



(51) International Patent Classification:
G06K 9/00 (2006.01) G06K 9/62 (2006.01)

(21) International Application Number:
PCT/US2019/063177

(22) International Filing Date:
26 November 2019 (26.11.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/774,154 30 November 2018 (30.11.2018) US

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(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,

(54) Title: SYSTEMS AND METHODS FOR FACILITATING CLONE SELECTION

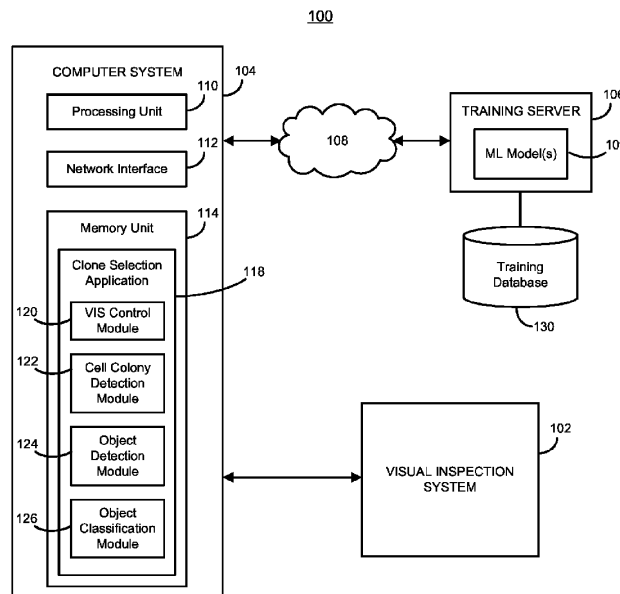


FIG. 1

(57) Abstract: A method for facilitating clone selection includes generating time-sequence images of a well containing a medium, including a first image and a later, second image. The method also includes detecting, by one or more processors analyzing the first image, one or more candidate objects depicted in the first image, and, for each of the candidate objects, determining whether the object is a single cell by analyzing an image of the object using a convolutional neural network. The method further includes detecting, by analyzing the second image with the processor(s), a cell colony depicted in the second image, and determining, by the processor(s), whether the colony was formed from only one cell based at least on whether each candidate object was determined to be a single cell. The method further includes generating, by the processor(s), output data indicating whether the colony was formed from only one cell.

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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).

Published:

— with international search report (Art. 21(3))