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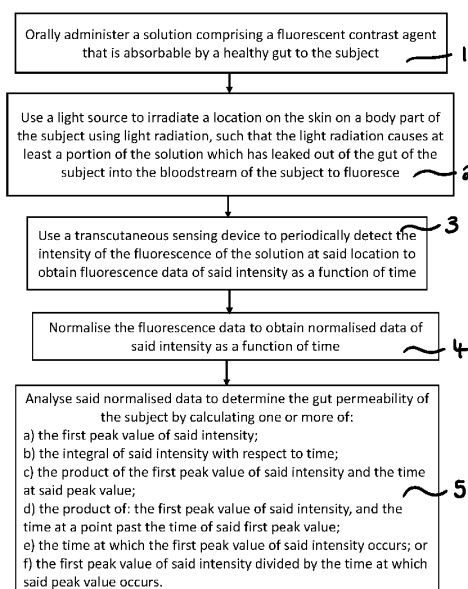


FIG. 1

(57) Abstract: A method for measuring gut permeability of a subject comprises: orally administering a solution comprising a fluorescent contrast agent that is absorbable by a healthy gut to the subject; using a light source to irradiate a location on the skin on a body part of the subject using light radiation, such that the light radiation causes at least a portion of the solution which has leaked out of the gut of the subject into the bloodstream of the subject to fluoresce; using a transcutaneous sensing device to periodically detect the intensity of the fluorescence of the solution at said location to obtain fluorescence data of said intensity as a function of time; normalising the fluorescence data to obtain normalised data of said intensity as a function of time; and analysing said normalised data to determine the gut permeability of the subject by calculating one or more of: (a) the first peak value of said intensity; (b) the integral of said intensity with respect to time; (c) the product of the first peak value of said intensity and the time at said peak value; (d) the time at which the first peak value of said intensity occurs; or (e) the first peak value of said intensity divided by the time at which said peak value occurs.

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