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(71) Applicant *(for all designated States except US)*: **INSTITUTE OF MOLECULAR & CELL BIOLOGY** [SG/SG]; 30 Medical Drive, 117609 Singapore (SG).

(71) Applicant *(for BB only)*: **EHRLICH, Gal** [IL/IL]; 28 Bezalel Street, 52 521 Ramat Gan (IL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **TAN, Yin, Hwee** [SG/SG]; 3 Pandan Valley # 11-308, Chempaka Court, 597627 Singapore (SG). **LIM, Siew, Pheng** [SG/SG]; 427 #04-314 Serangoon Central, 550427 Singapore (SG). **LIM, Seng, Gee** [SG/SG]; 113 Clementi Road # 04-08, 129789 Singapore (SG). **HONG, Wan, Jin** [SG/SG]; 835 Bukit Timah Road, #01-07 Royal Ville, 279888 Singapore (SG).

(74) Agent: **G. E. EHRLICH (1995) LTD.**; 28 Bezalel Street, 52 521 Ramat Gan (IL).

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(54) Title: NUCLEIC ACIDS AND METHODS FOR DETECTING VIRAL INFECTION, UNCOVERING ANTI-VIRAL DRUG CANDIDATES AND DETERMINING DRUG RESISTANCE OF VIRAL ISOLATES

(57) Abstract: A nucleic acid construct is provided. The nucleic acid construct includes (a) an expression cassette including: (i) a first polynucleotide region including a 5' NCR sequence of an RNA virus and at least an N-terminal portion of a core sequence of the RNA virus; (ii) a second polynucleotide region including a 3' UTR sequence of the RNA virus and at least a C-terminal portion of a polymerase sequence of the virus; and (iii) a third polynucleotide region encoding a reporter molecule, the third polynucleotide region being flanked by the first and the second polynucleotide regions; and (b) a promoter sequence being operatively linked to the expression cassette in a manner so as to enable a transcription of a minus strand RNA molecule from the expression cassette.