

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2017/042579 A1

(43) International Publication Date
16 March 2017 (16.03.2017)

(51) International Patent Classification:
G01N 33/574 (2006.01) *G01N 21/00* (2006.01)

(21) International Application Number:
PCT/GB2016/052794

(22) International Filing Date:
9 September 2016 (09.09.2016)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1516056.7 10 September 2015 (10.09.2015) GB

(71) Applicant: **BEAMLINE DIAGNOSTICS LTD**
[GB/GB]; Apartment 12 Warwick Building, 366 Queen-
stown Road, London SW8 4NJ (GB).

(72) Inventors: **FOREMAN, Liberty**; 17a Crossfield Road,
London NW3 4NT (GB). **OLIVER, Katherine**; 39 Church
Street, Didcot OX11 8DG (GB).

(74) Agent: **WALLIS, Naomi**; Greaves Brewster LLP, Copa
House, Station Road, Cheddar, BS27 3AH (GB).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,

BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,
TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))*



WO 2017/042579 A1

(54) Title: METHOD, COMPUTER PROGRAMME AND SYSTEM FOR ANALYSING A SAMPLE COMPRISING IDENTIFY-
ING OR SORTING CELLS ACCORDING TO THE FTIR SPECTRUM EACH CELL PRODUCES

(57) Abstract: The invention relates to a method for improving the screening of histological samples, especially samples that may include cancerous or precancerous cells, or cells having other disease states. The method involves analysing a sample obtained from a subject and comprises the steps of providing the spectra produced by scanning the sample using FTIR spectroscopy and identifying or sorting the cells in the sample according to the spectrum each produces.