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[US/US]; 2 TOWER PLACE, 5TH FLOOR, South San Francisco, California 94080 (US).
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- (72) Inventors: AIYETAN, Paul Oluwaseyi; 1907 Gladstone Street, Frederick, Maryland 21702 (US). CAMPBELL, Matthew Peter; c/o InterVenn Biosciences Australia Pty Ltd, 93 Victoria Parade, Level 2, Fitzroy, Melbourne, Victoria 3065 (AU). CONG, Xin; c/o VENN BIOSCIENCES CORPORATION, 2 Tower Place, 5th floor, South San Francisco, 94080 (US). COUTRE, Garrett Anders; 607 E 8th Street, Davis, California 95616 (US). DEEP, Arshia Bassi; 5318 Franco Ct., Union City, California 94587 (US). GANDHI, Monil Dilip; c/o VENN BIOSCIENCES CORPORATION, 2 Tower Place, 5th Floor, South San Francisco, California 94080 (US). HUANG, Hector Han-Li; c/

(54) Title: SAMPLE PREPARATION FOR GLYCOPROTEOMIC ANALYSIS THAT INCLUDES DIAGNOSIS OF DISEASE

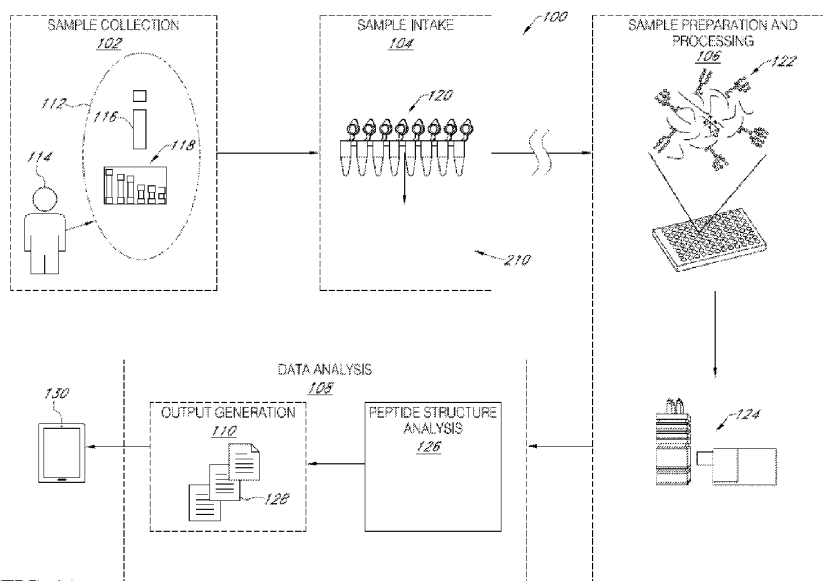


FIG. 1A

(57) Abstract: A method, system, and composition related to the preparation of samples for glycoproteomic analysis is described. The sample preparation process can include a proteolytic digestion step followed by a measurement step of the glycopeptide and peptide amounts in the proteolytic digest using a liquid chromatography-mass spectrometry system. Optionally, the sample preparation process can also include the collection of the sample on an absorbent or bibulous member where the proteins and glycoproteins are later extracted and then digested for glycoproteomic analysis. Glycopeptide and peptide measurements of biological samples were analyzed to provide a diagnosis of a disease such as, for example, ovarian cancer or to assess whether a patient with melanoma is likely or not likely to benefit from checkpoint inhibitor therapy.

[Continued on next page]

o Venn Biosciences Corporation, TWO TOWER PLACE, 5TH FLOOR, South San Francisco, California 94080 (US). **MITCHELL, Alan Nicolas**; c/o VENN BIOSCIENCES CORPORATION, 2 TOWER PLACE, 5TH FLOOR, South San Francisco, California 94080 (US). **PANDZA, Kellan**; 190 Cleaveland Rd #15, Pleasant Hill, California 94523 (US). **PICKERING, Chad Eagle**; c/o VENN BIOSCIENCES CORPORATION, 2 TOWER PLACE, 5TH FLOOR, South San Francisco, California 94080 (US). **SCHWARZ, Flavio**; c/o VENN BIOSCIENCES CORPORATION, 2 Tower Place, 5th Floor, South San Francisco, California 94080 (US). **SERIE, Daniel**; c/o VENN BIOSCIENCES CORPORATION, 2 TOWER PLACE, 5TH FLOOR, South San Francisco, California 94080 (US). **SRINIVASAN, Apoorva**; 188 Octavia Street, Apt 203, San Francisco, California 94102 (US). **SRIVASTAVA, Saurabh**; 856 Antoinette Lane, Apt G, South San Francisco, California 94080 (US). **TU, Diane Nai-Fan**; 150 Carmel Avenue, Unit B, Pacifica, California 94044 (US). **XU, Gege**; c/o VENN BIOSCIENCES CORPORATION, 2 TOWER PLACE, 5TH FLOOR, South San Francisco, California 94080 (US). **YADAV, Rao Siddhant**; c/o InterVenn Biosciences Australia Pty Ltd, 93 Victoria Parade, Level 2, Fitzroy, Melbourne, Victoria 3065 (AU). **ZHOU, Bo**; 11744 Moorpark Street #M, Los Angeles, California 91604 (US).

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(74) **Agent: NORA, Zachary A.**; MORRISON & FOERSTER LLP, 755 Page Mill Road, Palo Alto, CA 94304-1018 (US).

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