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(54) **SYSTEMS AND METHODS FOR AUTOMATIC CREATION OF DOSE PREDICTION MODELS AND THERAPY TREATMENT PLANS AS A CLOUD SERVICE**

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(58) **Field of Classification Search**
USPC 706/12
See application file for complete search history.

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(57) **ABSTRACT**

The present invention proposes a method for automatically creating a dose prediction model based on existing clinical knowledge that is accumulated from multiple sources without collaborators establishing communication links between each other. According to embodiments of the claimed subject matter, clinics can collaborate in creating a dose prediction model by submitting their treatment plans into a remote computer system (such as a cloud-based system) which aggregates information from various collaborators and produces a model that captures clinical information from all submitted treatment plans. According to further embodiments, the method may contain a step where all patient data submitted by a clinic is made anonymous or the relevant parameters are extracted and condensed prior to submitting them over the communications link in order to comply with local regulations.

41 Claims, 4 Drawing Sheets