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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 February 2016 (11.02.2016)

WIPO | PCT

(10) International Publication Number
WO 2016/022604 A2

(51) International Patent Classification:
F25B 9/06 (2006.01) *F02C 1/02* (2006.01)

(21) International Application Number:
PCT/US2015/043678

(22) International Filing Date:
4 August 2015 (04.08.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/033,548 5 August 2014 (05.08.2014) US

(71) Applicant: **BECTON DICKINSON AND COMPANY** [US/US]; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US).

(72) Inventors: **SEBBA, David**; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US). **CURRY, Adam**; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US). **BIRCHFIELD, Kara**; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US). **WEIDEMAIER, Kristin**; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US). **VINSON, Andrea**; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US). **CARRUTHERS, Erin**; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US).

(74) Agent: **ALTMAN, Daniel, E.**; Knobbe Martens Olson & Bear, LLP, 2040 Main Street, 14th Floor, Irvine, CA 92614 (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:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) Title: METHODS AND COMPOSITIONS FOR ANALYZING GLUCOSE-6-PHOSPHATE DEHYDROGENASE ACTIVITY IN BLOOD SAMPLES

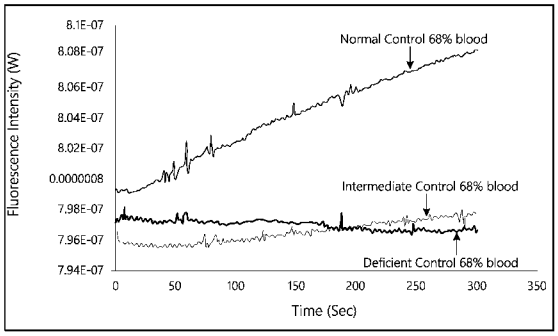


FIG. 5

(57) Abstract: Methods and compositions for the detection of glucose-6-phosphate dehydrogenase (G6PD) enzyme activity in blood samples are described. Some embodiments disclosed herein provide methods for detecting G6PD activity in undiluted or minimally diluted blood samples, including obtaining a blood sample, and detecting G6PD activity present in the undiluted or minimally diluted blood sample by epifluorescence. Also provided are methods for detecting G6PD activity and detecting a bloodborne microorganism as two parts of a single test.

WO 2016/022604 A2