

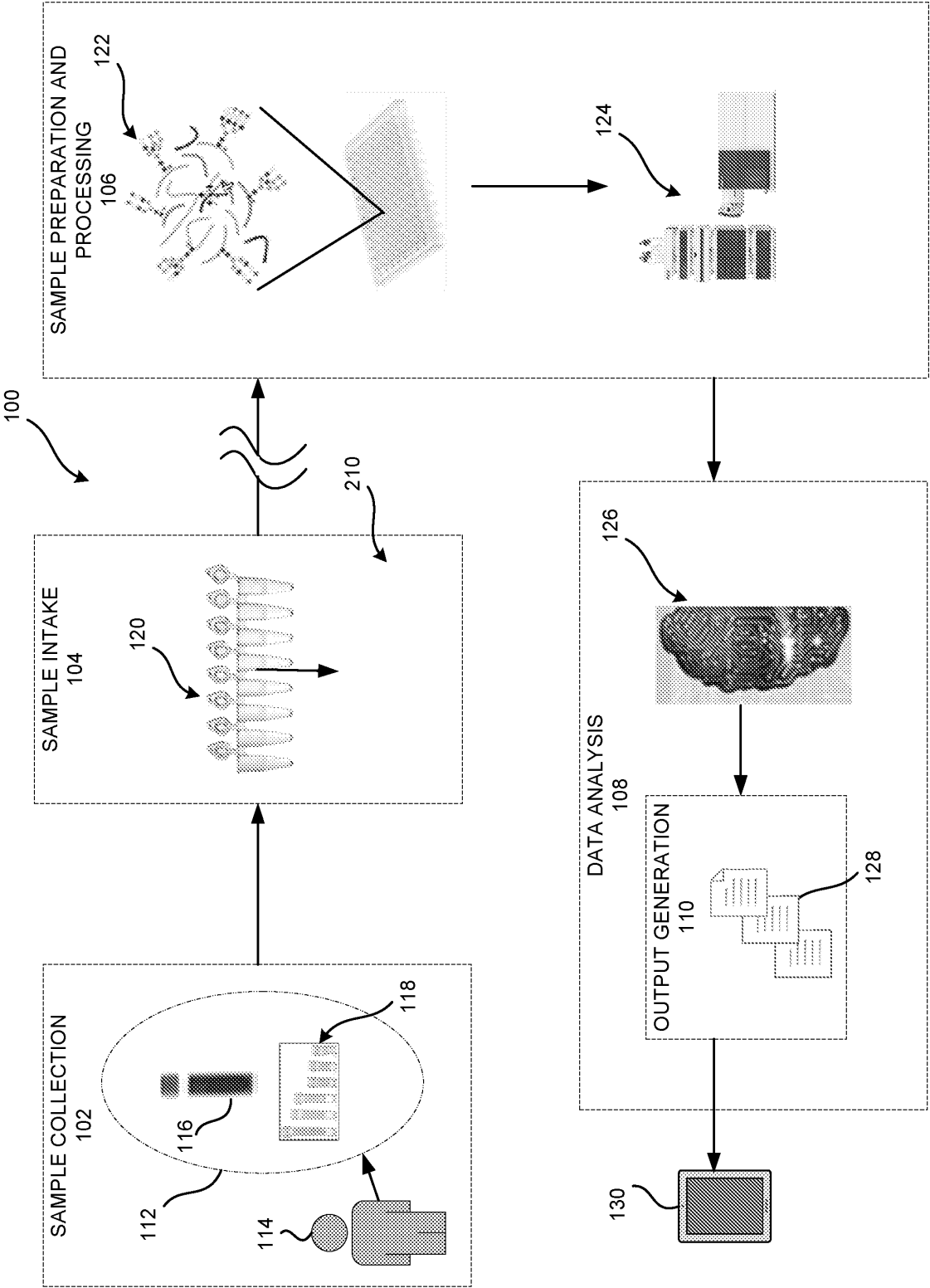
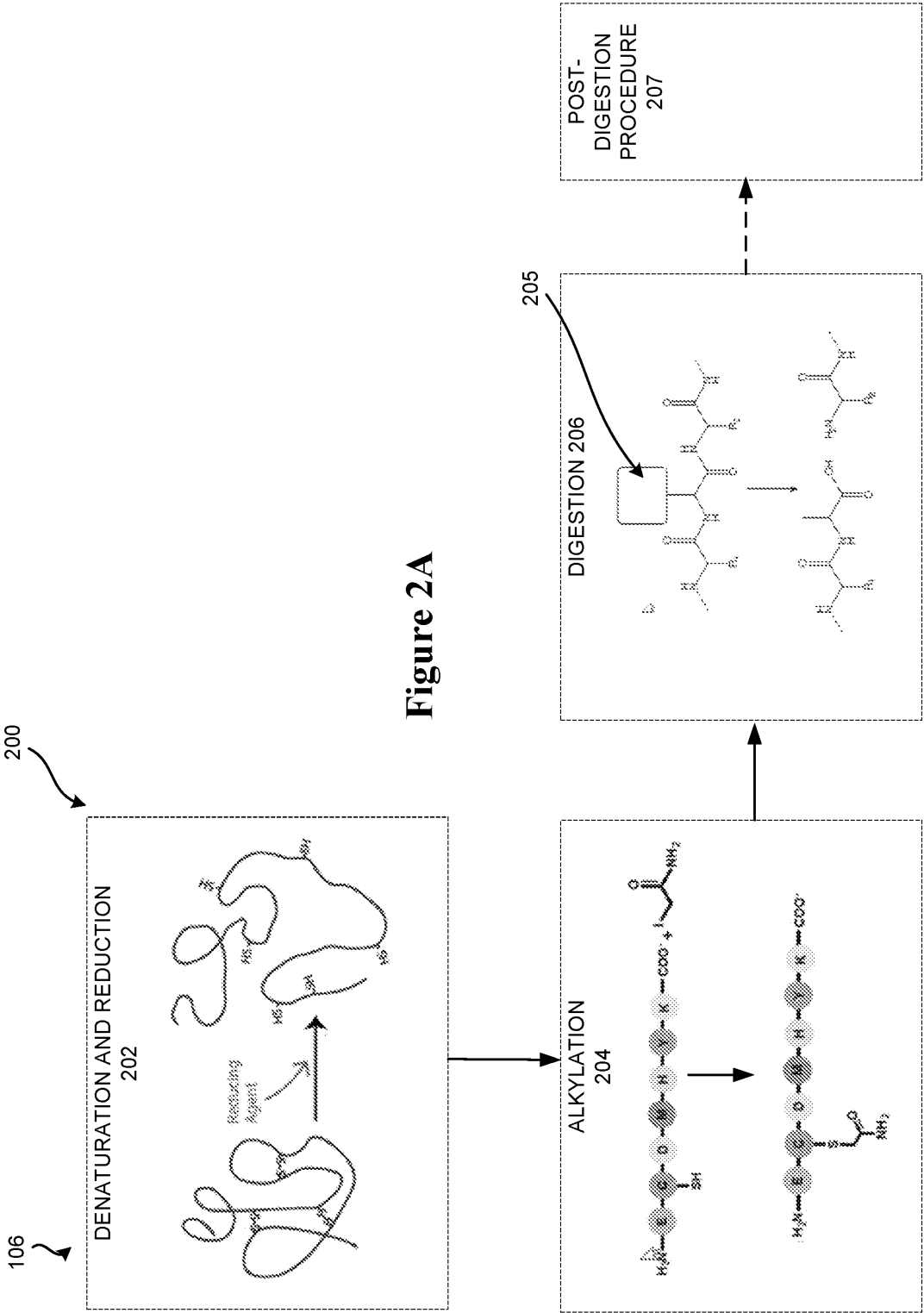
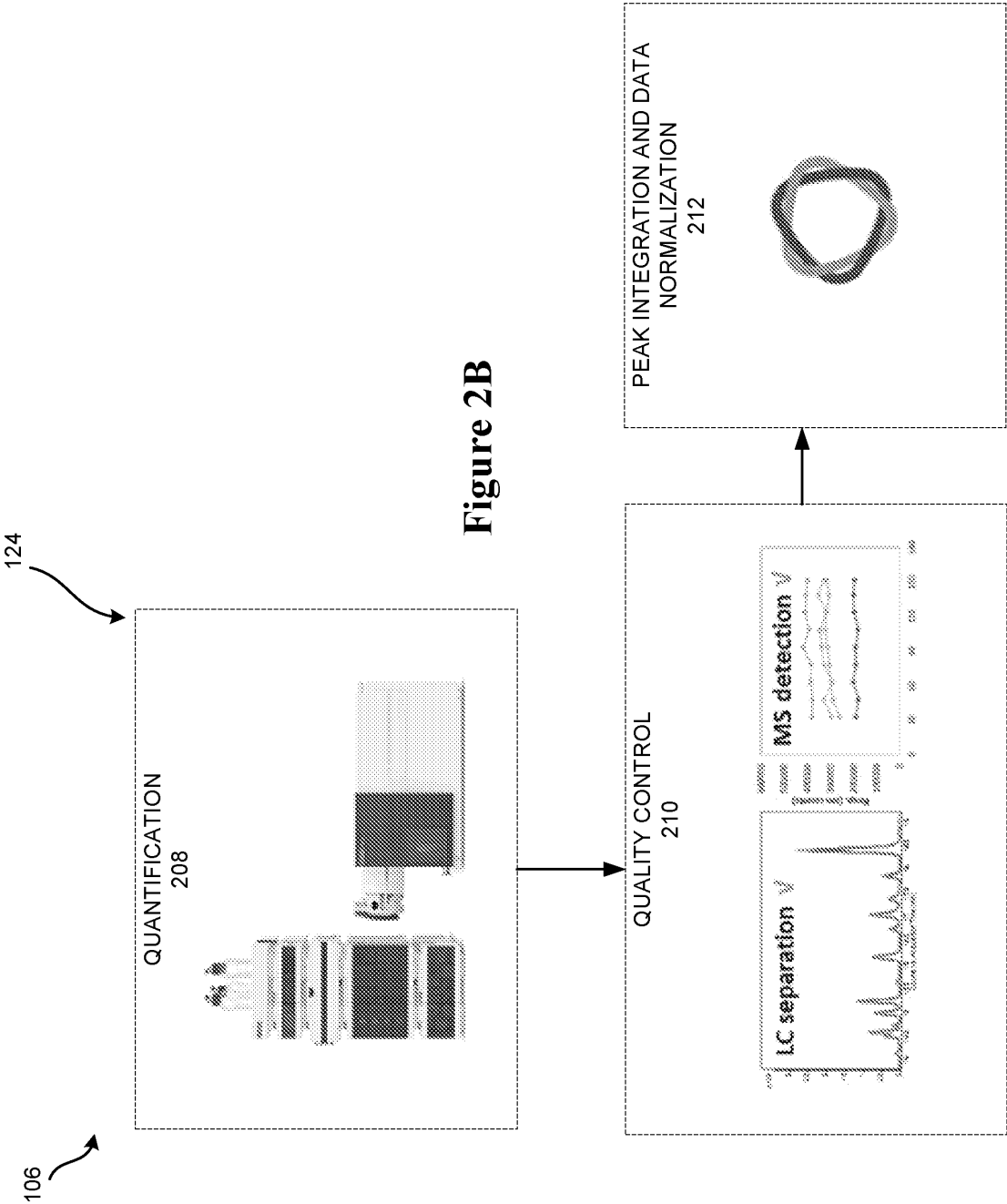


Figure 1





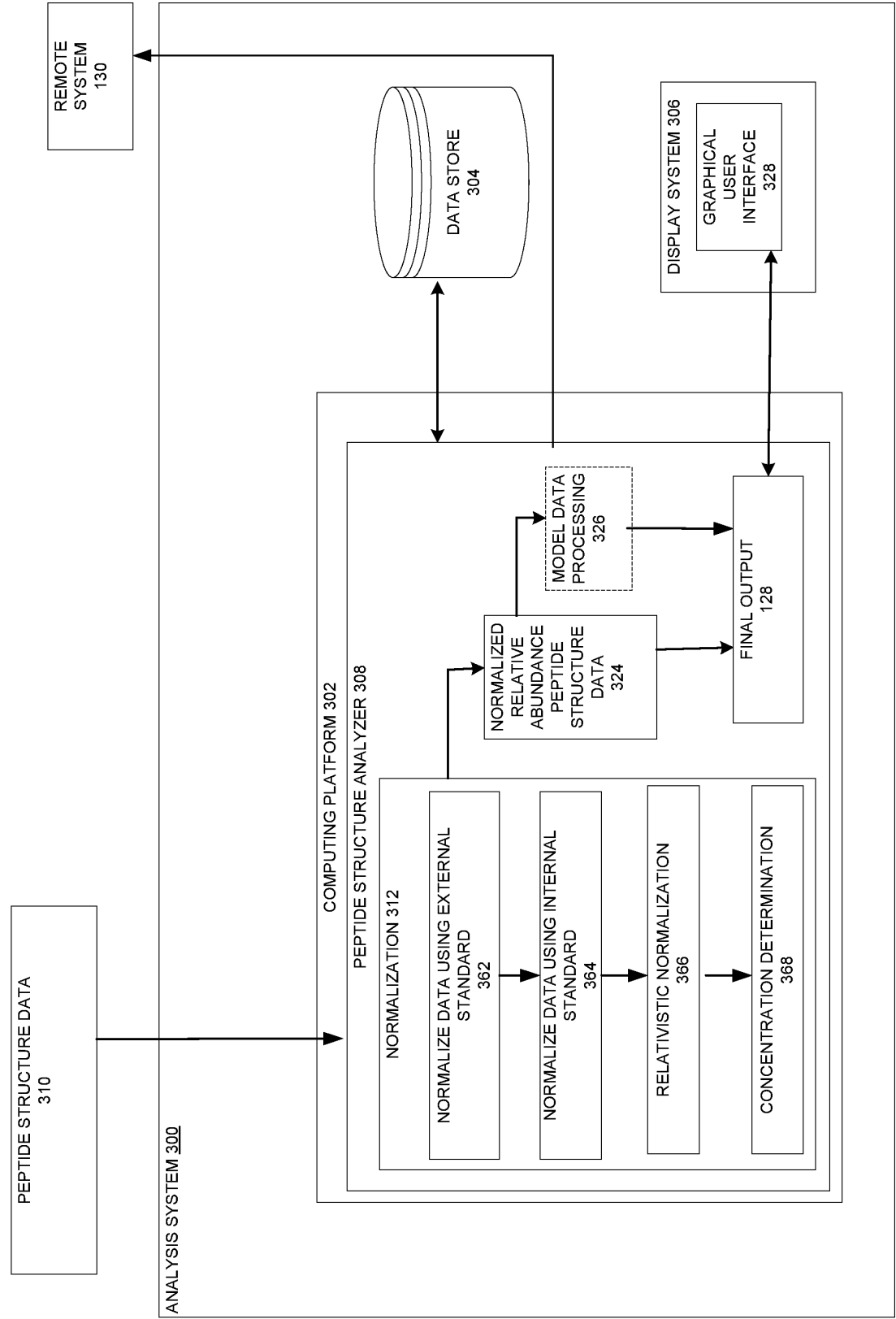


Figure 3

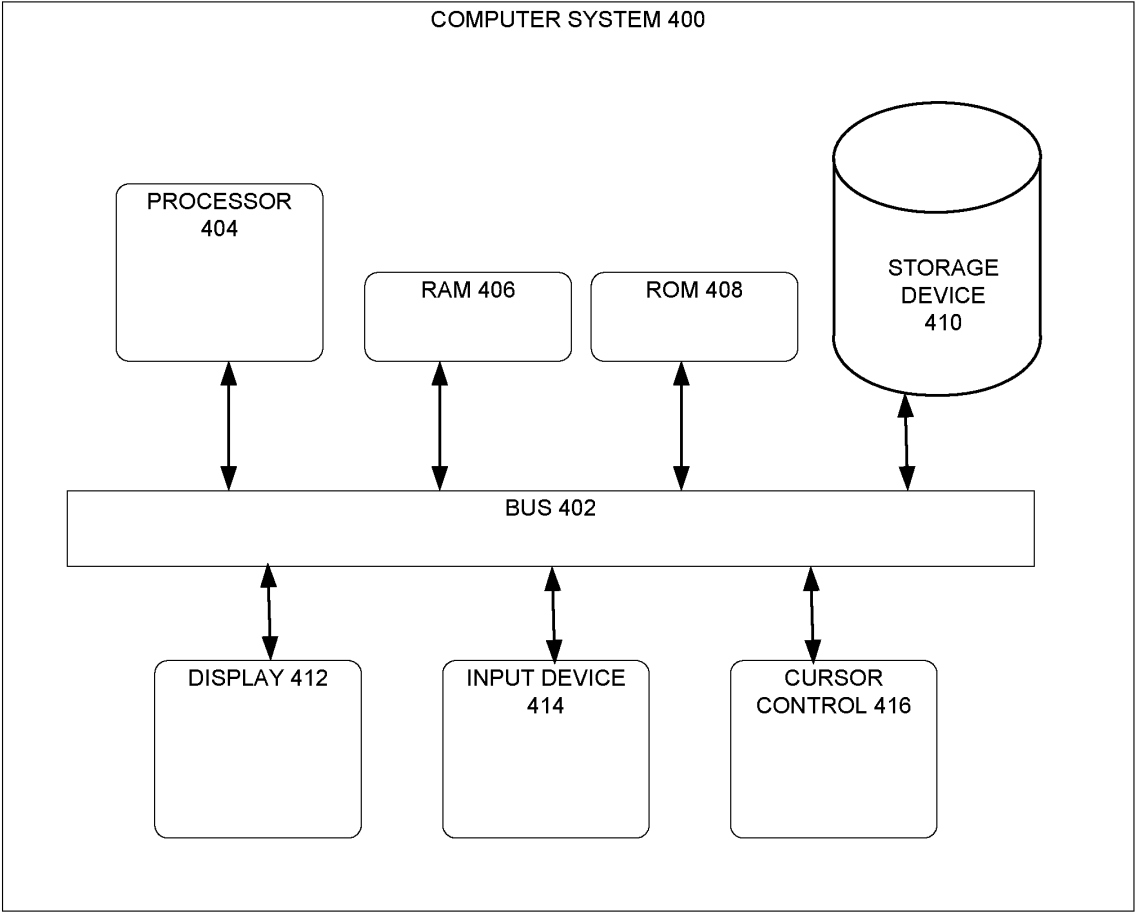
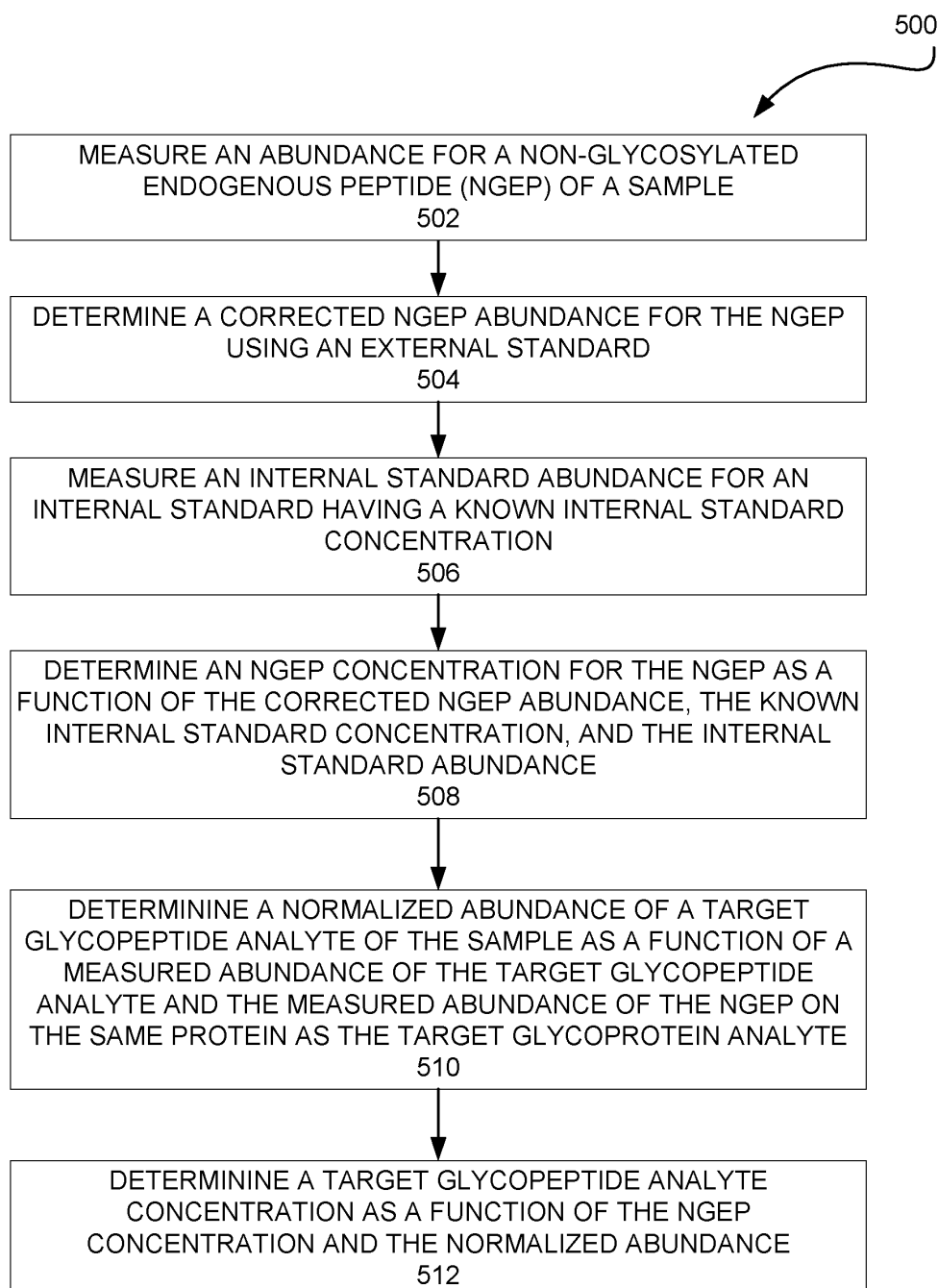
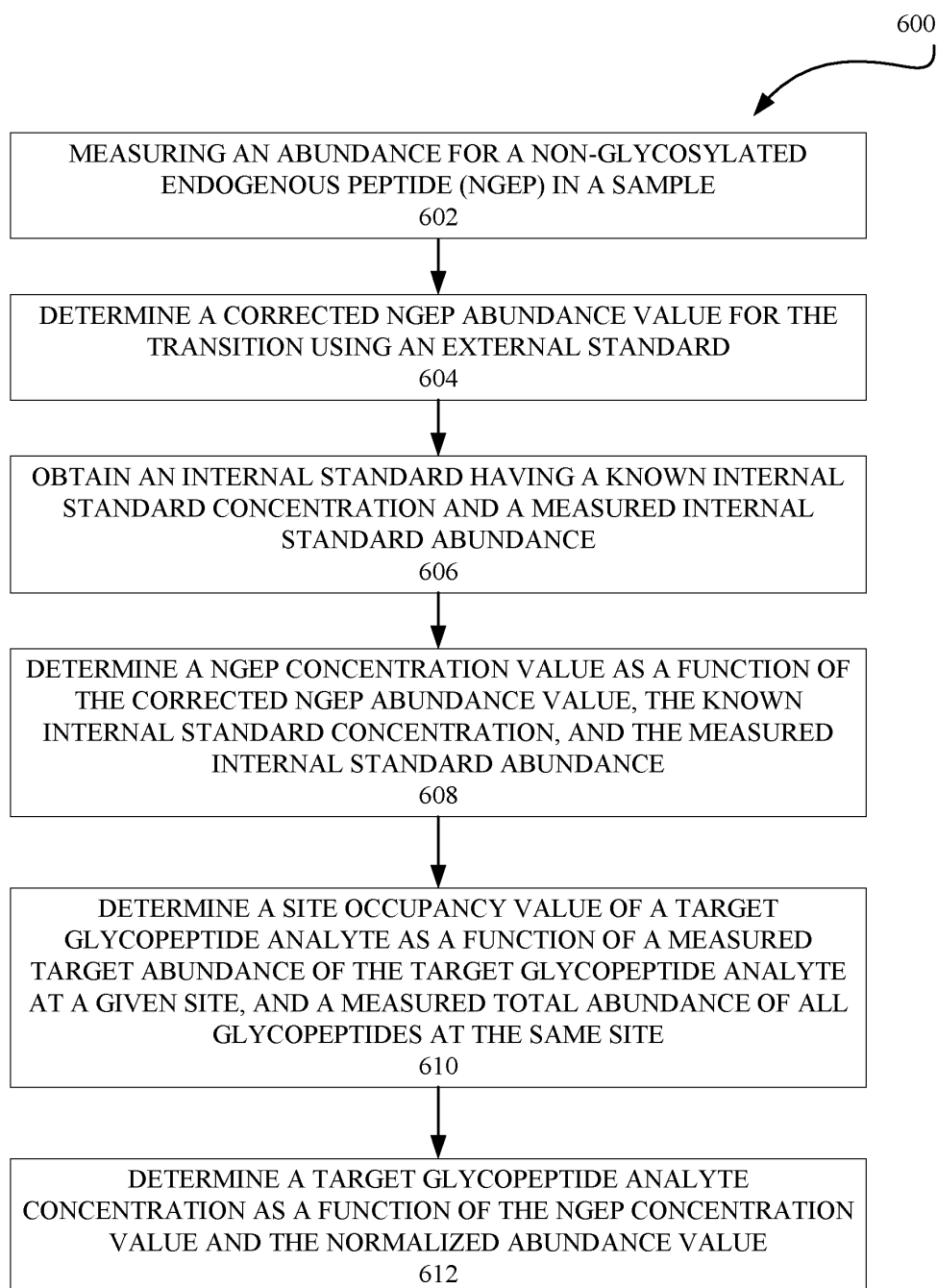


Figure 4

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**Figure 5**

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**Figure 6**

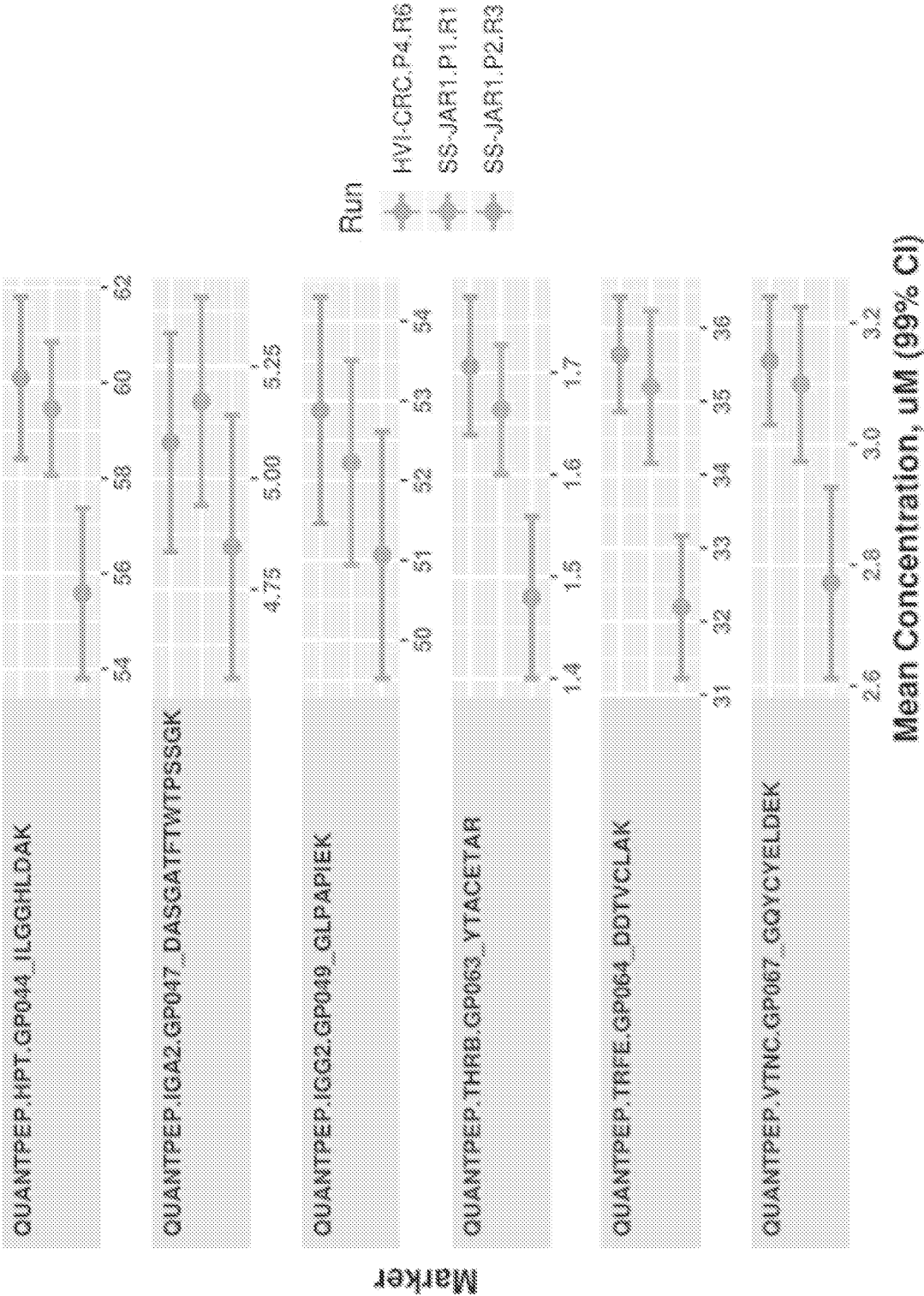


Figure 7A

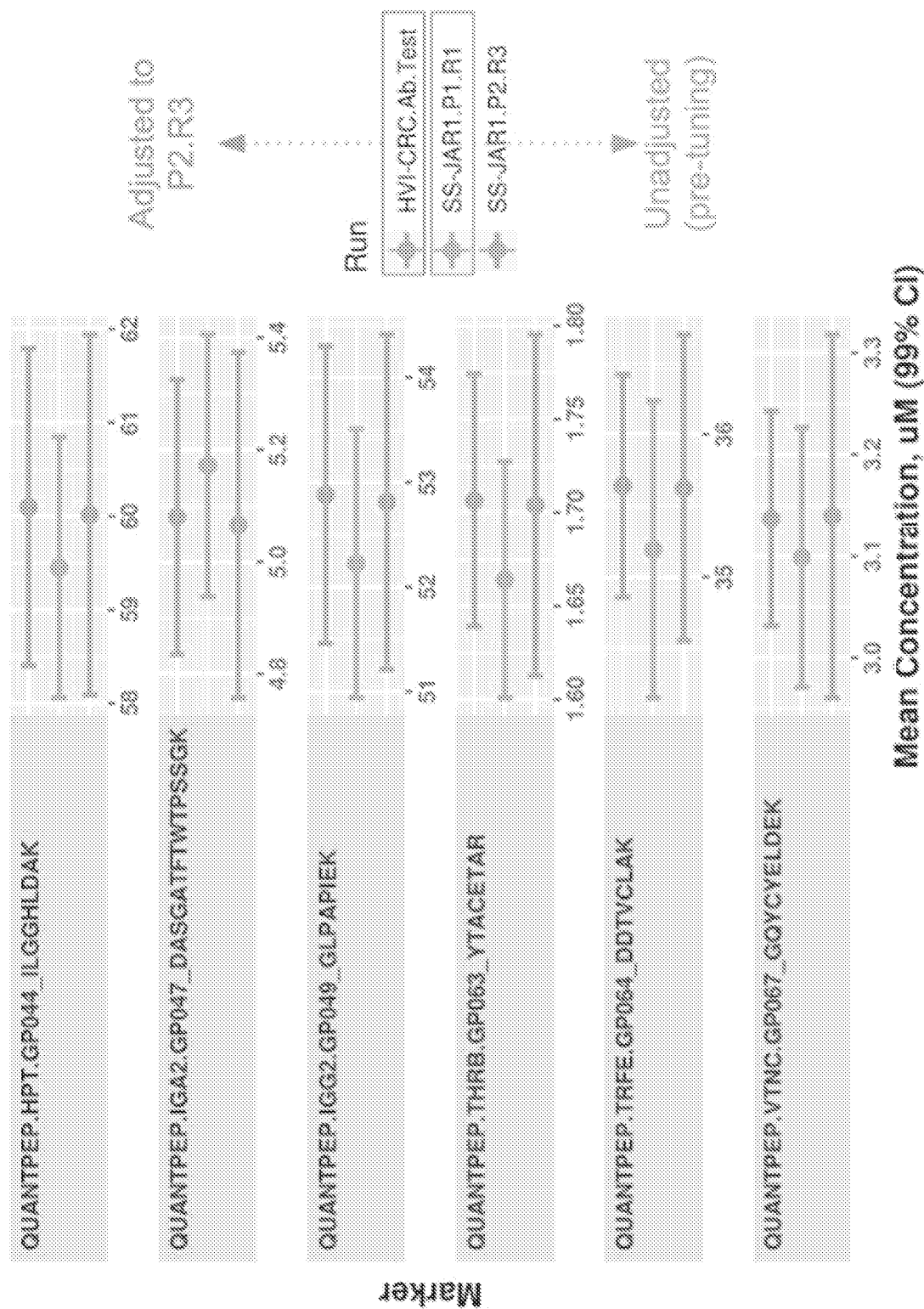


Figure 7B

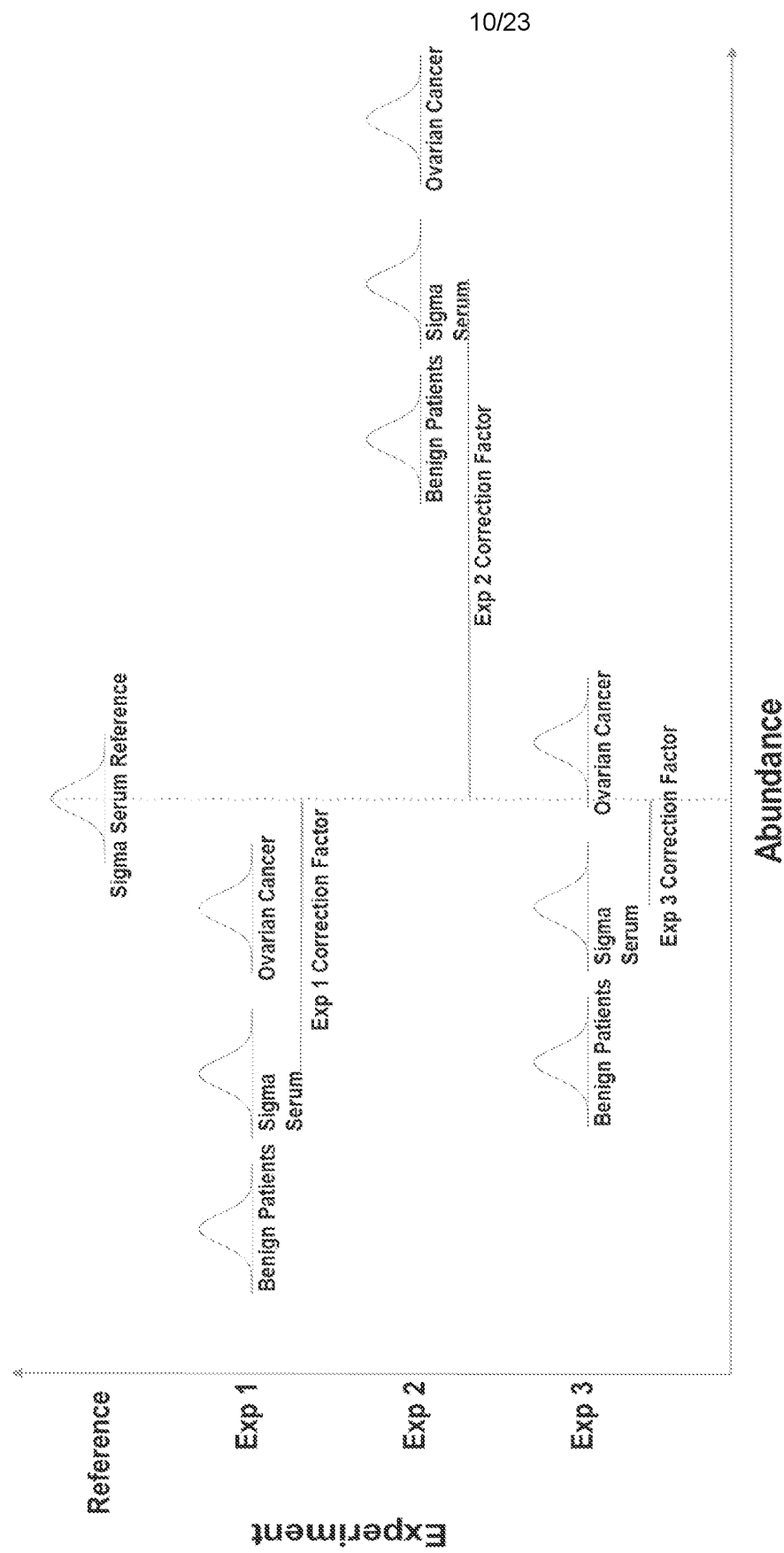


Figure 8A

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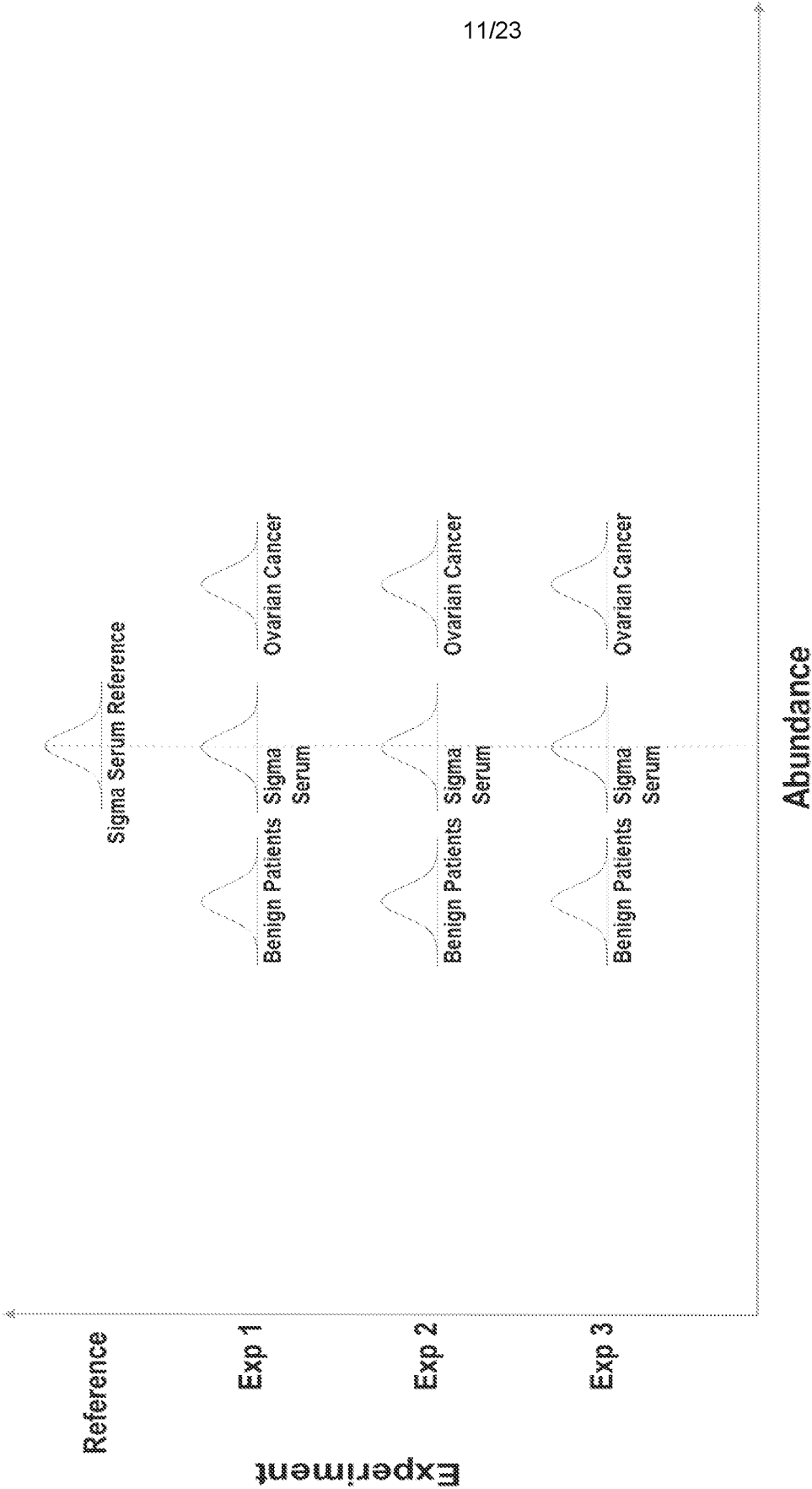
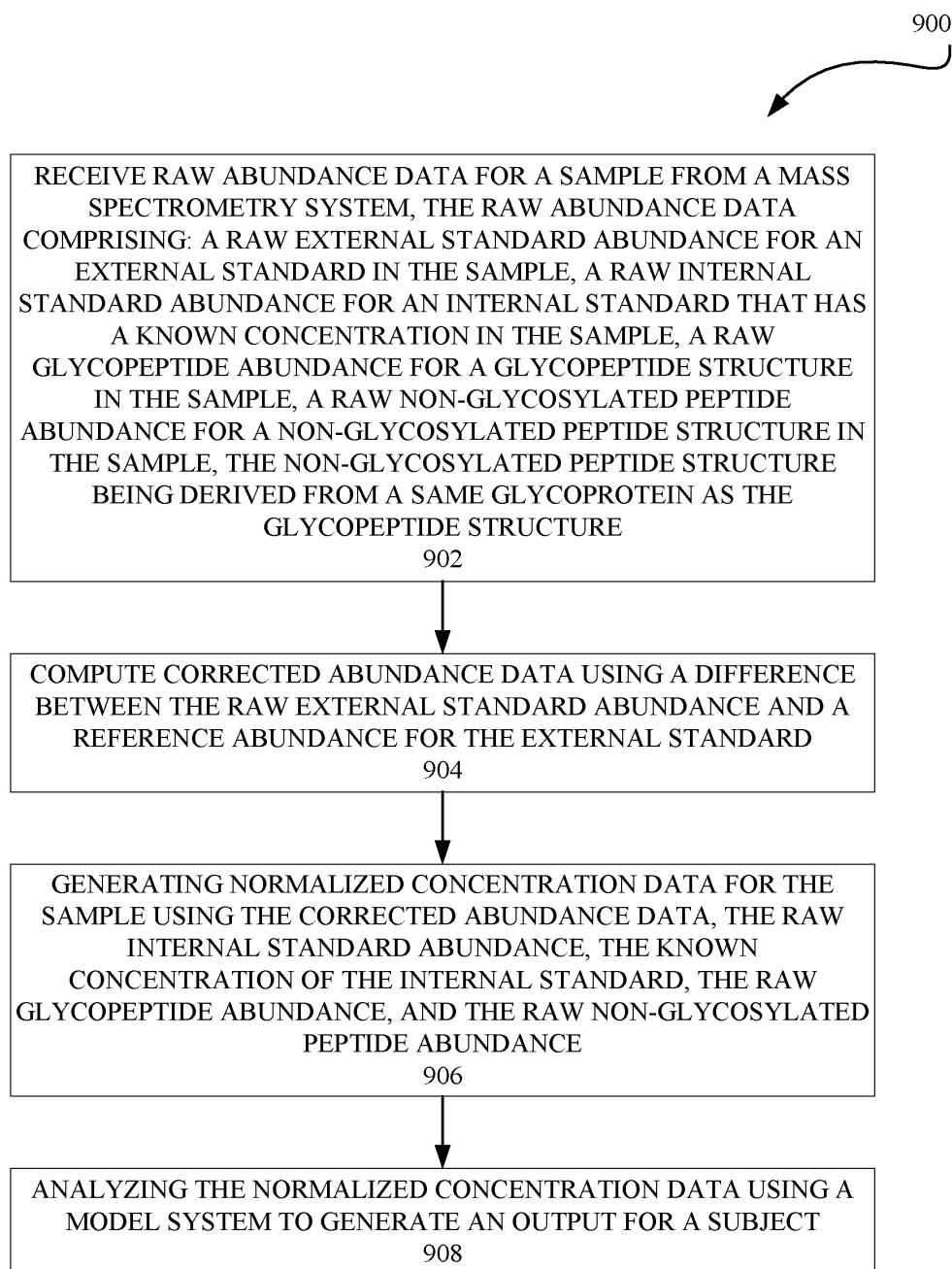


Figure 8B

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**Figure 9**

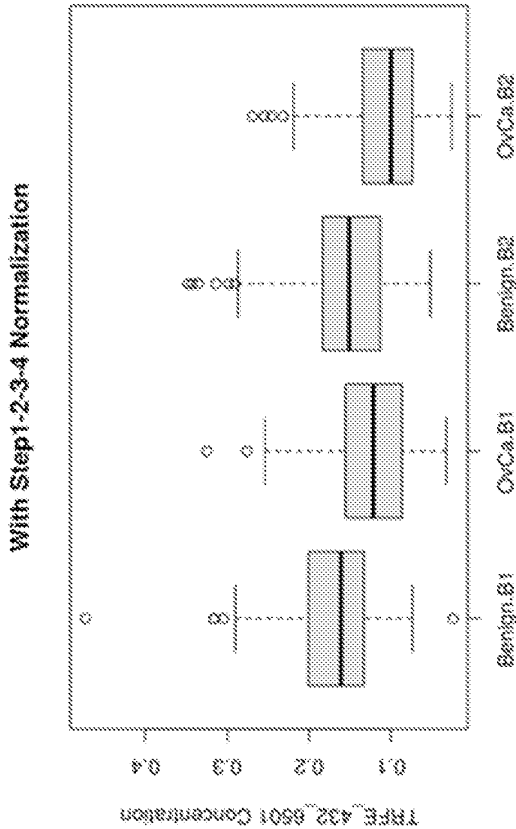


Figure 10A

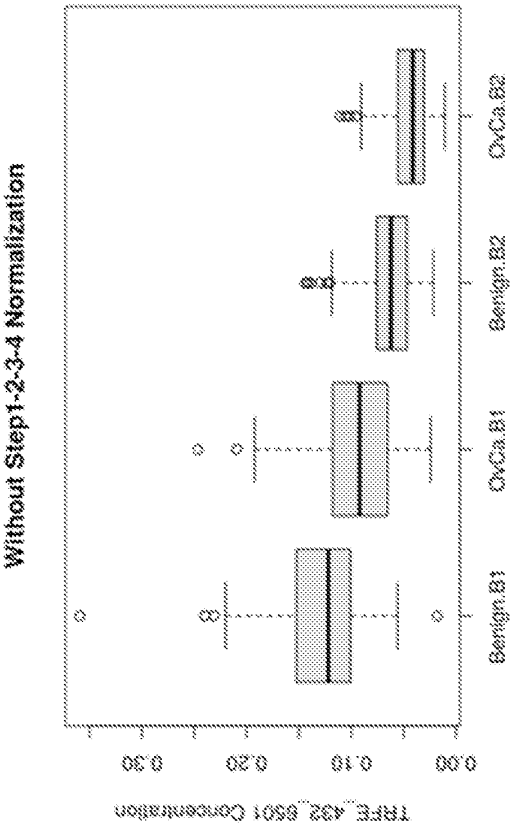


Figure 10B

With Step1-2-3-4 Normalization

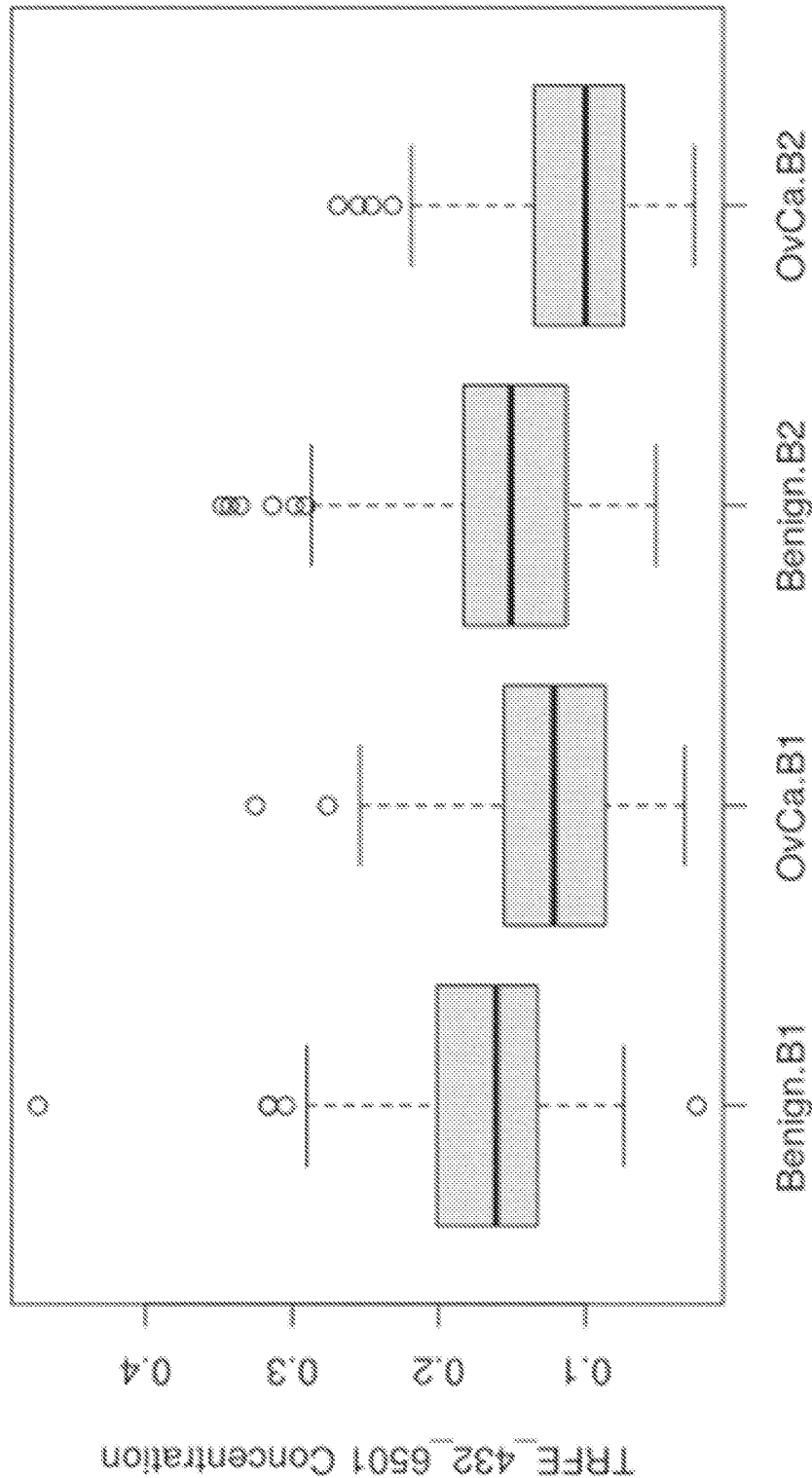


Figure 10A

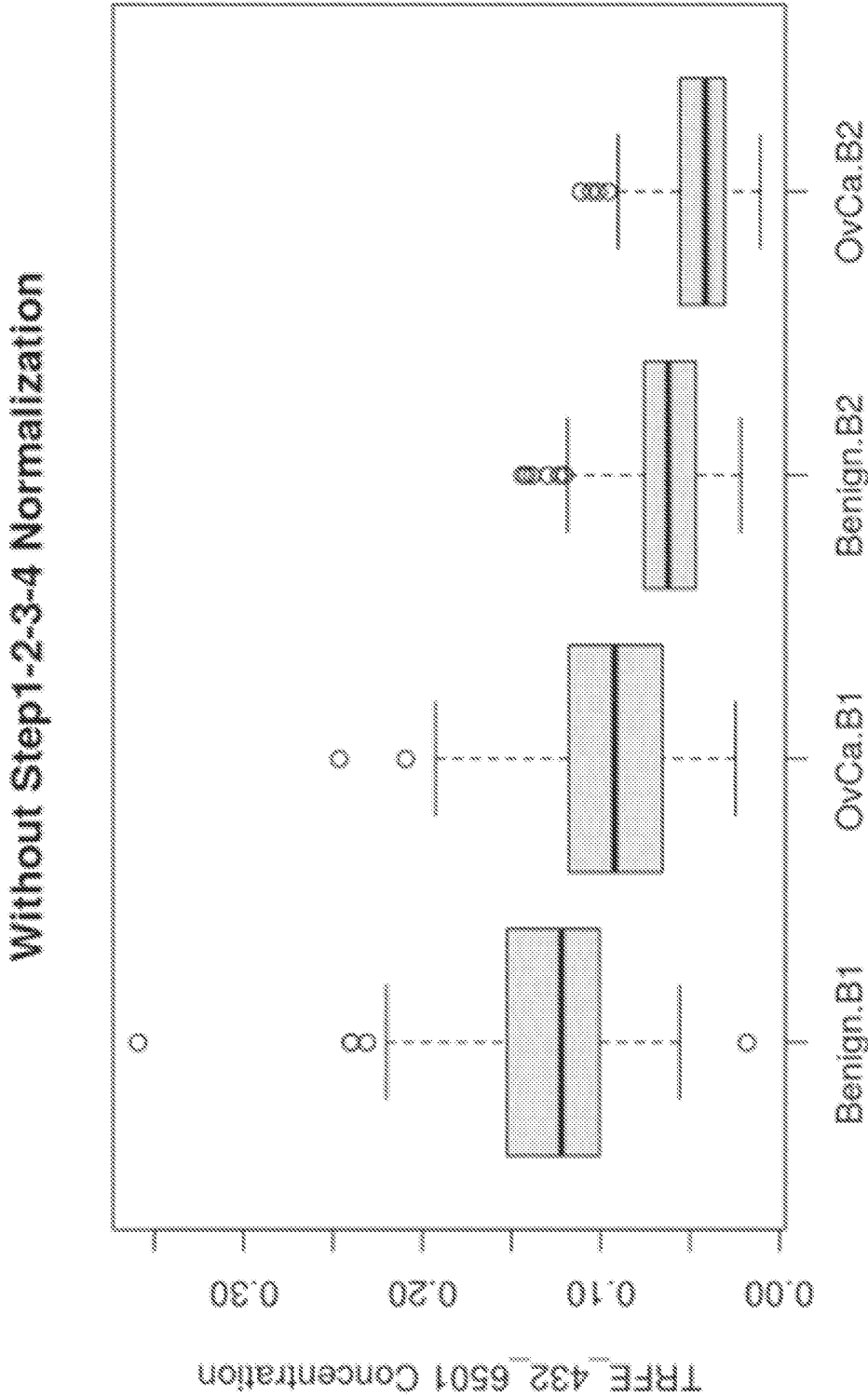


Figure 10B

With Step1-2-3-4 Normalization

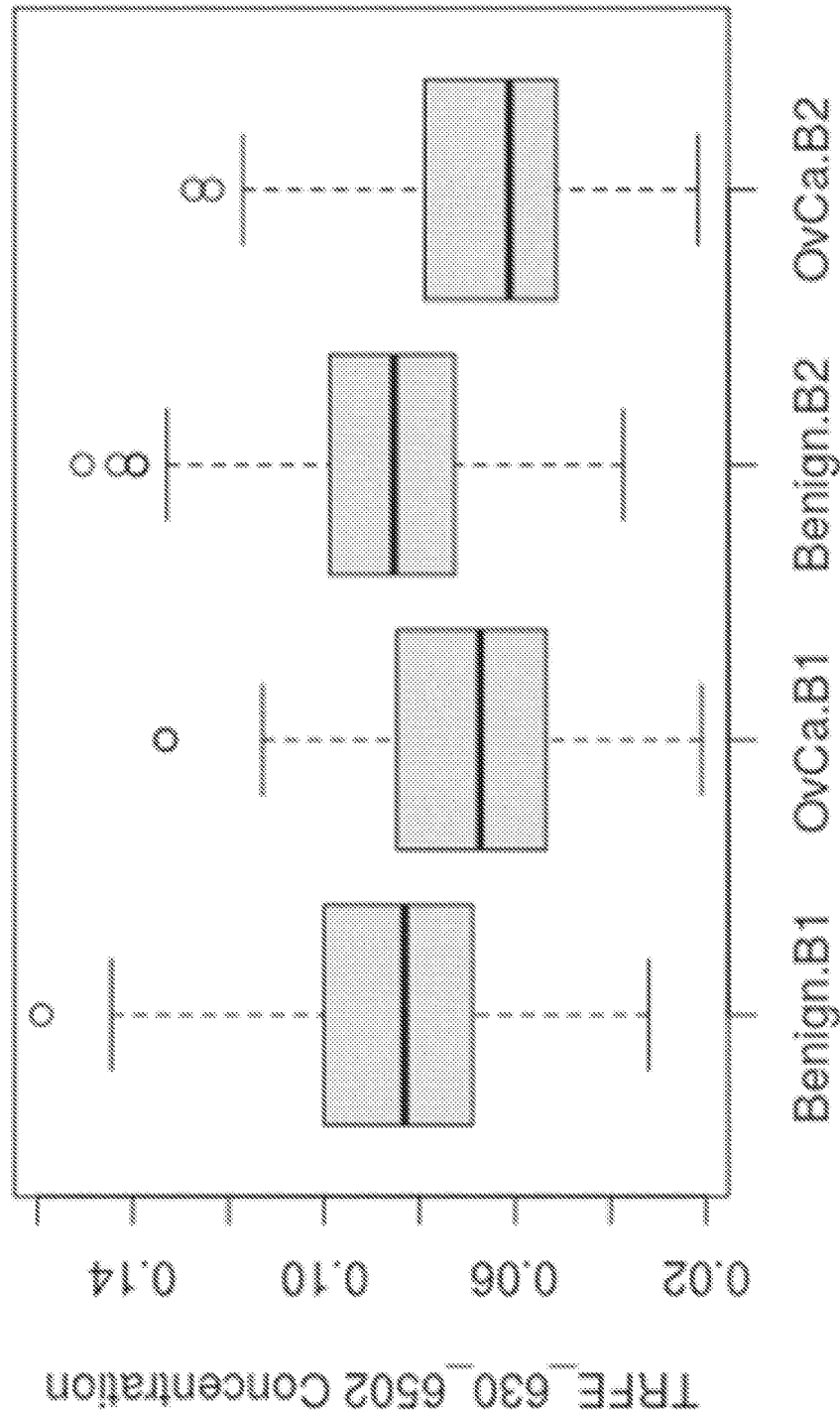


Figure 11A

Without Step1-2-3-4 Normalization

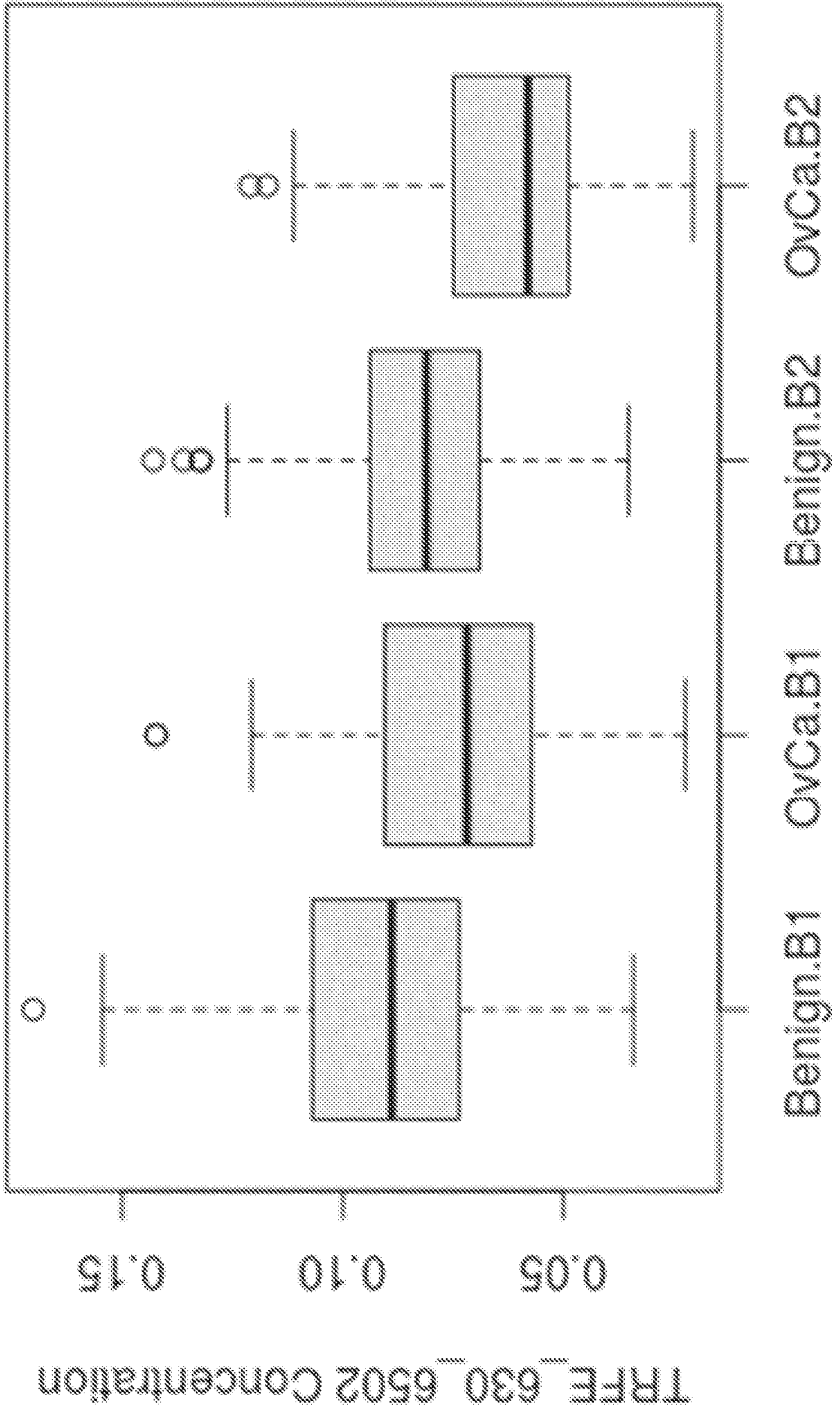


Figure 11B

Test Confusion Matrix

	True-Control	True-Case
Predicted-Control	35	4
Predicted-Case	4	26

Performance Metrics

	Train	Test
Accuracy	0.843	0.884
Sens	0.802	0.867
Spec	0.874	0.897
PPV	0.830	0.867
NPV	0.852	0.897

Figure 12A

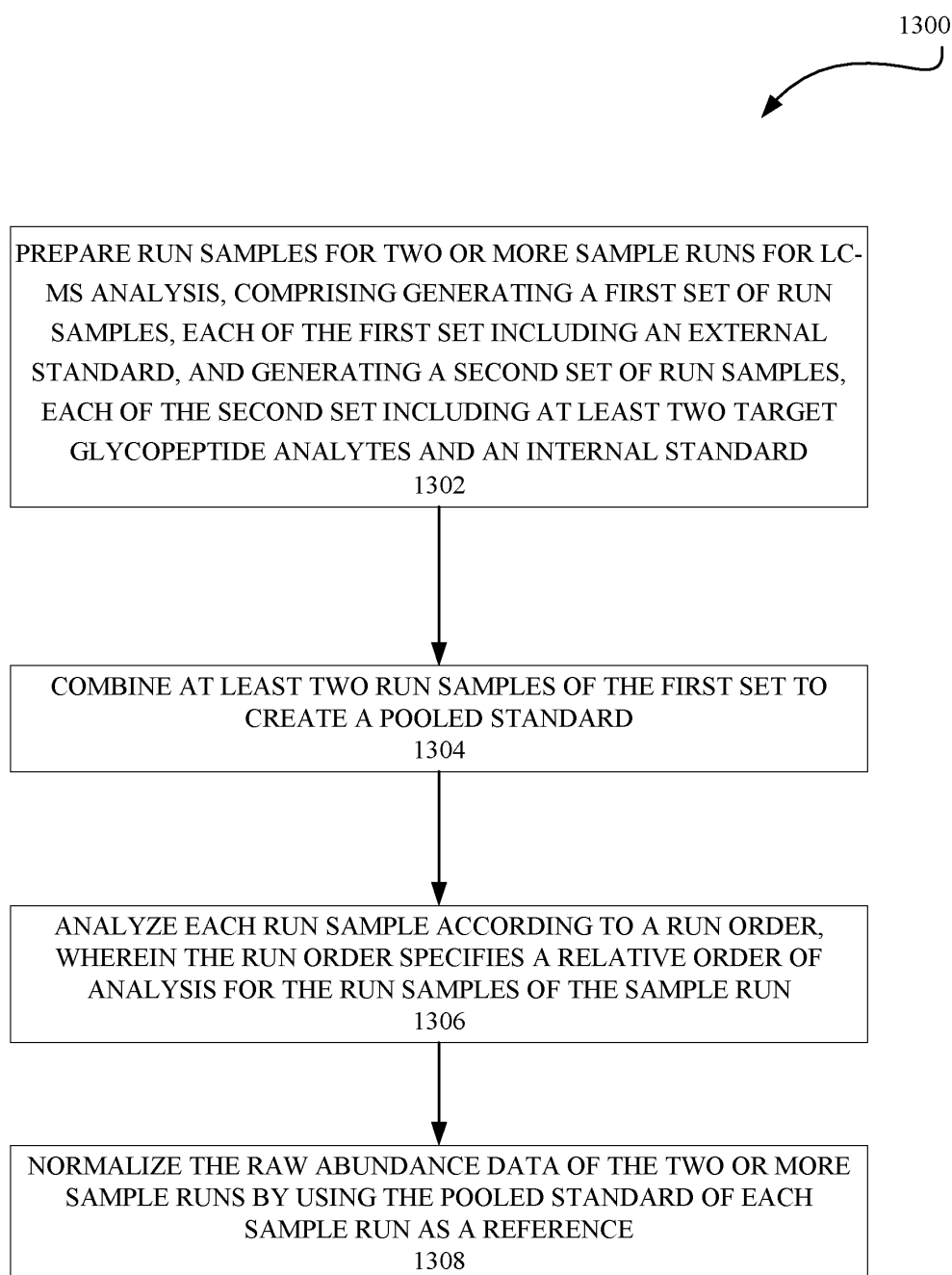
Test Confusion Matrix

	True-Control	True-Case
Predicted-Control	22	4
Predicted-Case	16	27

Performance Metrics

	X
Accuracy	0.710
Sens	0.871
Spec	0.579
PPV	0.628
NPV	0.846

Figure 12B

**Figure 13**

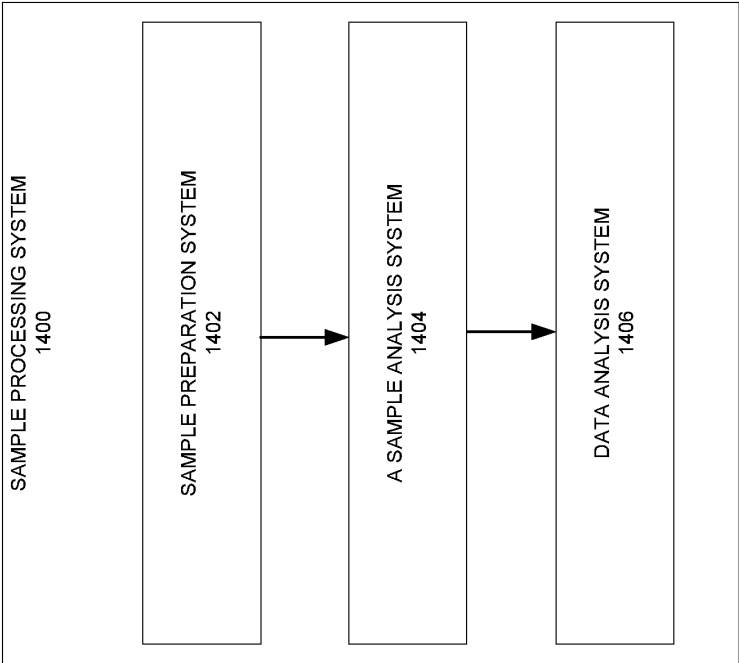


Figure 14

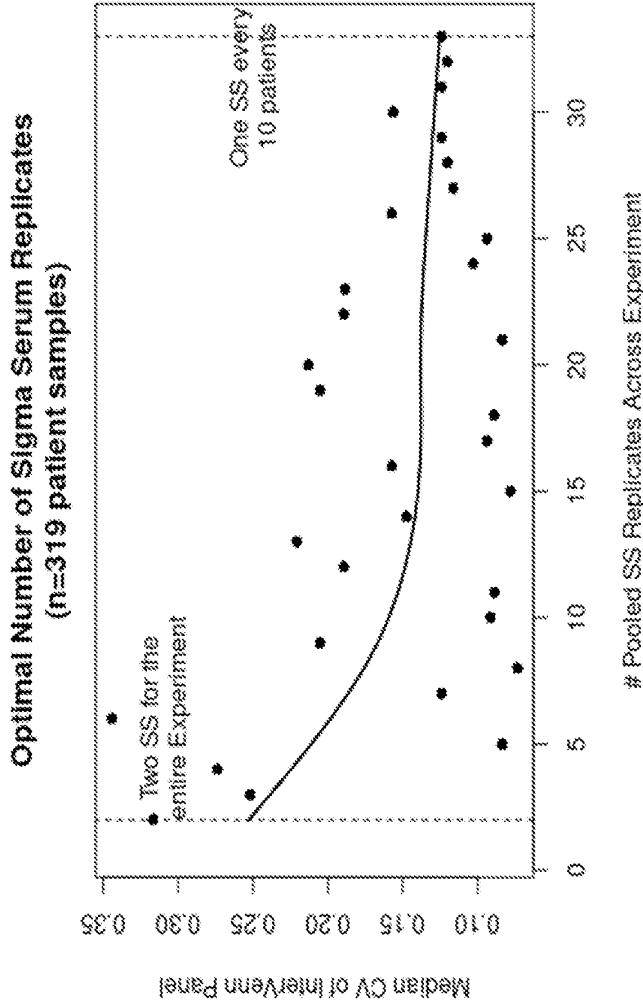


Figure 15

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Run order	sample position	New Labels
001	Vial1	BLANKS-1
002	Vial2	BSA-1
003	Vial2	BSA-3
004	Vial2	BSA-3
005	Vial1	BLANKS-1
006	P2-H11	SS-JAR1-SysEquil
007	P2-H11	SS-JAR1-SysEquil
008	P2-H11	SS-JAR1-SysEquil
009	P2-H11	SS-JAR1-SysEquil
010	P2-H11	SS-JAR1-SysEquil
011	Vial1	BLANKS-1
012	P2-H11	SS-JAR1-SysSuit
013	P1-A1	SS-JAR1-SS01
014	P1-A12	SS-JAR1-SS02
015	P1-B11	SS-JAR1-SS03
016	P1-C10	SS-JAR1-SS04
017	P1-D9	SS-JAR1-SS05
018	P1-E8	SS-JAR1-SS06
019	P2-F7	SS-JAR1-SS07
020	P1-G6	SS-JAR1-SS08
021	P1-H5	SS-JAR1-SS09
022	Vial1	BLANKS-1
023	P2-H11	SS-JAR1-SysSuit
024	P2-A4	SS-JAR1-SS10
025	P2-B3	SS-JAR1-SS11
026	P2-C2	SS-JAR1-SS12
027	P2-D1	SS-JAR1-SS13
028	P2-D12	SS-JAR1-SS14
029	P2-E11	SS-JAR1-SS15
030	P2-F10	SS-JAR1-SS16
031	P2-G9	SS-JAR1-SS17
032	P2-H8	SS-JAR1-SS18
033	Vial1	BLANKS-1
034	P2-H11	SS-JAR1-SysSuit
035	P1-A1	SS-JAR1-SS01
036	P2-C6	HVI-CRC-51
037	P2-H2	IND-CR1-51
038	P1-F12	ISP-OV1-100
039	P2-B9	HVI-CRC-350
040	P2-E1	STA-AGE-20
041	P1-H7	STA-AGE-23
042	P1-G4	HVI-CRC-352
043	P2-H4	HVI-CRC-348
044	P1-D1	HVI-CRC-229
045	P1-H10	STA-AGE-37
046	Vial1	BLANKS-1
047	P2-H12	SS-JAR1-SysSuit
048	P1-A12	SS-JAR1-SS02
049	P1-B1	HVI-CRC-169
050	P1-B12	HVI-CRC-353
051	P1-A6	STA-AGE-44
052	P2-D4	HVI-CRC-264
053	P2-H3	IND-CR1-23
054	P1-B6	STA-AGE-46
055	P2-G11	STA-AGE-7
056	P1-F11	PAL-HVD-38
057	P1-G10	HVI-CRC-383
058	P1-G2	IND-CR1-10
059	Vial1	BLANKS-1
060	P2-H11	SS-JAR1-SysSuit
061	P1-B11	SS-JAR1-SS03
062	P2-F3	STA-AGE-14
063	P2-A2	HVI-CRC-263
064	P2-C4	STA-AGE-49
236	P1-E7	HVI-CRC-300
237	P1-C1	HVI-CRC-360
238	P2-D8	HVI-CRC-293
239	P1-A11	STA-AGE-13
240	P1-H8	HVI-CRC-81
241	Vial1	BLANKS-1
242	P2-H11	SS-JAR1-SysSuit
243	P2-G9	SS-JAR1-SS17
244	P1-F9	HVI-CRC-89
245	P2-E3	HVI-CRC-237
246	P2-B4	IND-CR1-13
247	P2-G8	HVI-CRC-49
248	P2-E10	IND-CR1-27
249	P1-B7	STA-AGE-16
250	P2-G3	IND-CR1-6
251	P1-D8	HVI-CRC-79
252	P1-E4	STA-AGE-11
253	P1-C12	HVI-CRC-69
254	Vial1	BLANKS-1
255	P2-H11	SS-JAR1-SysSuit
256	P2-H8	SS-JAR1-SS18
257	Vial1	BLANKS-1
258	P2-H11	SS-JAR1-SysSuit
259	Vial1	BLANKS-1
260	Vial1	BLANKS-1
261	Vial2	BSA-1
262	Vial2	BSA-1
263	Vial2	BSA-1
264	Vial1	BLANKS-1
265	Vial1	BLANKS-1
266	Vial1	BLANKS-1
267	Vial1	BLANKS-1

Figure 16

SUBSTITUTE SHEET (RULE 26)

Plate 1												
	1	2	3	4	5	6	7	8	9	10	11	12
A	SS01	AF005	AK215	AK381	AK101	Z044	AK373	AK057	S092	AK273	Z013	SS02
B	AK169	AF062	Z017	AK119	Q049	Z046	Z016	Z045	Z024	AK218	SS03	AK353
C	AK360	Z043	Z002	AK359	Z031	Q043	AK386	AK052	AK030	S004	AF012	AK069
D	AK229	Z042	AK333	Z048	AK299	AK281	Z034	AK079	SS05	AK055	AF004	AK200
E	Q046	Z015	AK274	Z011	AK212	AK033	AK300	SS06	AF028	AK086	AK006	AK103
F	AK029	AK010	AK337	AK217	AK335	AF052	SS07	AK130	AK089	AK266	Q038	S100
G	S129	AF010	Z035	AK352	AK068	SS08	AK356	AK222	AK170	AK383	AF022	AK221
H	Z001	AK246	Z029	AK326	SS09	AK042	Z023	AK081	AK191	Z037	S128	AF045
Plate 2												
	1	2	3	4	5	6	7	8	9	10	11	12
A	AK053	AK263	AF019	SS10	AK168	AK285	AK092	AK369	Z047	AK272	AK111	AK098
B	AF043	Q050	SS11	AF013	AK134	AK322	Z003	AK196	AK350	AK249	AK073	AK344
C	Z032	SS12	AK060	Z049	AK232	AK051	AK071	Z008	AK192	S109	AK129	AK288
D	SS13	AF042	AK062	AK264	AK026	AK133	AK284	AK293	AK380	Z038	AK189	SS14
E	Z020	S095	AK237	AK270	AK298	AK339	AF053	AK082	Q053	AF027	SS15	AK138
F	AK324	S099	Z014	Z018	S122	AK016	AK278	AK376	S102	SS16	AK207	AK312
G	AK362	AK185	AF006	AF068	AK201	AK070	Z022	AK049	SS17	Z027	Z007	Q054
H	Q044	AF051	AF023	AK348	AK219	Z021	AF021	SS18	AF026	AF063	SS	SS

Figure 17