

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
15 December 2022 (15.12.2022)



(10) International Publication Number
WO 2022/260599 A3

(51) International Patent Classification:
G01N 33/497 (2006.01)

(21) International Application Number:
PCT/SG2022/050395

(22) International Filing Date:
09 June 2022 (09.06.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10202106153U 09 June 2021 (09.06.2021) SG

(71) Applicants: **NATIONAL UNIVERSITY OF SINGAPORE** [SG/SG]; 21 Lower Kent Ridge Road, Singapore 119077 (SG). **SINGAPORE HEALTH SERVICES PTE LTD** [SG/SG]; 10 Hospital Boulevard, #19-01 Outram Community Hospital, Singapore 168582 (SG).

(72) Inventors: **LI, Xinke**; c/o National University of Singapore, College of Design and Engineering, Dept. of Industrial Systems Engineering and Management, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **CHEE, Yeow Meng**; c/o National University of Singapore, College of Design and Engineering, Dept. of Industrial Systems Engineering and Management, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **CHIA, Ngeow Khing**; c/o National University of Singapore, College of Design and Engineering, Department of Biomedical Engineering, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **GOH, Su Yen**; c/o Singapore Health Services Pte Ltd, Department of Endocrinology, SGH Academica Level 3, 20 College Road, Singapore 169856 (SG). **KWEE, Ann Kerwen**; c/o Singapore Health Services Pte Ltd, Department of Endocrinology, SGH Academica Level 3, 20 College Road, Singapore 169856 (SG).

(74) Agent: **DAVIES COLLISON CAVE ASIA PTE. LTD.**; 10 Collyer Quay #07-01, Ocean Financial Centre, Singapore 049315 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
09 February 2023 (09.02.2023)

(54) Title: METHOD OF PREDICTING THE LIKELIHOOD OF HYPERGLYCEMIA

(57) Abstract: The present disclosure relates to a method and kits for detecting or determining the presence or likelihood of hyperglycemia in a subject. More particularly, the present invention relates to methods and kits for detecting or determining the likelihood of hyperglycemia in a subject based on a set of biomarkers in a breath sample, the biomarkers comprise at least one of cymene, butanol and pentanol.

WO 2022/260599 A3