a transcriptional program opposite to that related to senescence.

3. Upregulation of DNA damage response pathways
   - CIN-positive tumors up-regulate genes involved in cellular response to DNA damage-inducing stimuli.

4. Upregulation of proteotoxic stress response mechanisms
   - CIN-positive tumors up-regulate genes involved in cellular response to proteotoxic damage-inducing stimuli.

5. Upregulation of mitotic stress response mechanisms
   - CIN-positive tumors up-regulate genes involved in mitotic stress-inducing stimuli.

6. Upregulation of metabolic pathways regulated by TORC1/HIF1a activation
   - CIN-positive tumors up-regulates genes regulated by HIF1A such as glycolysis and pentose phosphate metabolism.