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(71) Applicant: **REGENERON PHARMACEUTICALS, INC.** [US/US]; 777 OLD SAW MILL RIVER ROAD, TARRYTOWN, New York 10591 (US).

(72) Inventors: **NAGARKATTI, Aslam**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarry-

town, New York 10591 (US). **RAVI, Shiva Naveen**; 6294 Kerry Court, Dublin, California 94568 (US). **PRADEEP, Kaushik Krishna**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **HU, Qingyan**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **HERNANDEZ, Marco**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US).

(74) Agent: **BROWN, Charley** et al.; Ballard Spahr LLP, 999 Peachtree Street, Suite 1600, Atlanta, Georgia 30309 (US).

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(54) Title: METHODS AND SYSTEMS FOR PARTICLE CLASSIFICATION

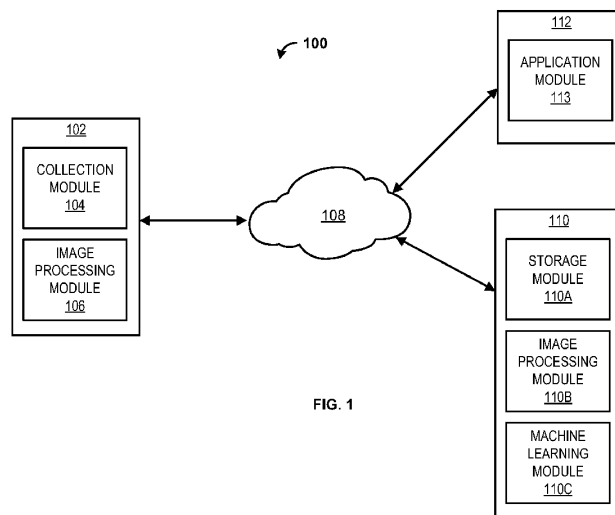


FIG. 1

(57) Abstract: Methods and systems for particle classification are provided herein. A plurality of images of fluids/samples of pharmaceutical products, drugs, medicines, etc., may be analyzed using one or more machine learning models. The one or more machine learning models may comprise, for example, a convolution neural network. The one or more machine learning models may identify and classify one or more sub-visible particles in each image. The one or more one or more sub-visible particles may comprise, for example, cells, pathogens, protein aggregates, silicon oil droplets, fibers, air bubbles, glass particles, a combination thereof, and/or the like.

[Continued on next page]

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