**Anticancer drug response prediction in cell lines using weighted graph regularized matrix factorization**

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**Supplementary Information**

**Supplementary Table 1.** The ranked cell lines for each drug according to the predicted response values of WGRMF in GDSC. We applied WGRMF on GDSC dataset to predict the response values for those drug-cell line pairs without known responses. The cell lines were ranked according to the predicted response values for each drug in GDSC, and the top 50 cell lines were selected for each drug if there were more than 50 cell lines having no known responses to that drug. This prediction result is released for further experimental validation and research.