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(54) Title: SYSTEMS AND METHODS FOR ASSOCIATING COMPOUNDS WITH PROPERTIES USING CLIQUE ANALYSIS OF CELL-BASED DATA

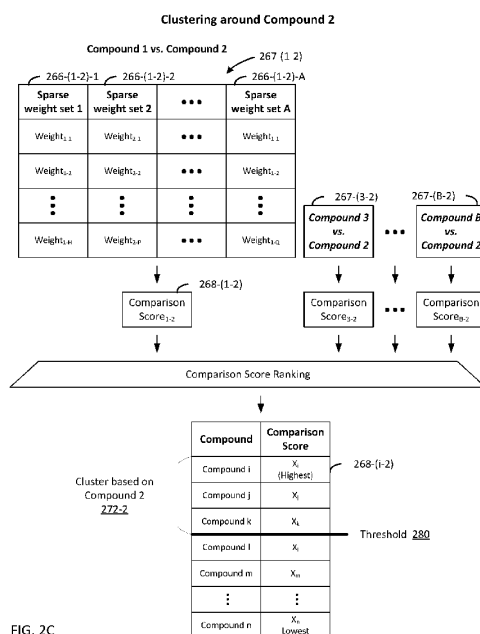


FIG. 2C

(57) Abstract: Methods of associating a test compound with a compound property. One or more datasets including: for each of a plurality of cell lines and each of a plurality of compounds: for each respective exposure condition: a corresponding response signature for the respective compound in the respective cell line under the respective exposure condition is obtained. A correlation is determined for each unique combination of exposure conditions for a respective pair of compounds based on the corresponding response signature. A weight is determined for each respective pair of compounds based on the determined correlations. A plurality of compound clusters is formed, where each cluster represents compounds that satisfy one or more weight criteria with respect to a particular compound. A compound property of the test compound is determined from properties of one or more compounds in a one or more compound clusters that contain the test compound.

[Continued on next page]

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