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(71) Applicant: IMMUNOSCAPE PTE LTD [SG/SG]; 1
Scotts Road #24-10, Singapore 228208 (SG).

(72) Inventors; and

(71) Applicants: WILM, Andreas [DE/SG]; 526 East Coast
Road, 10-03 Ocean Park, Singapore 458968 (SG). ENG,
Loan, Ping [MY/SG]; 658c Punggol East, #12-733, Singa-

pore 823658 (SG). SCHMIDT, Florian [DE/SG]; 53 Jalan
Bunga Rampai, #14-06, Singapore 538421 (SG).

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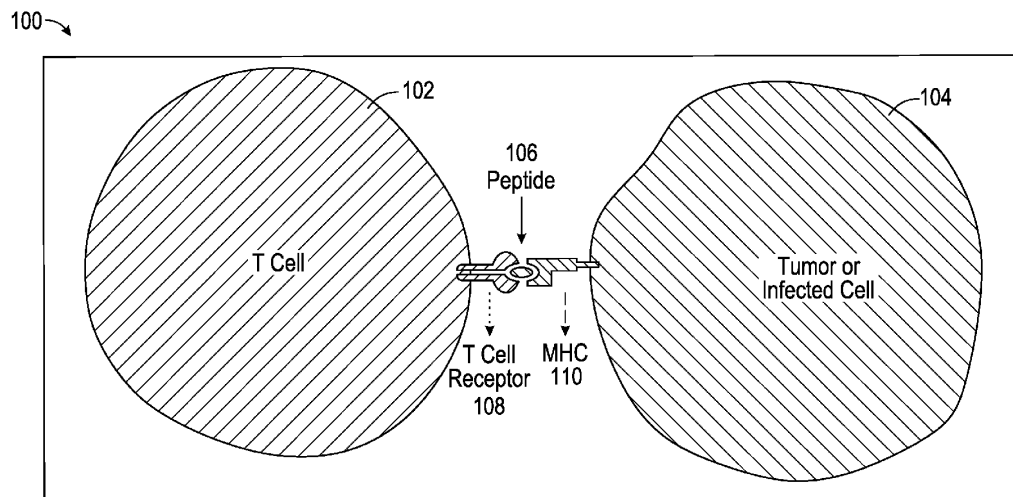


Figure 1

(57) Abstract: The present application describes a computer-implemented method for identifying target-specific T cells and their T cell Receptor (TCR) sequences. The method includes deriving single cell T cell data from a sample. The data comprises T cell profile and T cell TCR sequence. The method also includes selecting candidate T cells and their TCR sequences from the single cell T cell data using a machine learning classifier that is trained to classify T cells based on their profiles. The method may also include aggregating results over clonotypes, adding T cells with similar TCR sequences and ranking the list of candidates.

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