

Title (en)
METHOD FOR SELECTING MEDICAL AND BIOCHEMICAL DIAGNOSTIC TESTS USING NEURAL NETWORK-RELATED APPLICATIONS

Title (de)
VERFAHREN ZUM AUSWÄHLEN VON MEDIZINISCHEM UND BIOCHEMISCHEM DIAGNOSTISCHEN TEST UNTER VERWENDUNG VON AUF NEURALEN NETZWERKEN BASIERENDEN ANWENDUNGEN

Title (fr)
METHODE POUR SELECTIONNER DES EXAMENS DIAGNOSTIQUES MEDICAUX ET BIOCHIMIQUES A L'AIDE D'APPLICATIONS APPARENTEES AUX RESEAUX NEURONAUX

Publication
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Application
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Priority

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Abstract (en)
[origin: WO9729447A2] Methods are provided for developing medical diagnostic tests using decision-support systems, such as neural networks. Patient data or information, typically patient history or clinical data, are analyzed by the decision-support systems to identify important or relevant variables and decision-support systems are trained on the patient data. Patient data are augmented by biochemical test data, or results, where available, to refine performance. The resulting decision-support systems are employed to evaluate specific observation values and test results, to guide the development of biochemical or other diagnostic tests, to assess a course of treatment, to identify new diagnostic tests and disease markers, to identify useful therapies, and to provide the decision-support functionality for the test. Methods for identification of important input variables for medical diagnostic tests for use in training the decision-support systems to guide the development of the tests, for improving the sensitivity and specificity of such tests, and for selecting diagnostic tests that improve overall diagnosis of, or potential for, a disease state and that permit the effectiveness of a selected therapeutic protocol to be assessed are provided. The methods for identification can be applied in any field in which statistics are used to determine outcomes. A method for evaluating the effectiveness of any given diagnostic test is also provided.

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