



TECHNOLOGY AVAILABLE FOR LICENSING

Method of Reconstituting Cellular Spectra from Spectral Mapping Data

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Invention Details:

The present invention relates to methods for the automated screening of exfoliated cells to detect the presence of abnormalities (*e.g.* cancer) leading to an accurate diagnosis. The method uses a microspectrometer to obtain infrared (IR) spectral data from each of hundreds of individual cells, and analyzes the resulting spectra by computer algorithms. The infrared spectrum of an individual cell is a snapshot of the entire biochemical composition of the cell. This composition changes during the transition from a normal to a cancerous state. Consequently, infrared microspectroscopy can be used to monitor the onset of cancerous disease. The software portion of the invention strongly facilitates the acquisition of spectral data from individual cells.

Benefits of the Invention:

Advantages:

- High reproducibility and repeatability
- Measurements digitally recorded and stored
- Self-learning algorithm
- Same results will be produced worldwide
- Spectral measurements and data analysis are machine-based and not subject to operator fatigue and/or expertise

Applications:

- Cytological screening tests
- Genetic profiling
- Cancer screening
- Workplace drug screening

The Bottom Line:

The market for cytological screening tests is in the billions. It is predicted that in the next five years there will be a steady increase in demand for new diagnostic testing services, along with pressures to lower costs and improve the quality of healthcare delivered in clinics. Early detection of disease benefits patients as well as the healthcare system.

For More Information:

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