



(51) International Patent Classification:
G06T 7/00 (2017.01) *G06T 7/62* (2017.01)
G06T 7/254 (2017.01)

(21) International Application Number:
PCT/IN2019/050063

(22) International Filing Date:
28 January 2019 (28.01.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
201841039598 18 October 2018 (18.10.2018) IN

(72) Inventor; and

(71) Applicant: **PAYELI, Sravan Kumar** [IN/IN]; Q302, Renaissance Exotica, Jakkur plantation, Yelahanka, Karnataka, Bangalore 560064 (IN).

(72) Inventors: **ADABALA, Kalyan**; D.No: 17-24, Ambajipet, East Godavari, Andhra Pradesh, Machavaram 533214 (IN). **SULTANA, Aamena**; R.K. Nuesing home, Chikkaballapur, Karnataka, Gauribidanur 561208 (IN). **MOCHARLA, Pavani Srividya**; Q302, Renaissance Exotica, Jakkur plantation, Yelahanka, Karnataka, Bangalore 560064 (IN).

(74) Agent: **LAKSHMIKUMARAN, Malathi** et al.; B6/10, Safdarjung Enclave, New Delhi 110029 (IN).

(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, IR, IS, 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, 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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

(54) Title: MONITORING FOLLICULAR FLUID FLOW USING IMAGE PROCESSING

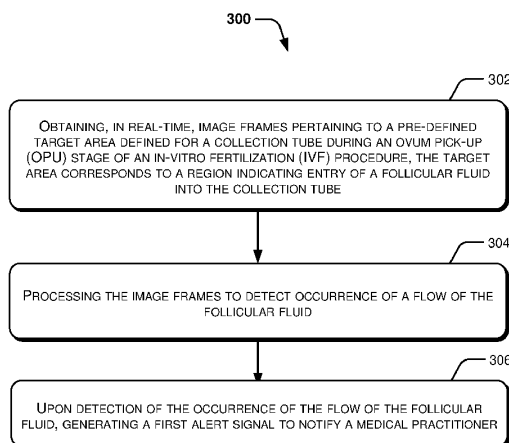


FIG. 3

(57) Abstract: Examples of monitoring of follicular fluid flow using image processing are described herein. Image frames pertaining to a pre-defined target area defined for a collection tube during an ovum pick-up (OPU) step of an in-vitro fertilization (IVF) procedure may be obtained in real-time. The target area corresponds to a region indicating entry of a follicular fluid into the collection tube. Thereafter, the image frames may be processed to detect occurrence of a flow of the follicular fluid as well as presence of blood in the follicular fluid. Accordingly, a first alert signal indicating detection of occurrence of flow of the follicular fluid and a second alert signal indicating presence of blood in the follicular fluid, may be generated to notify a medical practitioner.

Published:

- *with international search report (Art. 21(3))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*