



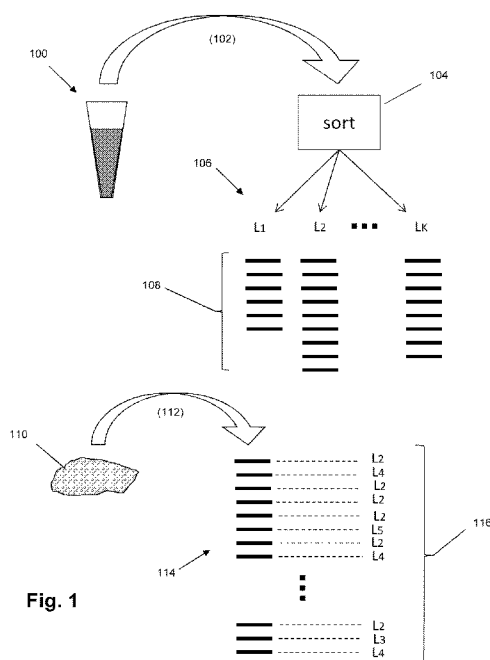
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(54) **Title:** DETECTION AND MEASUREMENT OF TISSUE-INFILTRATING LYMPHOCYTES

(57) **Abstract:** The present invention is drawn to methods for measuring numbers, levels, and/or ratios of cells, such as lymphocytes, infiltrated into a solid tissue, such as a tumor or a tissue affected by an autoimmune disease, and to methods for making patient prognoses based on such measurements. In one aspect, methods of the invention comprise sorting lymphocytes from an accessible tissue, such as peripheral blood, into functional subsets, such as cytotoxic T cells and regulatory T cells, and generating clonotype profiles of each subset. An inaccessible disease-affected tissue is sampled and one or more clonotype profiles are generated. From the latter clonotype profiles, levels lymphocytes in each of the functional subsets are determined in the disease-affected tissue by their clonotypes, which are identified from lymphocytes sorted into subsets from the accessible tissue.