

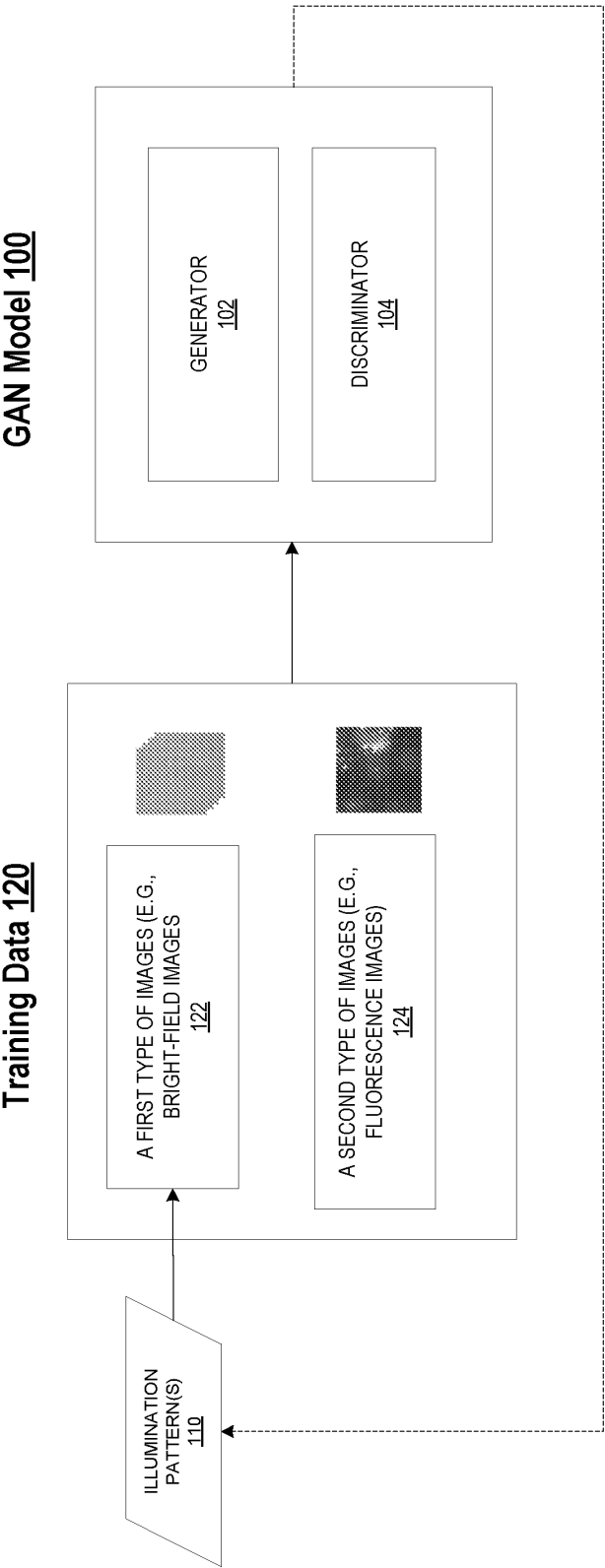


FIG. 1

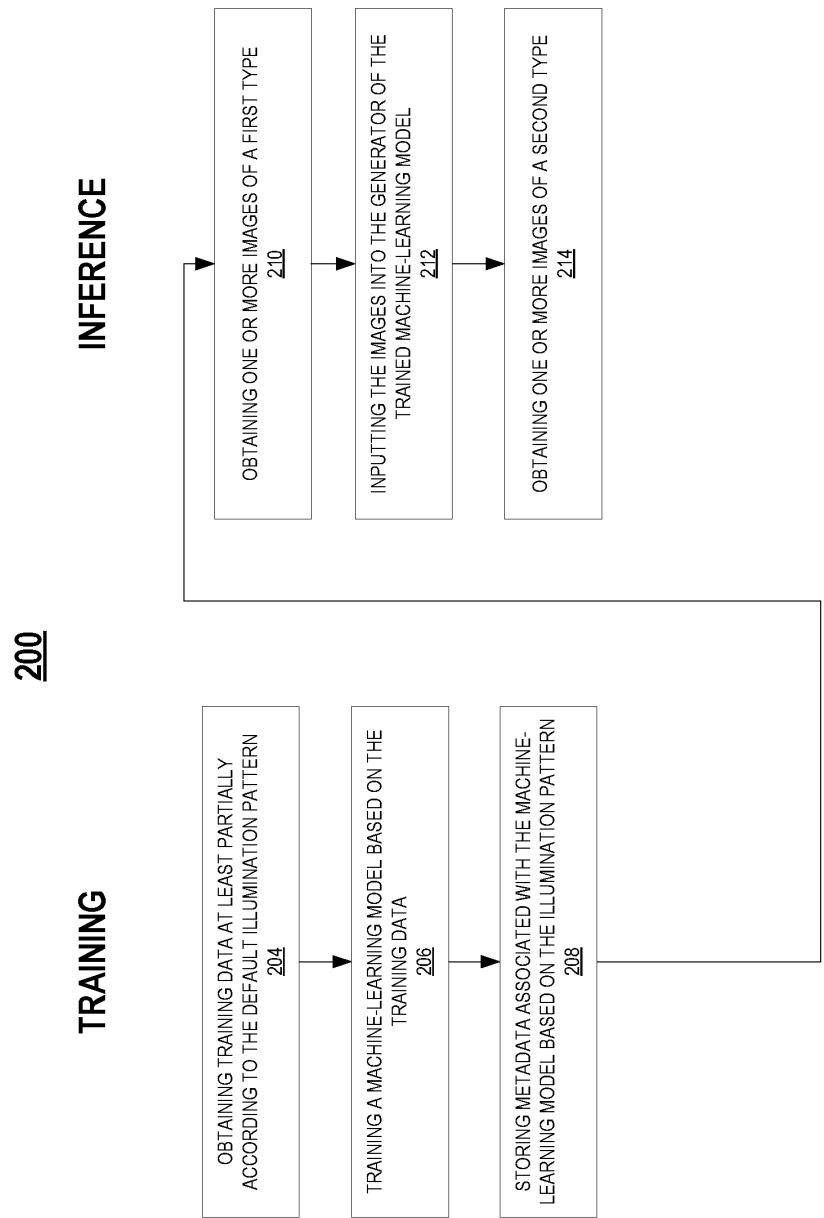


FIG. 2A (Illumination Pattern Not Updated During Training)

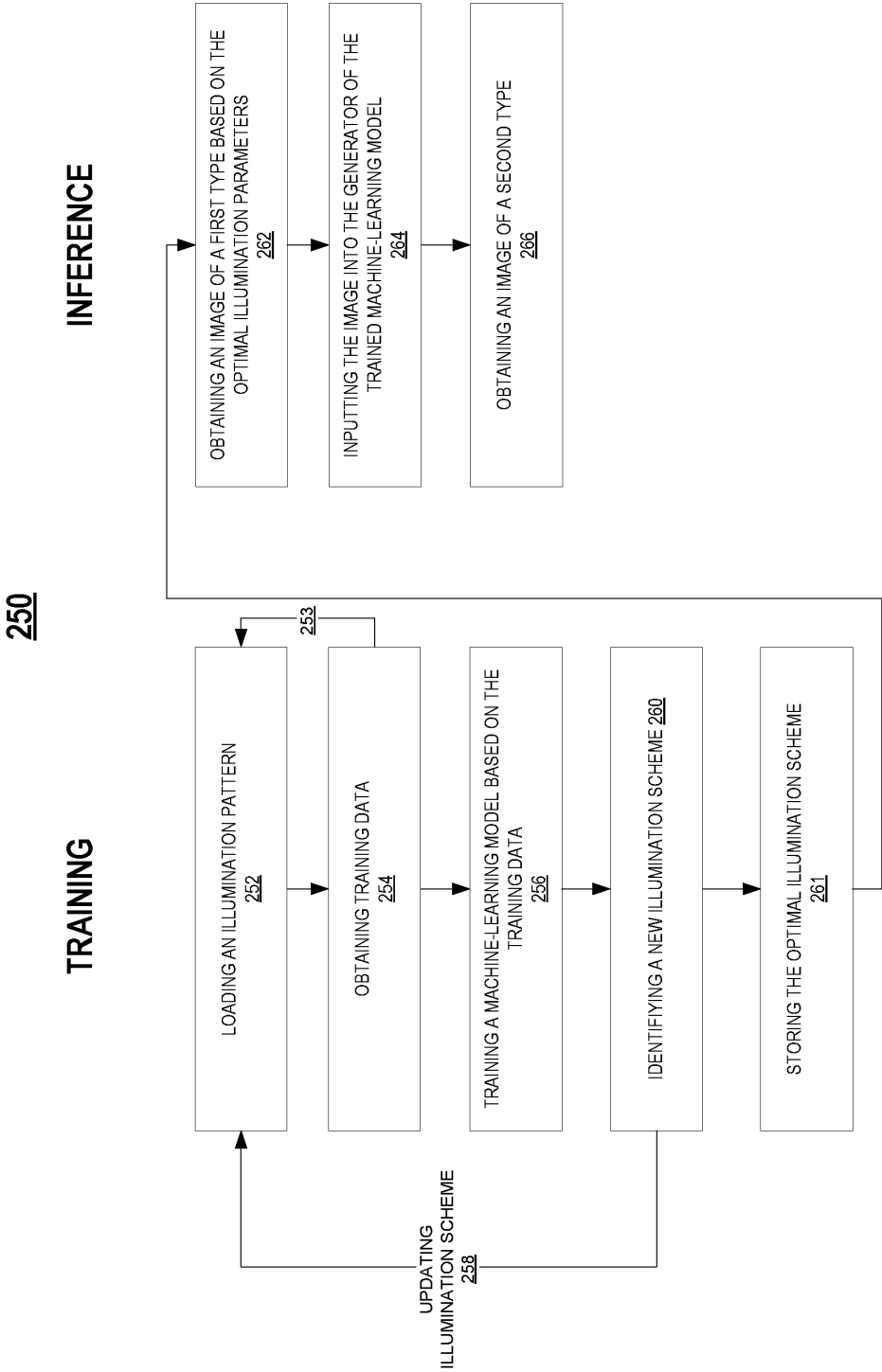


FIG. 2B (Illumination Pattern Updated During Training)

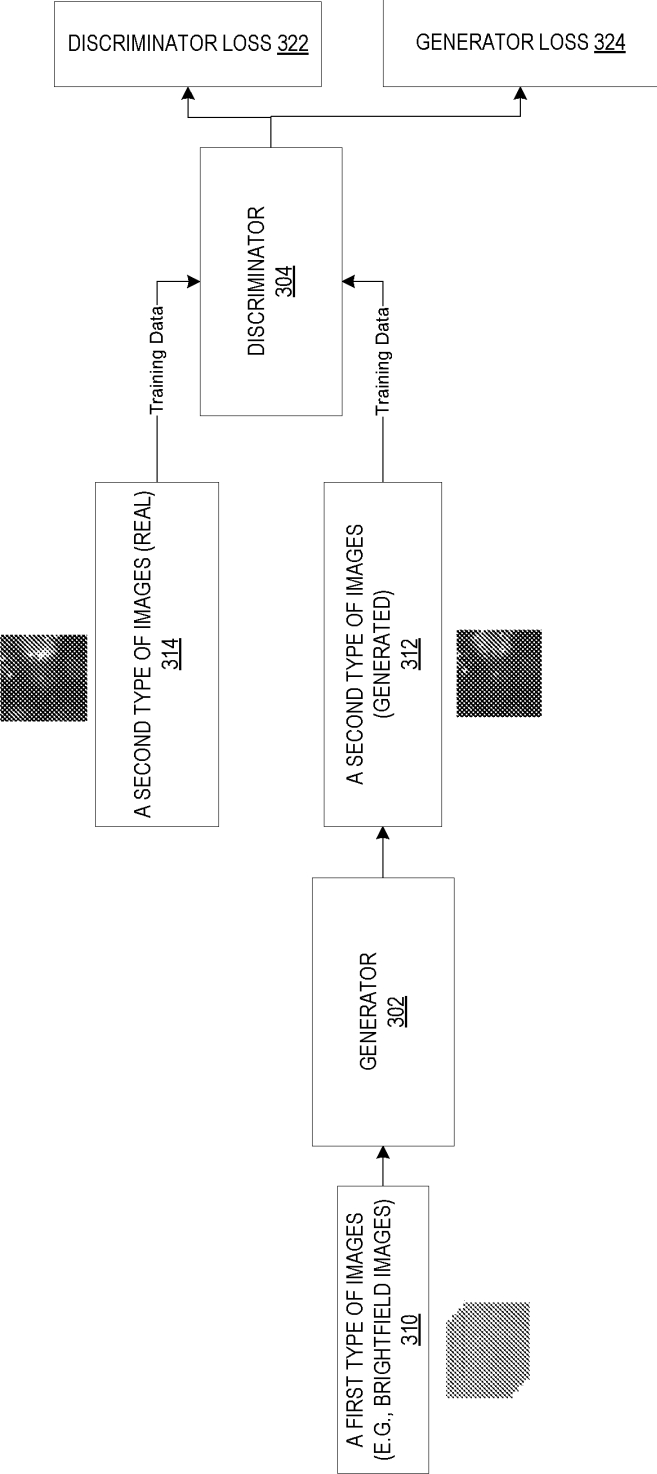


FIG. 3A

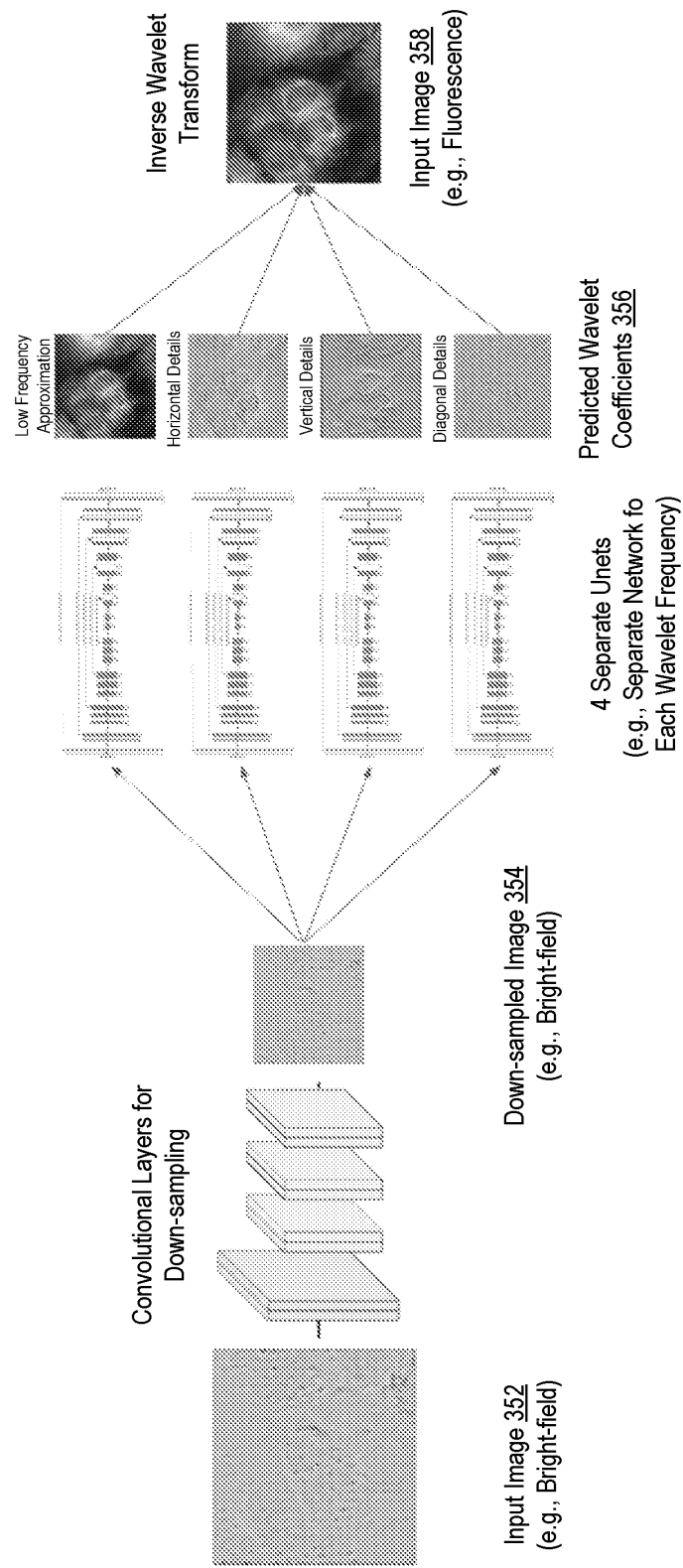


FIG. 3B

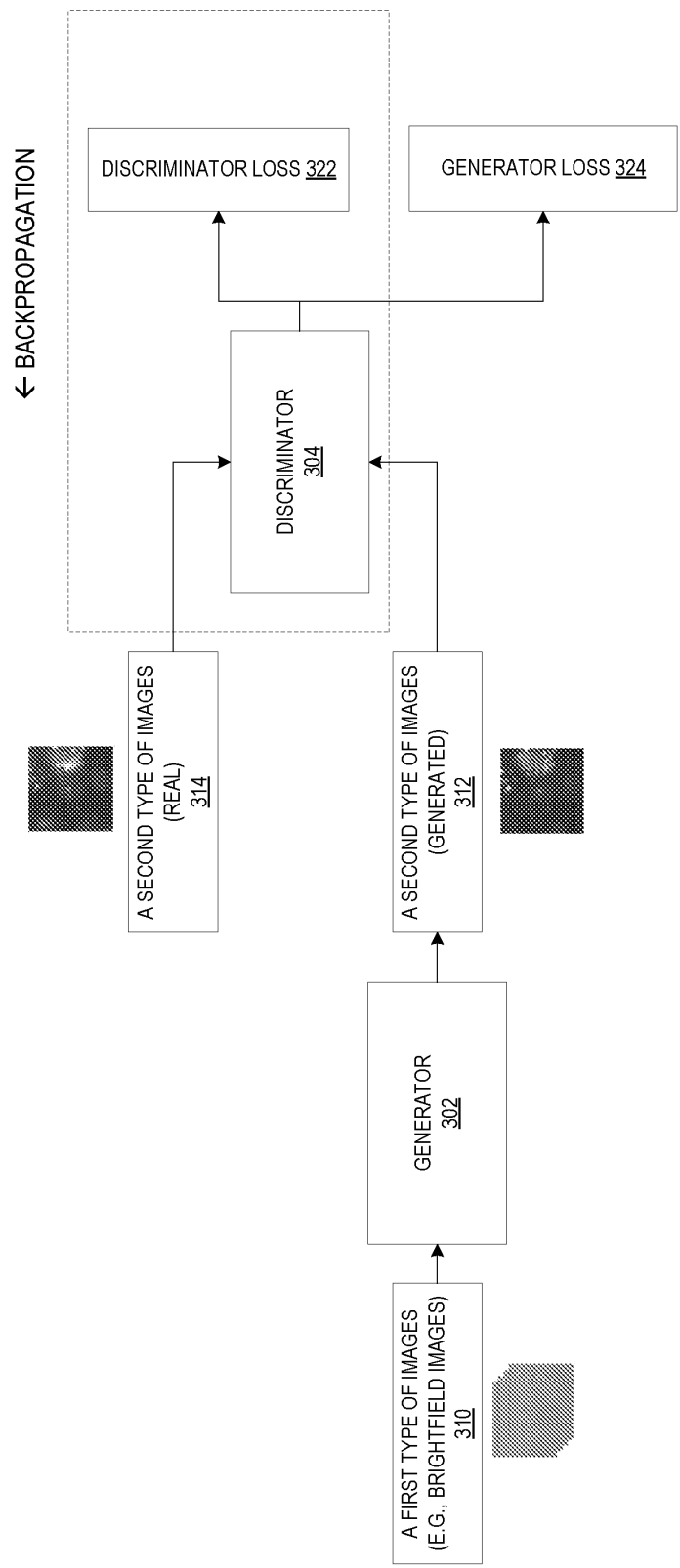


FIG. 3C

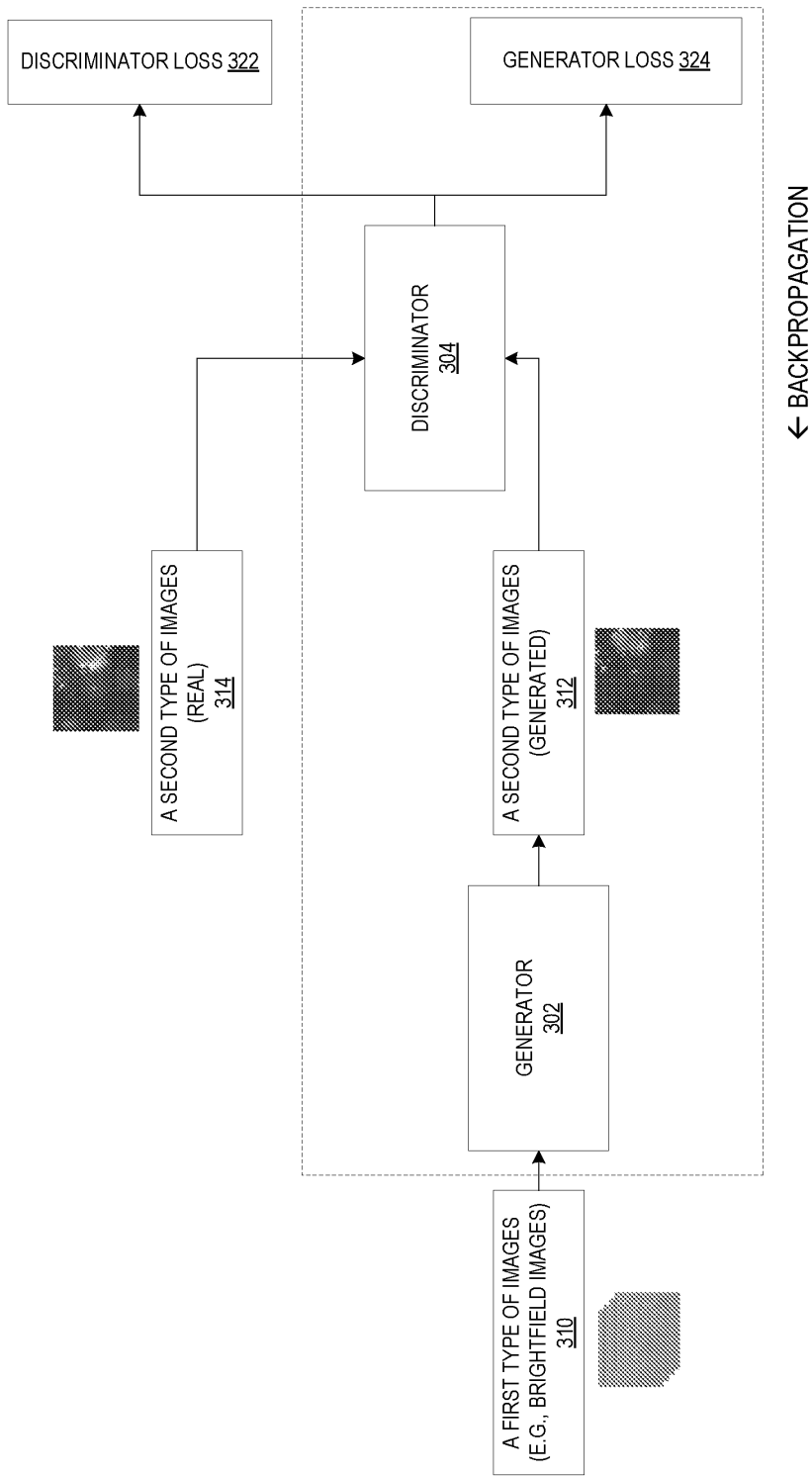


FIG. 3D

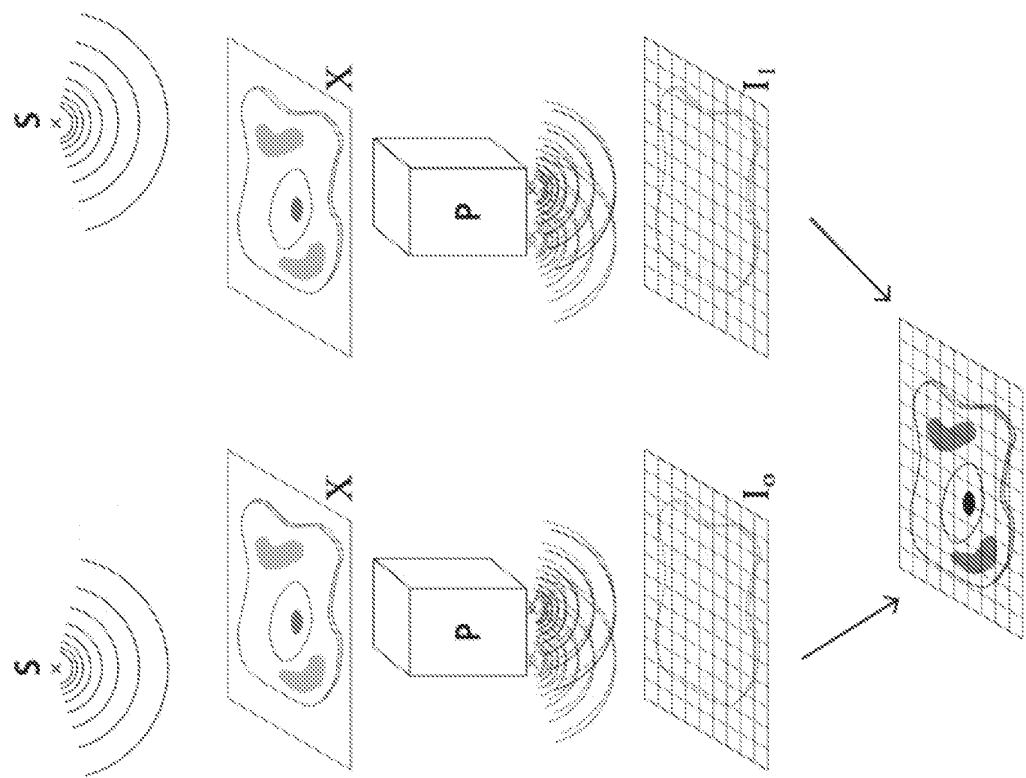
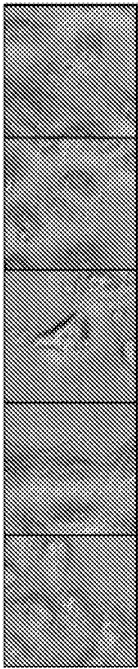
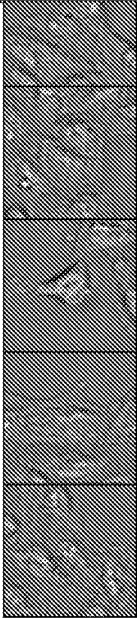
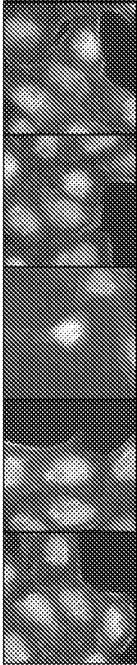
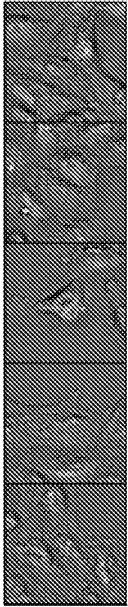
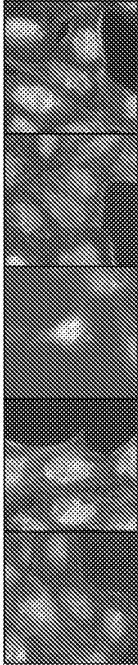


FIG. 4

Input images(*) <u>502</u>				
	Phase		CellPaint	
Real images <u>506</u>				
Generated images <u>504</u>				

(*) :composite of 4 different illuminations

FIG. 5

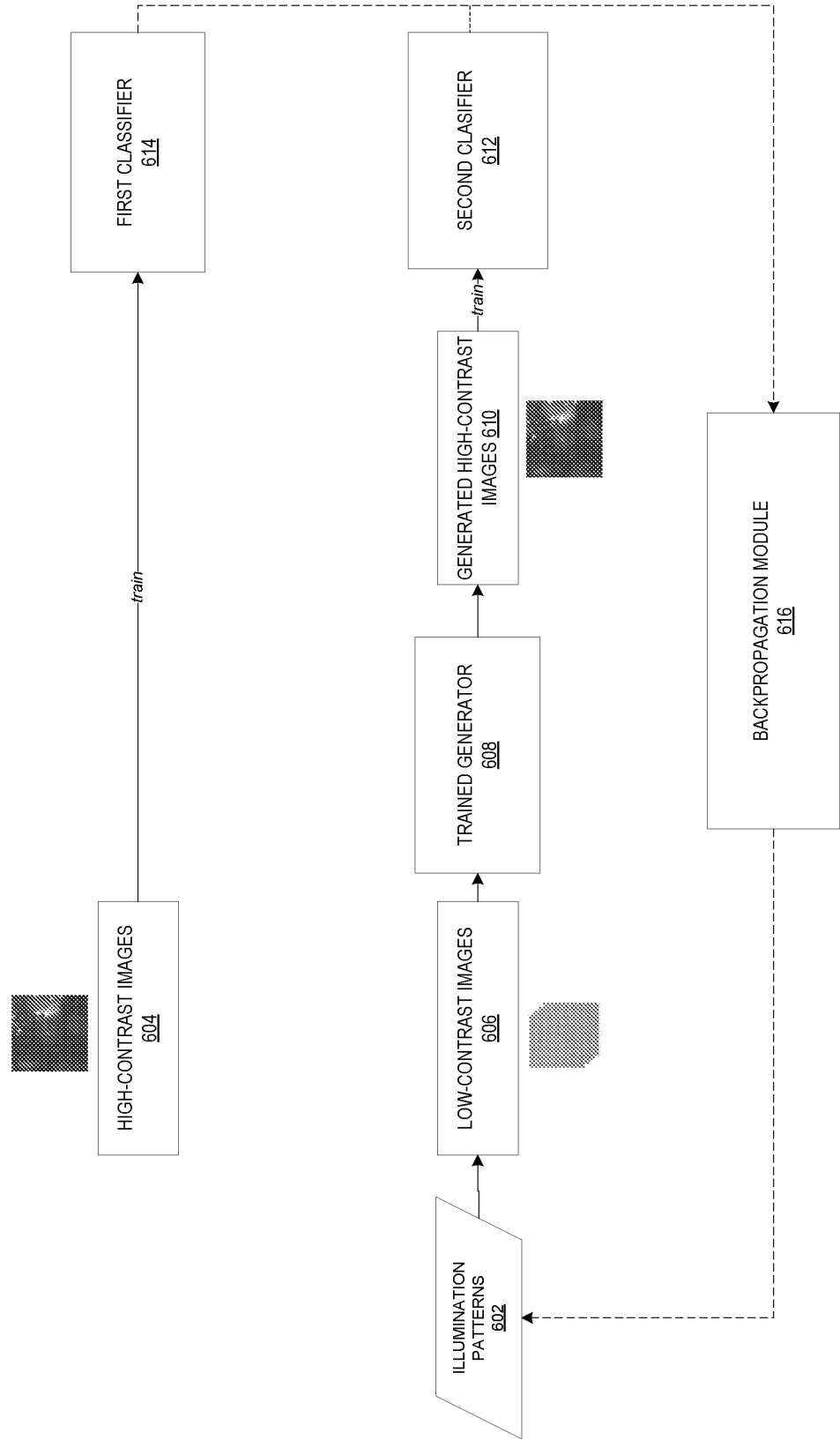


FIG. 6A

	Training on real data Validation on generated data	Training on generated data Validation on real data
Classification accuracy on validation data	~75%	~75%

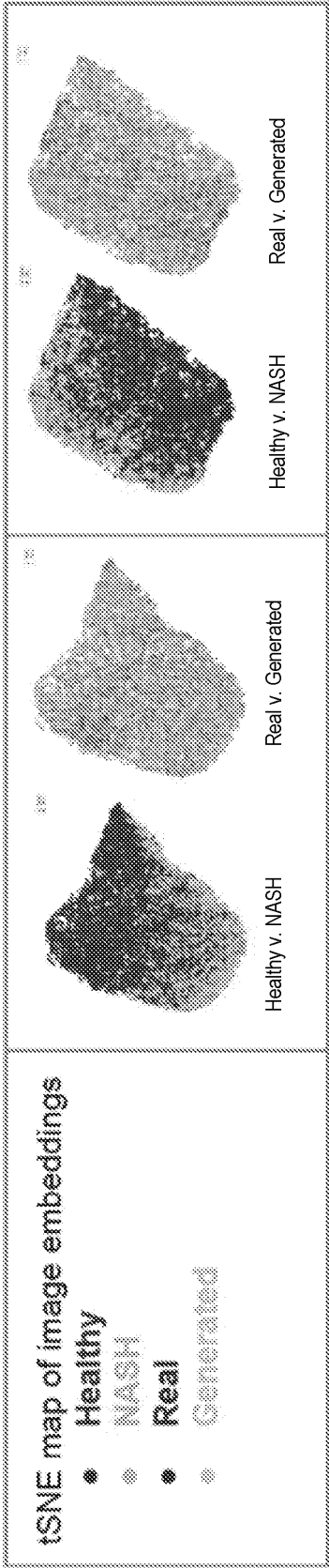


FIG. 6B

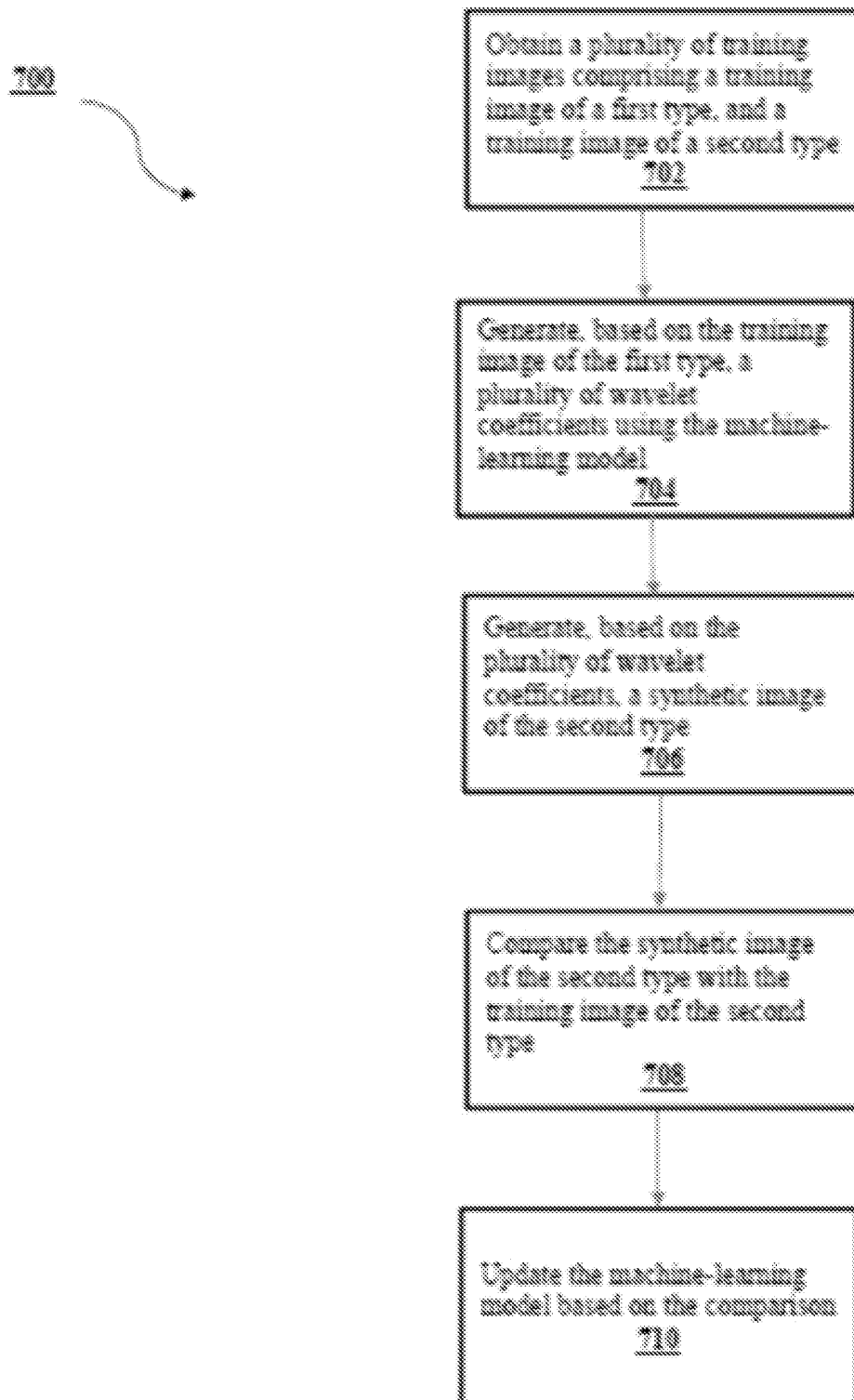


FIG. 7A

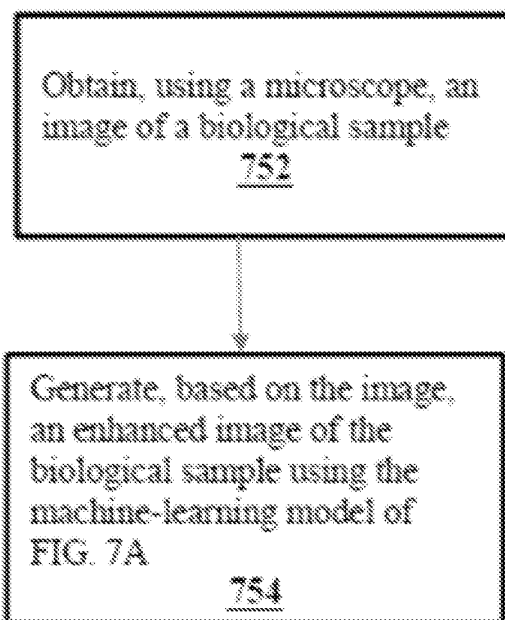
750

FIG. 7B

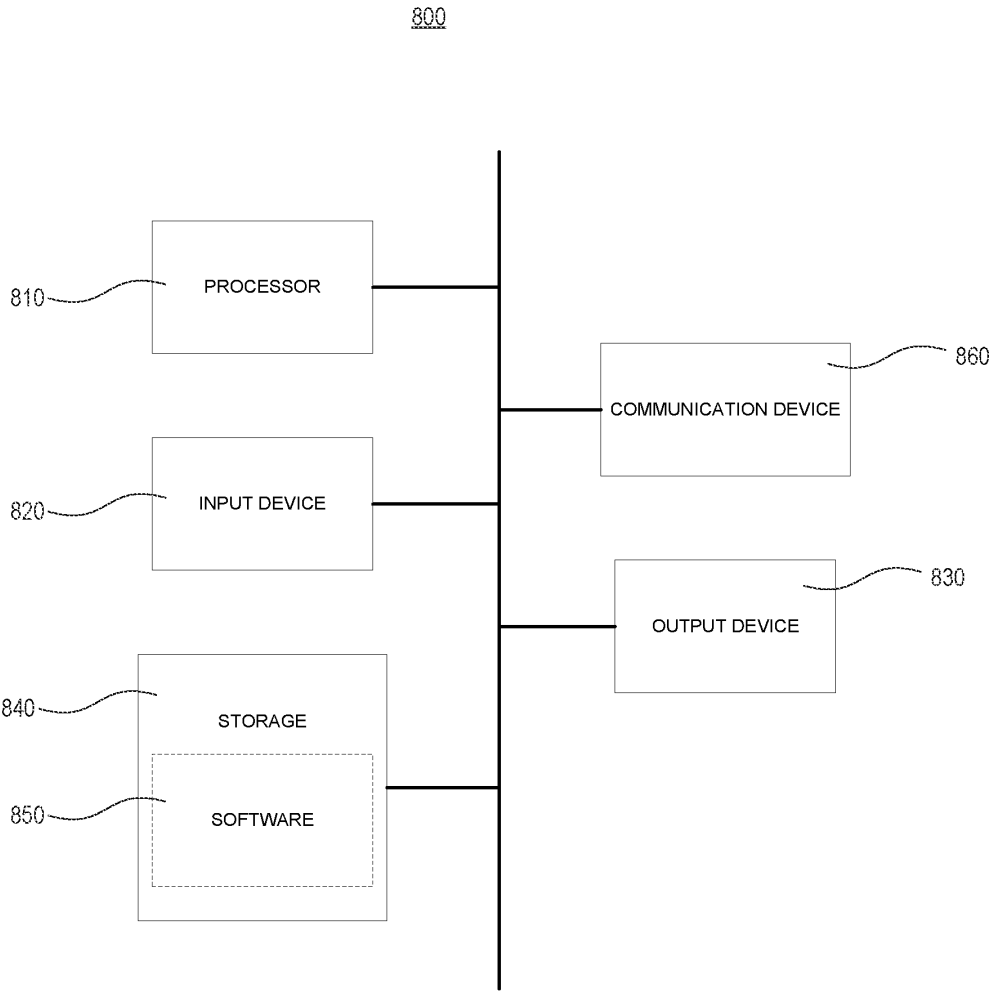


FIG. 8

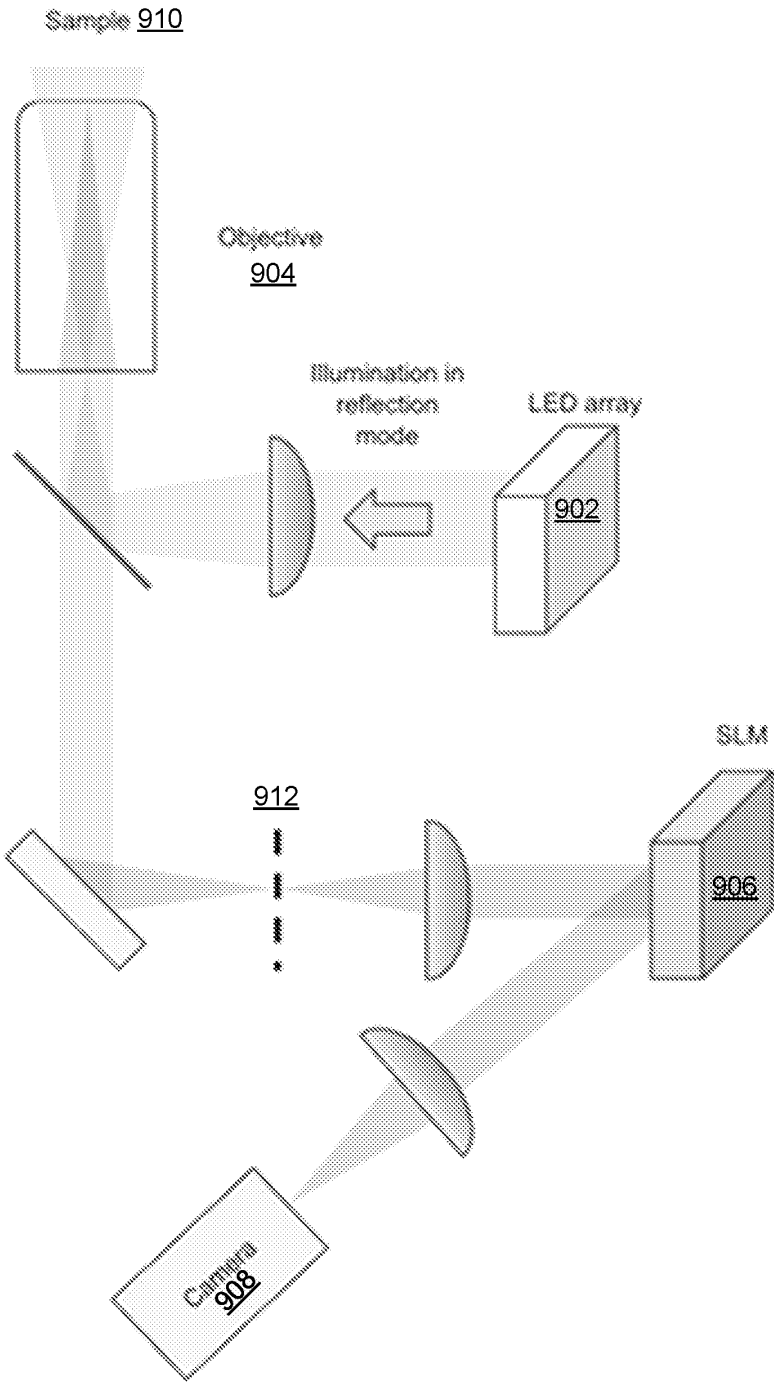


FIG. 9

1000

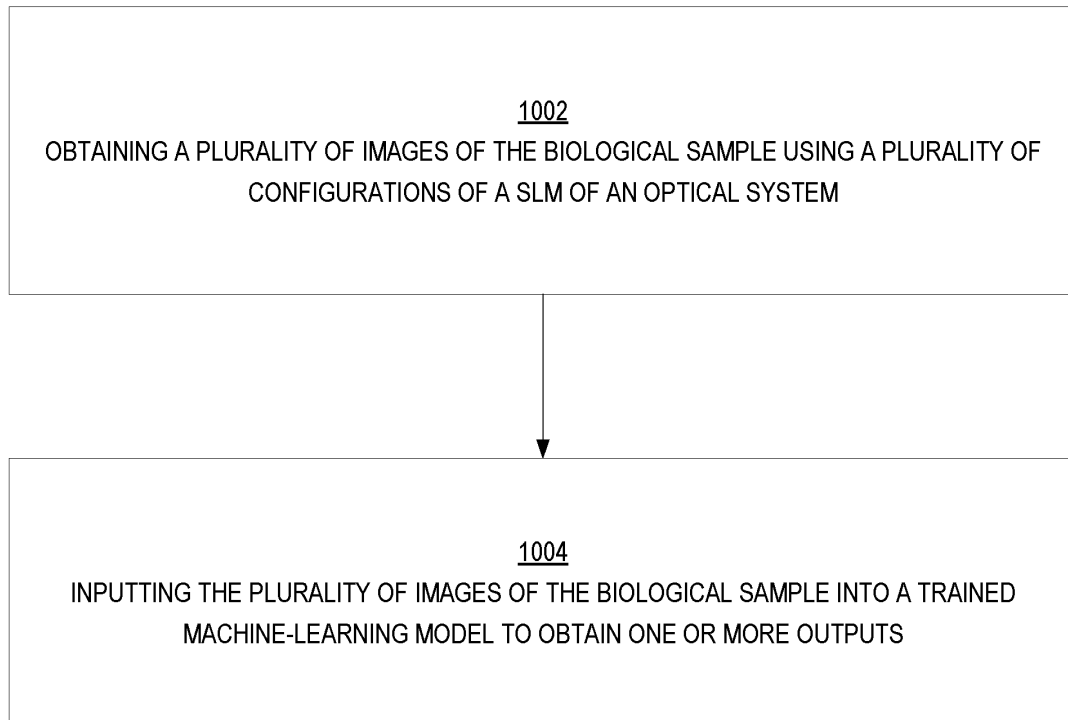
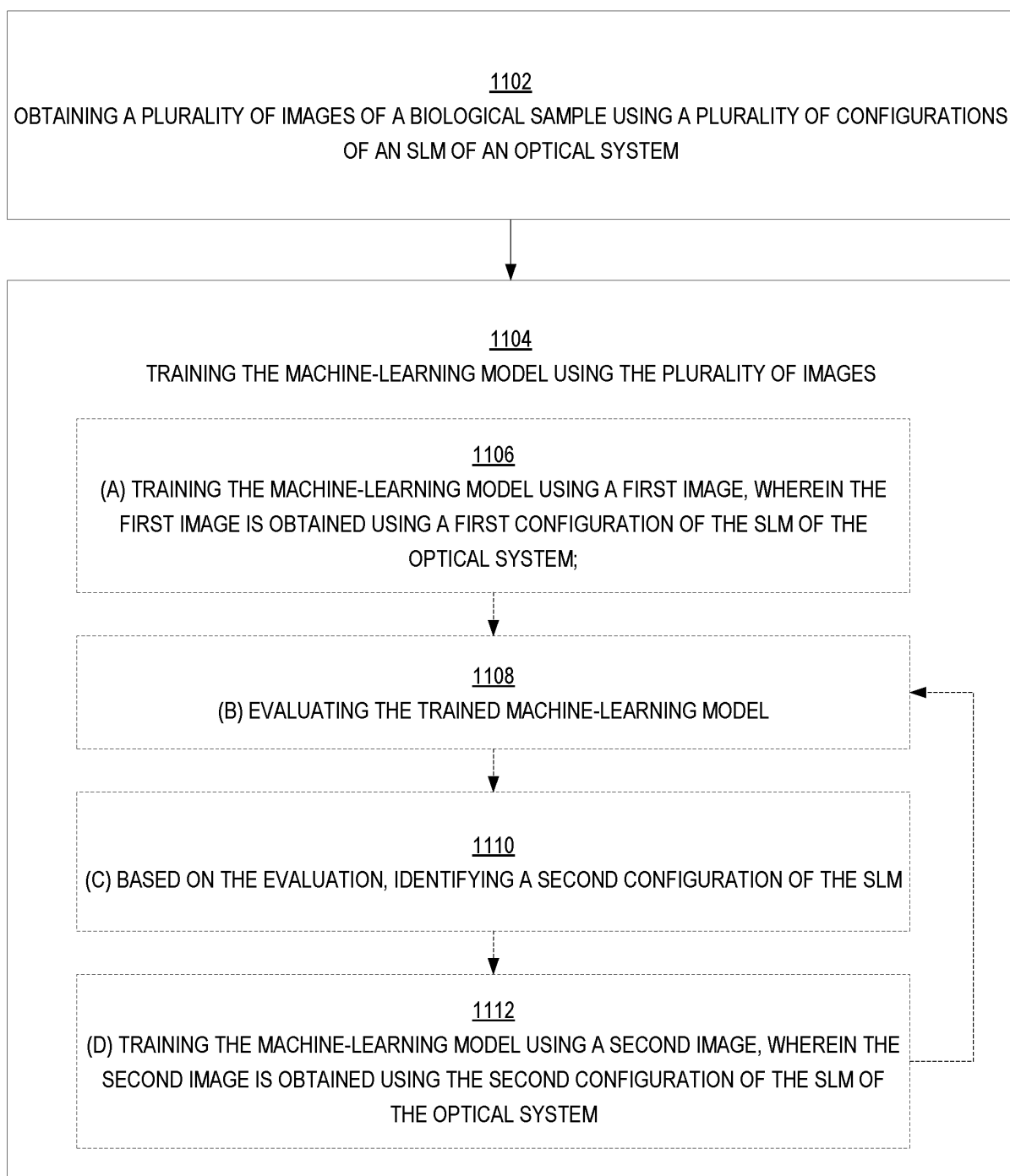
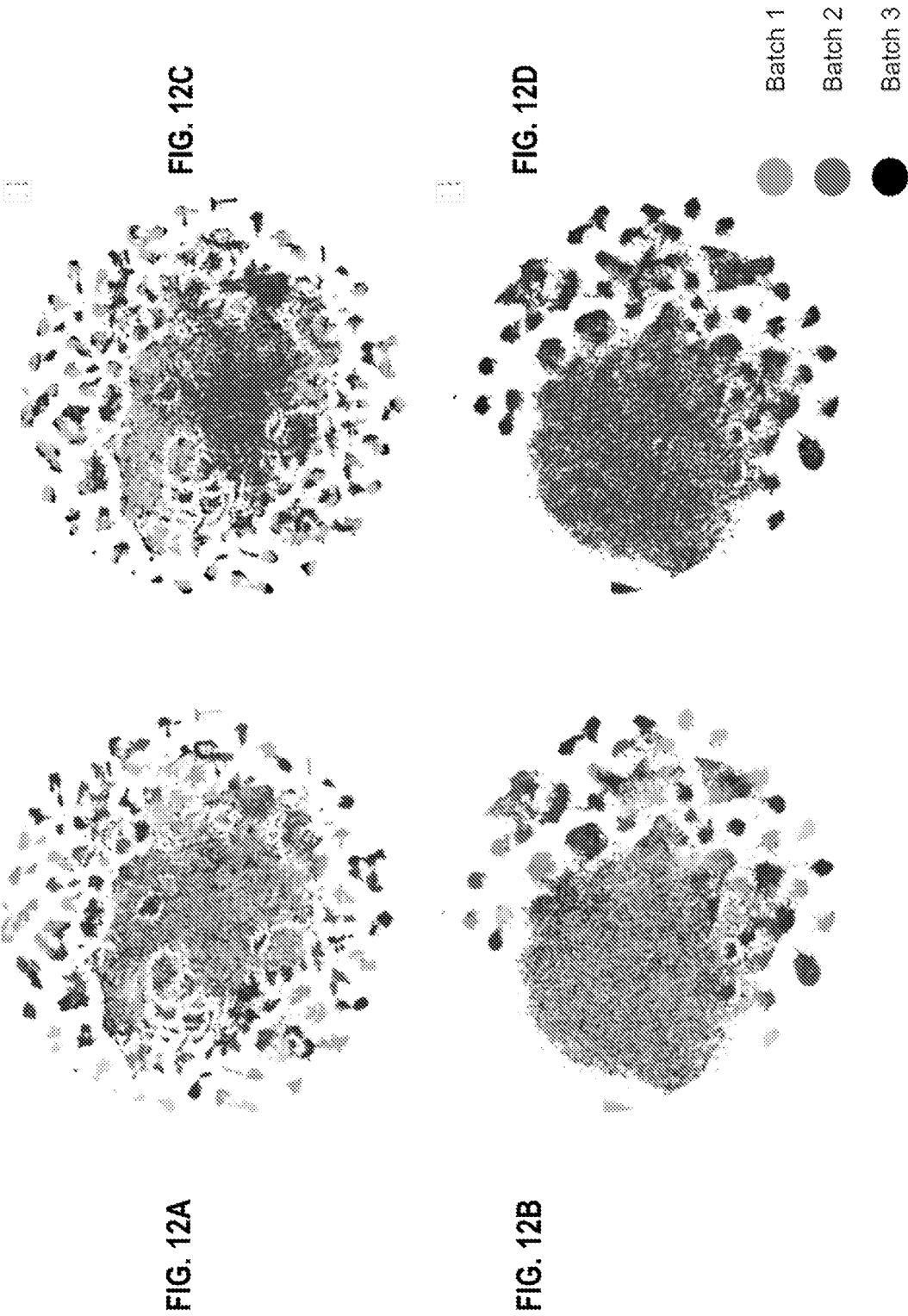


FIG. 10

1100**FIG. 11**



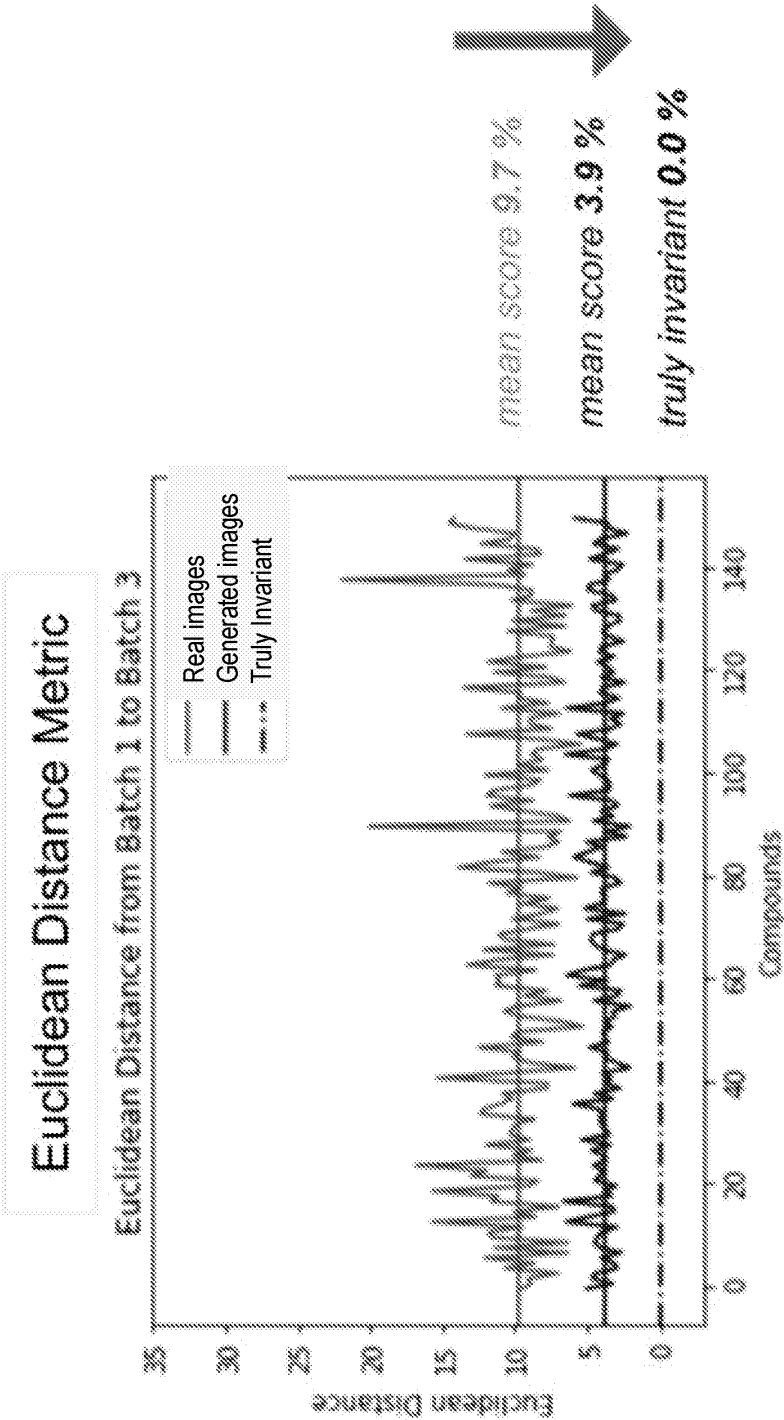


FIG. 12E

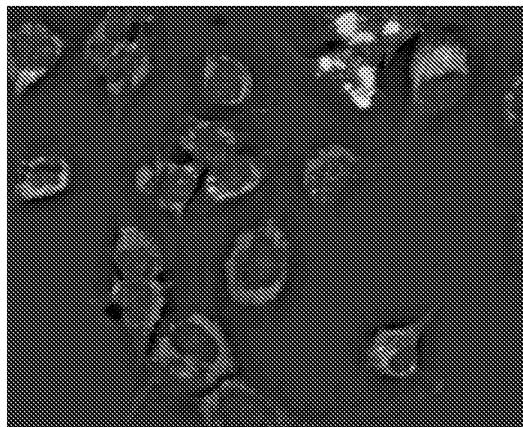


FIG. 13C

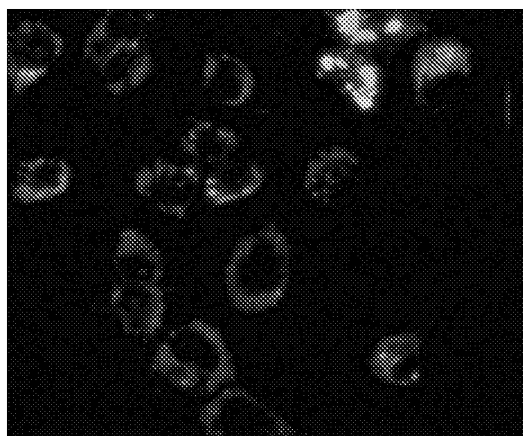


FIG. 13B

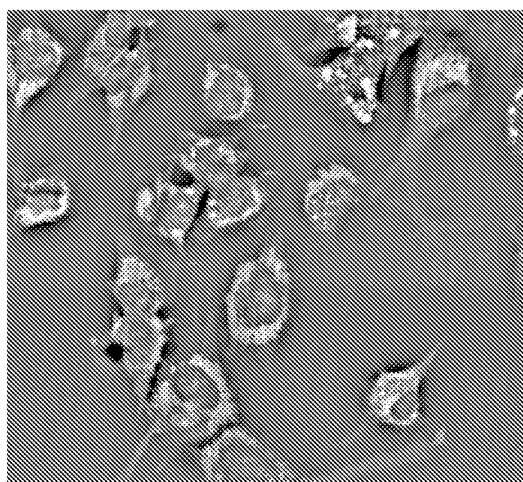
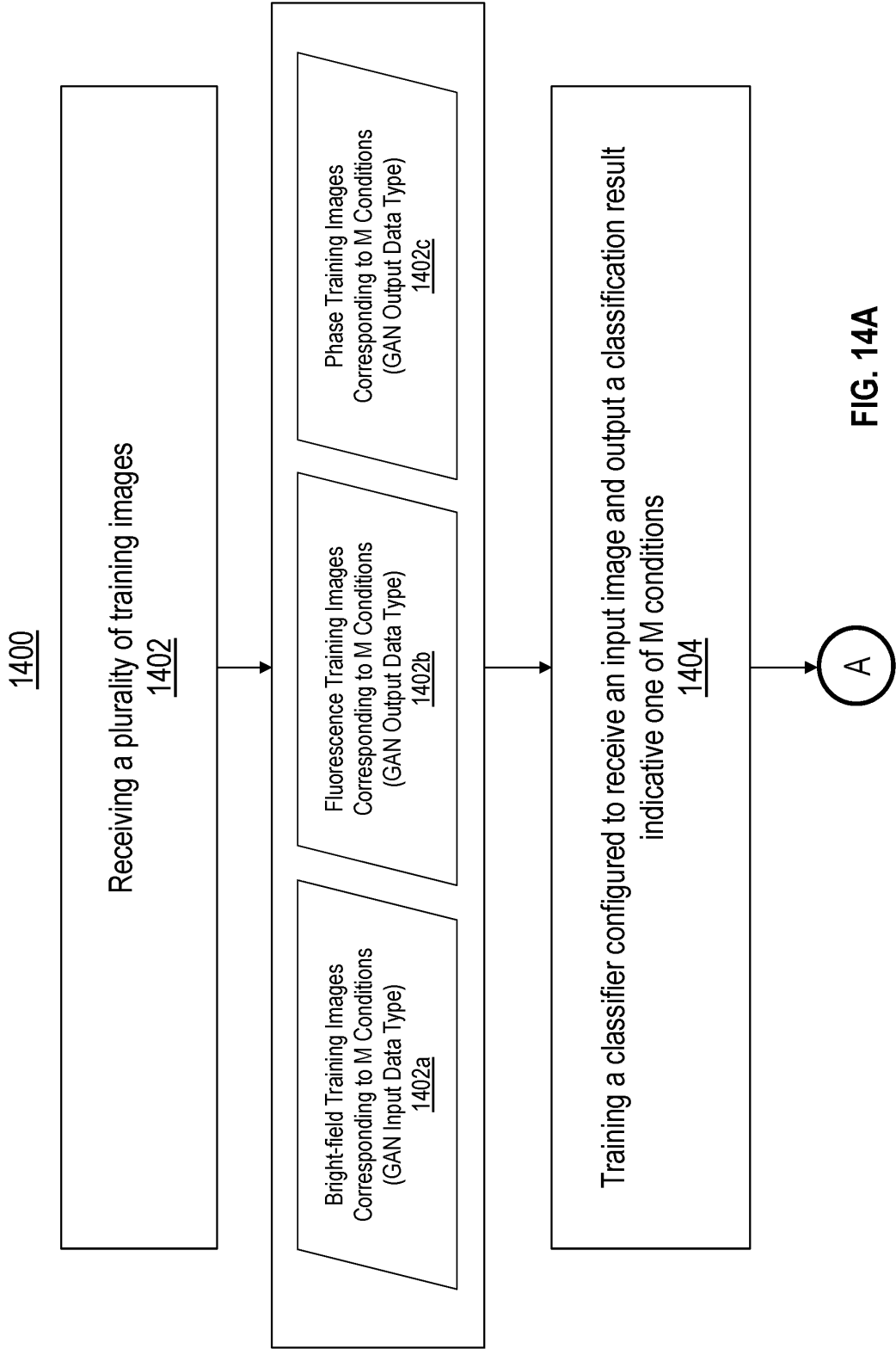
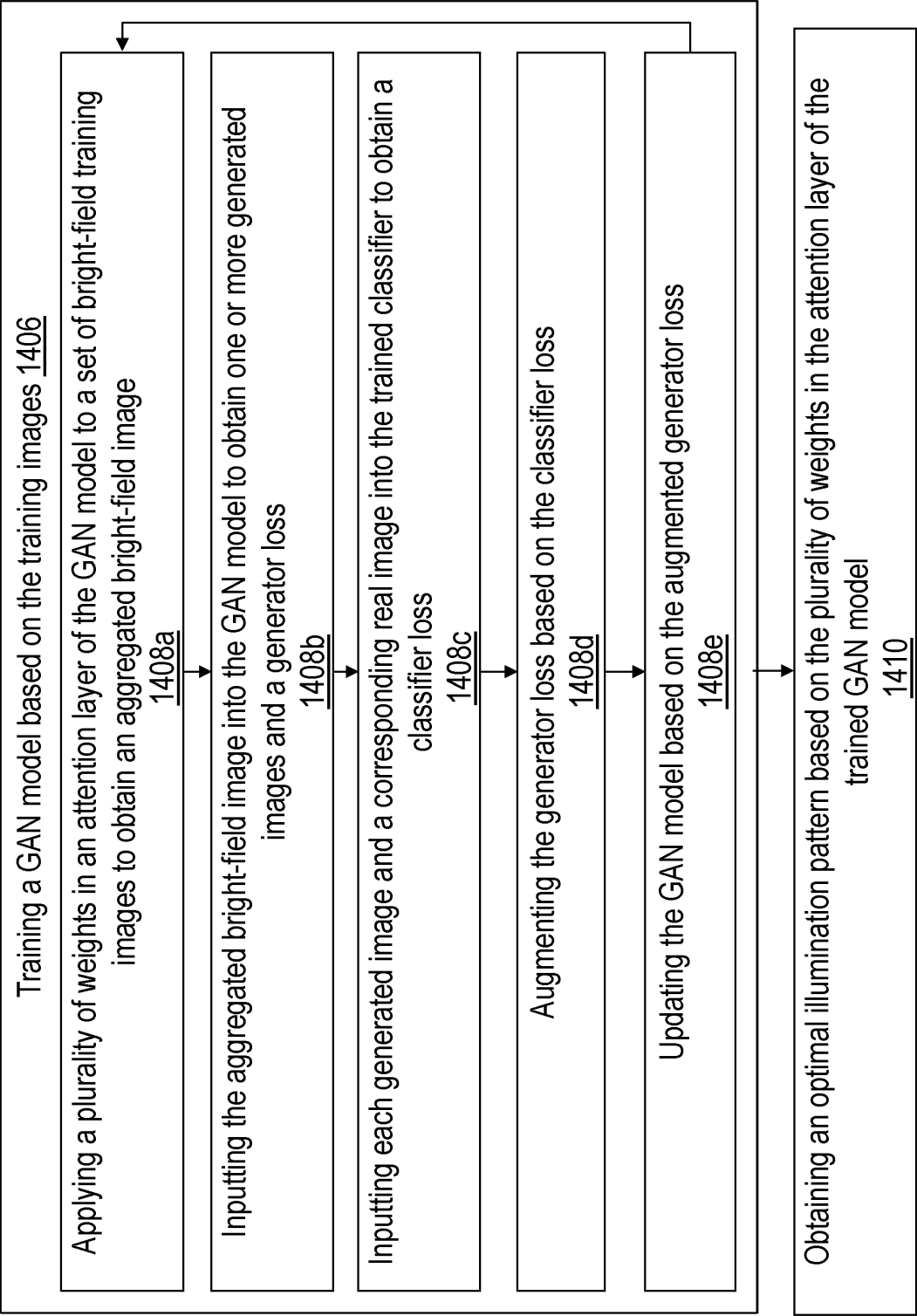


FIG. 13A



(A) **FIG. 14B**



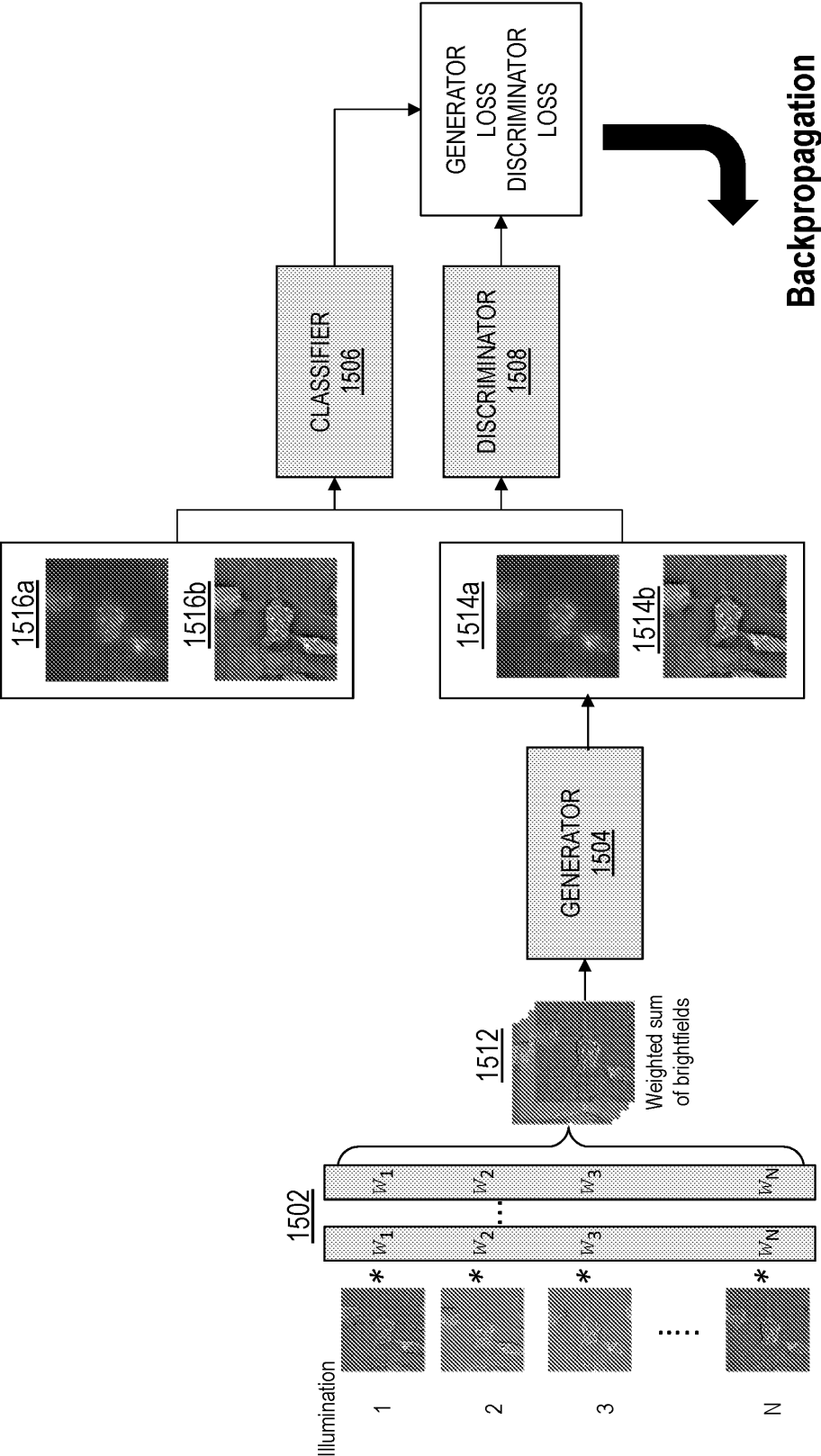


FIG. 15

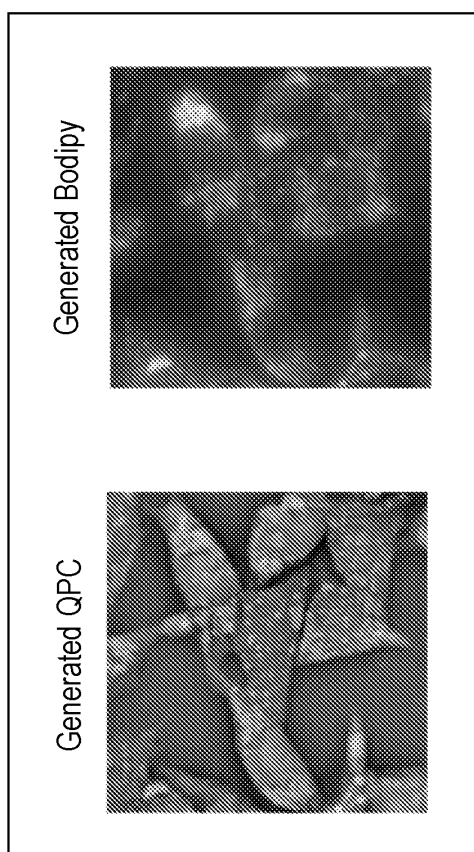


FIG. 16A

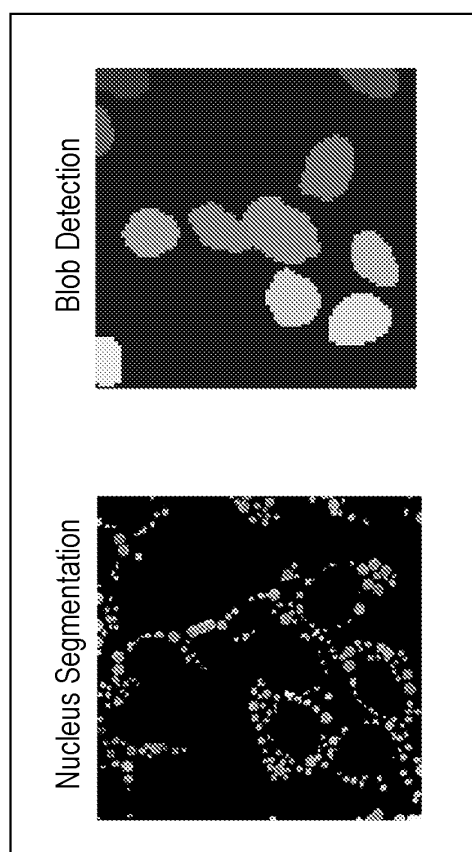


FIG. 16B

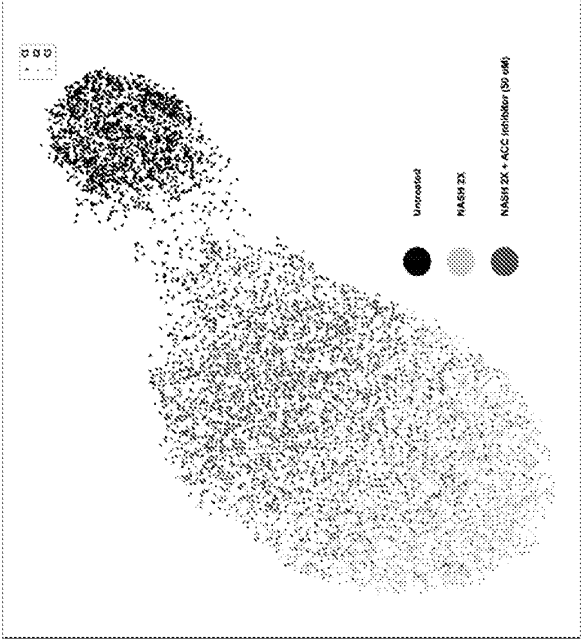


FIG. 16D

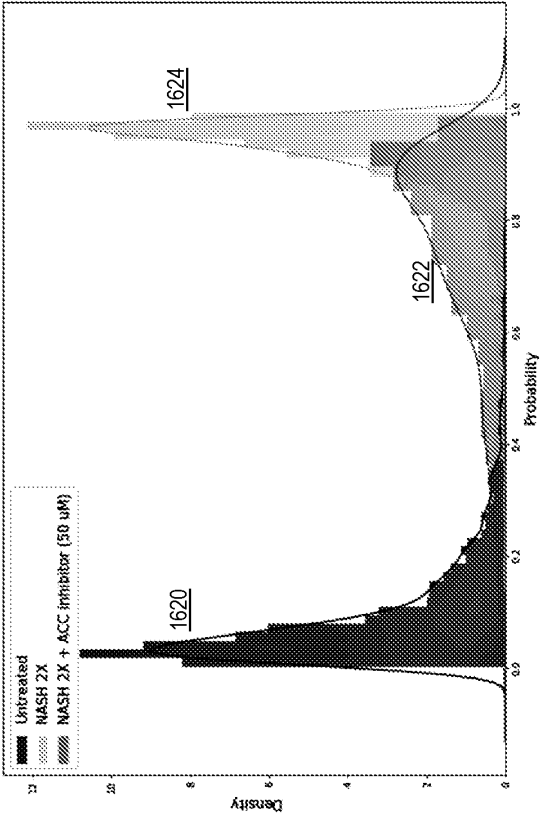


FIG. 16C

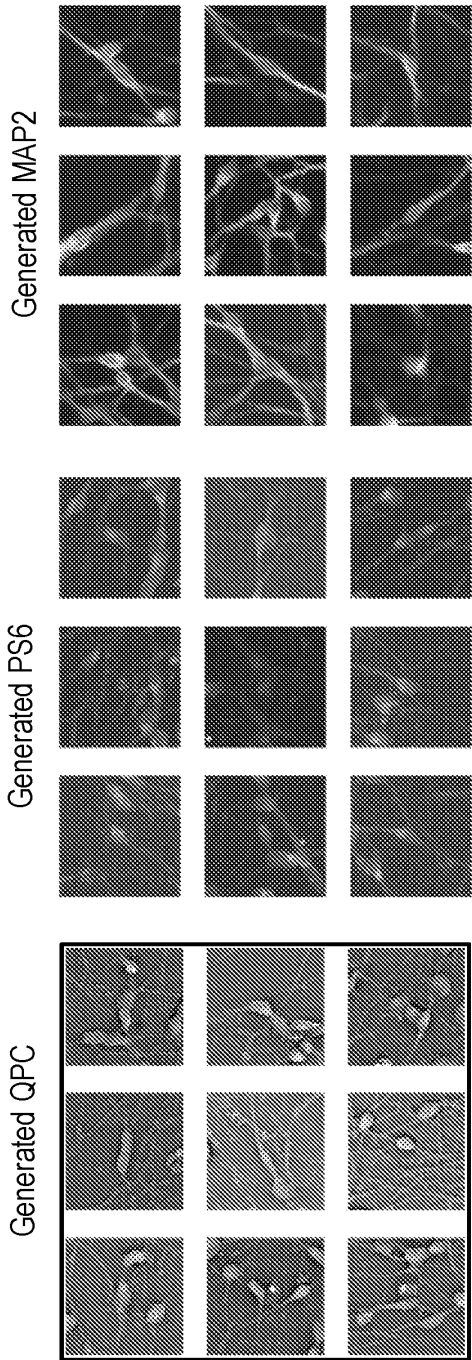


FIG. 17A

Biomarker Distributions

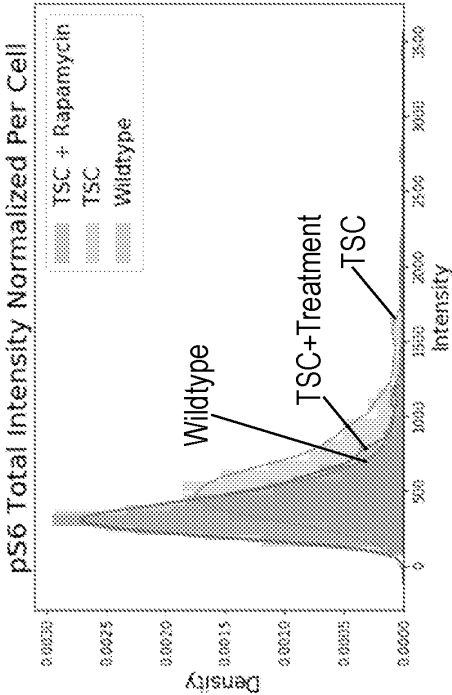


FIG. 17B