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(71) **Applicant: SINGAPORE HEALTH SERVICES PTE. LTD.**, [SG/SG]; 31 Third Hospital Avenue #03-03, Singapore 168753 (SG).

(72) **Inventors: CHEW, Suk Peng**; c/o Singapore Health Services Pte. Ltd., 31 Third Hospital Avenue #03-03, Singapore 168753 (SG). **ALBANI, Salvatore**; c/o Singapore Health Services Pte. Ltd., 31 Third Hospital Avenue #03-03, Singapore 168753 (SG). **CHOW, Kah-Hoe Pierce**; c/o Singapore Health Services Pte. Ltd., 31 Third Hospital Avenue #03-03, Singapore 168753 (SG). **PAN, Lu**; c/o Singa-

pore Health Services Pte. Ltd., 31 Third Hospital Avenue #03-03, Singapore 168753 (SG).

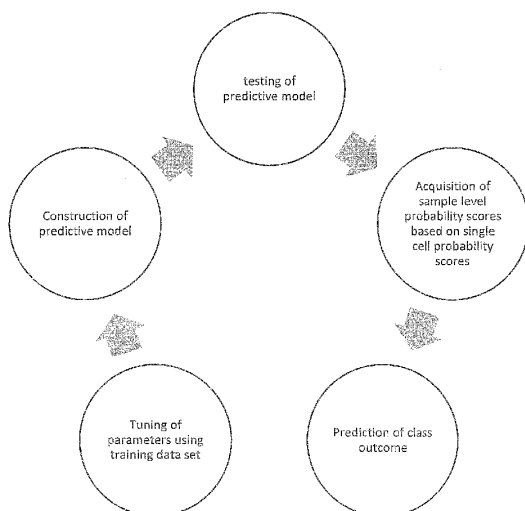
(74) **Agent: YUSARN AUDREY**; 24 Raffles Place #27-01 Clifford Centre, Singapore 048621 (SG).

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(54) **Title:** A SYSTEM AND METHOD FOR CLASSIFYING CANCER PATIENTS INTO APPROPRIATE CANCER TREATMENT GROUPS AND COMPOUNDS FOR TREATING THE PATIENT

Figure 1



(57) **Abstract:** A method for the prognosis of response to treatment for a patient suffering from cancer, the method comprising: measuring the expression of at least one immune marker in a leukocyte sample taken from the patient with cancer; classifying the patient sample into (i) sustainable responders (SR) to selective internal radiation therapy (SIRT) or (ii) transient/non-responders (TR/NR) to (SIRT) based on expression of the at least one immune marker in relation to a predetermined value and treating sustainable responders (SR) to SIRT or SIRT or a composition comprising SIRT and an immunotherapy. In a preferred embodiment, the method is for the prognosis of response to treatment of a Hepatocellular carcinoma (HCC) patient comprising detecting the co-expression of PD-1 or Tim-3 with CCR5; or expression of PD-1, Tim-3, CXCR6, or combinations thereof in a leukocyte sample taken from the patient.

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