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(54) Title: METHODS AND SYSTEMS FOR DIAGNOSTIC PLATFORM

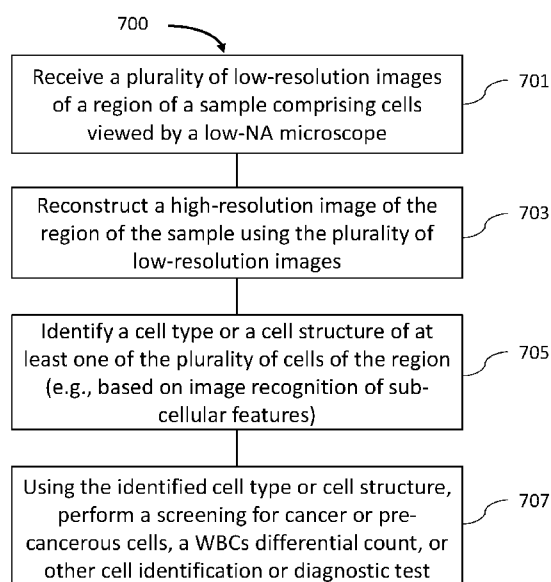


FIG. 7

(57) Abstract: Methods and systems are provided for improved imaging and analyzing of a sample with a large field-of-view at a high image resolution. A diagnostic system may comprise: a microscope comprising a low collection numerical aperture (NA); an imaging device coupled to the microscope; and a processor coupled to the imaging device. The imaging device may be configured to capture a plurality of low-resolution images of a region of a sample viewed by the microscope. The region of the sample may comprise cells. The processor may comprise instructions configured to reconstruct a high-resolution image of the region of the sample using the plurality of low-resolution images. The processor may further comprise instructions configured to analyze a spatial field of the high-resolution image to identify at least one of a cell type or a cell structure of at least one of the cells of the region of the sample.

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A. CLASSIFICATION OF SUBJECT MATTER

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CPC - G02B 21/365, G06T 7/0012, G06F 19/321

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History Document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Search History Document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History Document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2016/01007 A1 (Canon Kabushiki Kaisha) 30 June 2016 (30.06.2016) entire document(especially pg. 8, para [0039]-[0040];pg. 9, para [0043]; pg. 20, para [0079] to pg. 21, para [0080]).	1-70
Y	US 2003/0227612 A1 (Fein et al.) 11 December 2003 (11.12.2003) (para [0007], [0024], [0027], [0029], [0065]-[0069])	1-70
Y	US 2004/0197839 A1 (Daniely et al.) 07 October 2004 (07.10.2004) (para [0021],[0056]).	14, 16, 50, and 52
Y	US 2007/0245812 A1 (Kislev et al.) 25 October 2007 (25.10.2007) (para [0060]-[0063], [0067])	15 and 51
Y	US 2012/0105600 A1 (Meyer et al.) 03 May 2012 (03.05.2012) (para [0044], [0058]-[0060])	27 and 63
Y	US 5,750,340 A (Kim et al.) 12 May 1998 (12.05.1998) (col. 8, ln 33-35)	29-30 and 65-66

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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