

Claims

1. A method for analysing a sample obtained from a subject, comprising the steps of:
 - a) providing the spectra produced by scanning the sample using FTIR spectroscopy; and
 - b) identifying or sorting the cells in the sample according to the spectrum each produces.
- 5 2. A method according to claim 1, wherein the spectrum is from an ATR-FTIR spectrometer.
3. A method according to claim 1 or claim 2, wherein the sample is a sample of epithelial tissue.
4. A method according to claim 3, wherein the epithelial tissue is from the esophagus.
5. A method according to any preceding claim, wherein the method includes the step of obtaining the sample.
6. A method according to any preceding claim, wherein the method includes the step of obtaining the spectrum.
- 10 7. A method according to any preceding claim, wherein the step of separating the cells comprises separating the cells into healthy and non-healthy cells.
8. A method according to any preceding claim, wherein the step of separating the cells comprises separating the cells by cell type.
9. A method according to any preceding claim, wherein the step of separating the cells comprises separating the cells into disease state.
- 15 10. A method according to any preceding claim, wherein the method also comprises the step of generating an image of the sample, or of the spectra from the sample.
11. A method according to any preceding claim, wherein the method also comprises the step of shifting or calibrating the spectra to take into account the hydration of the sample or any drug or other pharmaceutical agent or any other agent that may have been administered to the subject prior to sampling.
- 20 12. A computer programme comprising code means to carry out at least one of the separation, shifting and image generation steps of any preceding claim.
13. A computer readable medium carrying a computer programme according to any preceding claim.
14. A system comprising a computer enabled to run the computer programme according to claim 12.
- 25 15. A system according to claim 14, further comprising a spectrometer.
16. A system according to claim 14 or 15, further comprising a library of spectra from known cells.
17. A method for diagnosing a disease state in a subject, comprising analysing a sample from the subject using the method of any of claims 1 to 11, wherein the presence of non-healthy cells or cells having a particular disease state is indicative of the subject having the disease state.

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