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(54) Title: A RAPID, SEMI-AUTOMATED METHOD TO DETECT RESPIRATORY VIRUS INFECTED CELLS IN NASOPHARYNGEAL SAMPLES USING DIRECT FLUORESCENT ANTIBODY

(57) **Abstract:** Tests for rapid viral detection which rely on antigen detection vary considerably in their sensitivity and the turn-around-time (TAT) for a result. Point of care (POC) tests have a 15- 20 min TAT and are easy to use. POC tests find utility in physician's offices, microbiology labs and in virology labs during the second and third shift. However, the sensitivity of these tests is widely reported to be low 1,2, particularly out of season. Direct specimen testing using Cytospin3,4 or smear preparations has been reported to be more sensitive but requires 60-90 min, is tedious to perform, currently lacks standardization, leads to relatively large numbers of specimens with insufficient number of cells to conduct the test (QNS>20%), and requires a medium complex lab with skilled technologists performing and interpreting the fluorescent staining results. The present invention describes a method which combines the TAT of the POC tests with the higher sensitivity and ability to assess the specimen quality available with direct specimen testing.

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC: C12Q 1/70(2006.01)

USPC: 435/5

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)
U.S. : 435/5

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Medintz et al. Quantum dot bioconjugates for imaging, labelling and sensing. Nature Materials. 2005, Vol. 4, pages 435-446.	1-10
A	Shah and Weissleder. Molecular optical imaging: applications leading to the development of present day therapeutics. NeuroRx: The Journal of the American Society for Experimental NeuroTherapeutics. 2005. Vol. 2, pages 215-225.	1-10
A	Wang and Van Dam. Optical Biopsy: A New Frontier in Endoscopic Detection and Diagnosis. Clin. Gastroenterol. Hepatol. 2004. Vol. 2, No. 9, pages 744-753.	1-10

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