

(51) International Patent Classification:
C12Q 1/42 (2006.01)(21) International Application Number:
PCT/US2015/061017(22) International Filing Date:
17 November 2015 (17.11.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/101,751 9 January 2015 (09.01.2015) US

(72) Inventor; and

(71) Applicant : MALO, Madhu, S. [US/US]; c/o Atoxin Biotech LLC, 100 Barber Avenue, Worcester, Massachusetts 01606 (US).

(74) Agents: SUSAN, Janine, M. et al.; Burns & Levinson, LLP, 125 Summer Street, Boston, Massachusetts 02110 (US).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

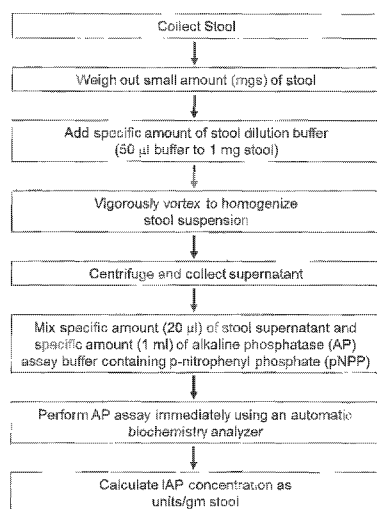
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, 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))

(54) Title: DIAGNOSIS AND TREATMENT OF INCIPIENT DIABETES

FIG. 1



(57) Abstract: A method is described for predicting incipient diabetes, metabolic disorders or the metabolic syndrome by developing a personal temporal phosphatase profile, which is generated by measuring phosphatase concentration in stool at a single time-point or multiple time-points. The phosphatase profile further can be used for diagnosing and determining prognosis of other incipient or overt diseases, such as the metabolic syndrome, coronary heart disease, nonalcoholic fatty liver disease, cancers, other chronic or acute diseases or infectious diseases. Also described is a specific dose of phosphatase for therapeutic use in incipient diabetes and other incipient or overt diseases.