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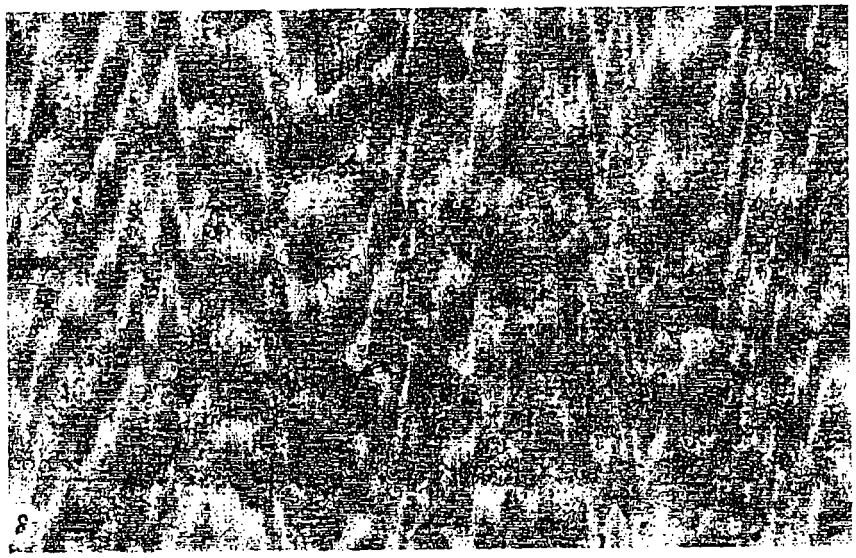
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(54) Title: MOLECULAR MARKERS



(57) **Abstract:** The present invention relates generally to nucleic acid based methods for detecting the presence of *E. coli* or *Shigella* or related microorganisms in a sample using one or more *E. coli* or *Shigella* species specific nucleotide sequences. More particularly, the present invention permits the identification of molecules capable of binding or otherwise facilitating abnormal cell growth or abnormal physiology such as found in cancer or cellular instability. The present invention further provides molecular probes for performing the nucleic-acid based methods of the invention and methods of testing and selecting nucleic acid sequences suitable for same. The methods and polynucleotides of the present invention are useful *inter alia* in the testing of food and water samples, for testing for genetic and cellular instability, and for testing for benign, pre-neoplastic and neoplastic disease in asymptomatic or symptomatic colorectal or gastric cancer patients or those at risk of the aforementioned conditions or those infected by *Escherichieæ* and with other diseases or conditions.

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