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(71) Applicant: **EVONIK OPERATIONS GMBH** [DE/DE];
Rellinghauser Strasse 1-11, 45128 Essen (DE).

(72) Inventors: **ROY, Suki**; #13-430, Blk 653A, Jurong West
Street 61, Singapore 641653 (SG). **NAGARAJAN, San-
janaa**; Blk 521 Woodlands Drive 14, #11-357, Singapore
730521 (SG). **BÖHL, Florian**; Am Schänzel 12, 60151
Neckargemünd (DE). **HUANG, Lingzhi**; 43A Margaret

Drive, #28-318, Singapore 143043 (SG). **CHAN, Sarah**;
1523 Bellevue Way NE, Unit 1523B, Bellevue, Wash-
ington 98004 (US). **WONG, Kit Yeng**; 77 Woodgrove
Ave, #02-47, Singapore 737811 (SG). **WHELAN, Rose**;
4 Friend Way, Ambrosden Oxfordshire OX25 2AY (GB).
FRANKE, Daniel; Auf'm Keller 28, 45149 Essen (DE).

(74) Agent: **EVONIK PATENT ASSOCIATION**; c/o Evonik
Industries AG, Function Legal - IP Management, Bau
1042A, PB15, Paul-Baumann-Strasse 1, 45772 Marl (DE).

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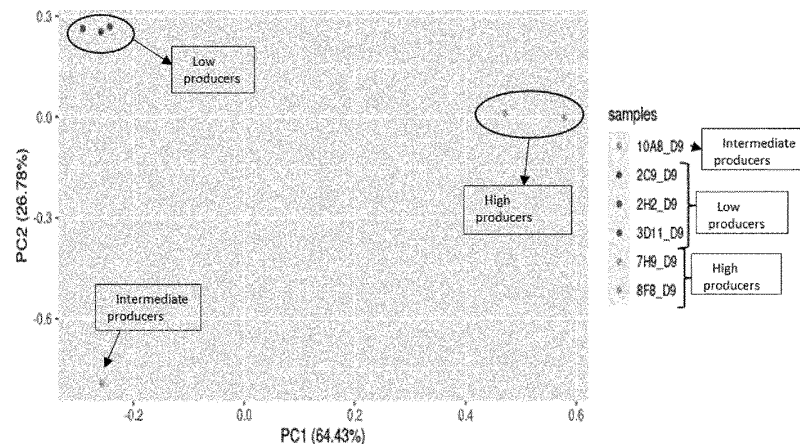


FIGURE 6

(57) **Abstract:** The present invention is related to a method of determining suitability of at least one Chinese Hamster Ovary (CHO) test cell line for optimal heterologous protein production, the method comprising: (a) determining a test methylation profile from genomic material obtained from the CHO test cell line; and (b) comparing the test methylation profile obtained from (a) with a reference methylation profile, wherein the reference methylation profile comprises the methylation status of more than one CpG site from at least one CHO reference cell line that displays at least one phenotype of interest for optimal heterologous protein production, wherein a significant similarity in the test methylation profile of (a) compared to the reference methylation profile, is indicative of the CHO test cell line being suitable for optimal heterologous protein production and wherein the test methylation profile and reference methylation profile are from CpG sites from the CHO cell genome and are determined using DNA methylation- bead-based array.

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