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[Continued on next page]

(54) Title: ANALYZING THE EXPRESSION OF BIOMARKERS IN CELLS WITH CLUSTERS

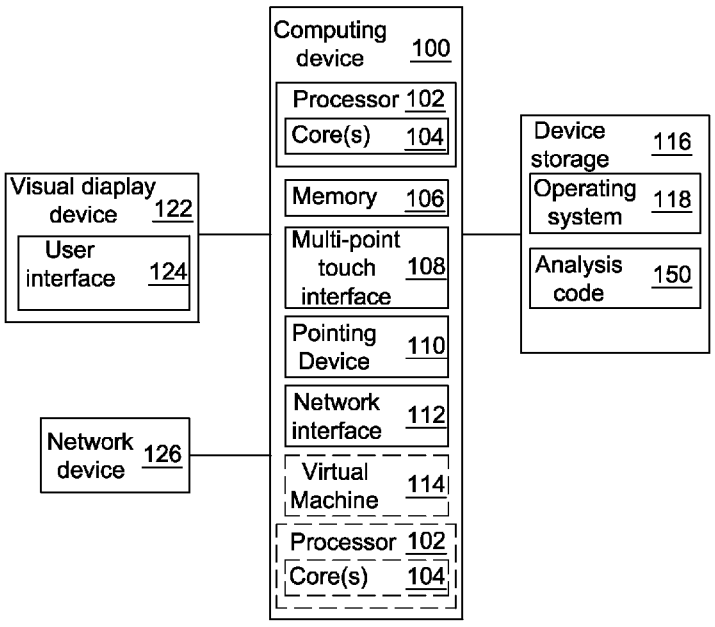

FIG. 1

(57) Abstract: A data set of cell profile data is stored. The cell profile data includes multiplexed biometric image data describing the expression of a plurality of biomarkers. Cell profile data is generated from tissue samples drawn from a cohort of patients having an assessment related to the commonality. Multiple sets of clusters of similar cells are generated from the data set; the proportion of cells in each cluster is examined for an association with a diagnosis, a prognosis, or a response; and a predictive set of clusters is selected based on model performance. One predictive set of clusters is selected based on a comparison of the performance of at least one model of the plurality of sets of clusters. Display techniques that aid in understanding the characteristics of a cluster are disclosed.

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