

CLAIMS

WHAT IS CLAIMED IS:

1. A method for characterizing a clinical or medical condition of a subject, comprising:
 - a. obtaining a first set of subject data from a sample obtained from ~~and/or from observation of~~ said subject, said subject data comprising at least one biological marker ~~and at least one physiological parameter from the subject~~;
 - b. determining the probability of a medical condition of the subject using the first set of subject data by constructing a probability space defined by a plurality of discrete clinical outcomes, wherein each discrete clinical outcome of said plurality is characterized by a statistical distribution of a set of markers, comprising at least one biological marker, and wherein said probability space is reflective of a medical condition, medical procedure, therapy, clinical trial, drug discovery, or drug development;
 - c. selecting a second set of subject data from the probability of the medical condition;
 - d. obtaining the second set of subject data from a sample obtained from ~~and/or from observation of~~ the subject, thereby characterizing the clinical or medical condition of the subject; and
 - e. calculating a trajectory in said probability space based on said first set of subject data and said second set of subject data, said trajectory in said probability space being calculated based on positions of said subject data within each statistical distribution of said set of markers characterizing each of said discrete clinical outcomes, wherein said trajectory is indicative of the likelihood of progression of the medical condition of said subject.
2. The method of claim 1 for characterizing a clinical or medical condition of a subject, said clinical or medical condition comprising periodicity, the method further comprising:
 - a. identifying a set of biomarkers for a clinically relevant condition;
 - b. obtaining longitudinal subject data corresponding to at least one biomarker in said set to obtain a trend of the subject data;
 - c. analyzing said trend to identify periodic changes in the at least one biomarker;
 - d. measuring values of peak measurements of the periodic changes of the trend; and
 - e. characterizing the values of the peaks thereby characterizing the periodicity of the clinically relevant condition.