

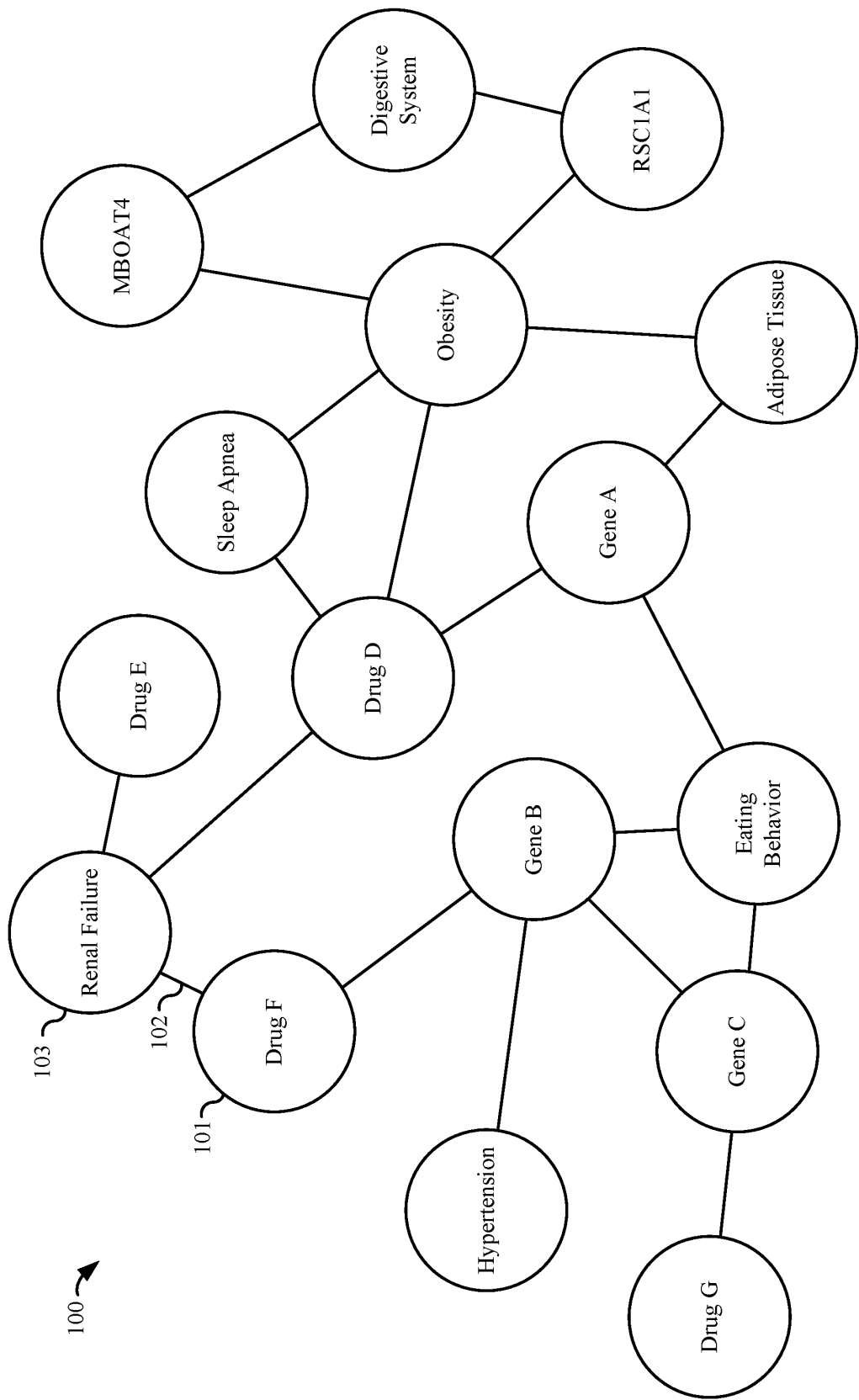


FIG. 1

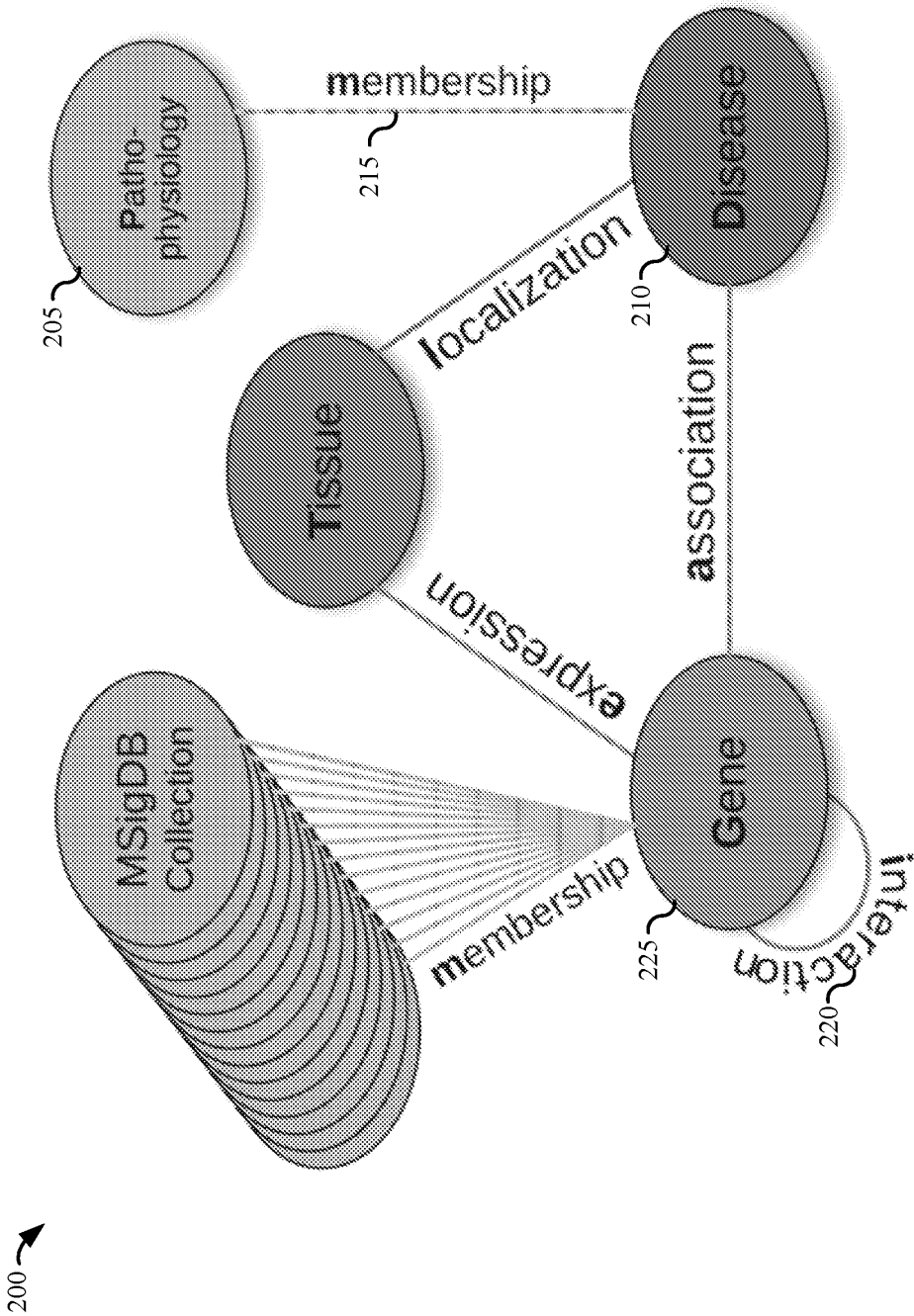


FIG. 2

300 →

305 Metanode	310 Count	315 Source
Disease	99	Disease Ontology
Gene	19,116	HGNC (coding)
Tissue	77	BRENDA (BTO)
Pathophysiology	8	manual
Positional	326	MSigDB (C1)
Perturbation	3,402	MSigDB (C2)
BioCarta	217	MSigDB (C2)
KEGG	186	MSigDB (C2)
Reactome	674	MSigDB (C2)
miRNA Target	221	MSigDB (C3)
TF Target	615	MSigDB (C3)
Cancer Hood	427	MSigDB (C4)
Cancer Module	431	MSigDB (C4)
GO Process	825	MSigDB (C5)
GO Component	233	MSigDB (C5)
GO Function	396	MSigDB (C5)
Oncogenic	189	MSigDB (C6)
Immunologic	1,910	MSigDB (C7)

FIG. 3

405 ~ Metaedge	410 ~ Count	415 ~ Source
Disease—association—Gene	938	GWAS Catalog
Disease—membership—Pathophysiology	90	manual
Disease—localization—Tissue	1,086	CoPub 5.0
Gene—expression—Tissue	251,366	GNF BodyMap
Gene—interaction—Gene	97,938	iRefIndex
Gene—membership—Positional	18,343	MSigDB (C1)
Gene—membership—Perturbation	366,211	MSigDB (C2)
Gene—membership—BioCarta	4,456	MSigDB (C2)
Gene—membership—KEGG	12,656	MSigDB (C2)
Gene—membership—Reactome	35,597	MSigDB (C2)
Gene—membership—miRNA Target	33,455	MSigDB (C3)
Gene—membership—TF Target	161,258	MSigDB (C3)
Gene—membership—Cancer Hood	41,913	MSigDB (C4)
Gene—membership—Cancer Module	48,220	MSigDB (C4)
Gene—membership—GO Process	75,155	MSigDB (C5)
Gene—membership—GO Component	34,880	MSigDB (C5)
Gene—membership—GO Function	23,578	MSigDB (C5)
Gene—membership—Oncogenic	30,166	MSigDB (C6)
Gene—membership—Immunologic	370,862	MSigDB (C7)

FIG. 4

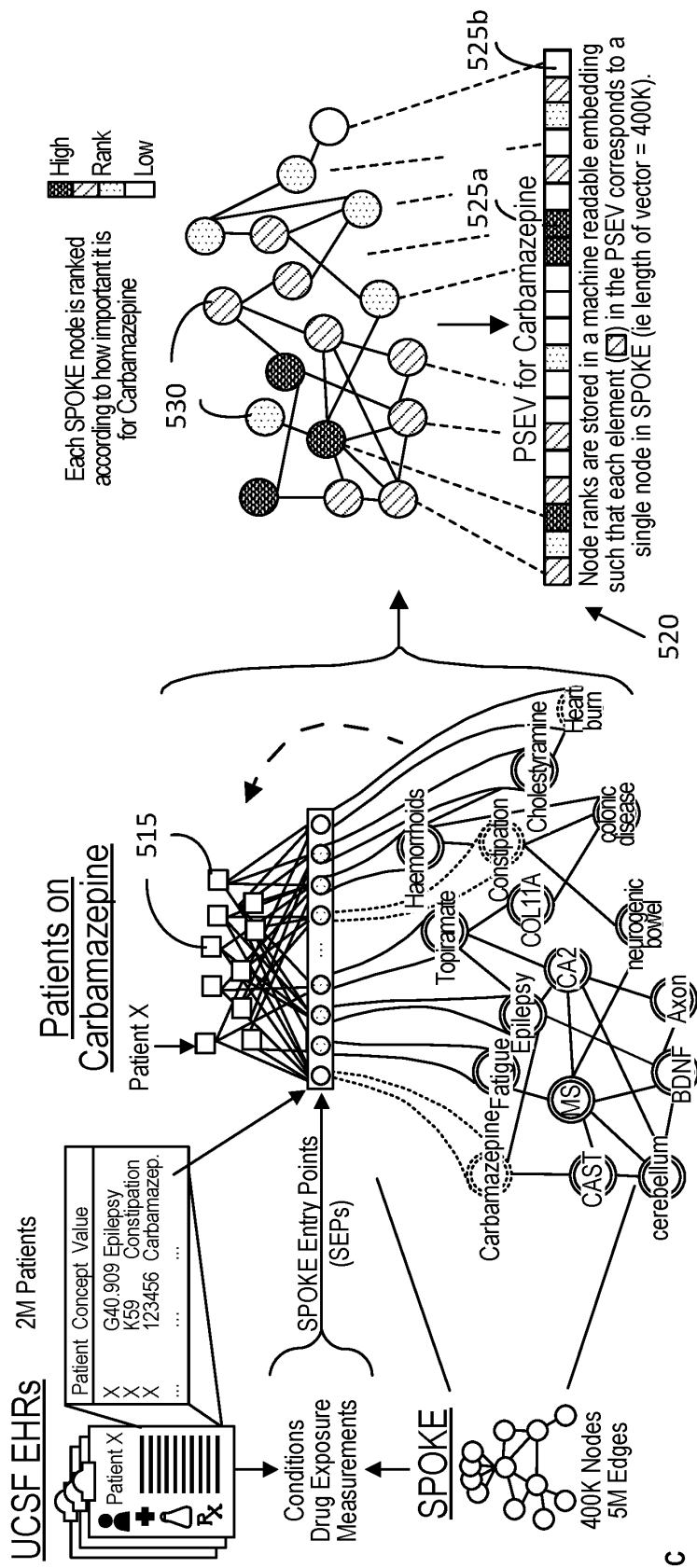


FIG. 5

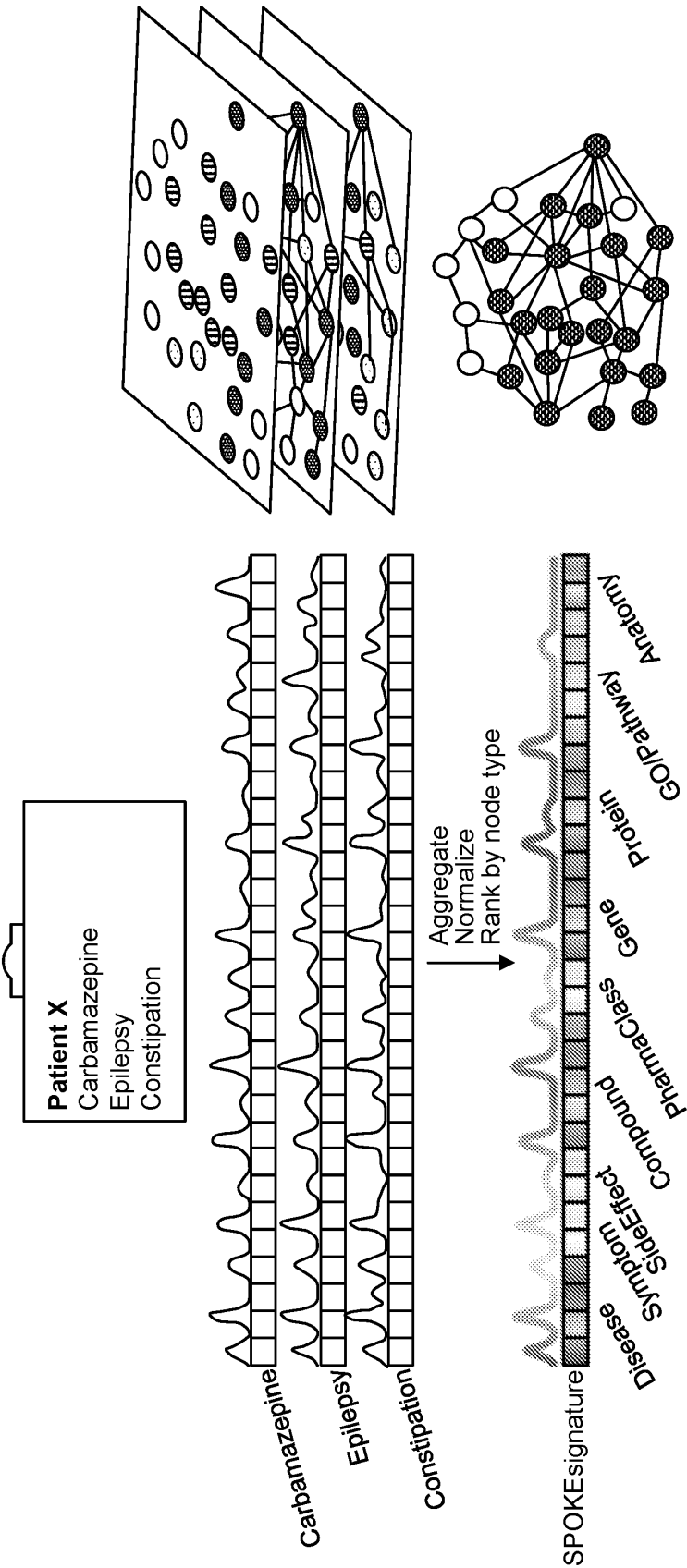
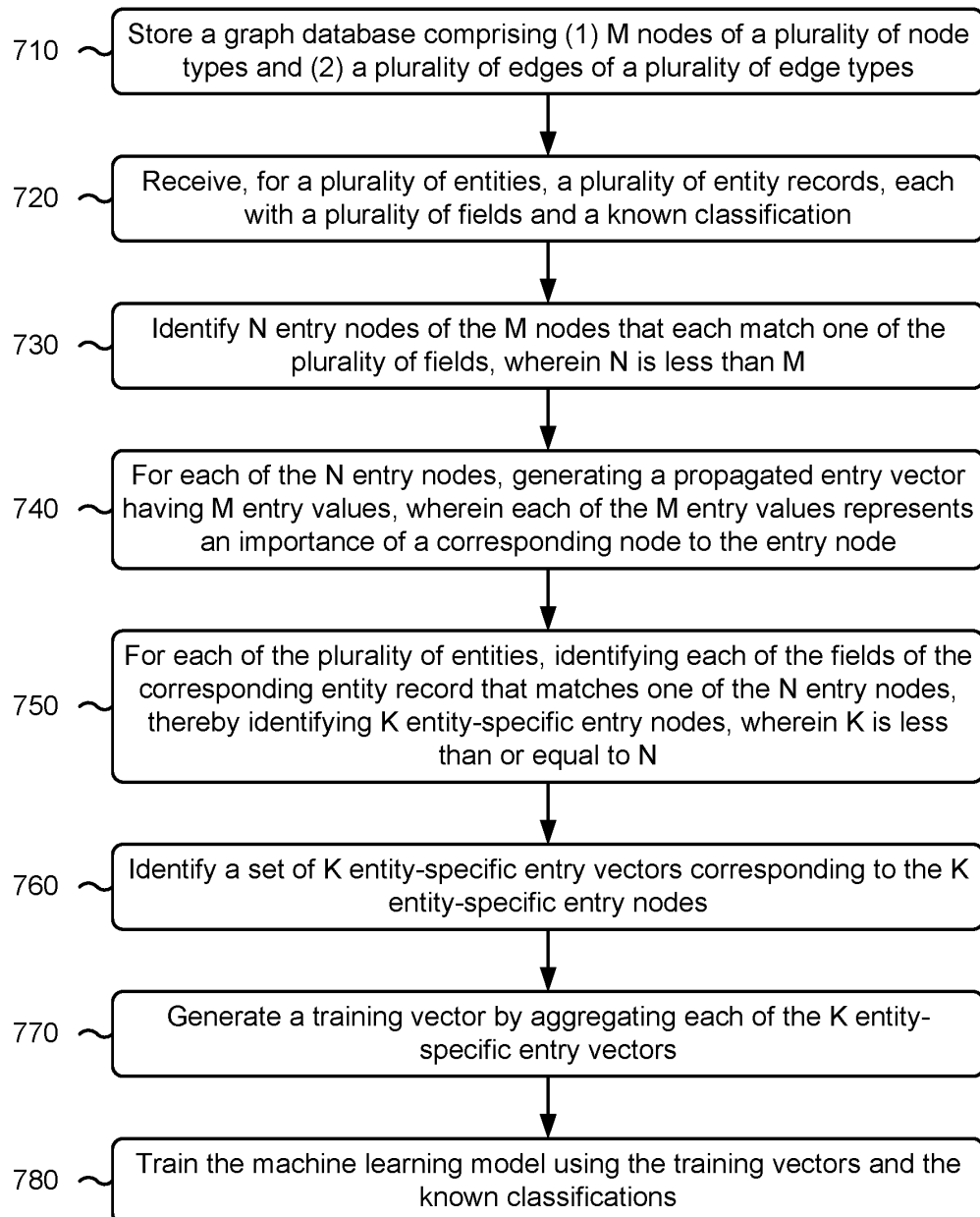
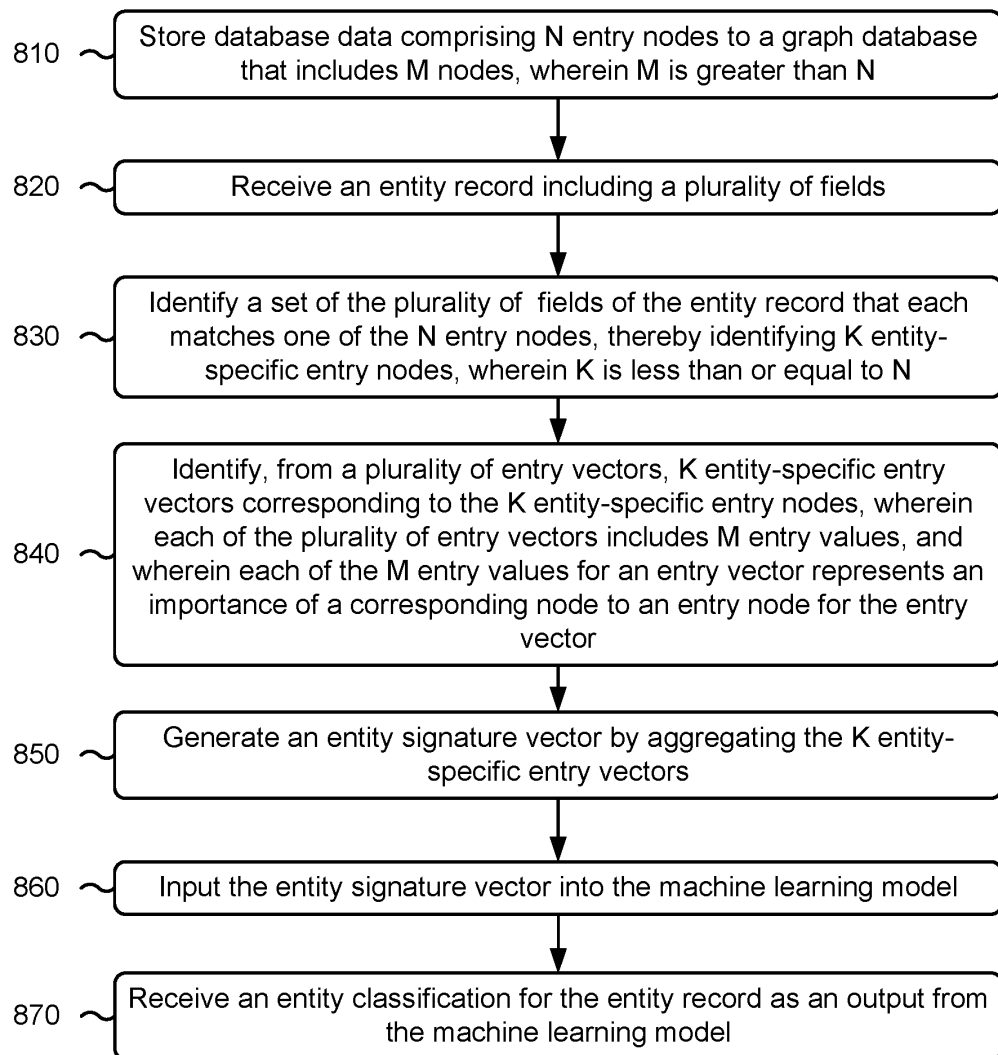
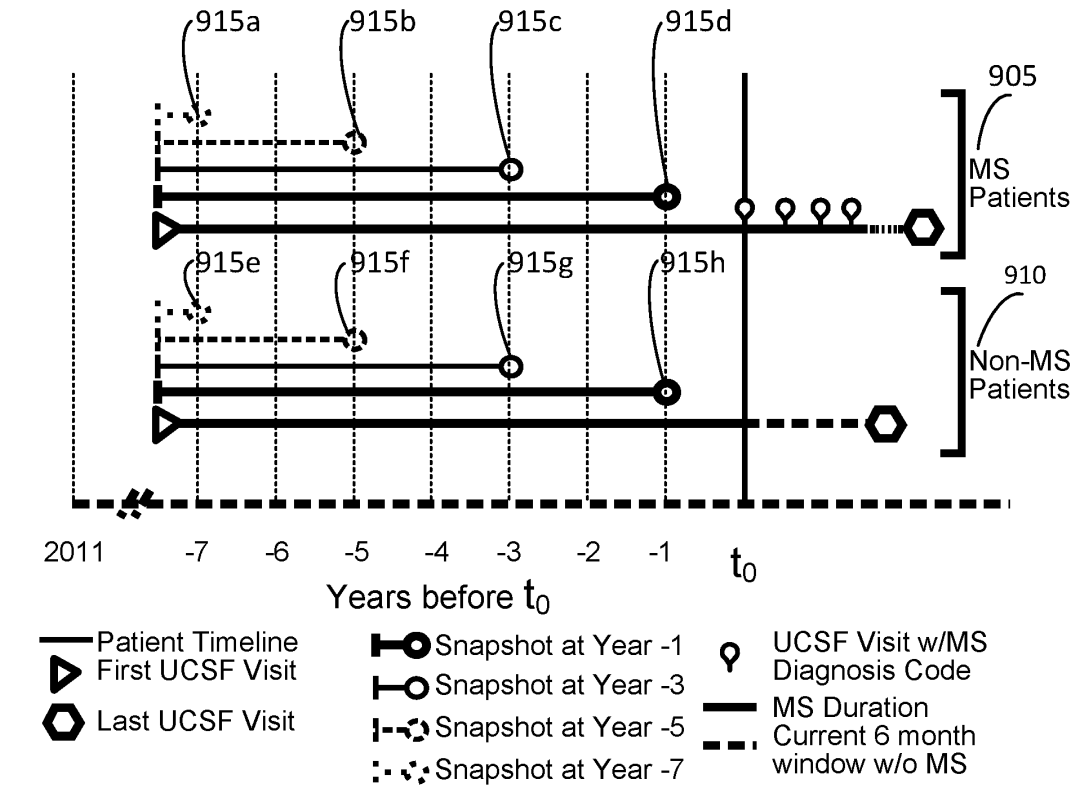


FIG. 6







	All-Visits		PCP-Only	
	Non-MS	MS	Non-MS	MS
Total # of patients (post MS filter)	n=2,175,130	n=5,752 (3,588)	n=422,343	n=2,787 (2,121)
Snapshot Year —○ -1	287,739	652	132,991	227
—○ -3	171,156	431	75,442	132
- -○ -5	98,425	292	40,467	79
...○ -7	54,267	188	20,106	35

FIG. 9
SUBSTITUTE SHEET (RULE 26)

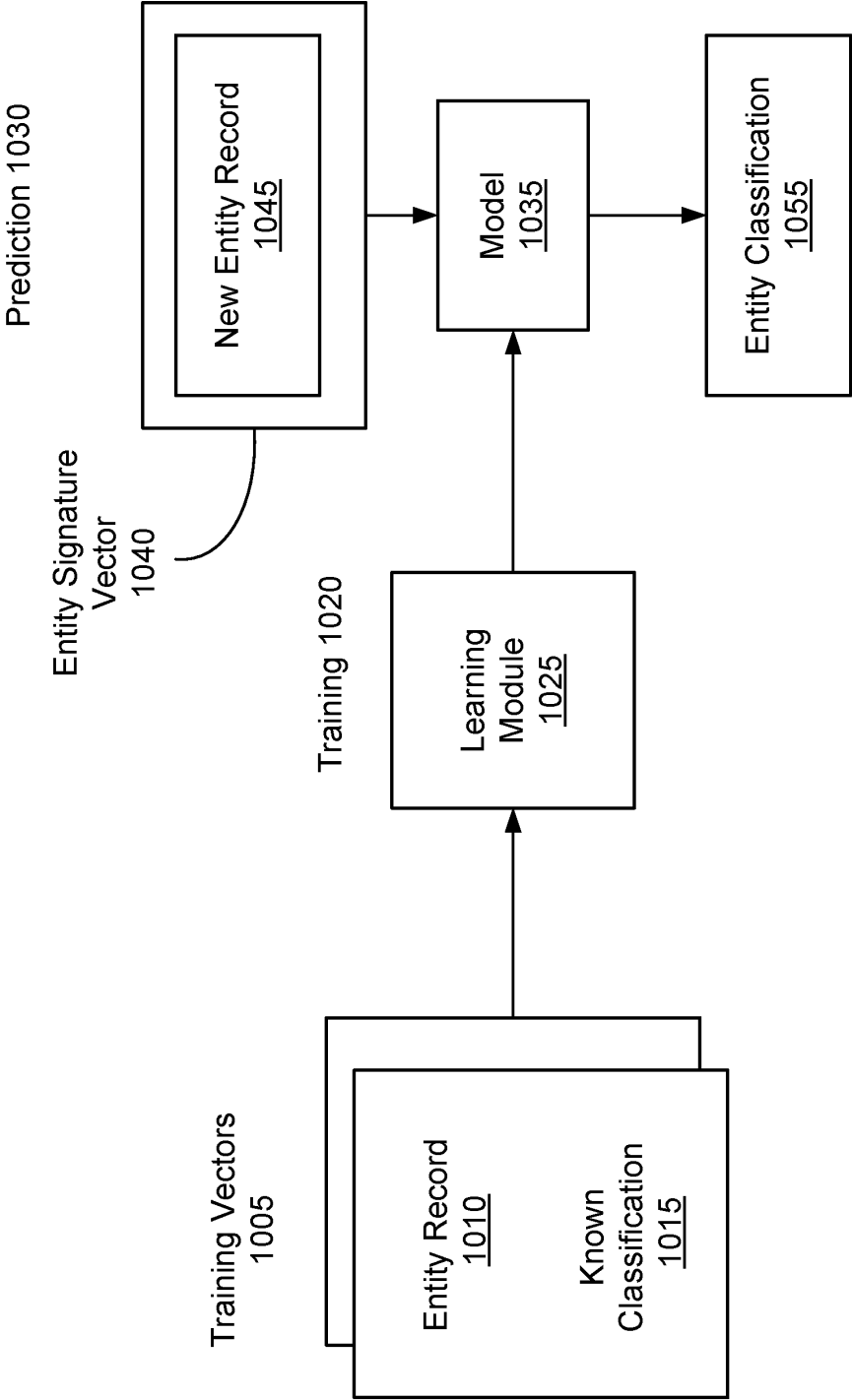


FIG. 10

• Support vector machines

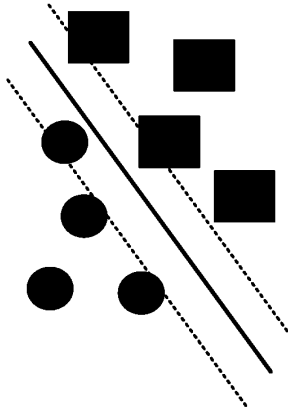


FIG. 11B

• Neural nets

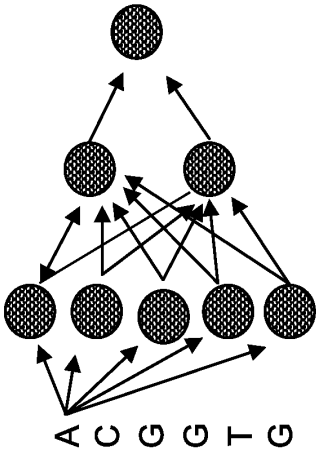


FIG. 11A

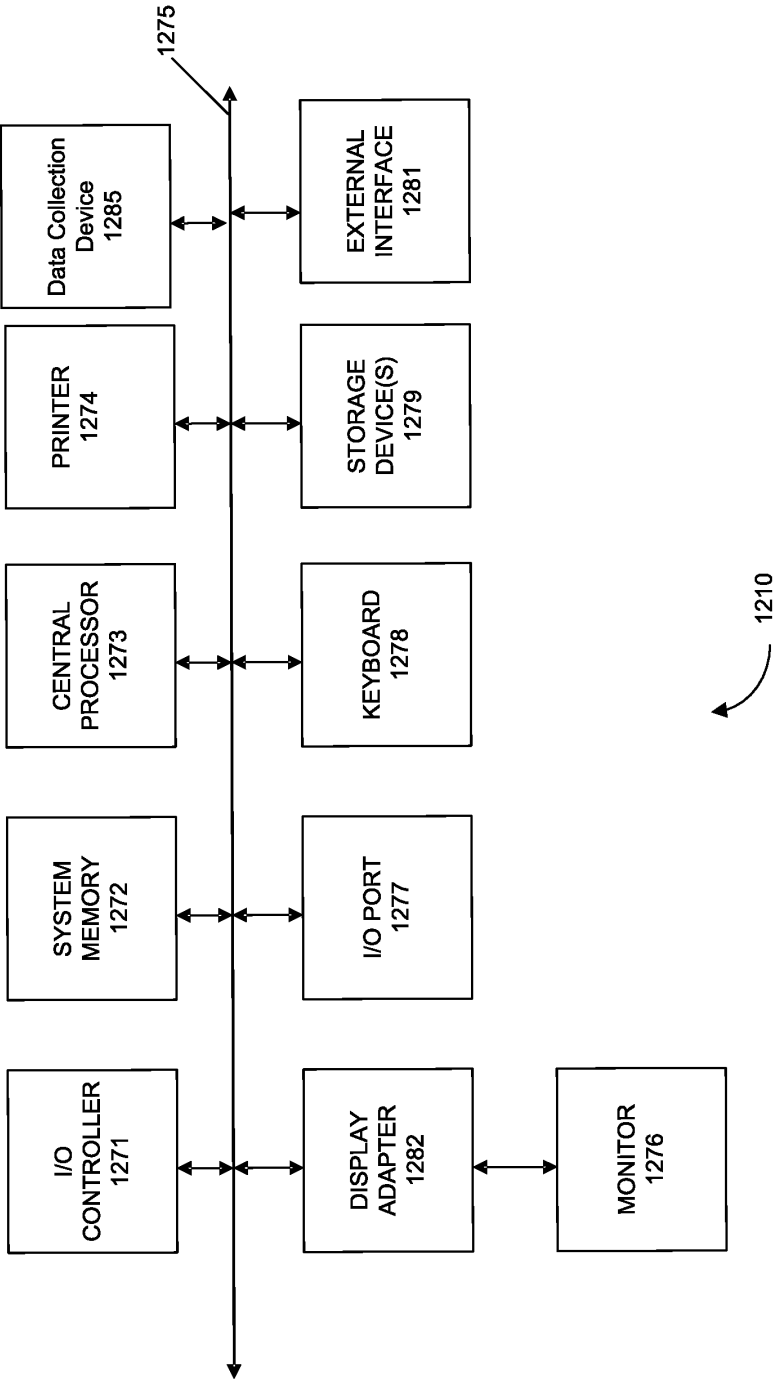


FIG. 12