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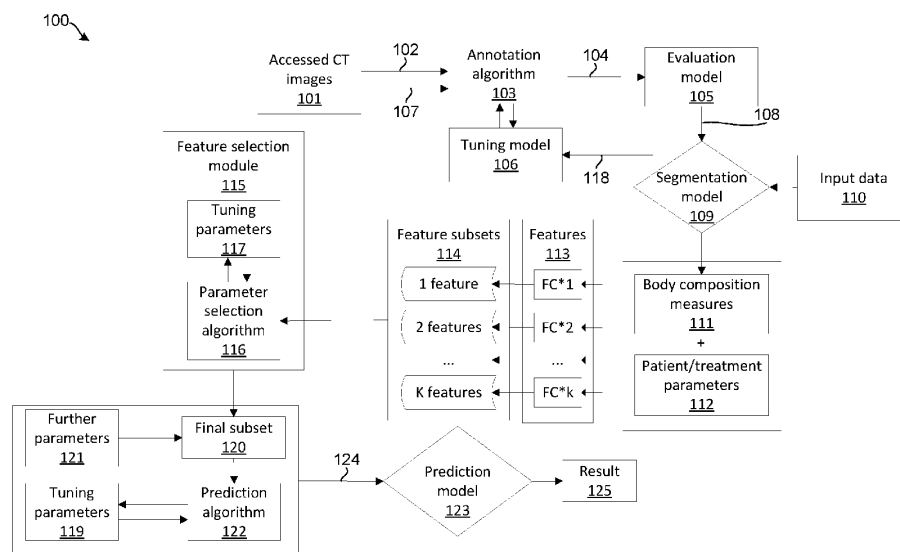


Figure 1

(57) Abstract: Described embodiments relate to a method for predicting a toxicity of a drug to be administered to a patient. The method comprises accessing at least one computed tomography (CT) torso slice associated with the patient; using a trained artificial intelligence (AI) segmentation model to perform a labelling process of the at least one CT scan; determining at least one body composition parameter based on the at least one labelled CT slice; receiving at least one demographic parameter associated with the patient; receiving at least one dosage parameter associated with the drug to be administered to the patient; and using a trained AI prediction model, generating an output based on the at least one body composition parameter, the at least one demographic parameter and the at least one dosage parameter, the output corresponding to a predicted toxicity of the drug to the patient.

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