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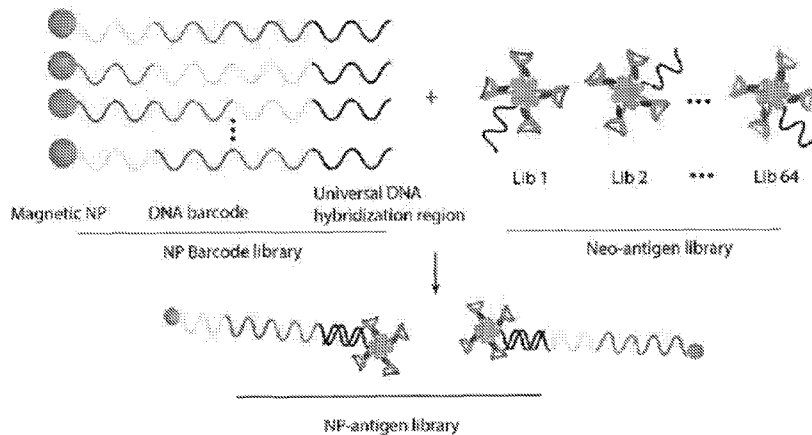
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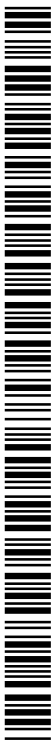
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(54) Title: COMPOSITIONS AND METHODS FOR SCREENING T CELLS WITH ANTIGENS FOR SPECIFIC POPULATIONS

FIG. 3B



(57) Abstract: Compositions and methods for isolating patient -derived antigen-specific T cells include an antigen complex having a polynucleotide barcoded nanoparticle sorting agent complexed with a peptide-loaded streptavidin major histocompatibility complex (MHC) tetramer, the barcoding technology allowing for high fidelity screening of a library of the antigen complexes to readily isolate and identify antigen-specific T cells.



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2016/035357

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - C12Q 1/68; G01N 33/52; G01N 33/53; G01N 33/543 (2016.01)

CPC - C12Q 1/6834; C12Q 1/6869; C12Q 1/6876; C12Q 1/6886; G01N 33/505; G01N 33/54306 (2016.08)

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)

IPC - C12Q 1/68; G01N 33/52; G01N 33/53; G01N 33/543

CPC - C12Q 1/6834; C12Q 1/6869; C12Q 1/6876; C12Q 1/6886; G01N 33/505; G01N 33/54306; G01N 33/54346; G01N 33/587

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

USPC - 435/6.12; 435/6.11; 435/7.1; 435/287.2; 506/9 (keyword delimited)

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

Orbit, Google Patents, Google Scholar, PubMed

Search terms used: antigen; nanoparticle; MHC; polynucleotide

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 8,394,590 B2 (KWONG et al) 12 March 2013 (12.03.2013) entire document	1-5, 10-19 ----- 6-9, 20
Y	US 2009/0036324 A1 (FAN et al) 05 February 2009 (05.02.2009) entire document	6
Y	US 2004/0072231 A1 (MIRKIN et al) 15 April 2004 (15.04.2004) entire document	7-9
Y	US 4,818,680 A (COLLINS et al) 04 April 1989 (04.04.1989) entire document	20
A	US 2015/0051089 A1 (ADAPTIVE BIOTECHNOLOGIES et al) 19 February 2015 (19.02.2015) entire document	1-20
A	US 2011/0039717 A1 (KWONG et al) 17 February 2011 (17.02.2011) entire document	1-20
A	US 2008/0220982 A1 (VU) 11 September 2008 (11.09.2008) entire document	1-20

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

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"&amp;" document member of the same patent family

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