

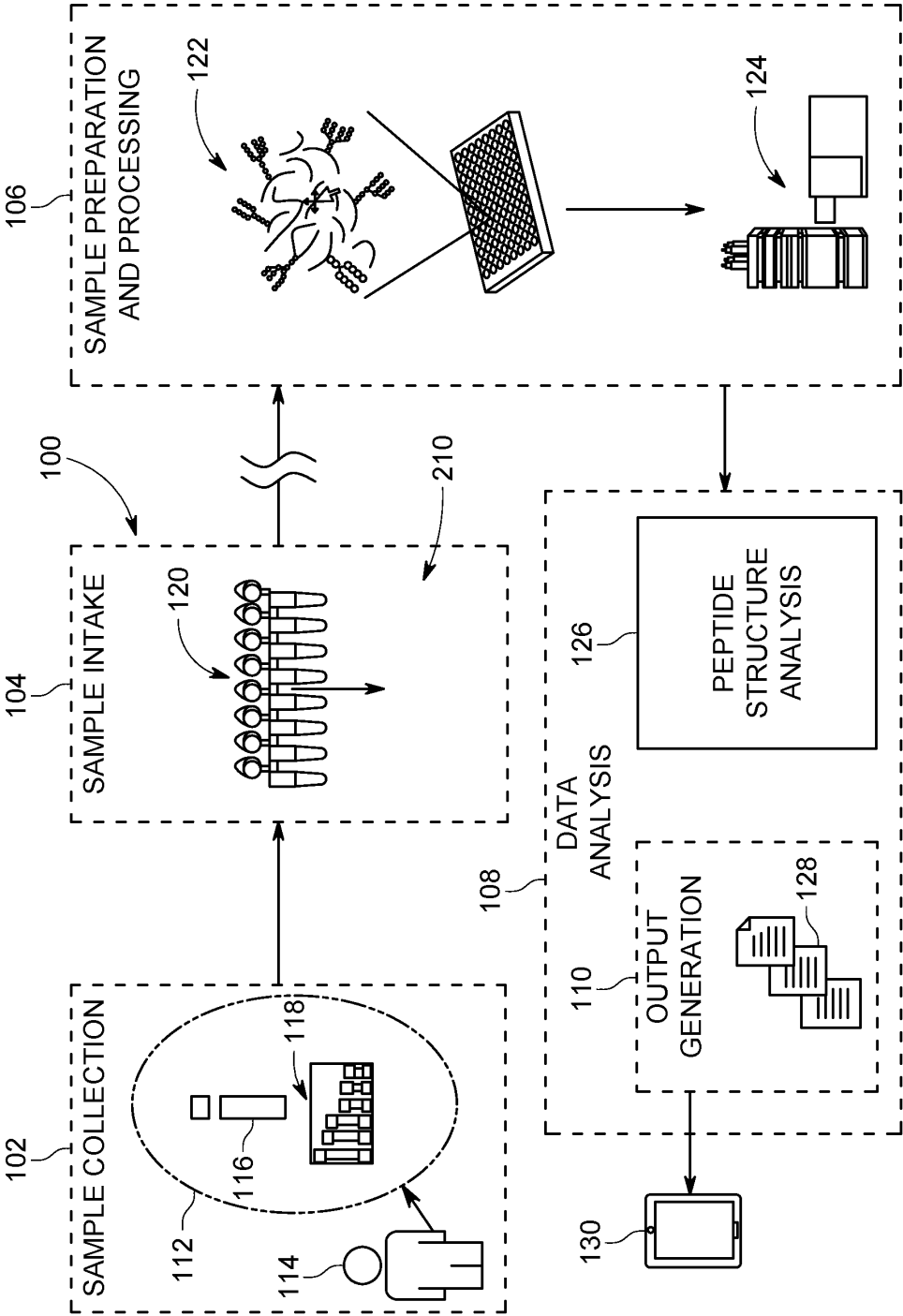


FIG. 1

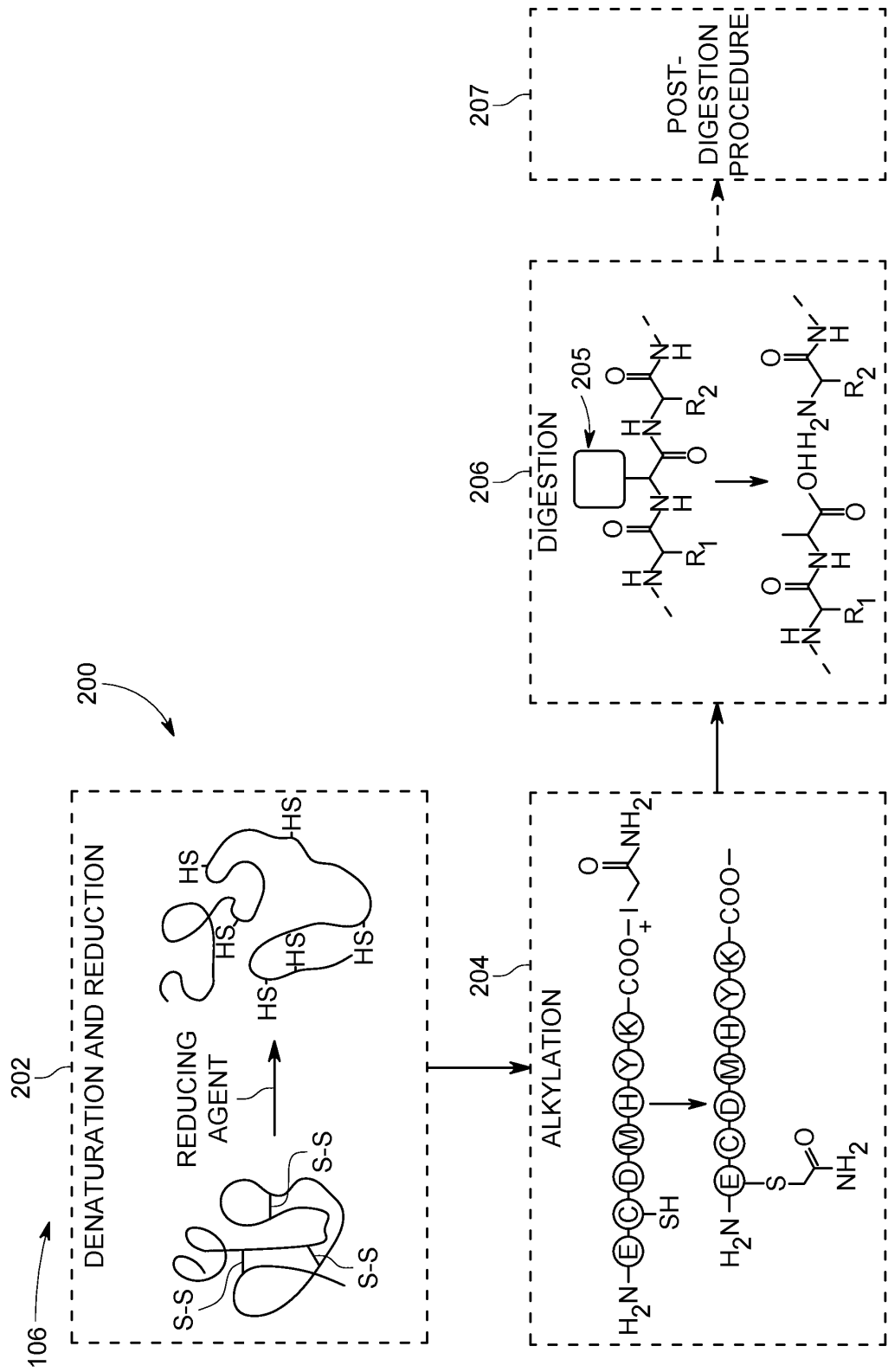


FIG. 2A

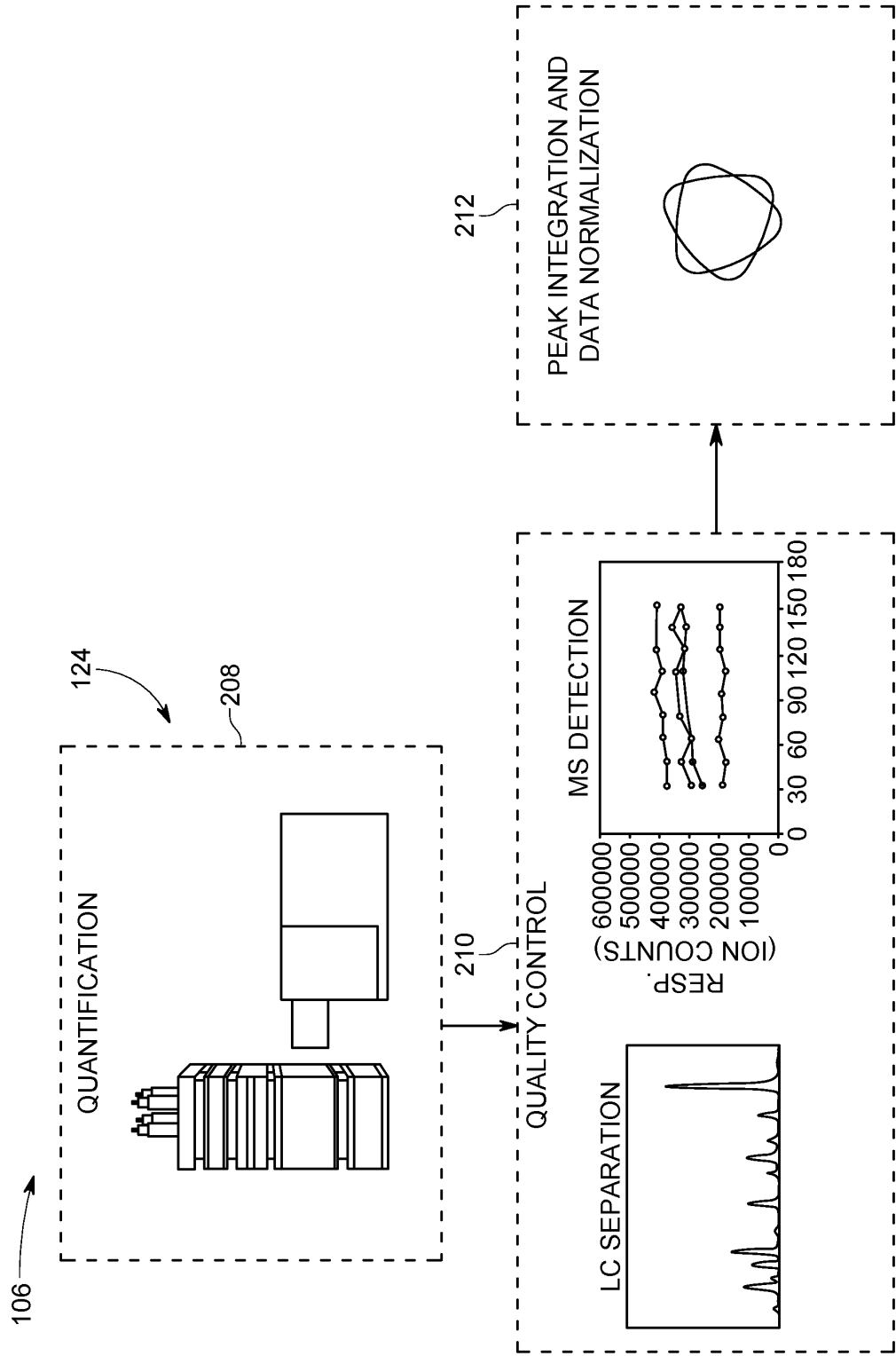


FIG. 2B

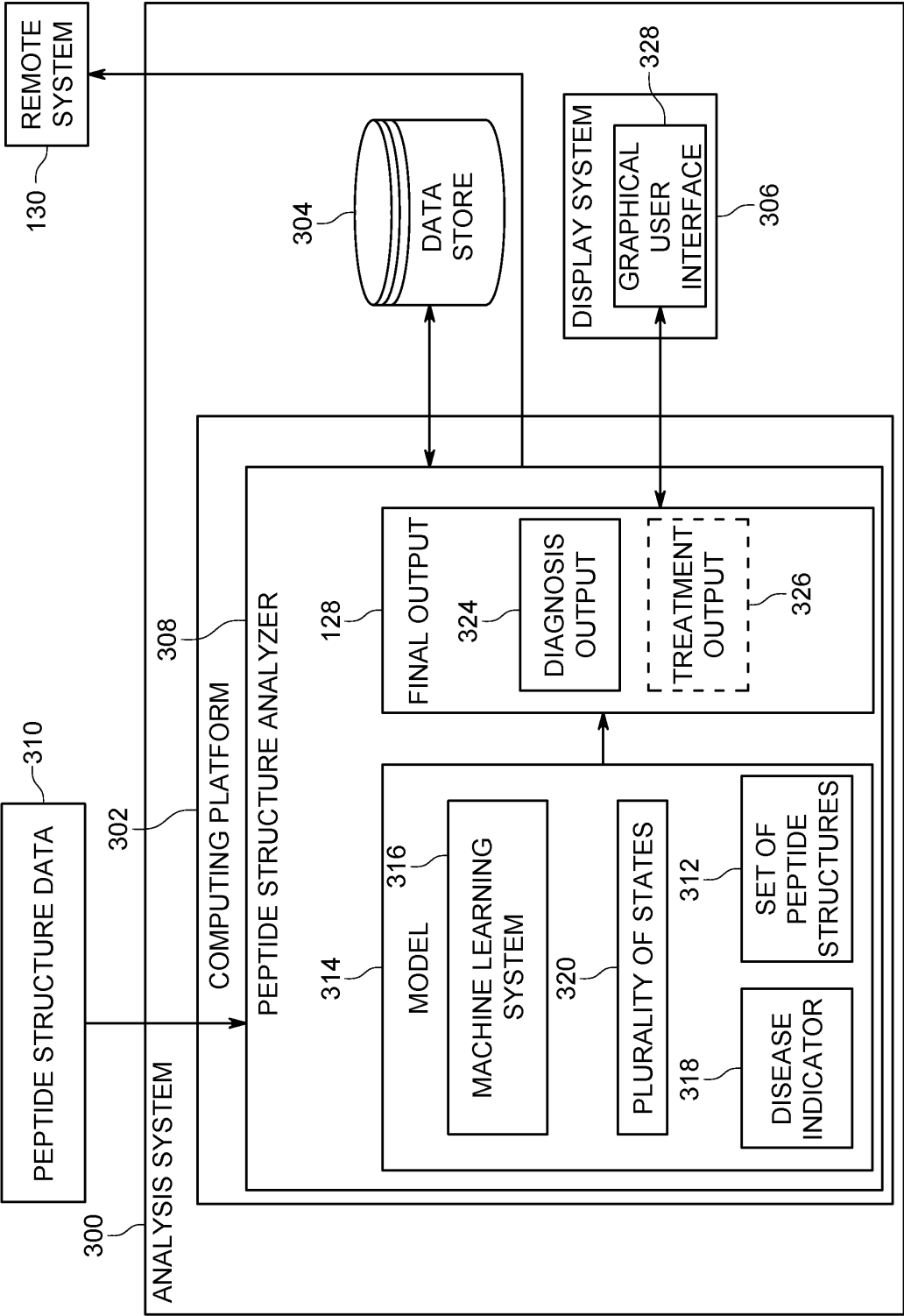


FIG. 3

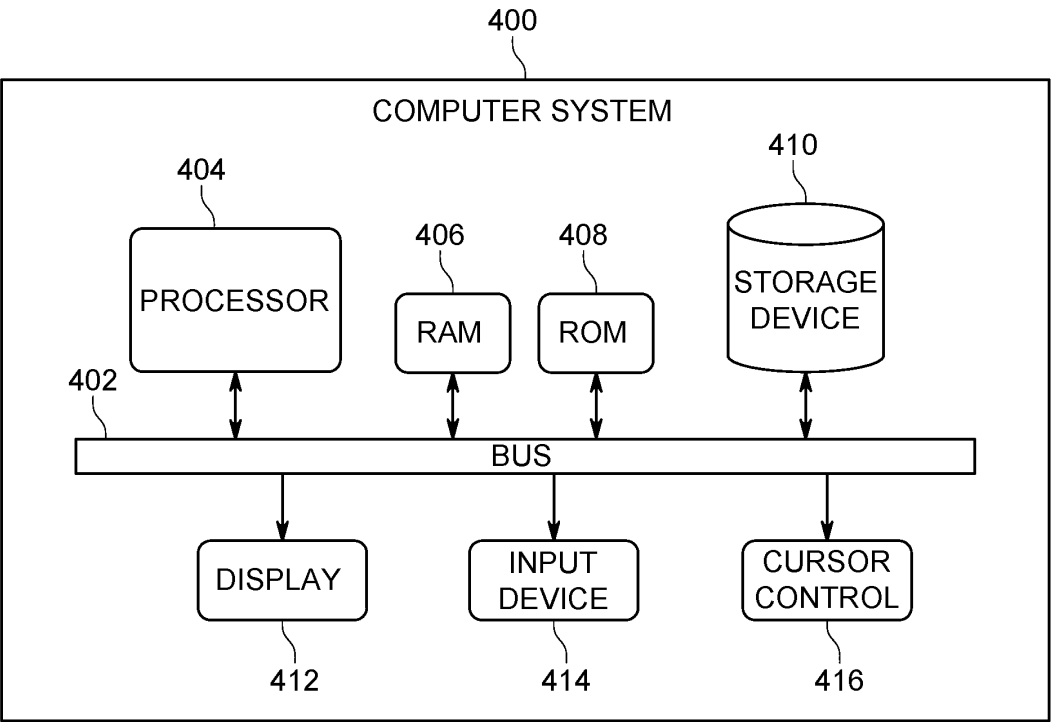


FIG. 4

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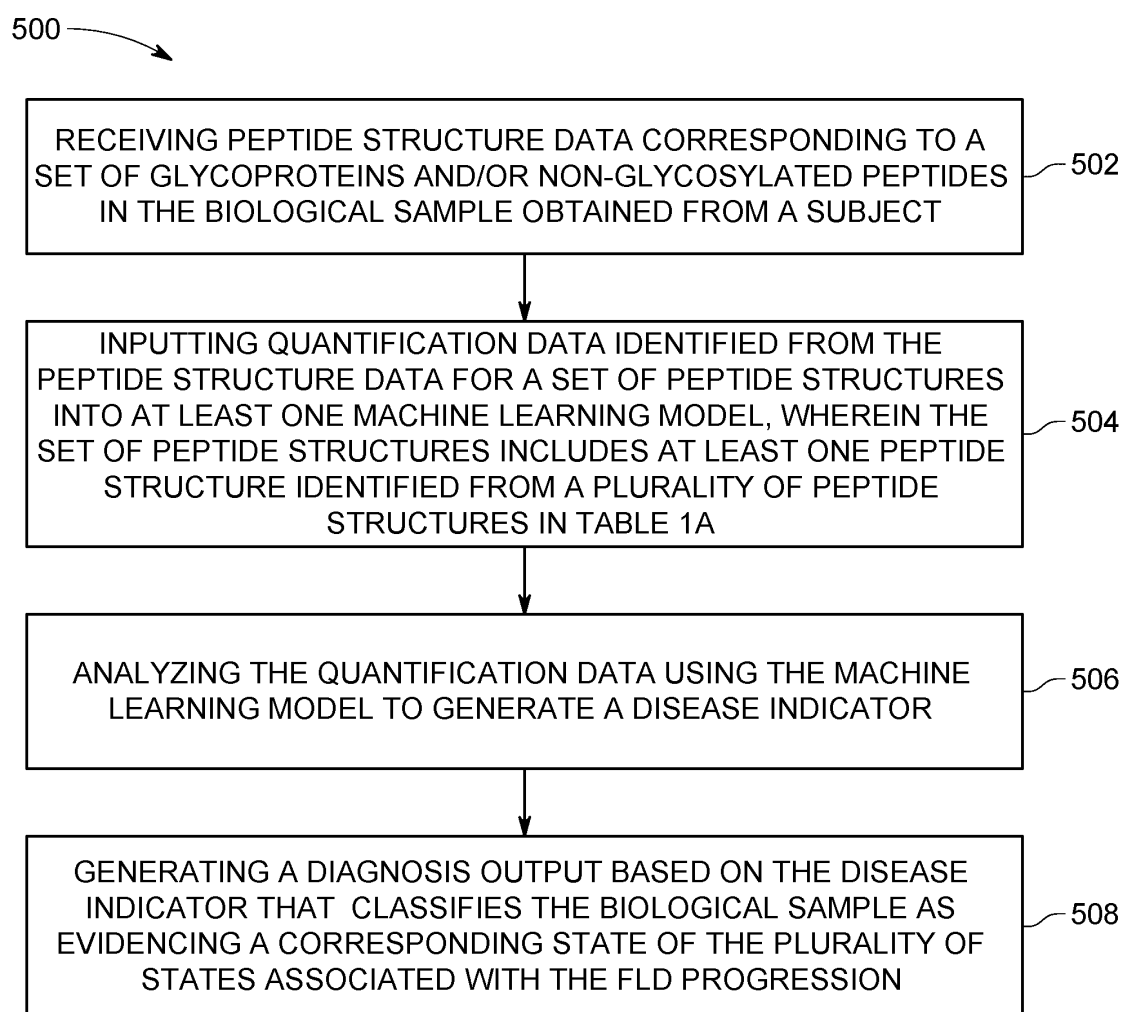


FIG. 5

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600

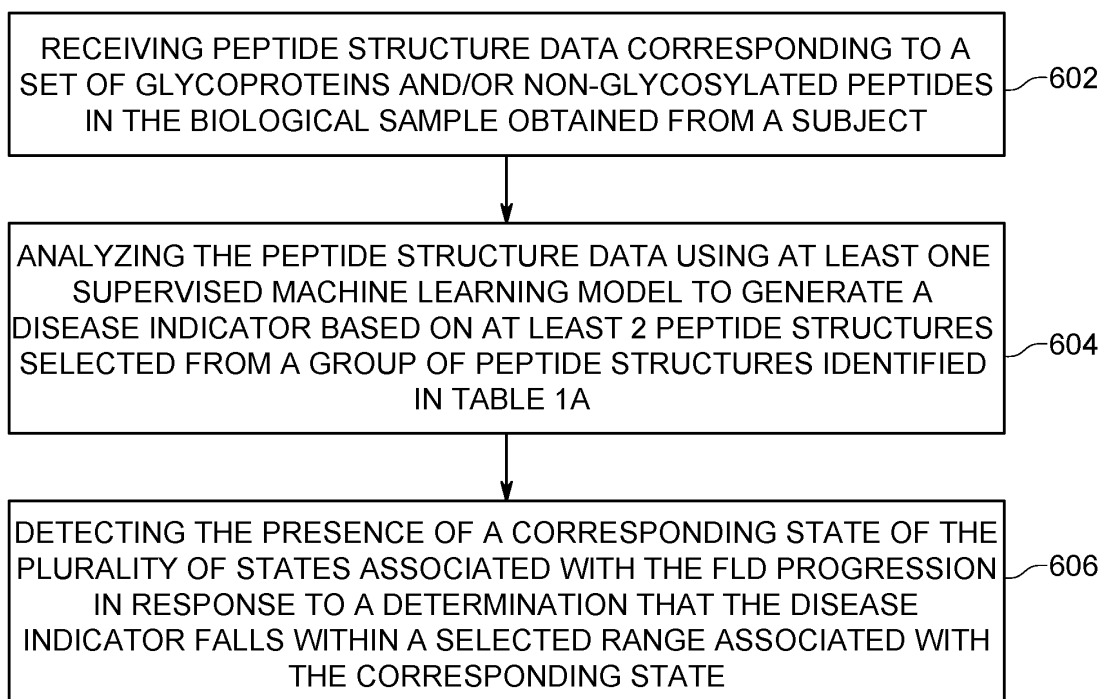


FIG. 6

700a

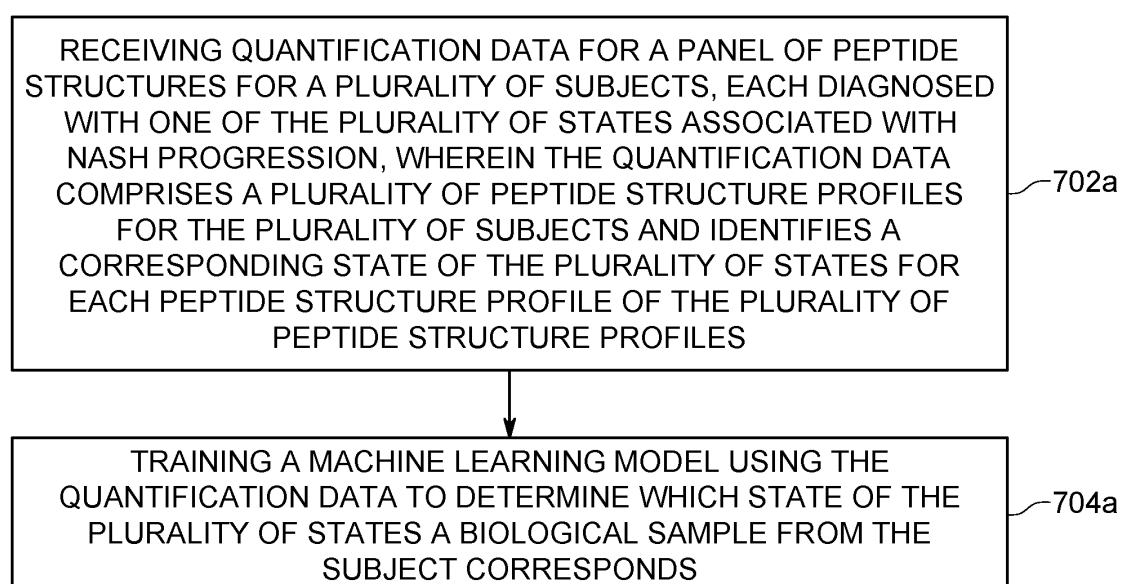


FIG. 7A

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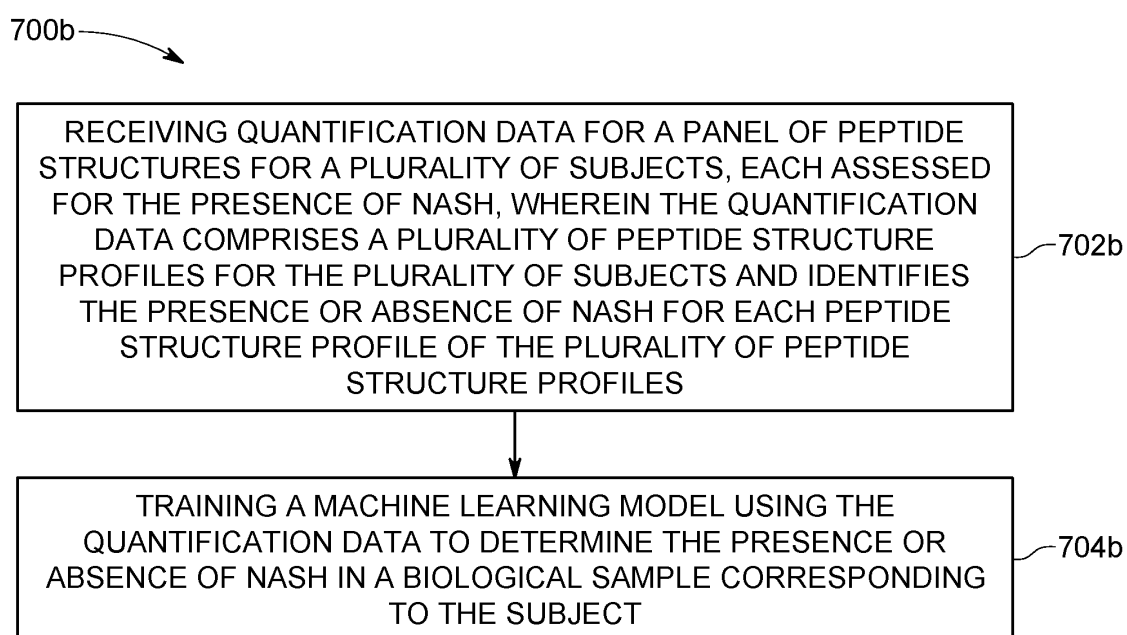


FIG. 7B

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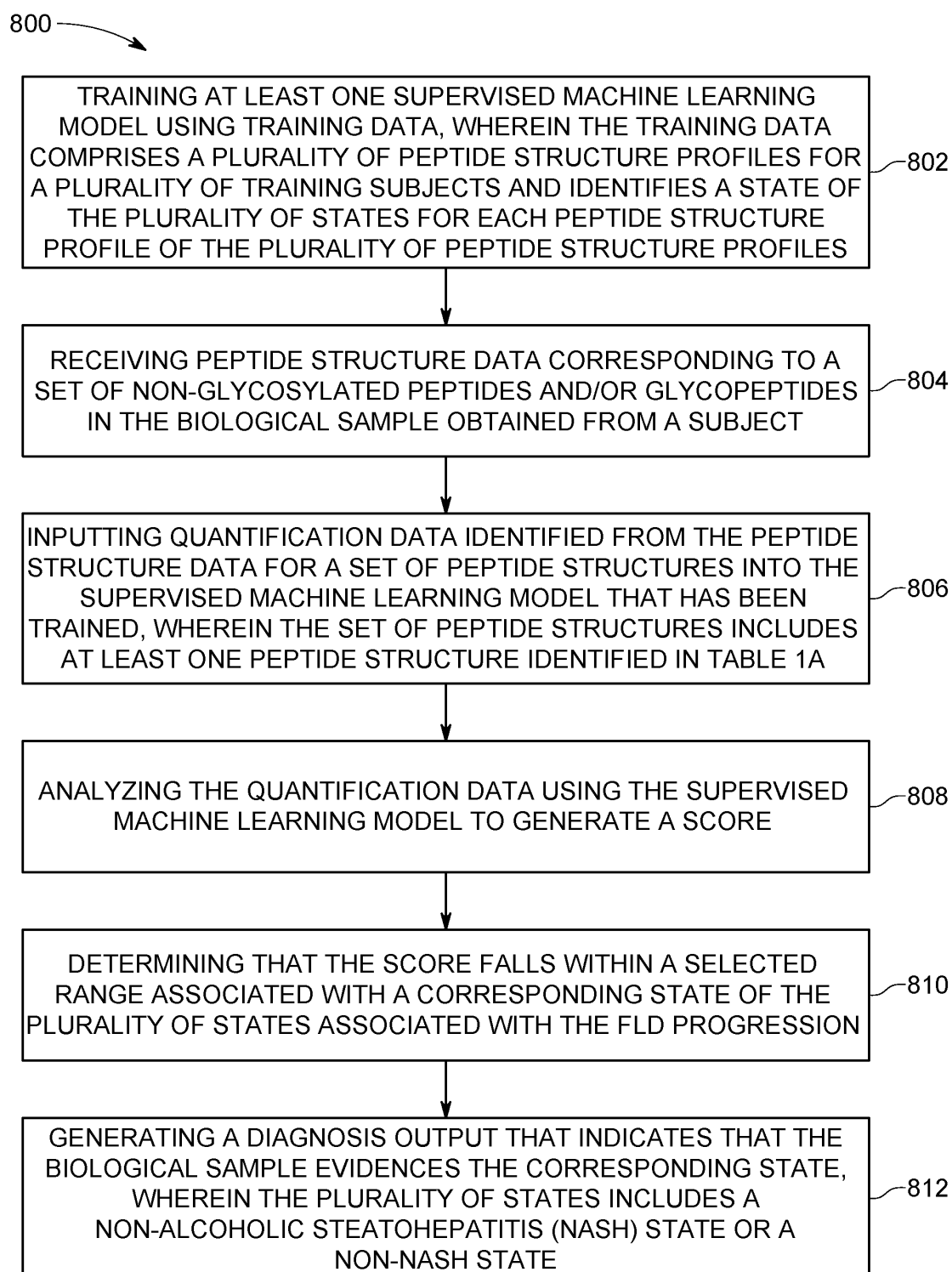


FIG. 8

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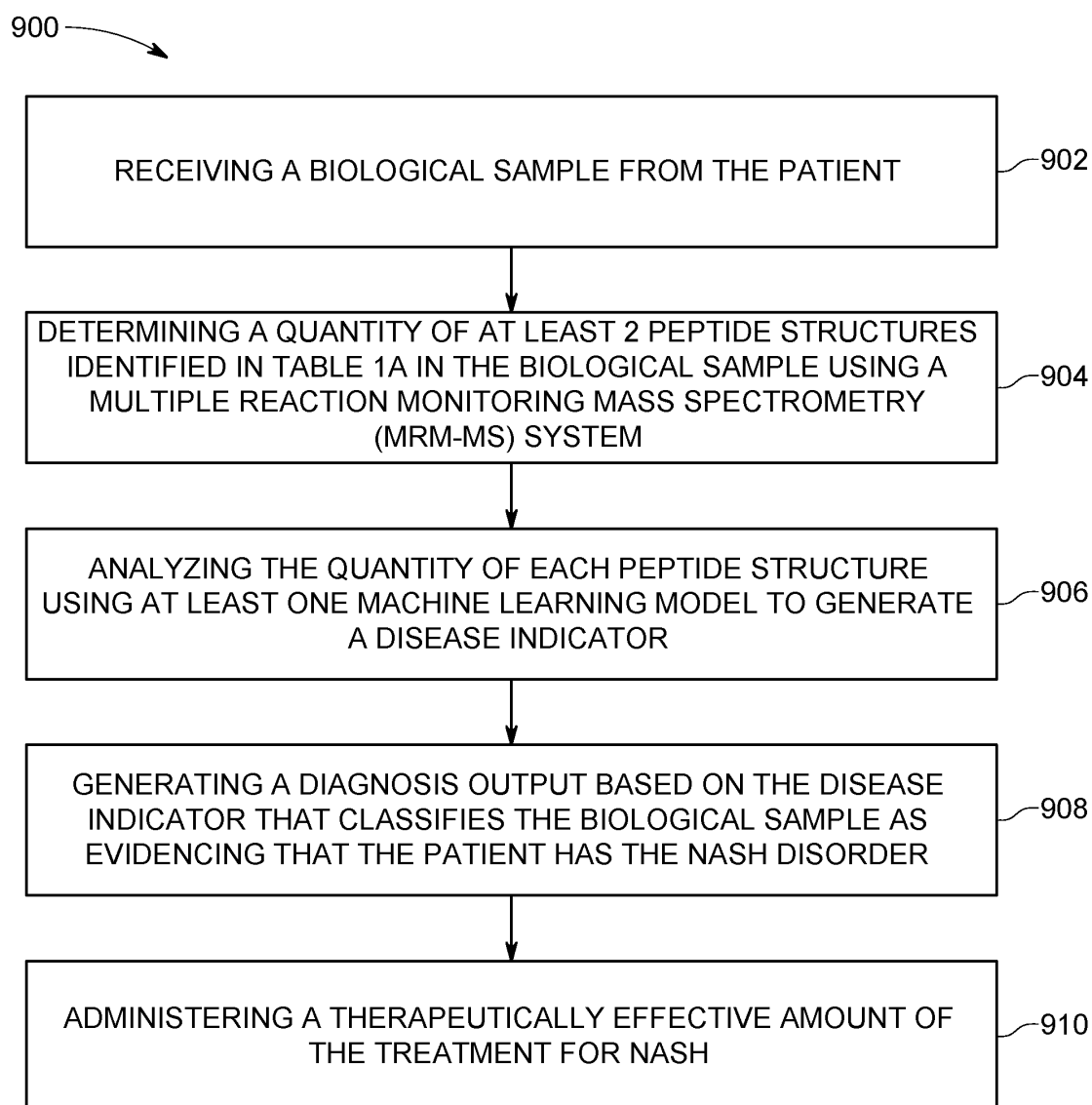
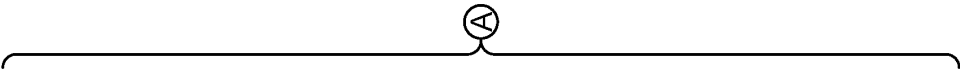


FIG. 9



SAMPLE DISTRIBUTION

COHORT	NUMBER
CONTROL	142
NASH	109

	NUMBER	GENDER			SMOKER STATUS		
		MALE	FEMALE	GENDER UNKNOWN	SMOKER	NON SMOKER	SMOKING STATUS UNKNOWN
SAMPLES							
CONTROL	142	66	76	-	-	-	-
NASH (F1)	21	9	11	1	15	5	1
NASH (F1)	17	15	2	-	11	6	-
NASH (F2)	24	20	4	-	7	17	-
NASH (F3)	42	39	3	-	17	25	-
NASH (F4)	4	4	0	-	3	1	-
STAGE UNKNOWN	1	1	0	-	-	1	-

FIG. 10

A

ETHNICITY				
CAUCASIAN	ASIAN	HISPANIC	AFRICAN AMERICAN	RACE UNKNOWN
131	1	2	7	1
21	-	-	-	-
17	-	-	-	-
24	-	-	-	-
42	-	-	-	-
4	-	-	-	-
1	-	-	-	-

FIG. 10(Continued)

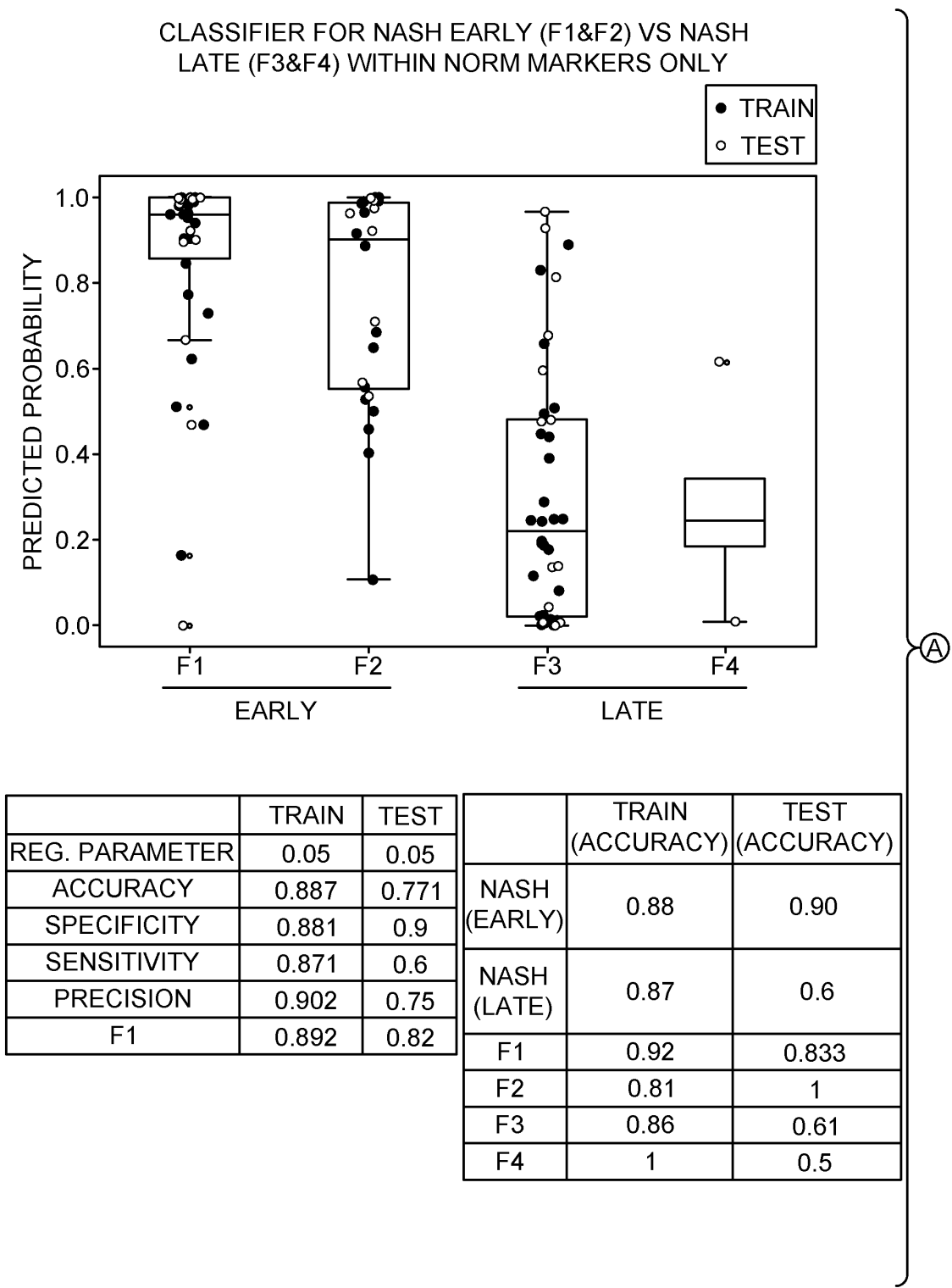


FIG. 11

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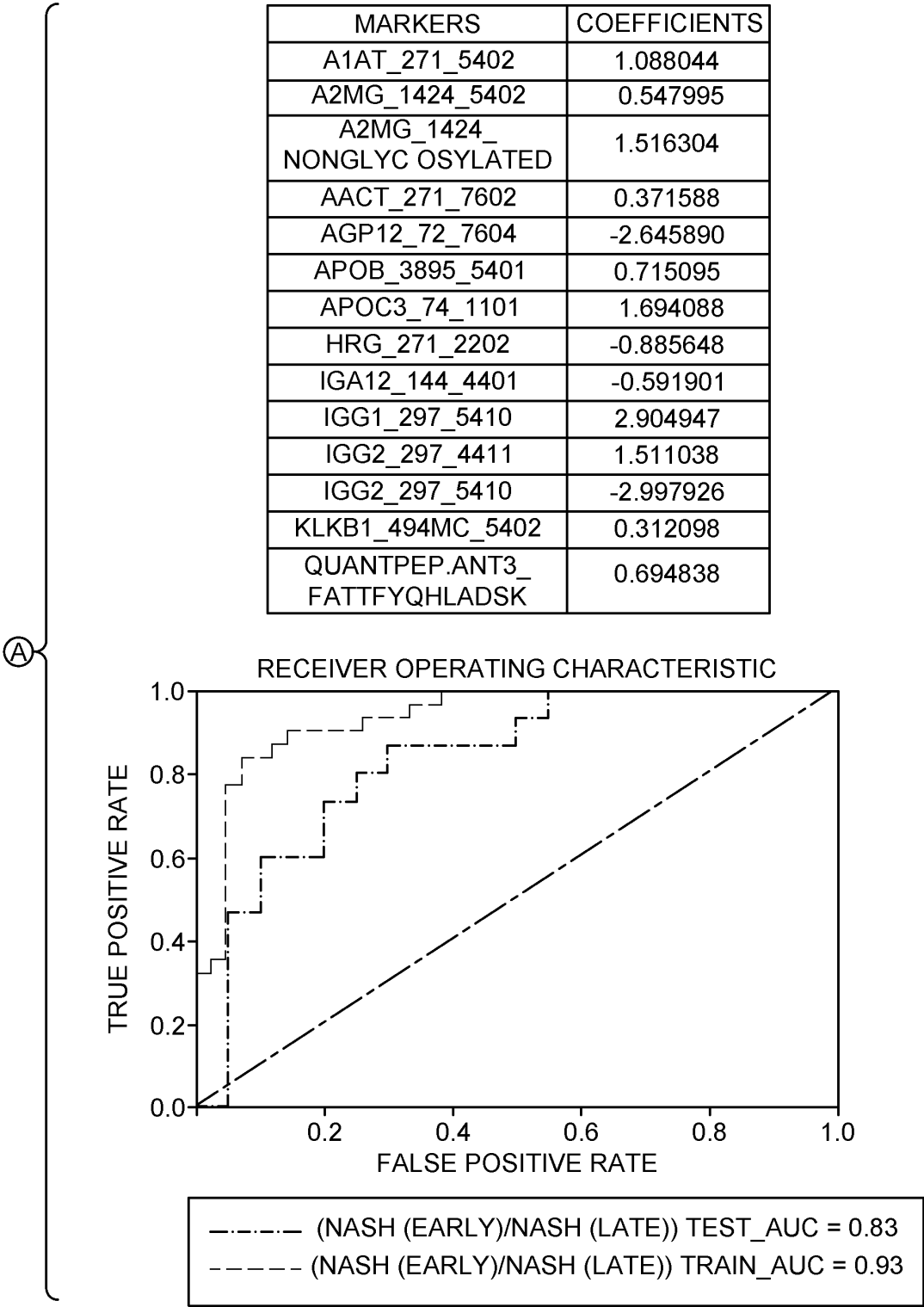


FIG. 11(Continued)

SUBSTITUTE SHEET (RULE 26)

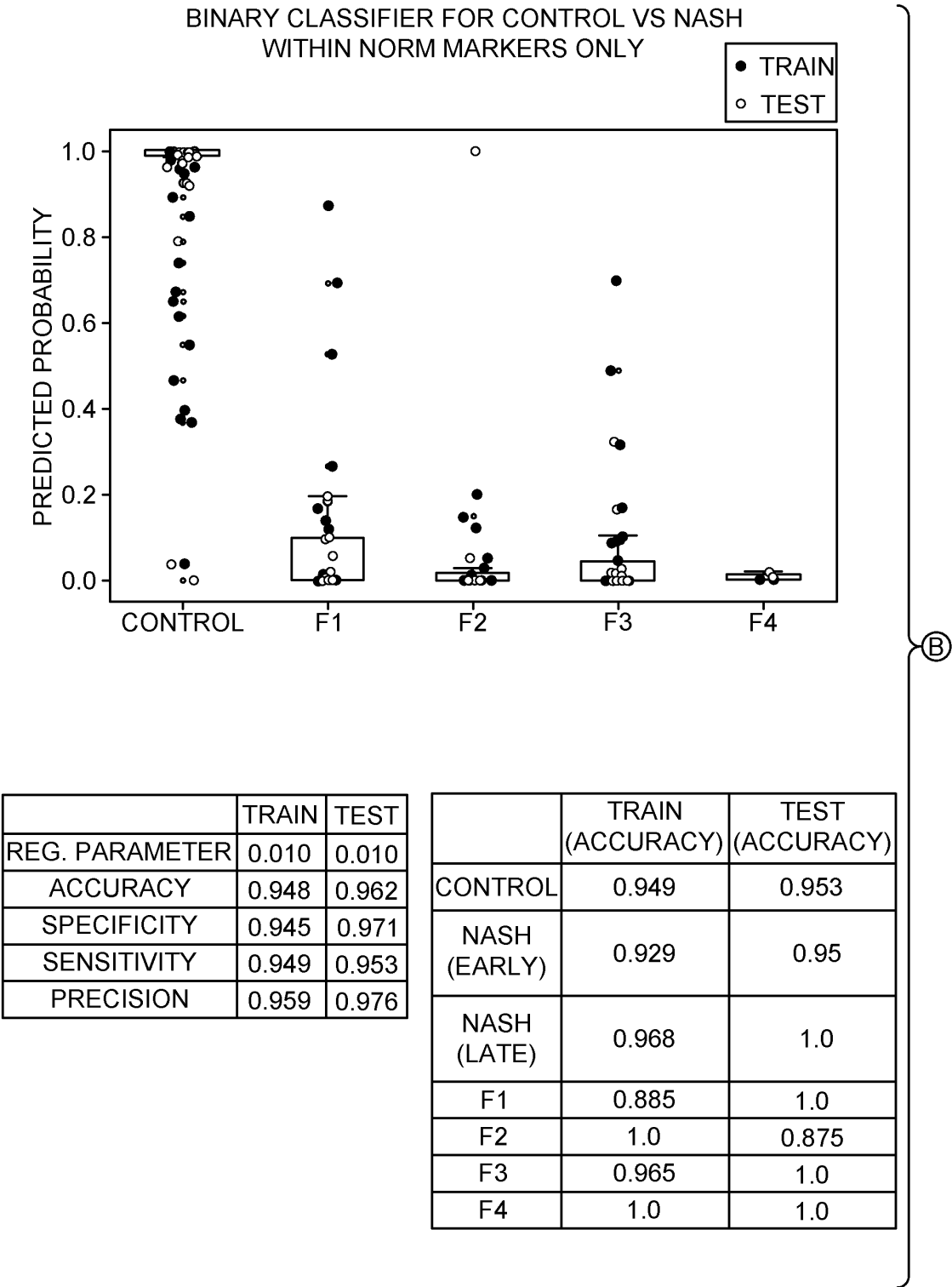


FIG. 12

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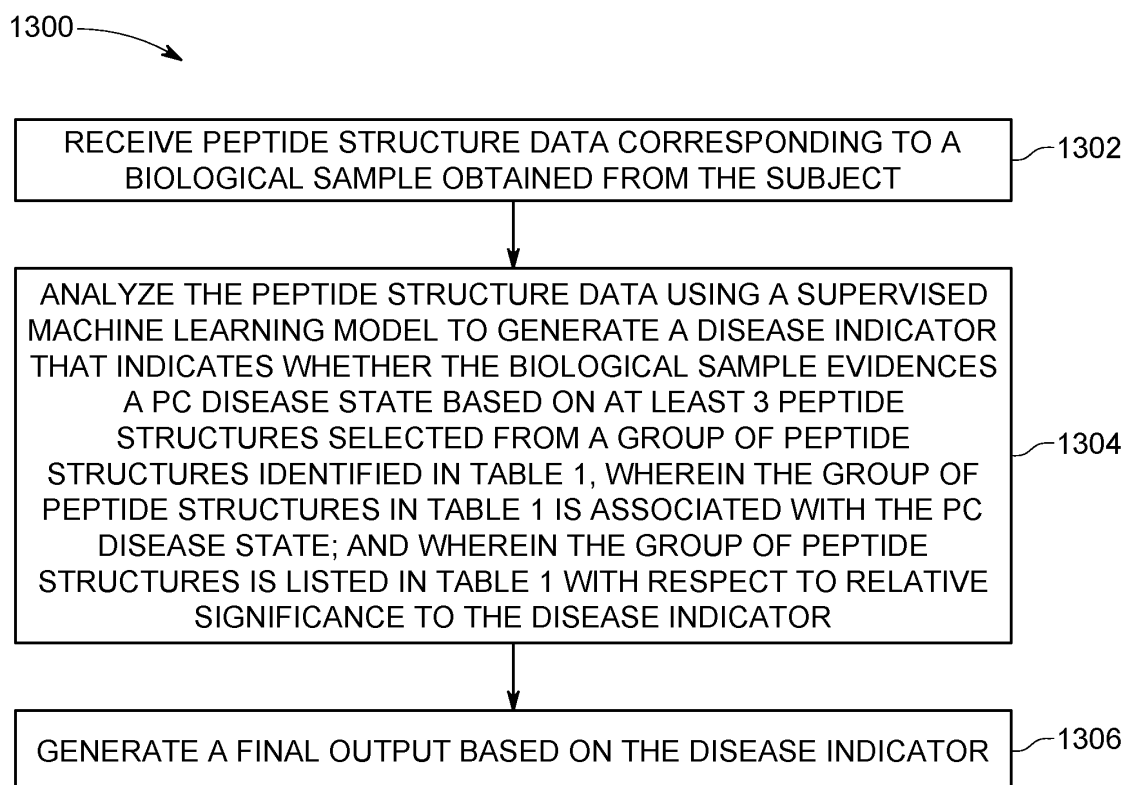


FIG. 13

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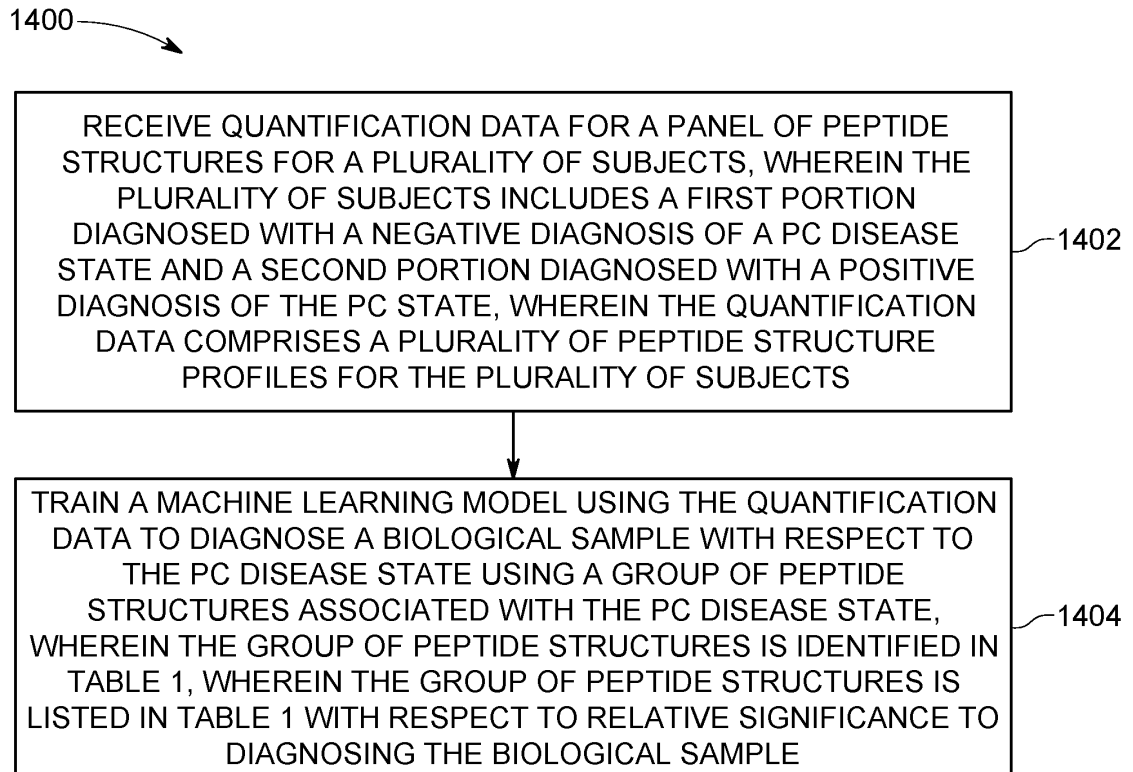


FIG. 14

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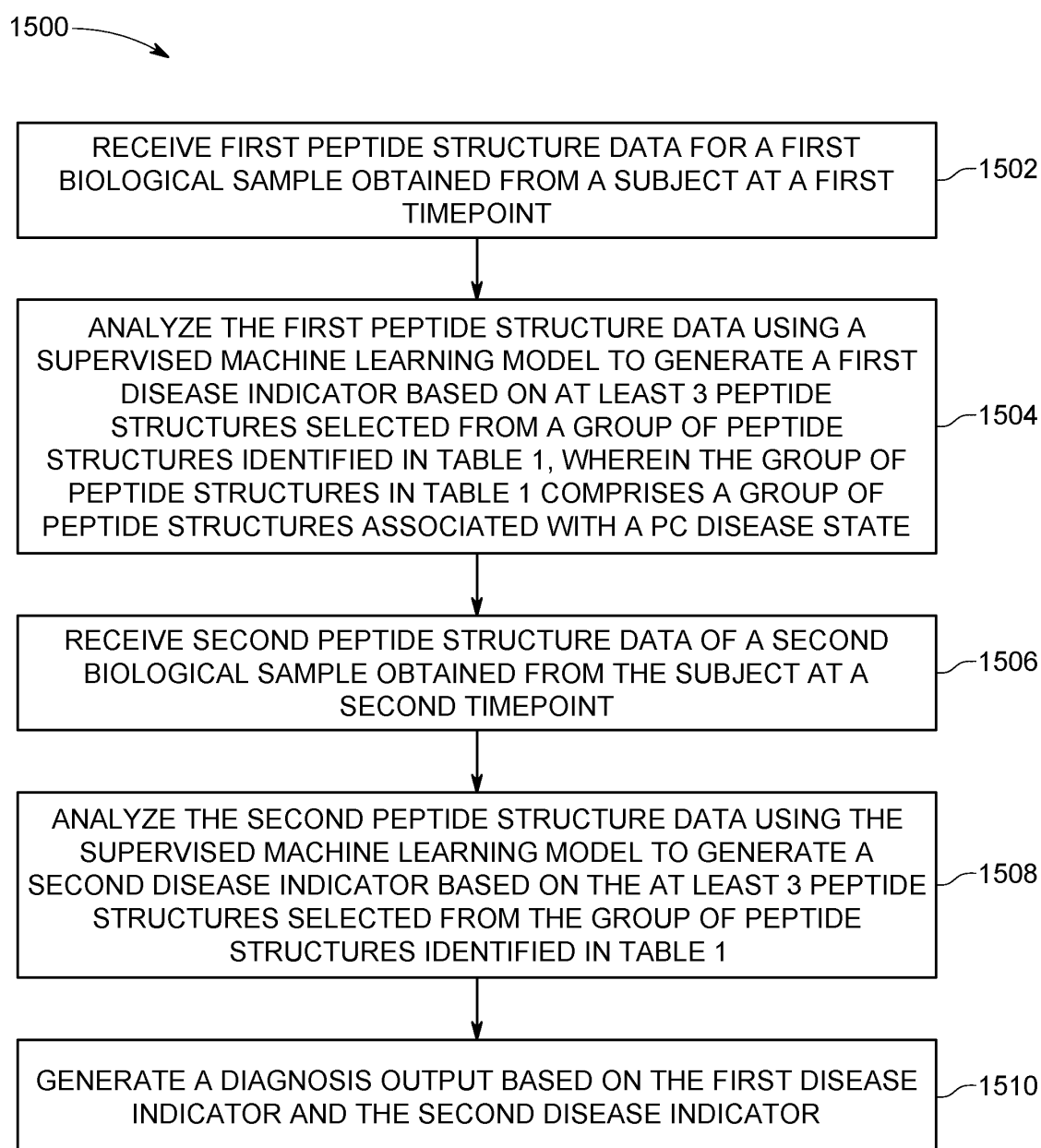


FIG. 15

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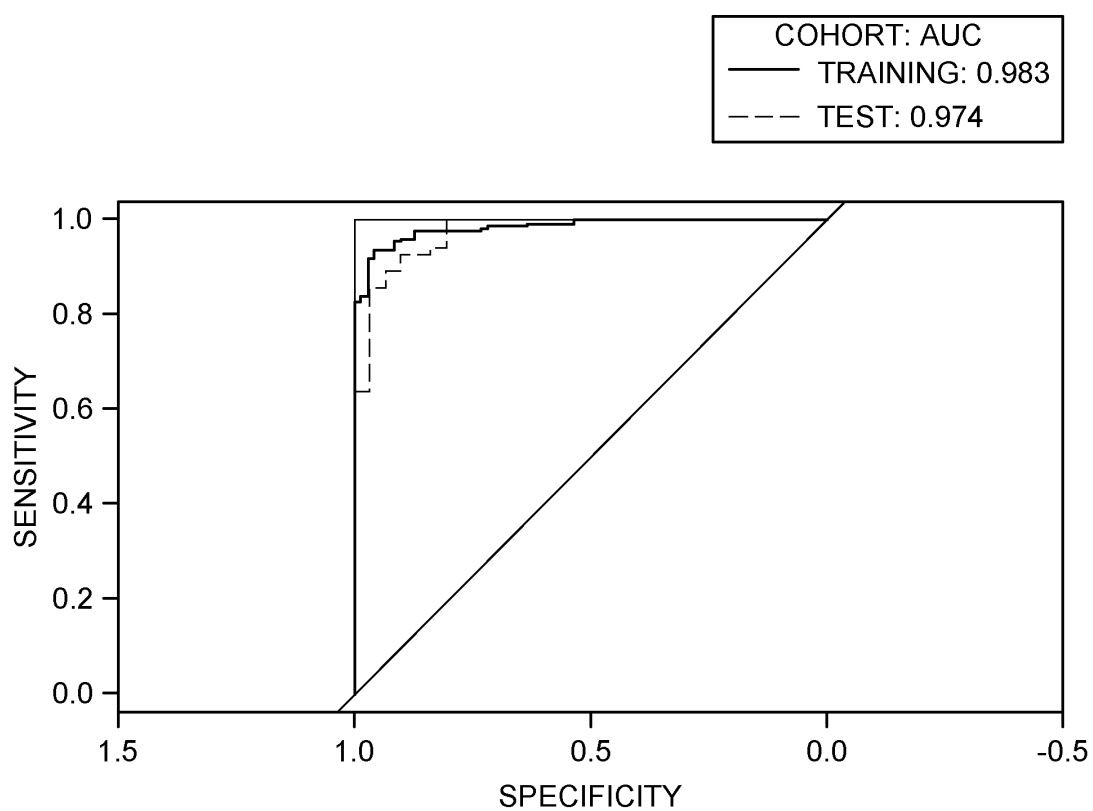


FIG. 16

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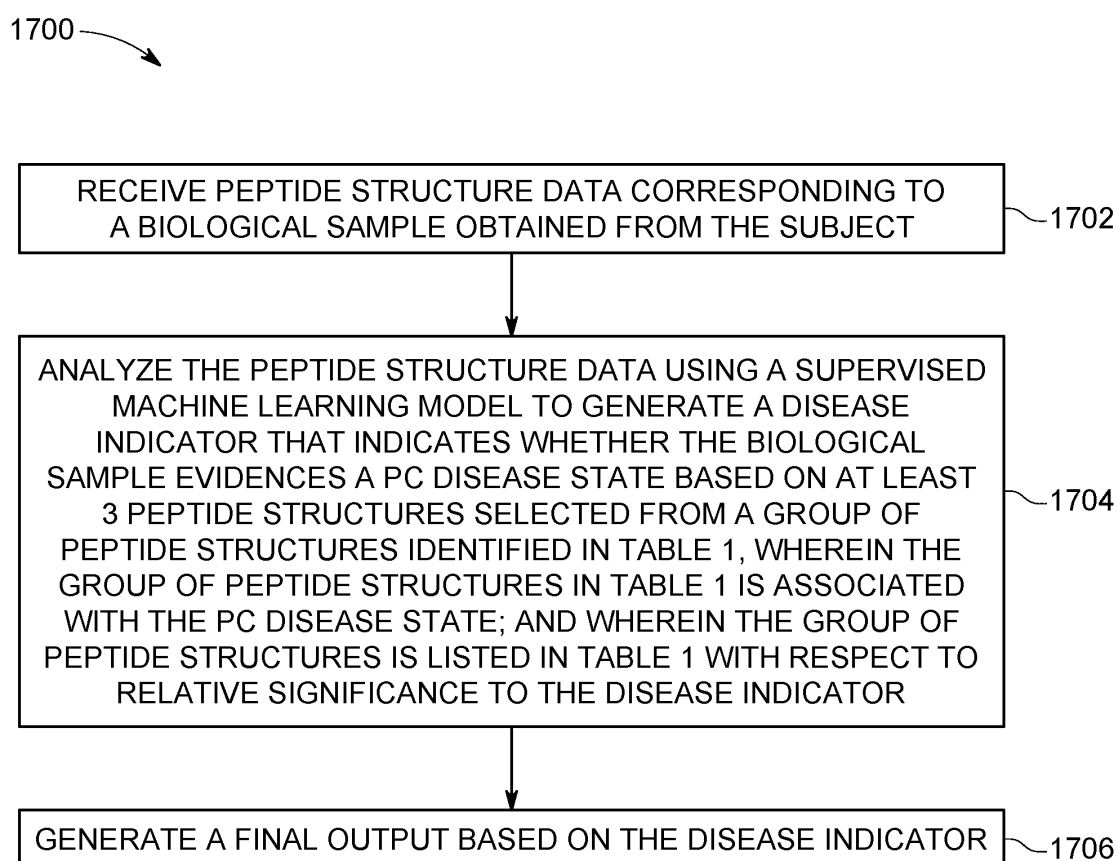


FIG. 17

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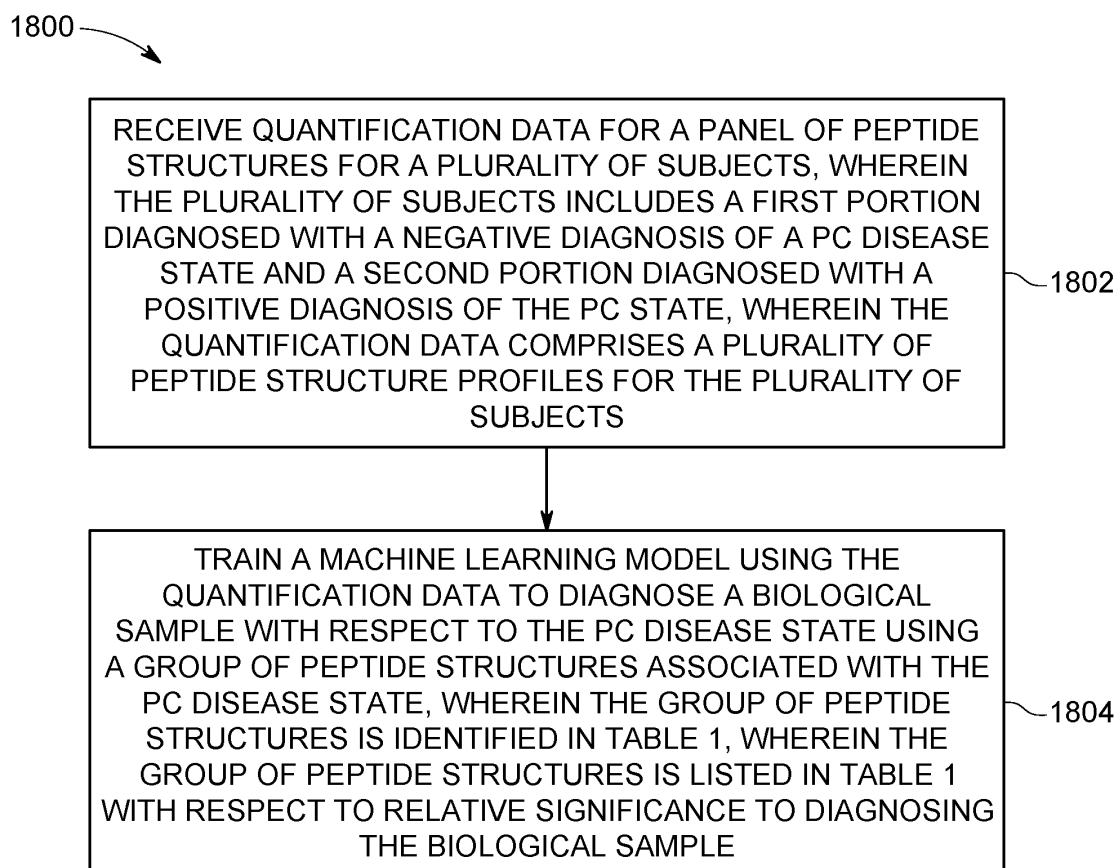


FIG. 18

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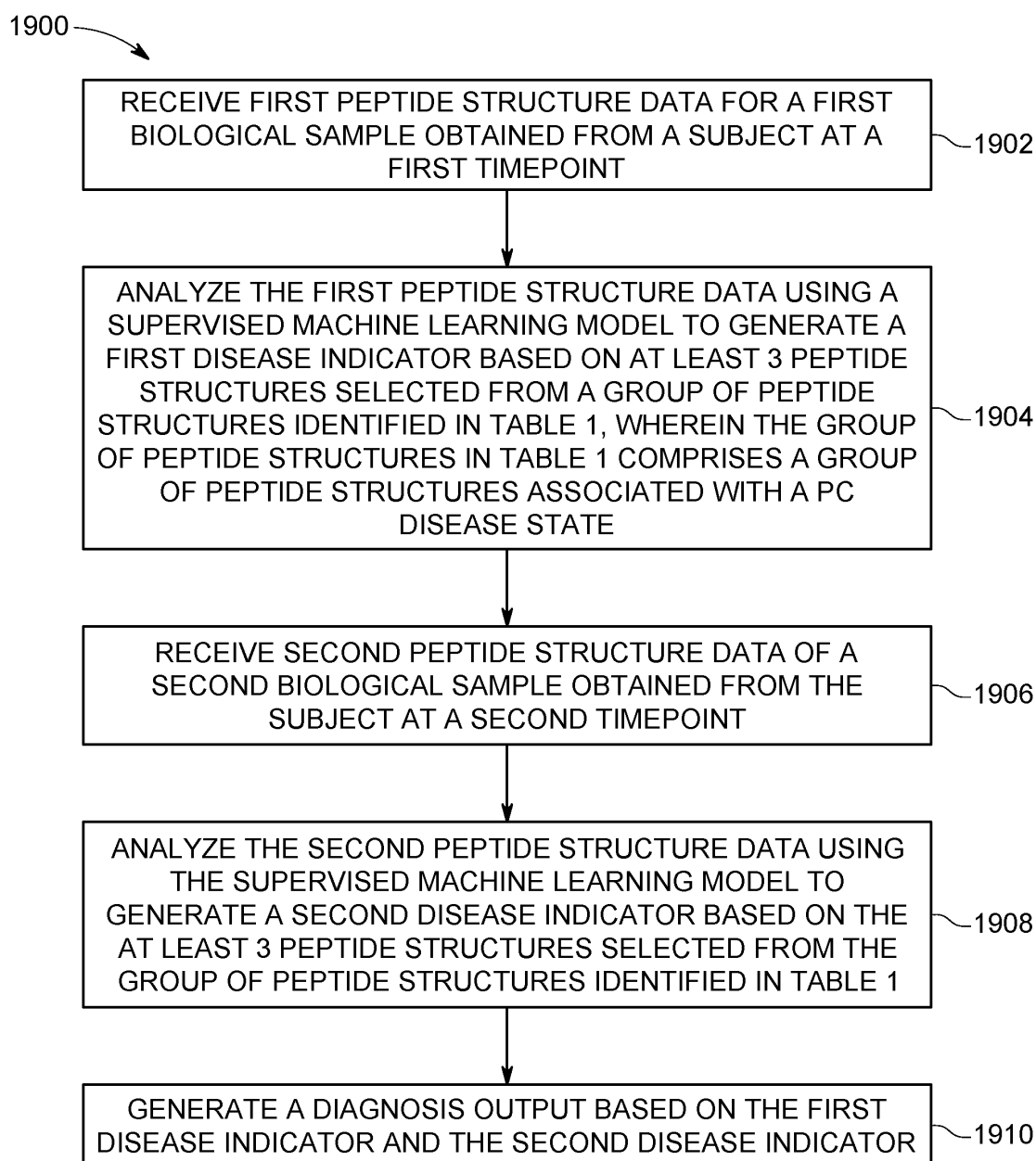


FIG. 19

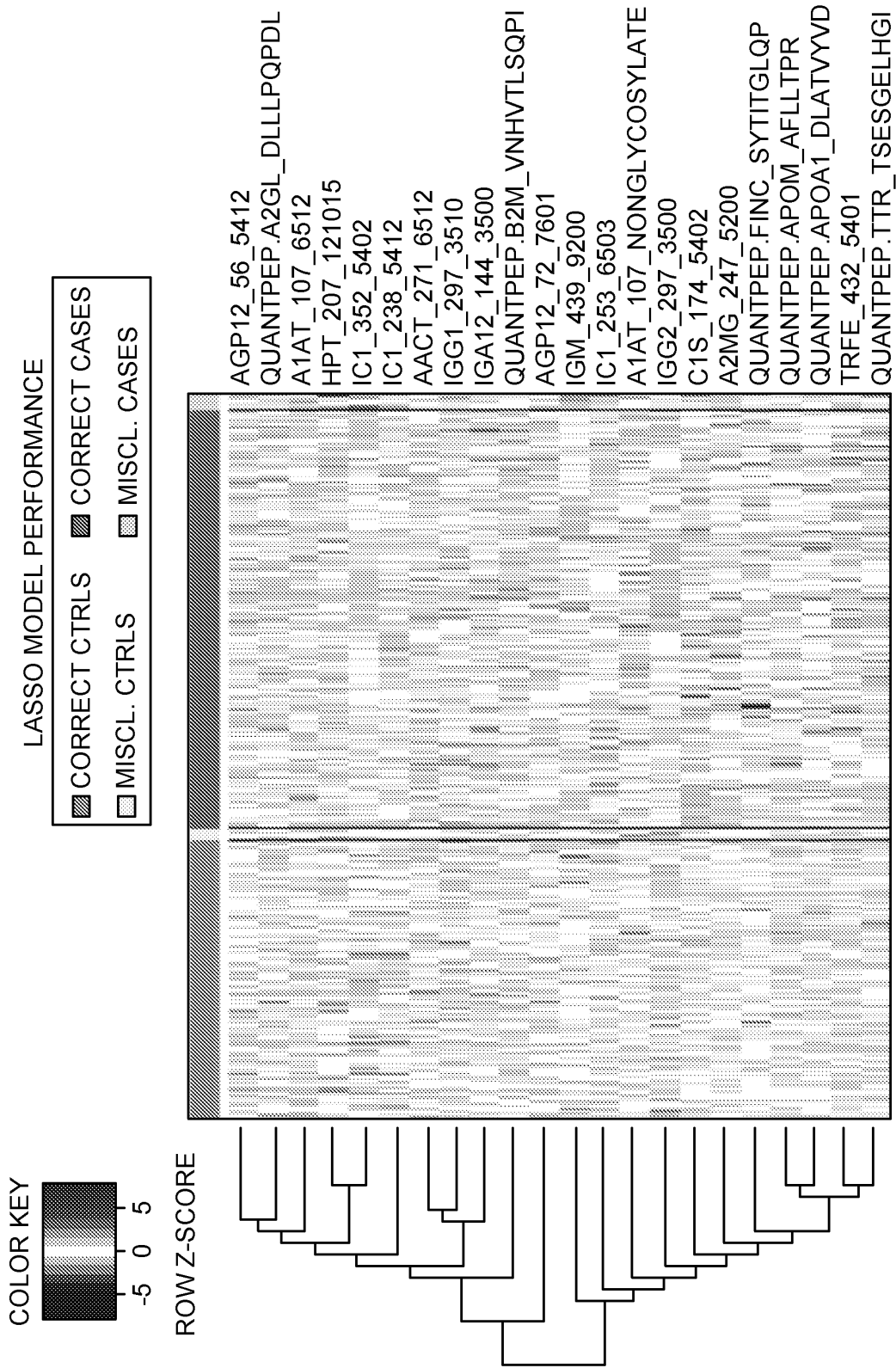


FIG. 20

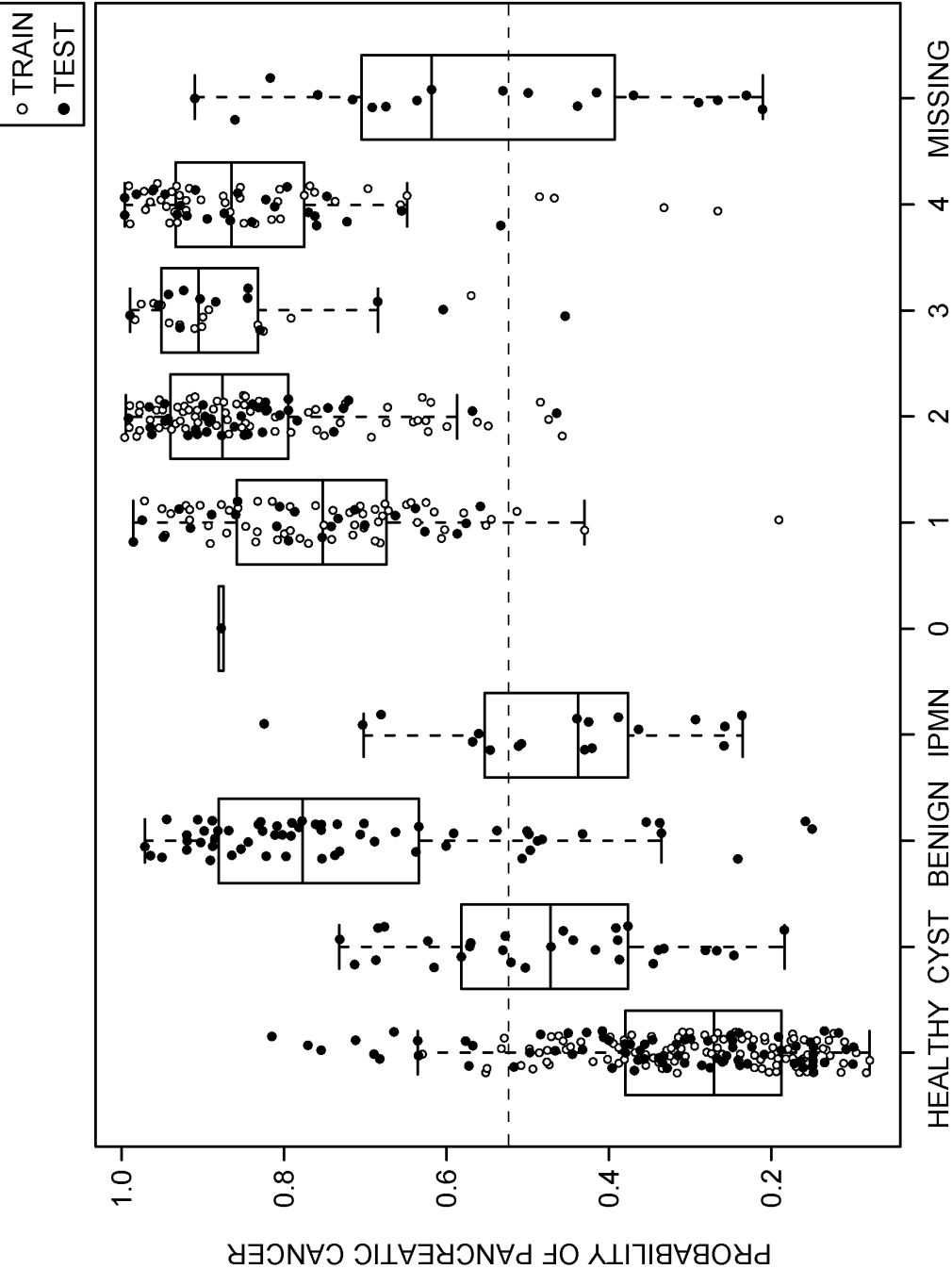


FIG. 21

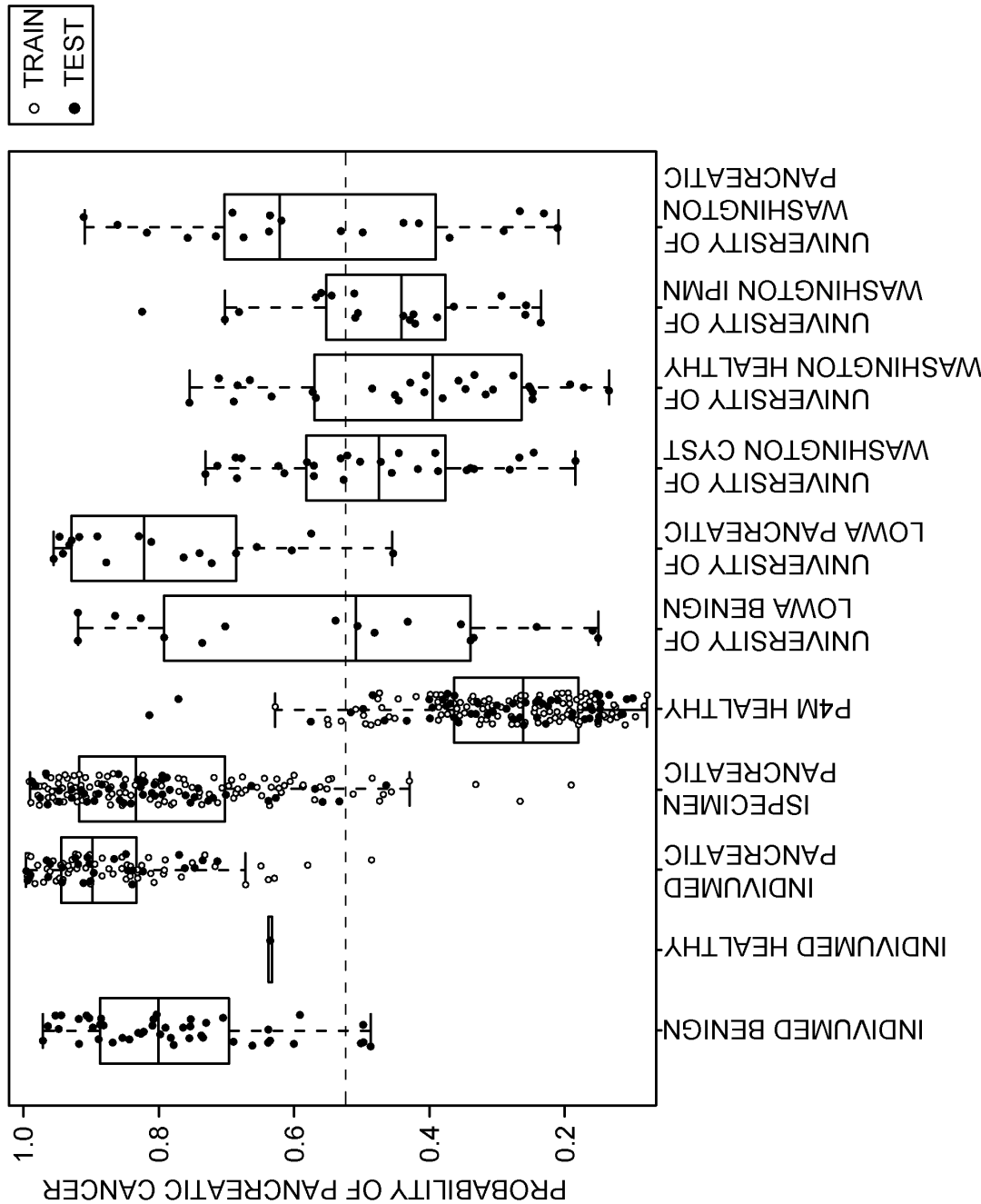


FIG. 22

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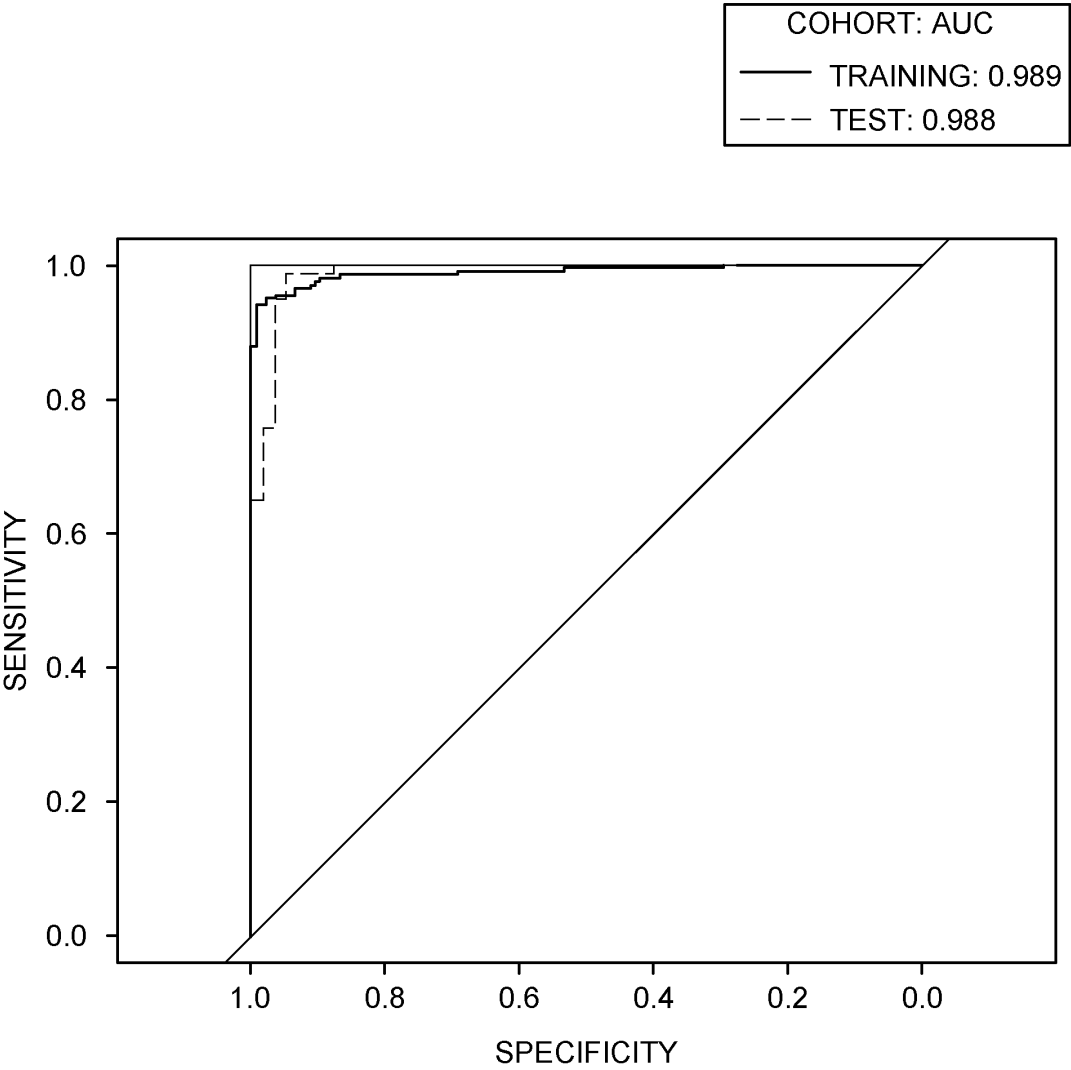


FIG. 23

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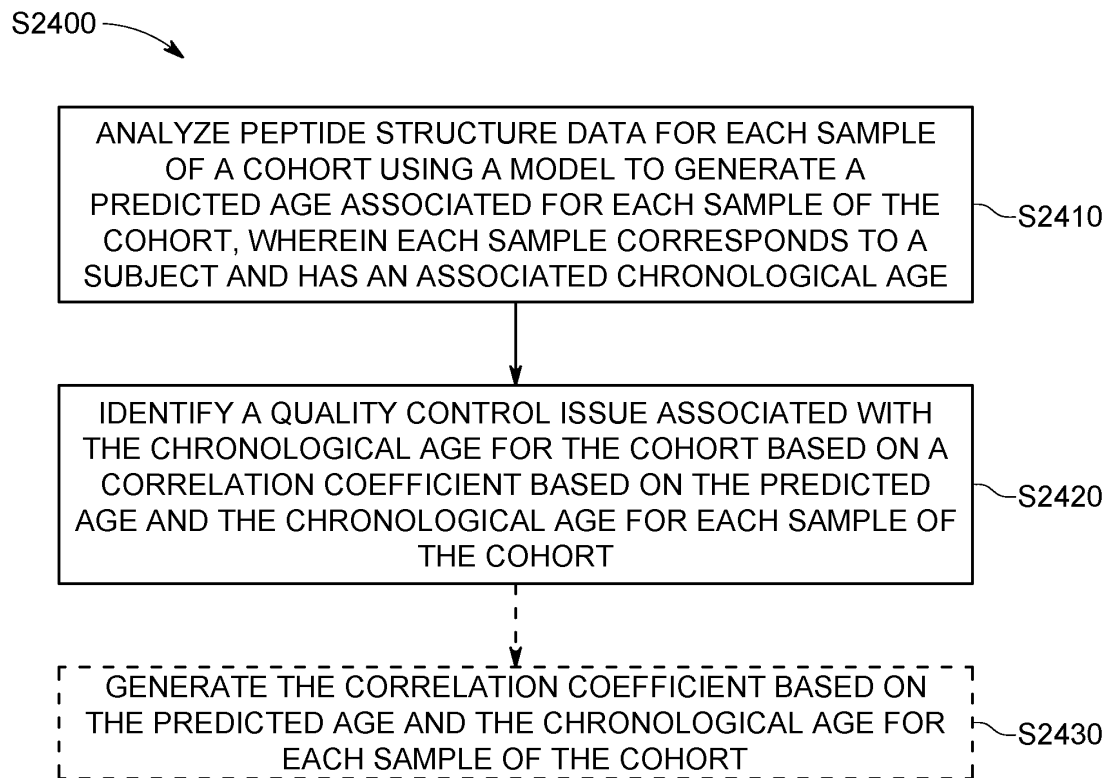


FIG. 24

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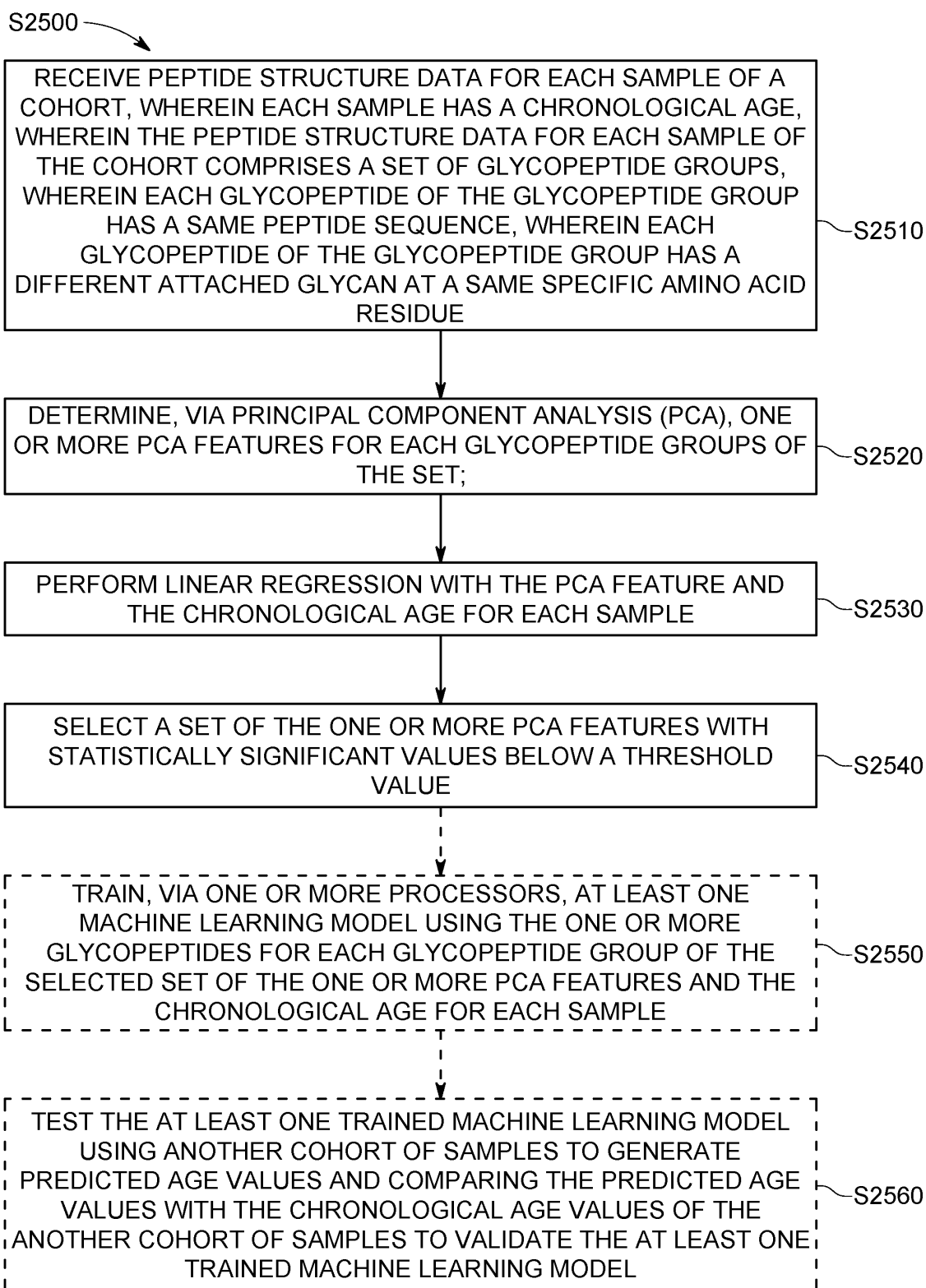


FIG. 25

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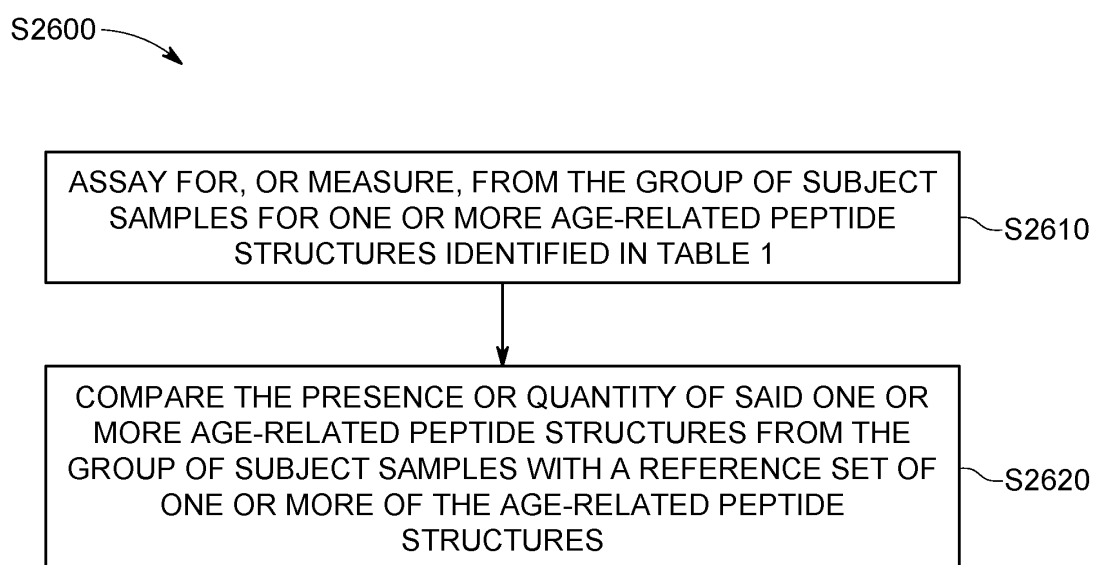


FIG. 26

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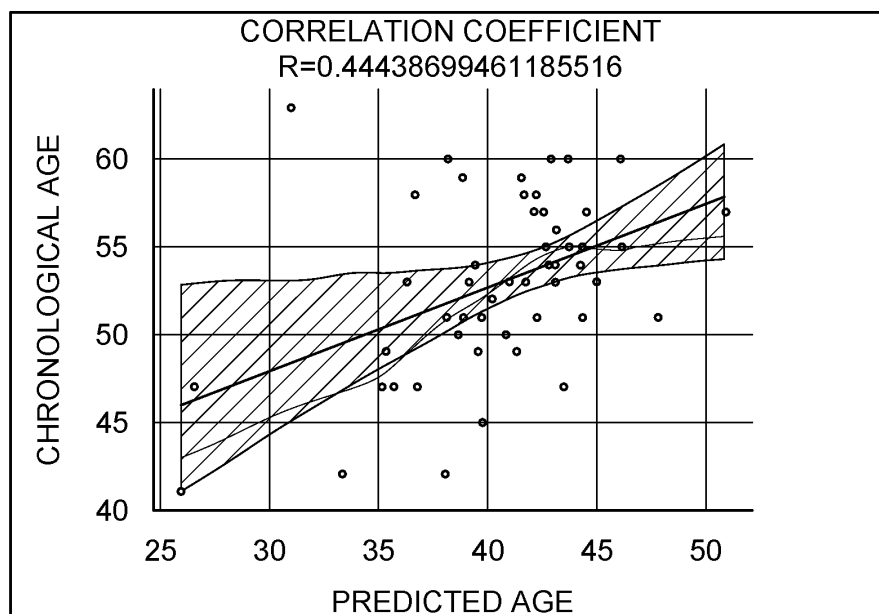


FIG. 27A

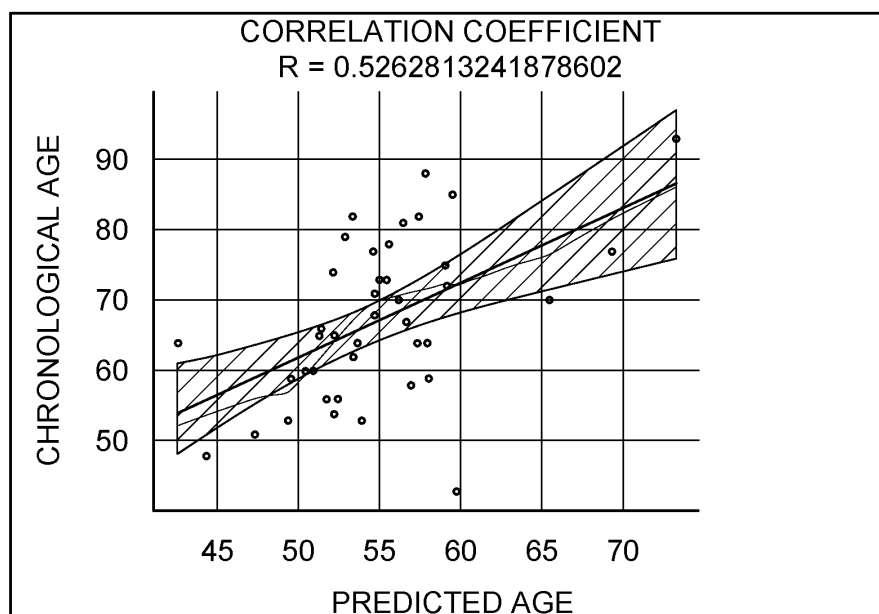


FIG. 27B

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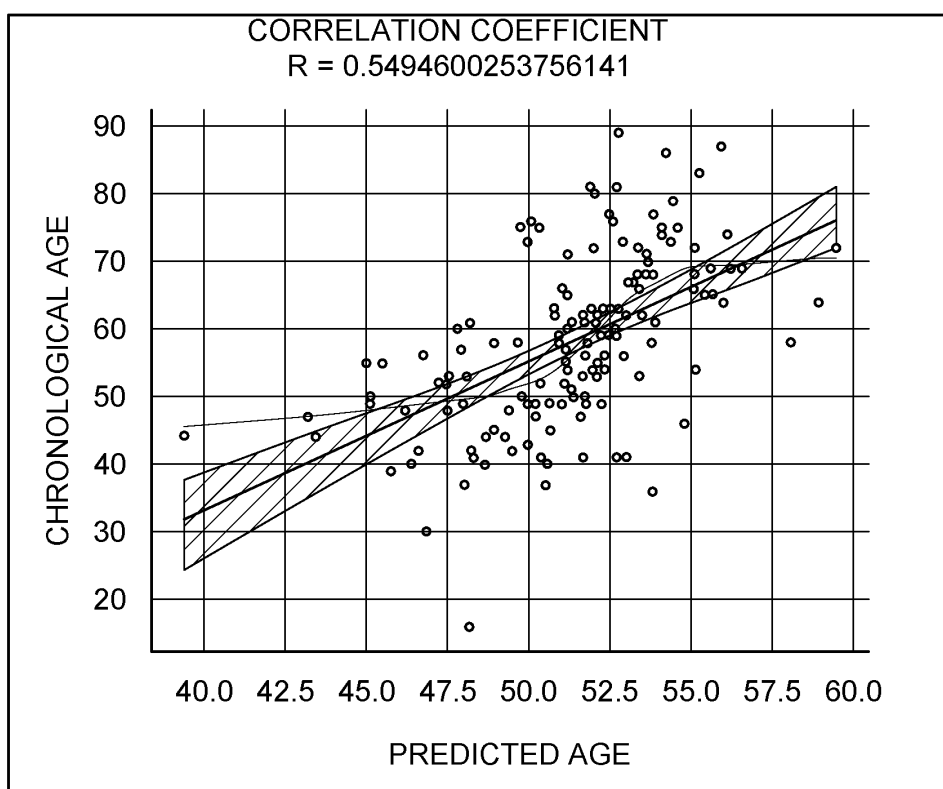


FIG. 27C

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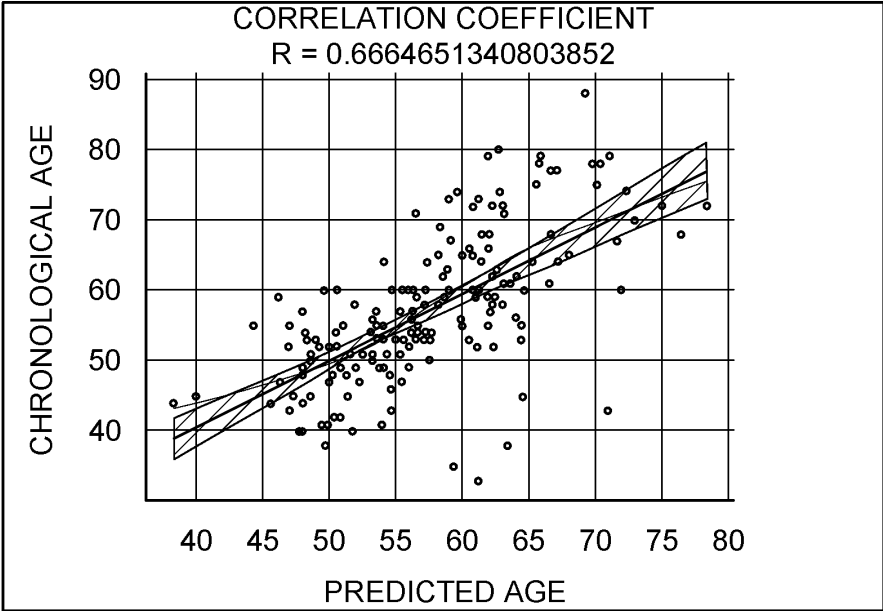


FIG. 28A

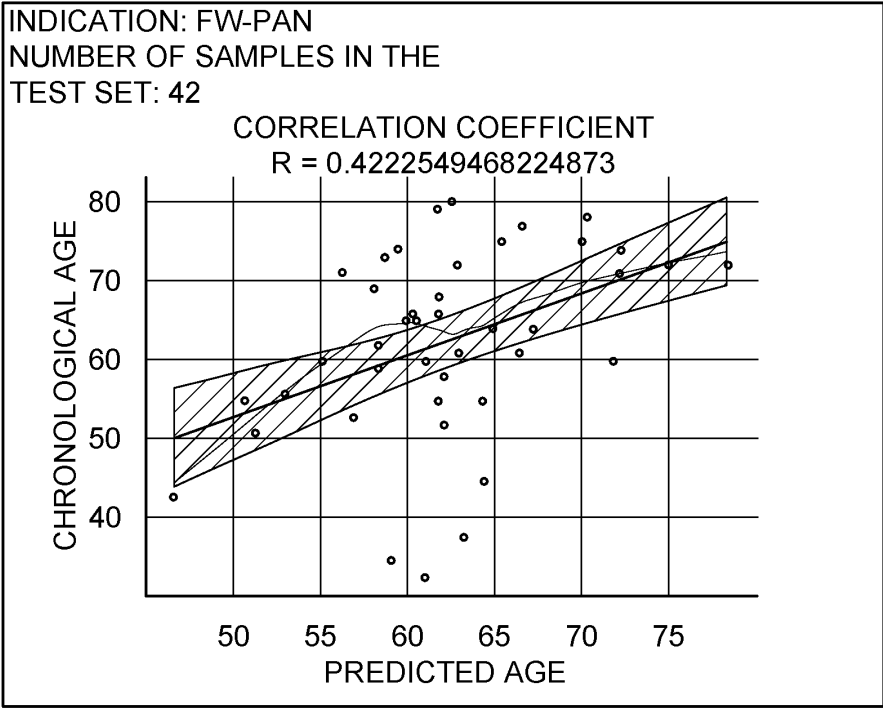


FIG. 28B

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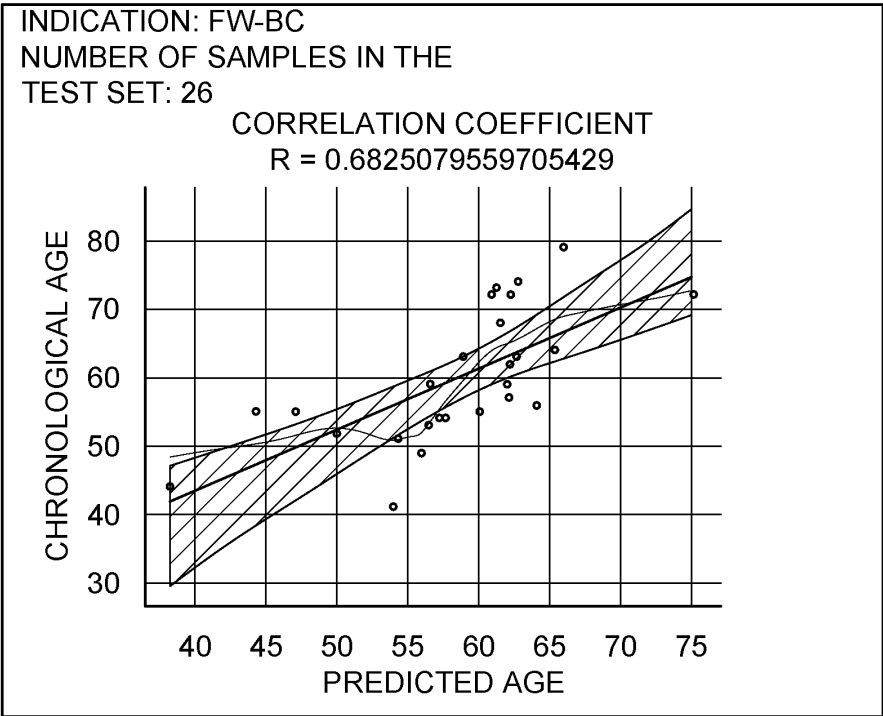


FIG. 28C

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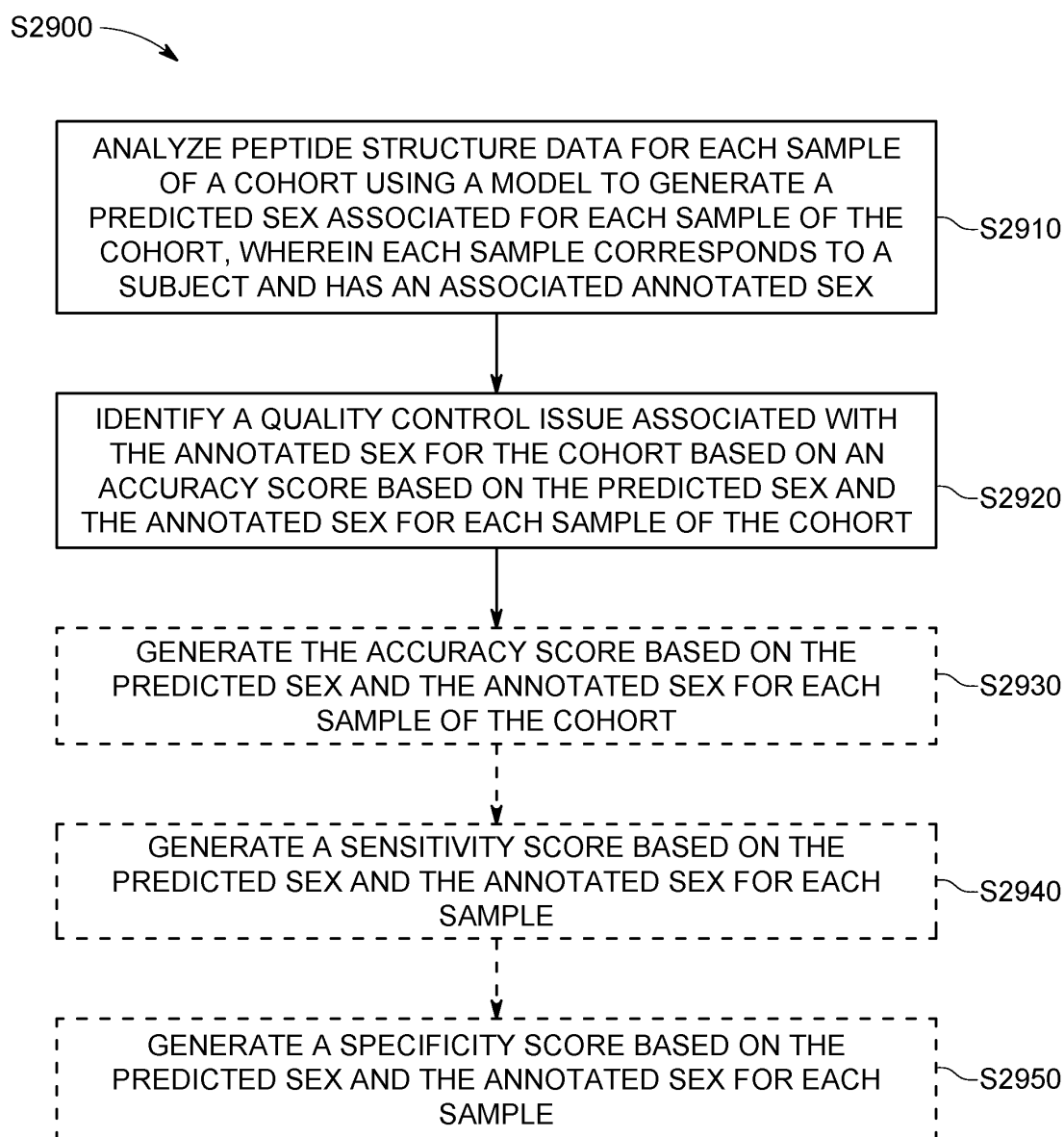


FIG. 29

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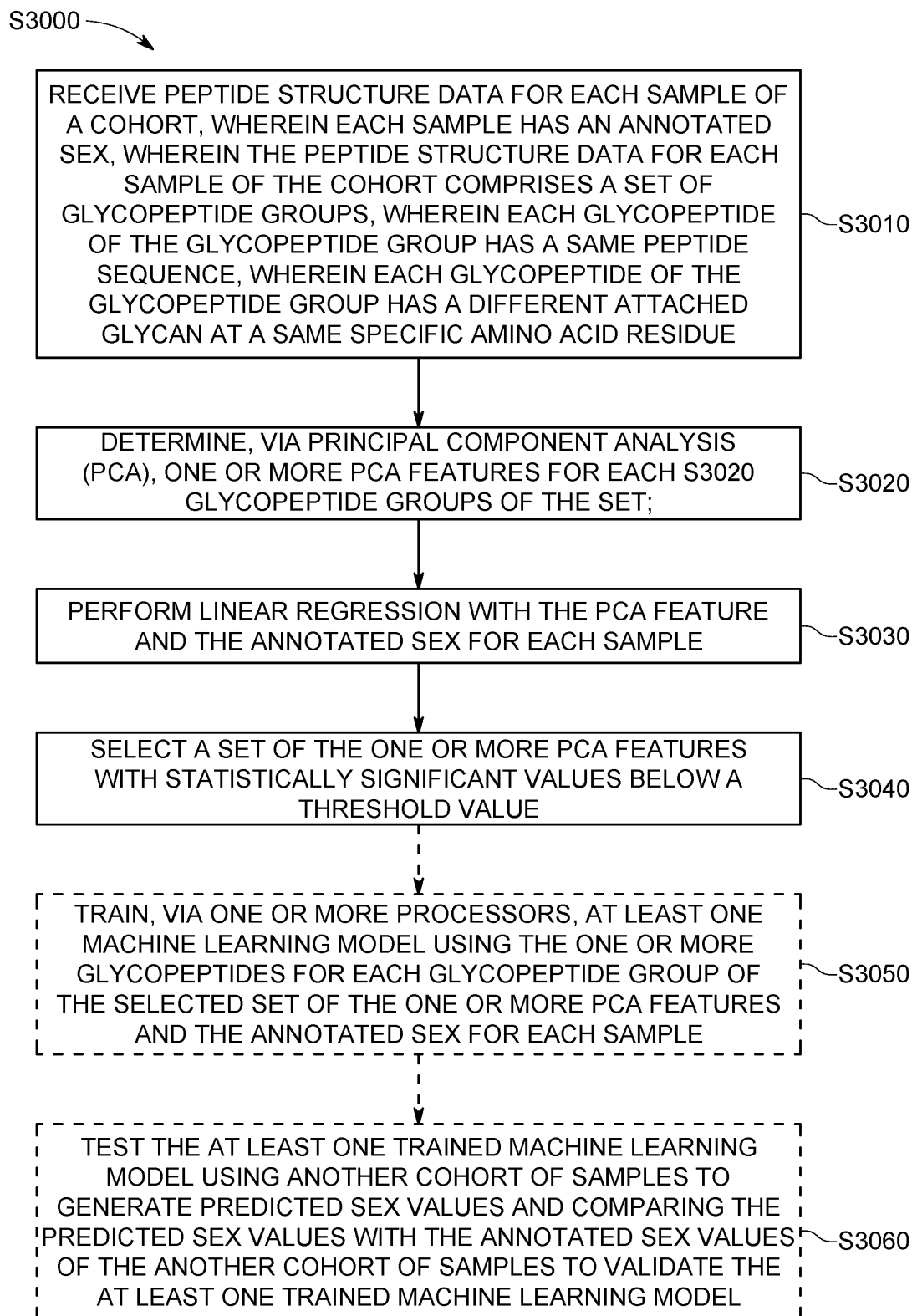


FIG. 30

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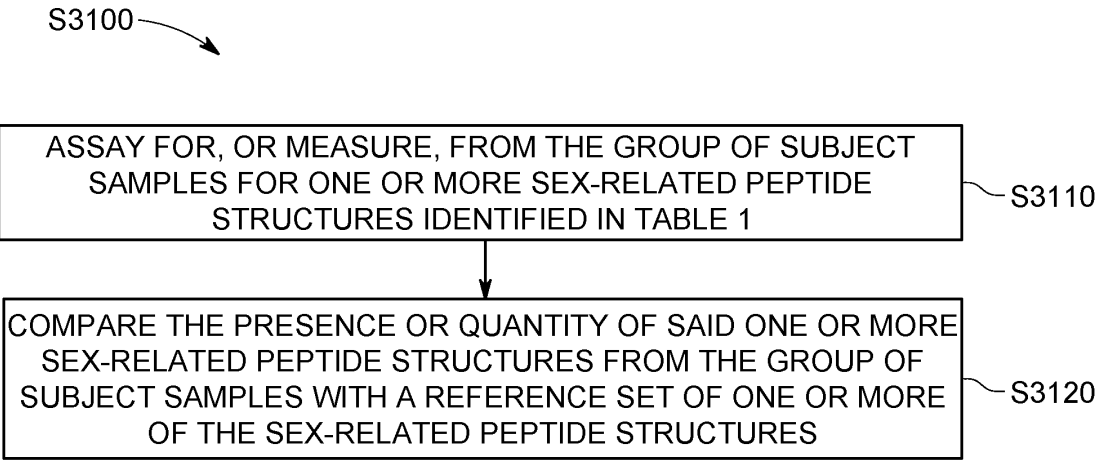


FIG. 31

CONFUSION MATRIX :
[[76 27]
[19 53]]

ACCURACY : 0.7371428571428571
SENSITIVITY : 0.7378640776699029
SPECIFICITY : 0.7361111111111112

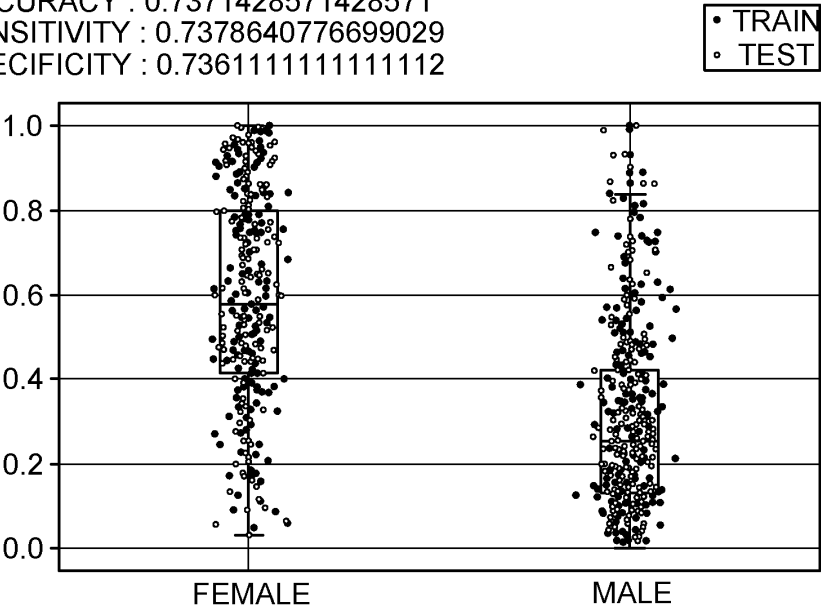


FIG. 32A

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CONFUSION MATRIX :
[[30 11]
[6 14]]

ACCURACY : 0.7213114754098361
SENSITIVITY : 0.7317073170731707
SPECIFICITY : 0.7

• TRAIN
◦ TEST

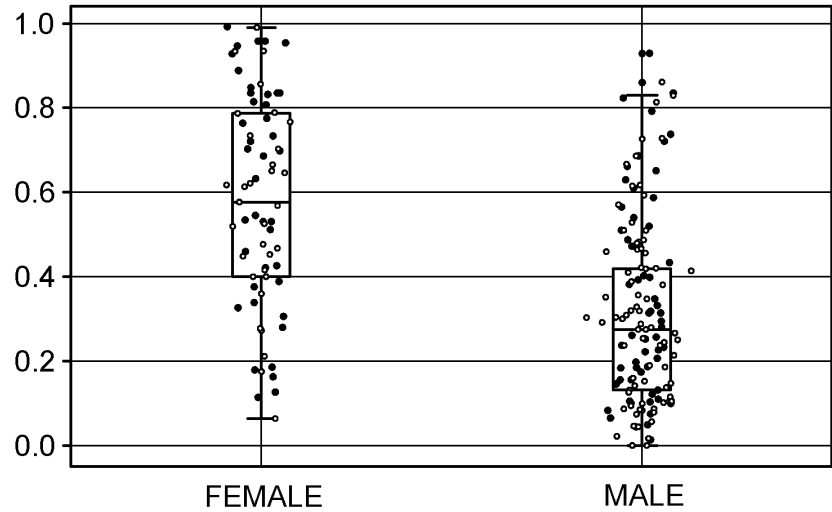


FIG. 32B

CONFUSION MATRIX :
[[17 6]
[5 11]]

ACCURACY : 0.717948717948718
SENSITIVITY : 0.7391304347826086
SPECIFICITY : 0.6875

• TRAIN
◦ TEST

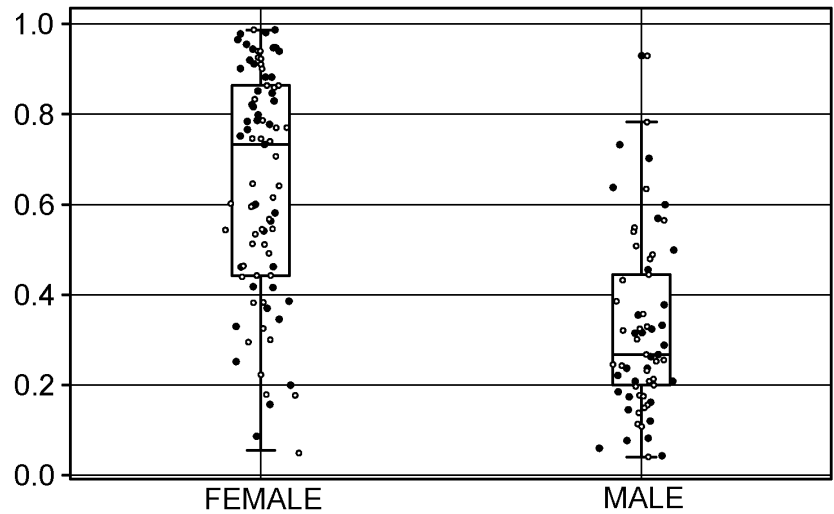


FIG. 32C

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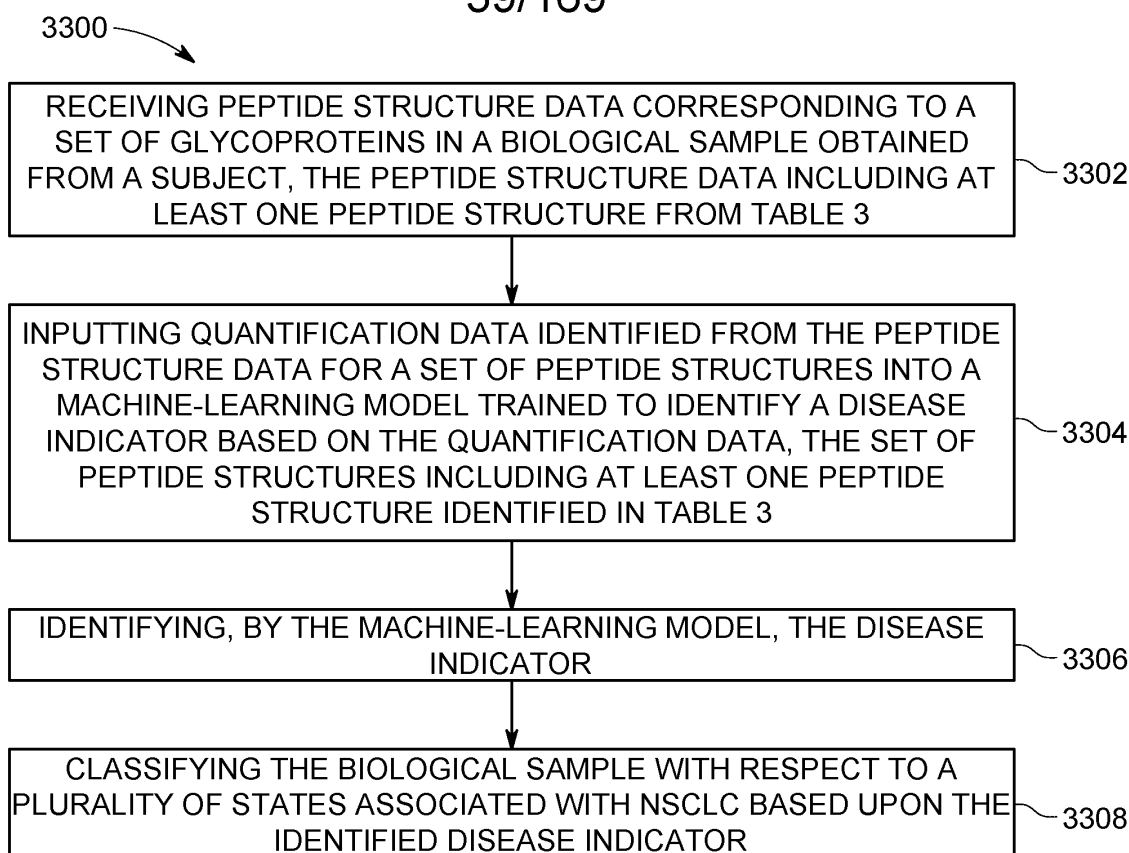


FIG. 33

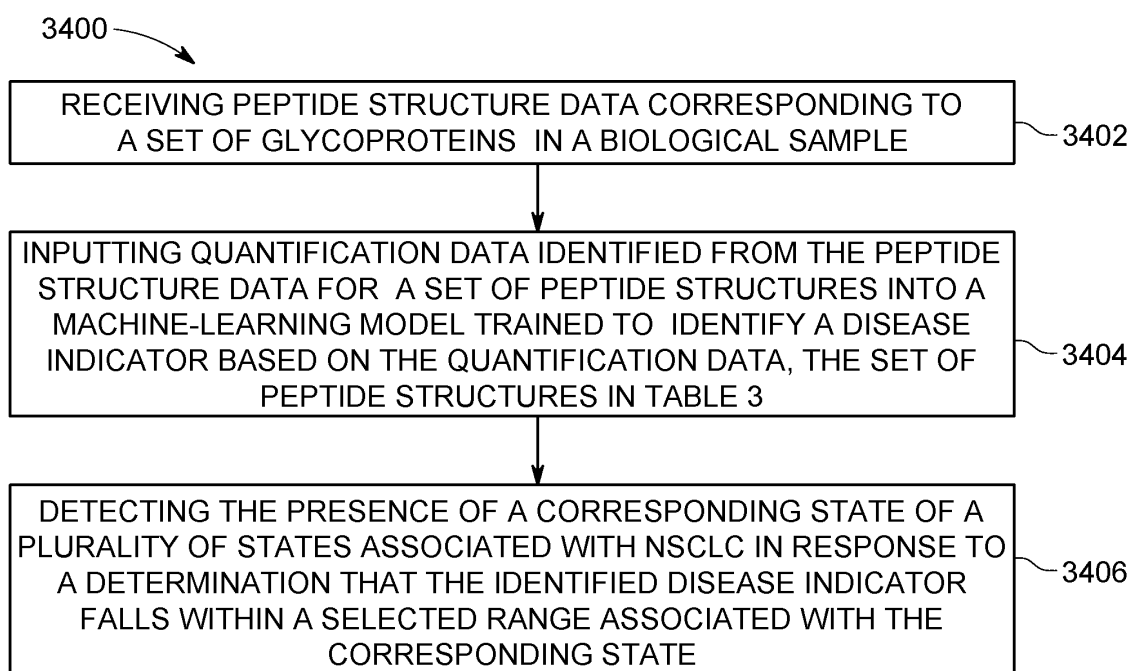


FIG. 34

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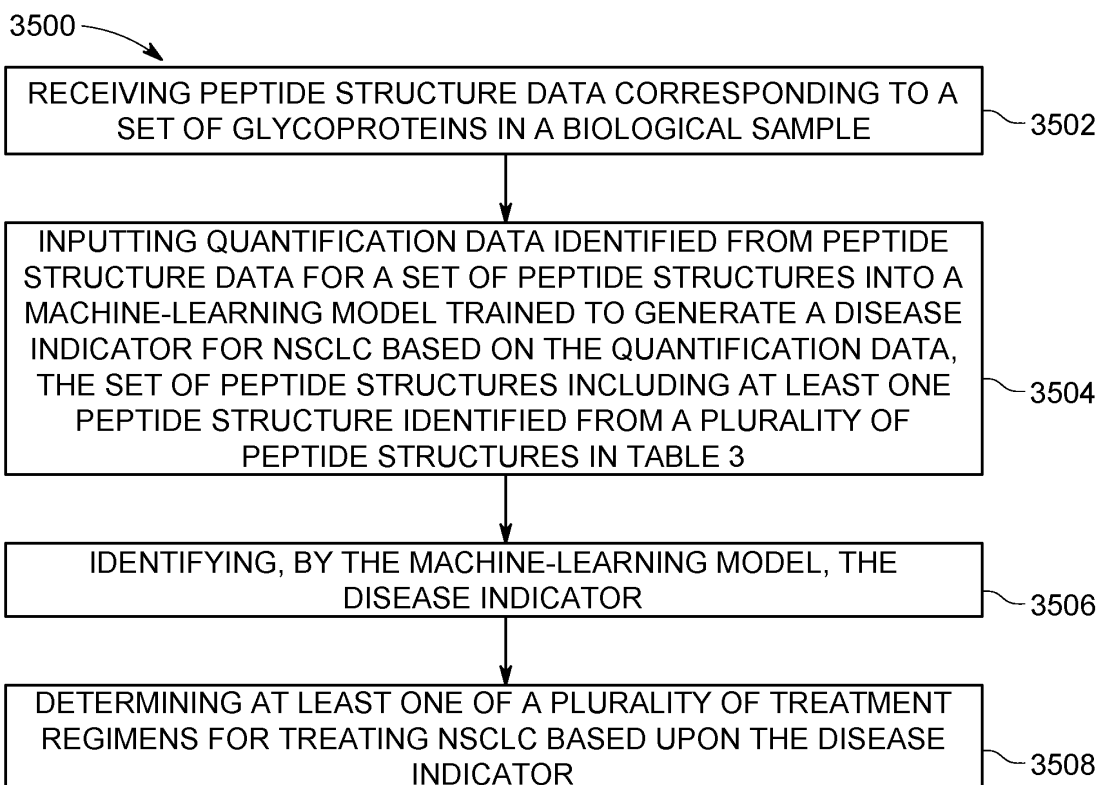


FIG. 35

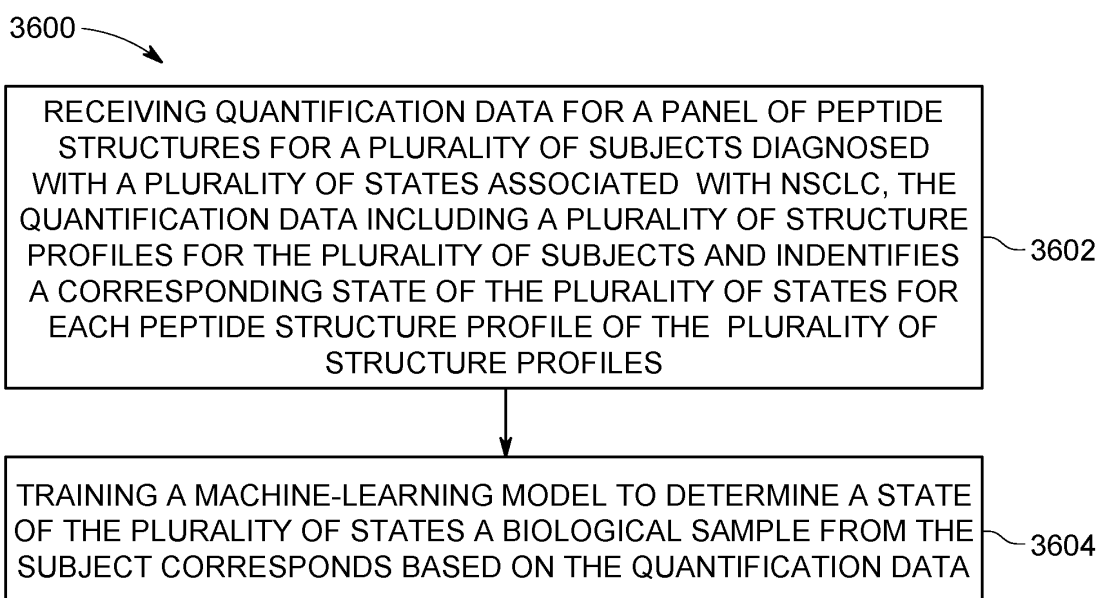


FIG. 36

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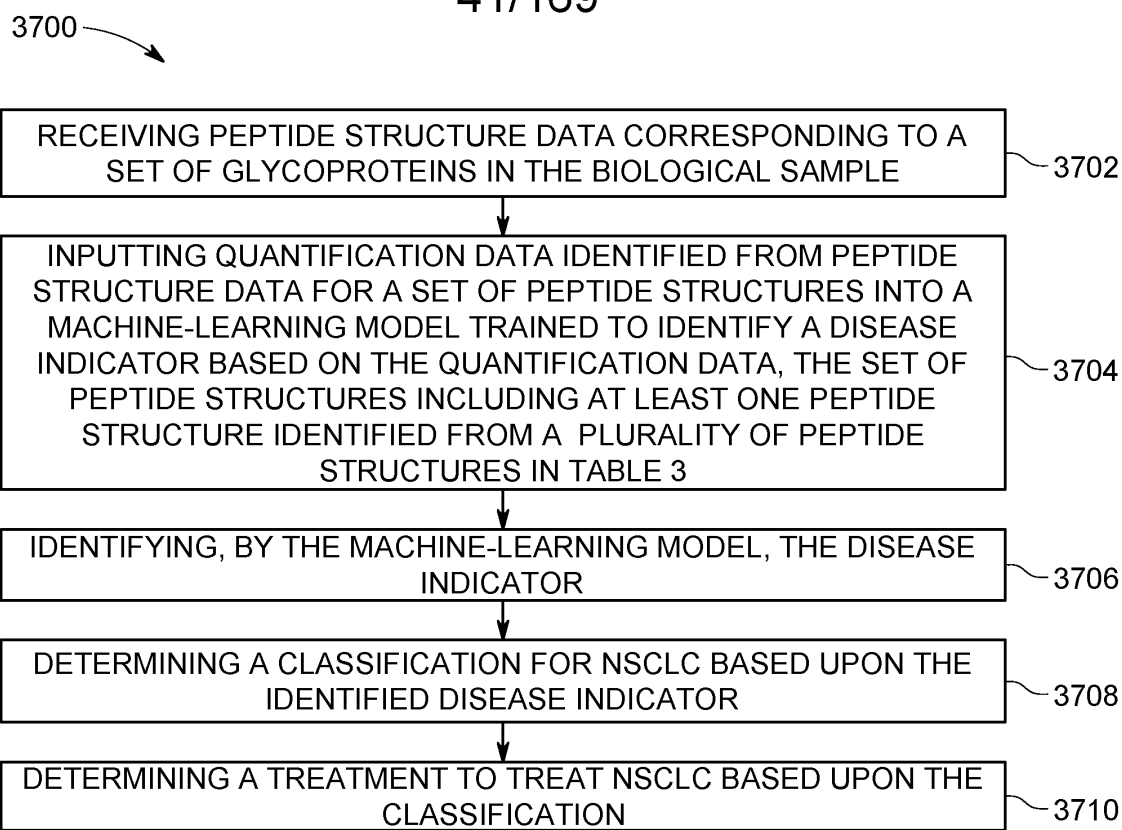


FIG. 37

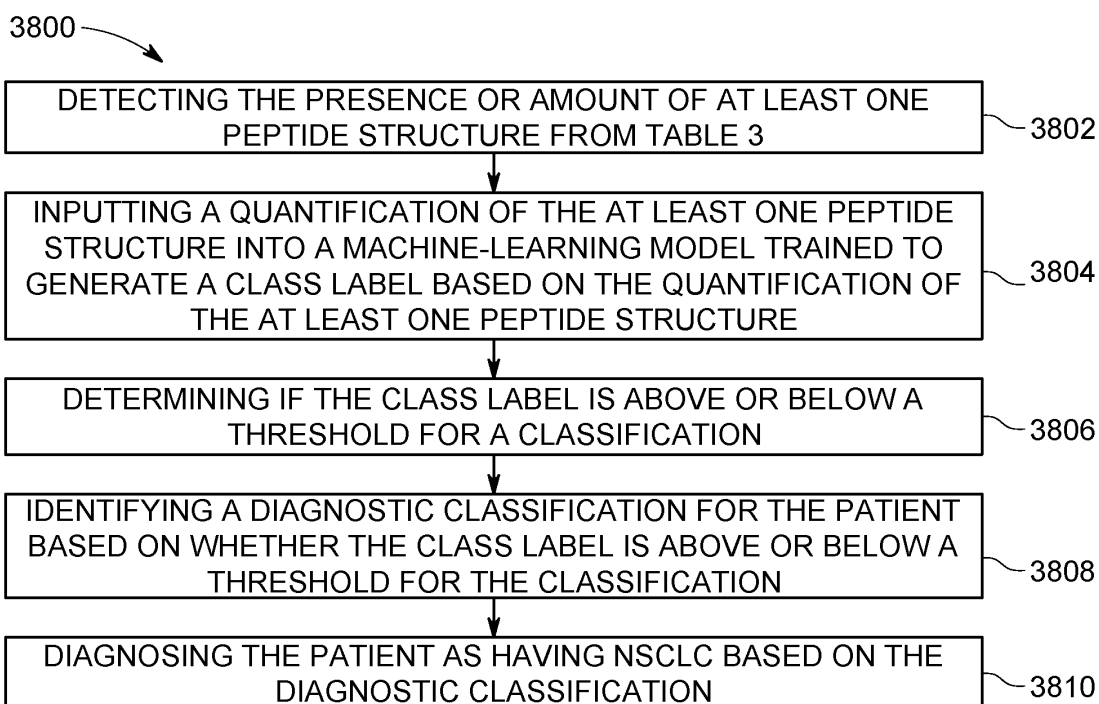


FIG. 38

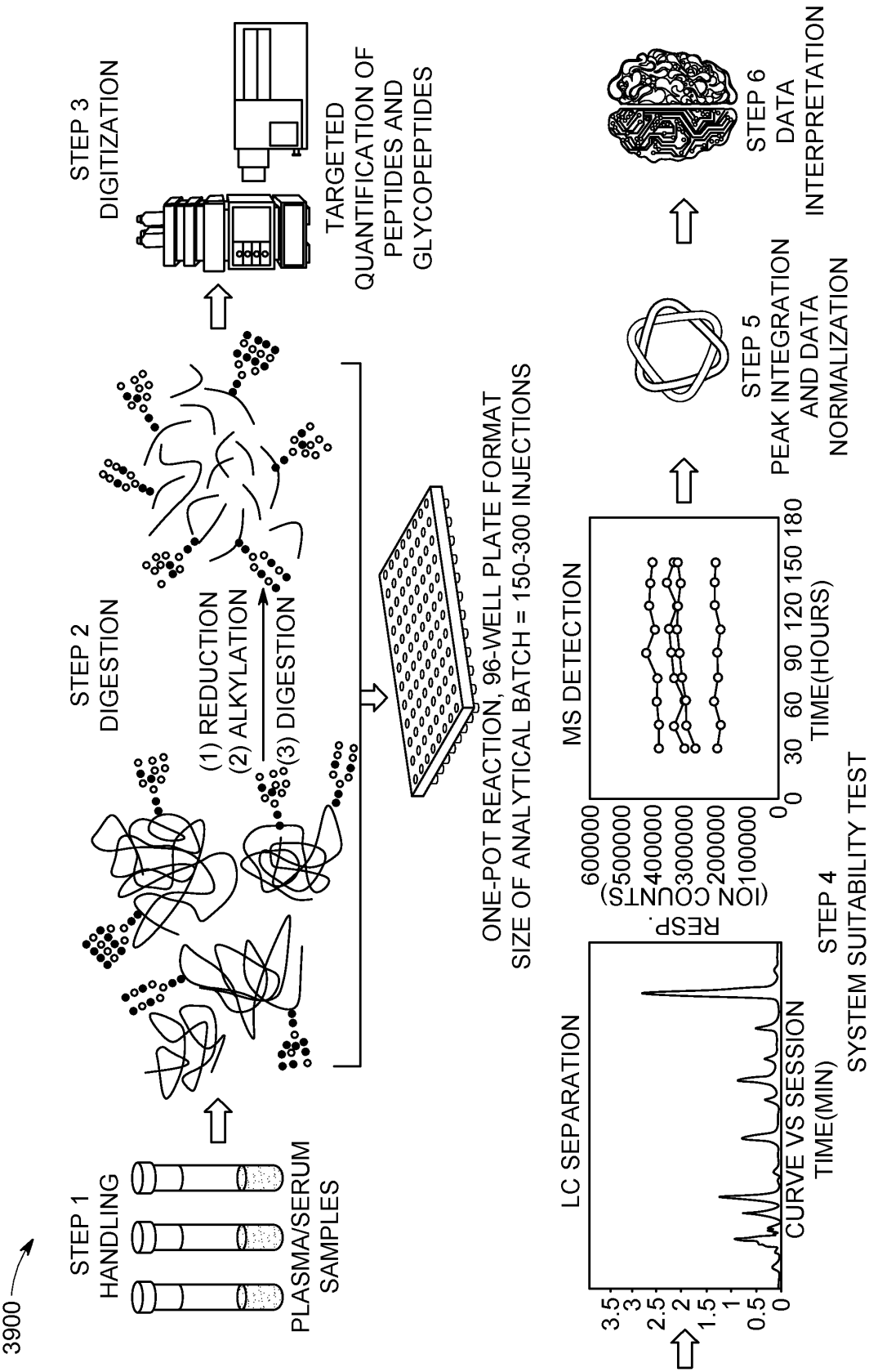


FIG. 39

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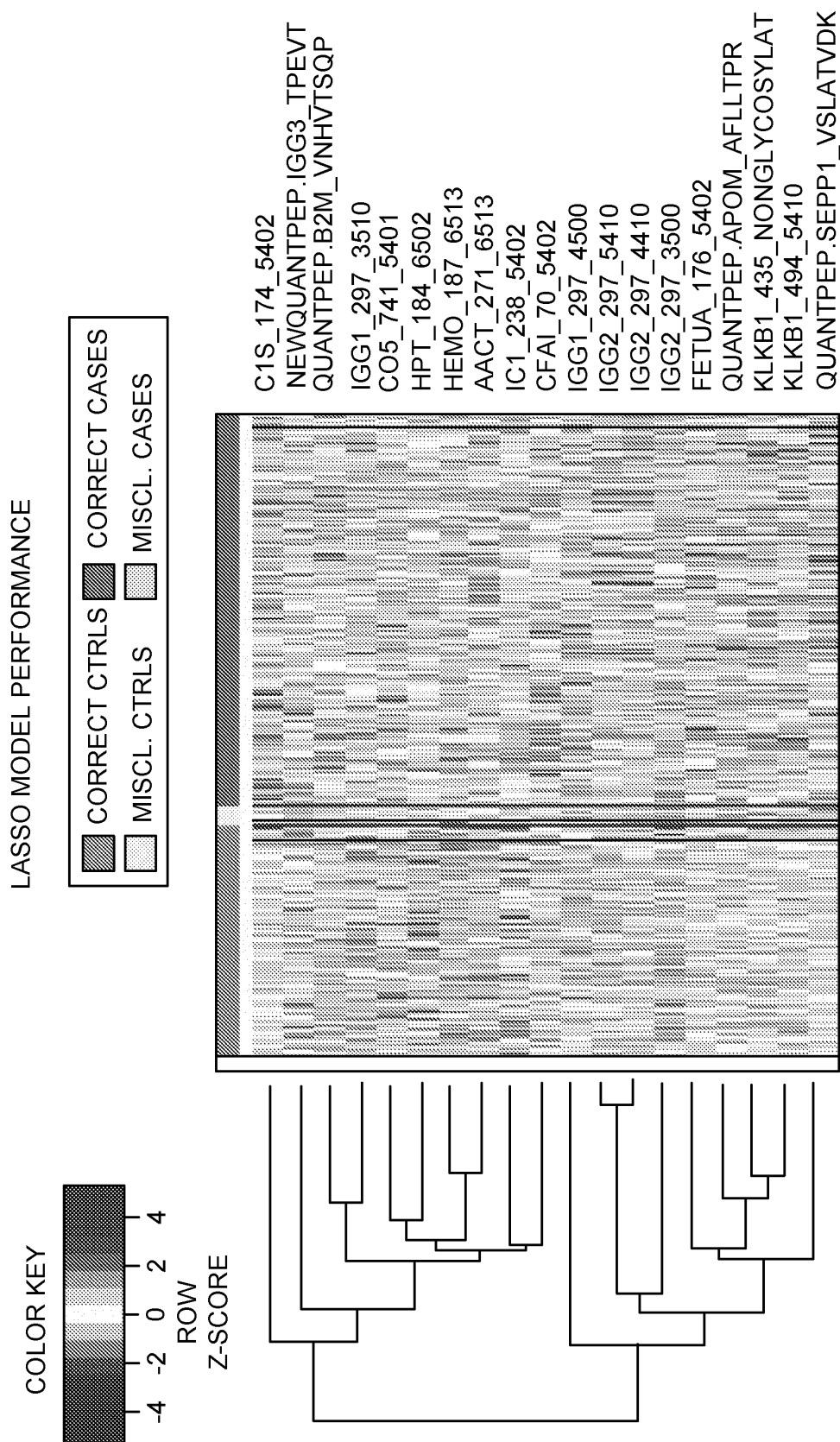


FIG. 40

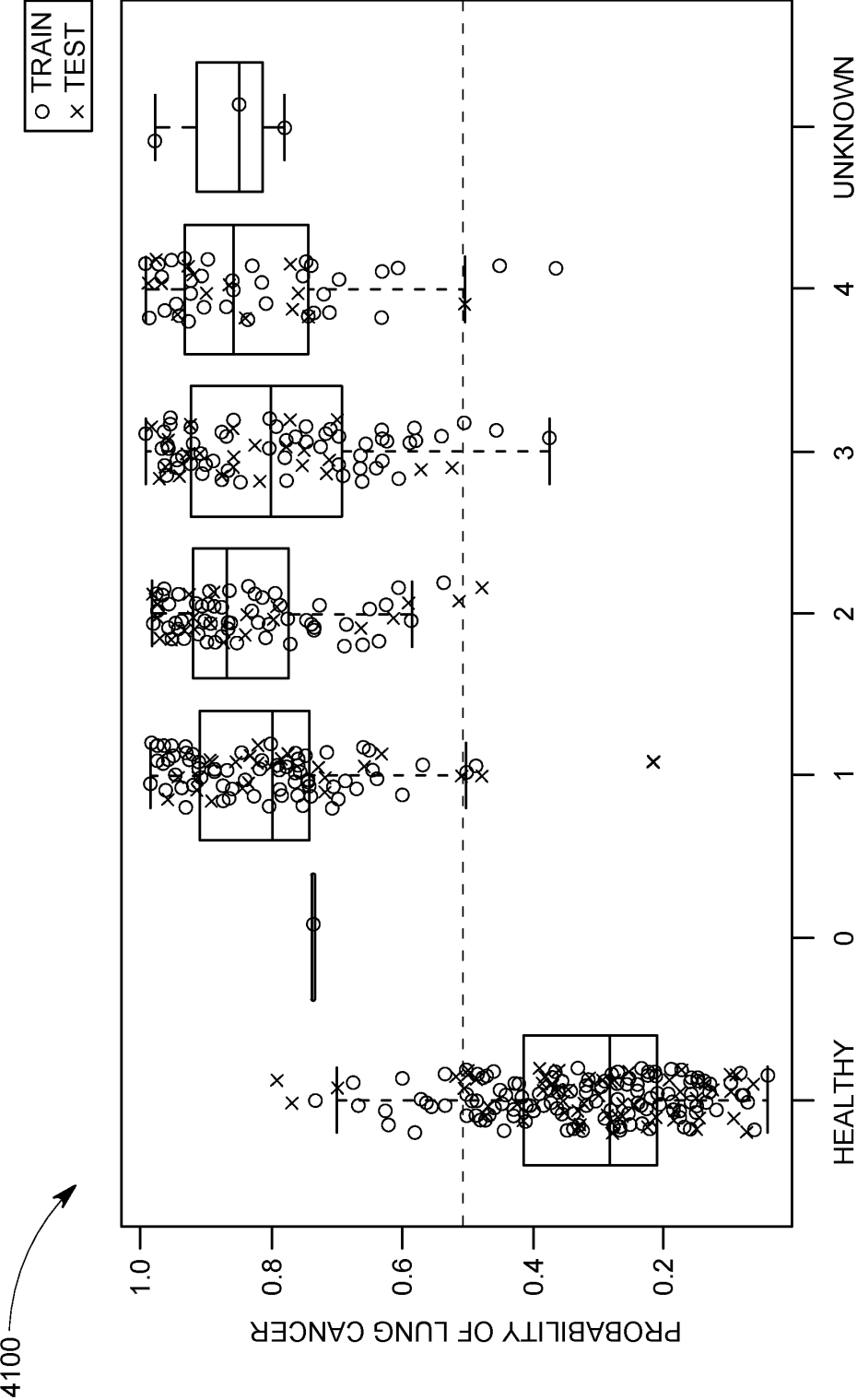


FIG. 41

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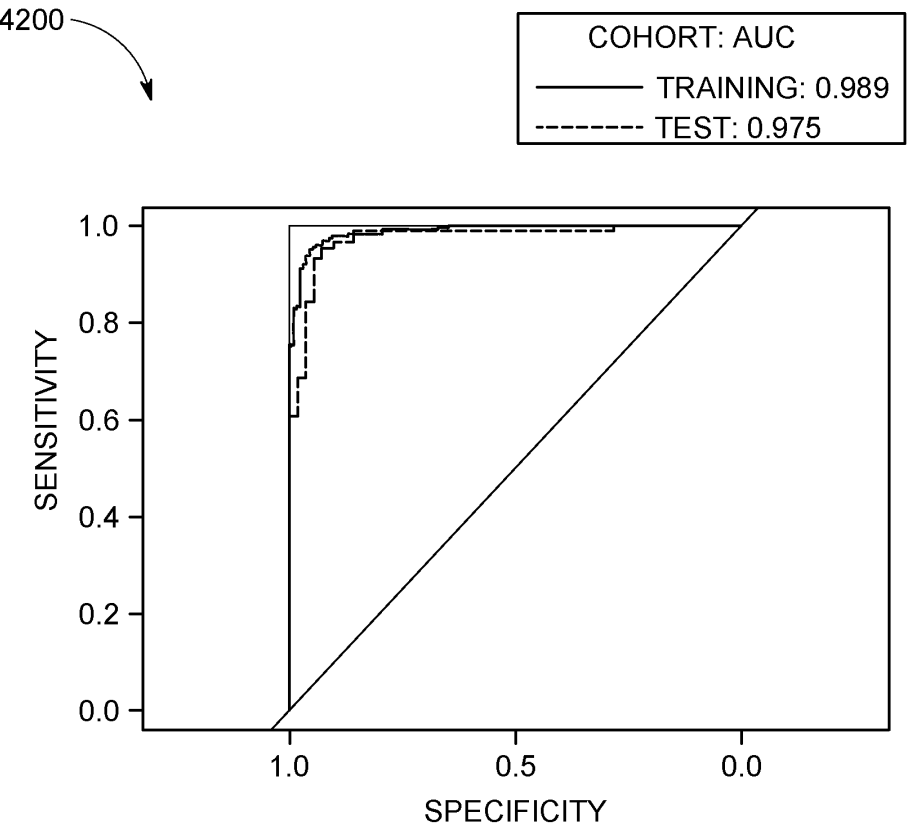


FIG. 42

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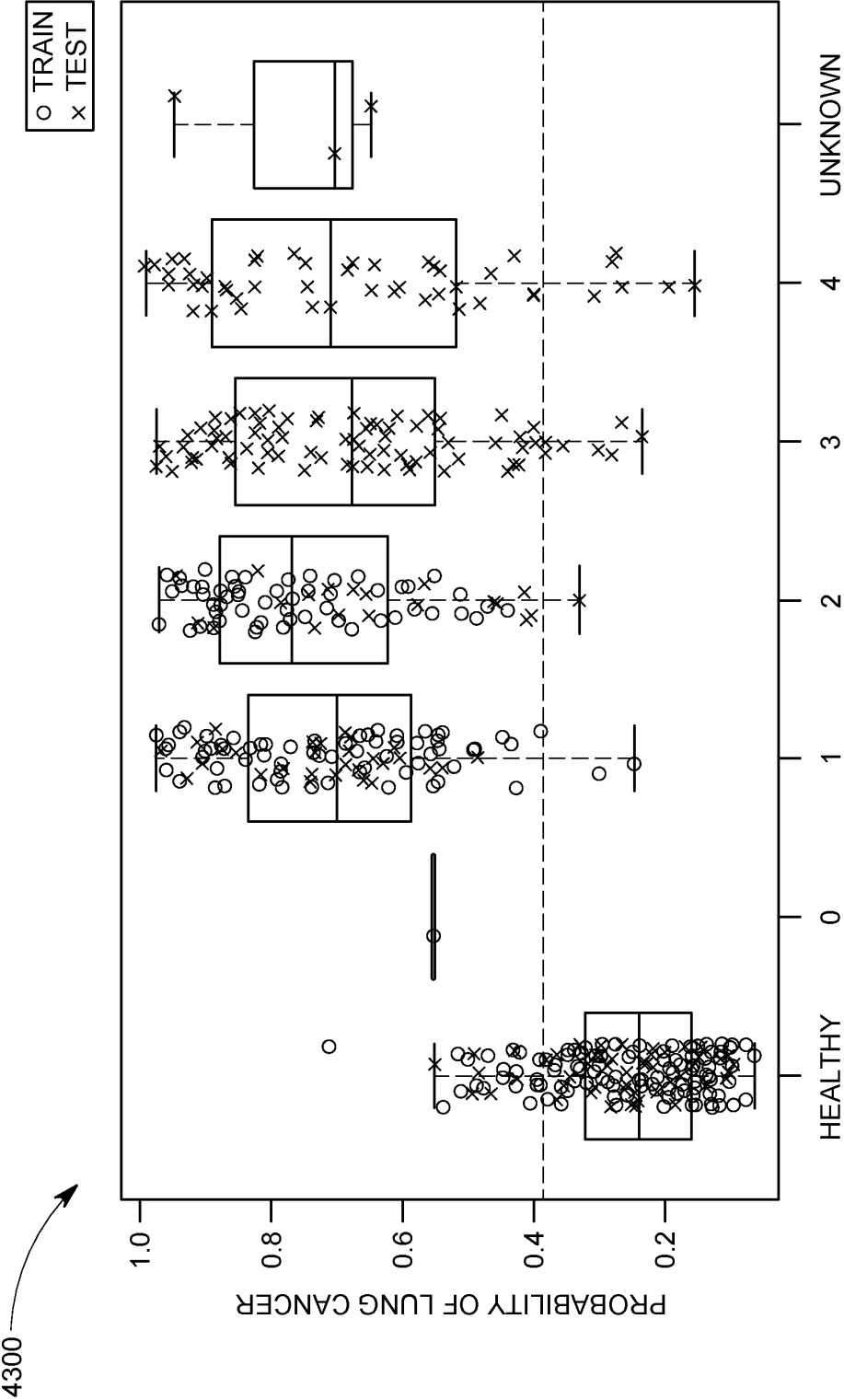


FIG. 43

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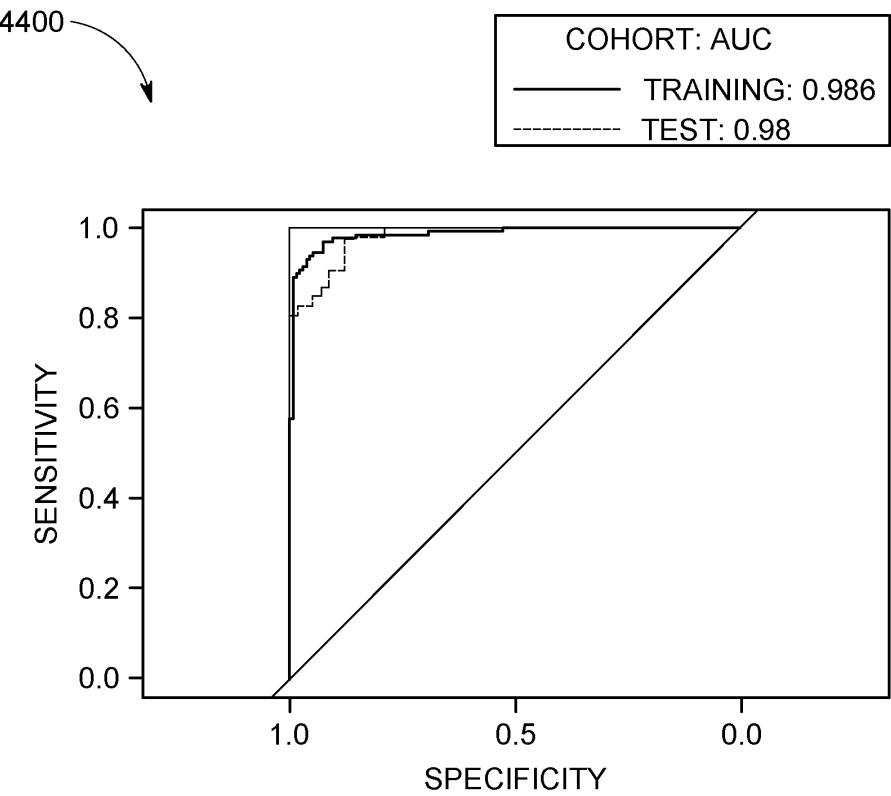


FIG. 44

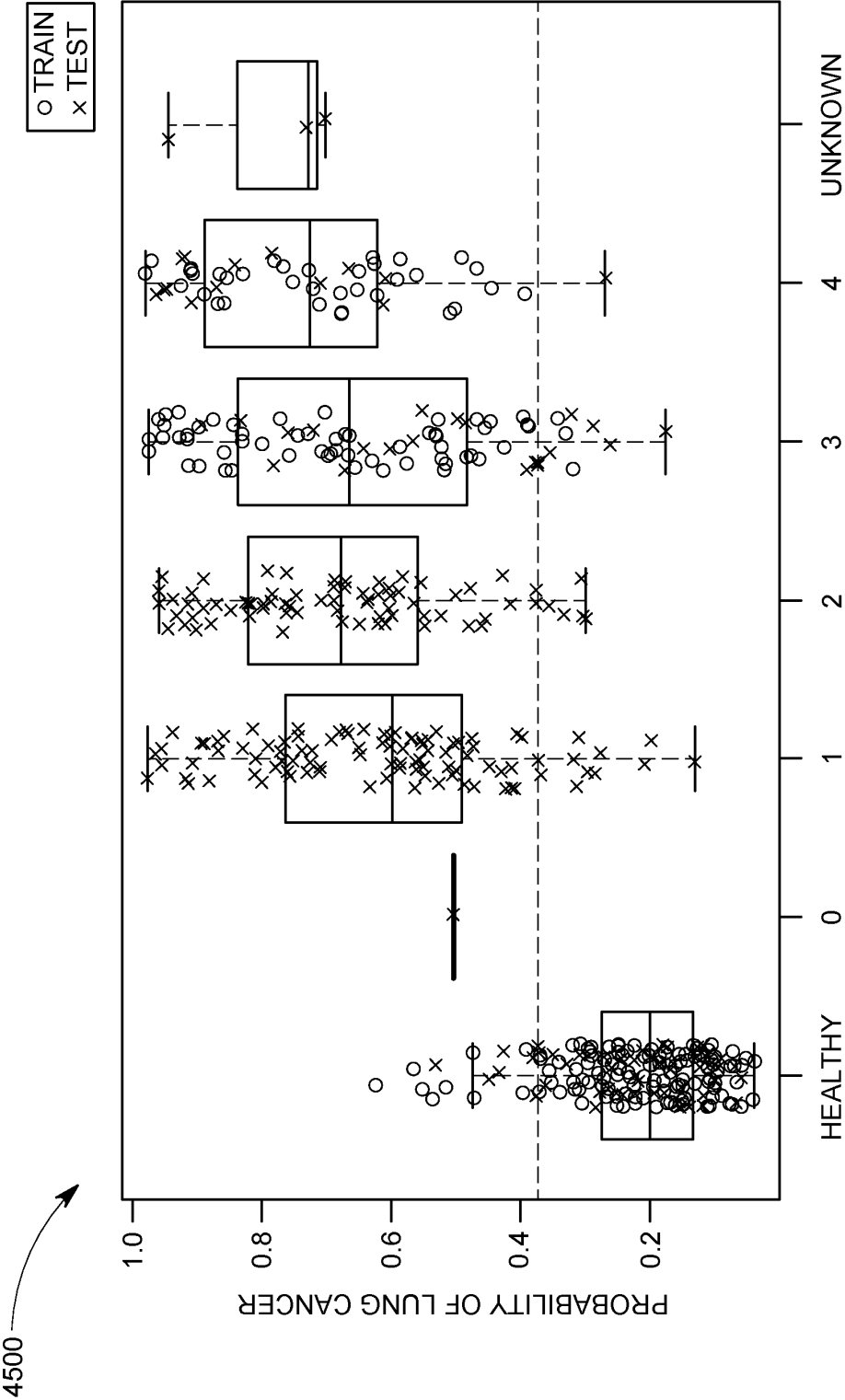


FIG. 45

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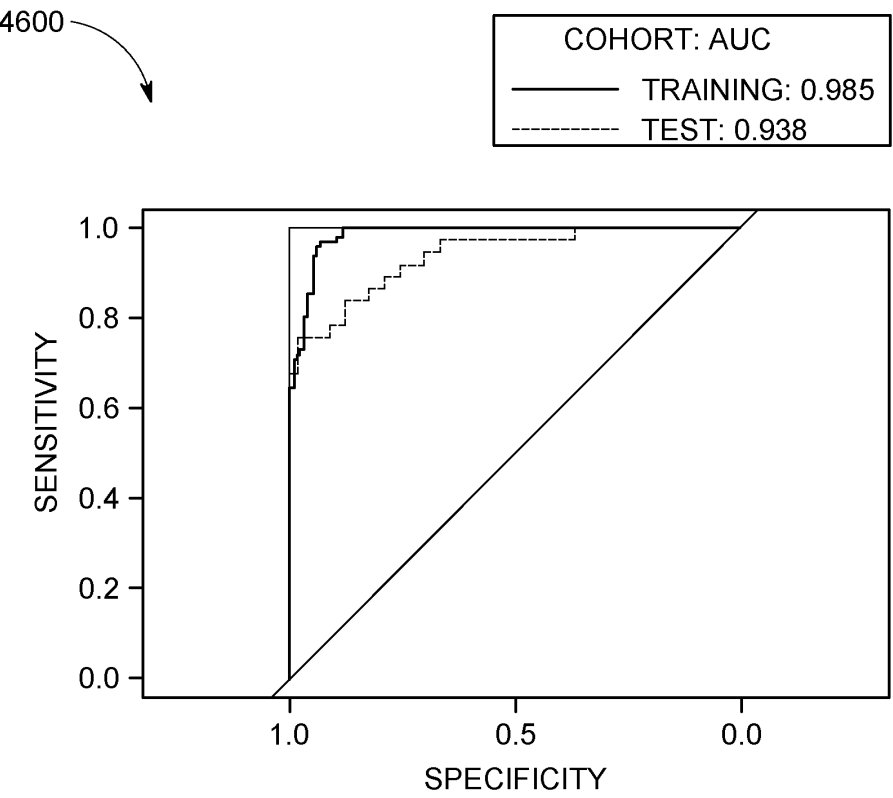


FIG. 46

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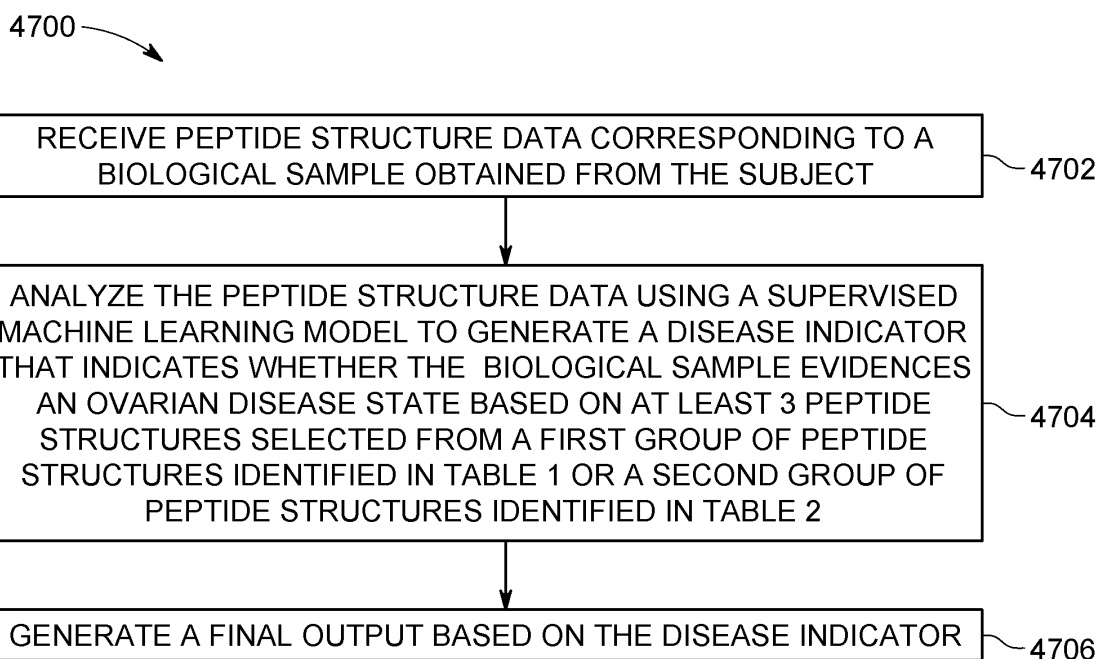


FIG. 47

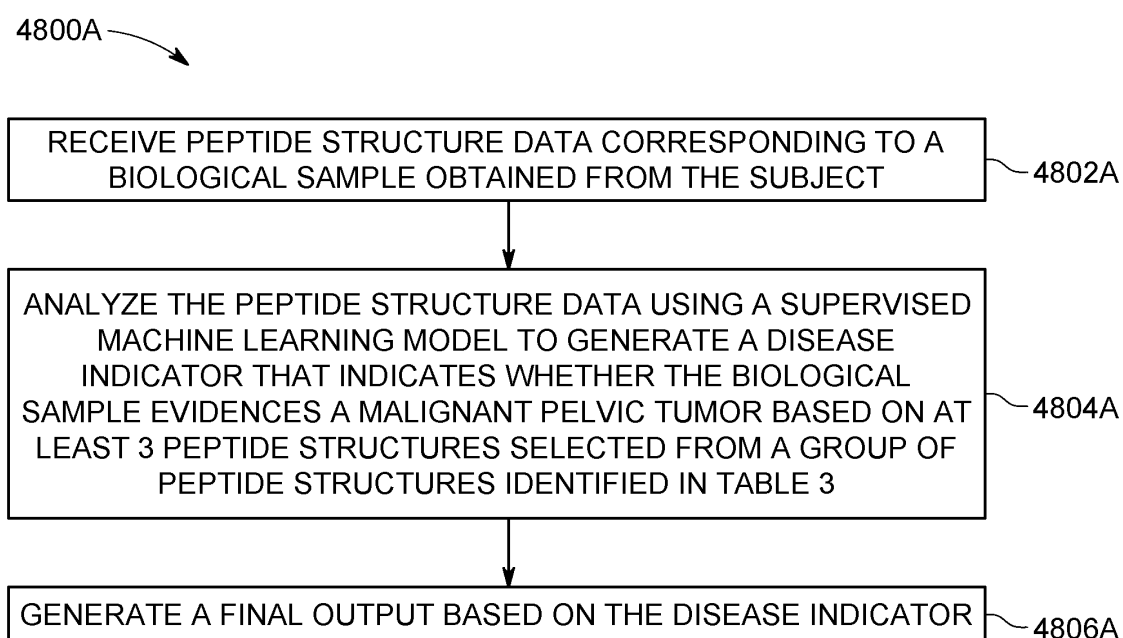


FIG. 48A

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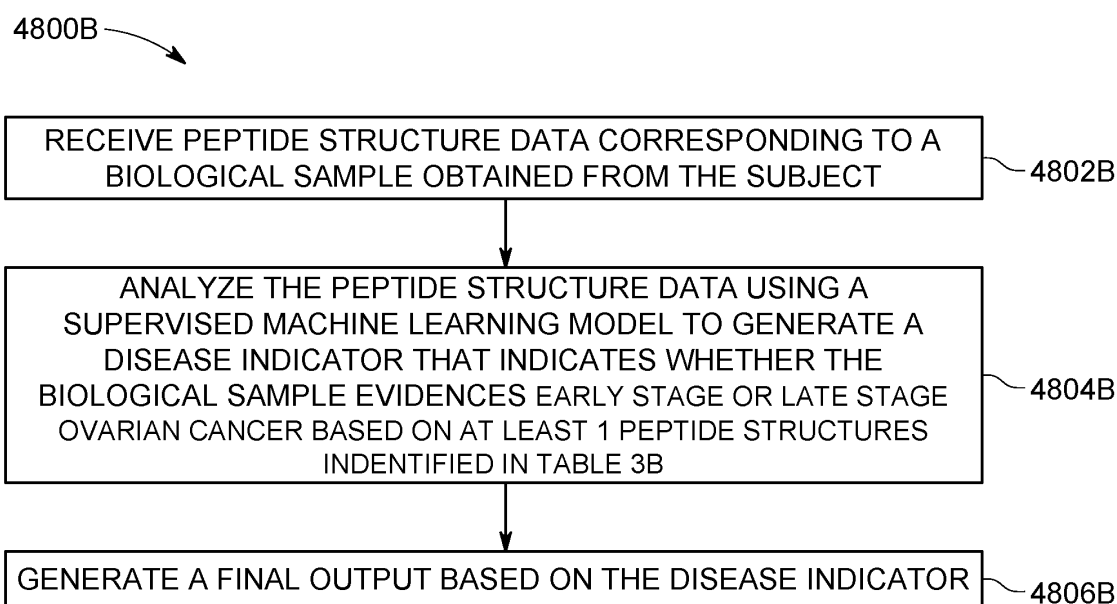


FIG. 48B

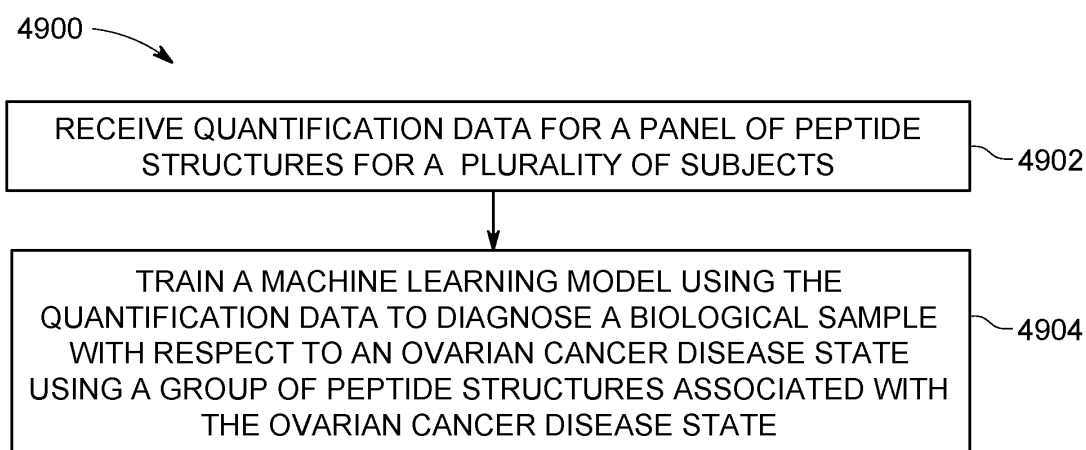


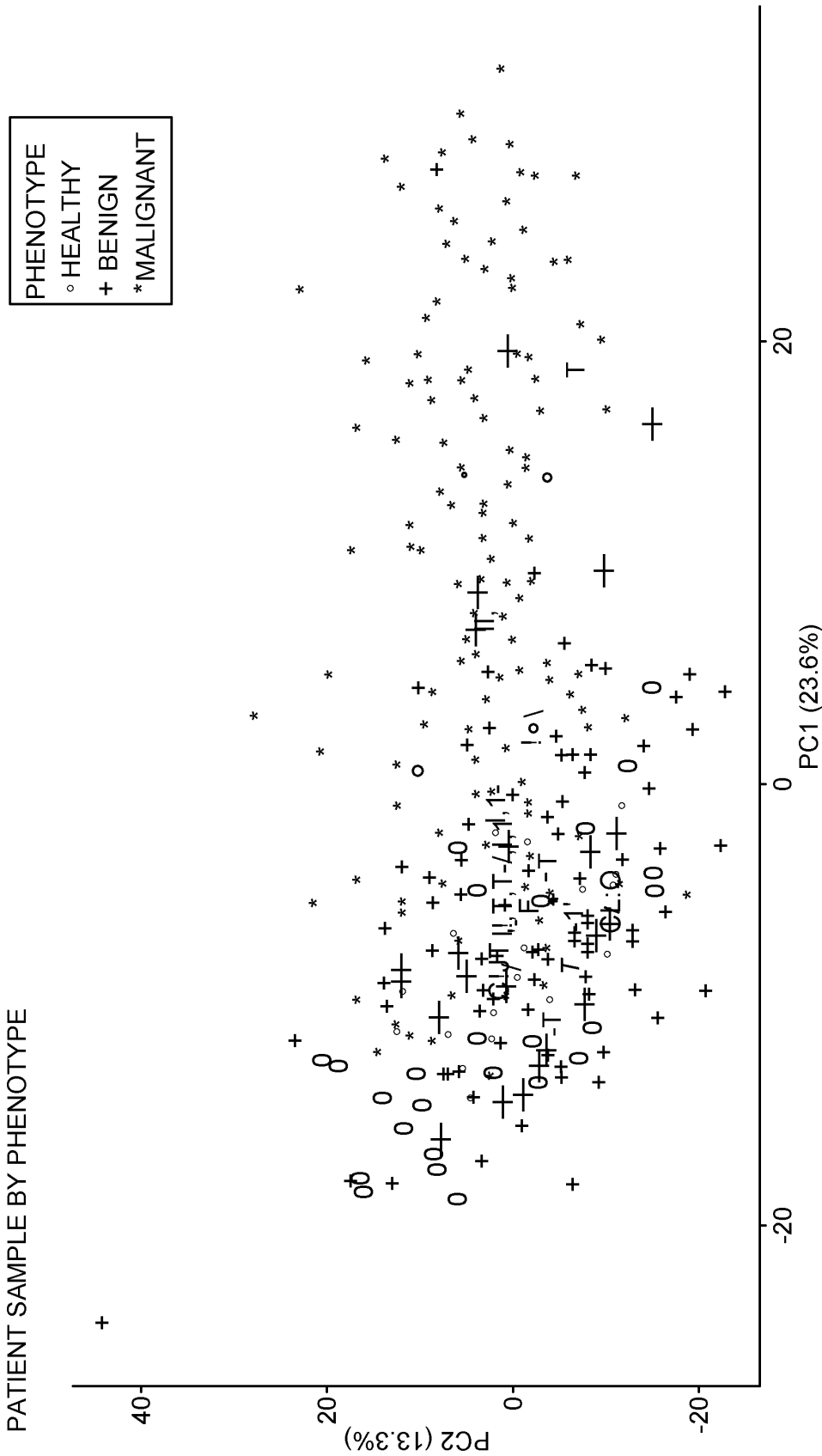
FIG. 49

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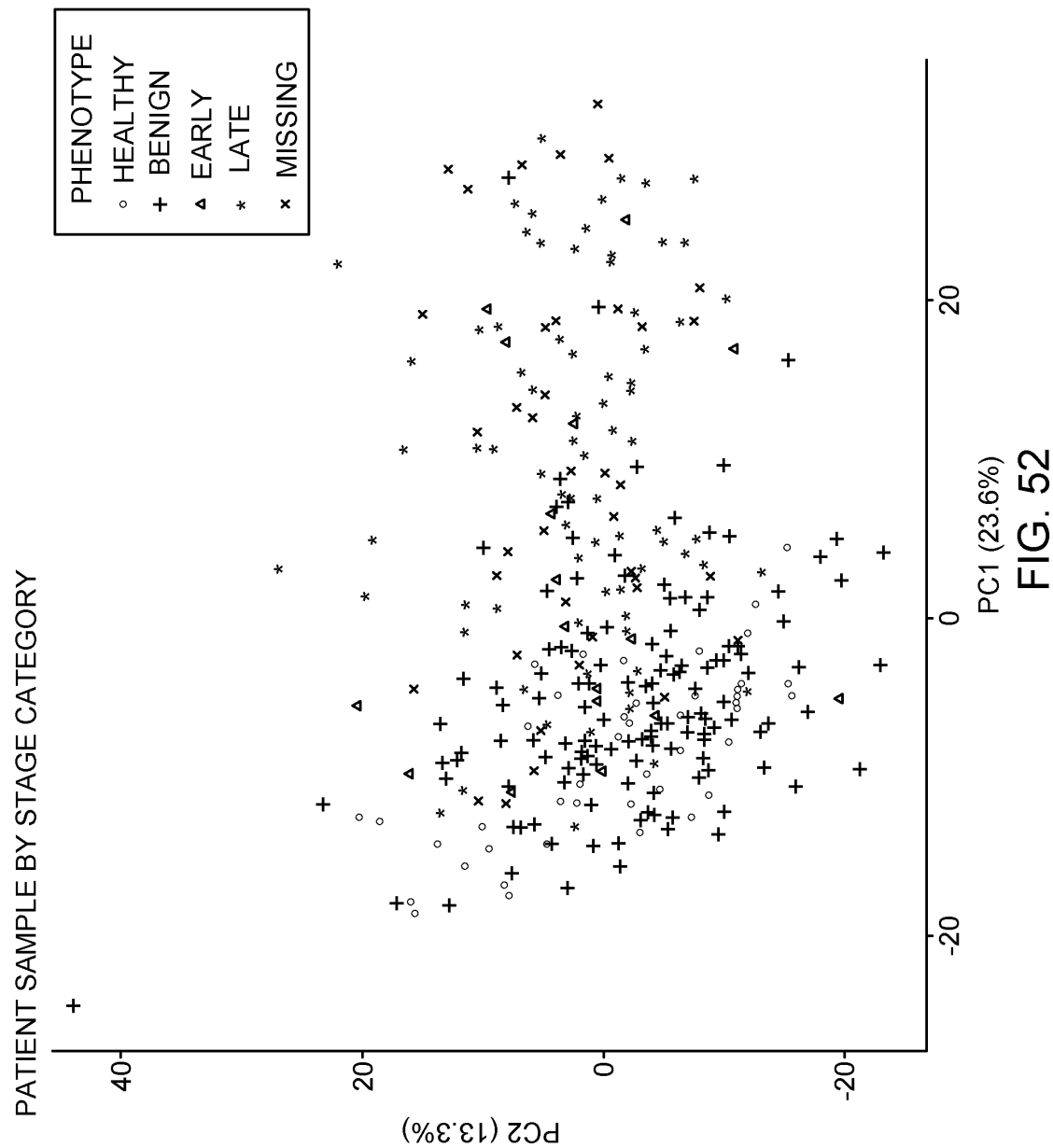
	HEALTHY CONTROLS	BENIGN PELVIC TUMOR	EOC
N	55	151	145
EOC STAGE 1			12
EOC STAGE 2			6
EOC STAGE 3			68
EOC STAGE 4			12
UNDOCUMENTED			47
AGE(MEDIAN)	52	60	66

FIG. 50

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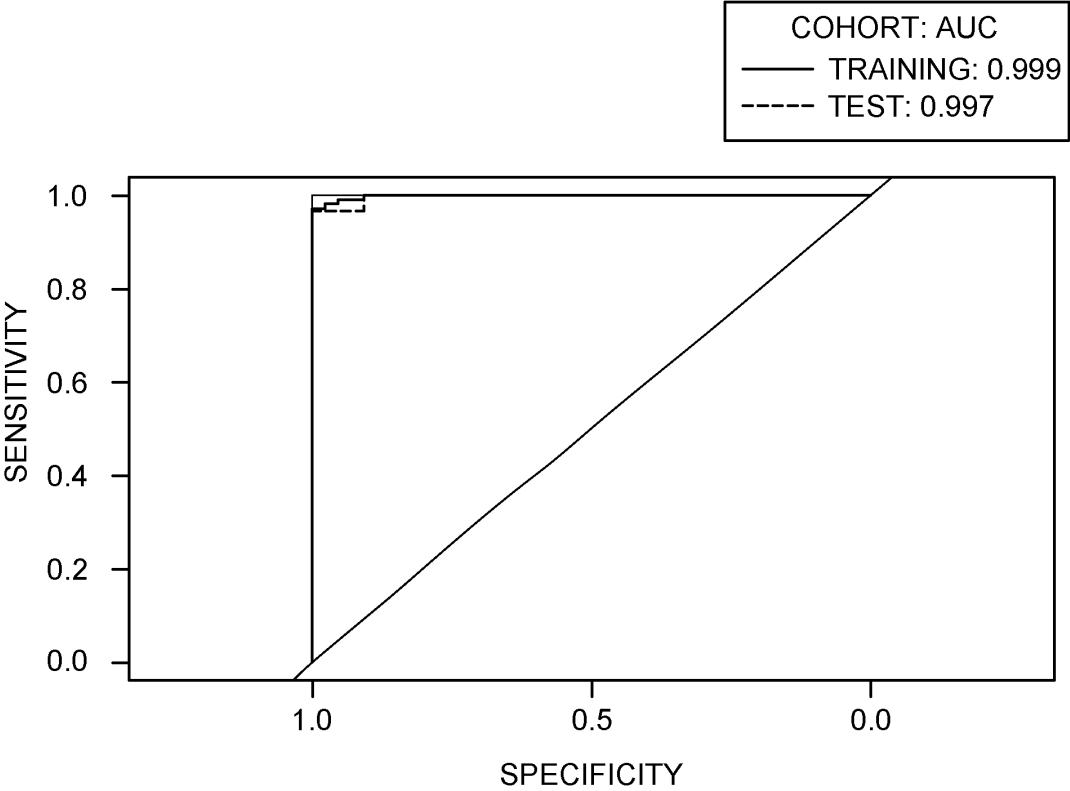


FIG. 53

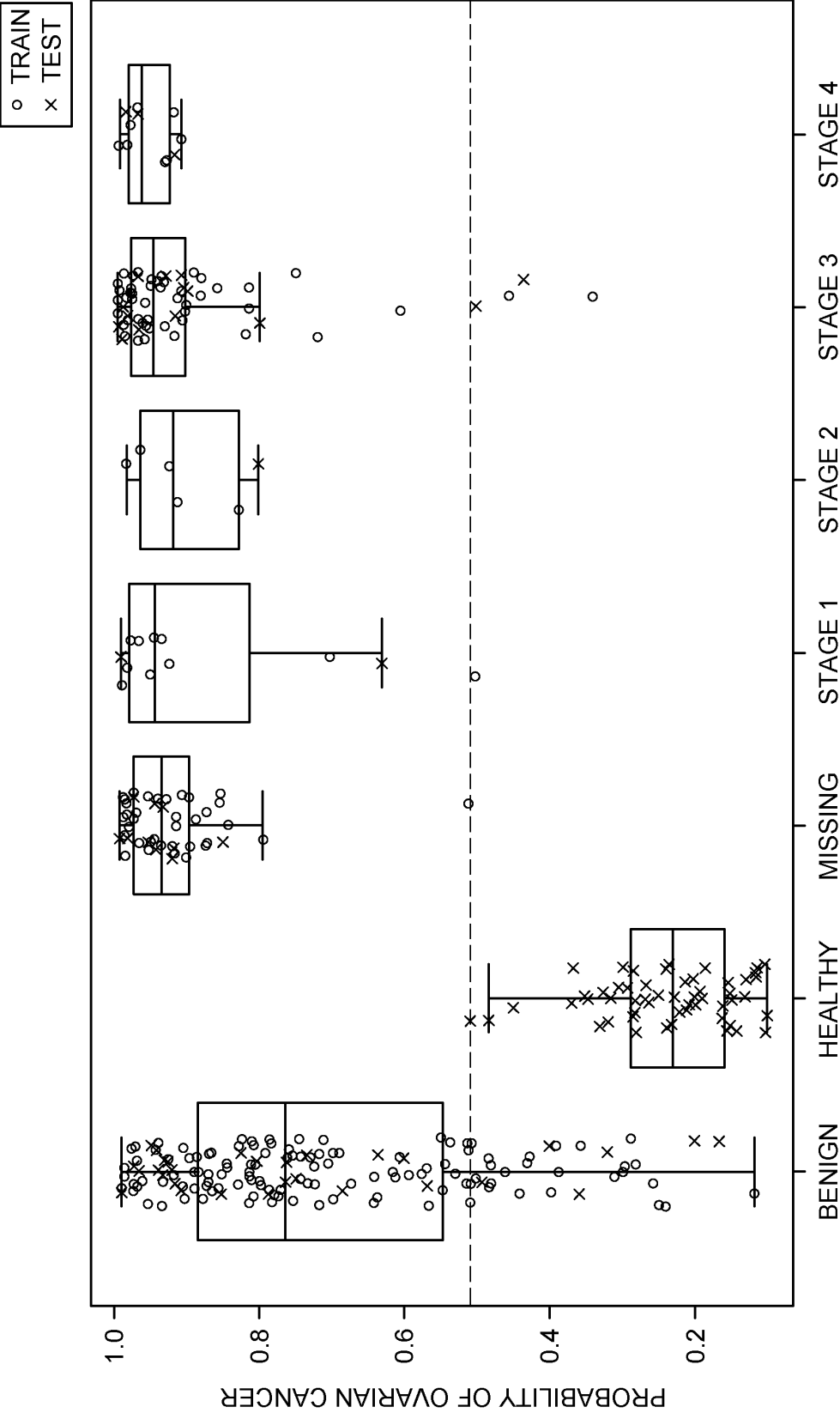


FIG. 54

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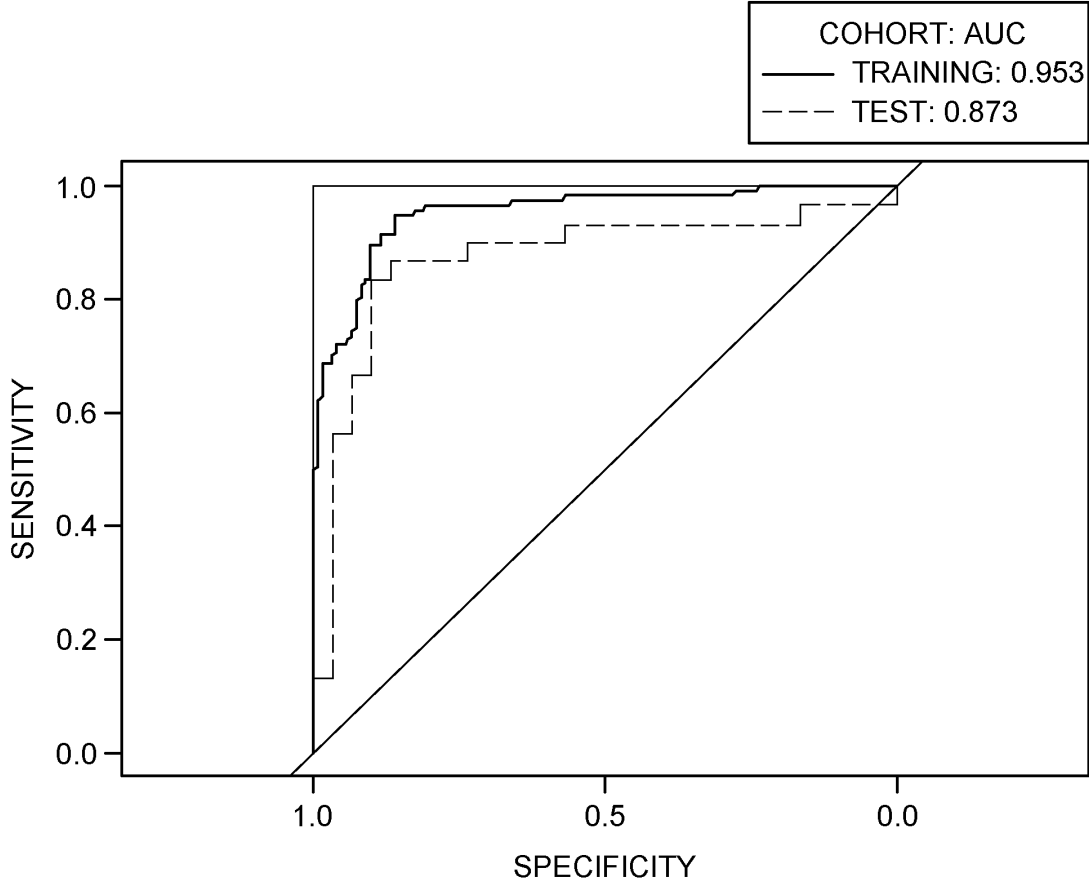


FIG. 55

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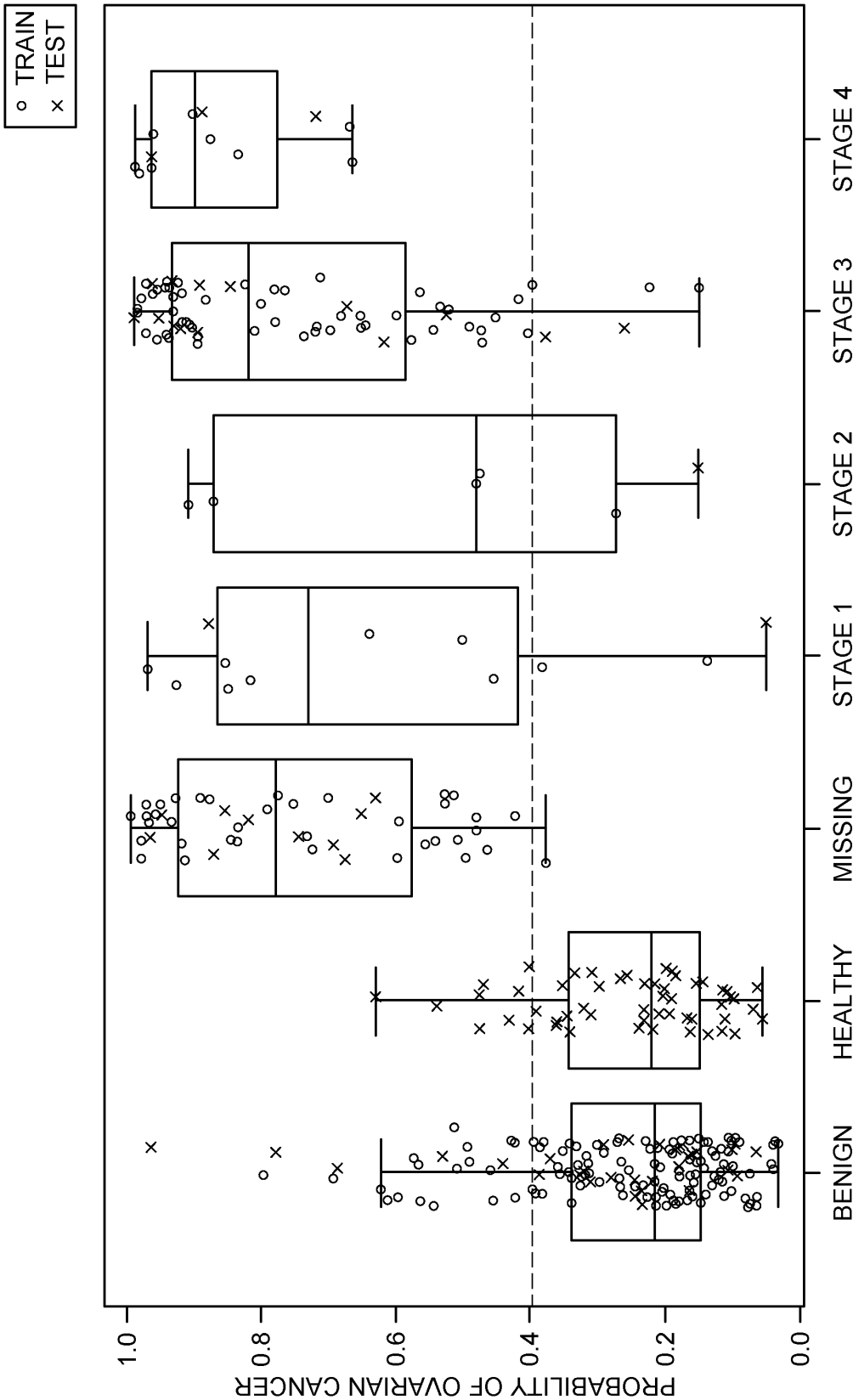


FIG. 56

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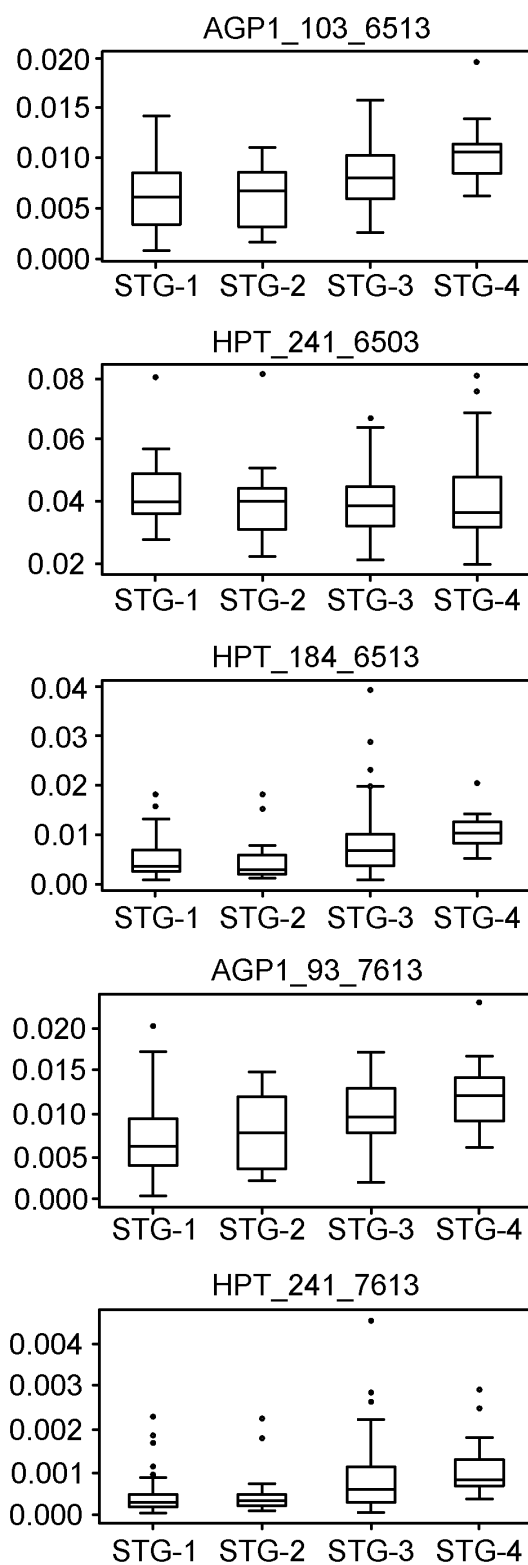


FIG. 57A

SUBSTITUTE SHEET (RULE 26)

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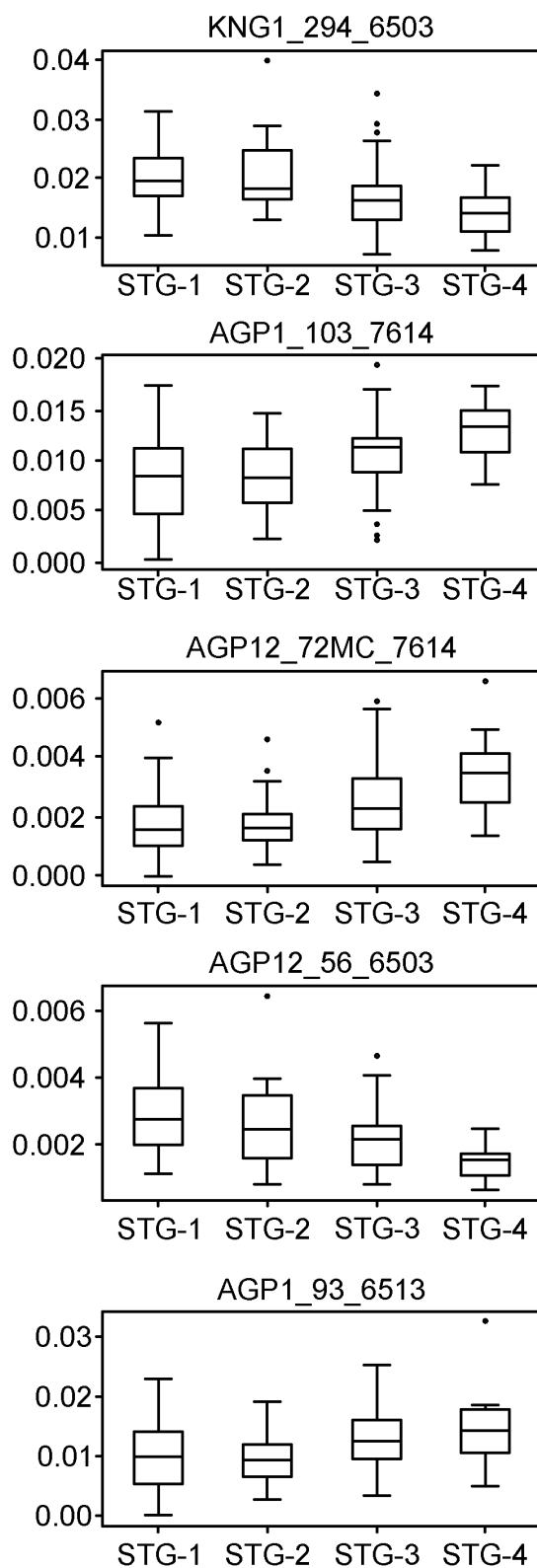


FIG. 57B

SUBSTITUTE SHEET (RULE 26)

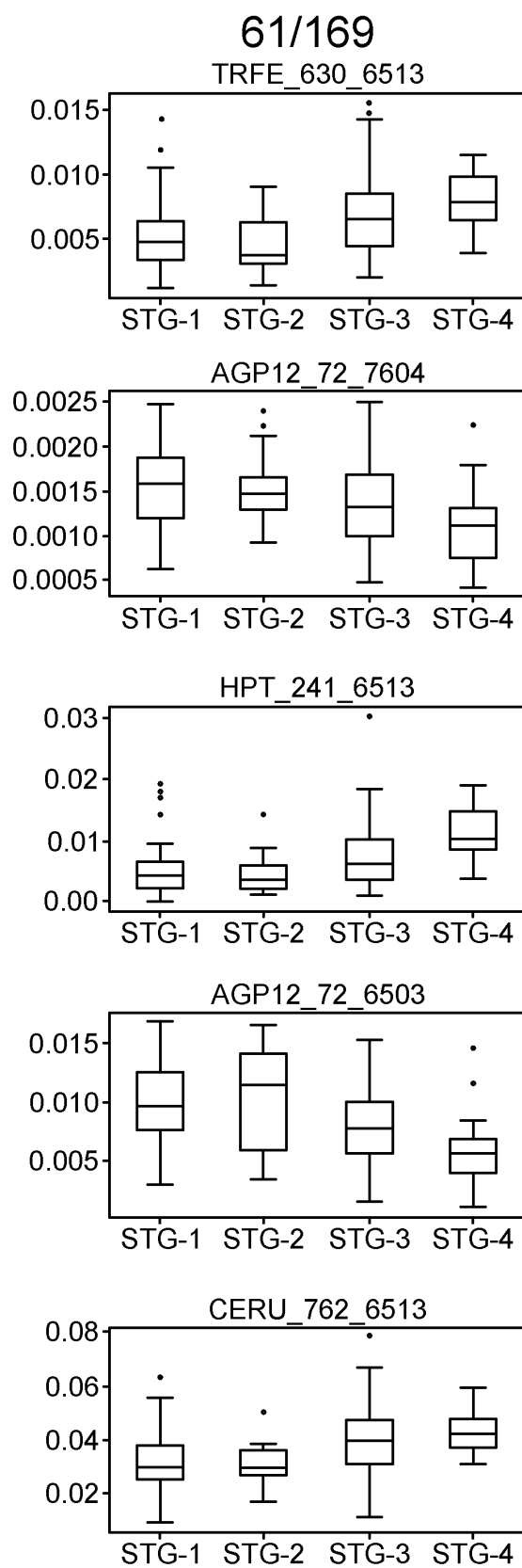


FIG. 57C

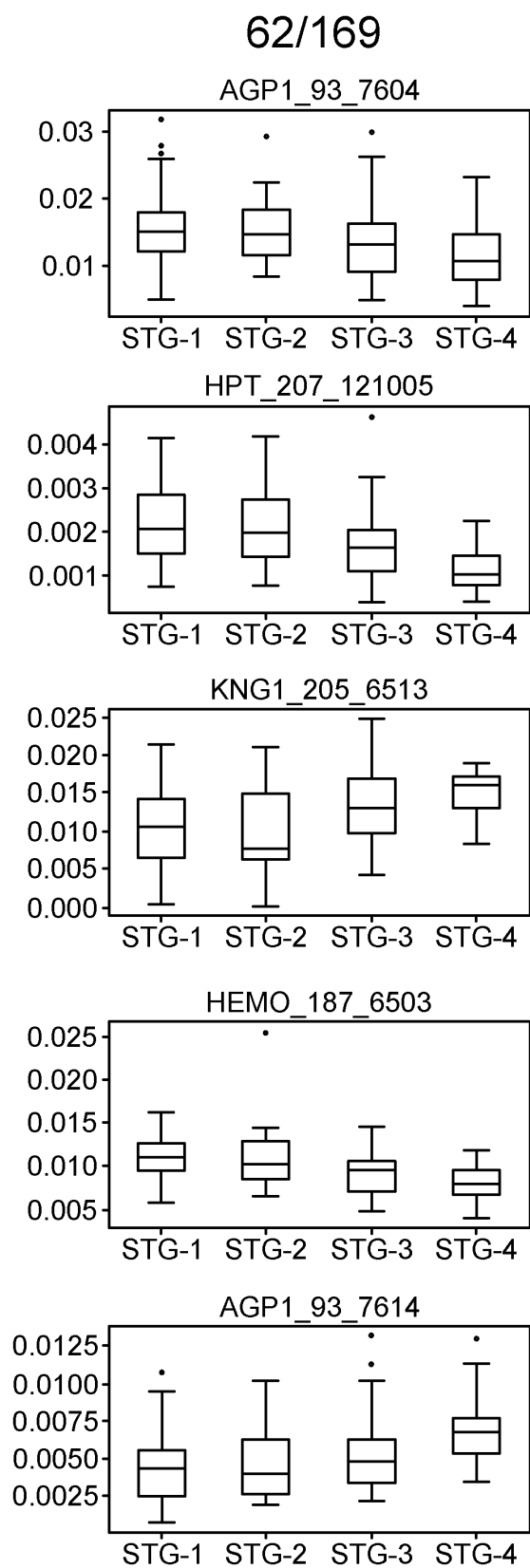


FIG. 57D

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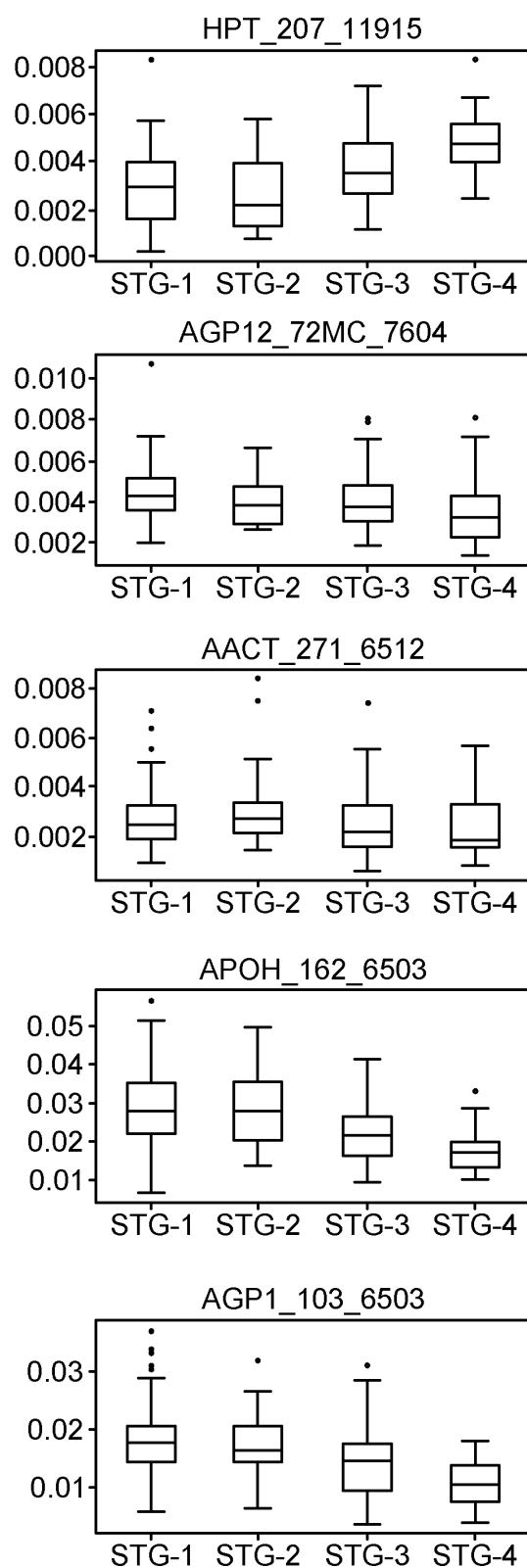


FIG. 57E

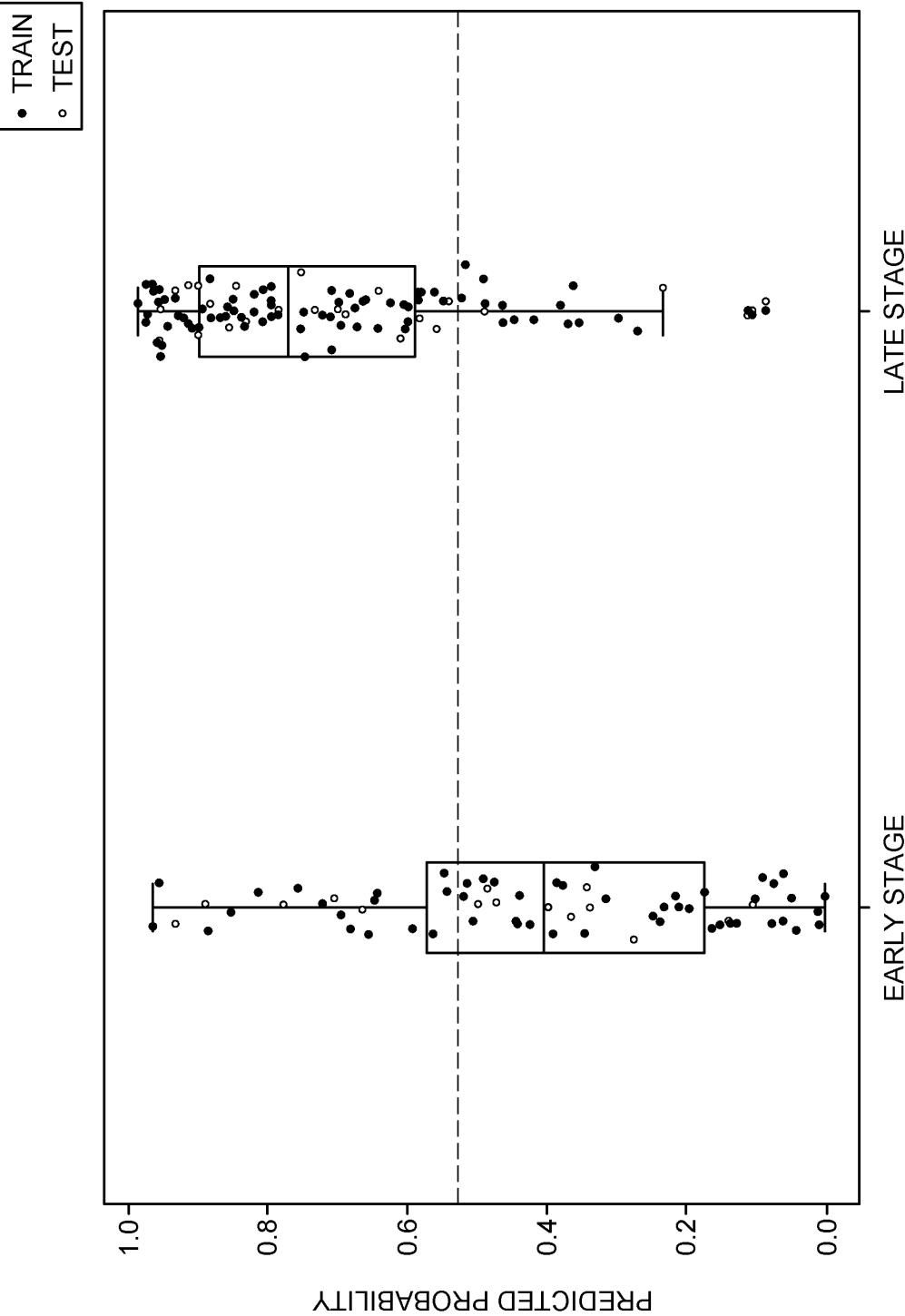


FIG. 58

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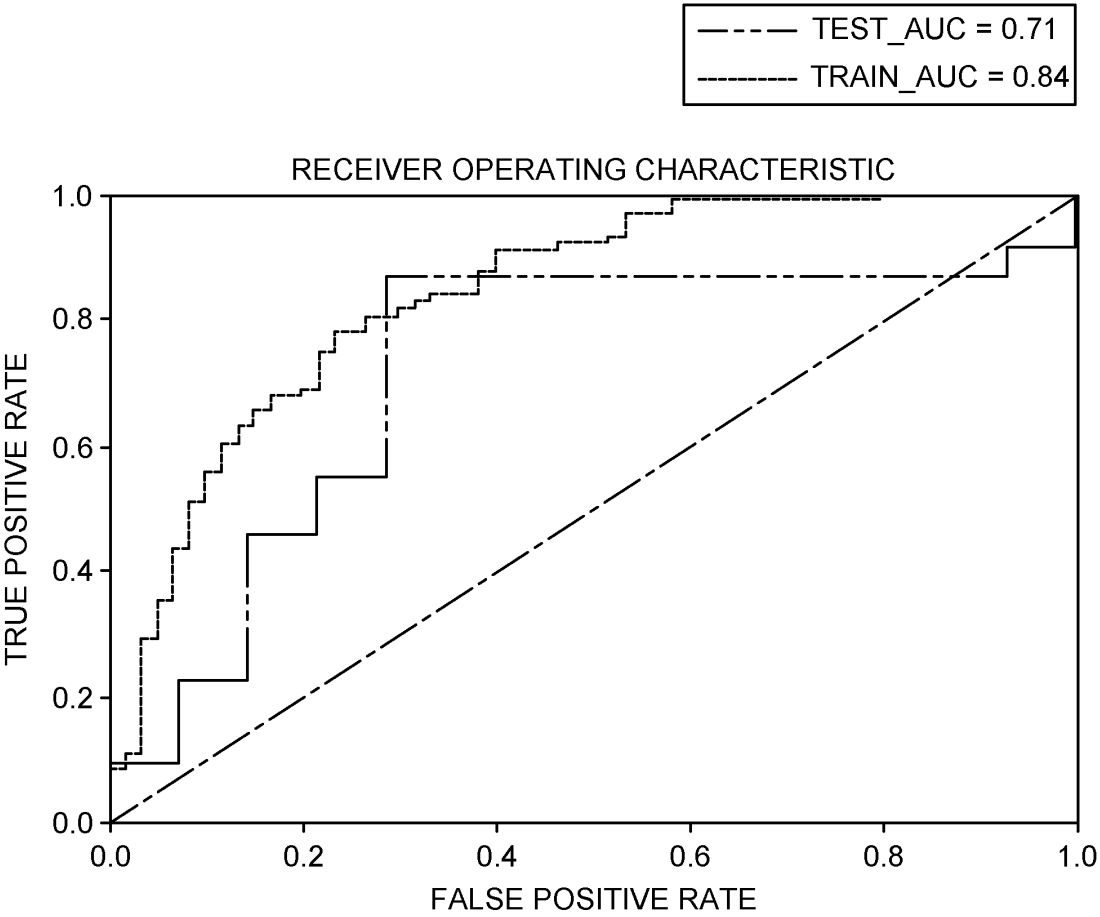


FIG. 59

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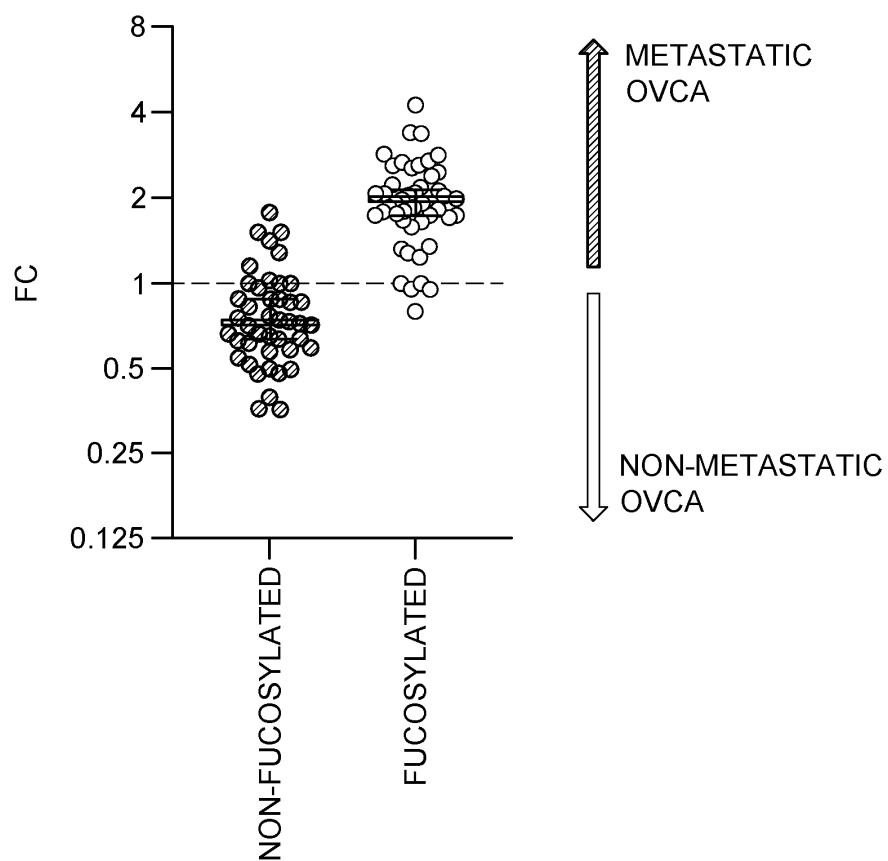
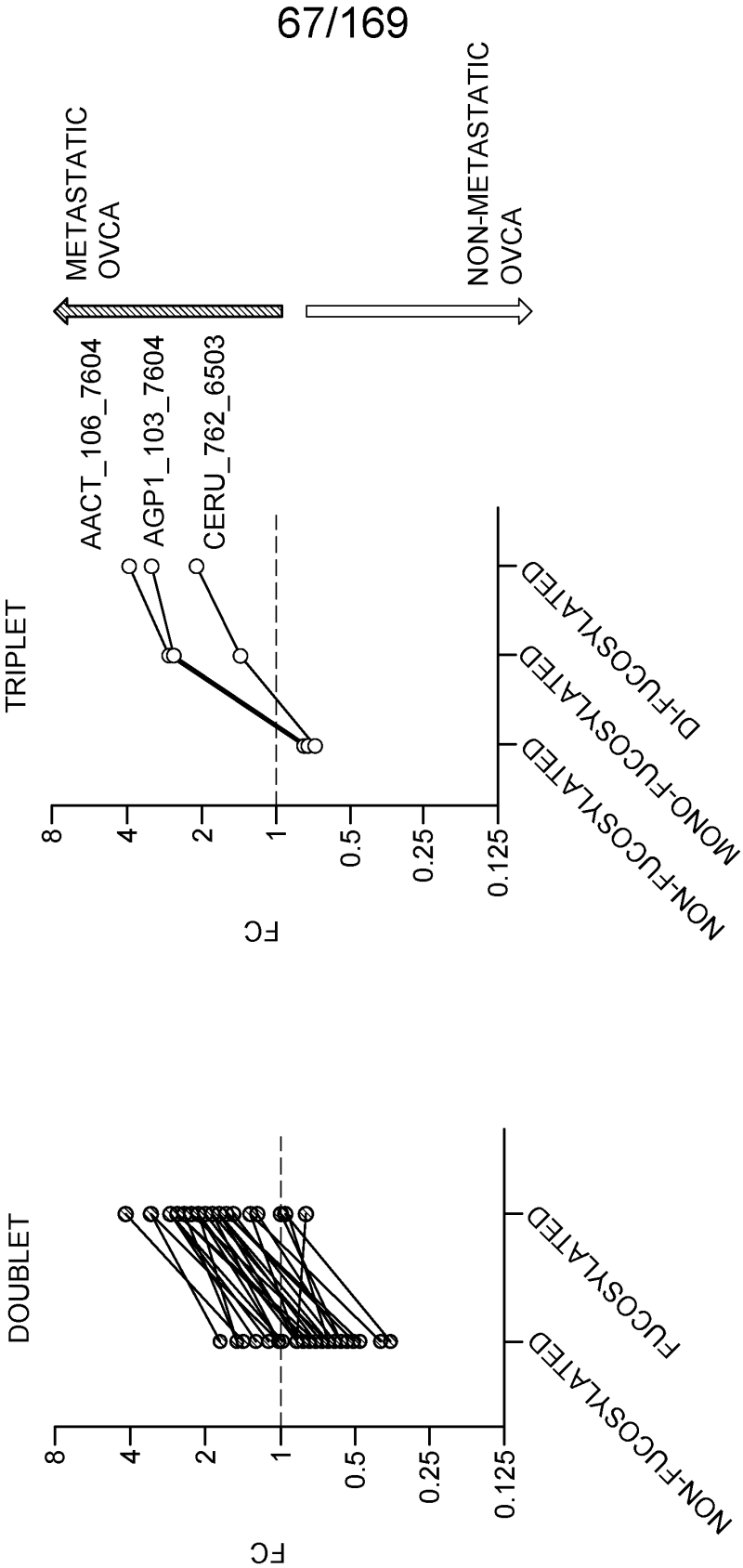


FIG. 60



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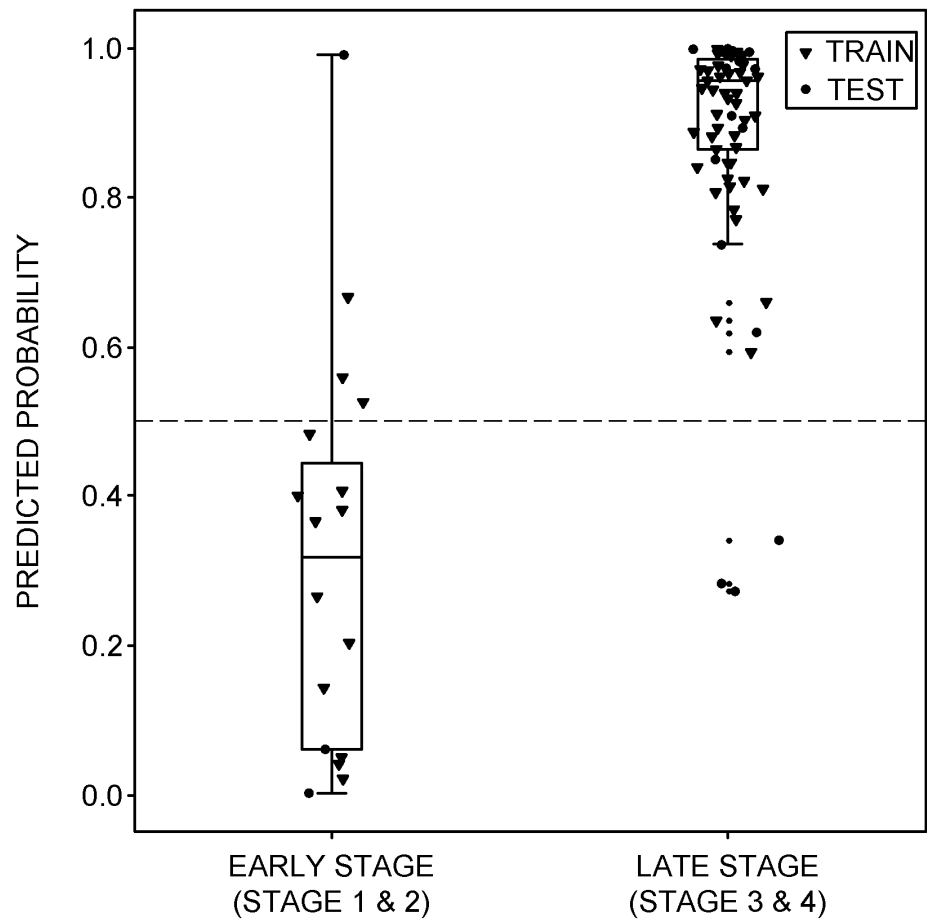


FIG. 62

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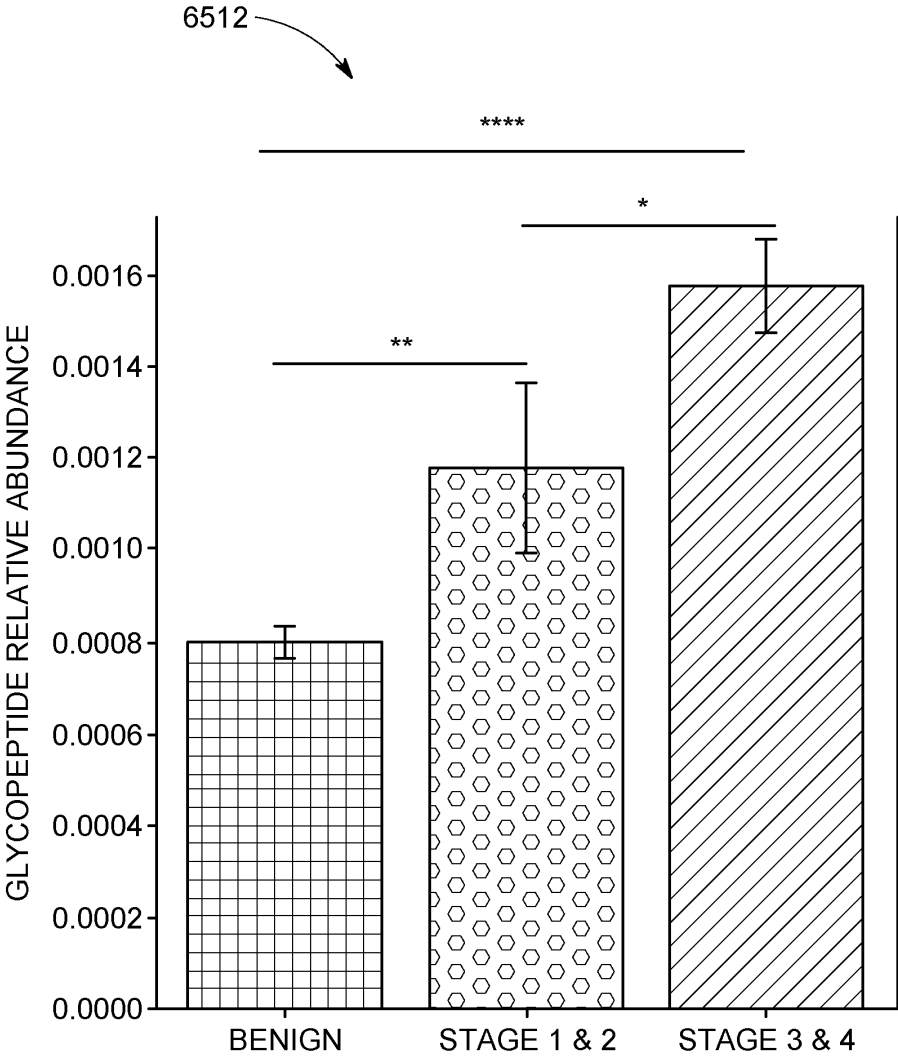


FIG. 63A

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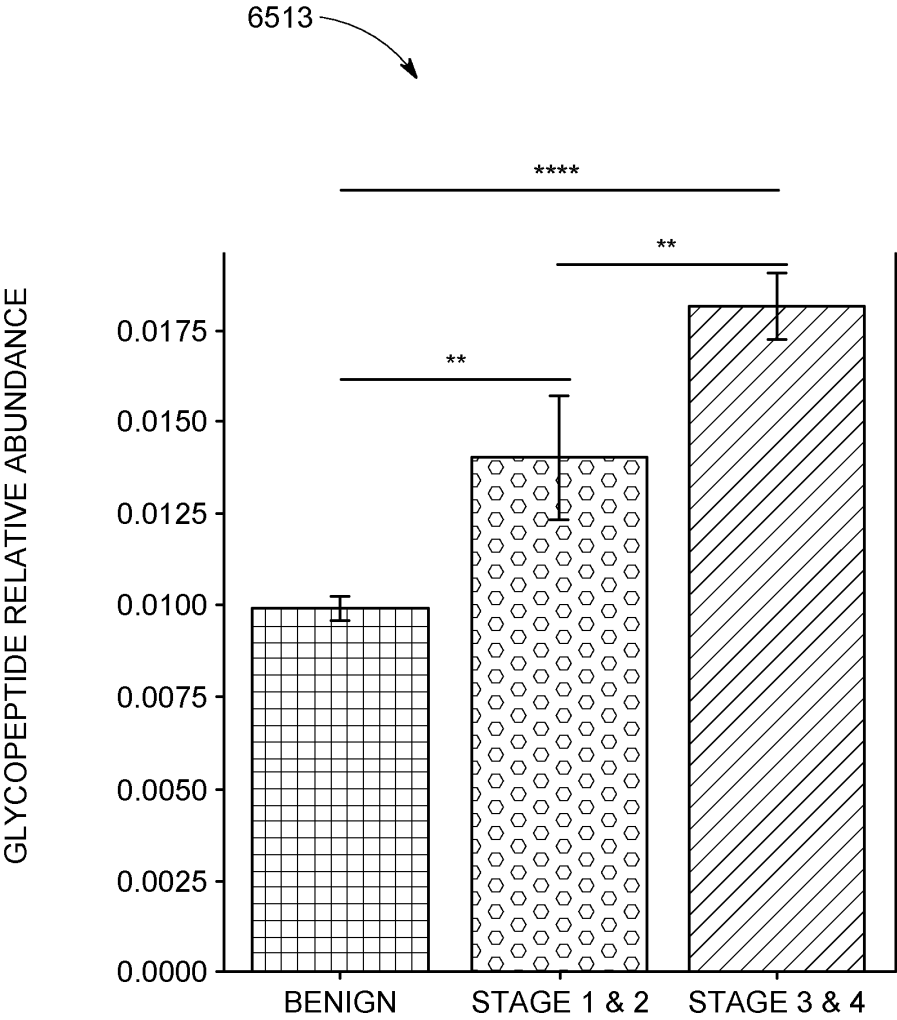


FIG. 63B

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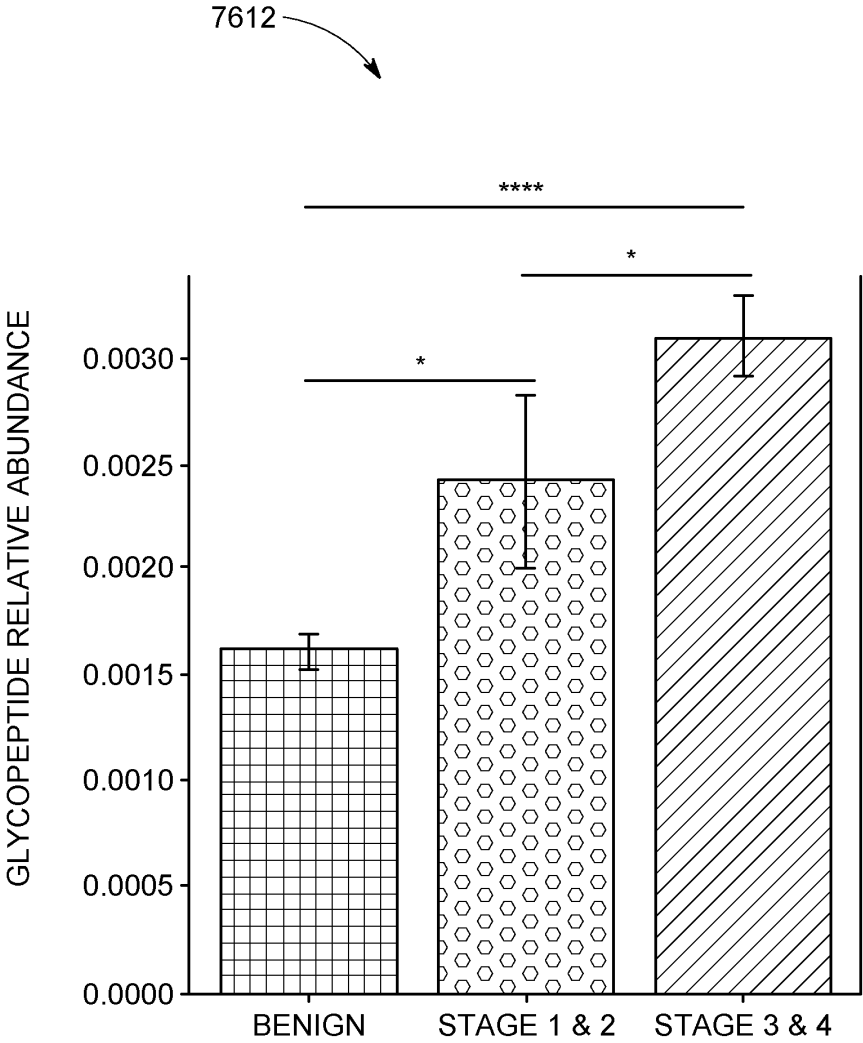


FIG. 63C

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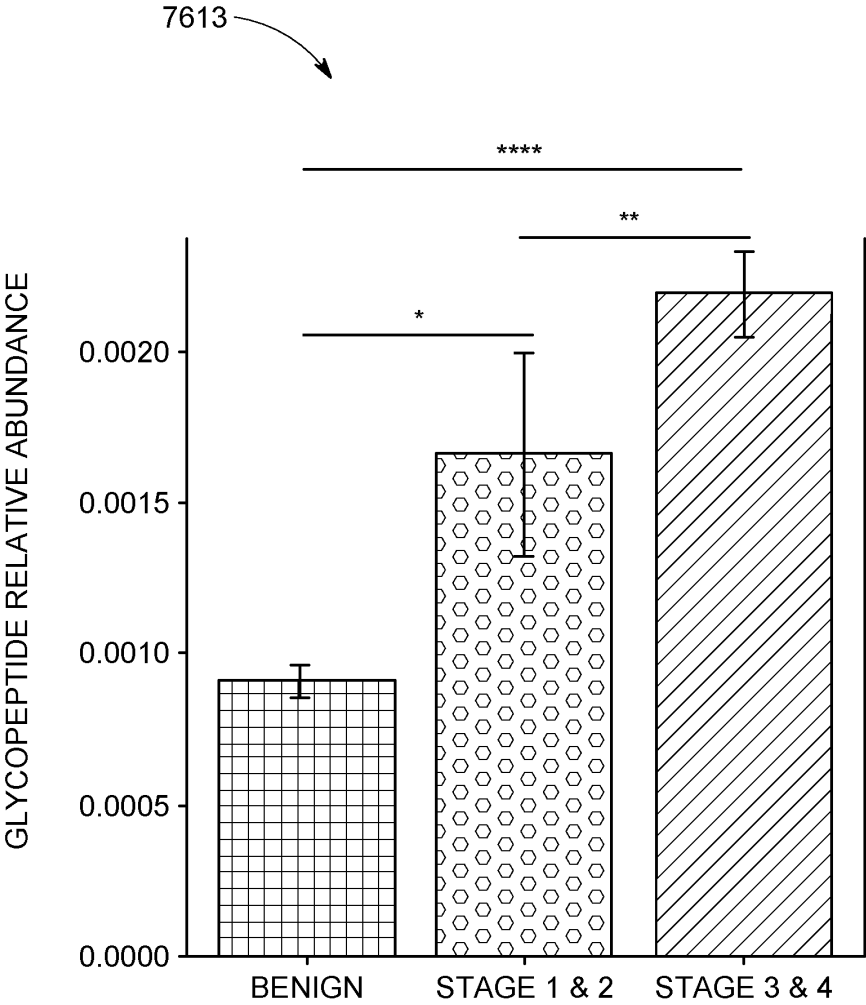


FIG. 63D

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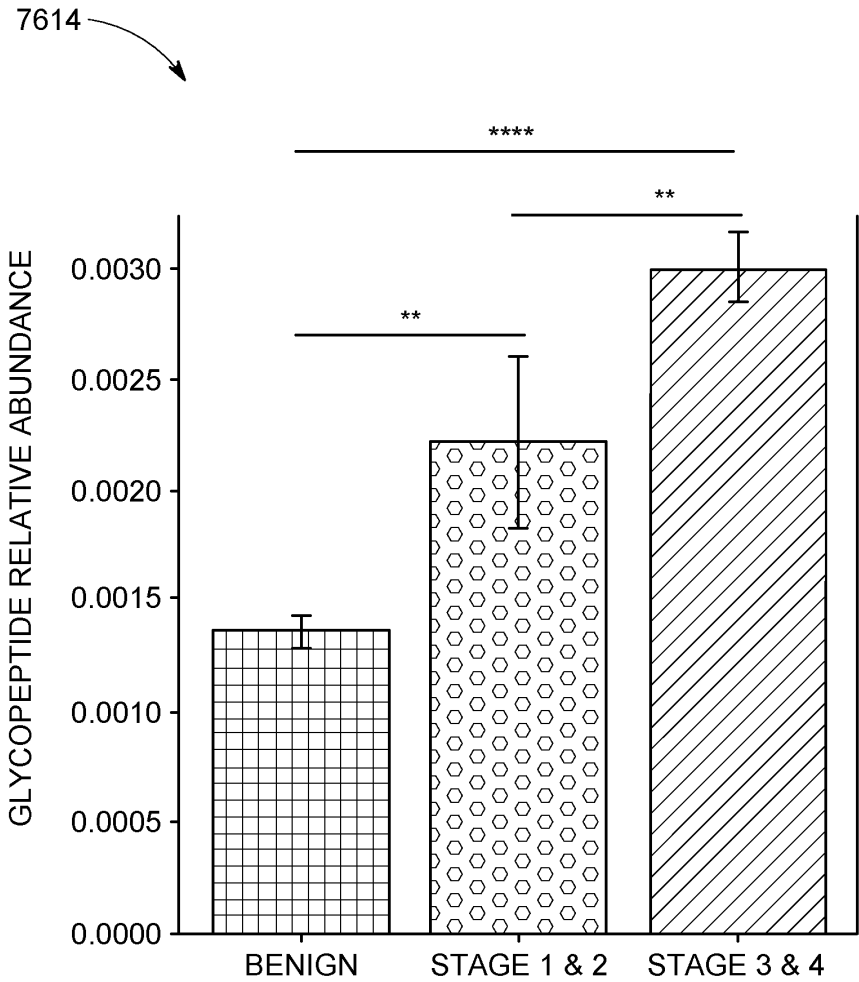


FIG. 63E

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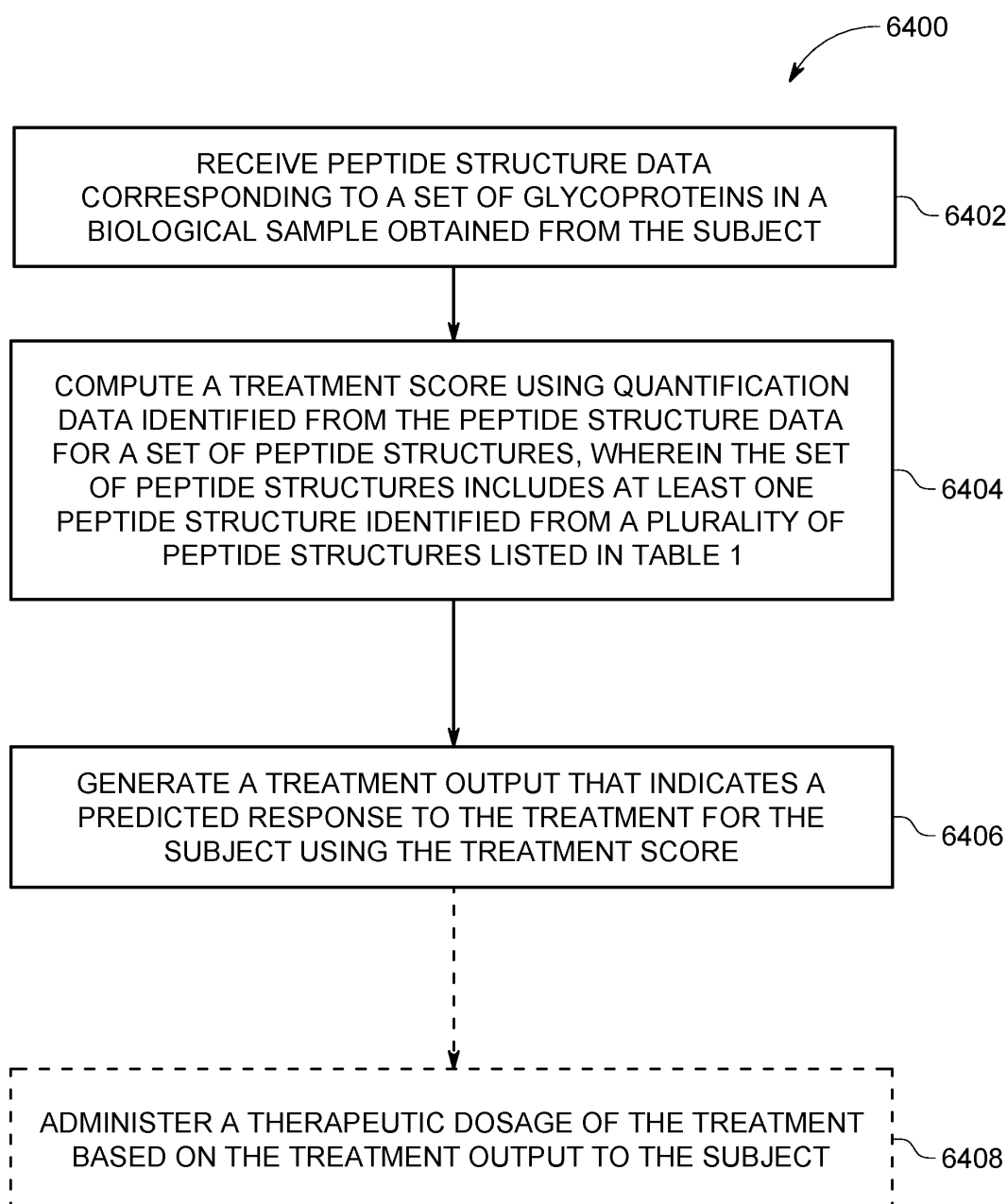


FIG. 64

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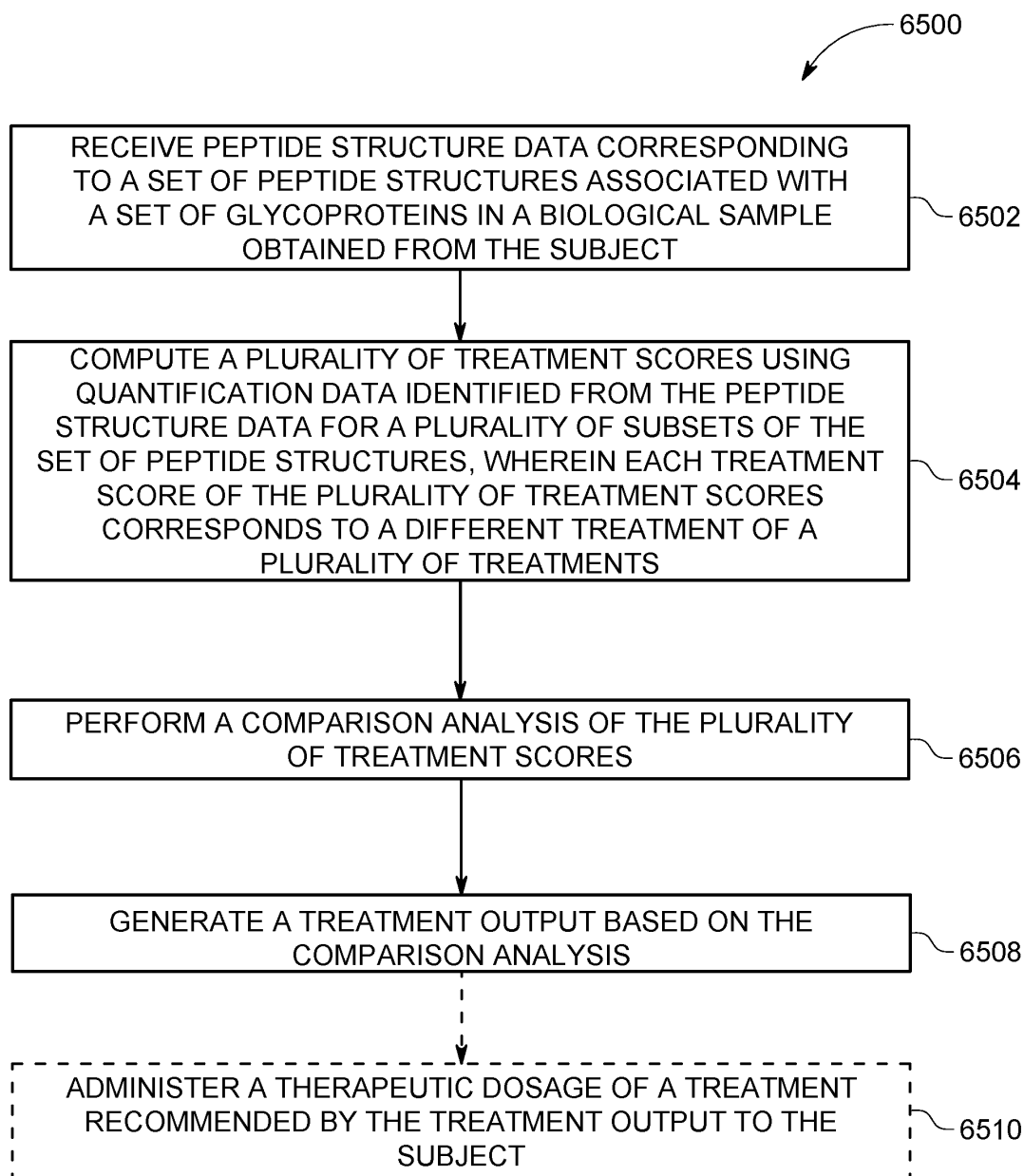


FIG. 65

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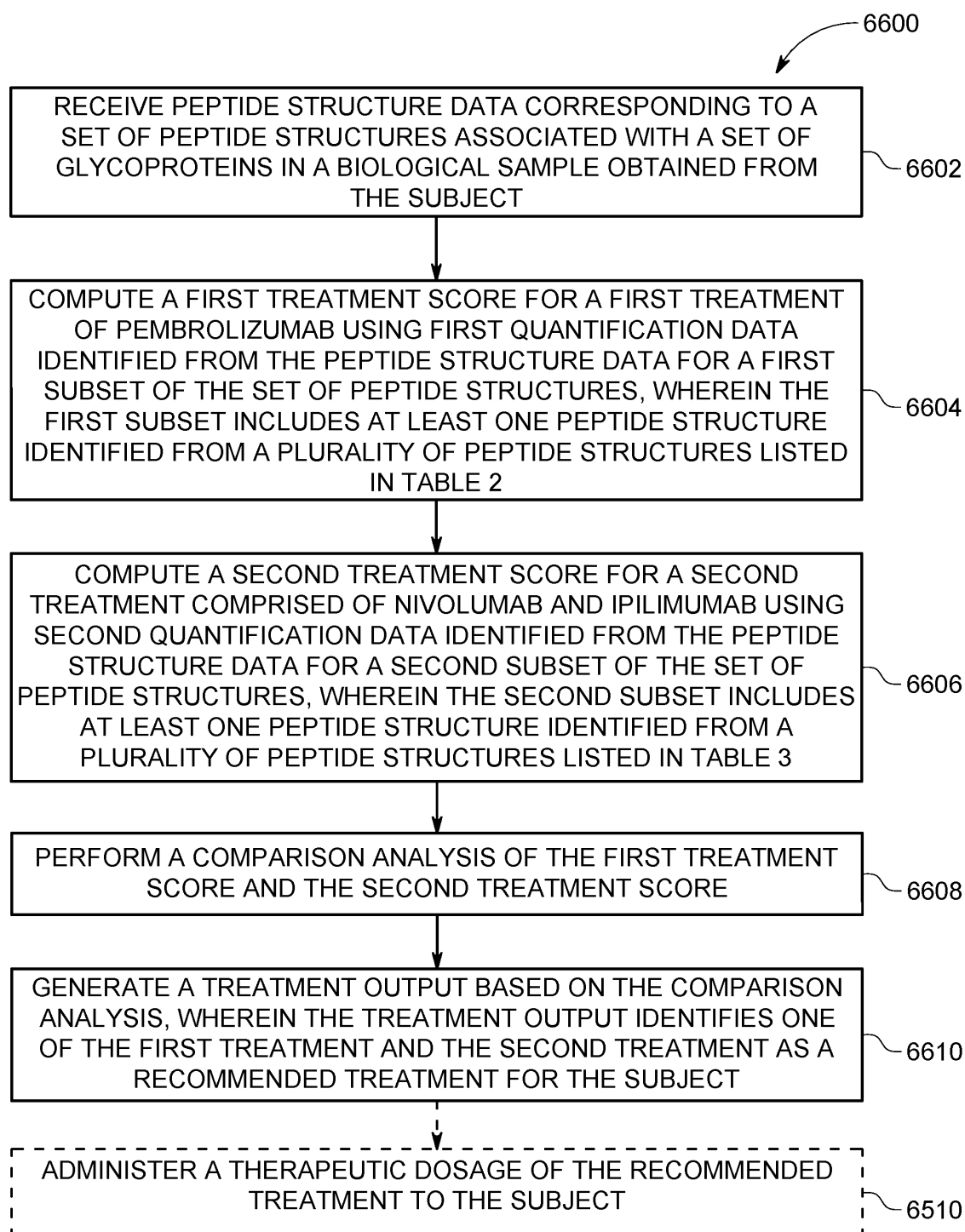


FIG. 66

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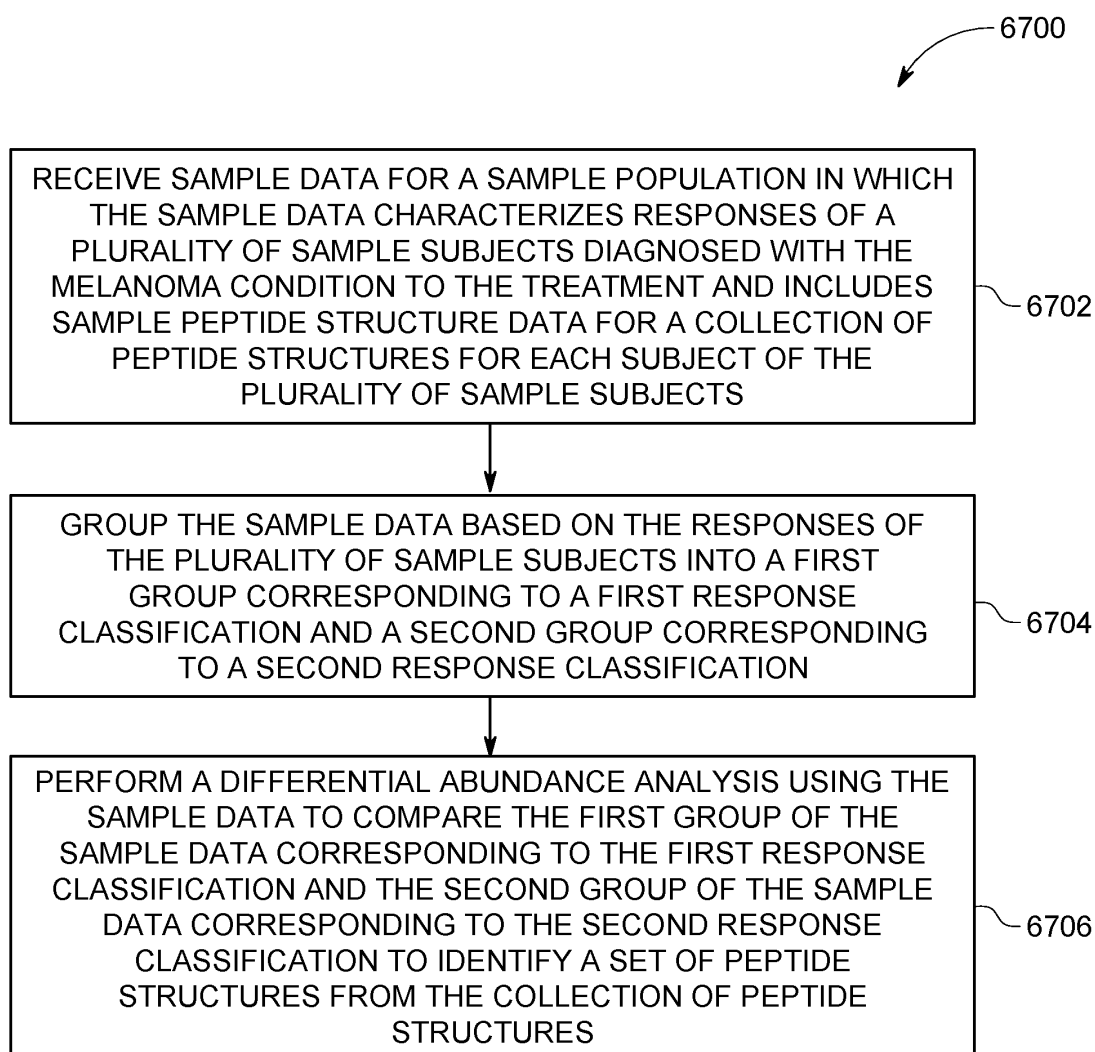


FIG. 67

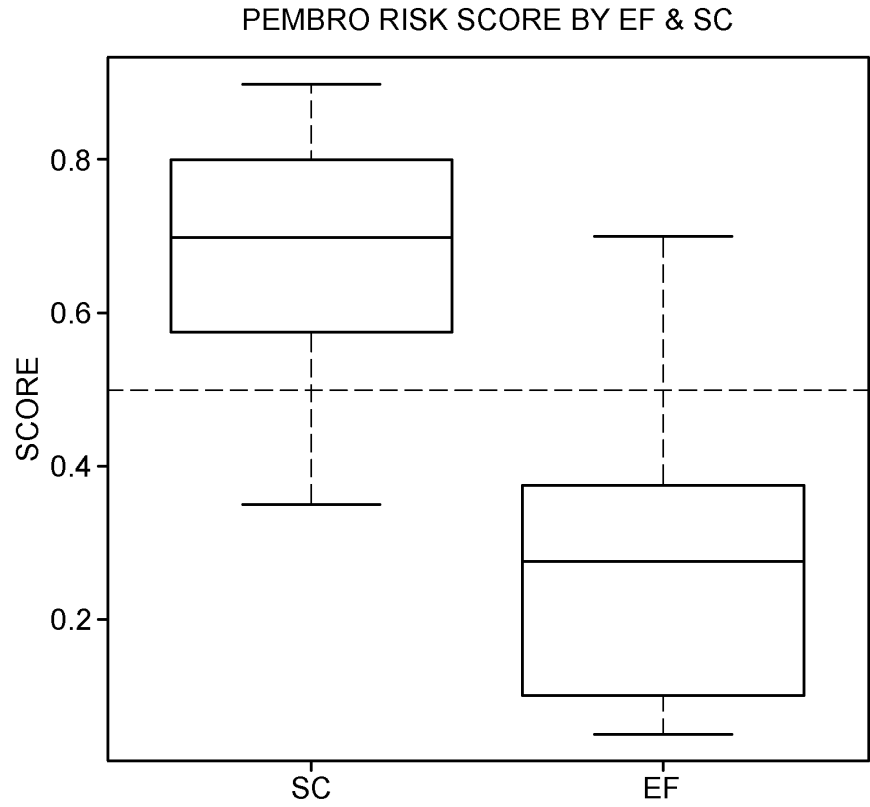


FIG. 68

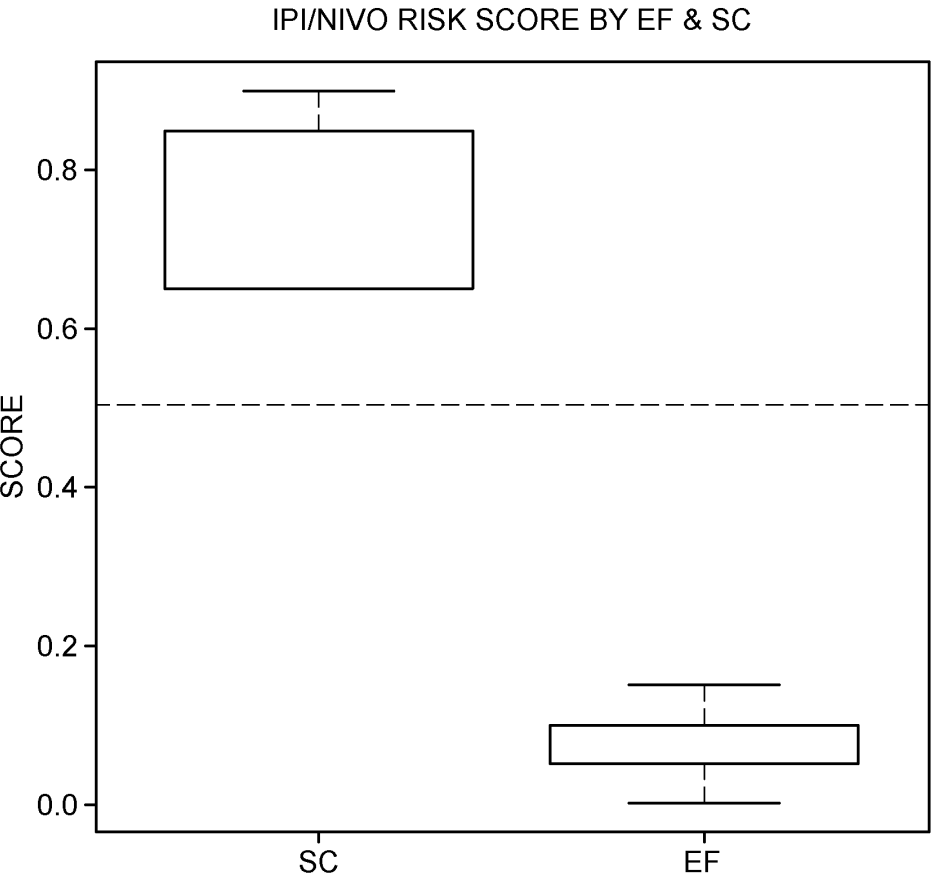


FIG. 69

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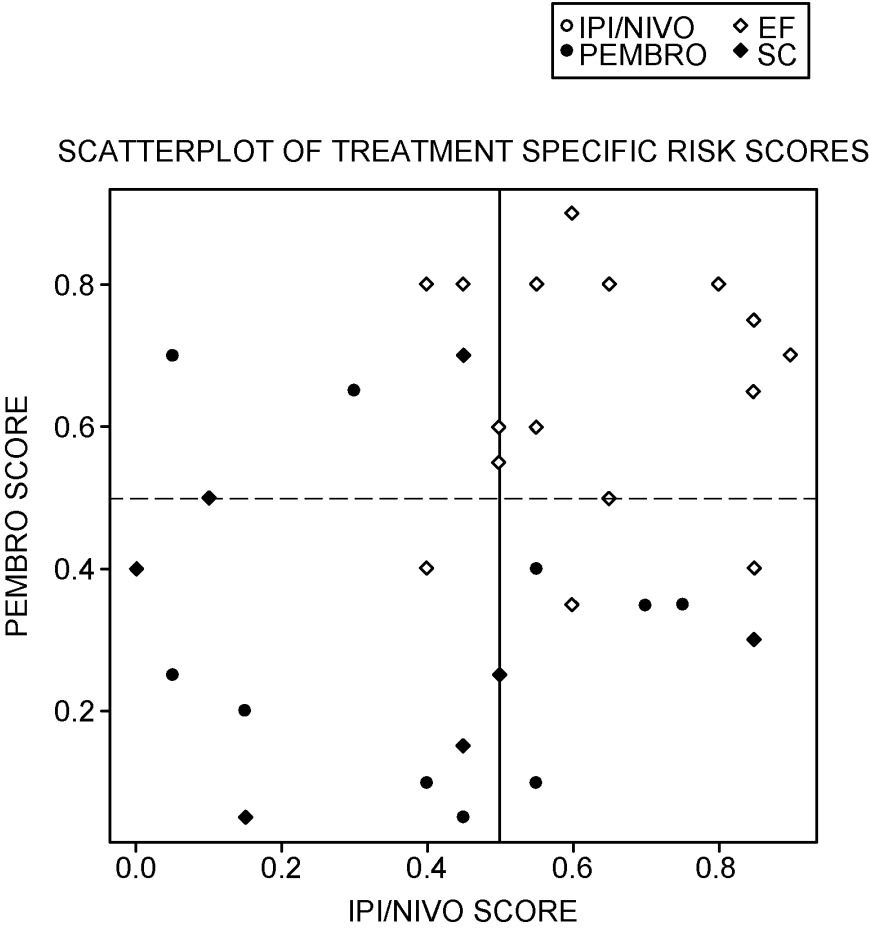


FIG. 70

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		EVENTS/N MEDIAN (95% CL)		
————	IPI/NIVO EF	9/11	82.00	(22.00,418.00)
-----	IPI/NIVO SC	8/13	527.00	(42.00,NA)
- - - - -	PEMBRO EF	12/12	57.00	(22.00,176.00)
————	PEMBRO SC	5/12	NA	(82.00,NA)

PFS FOR PEMBRO TREATED CASES BY PREDICTED RESPONSE

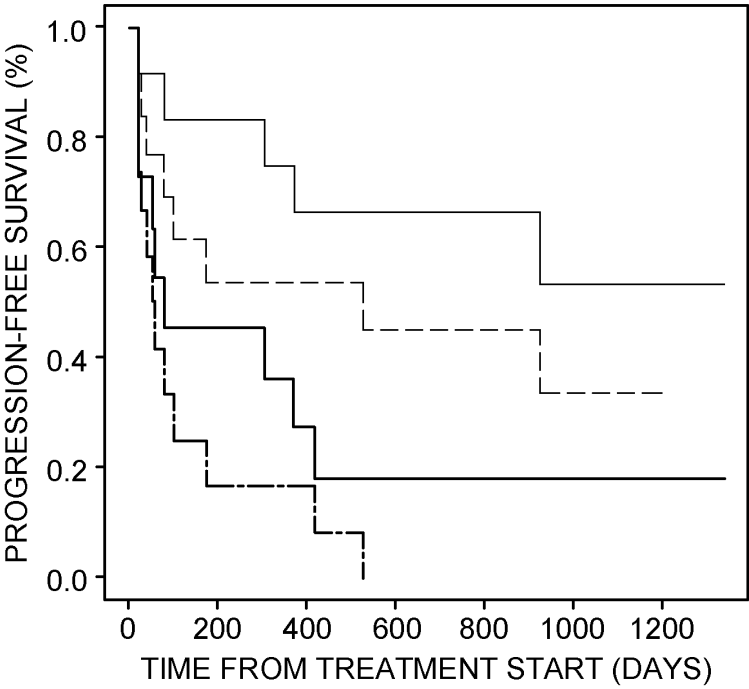


FIG. 71

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	EVENTS/N	MEDIAN	(95% CL)
———— IPI/NIVO EF	5/5	35.00	(3.00,NA)
----- IPI/NIVO SC	0/6	NA	(NA,NA)
- - - - - PEMBRO EF	3/4	26.00	(3.00,NA)
———— PEMBRO SC	2/7	NA	(35.00,NA)

PFS FOR IPI/NIVO TREATED CASES BY PREDICTED RESPONSE

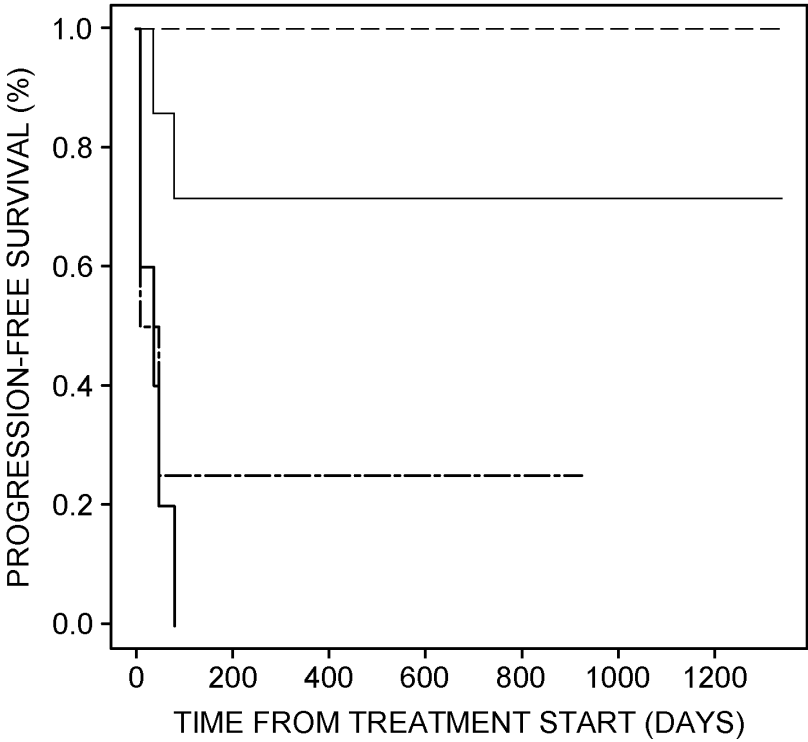


FIG. 72

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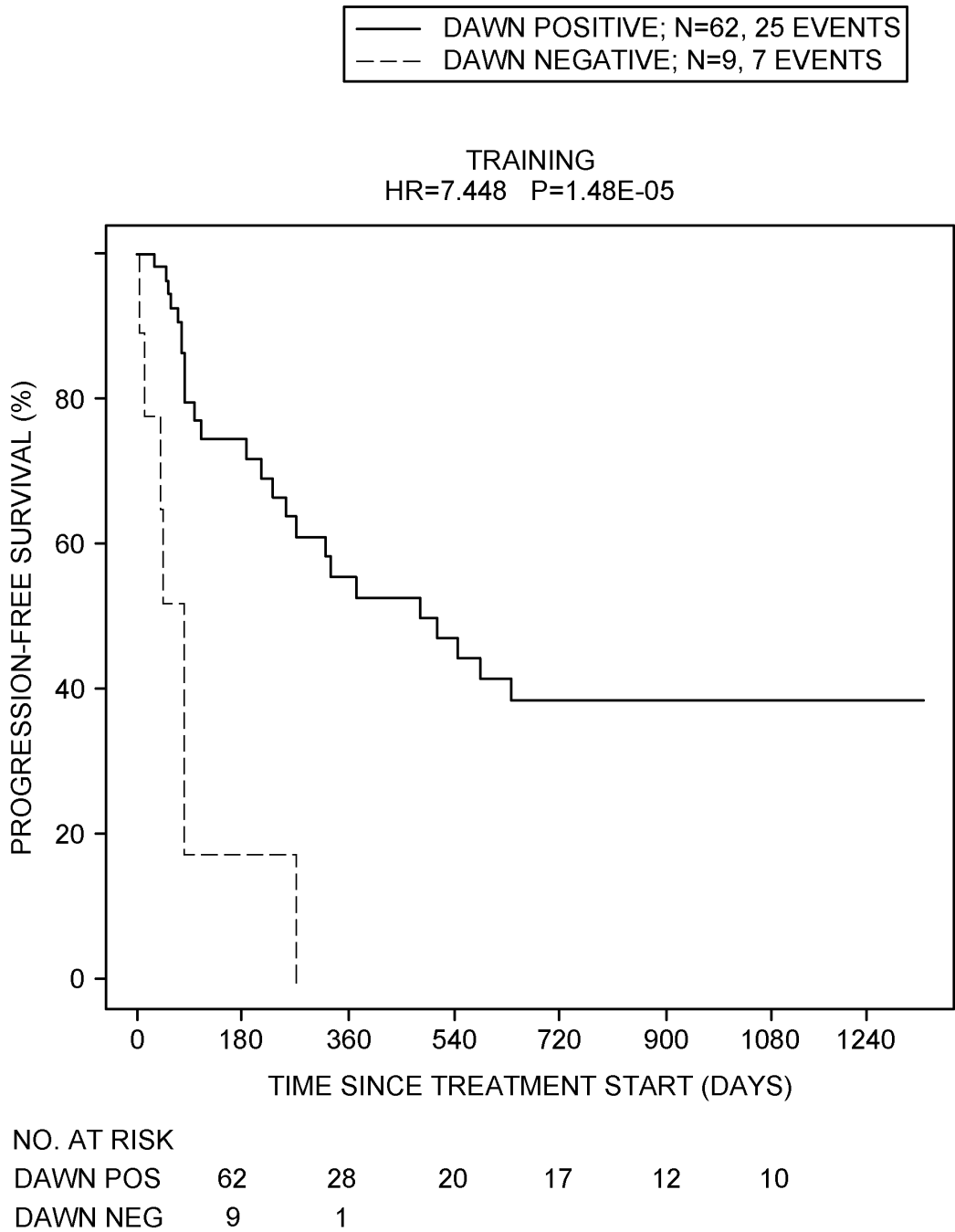
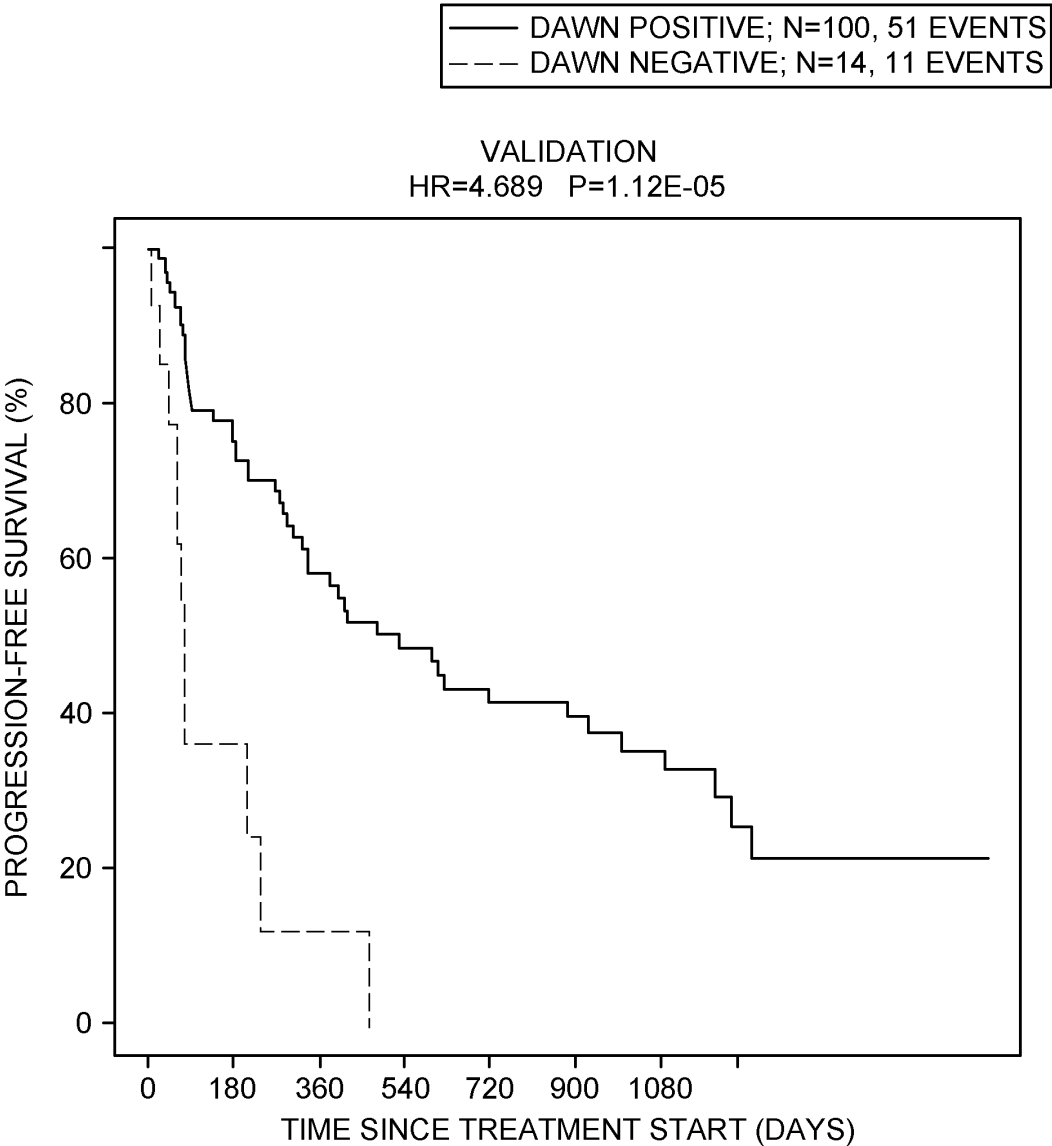


FIG. 73A

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NO. AT RISK						
DAWN POS	100	59	37	28	23	21
DAWN NEG	14	4	1			

FIG. 73B

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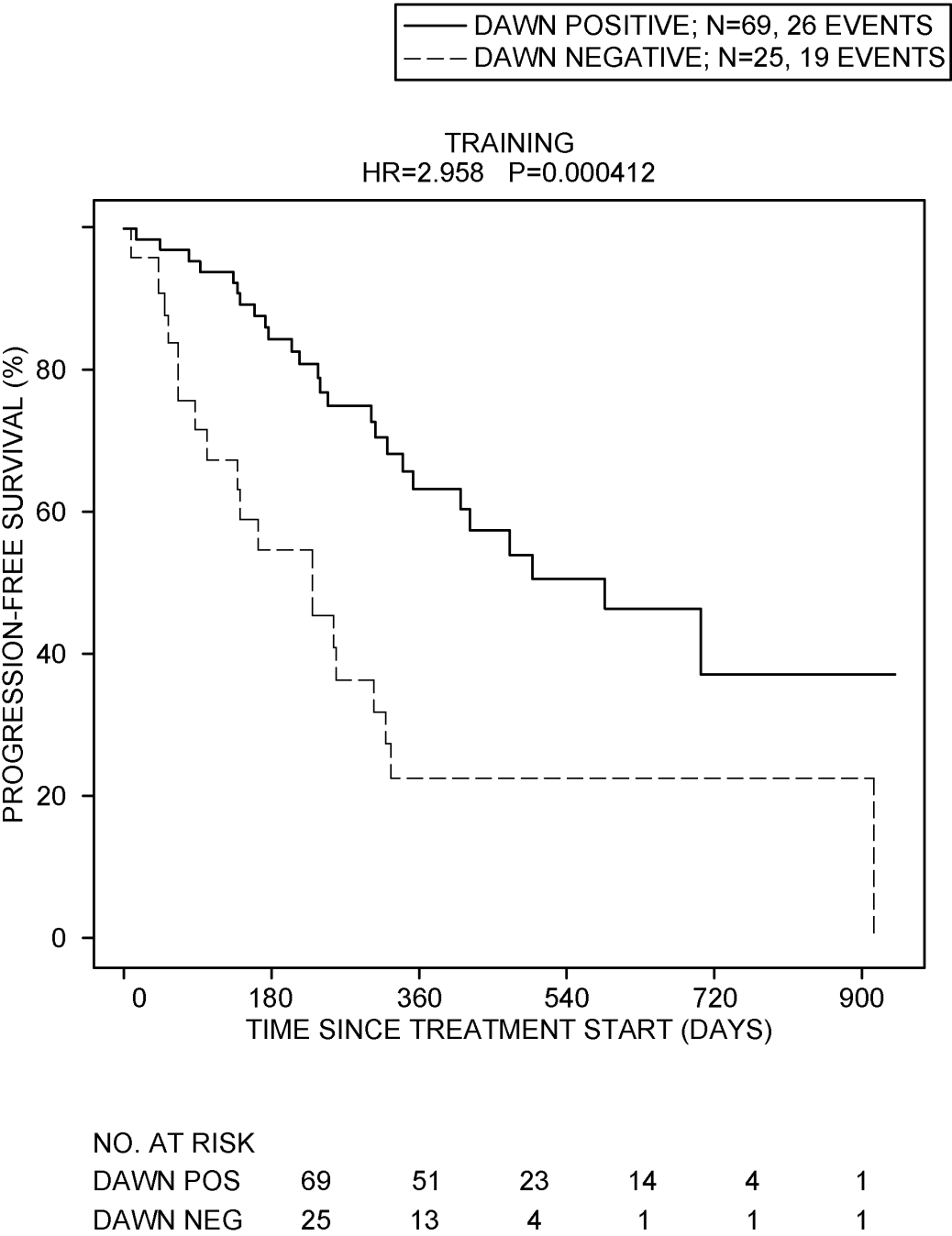


FIG. 74A

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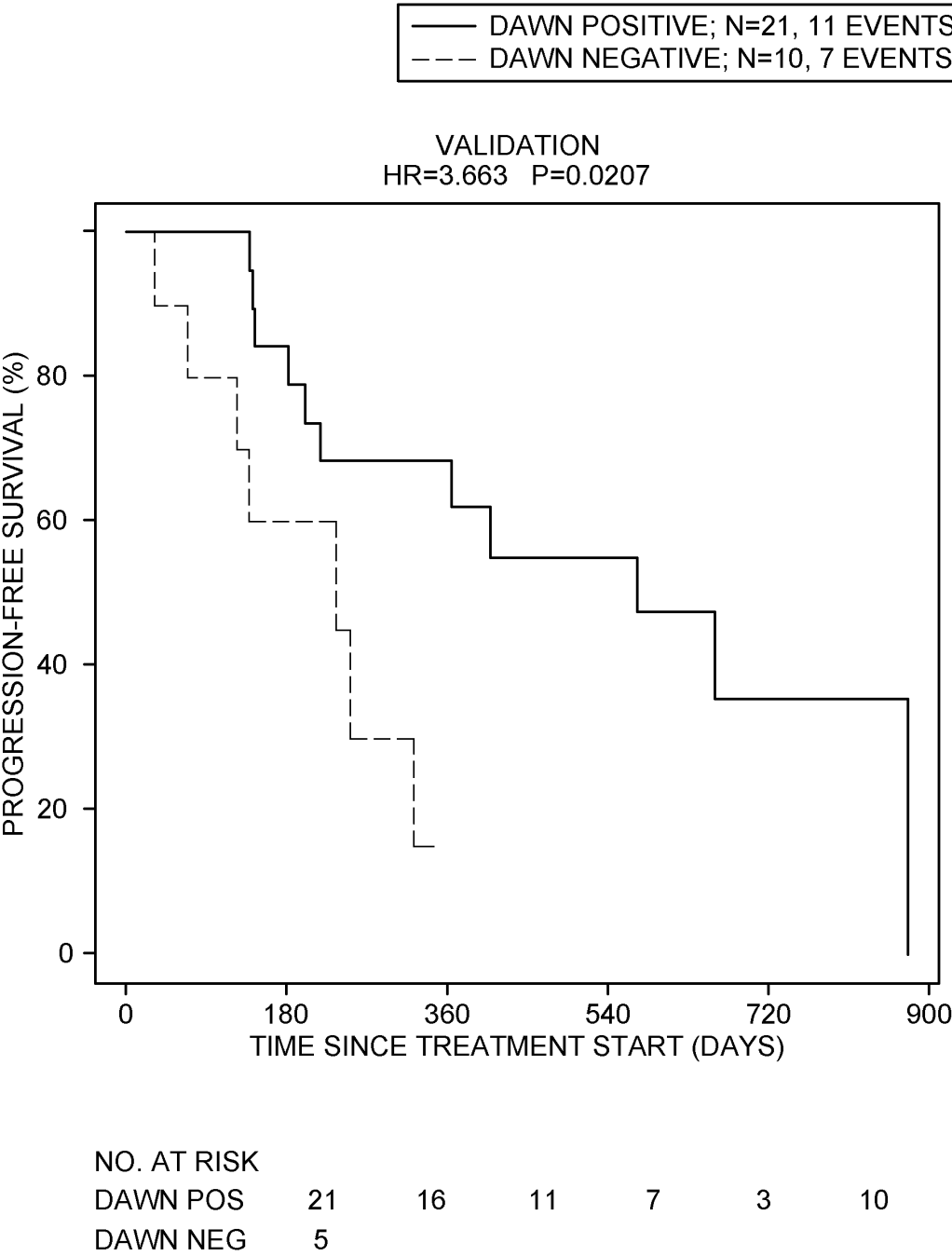


FIG. 74B

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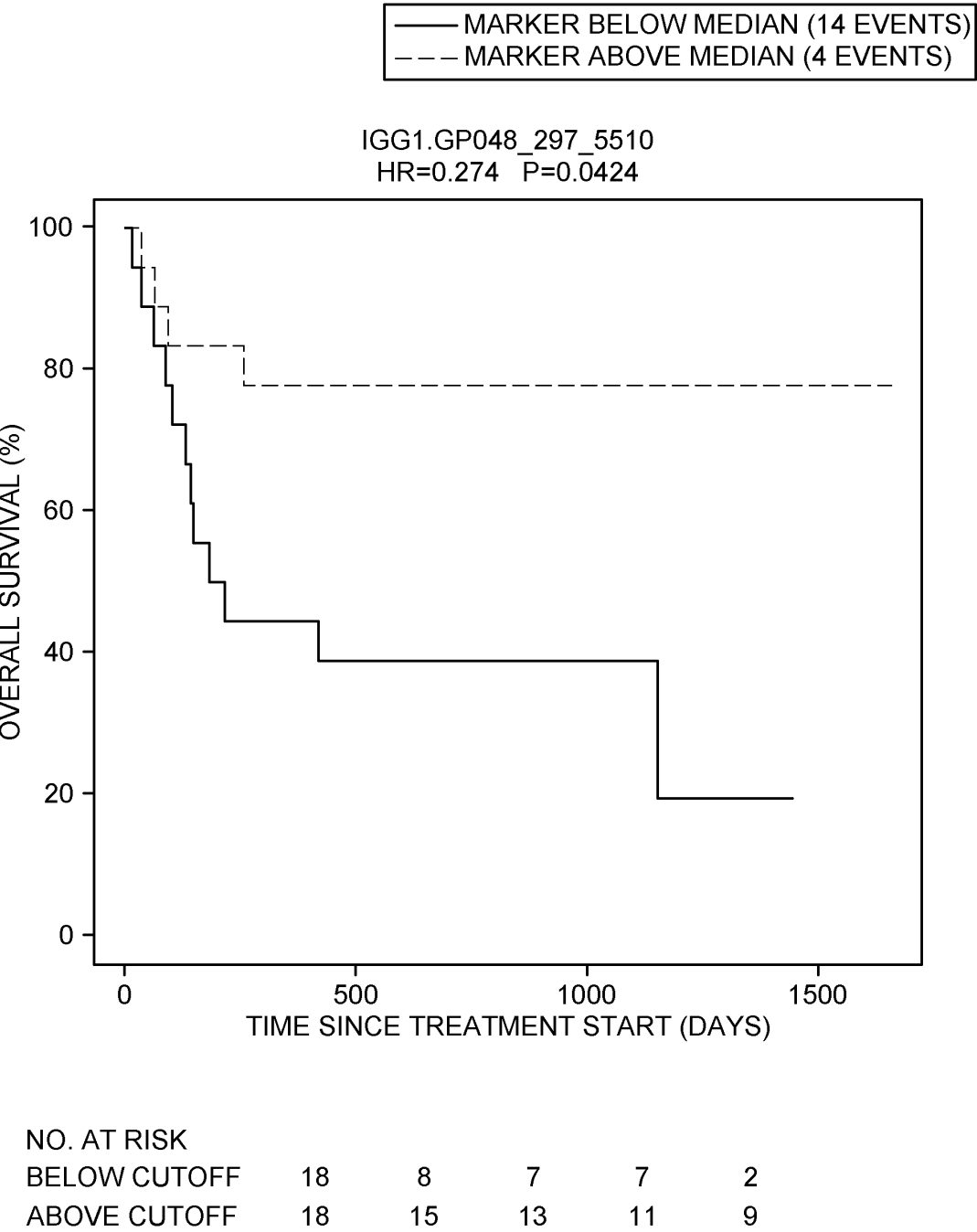
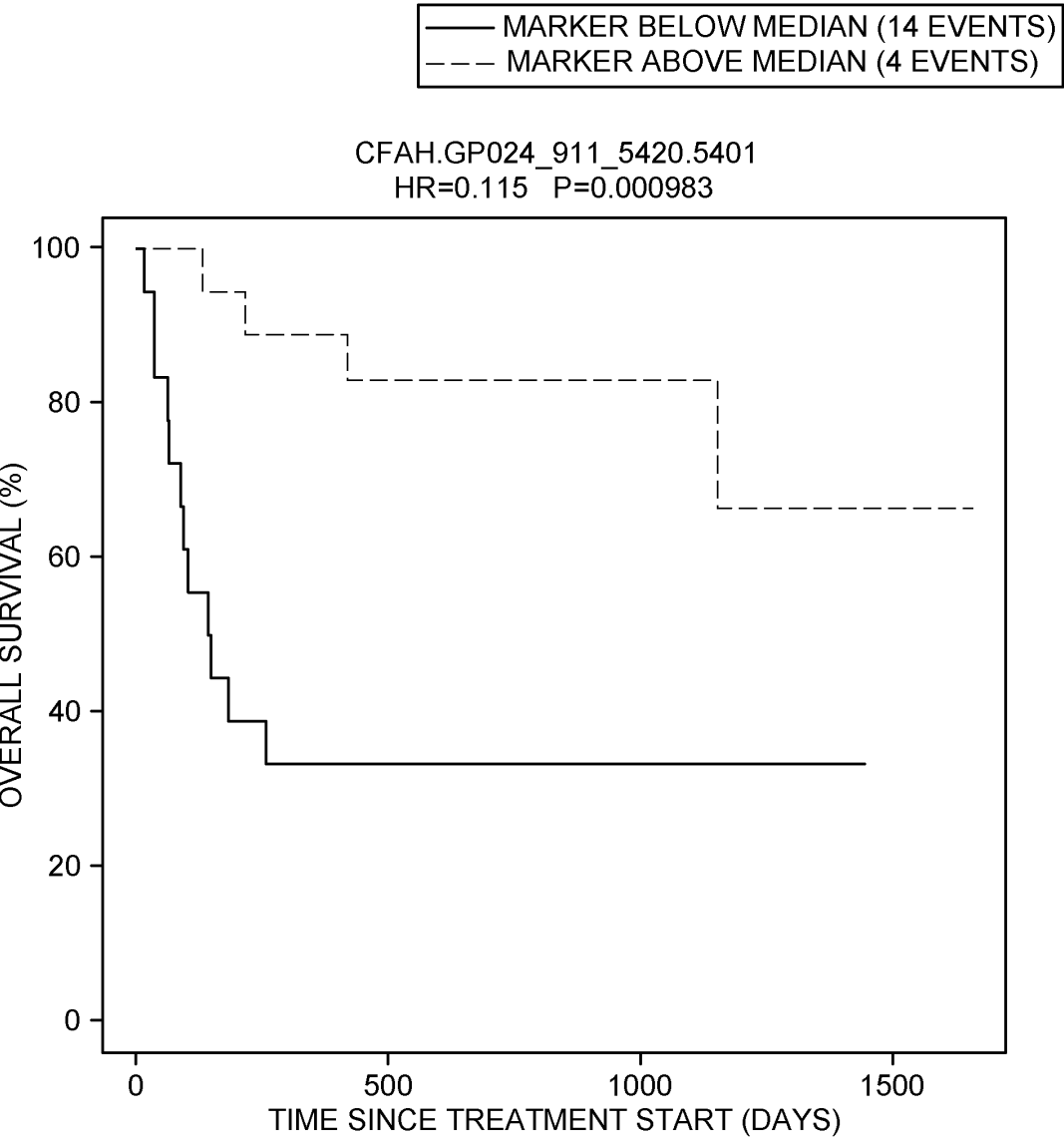


FIG. 75

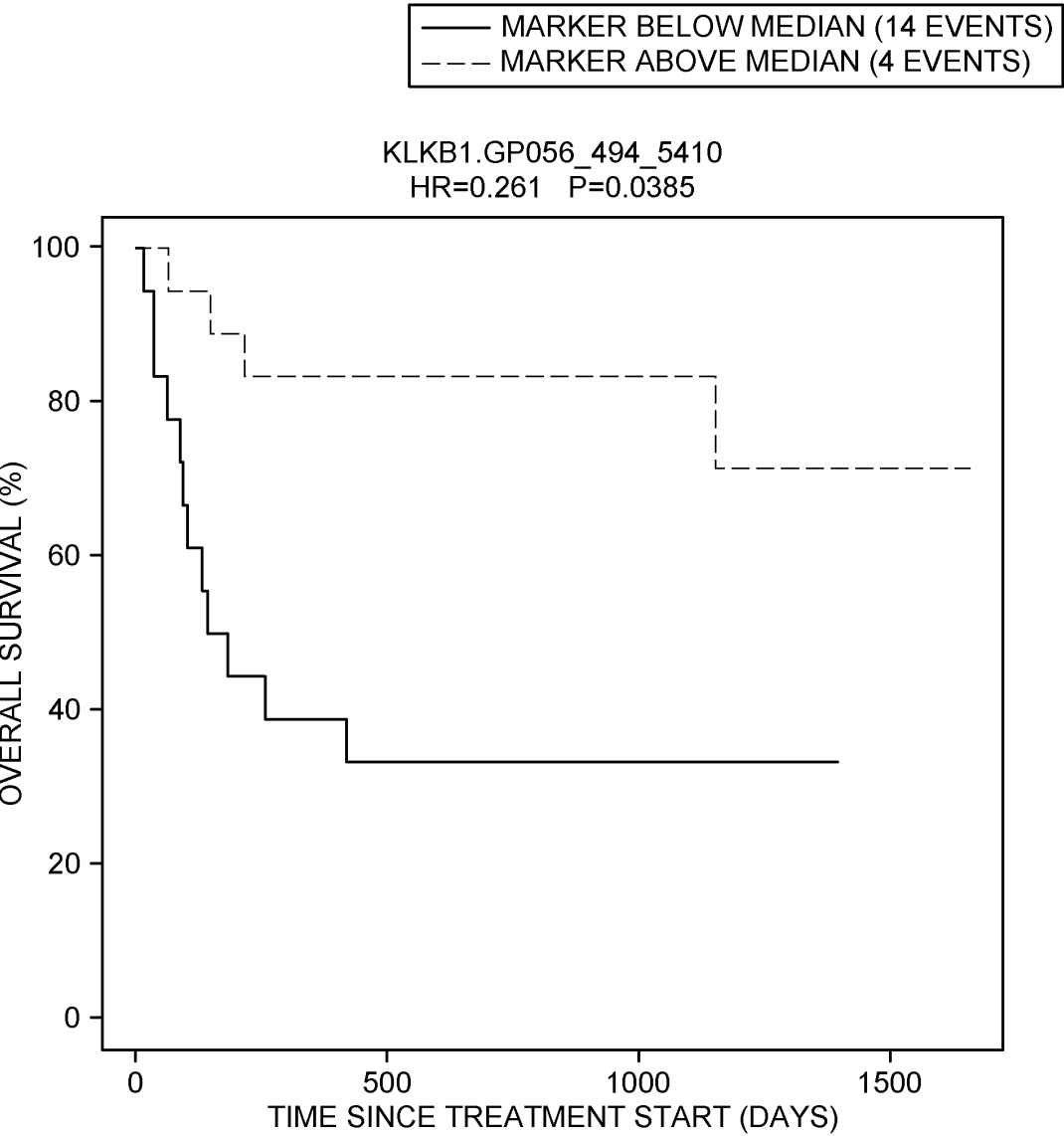
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NO. AT RISK						
BELOW CUTOFF	18	7	6	6	6	5
ABOVE CUTOFF	18	16	14	12	12	6

FIG. 76

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NO. AT RISK					
BELOW CUTOFF	18	8	6	6	3
ABOVE CUTOFF	18	15	14	12	8

FIG. 77

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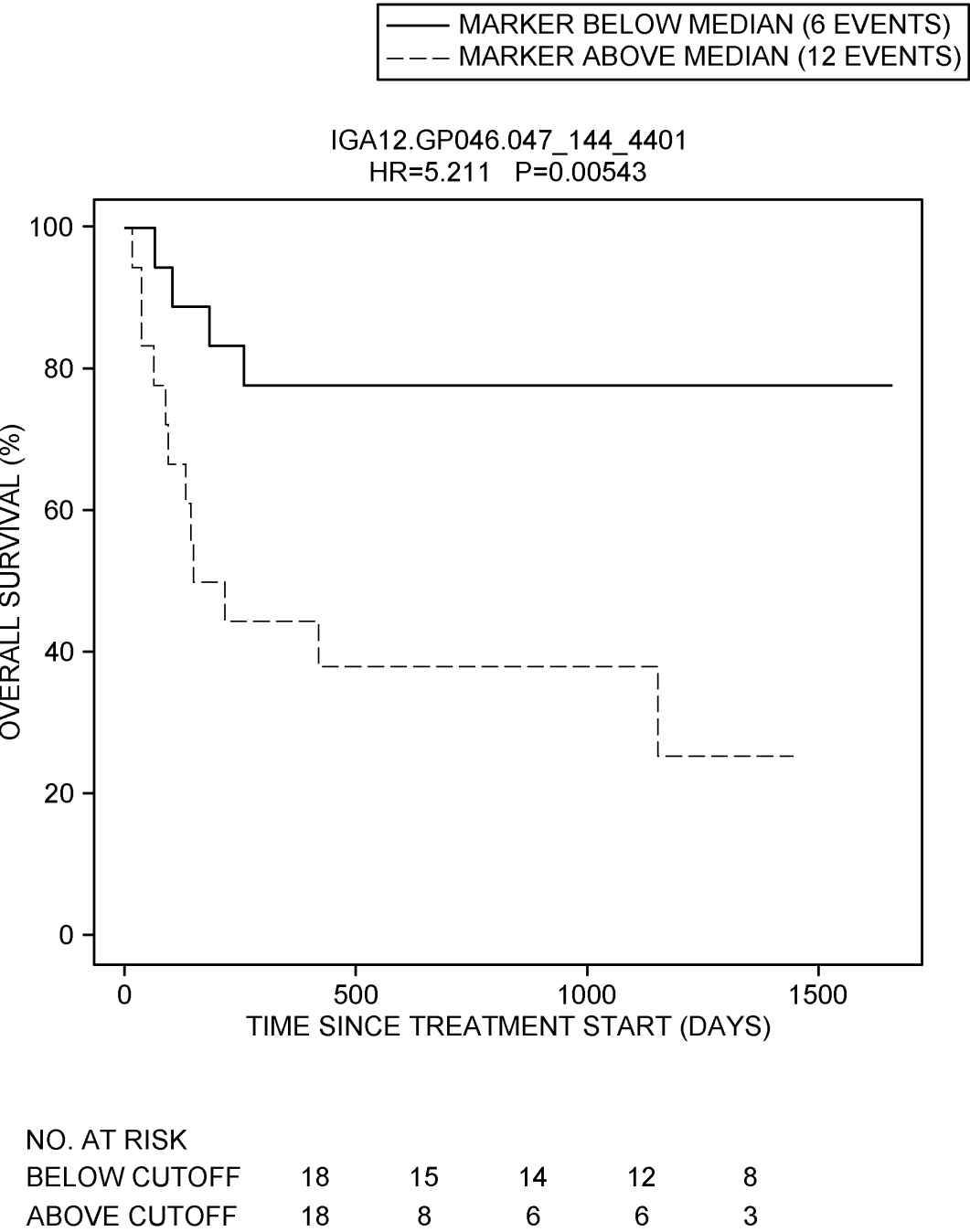


FIG. 78

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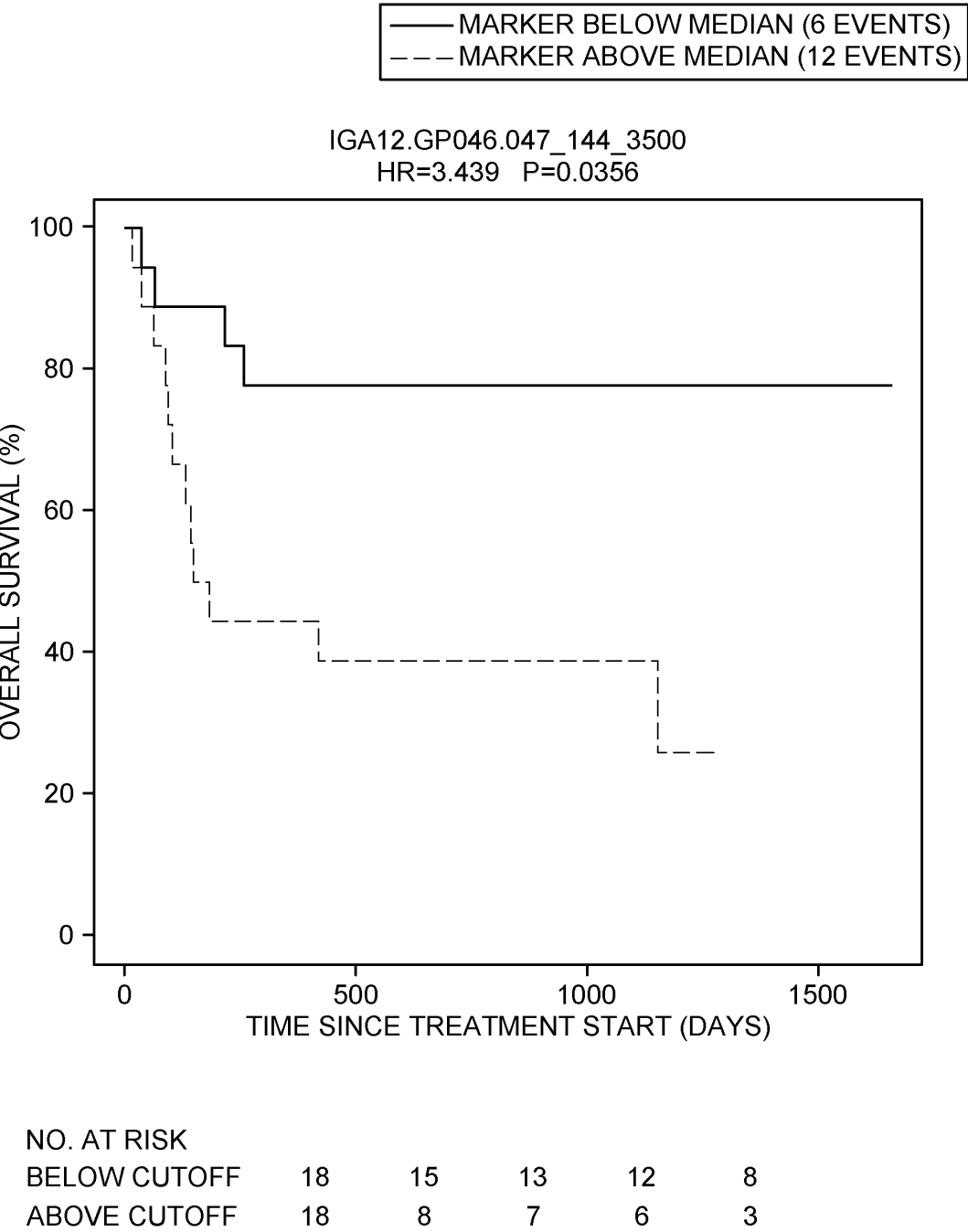
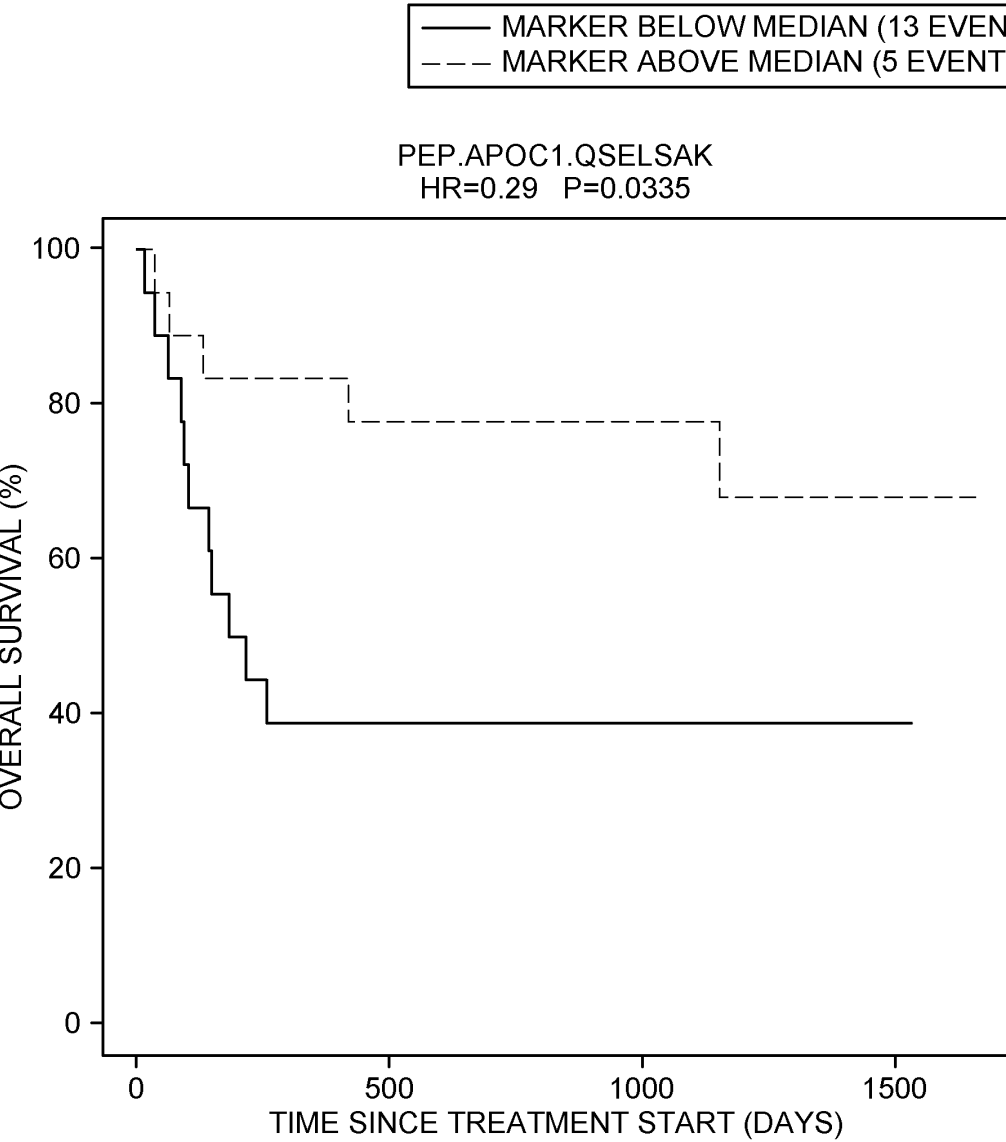


FIG. 79

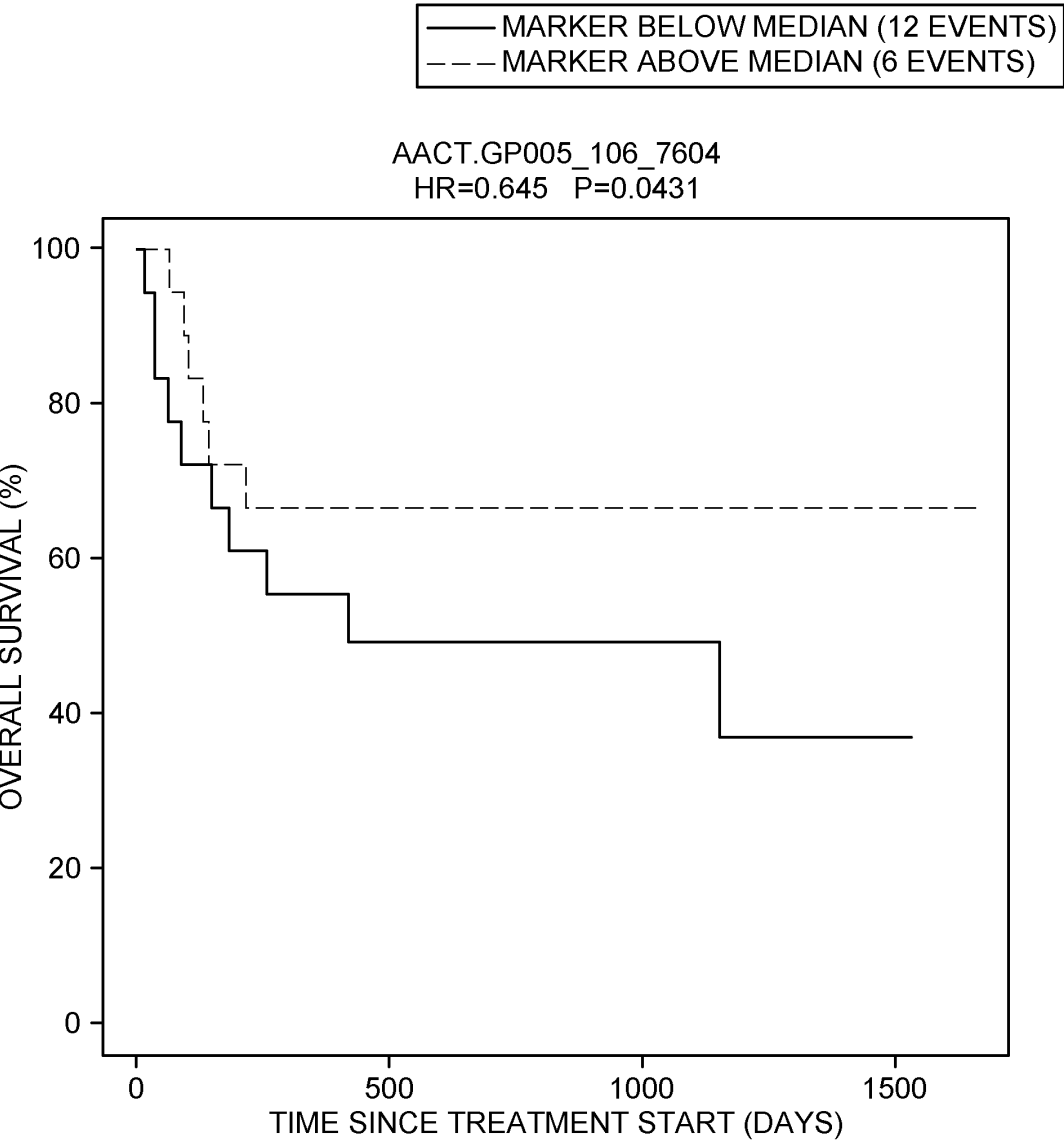
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NO. AT RISK					
BELOW CUTOFF	18	8	6	6	2
ABOVE CUTOFF	18	15	14	12	9

FIG. 80

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NO. AT RISK					
BELOW CUTOFF	18	11	8	7	4
ABOVE CUTOFF	18	12	12	11	7

FIG. 81

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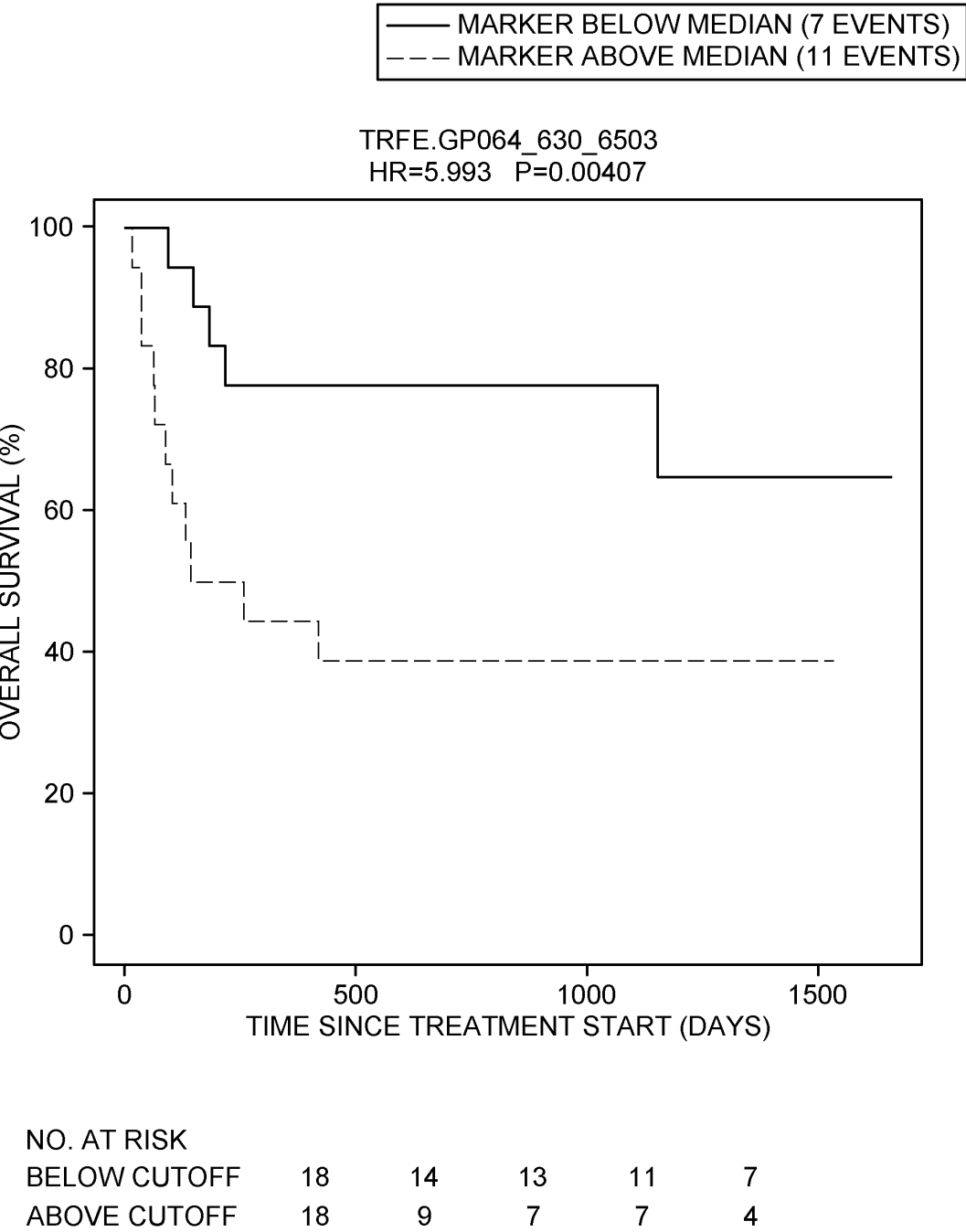


FIG. 82

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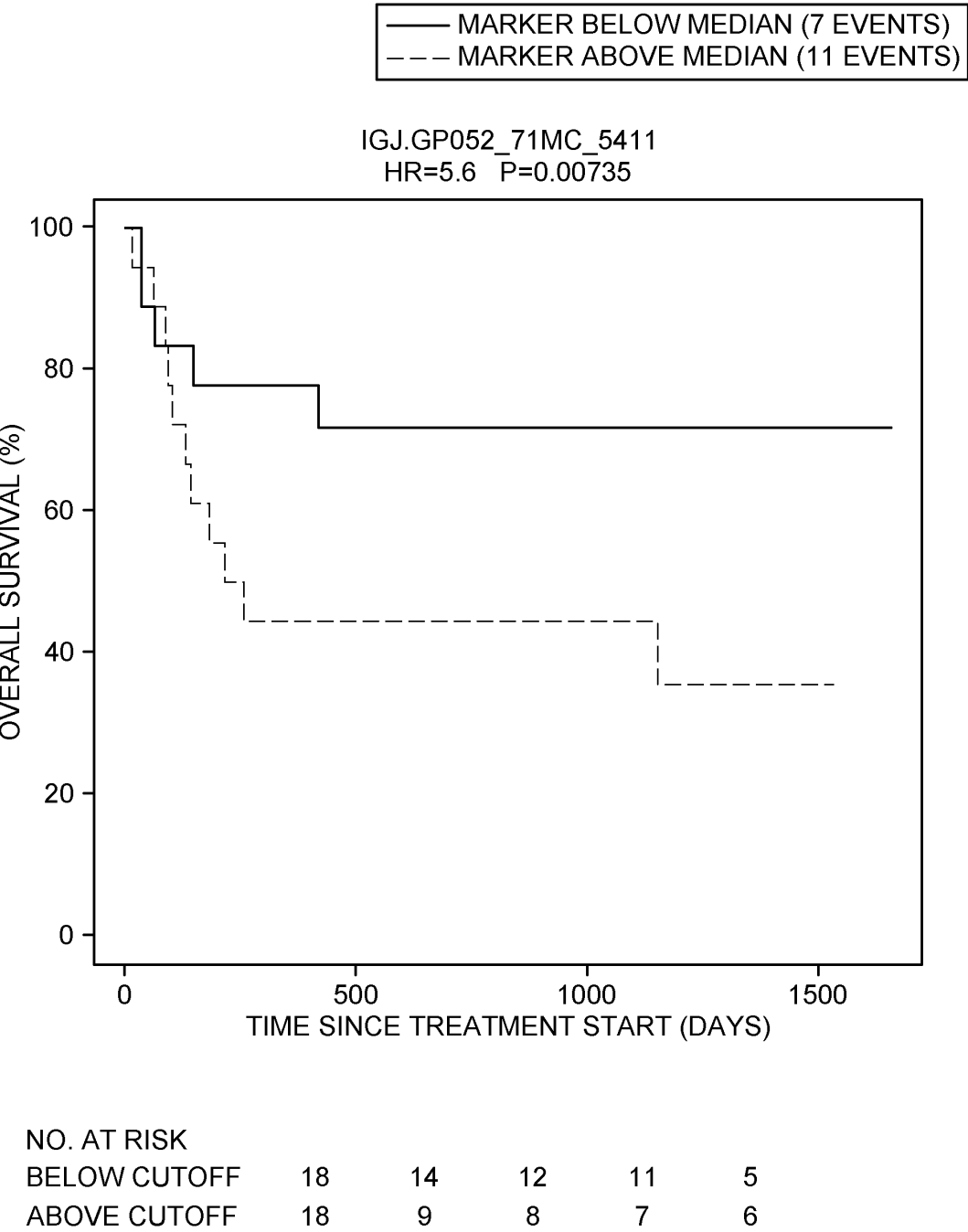
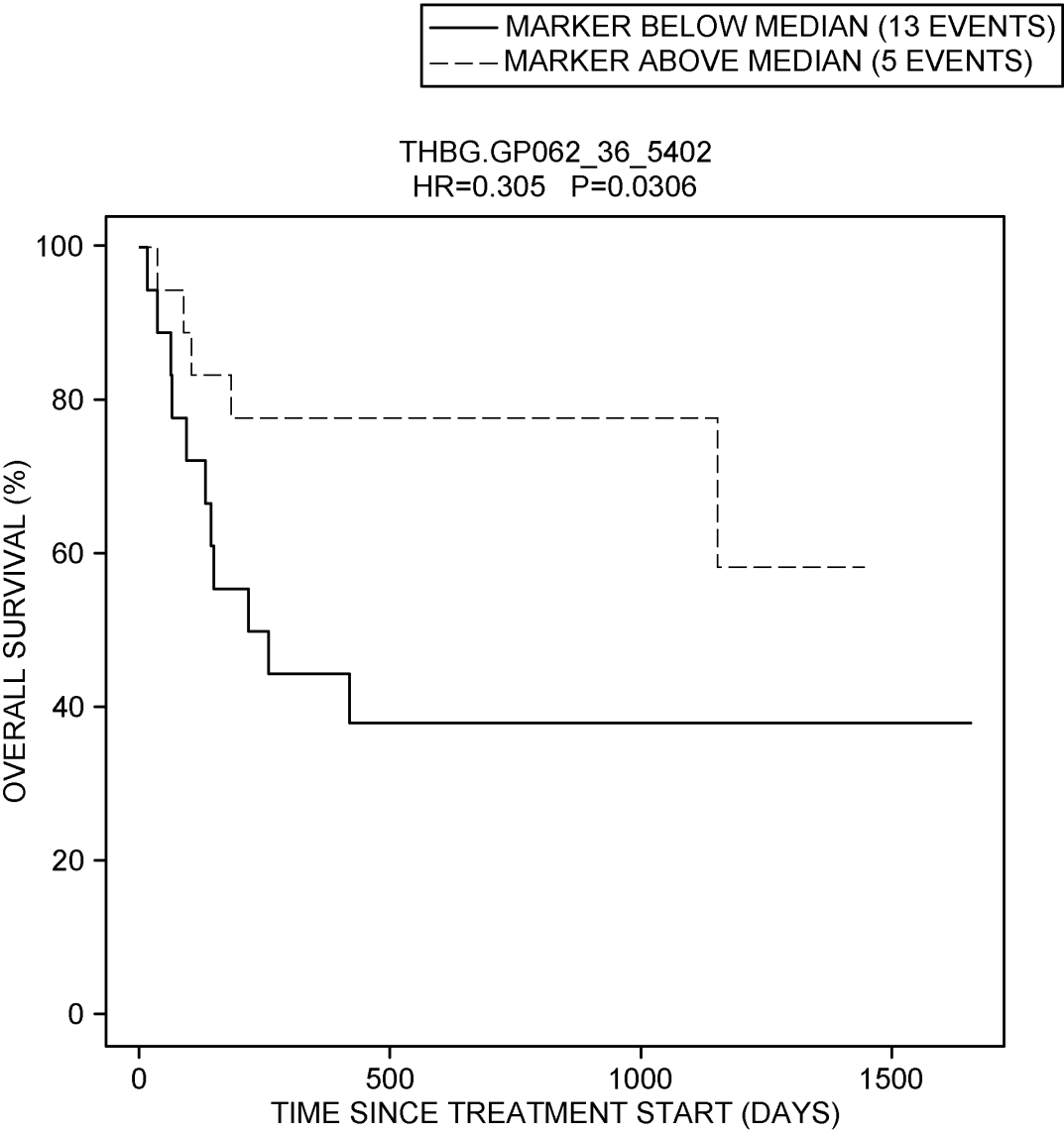


FIG. 83

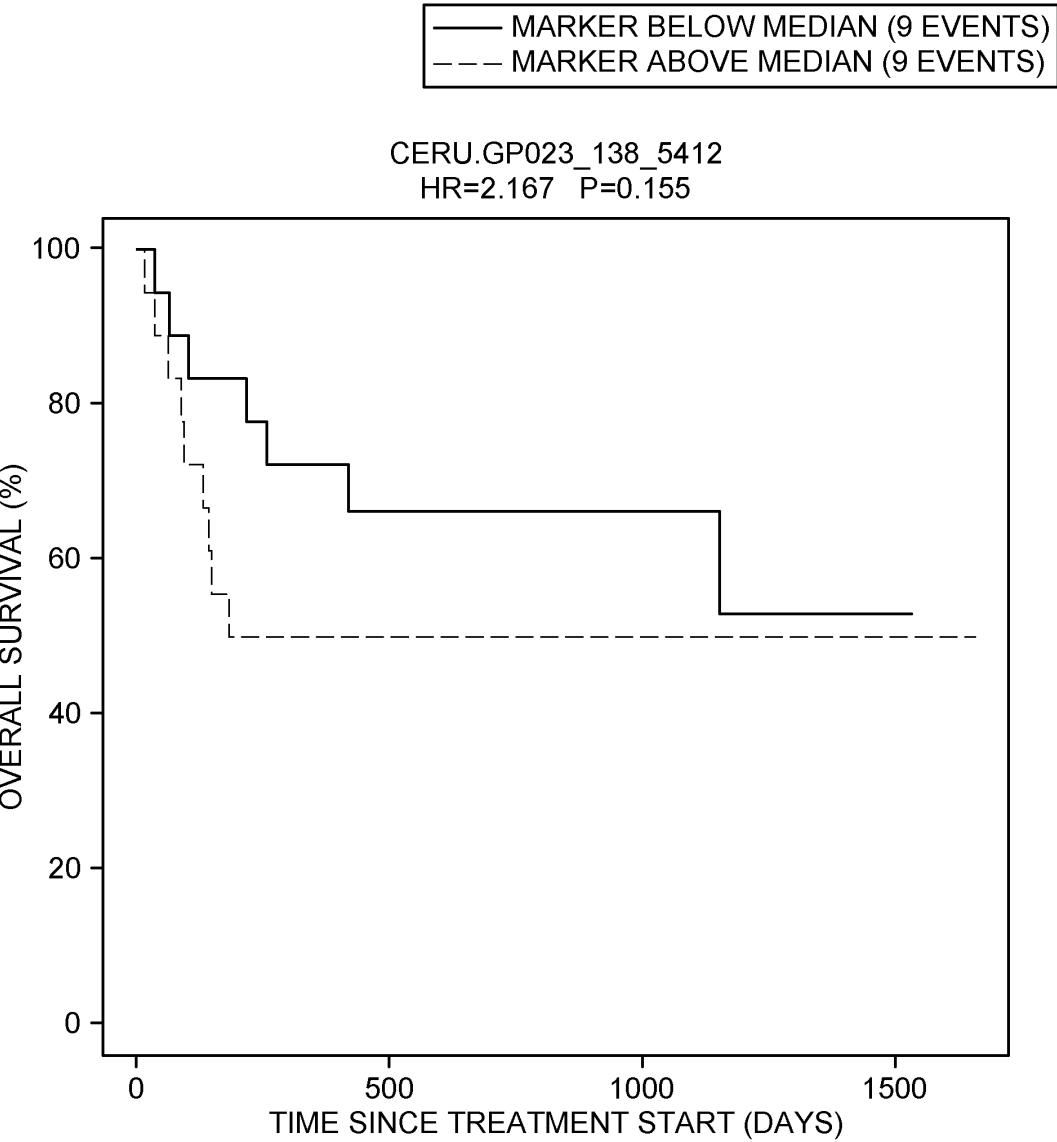
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NO. AT RISK					
BELOW CUTOFF	18	9	6	6	6
ABOVE CUTOFF	18	14	14	12	5

FIG. 84

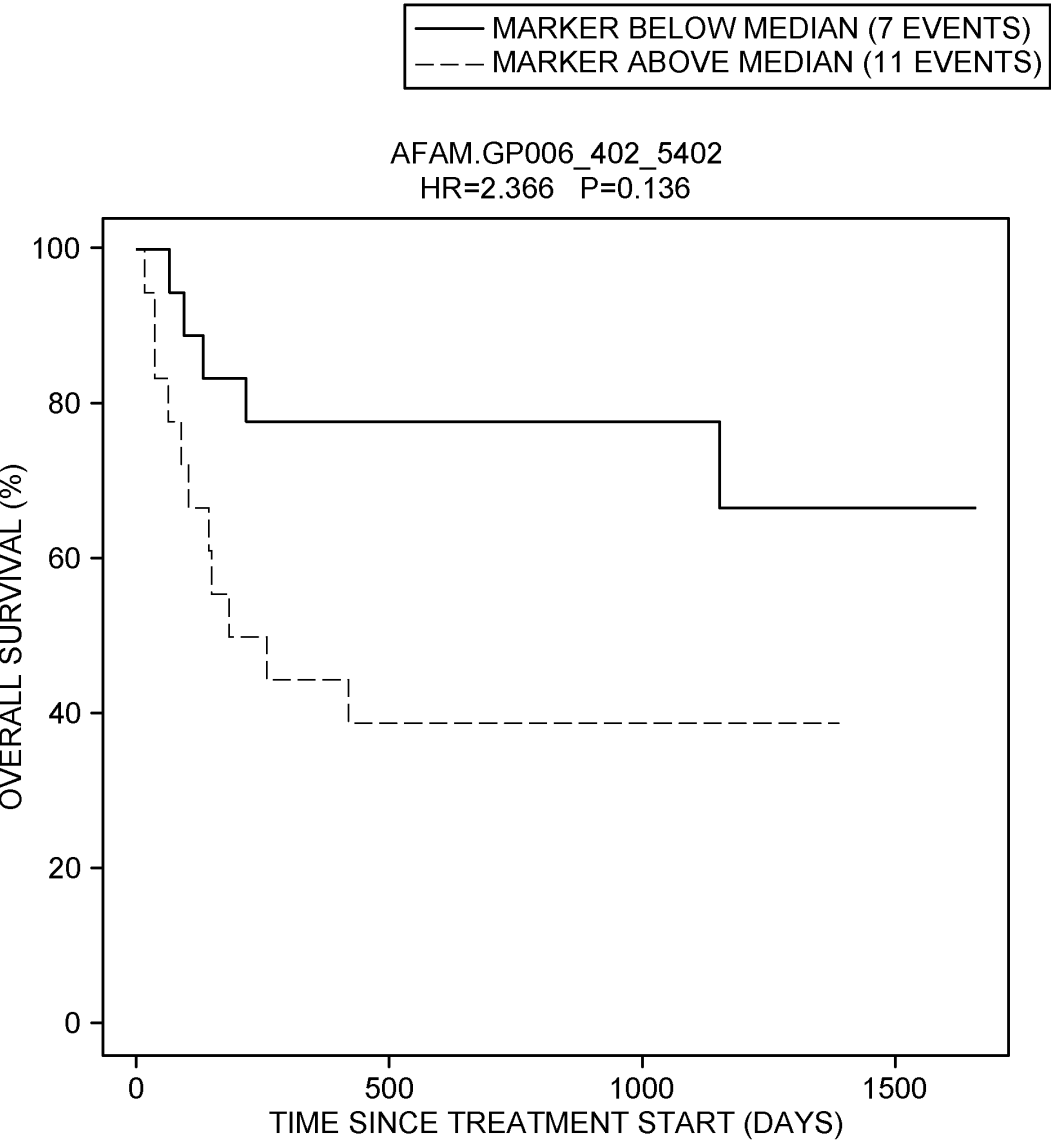
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NO. AT RISK					
BELOW CUTOFF	18	14	11	11	7
ABOVE CUTOFF	18	9	9	7	4

FIG. 85

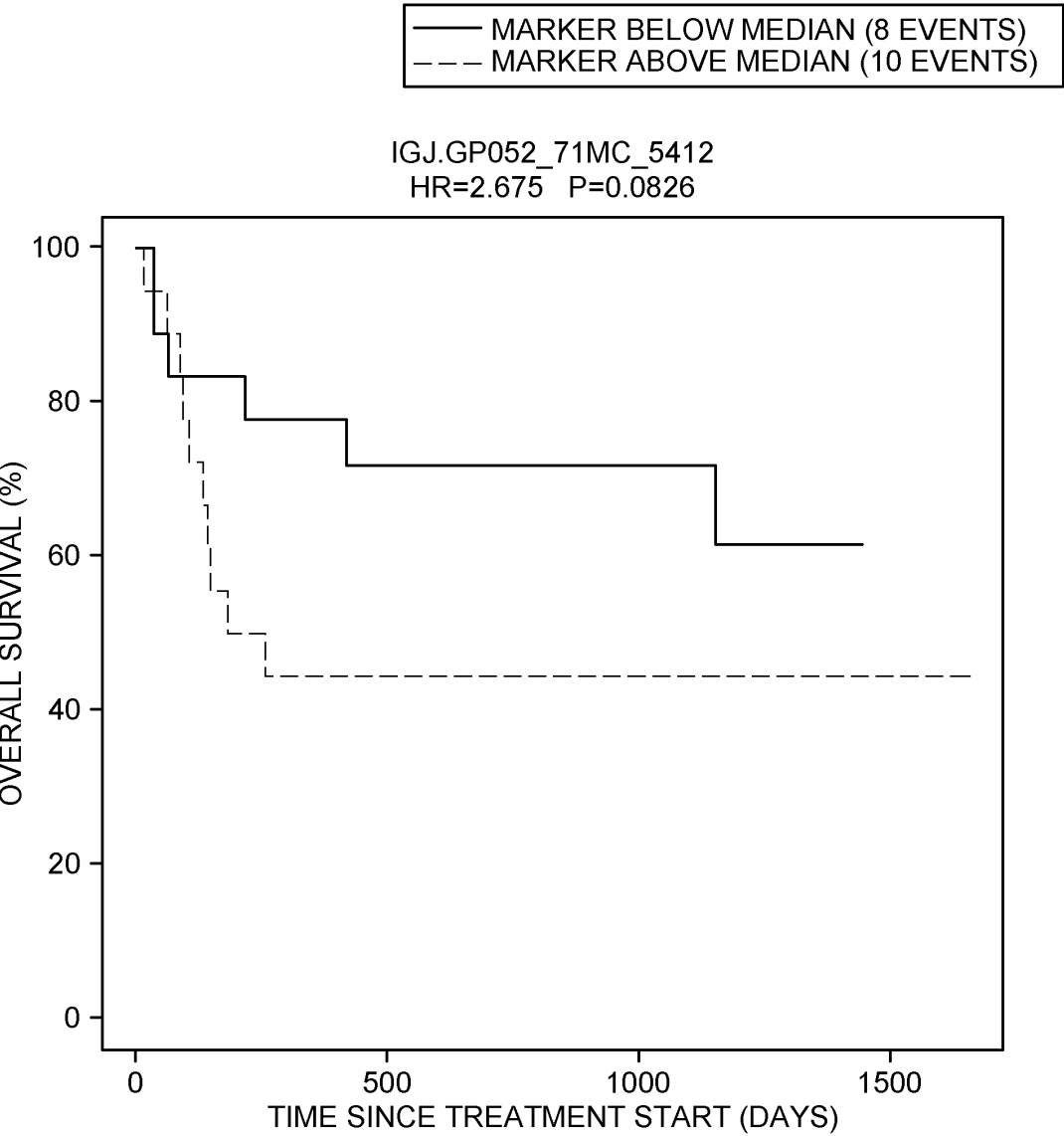
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NO. AT RISK					
BELOW CUTOFF	18	14	13	11	8
ABOVE CUTOFF	18	9	7	7	3

FIG. 86

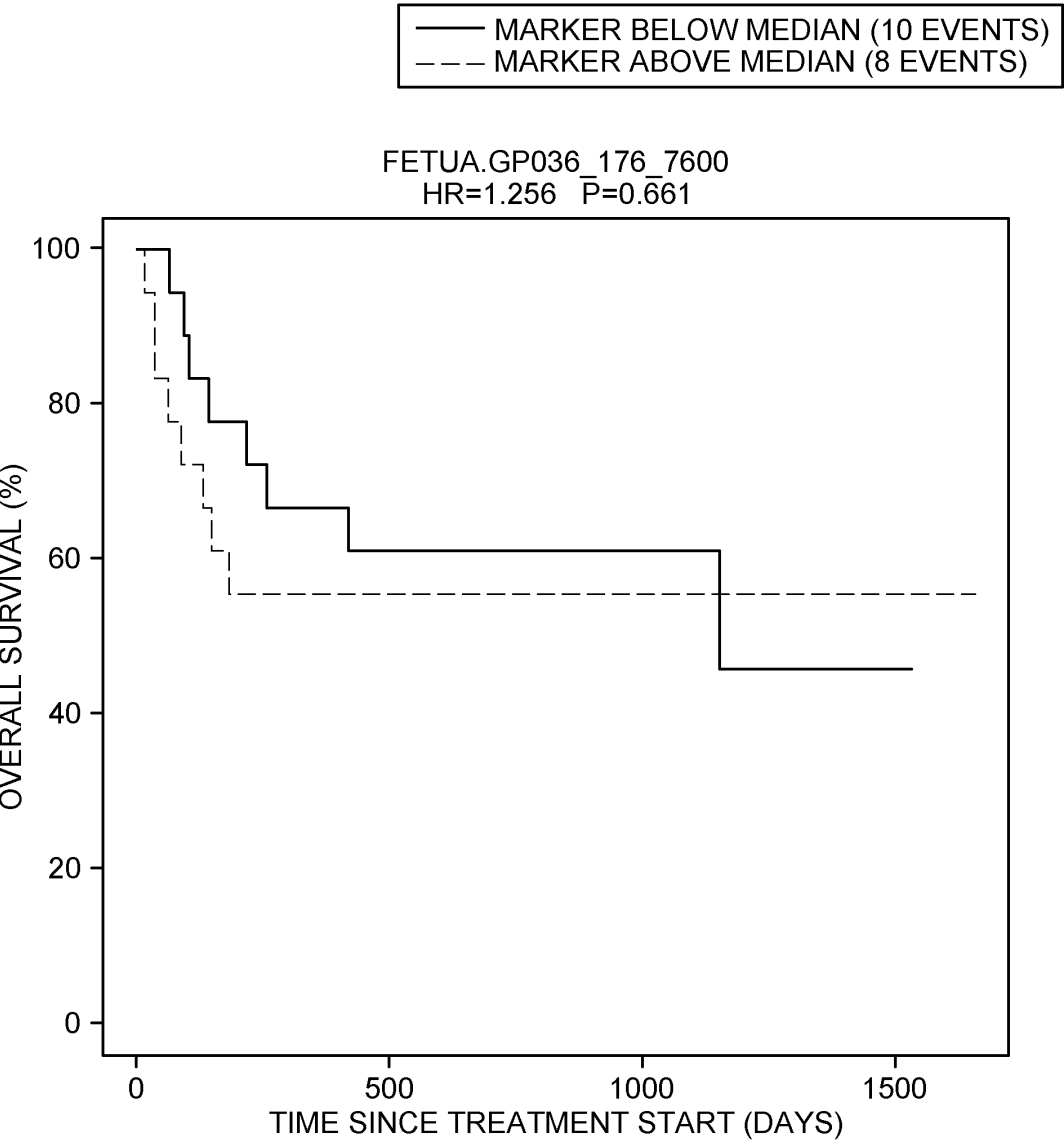
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NO. AT RISK					
BELOW CUTOFF	18	14	12	11	9
ABOVE CUTOFF	18	9	8	7	2

FIG. 87

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NO. AT RISK					
BELOW CUTOFF	18	13	11	10	6
ABOVE CUTOFF	18	10	9	8	5

FIG. 88

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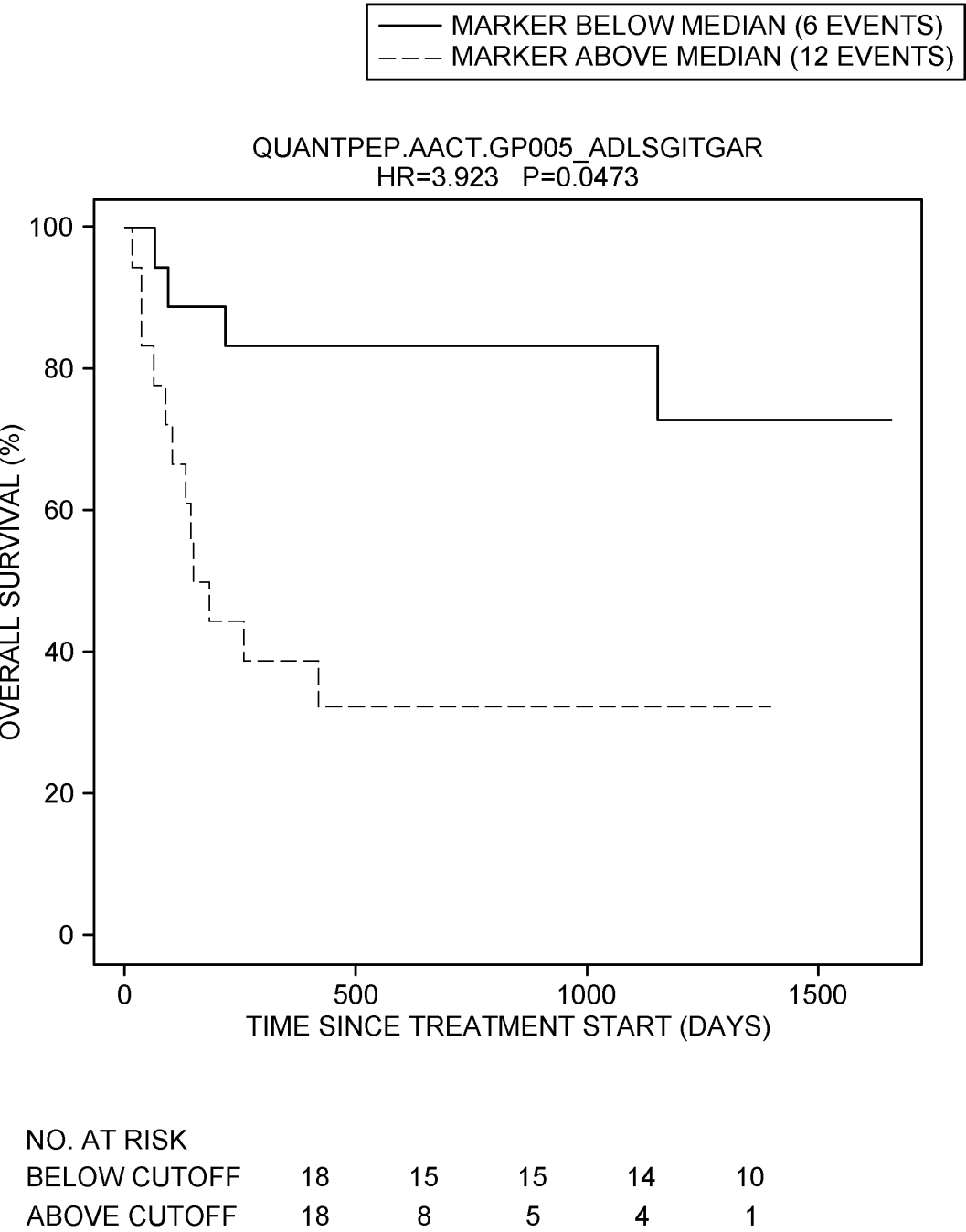
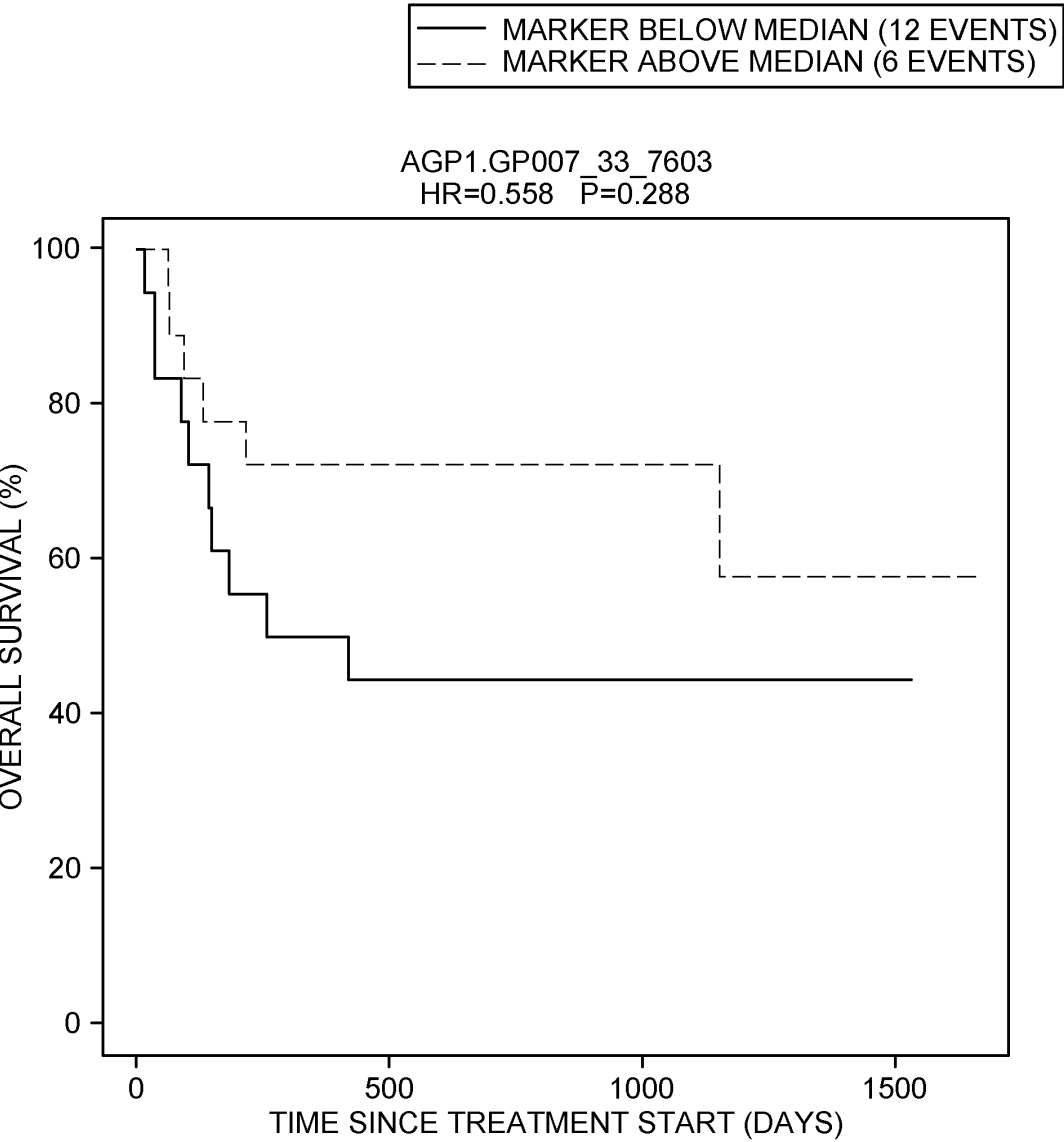


FIG. 89

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NO. AT RISK					
BELOW CUTOFF	18	10	8	7	4
ABOVE CUTOFF	18	13	12	11	7

FIG. 90

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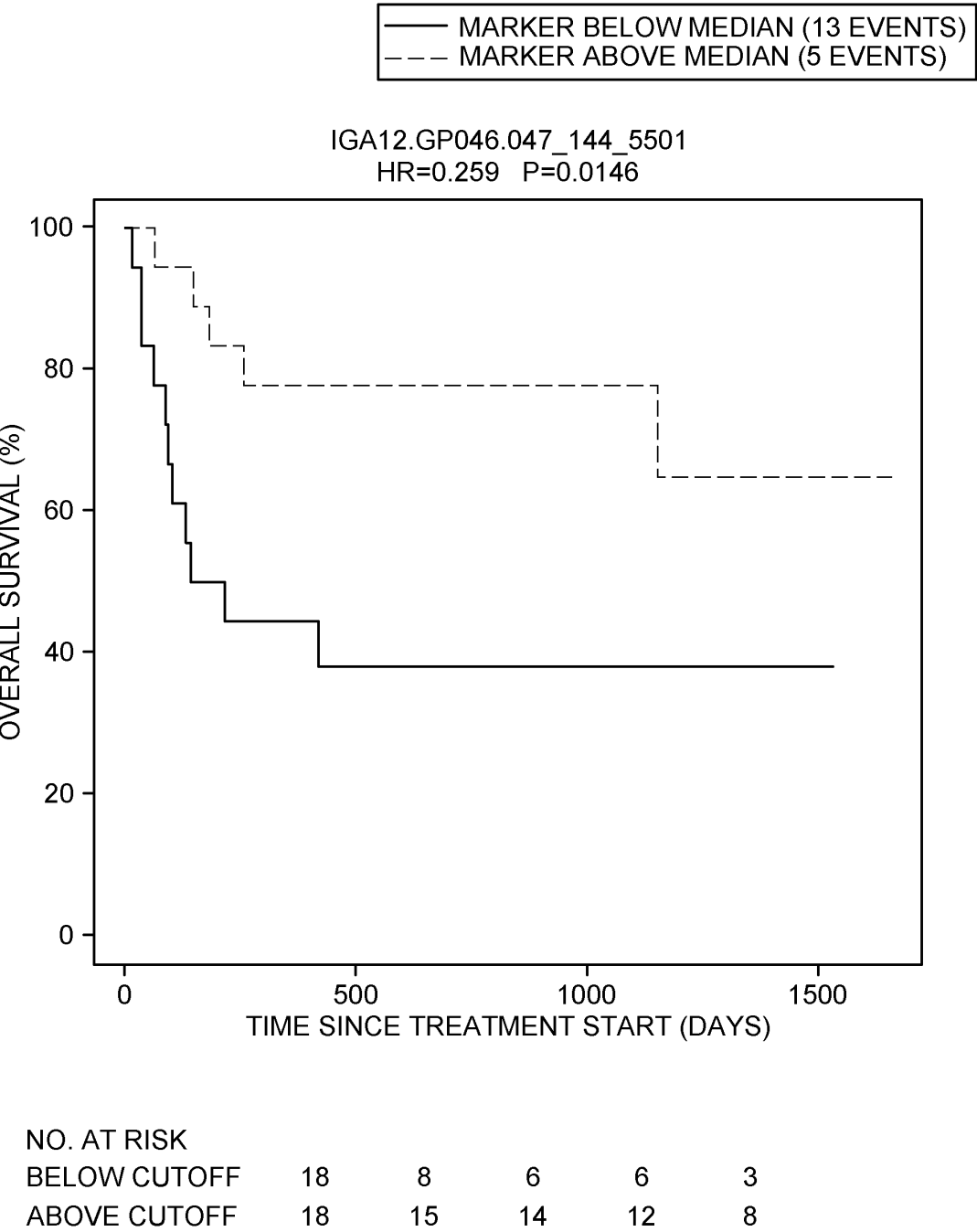


FIG. 91

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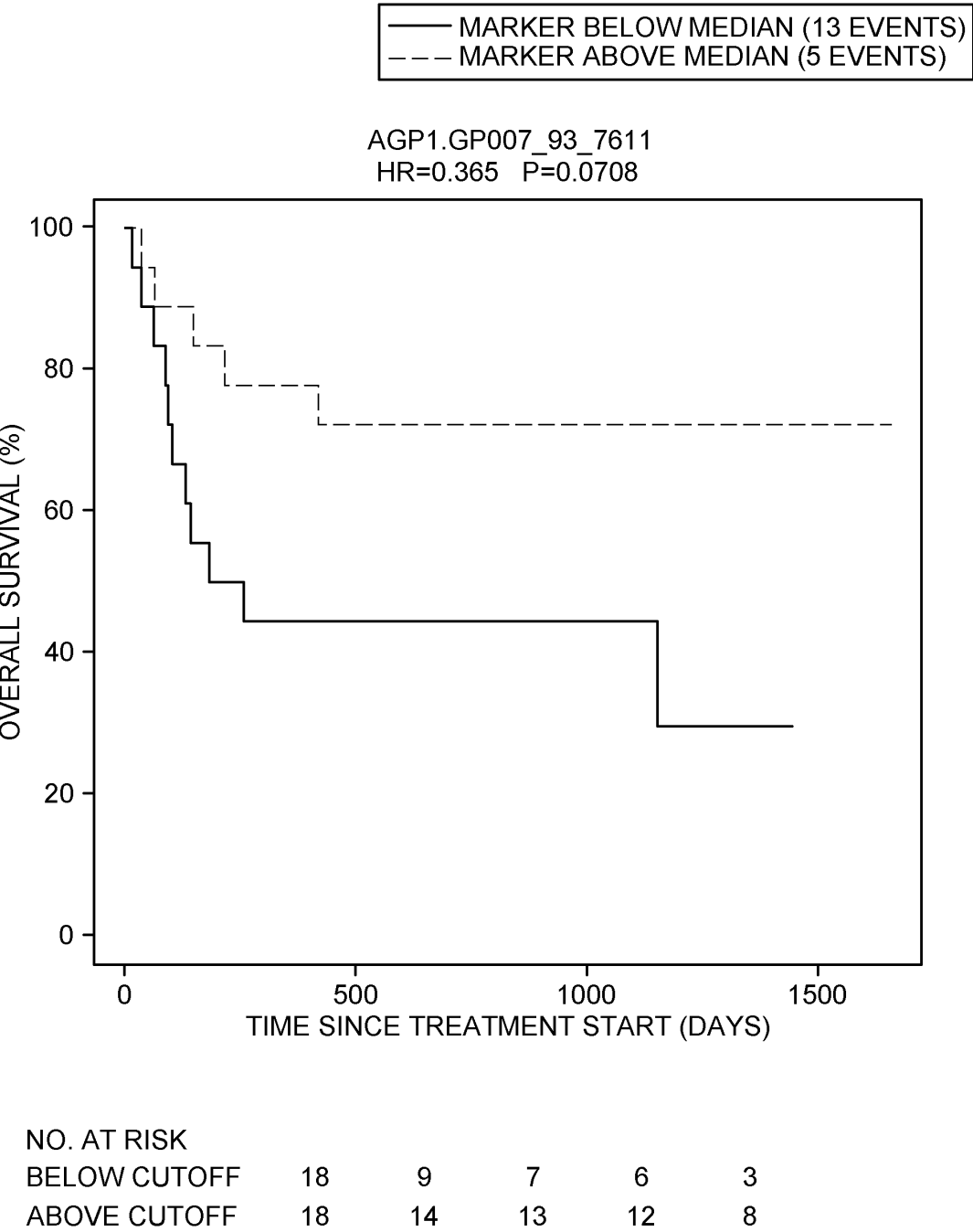
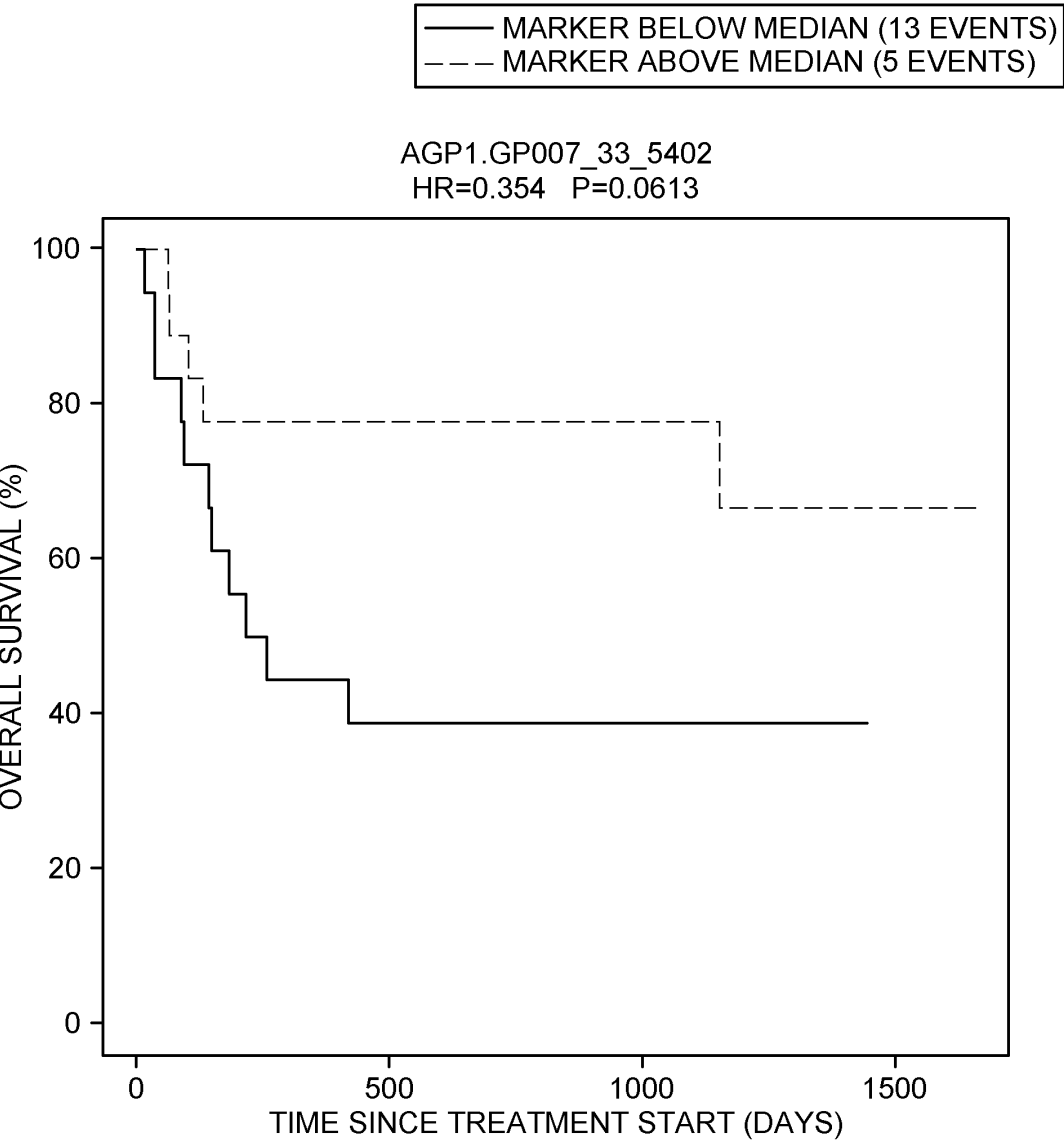


FIG. 92

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NO. AT RISK					
BELOW CUTOFF	18	9	7	6	3
ABOVE CUTOFF	18	14	13	12	8

FIG. 93

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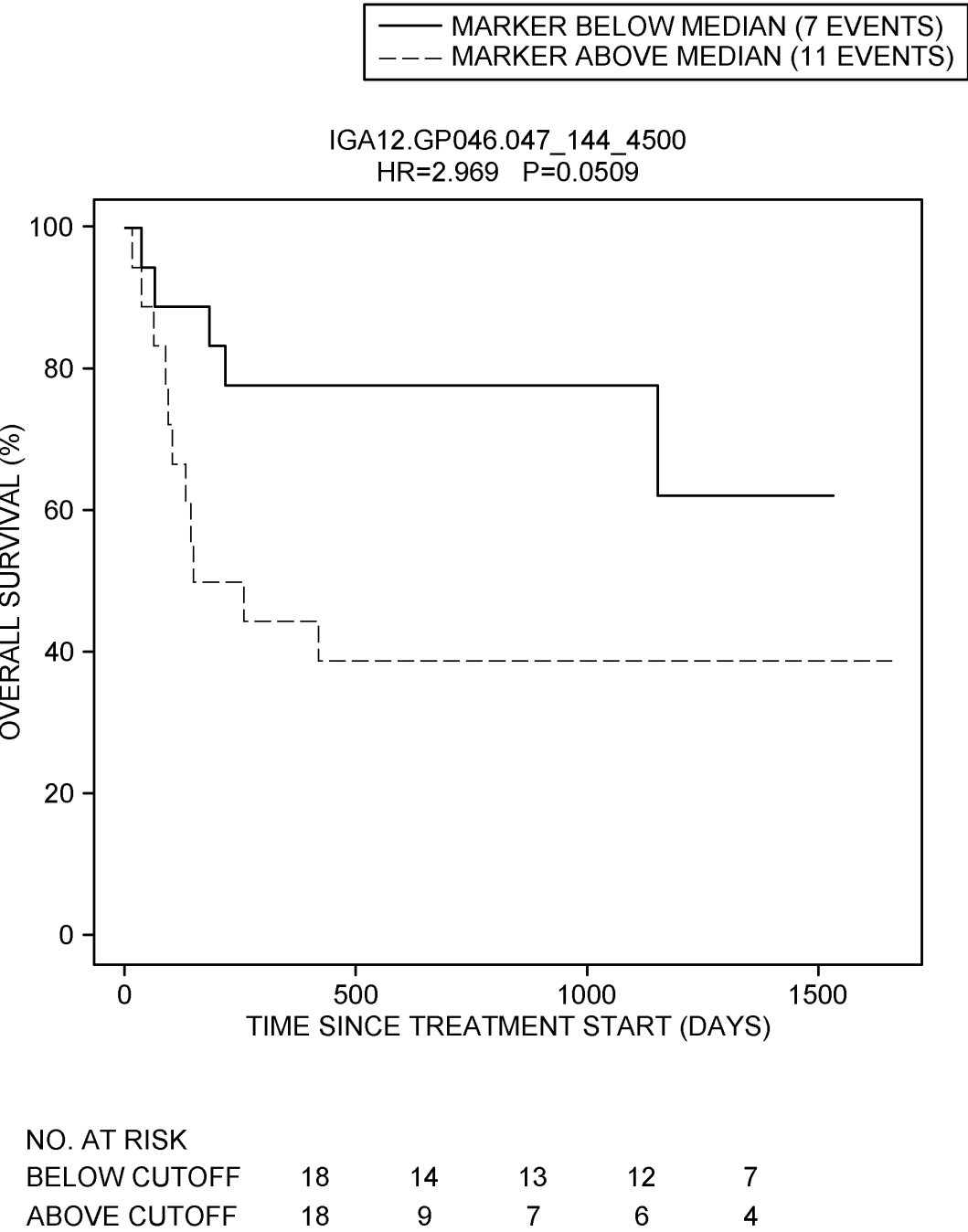


FIG. 94

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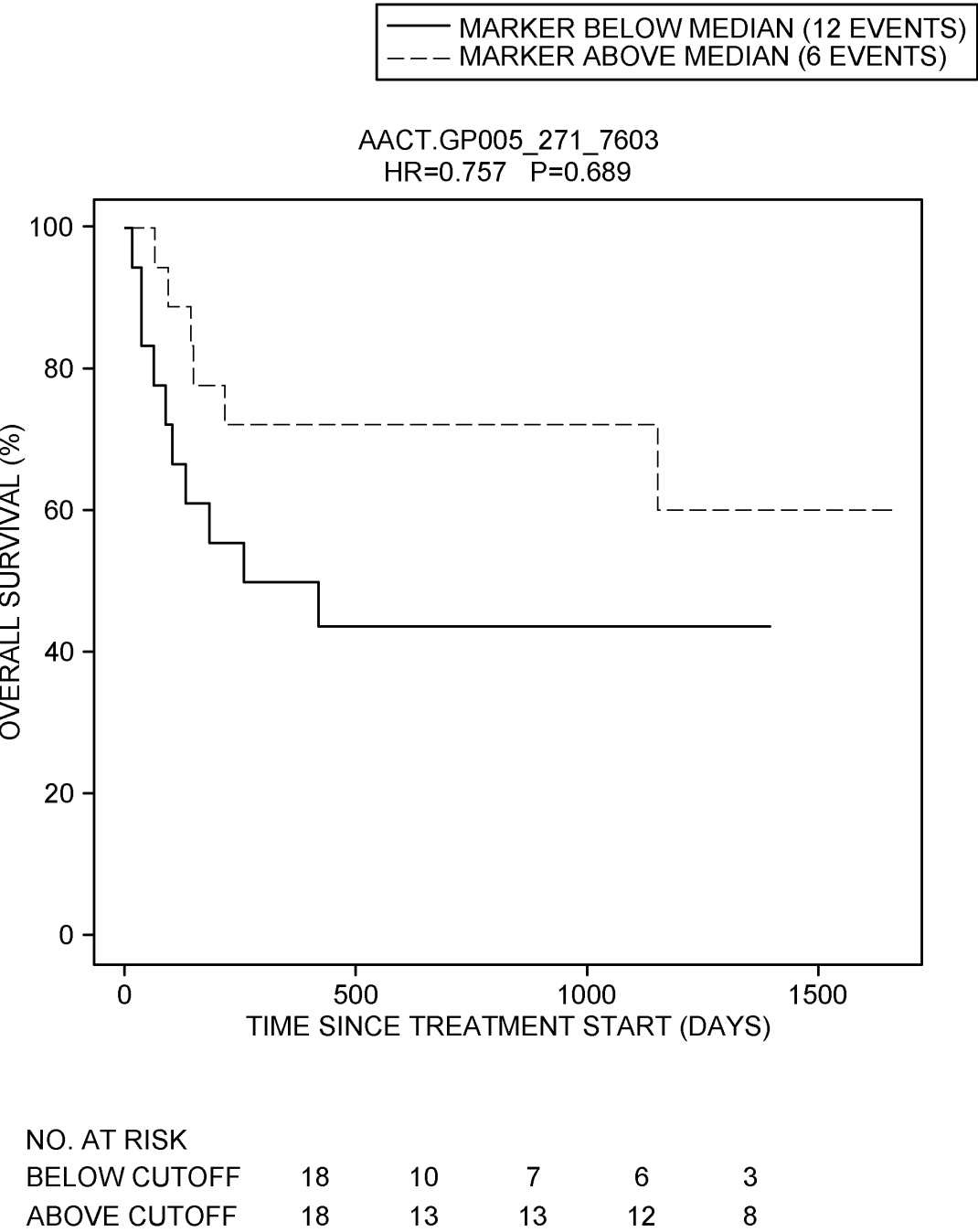


FIG. 95

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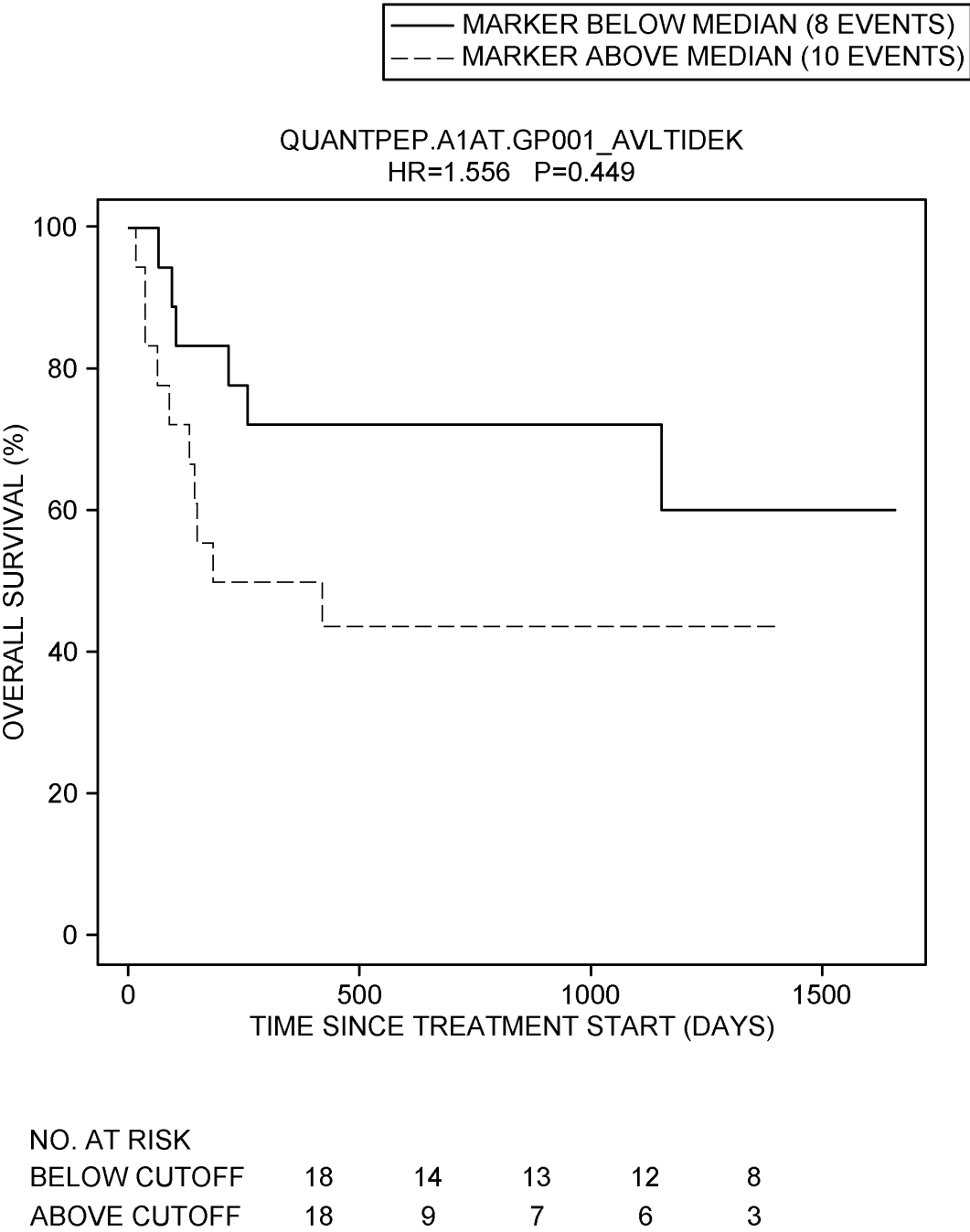


FIG. 96

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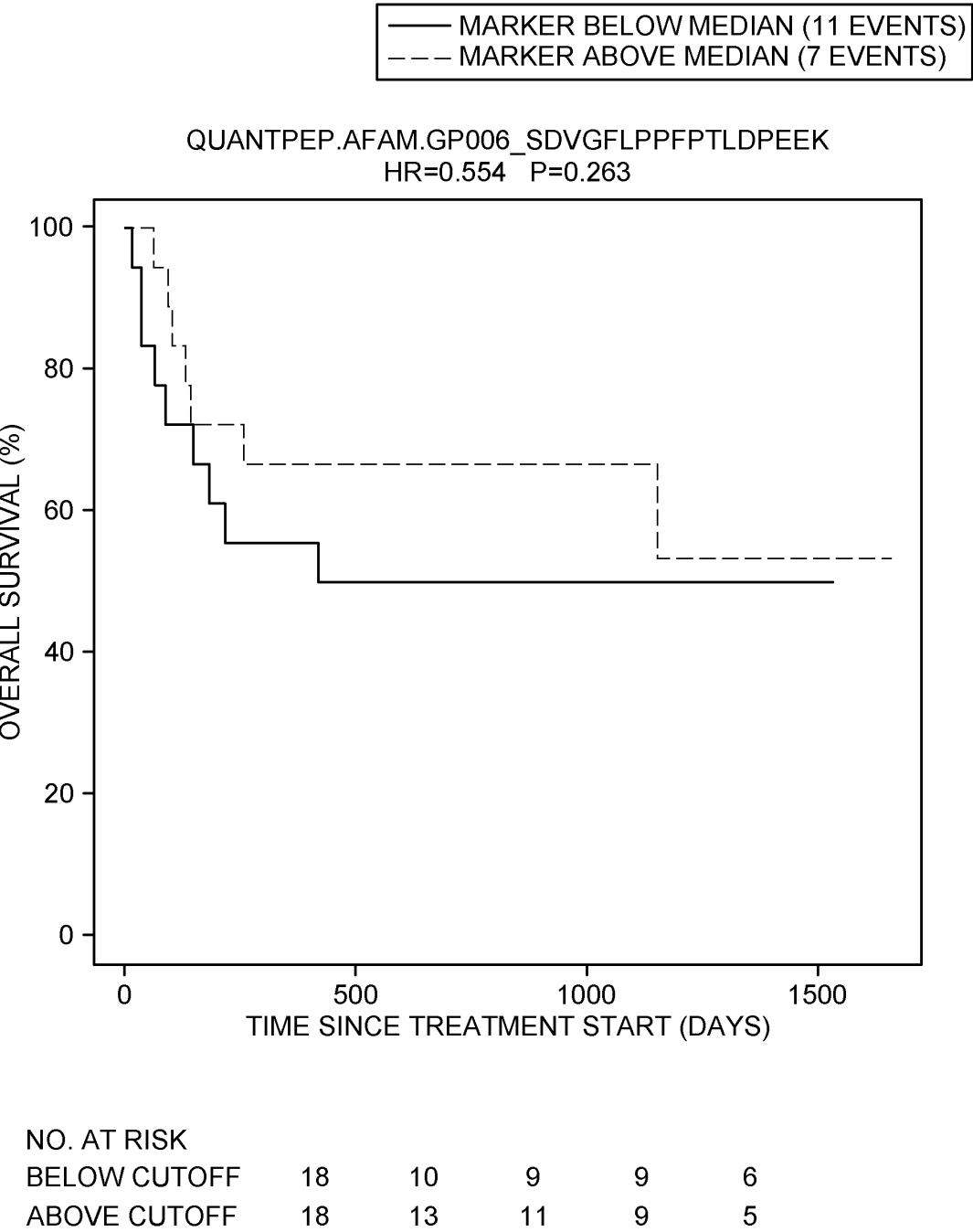


FIG. 97

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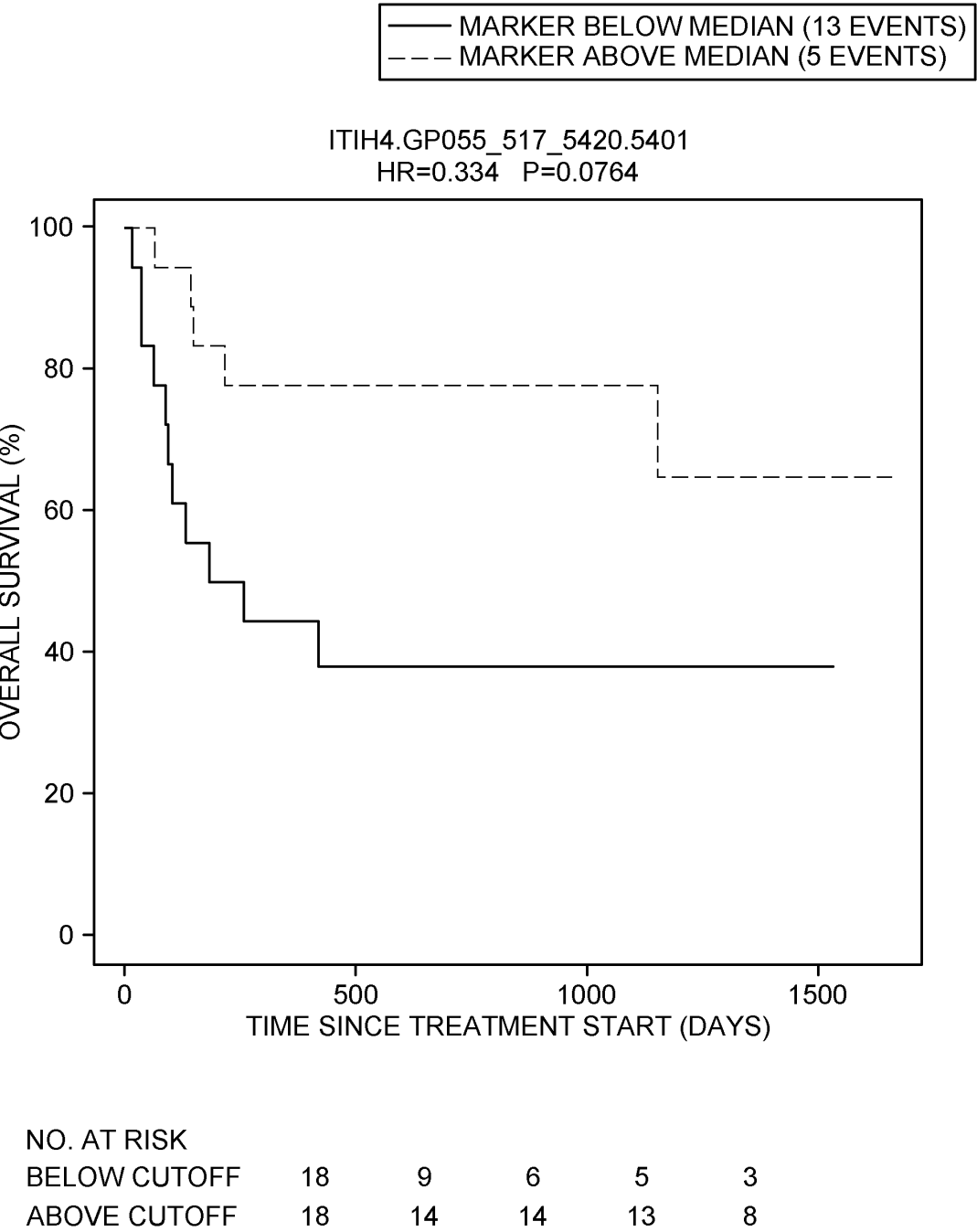


FIG. 98

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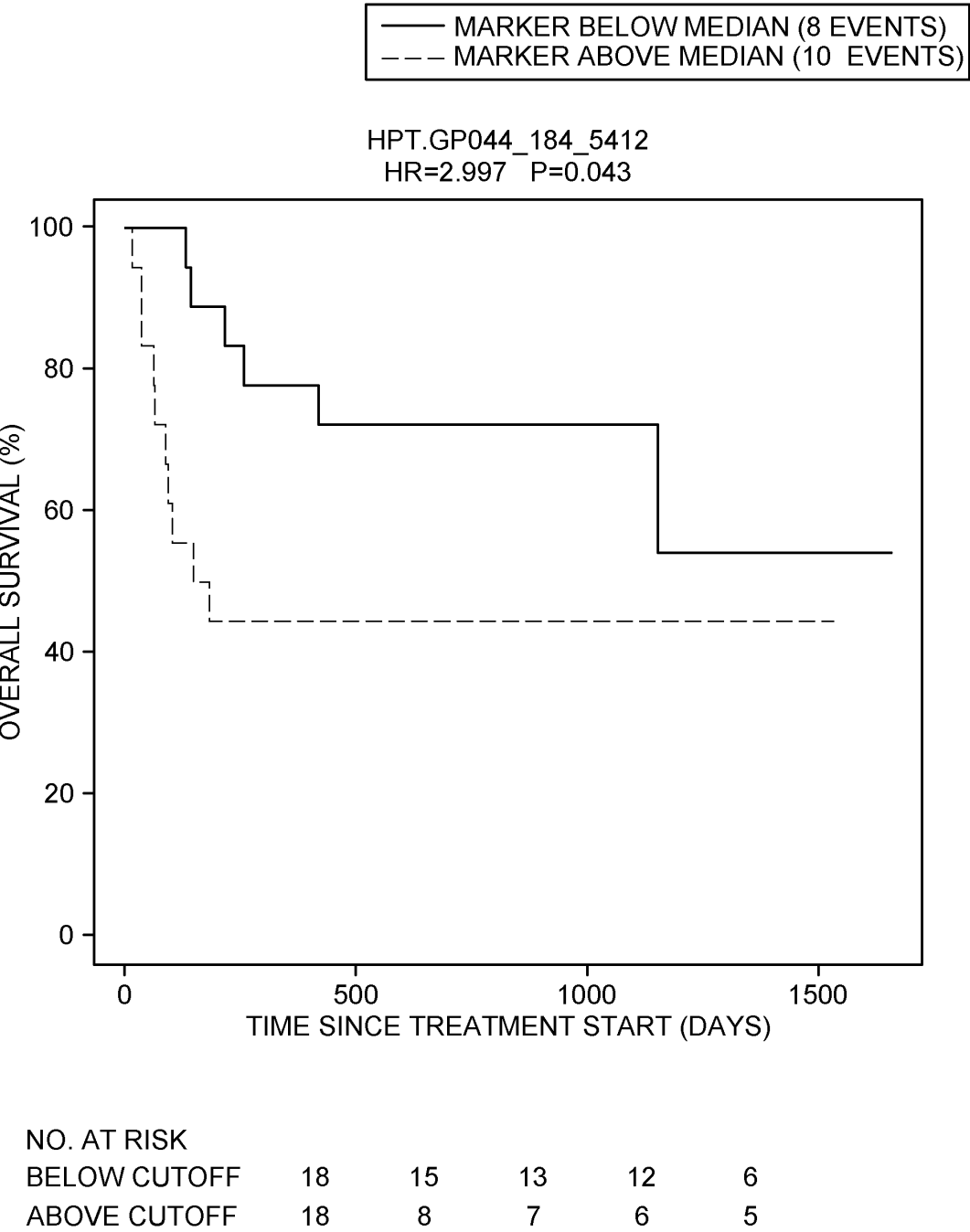
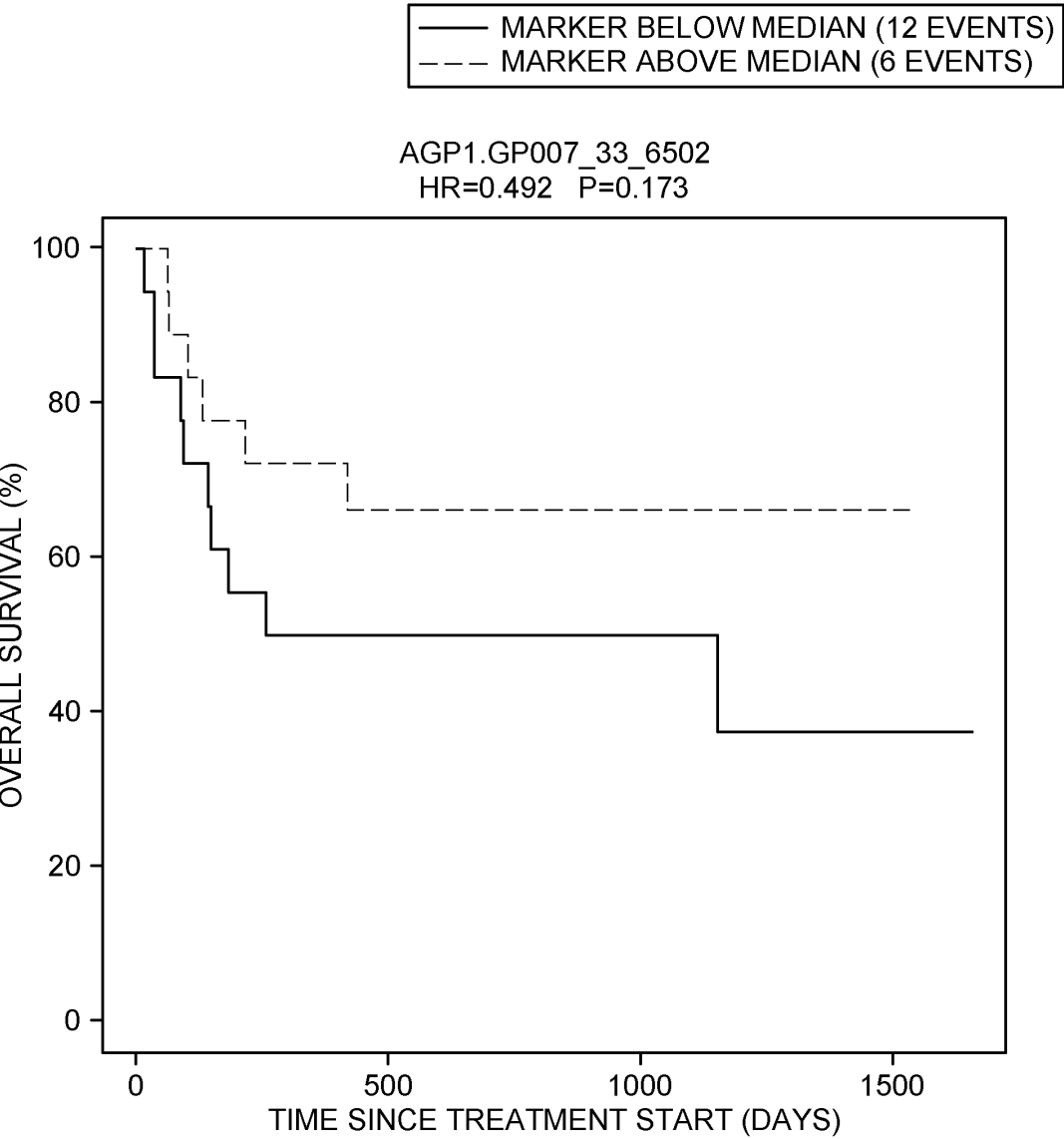


FIG. 99

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NO. AT RISK					
BELOW CUTOFF	18	10	9	8	5
ABOVE CUTOFF	18	13	11	10	6

FIG. 100

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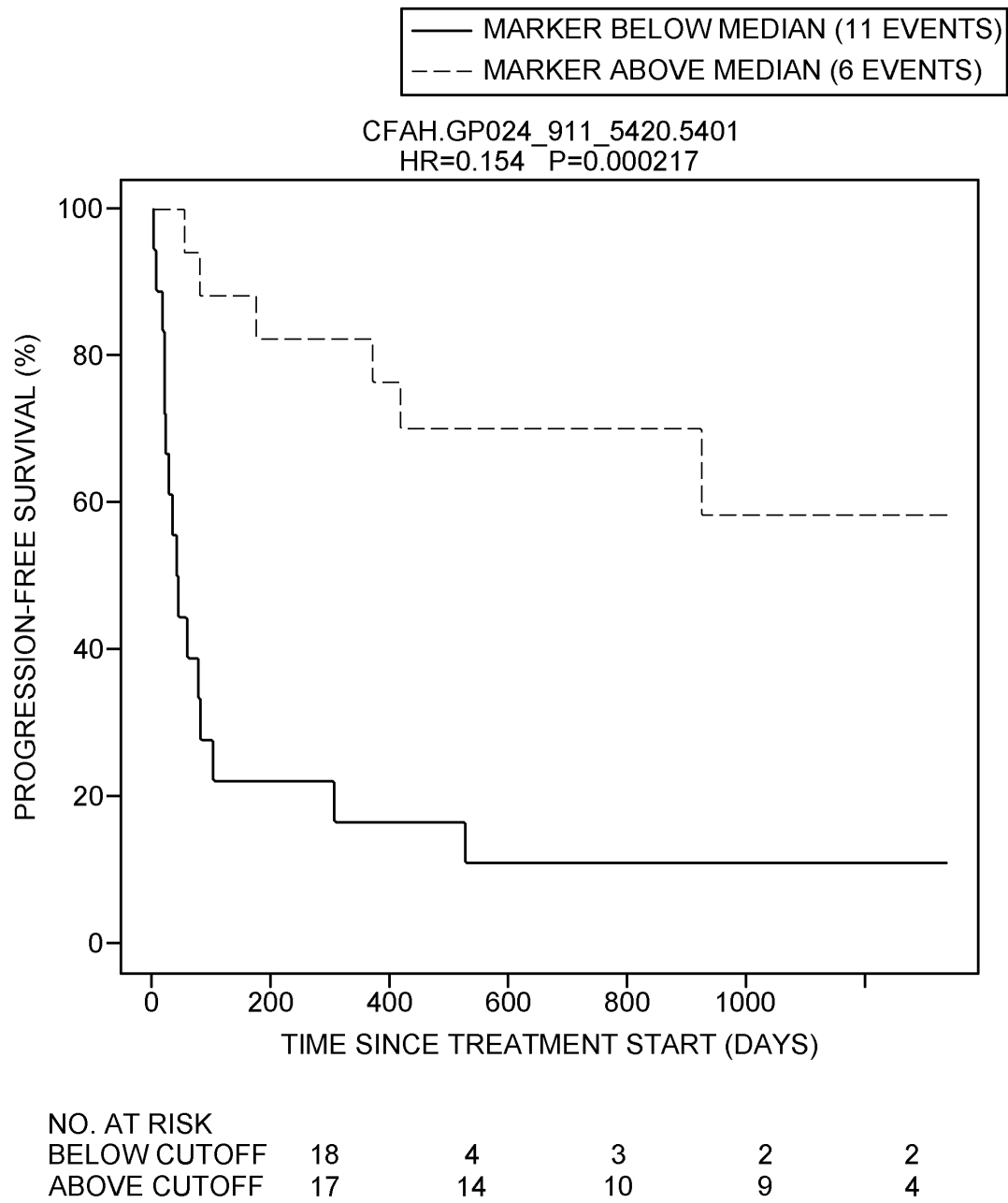


FIG. 101

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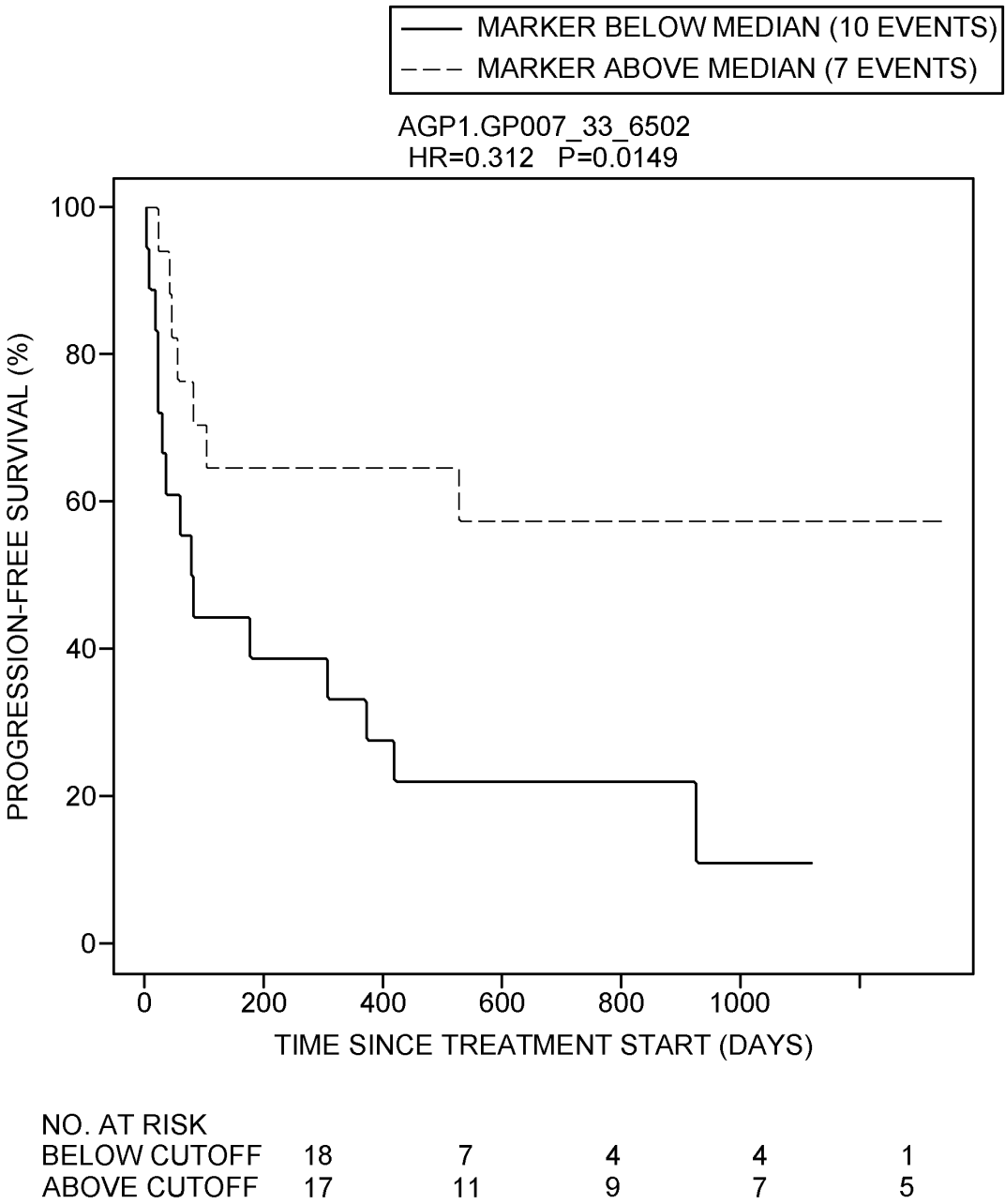


FIG. 102

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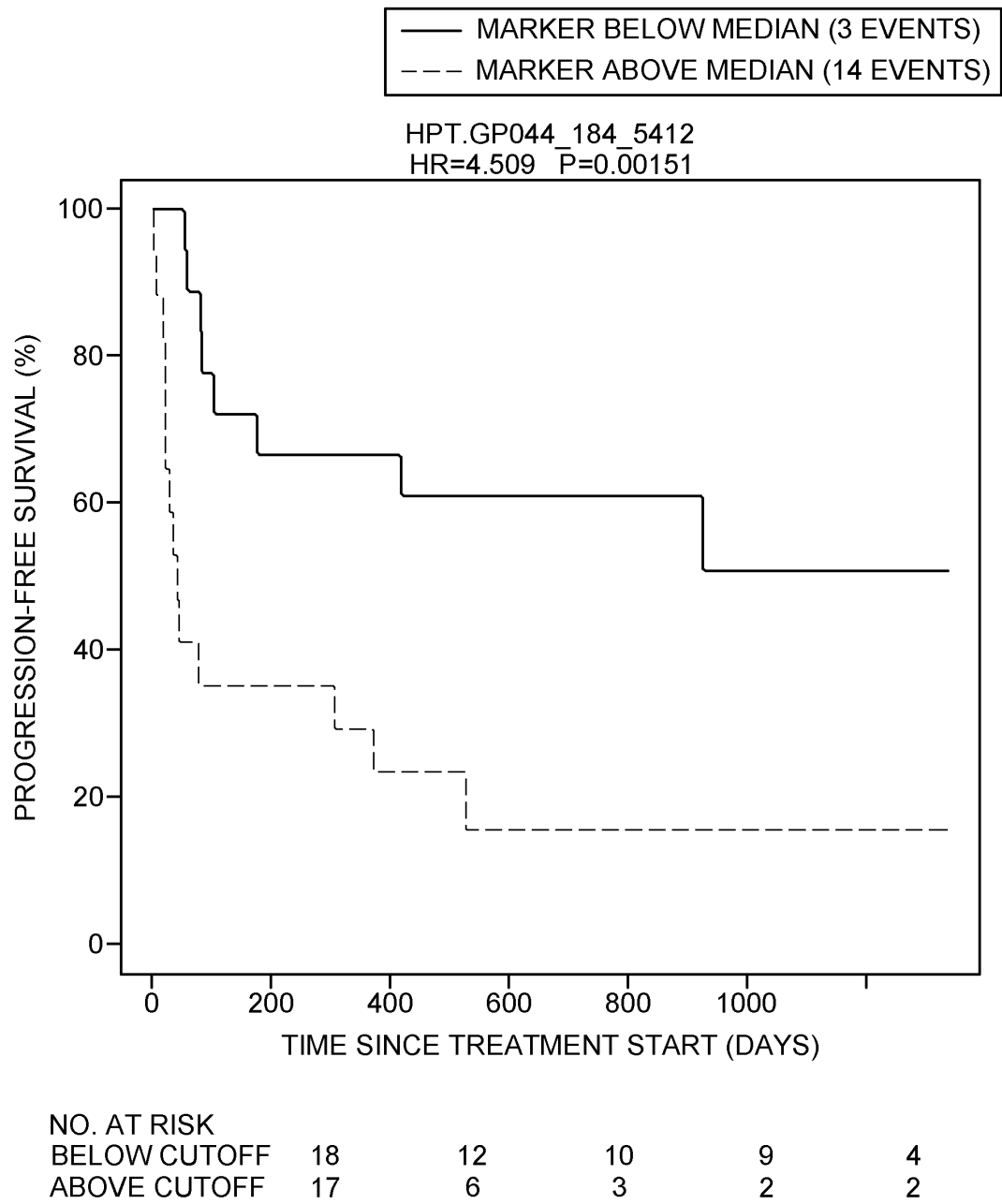


FIG. 103

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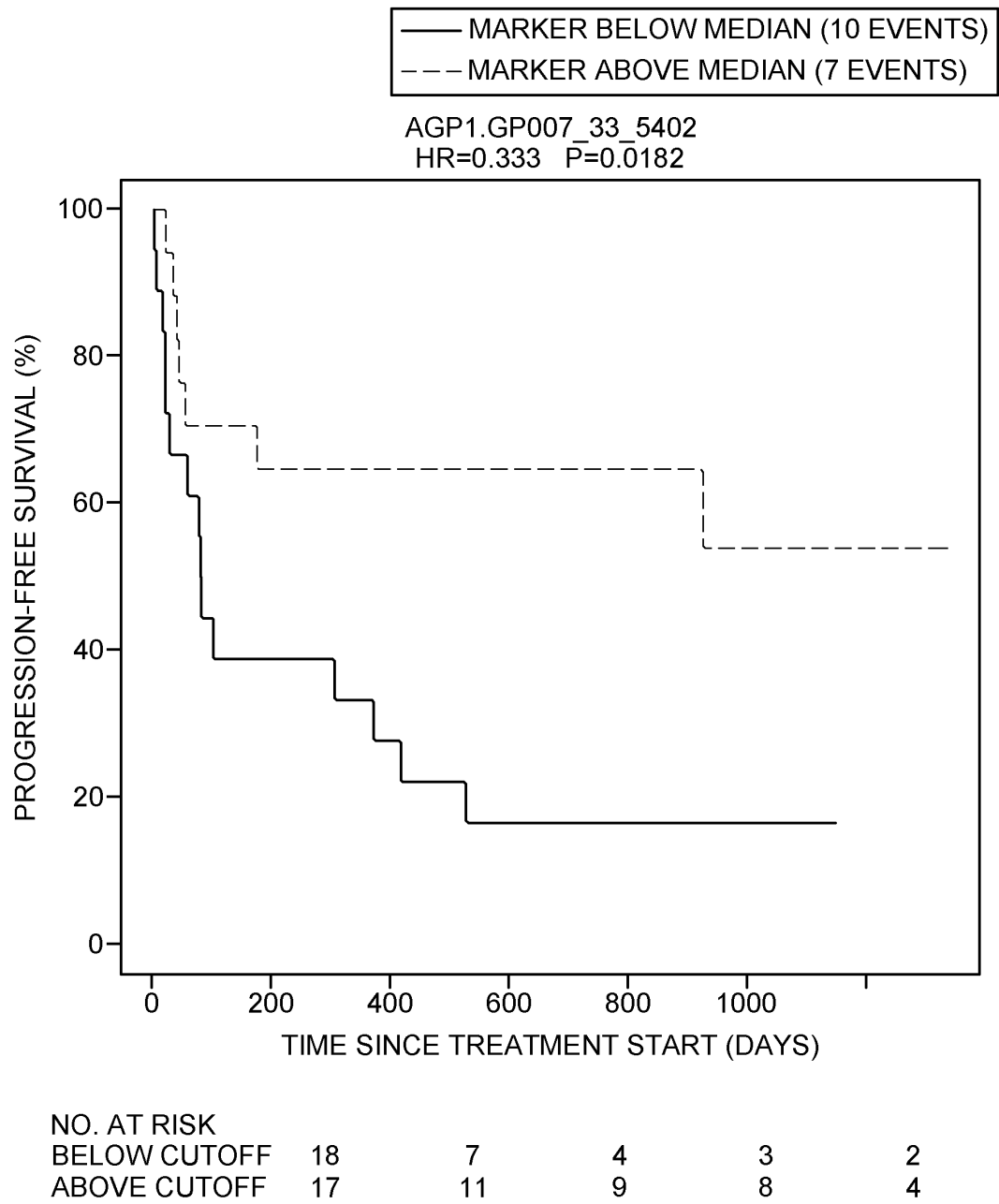


FIG. 104

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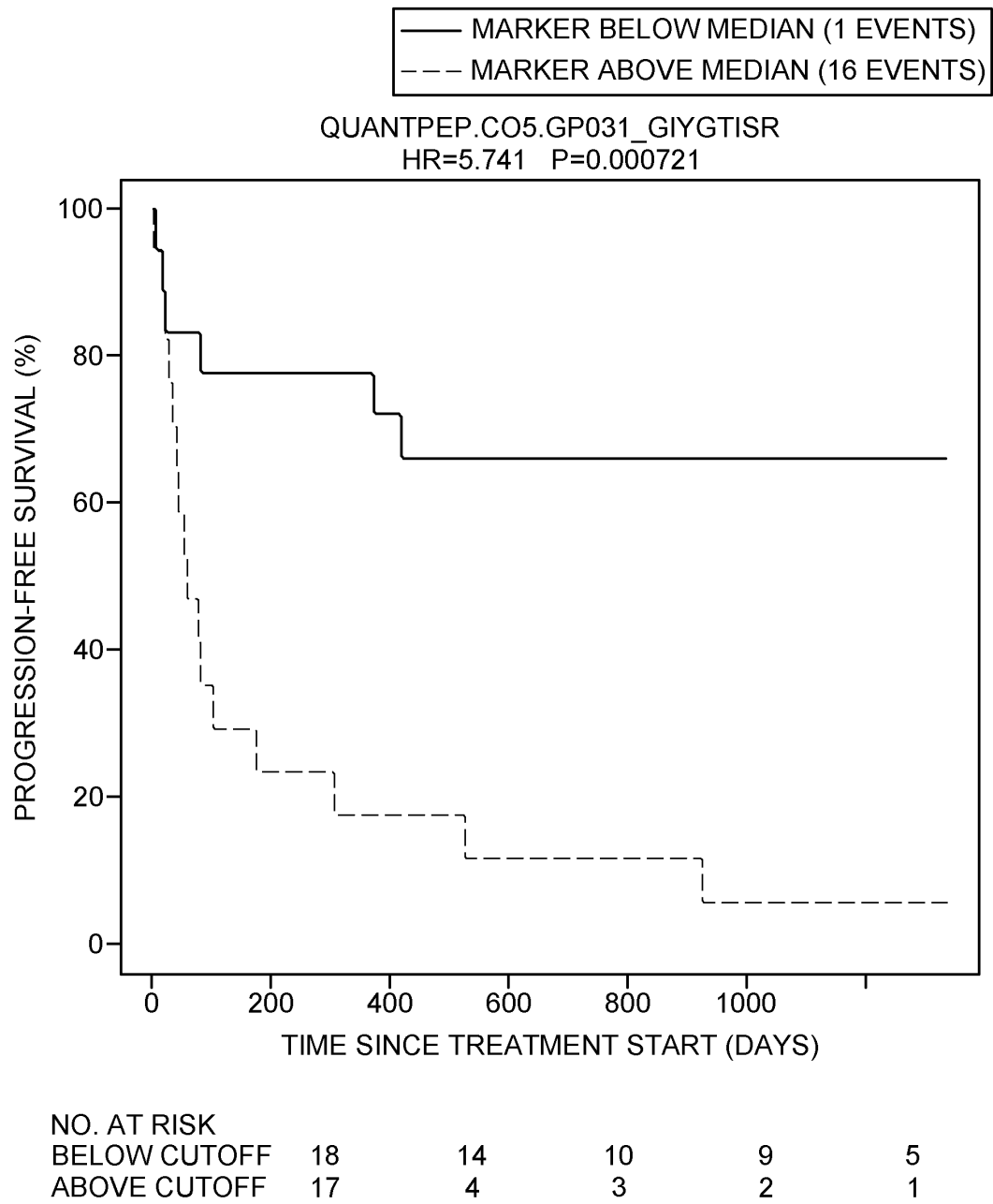


FIG. 105

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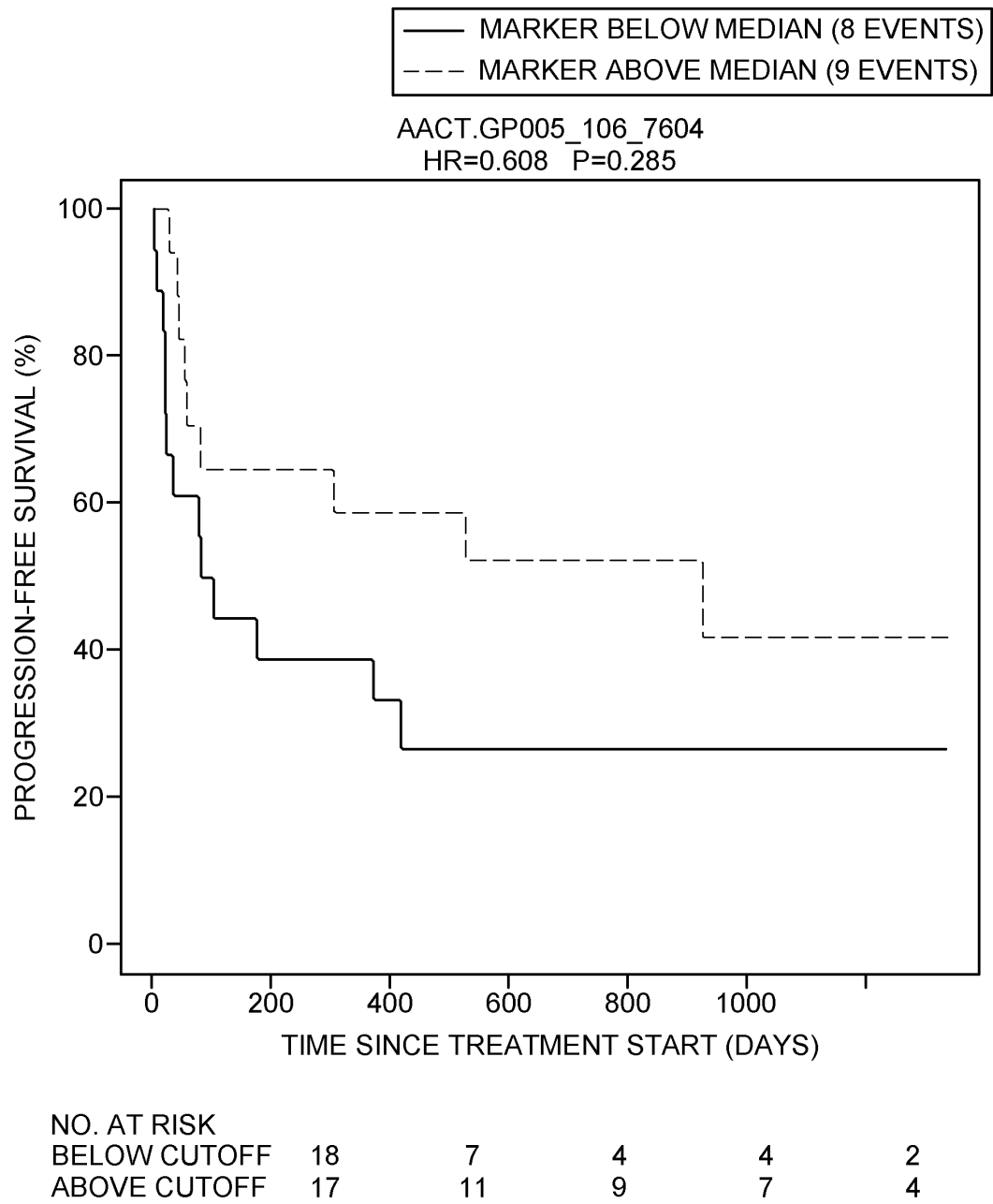


FIG. 106

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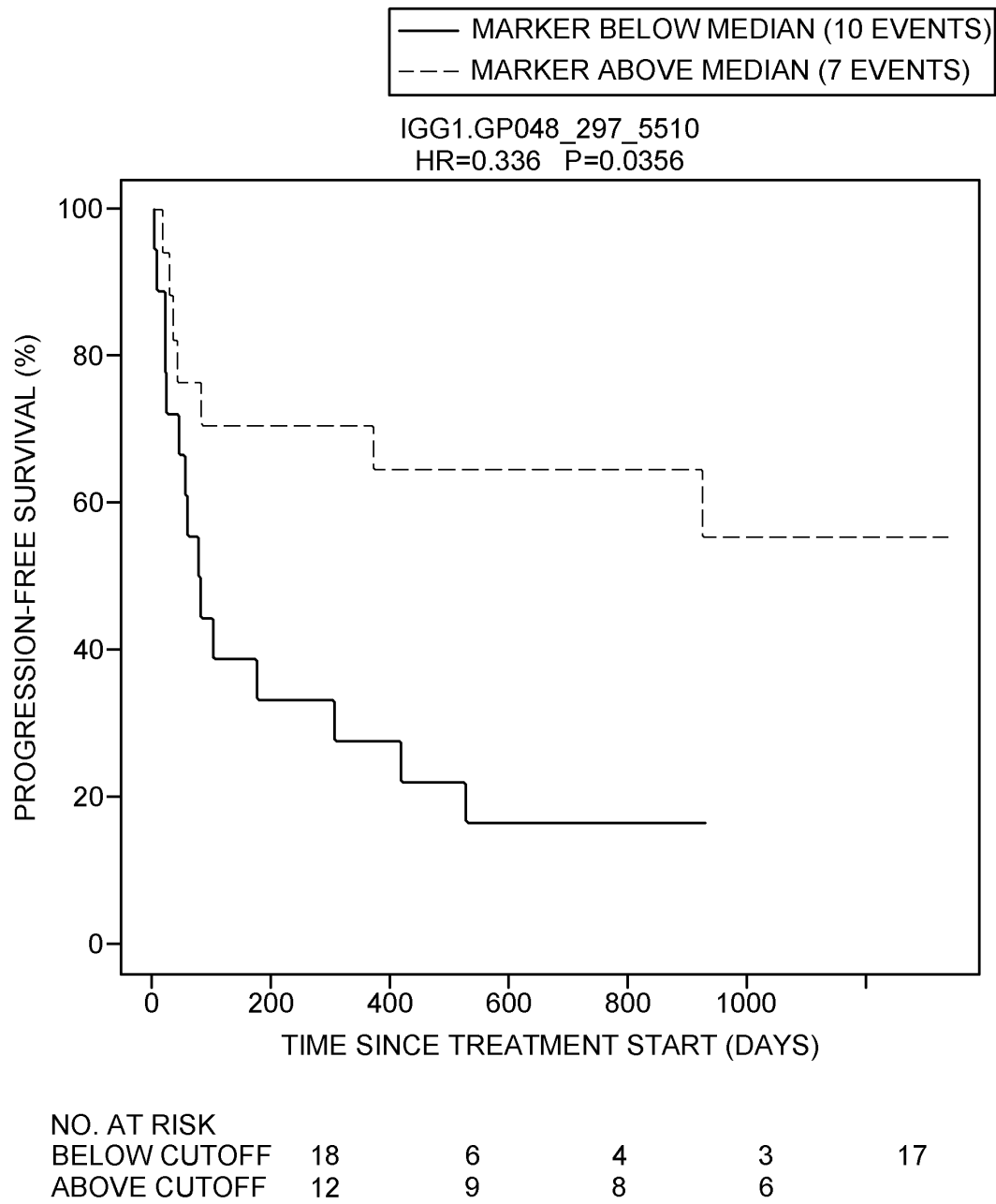


FIG. 107

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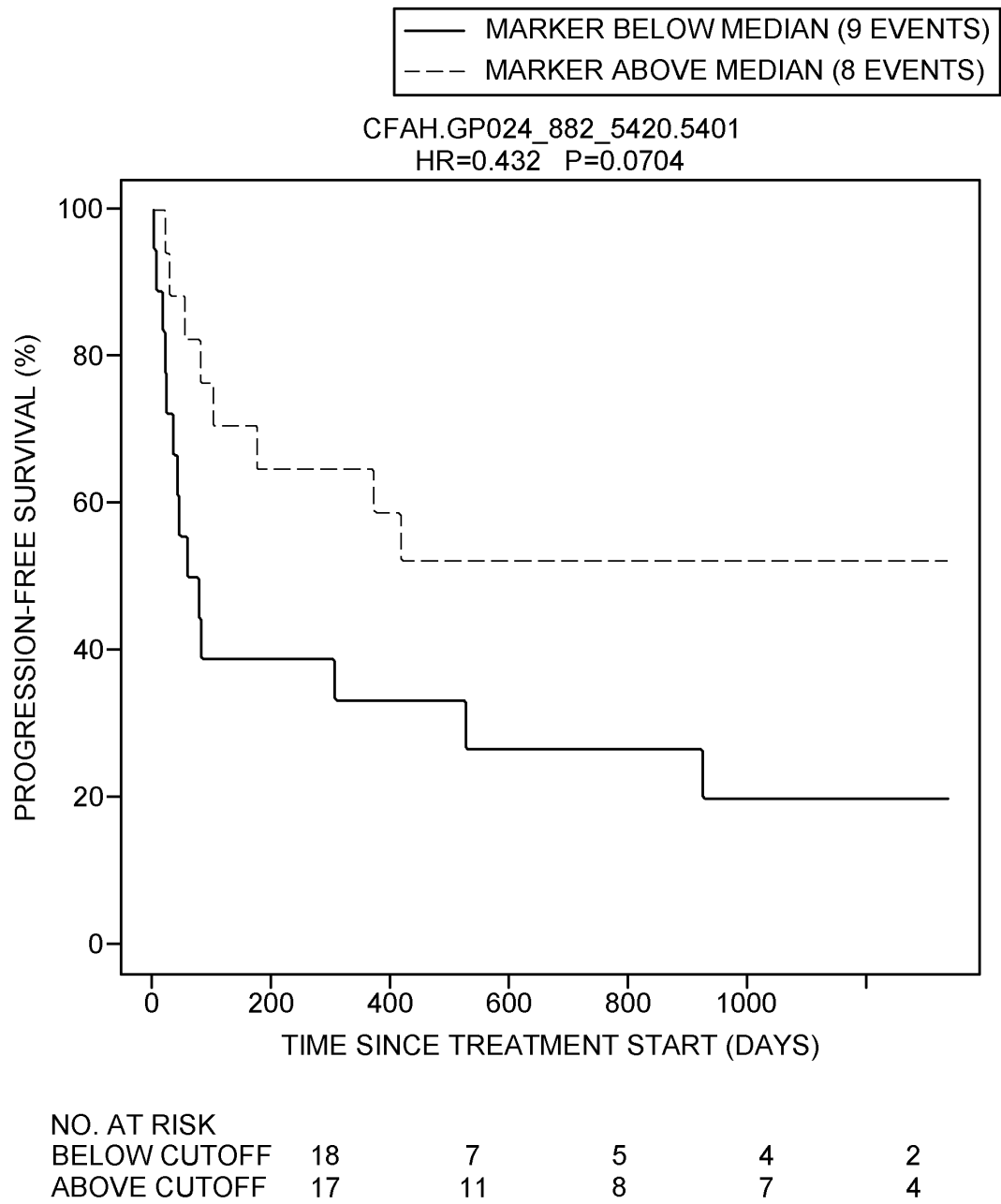


FIG. 108

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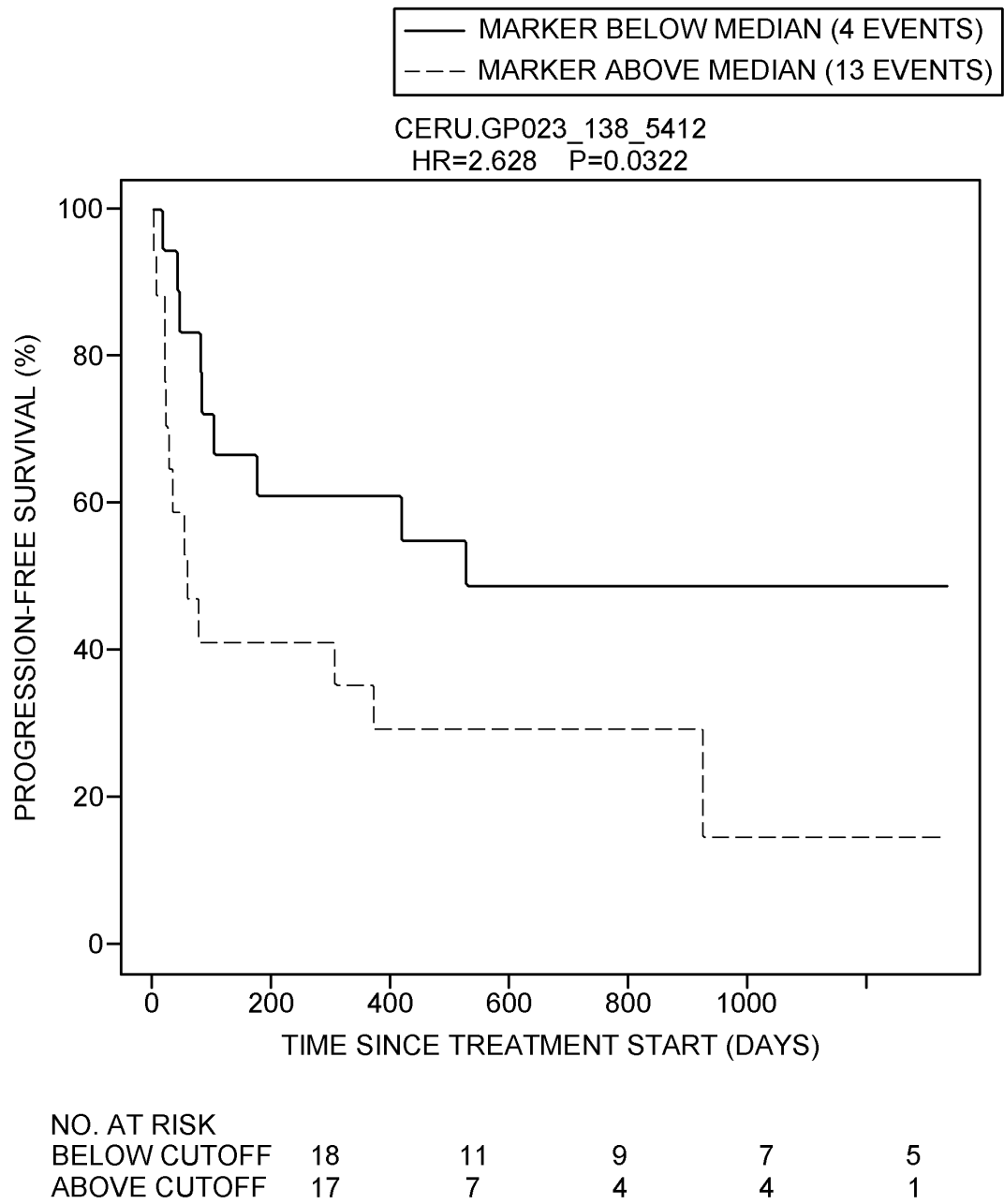


FIG. 109

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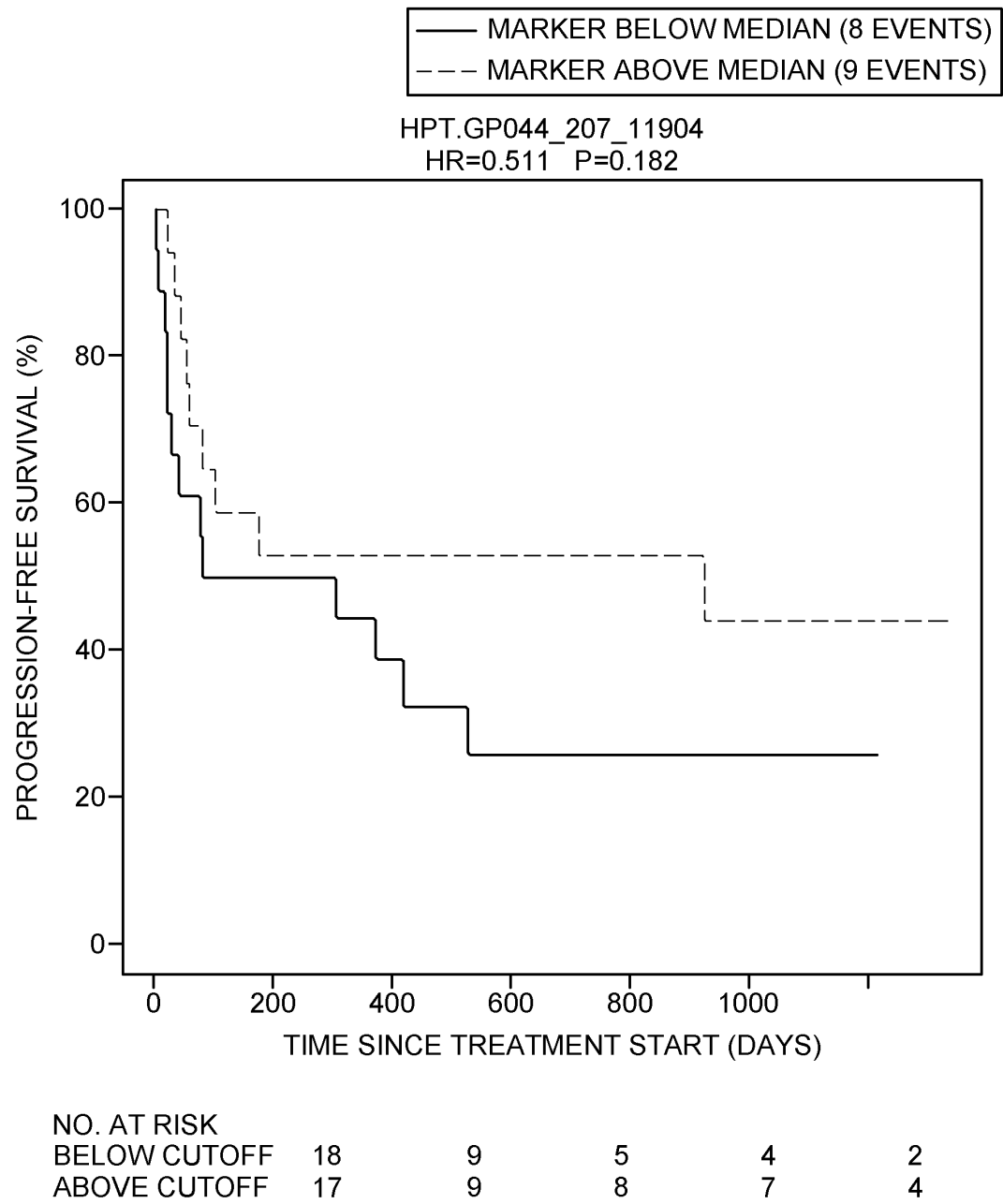


FIG. 110

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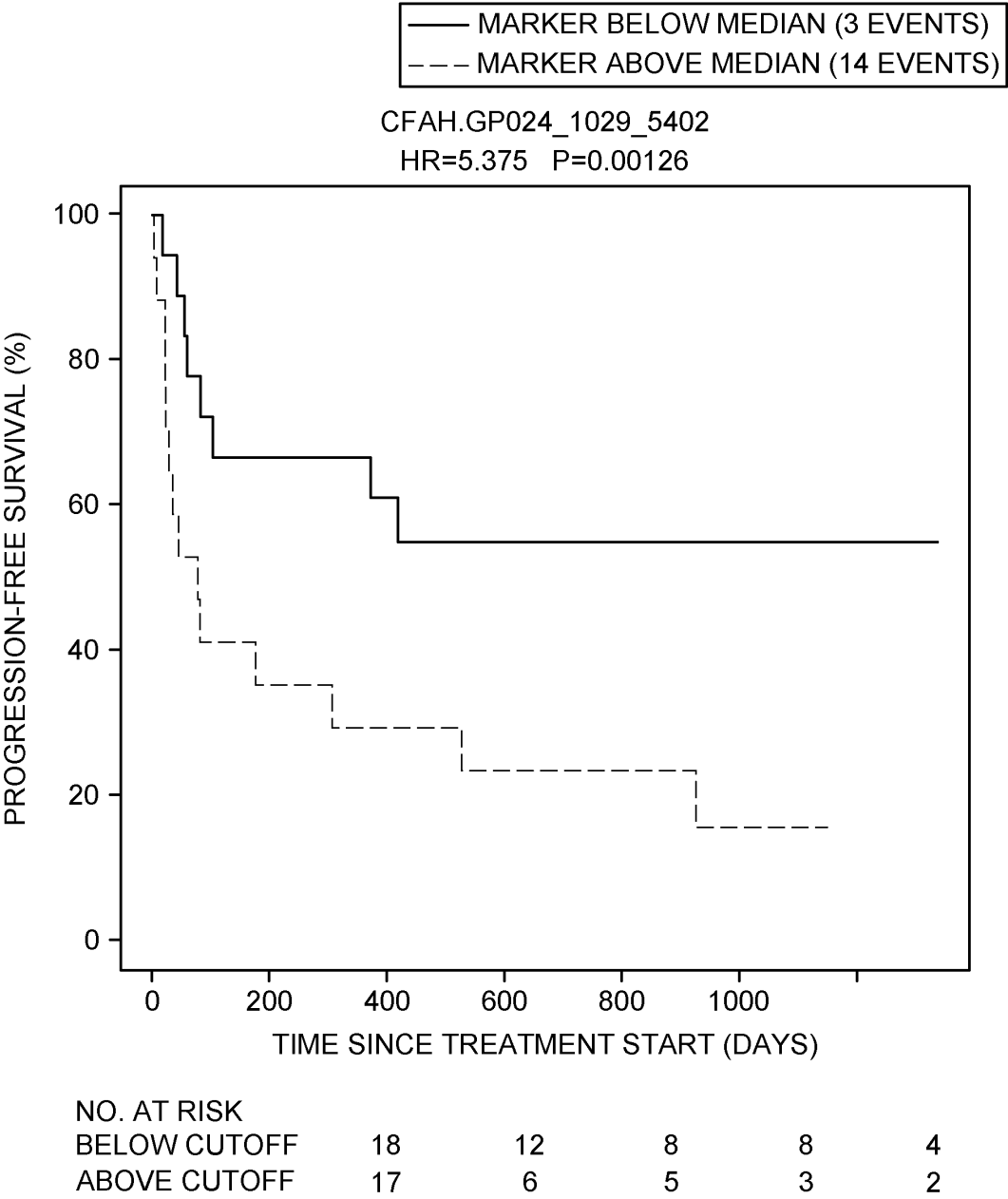


FIG. 111

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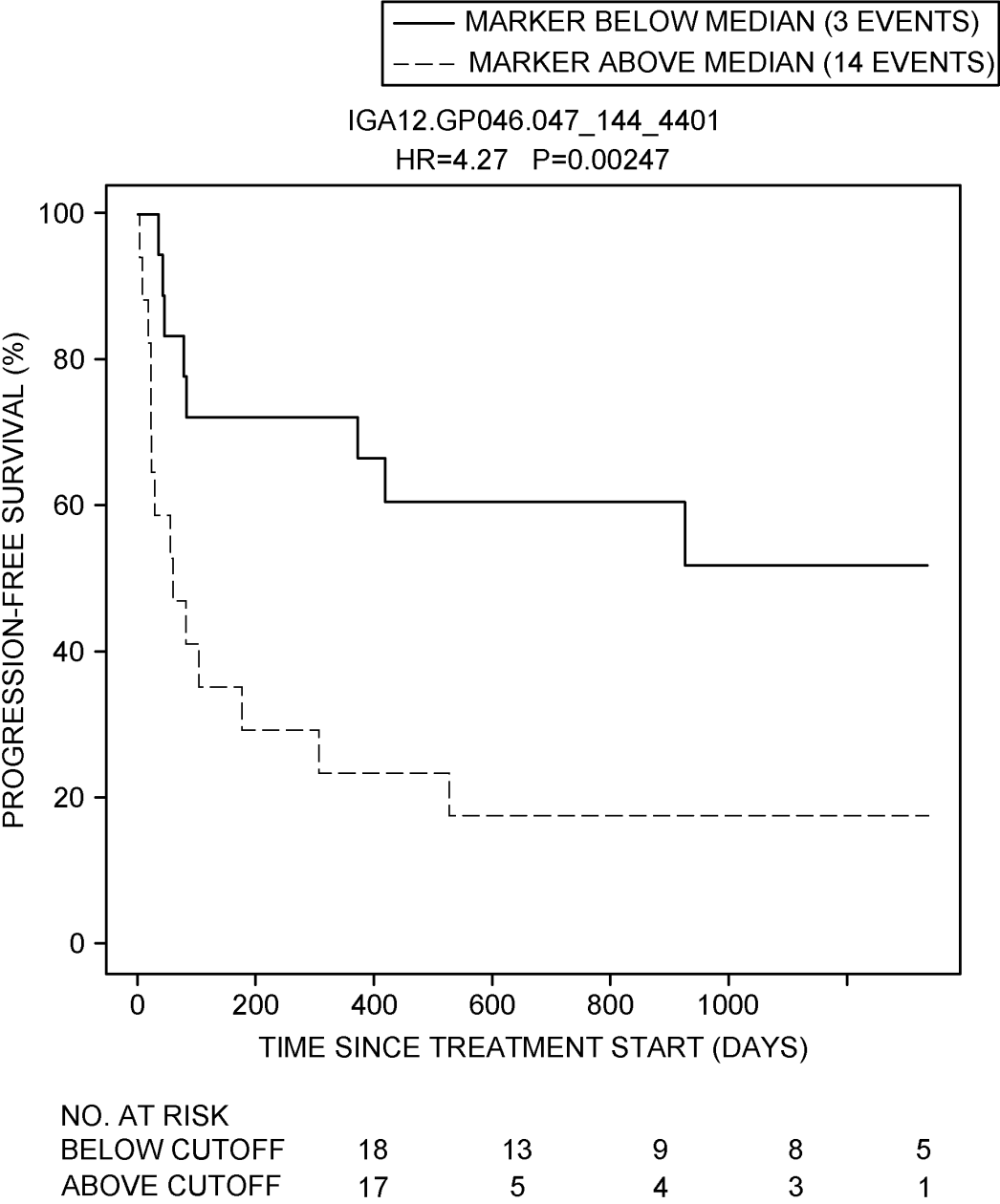


FIG. 112

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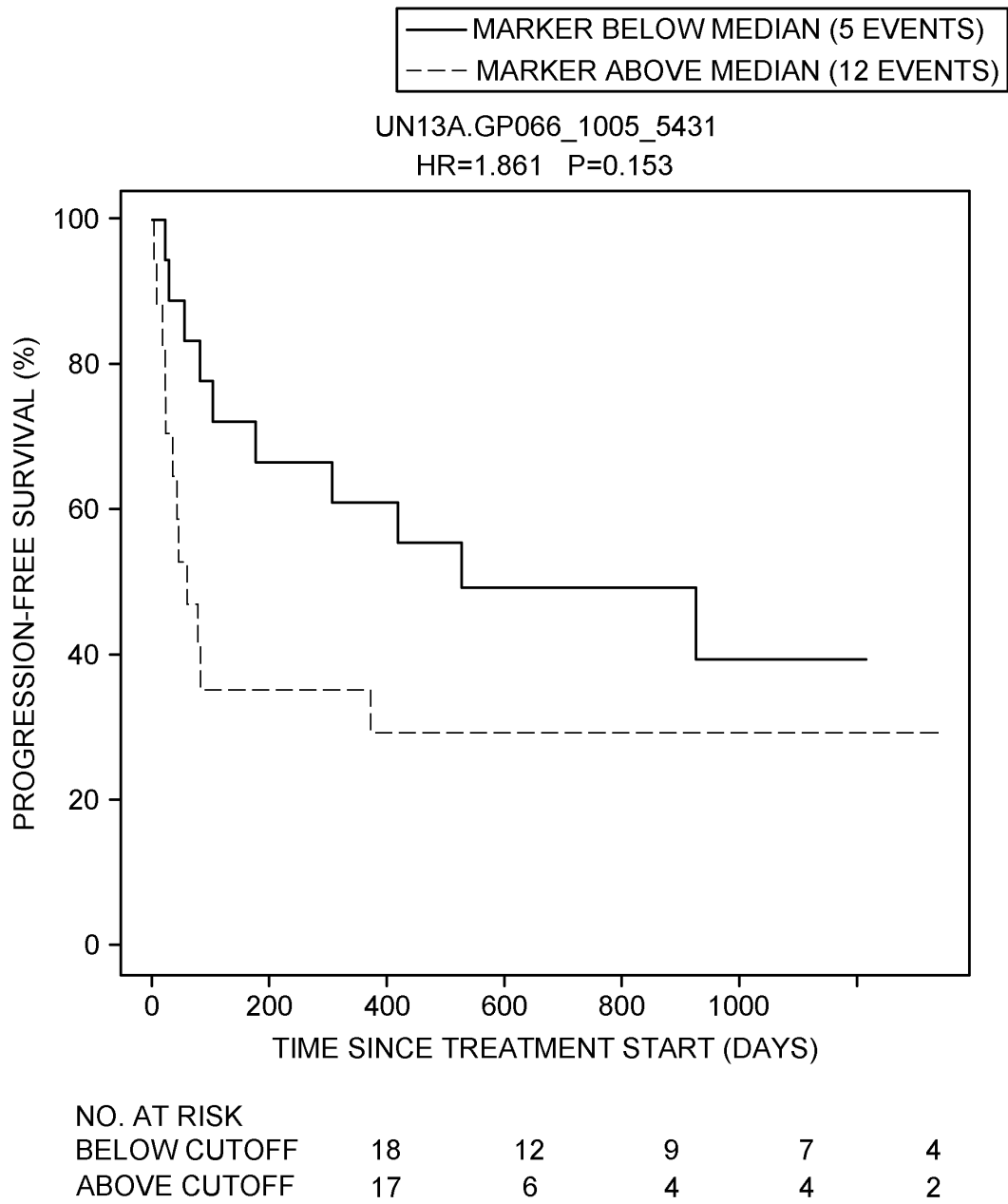


FIG. 113

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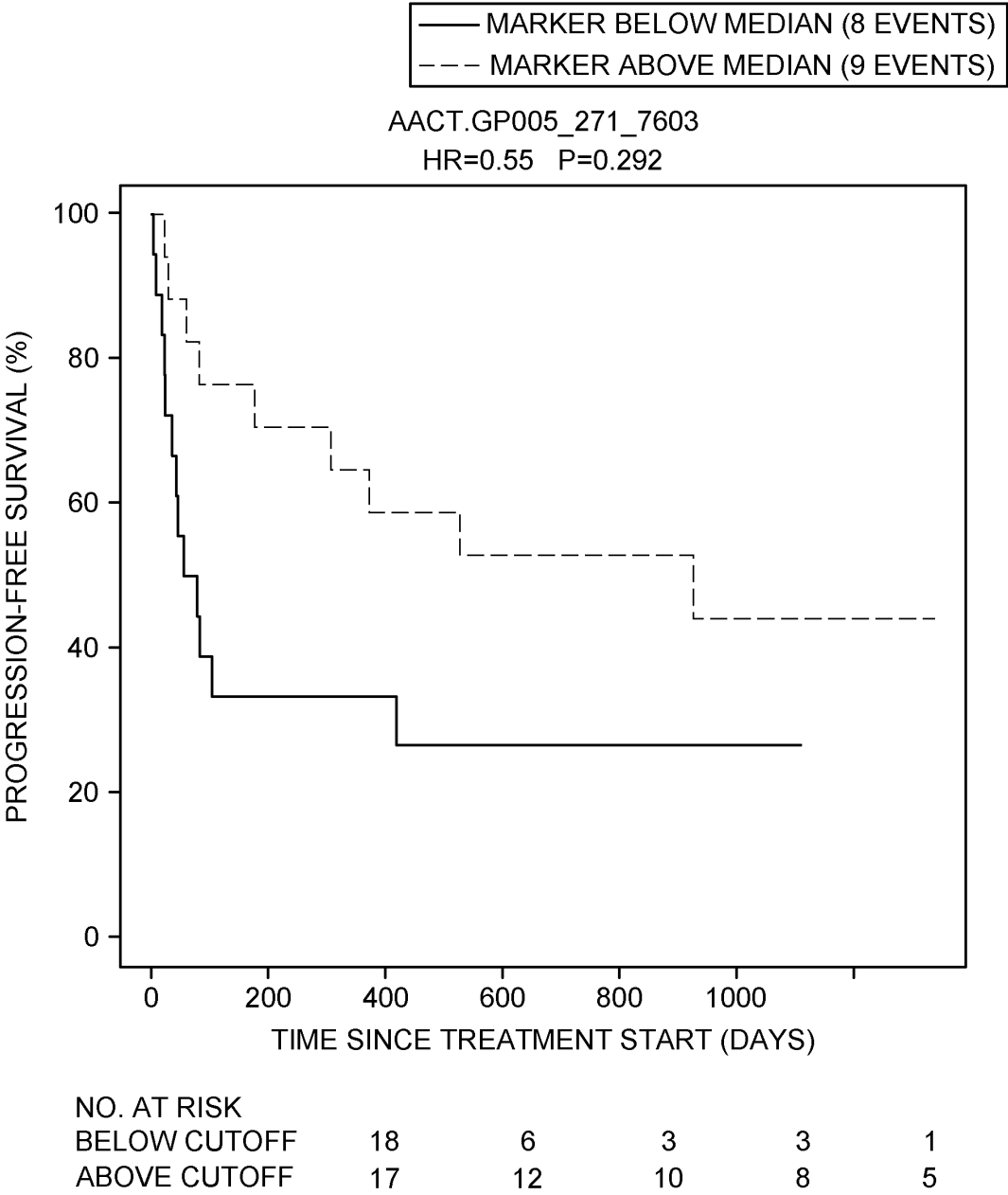


FIG. 114

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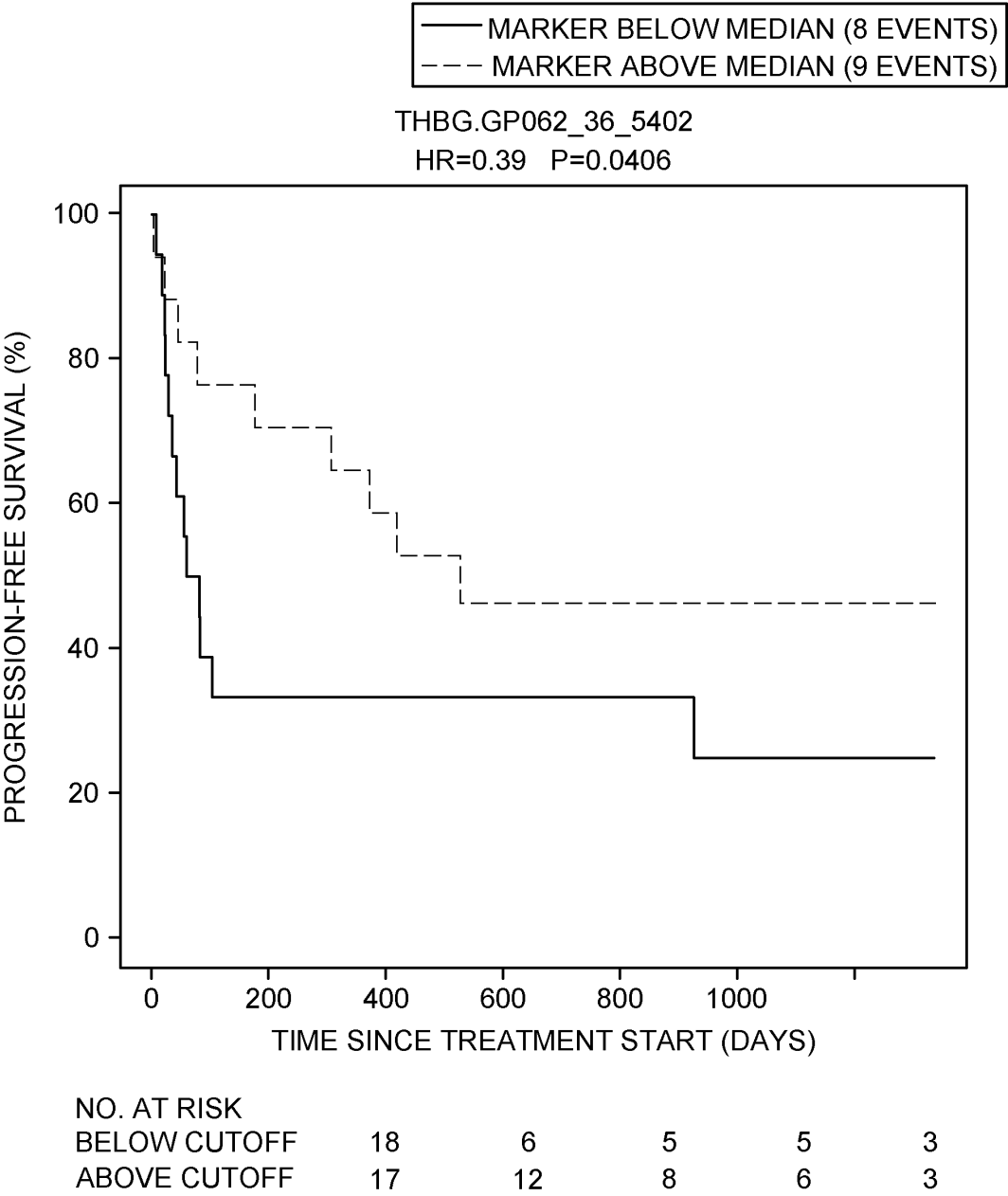


FIG. 115

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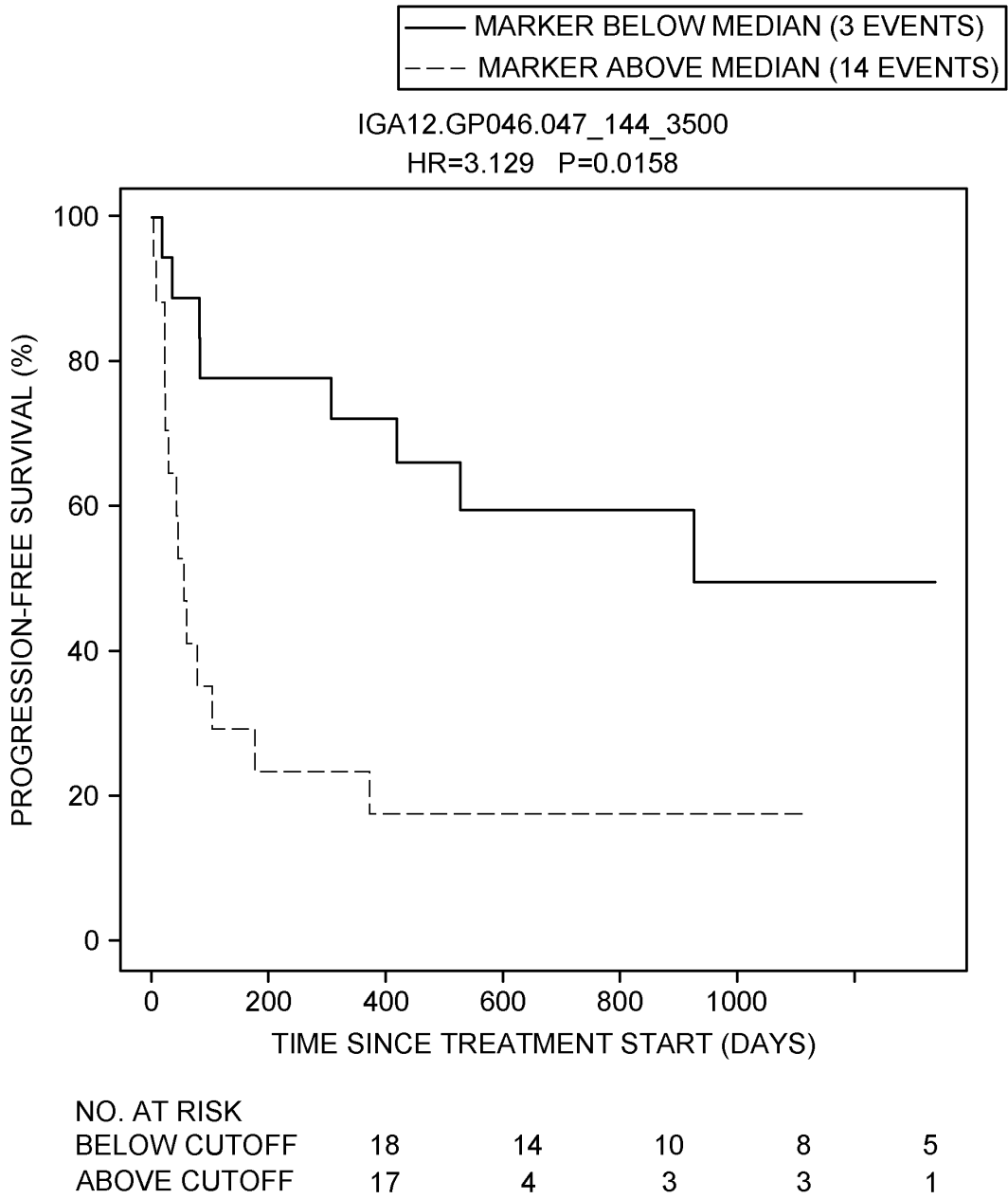


FIG. 116

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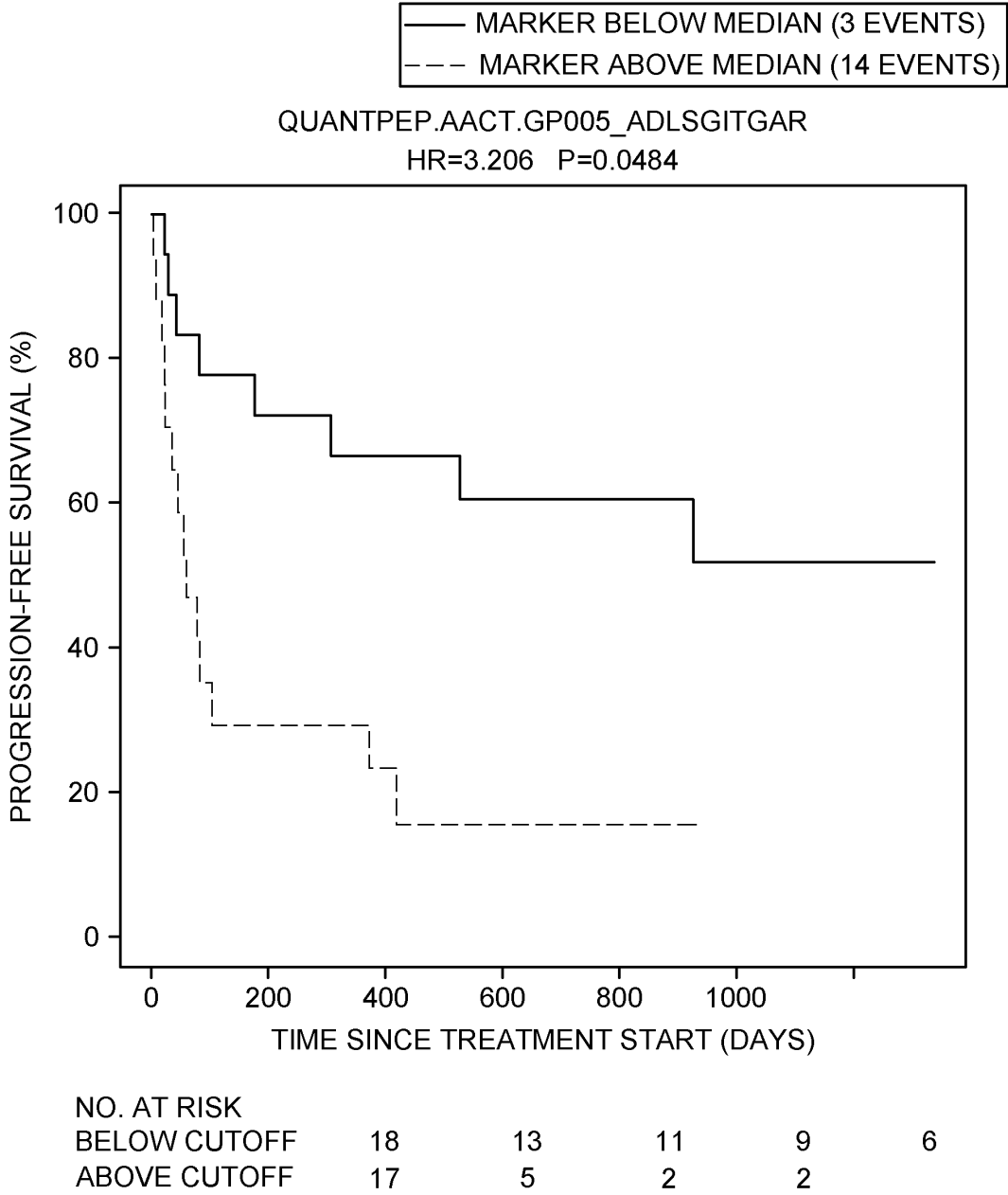


FIG. 117

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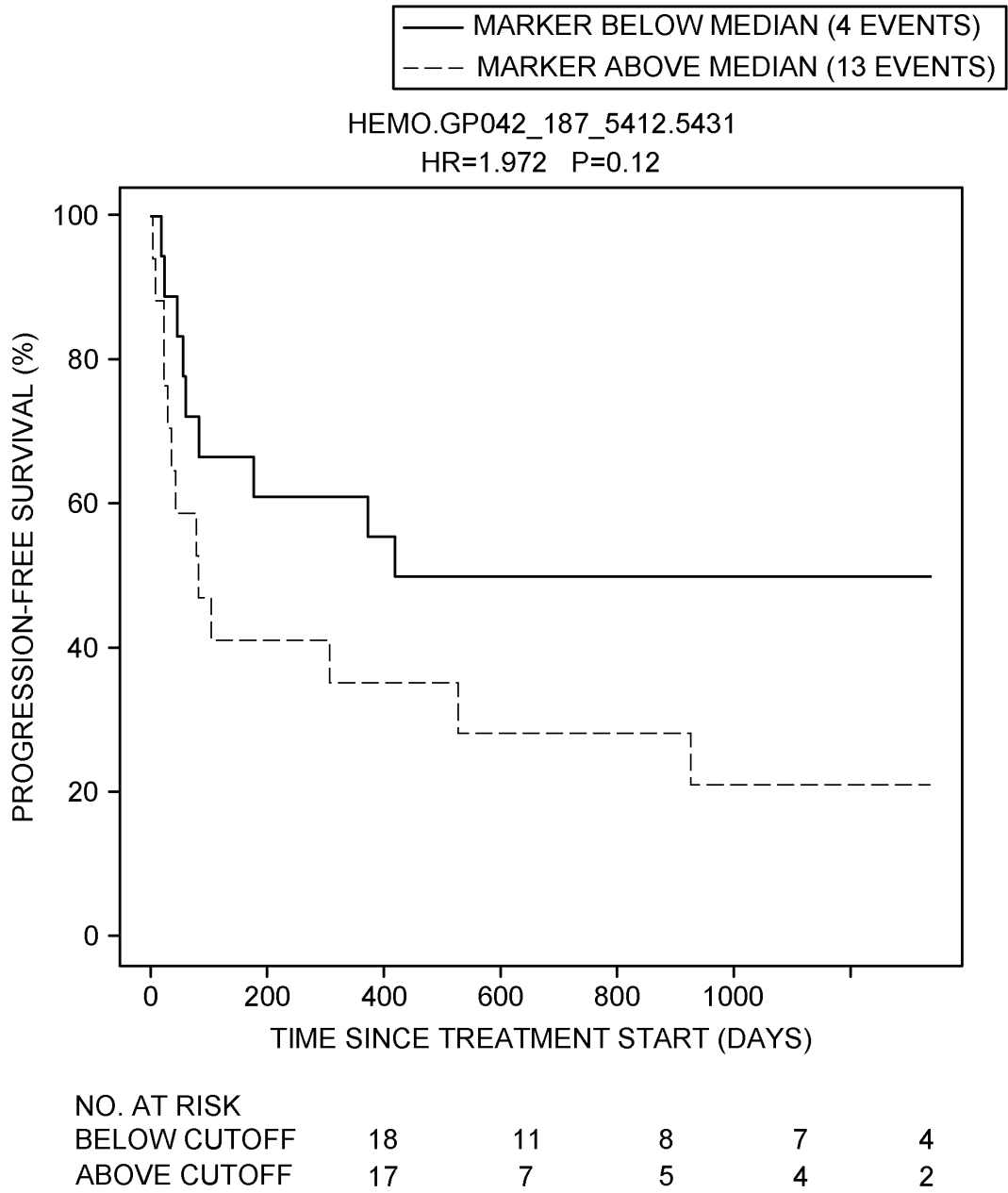


FIG. 118

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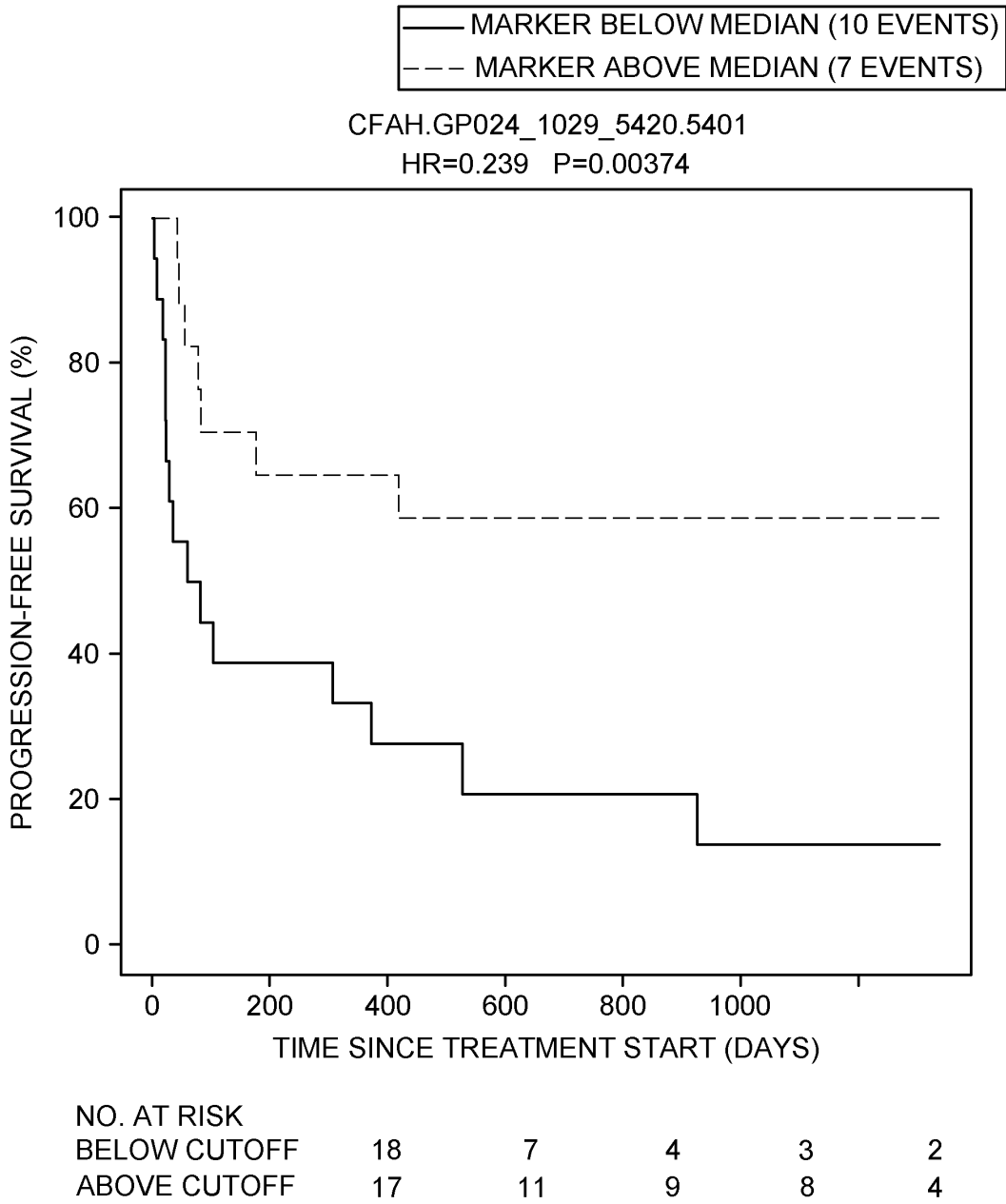


FIG. 119

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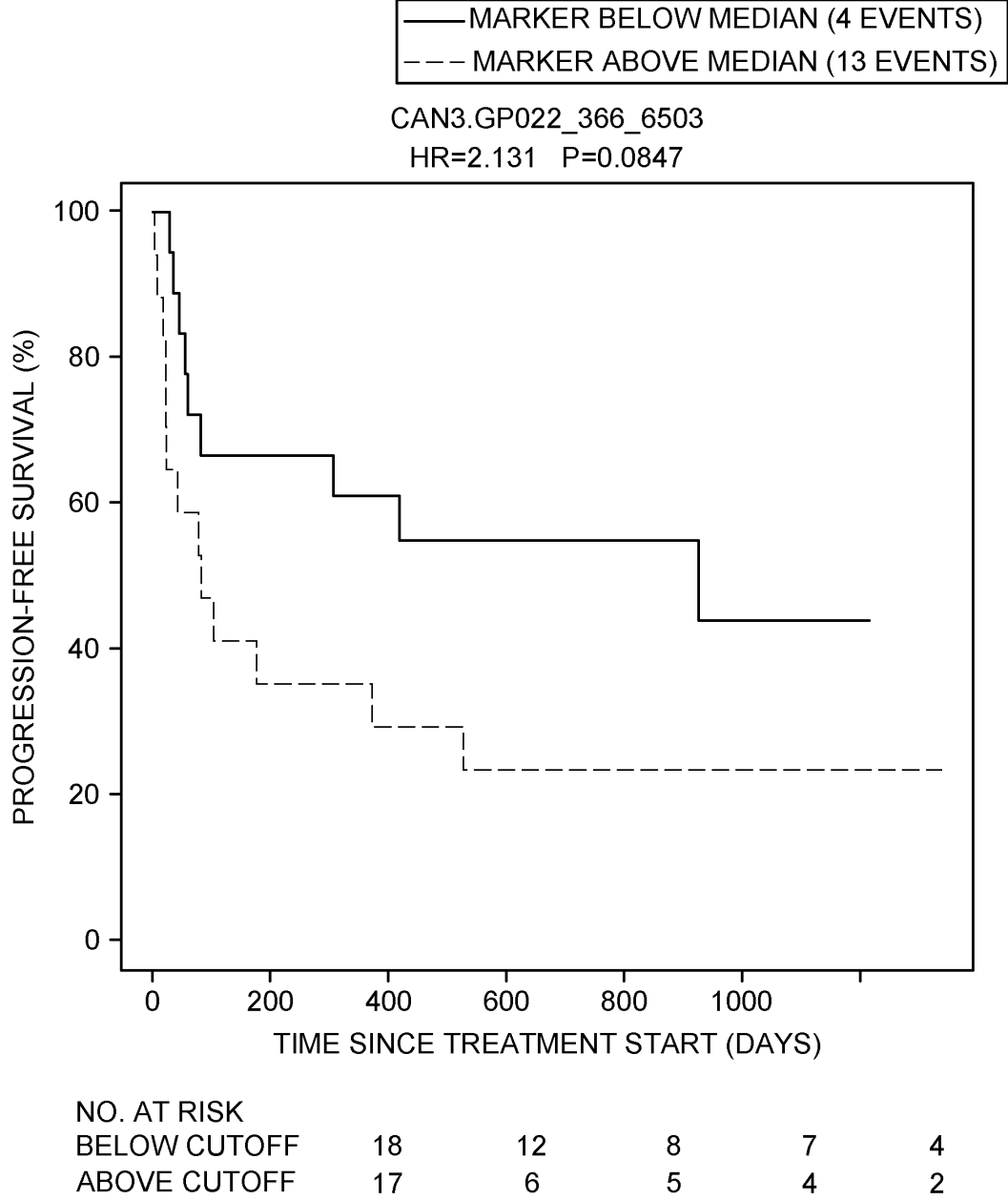


FIG. 120

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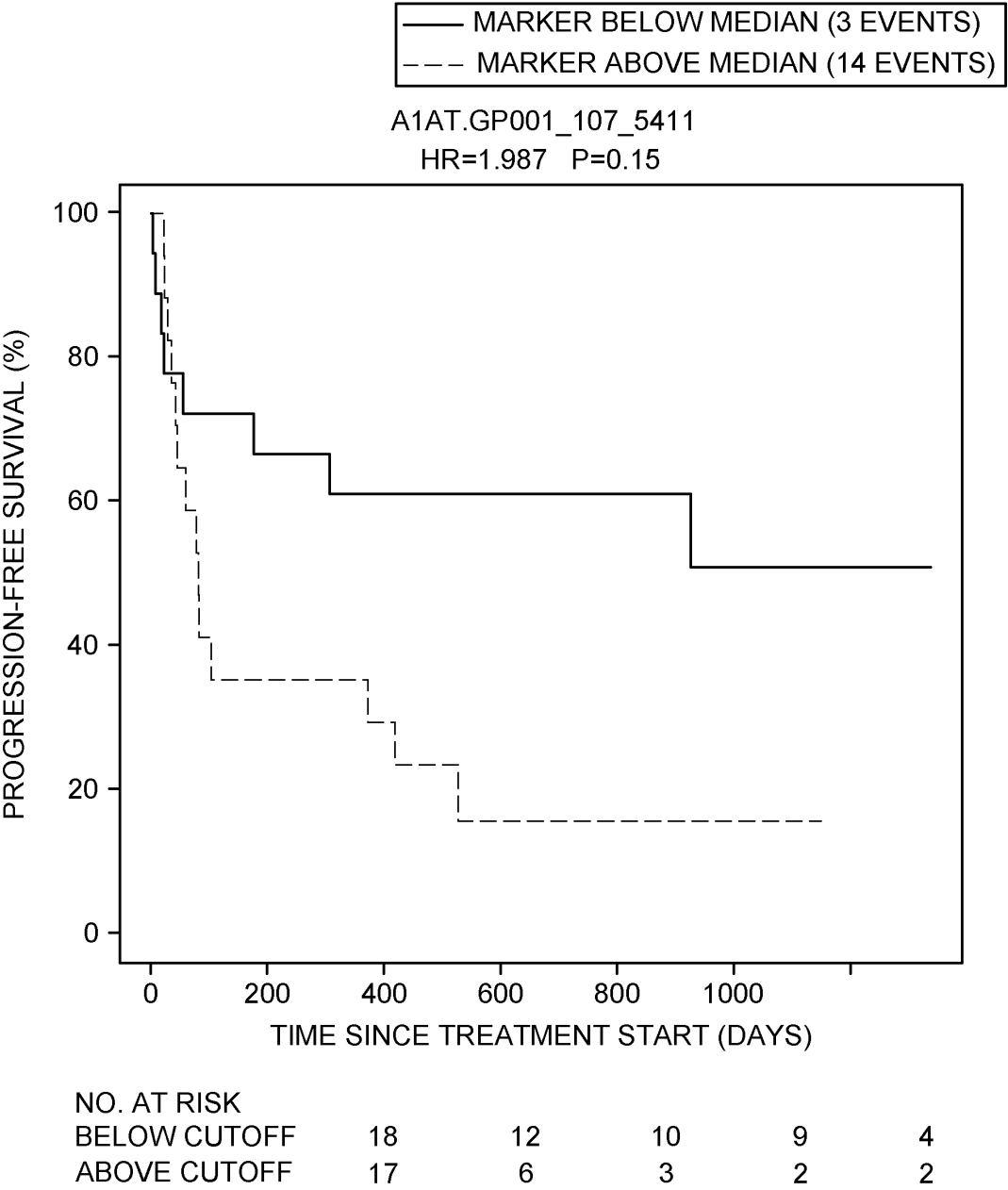


FIG. 121

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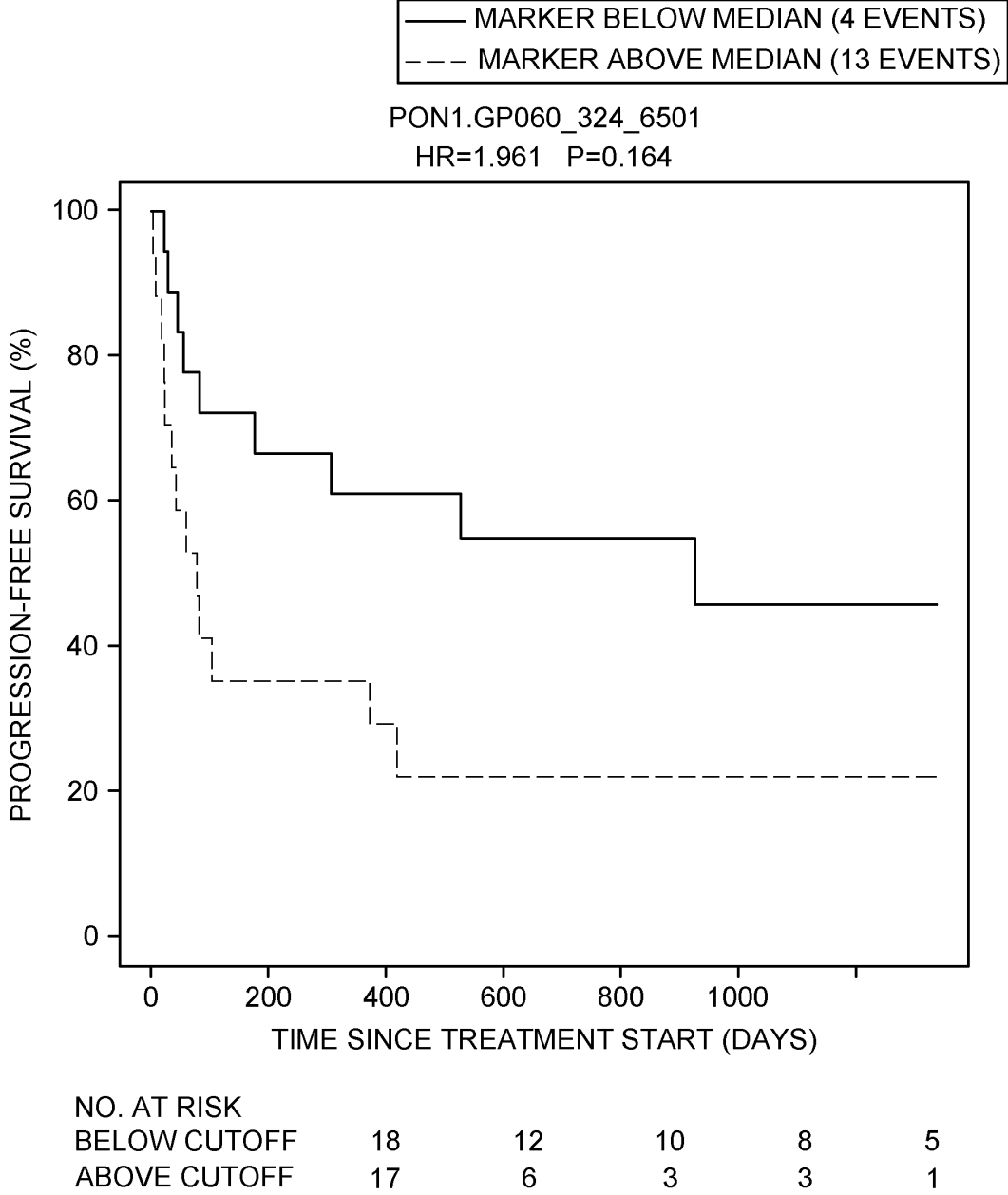


FIG. 122

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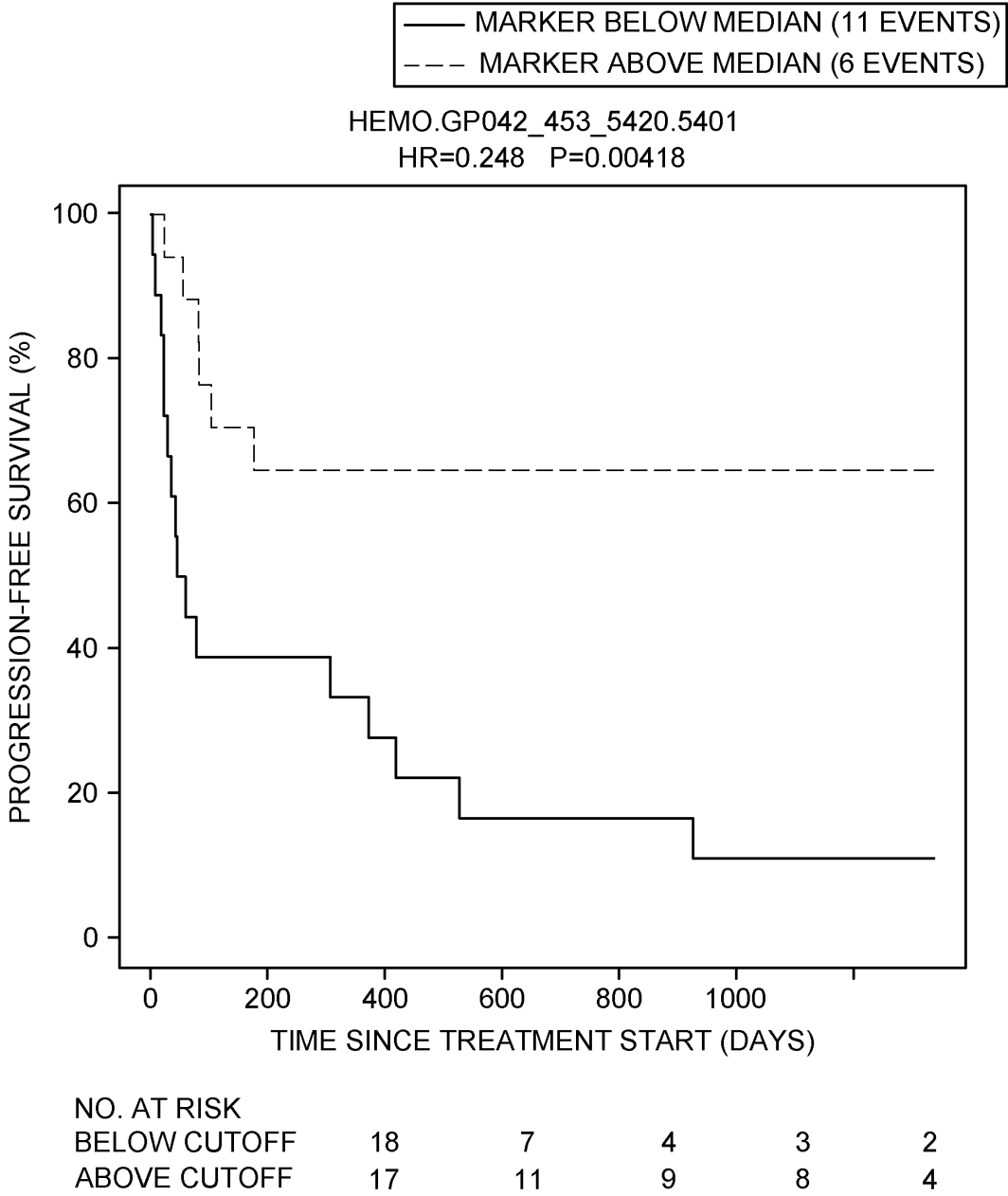


FIG. 123

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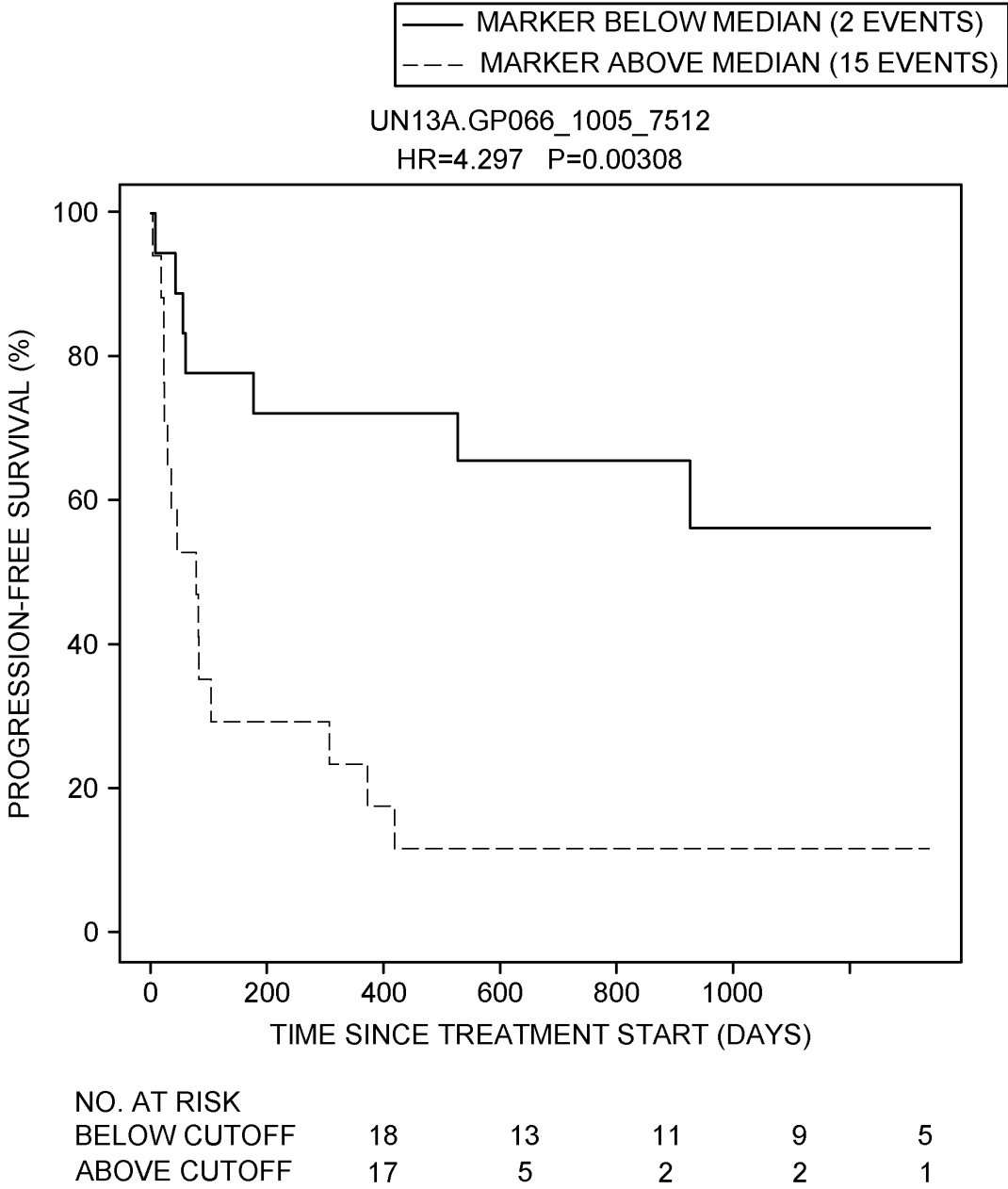


FIG. 124

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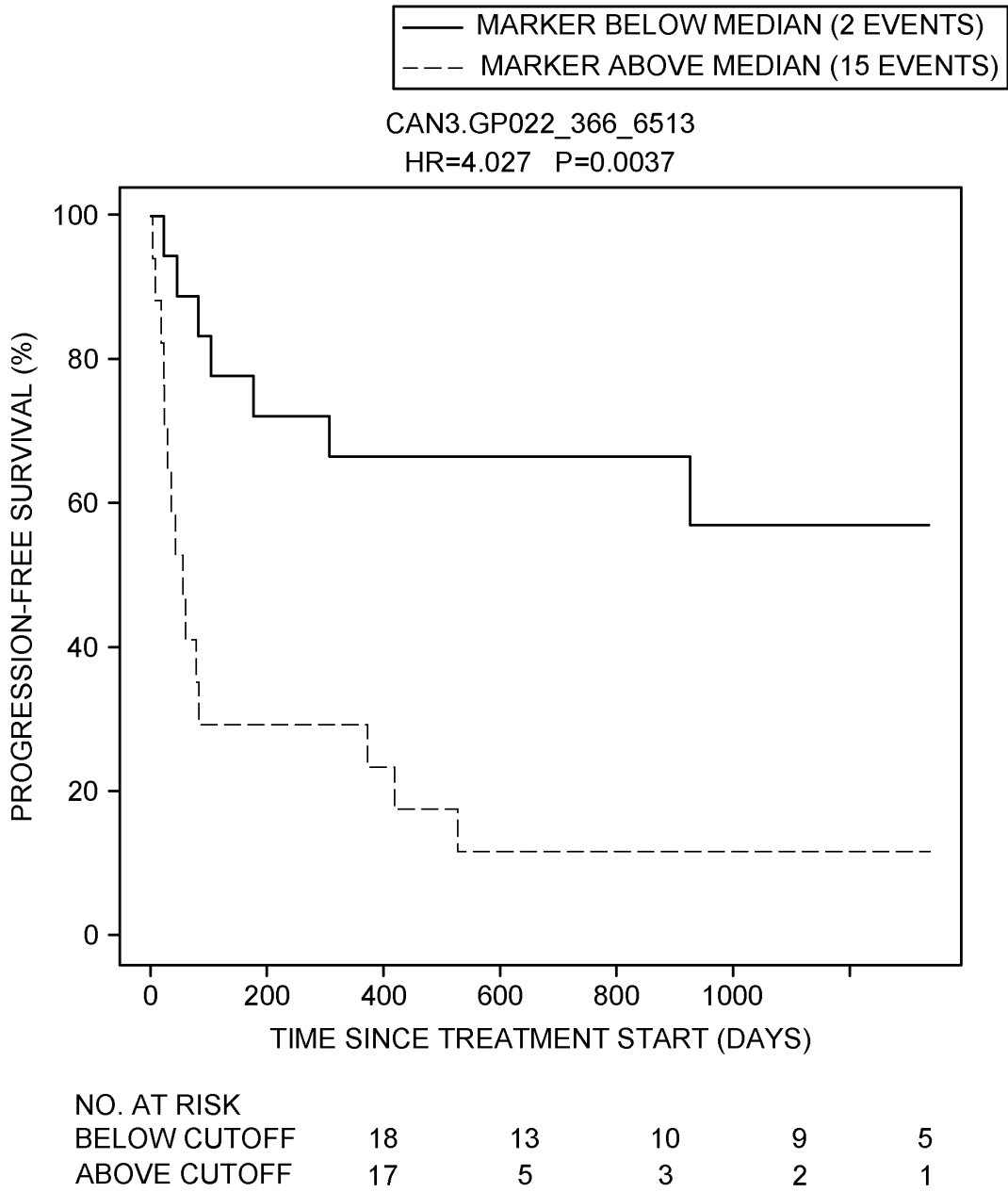


FIG. 125

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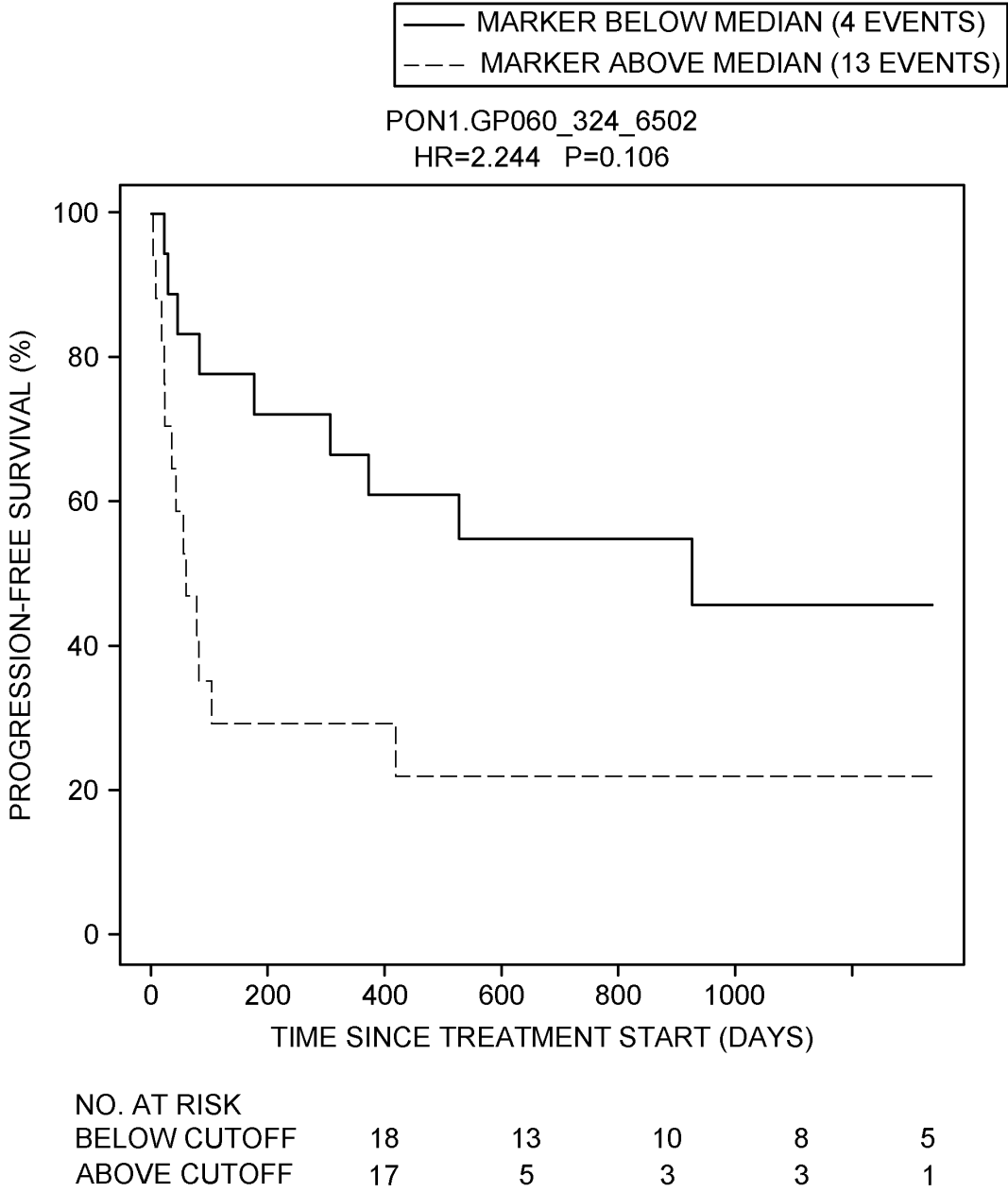


FIG. 126

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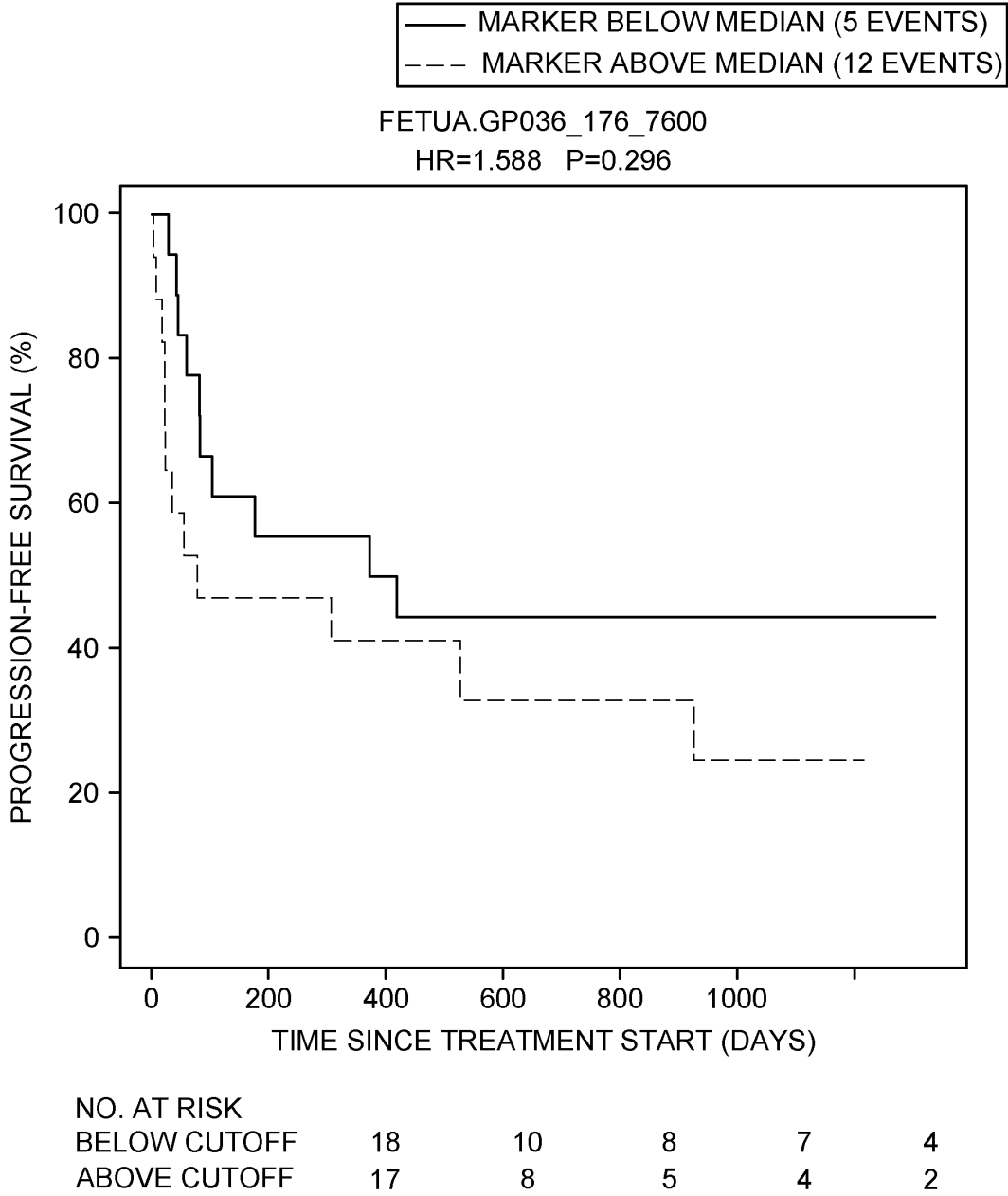


FIG. 127

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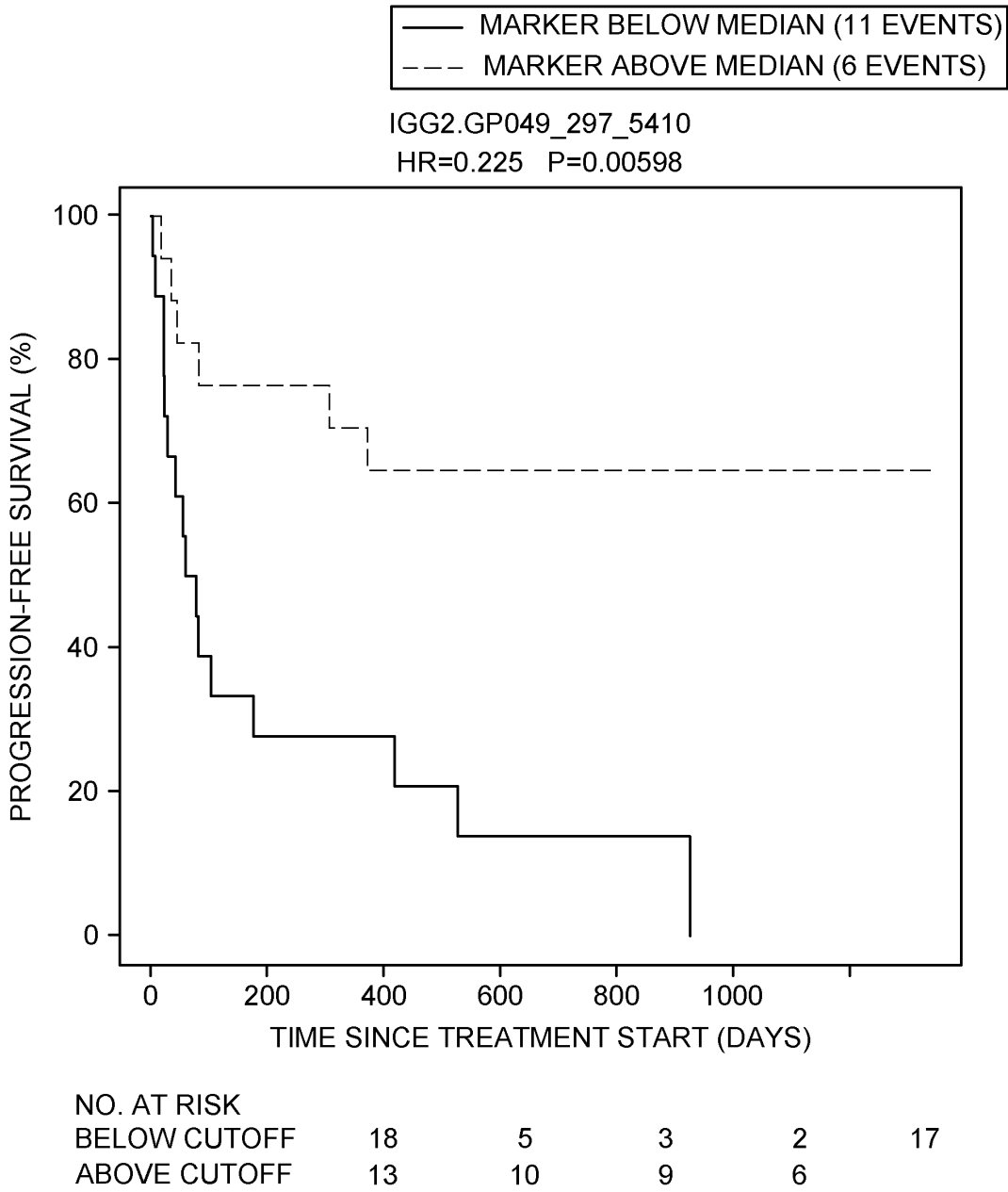


FIG. 128

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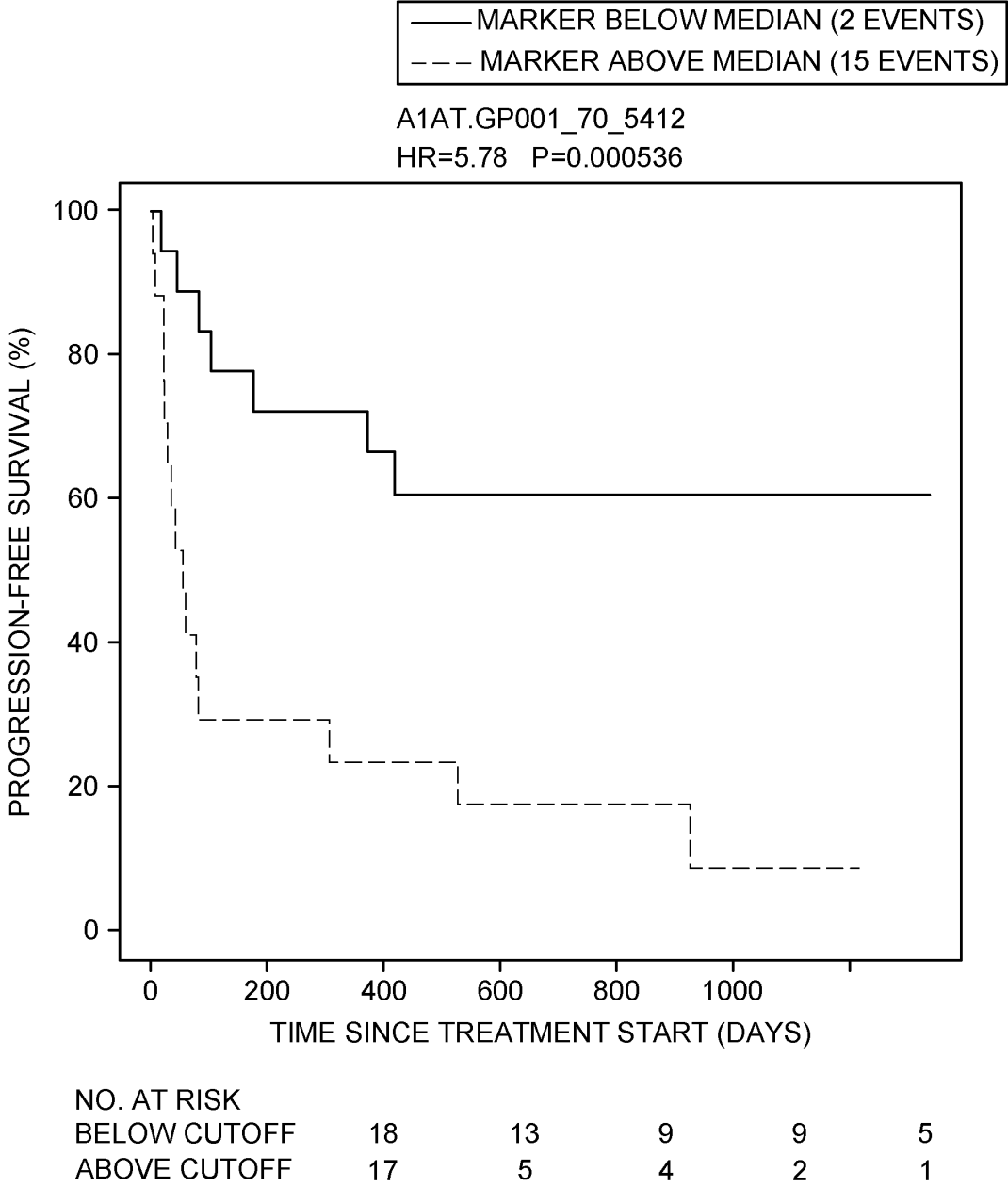


FIG. 129

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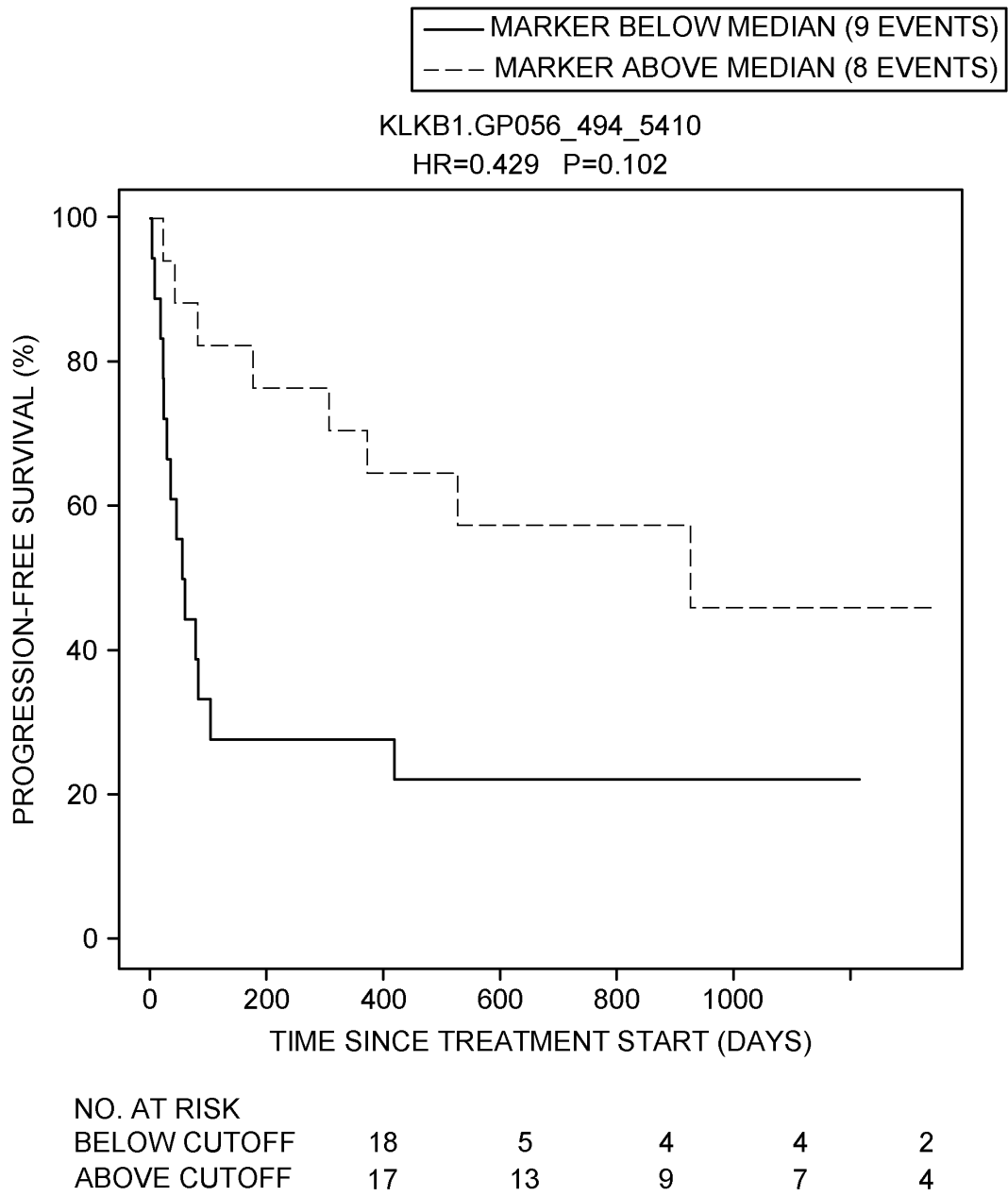


FIG. 130

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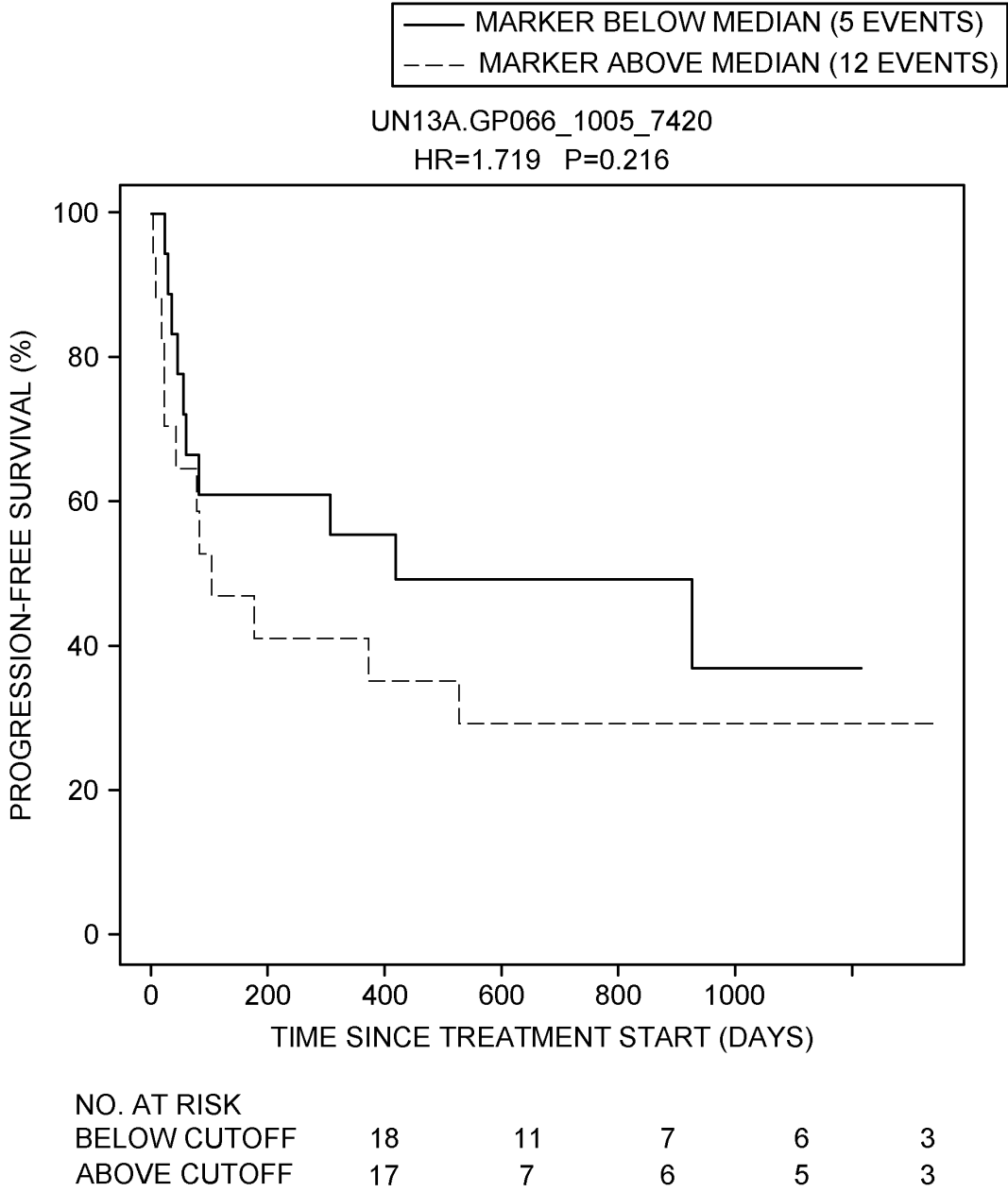


FIG. 131

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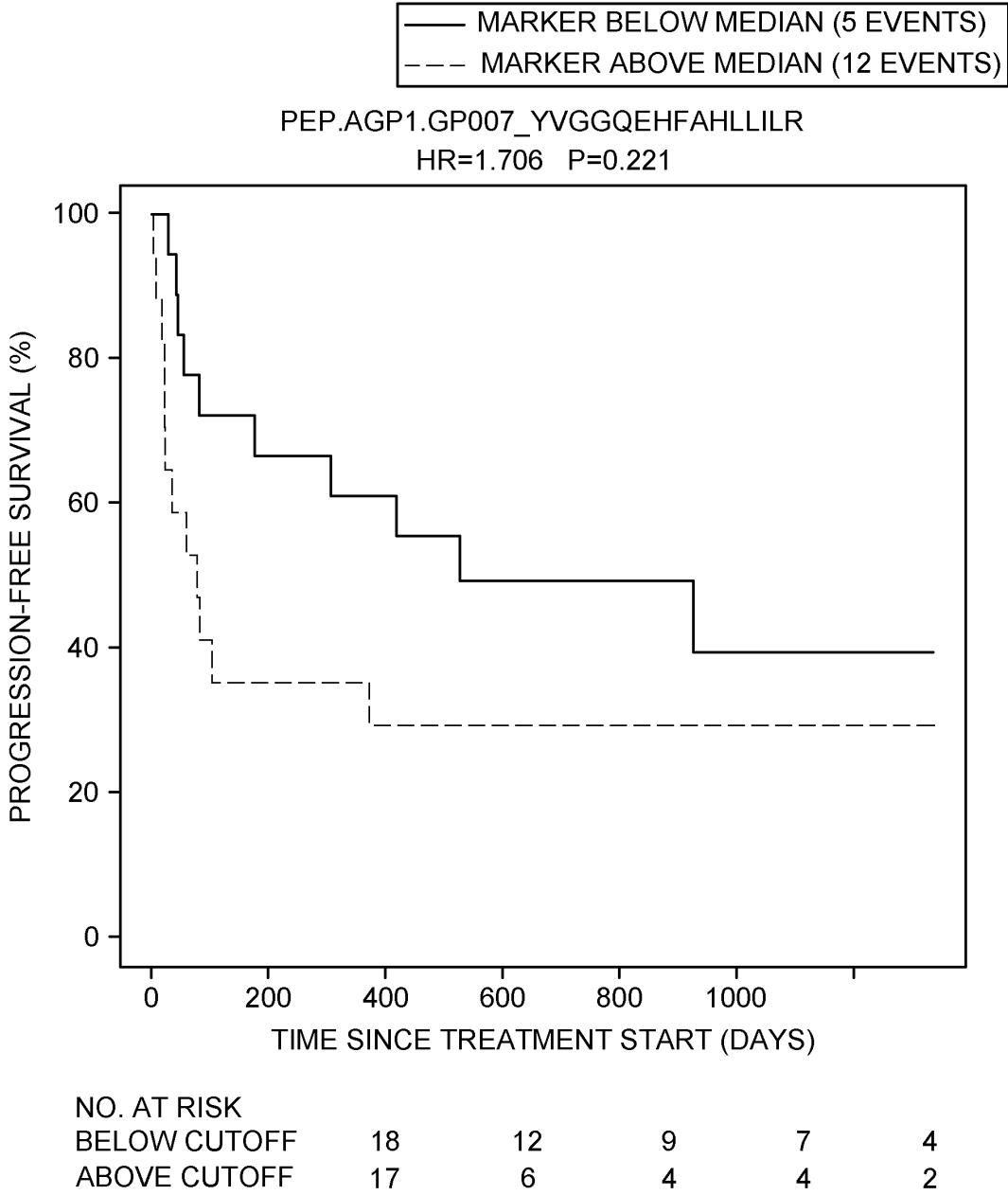


FIG. 132

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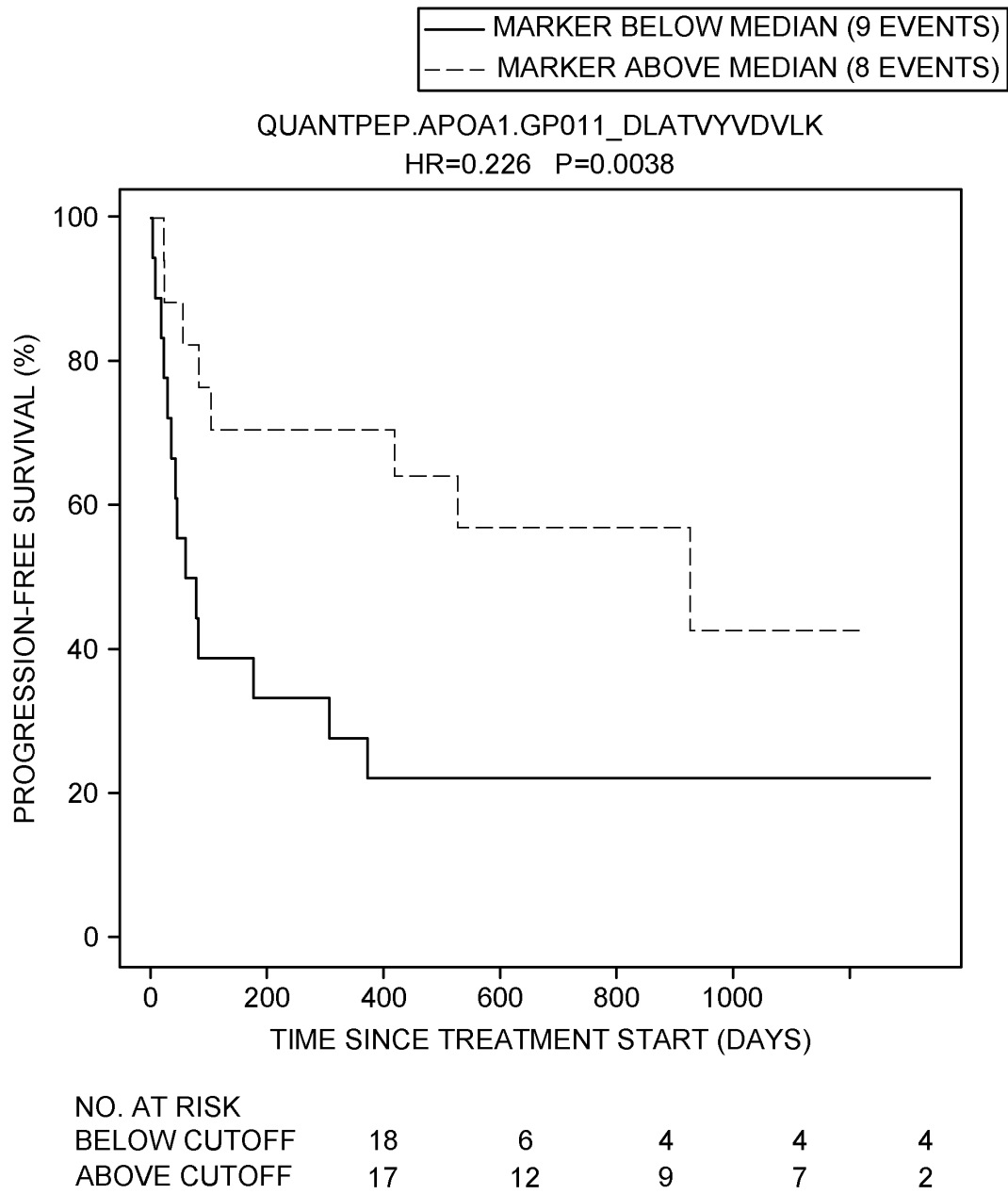


FIG. 133

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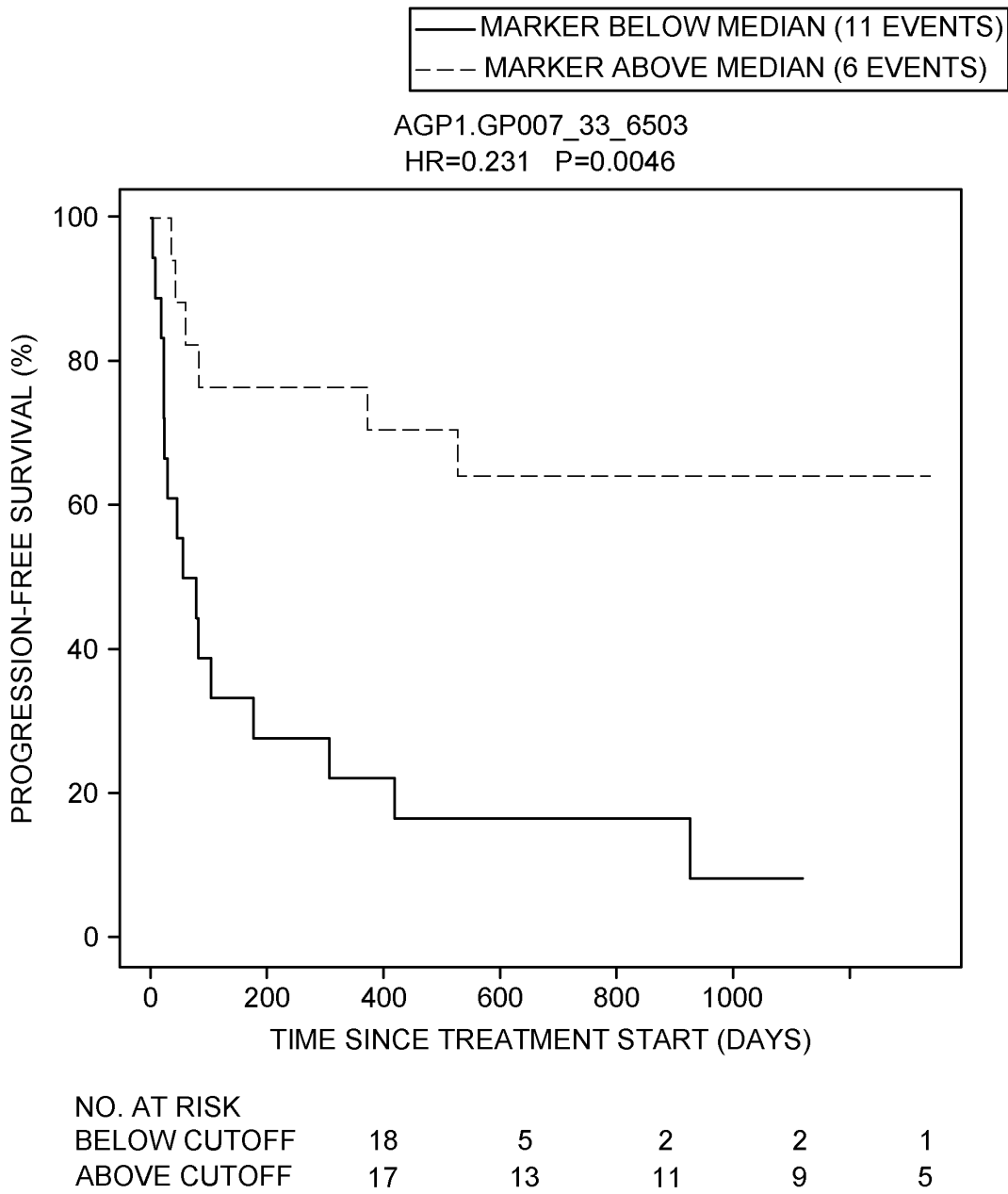


FIG. 134

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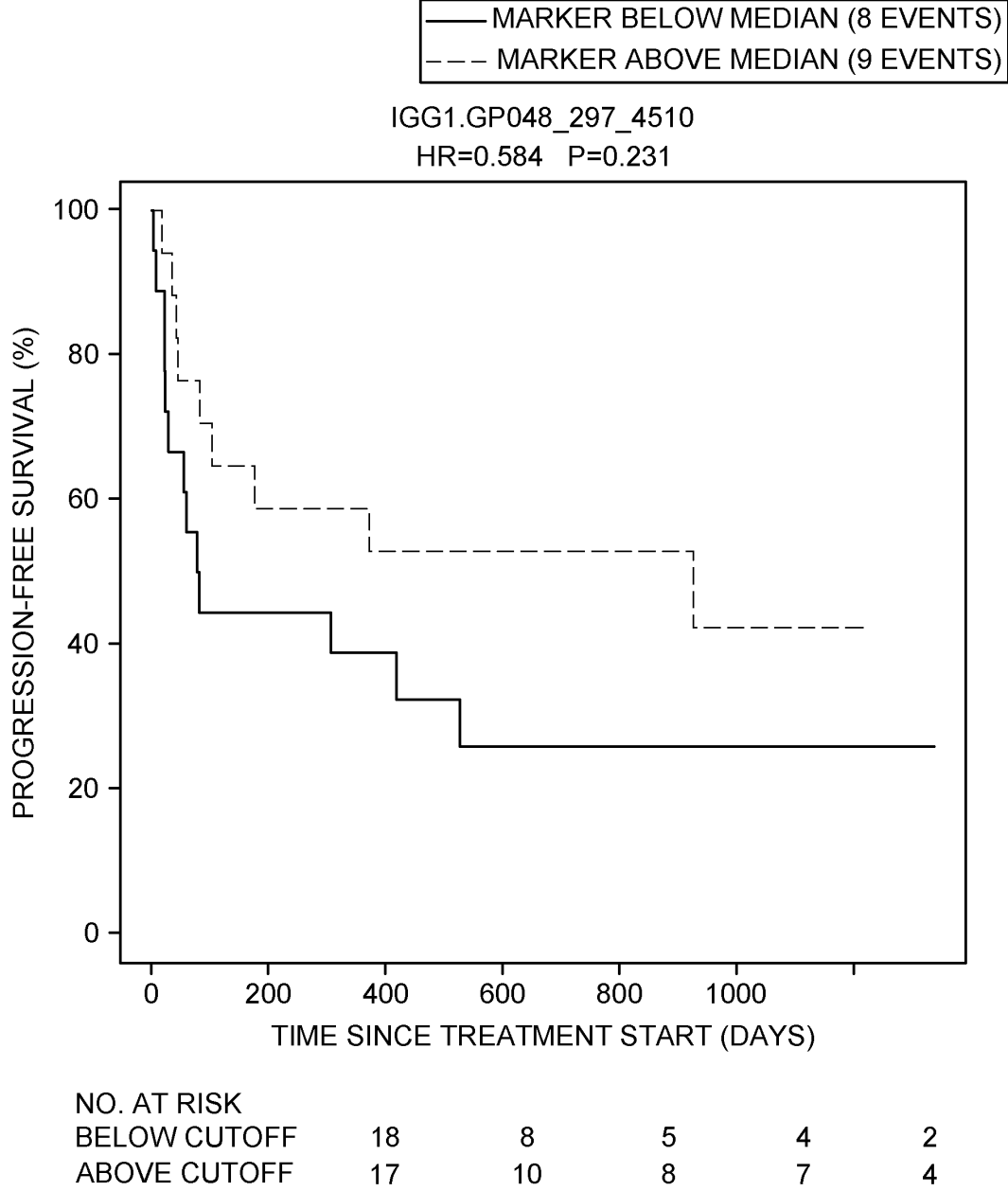


FIG. 135

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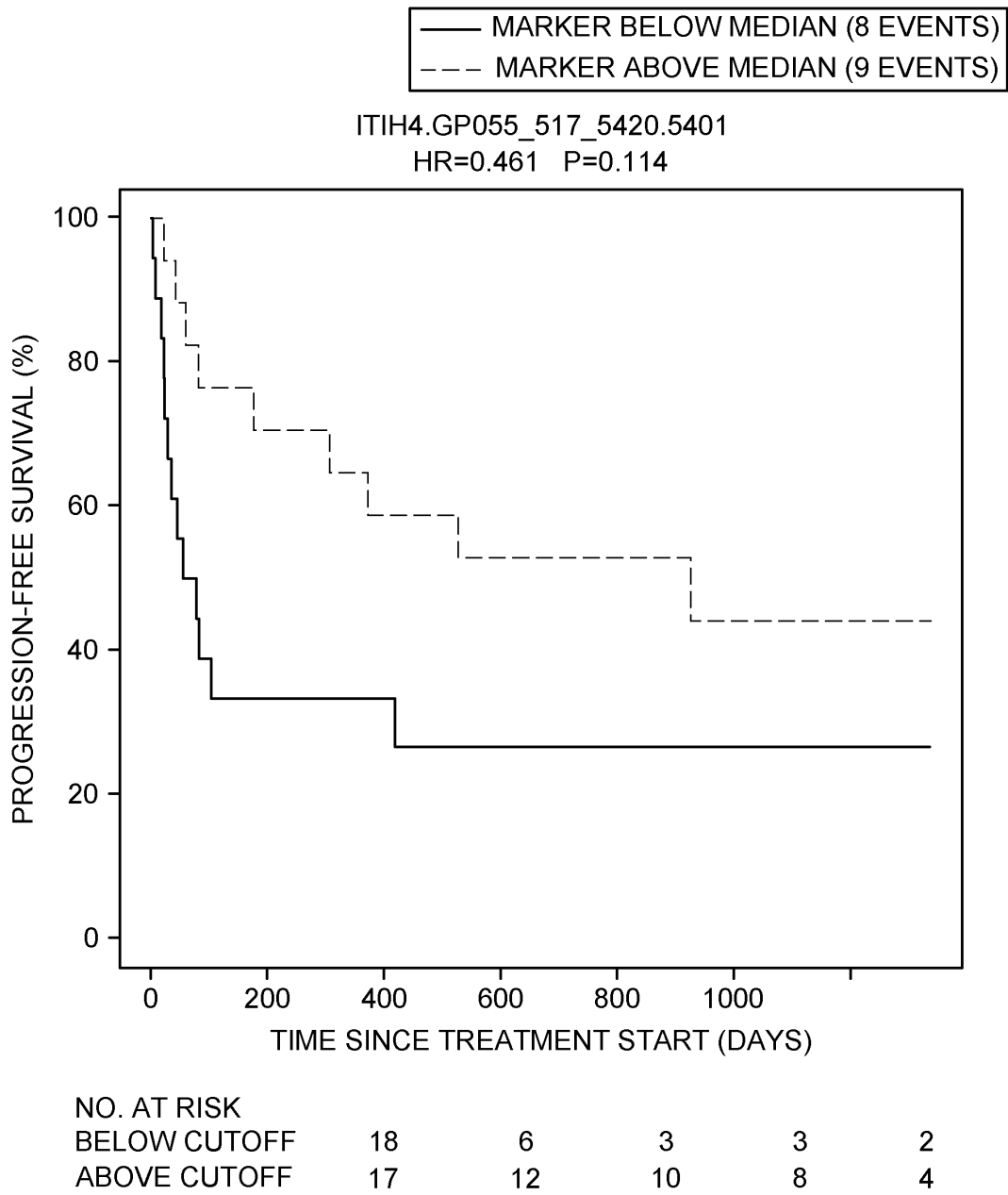


FIG. 136

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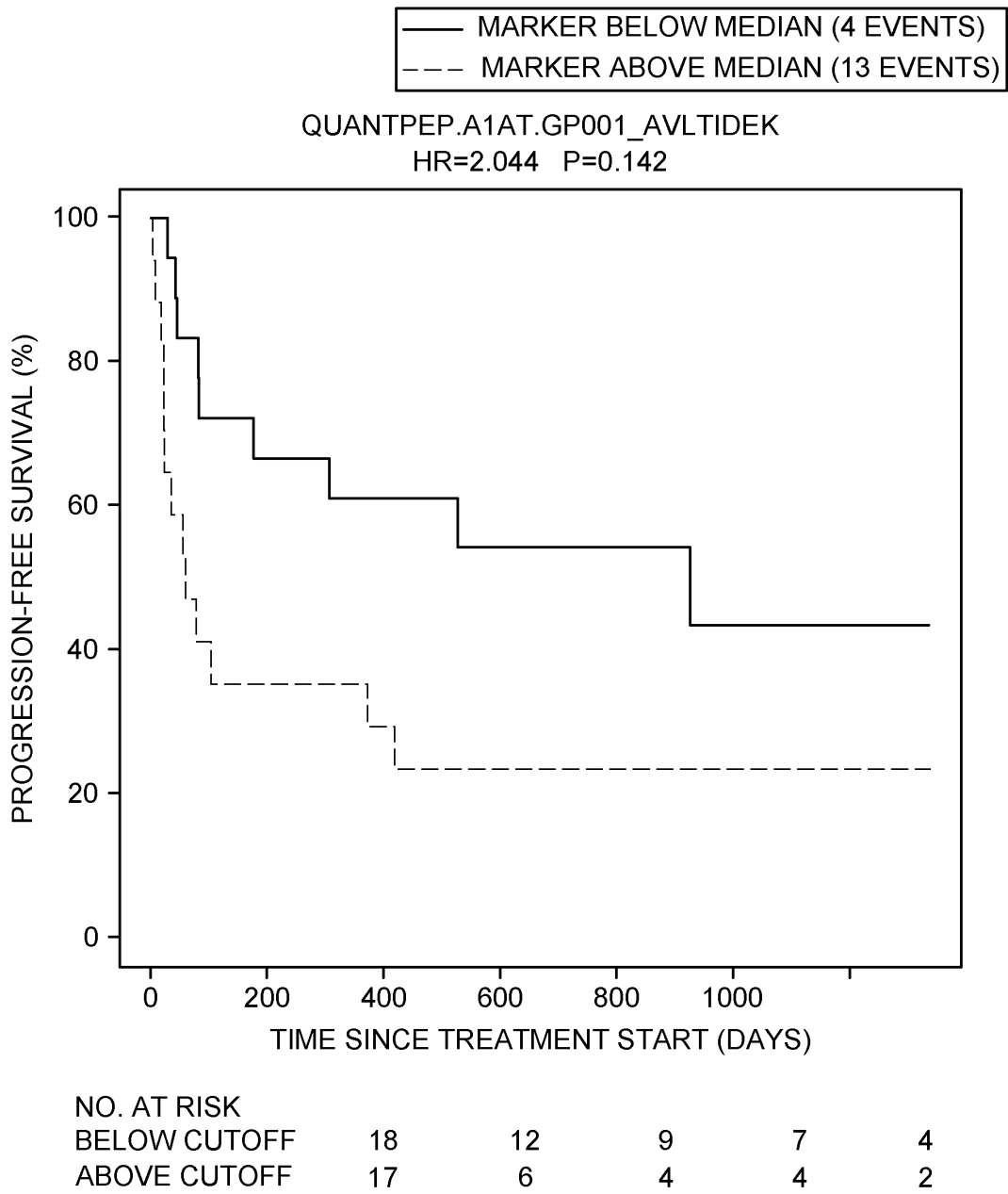


FIG. 137

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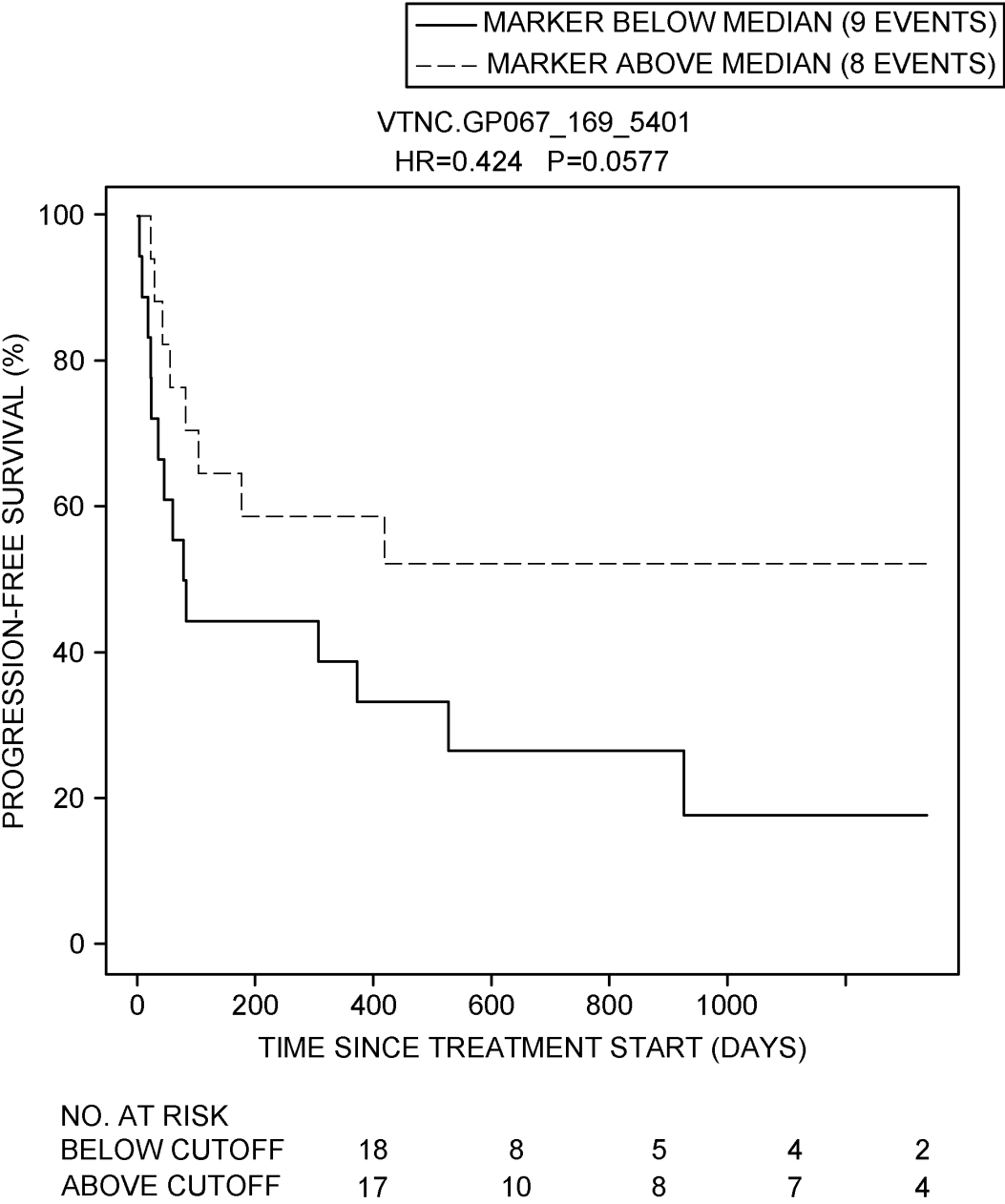


FIG. 138

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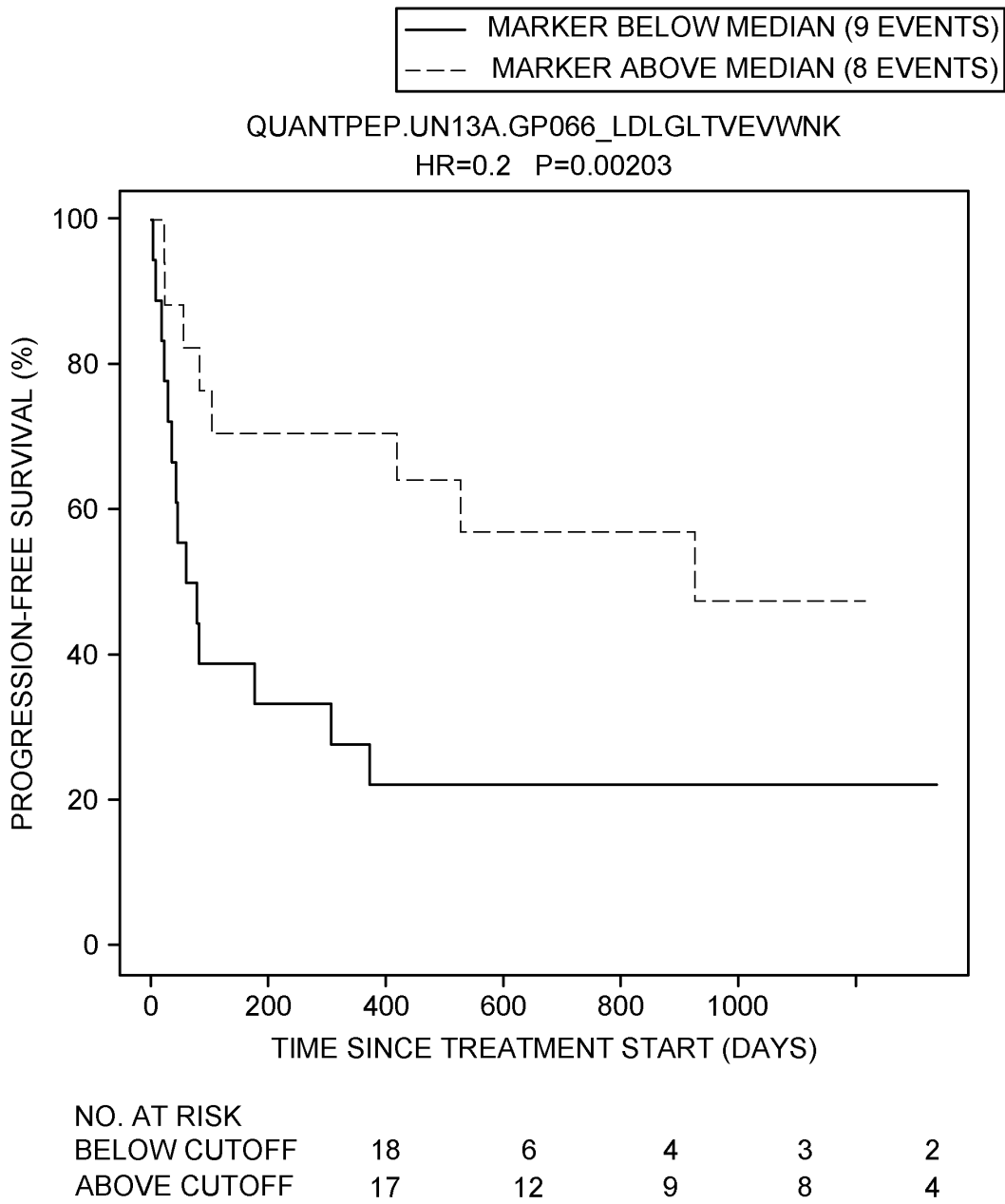


FIG. 139

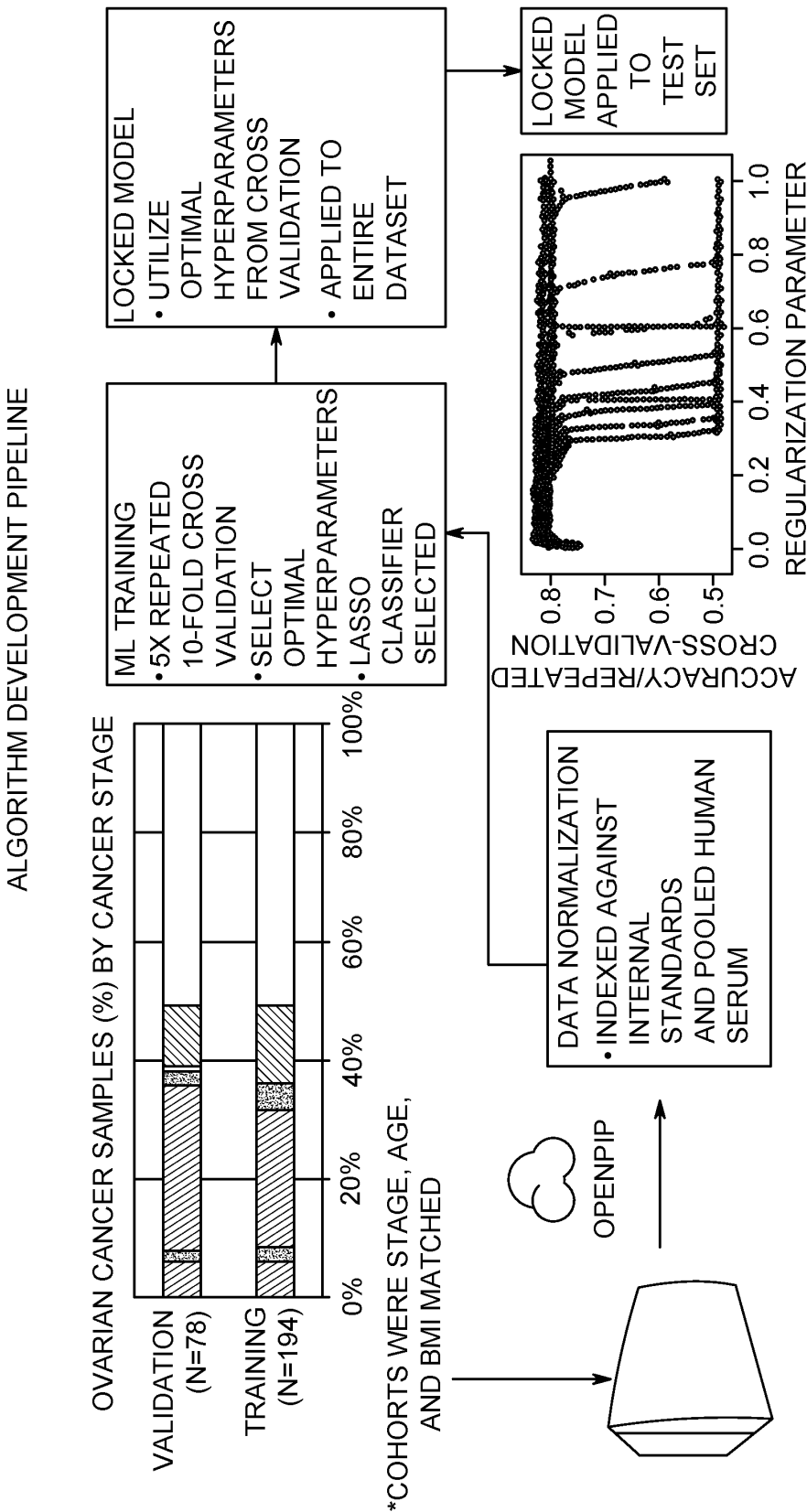


FIG. 140A

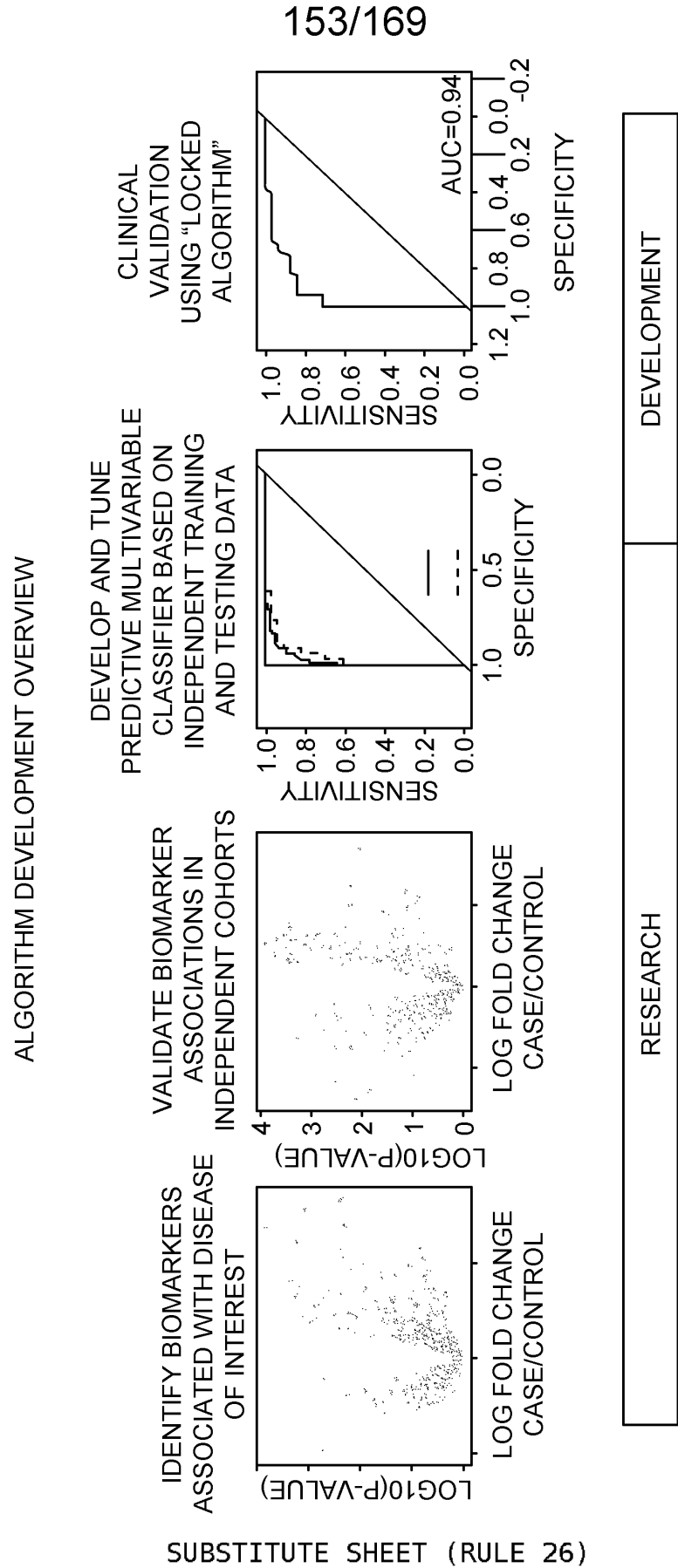


FIG. 140B

MULTIVARIABLE CLASSIFIER DEVELOPMENT FOR
CASE-CONTROL STUDIES

- K-FOLD CROSS VALIDATION IS USED TO DEVELOP PENALIZED REGRESSION MODEL
 - PROCEDURE THAT DIVIDES A DATASET INTO K NON-OVERLAPPING “FOLDS”
 - EACH PATIENT IS USED IN A HELD-BACK **TEST SET**, WHILST ALL OTHER FOLDS COLLECTIVELY ARE USED AS THE **TRAINING SET**
 - A TOTAL OF K MODELS ARE FIT AND EVALUATED ON THE K HOLD-OUT TEST SETS AND THE MEAN PERFORMANCE IS REPORTED
 - RUN MANY TIMES TO COMPUTE AVERAGE PERFORMANCE METRICS
 - AN INDEPENDENT **VALIDATION TESTING SET** CAN BE USED TO TEST THE FINAL MODEL

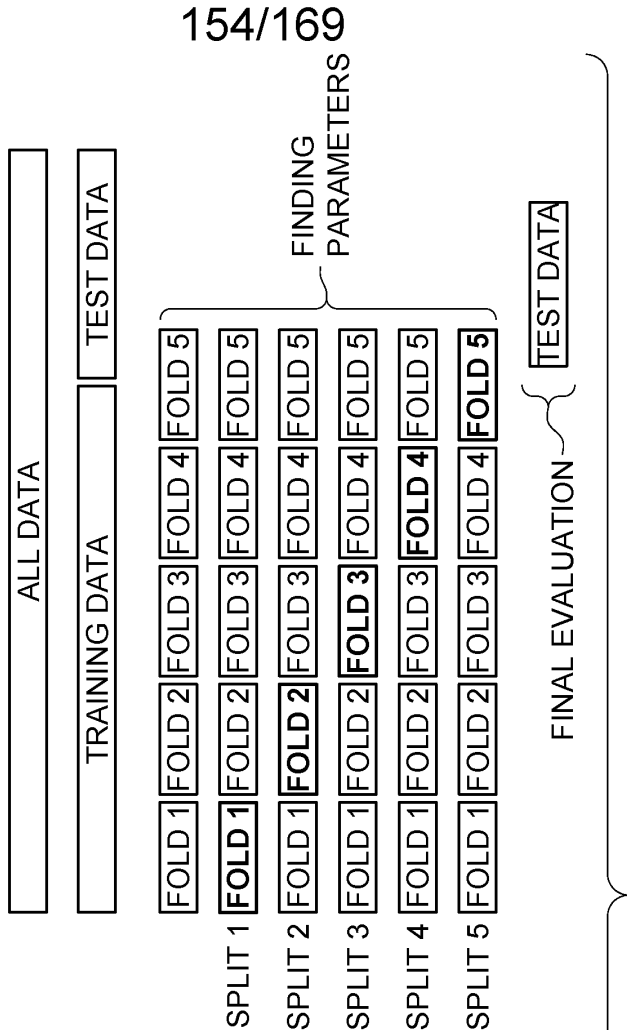


FIG. 141A

MULTIVARIABLE CLASSIFIER DEVELOPMENT FOR
CASE-CONTROL STUDIES

- K-FOLD CROSS VALIDATION IS USED TO DEVELOP PENALIZED REGRESSION MODEL
 - PROCEDURE THAT DIVIDES A DATASET INTO K NON-OVERLAPPING "FOLDS"
 - EACH PATIENT IS USED IN A HELD-BACK **TEST SET**, WHILST ALL OTHER FOLDS COLLECTIVELY ARE USED AS THE **TRAINING SET**
- A TOTAL OF K MODELS ARE FIT AND EVALUATED ON THE K HOLD-OUT TEST SETS AND THE MEAN PERFORMANCE IS REPORTED
- RUN MANY TIMES TO COMPUTE AVERAGE PERFORMANCE METRICS
- AN INDEPENDENT **VALIDATION TESTING SET** CAN BE USED TO TEST THE FINAL MODEL

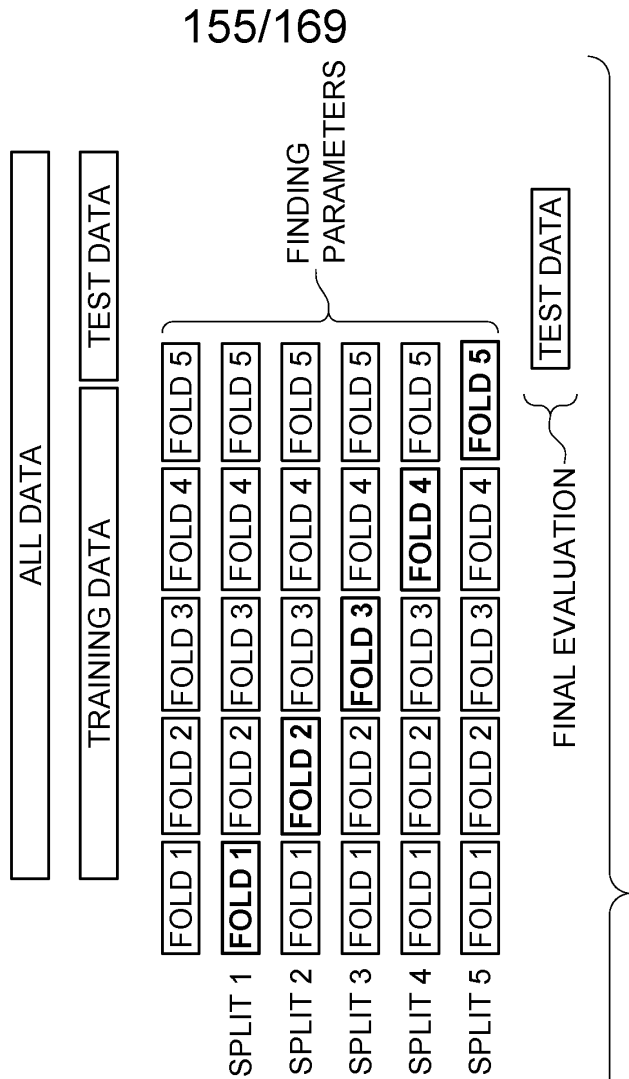


FIG. 141B

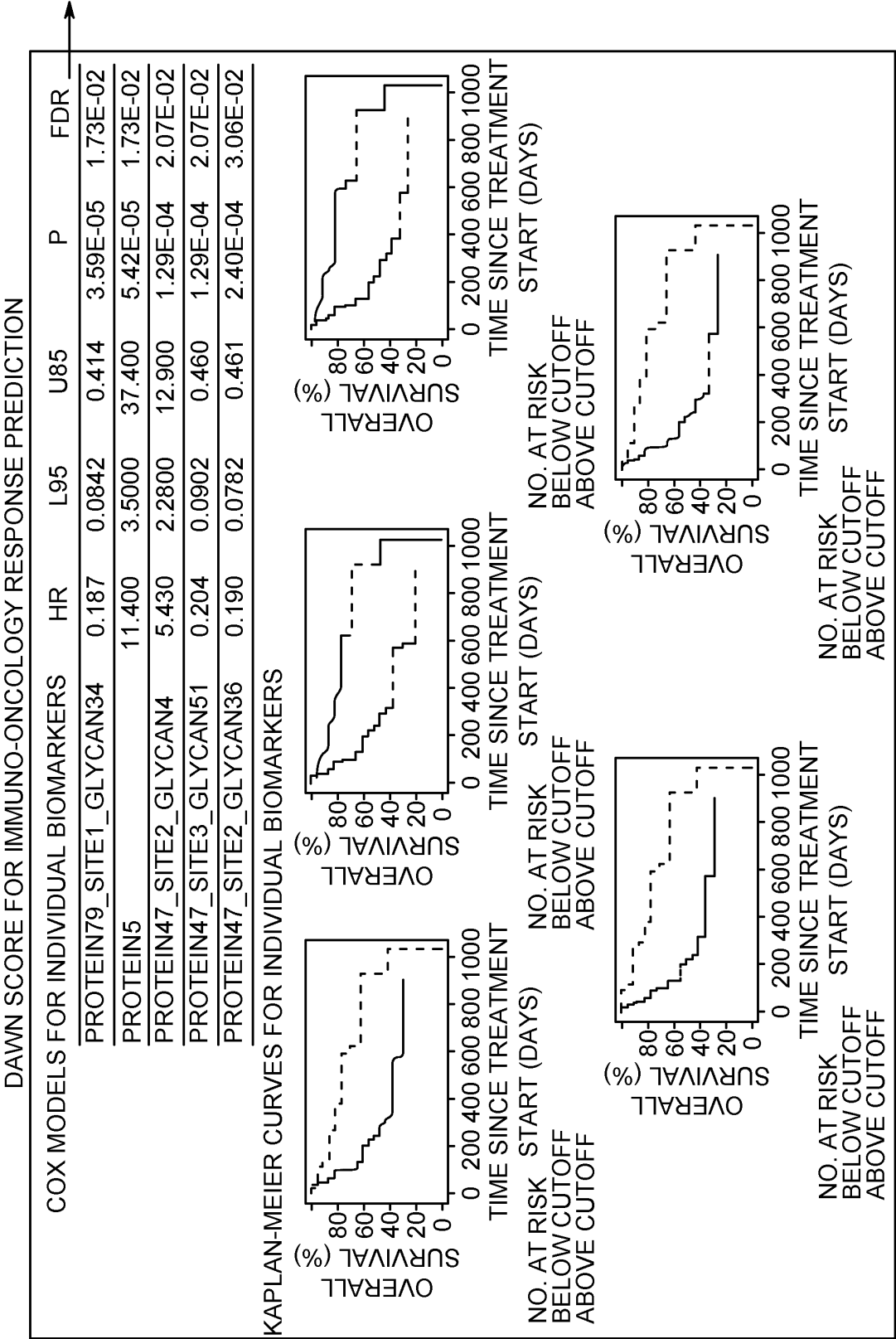
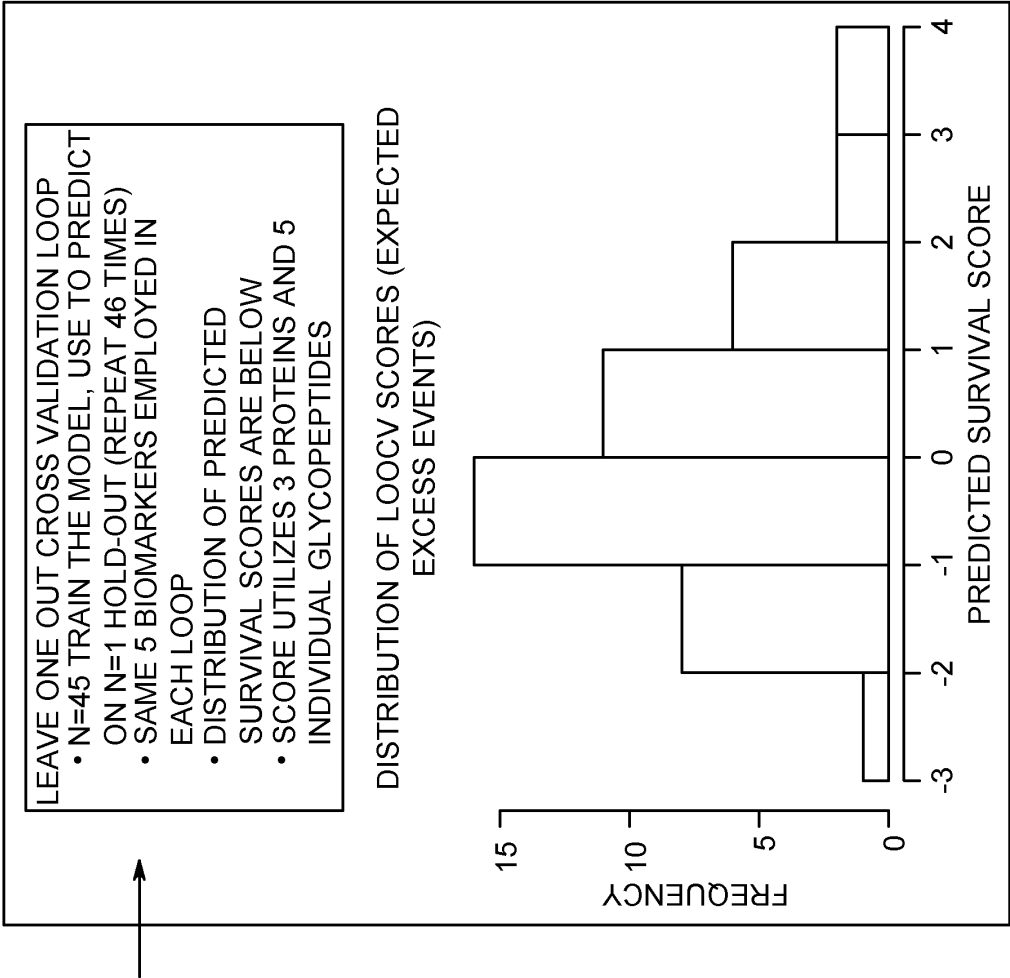


FIG. 142A-1



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FIG. 142A-1	FIG. 142A-2
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FIG. 142A

FIG. 142A-2

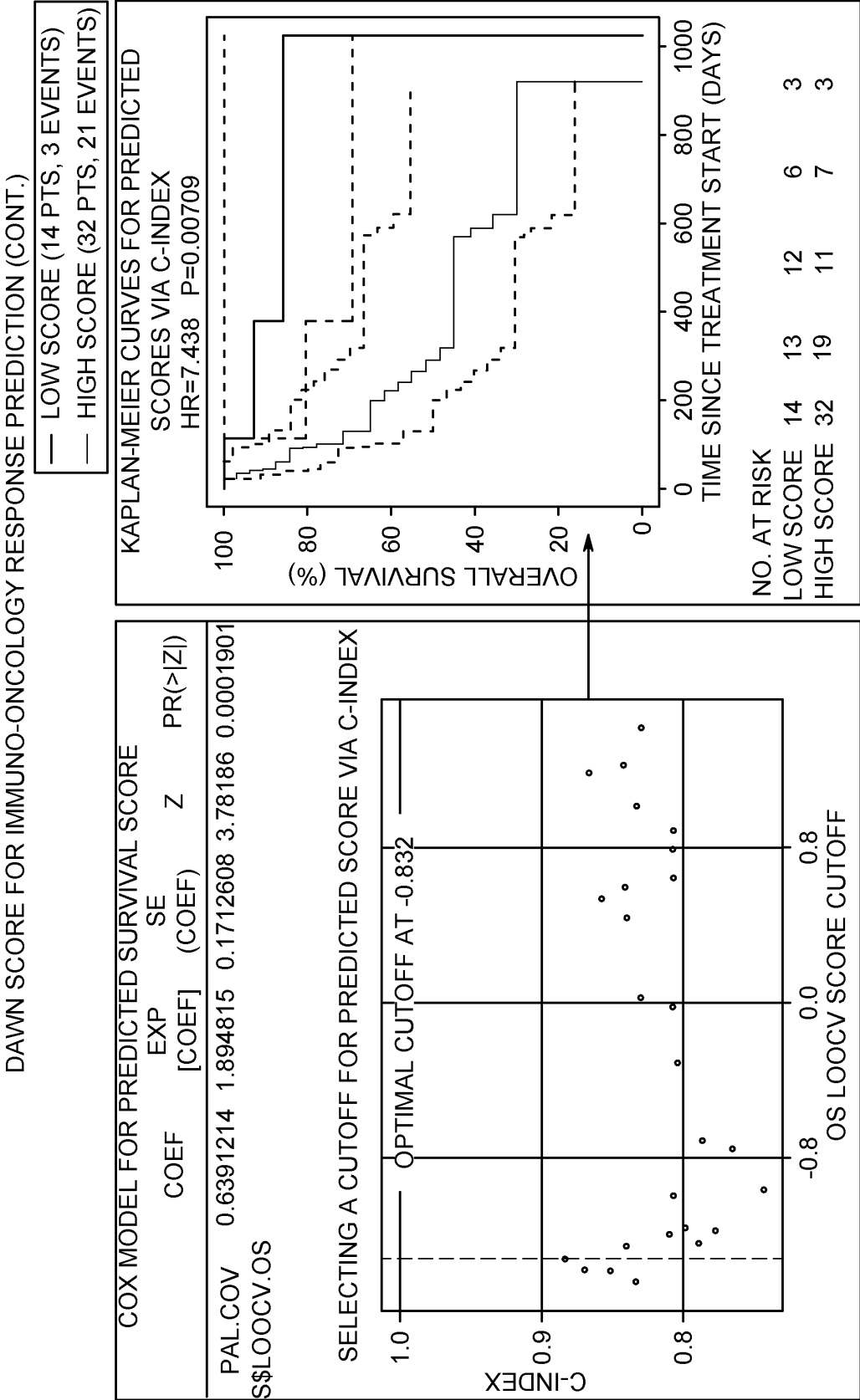
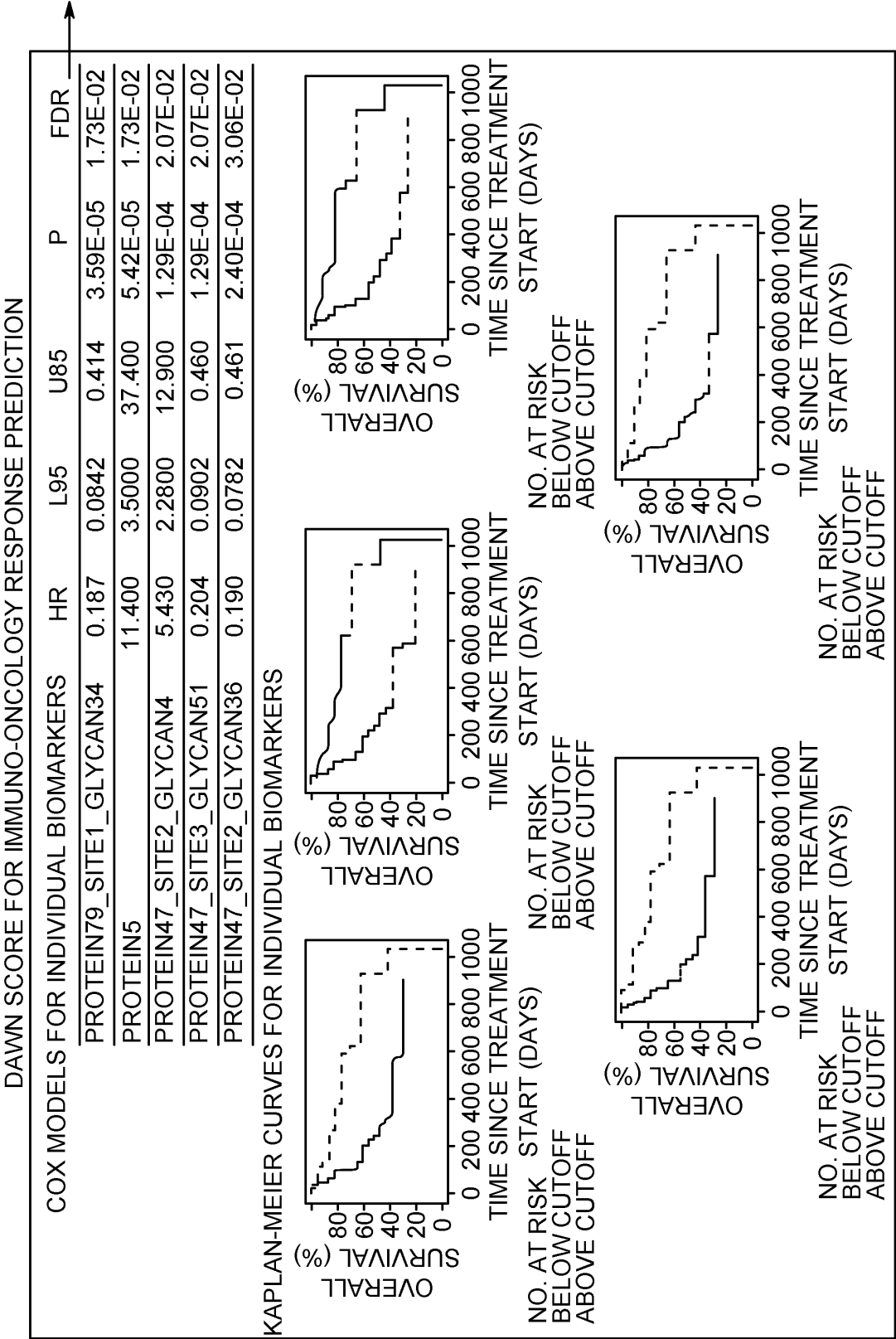
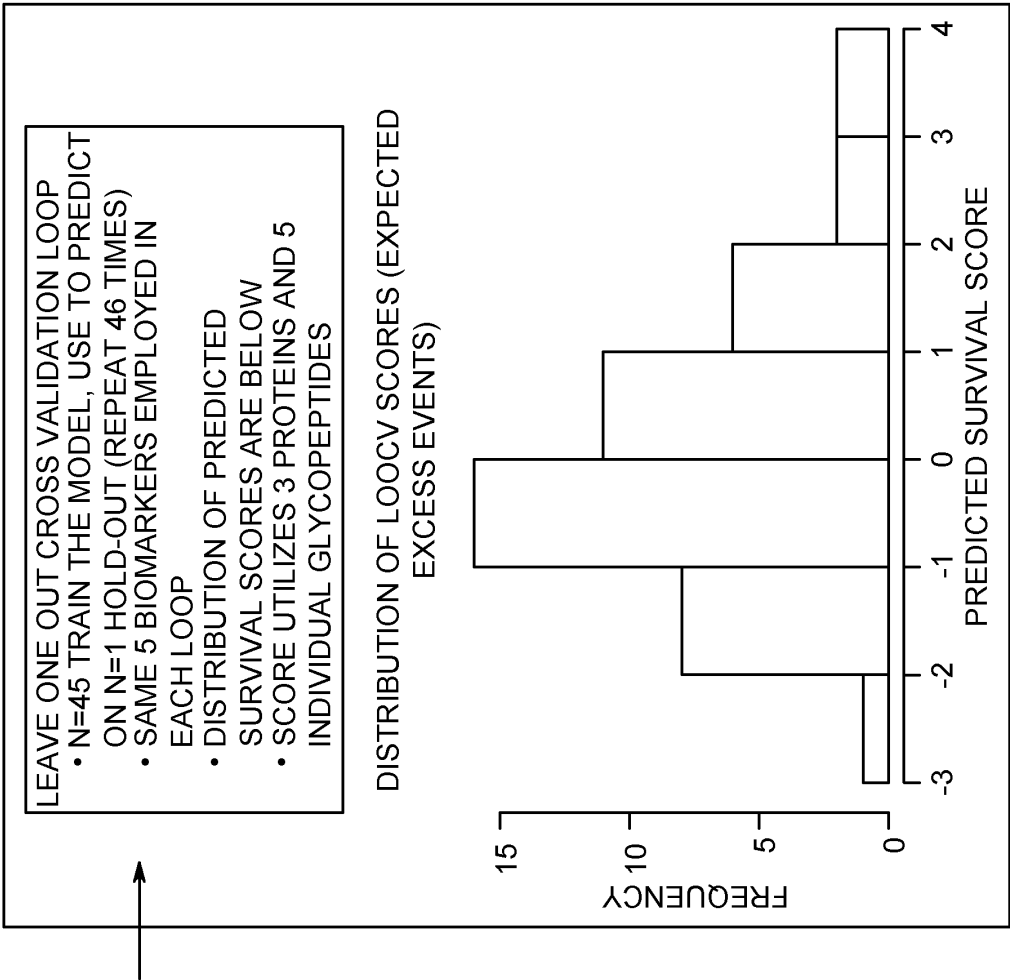


FIG. 142B





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FIG. 142C-1	FIG. 142C-2
-------------	-------------

FIG. 142C

FIG. 142C-2

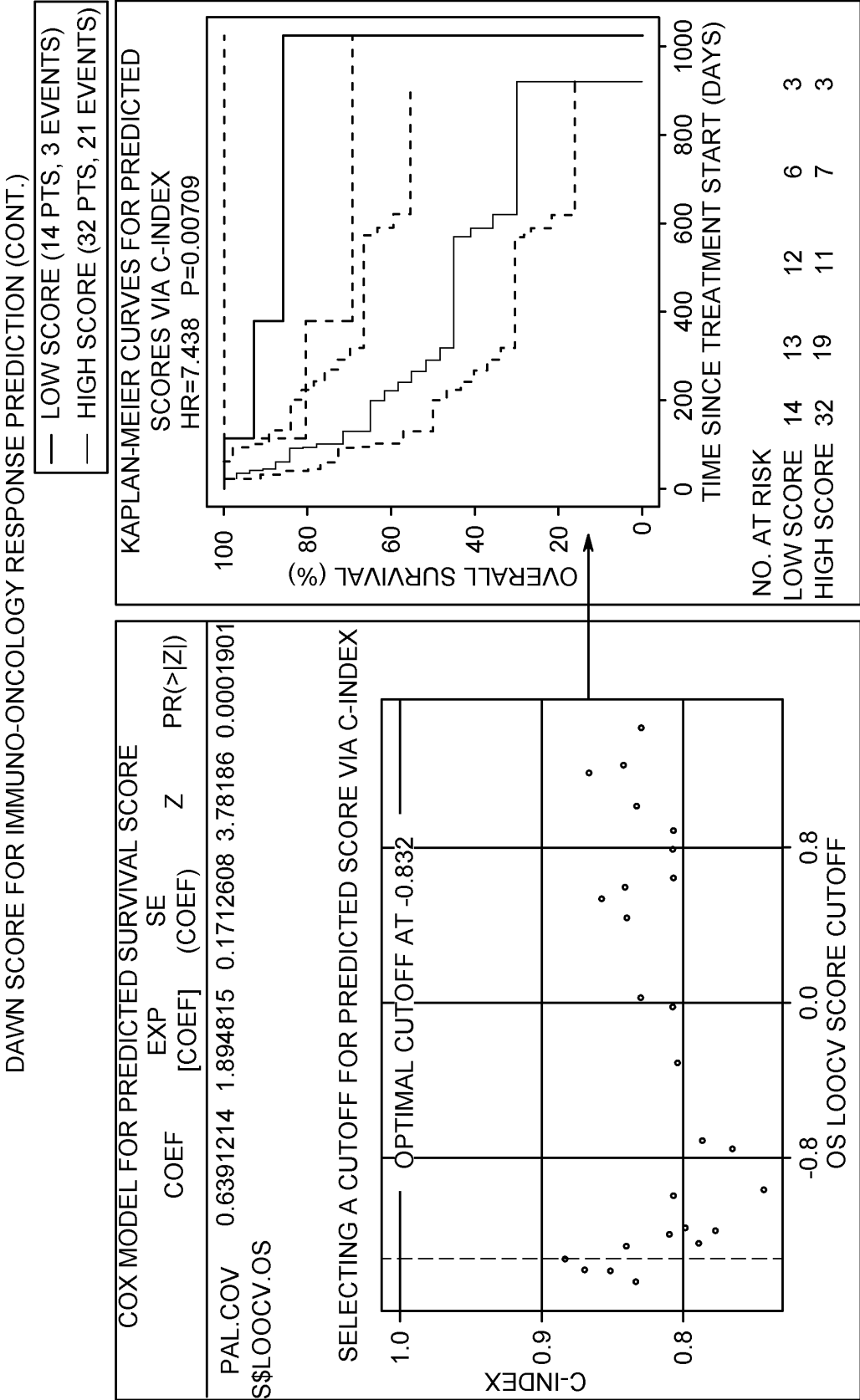


FIG. 142D

ADVANCED NSCLC WAS EVALUATED ACROSS THREE EQUIVALENT COHORTS

CHARACTERISTIC	OVERALL, N =288 ¹	COHORT 1 66 ¹	COHORT 2 37 ¹	COHORT 3 125 ¹
OS (DAYS)	323.6 (144.0, 593.8)	436.7 (189.5, 672.8)	559.4 (202.1, 637.4)	248.0 (144.0, 413.0)
DEATH EVENTS	122(54)	41(62)	18(49)	63(50)
SEX				
M	120(53)	36(55)	15(41)	69(55)
F	108(47)	30(45)	22(59)	56(45)
AGE (YRS)	68.0 (60.1, 75.0)	69.3 (61.0, 76.5)	64.0 (58.0, 74.0)	68.0 (61.0, 74.3)
¹ MEDIAN (IQR); N (%)				

FIG. 143

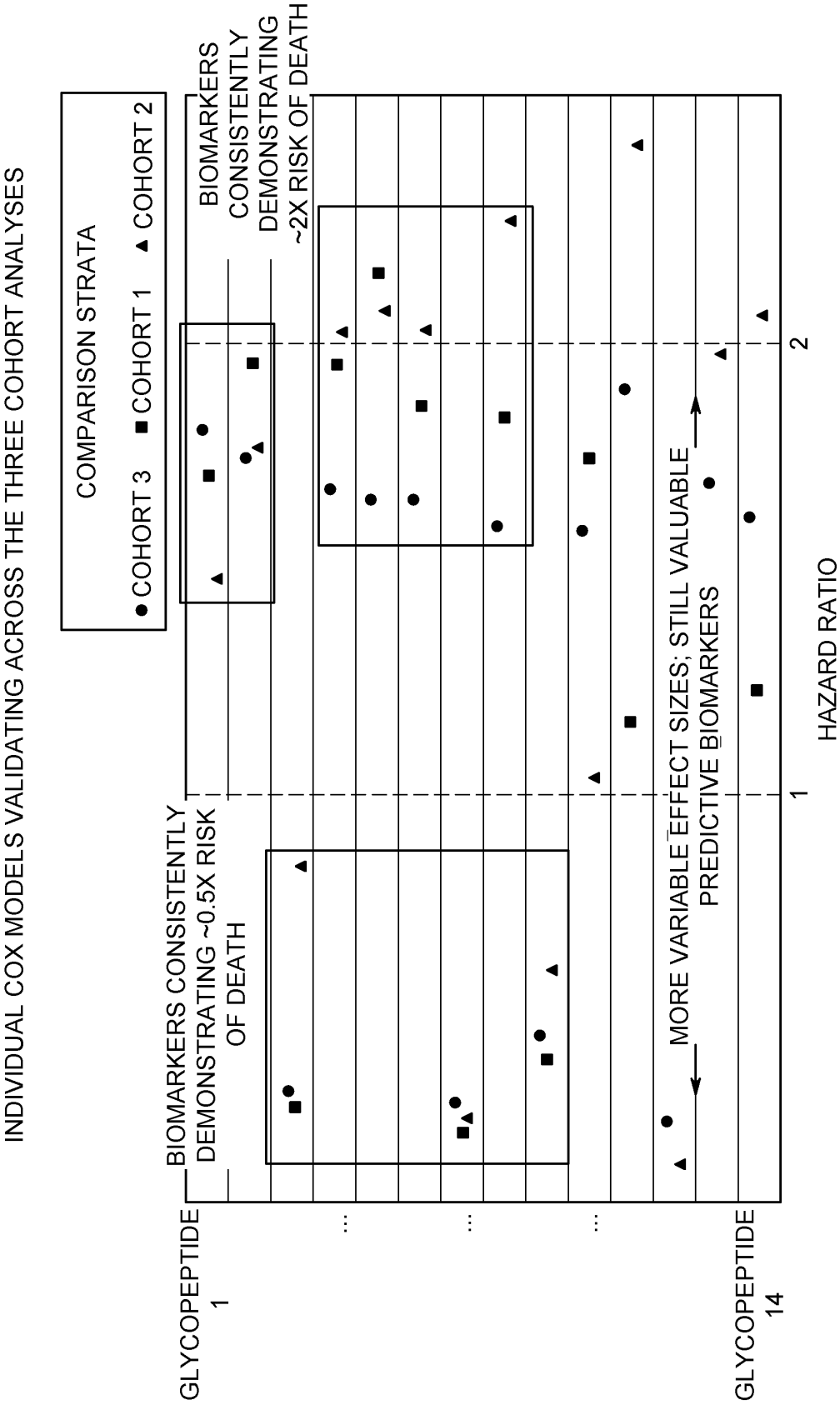
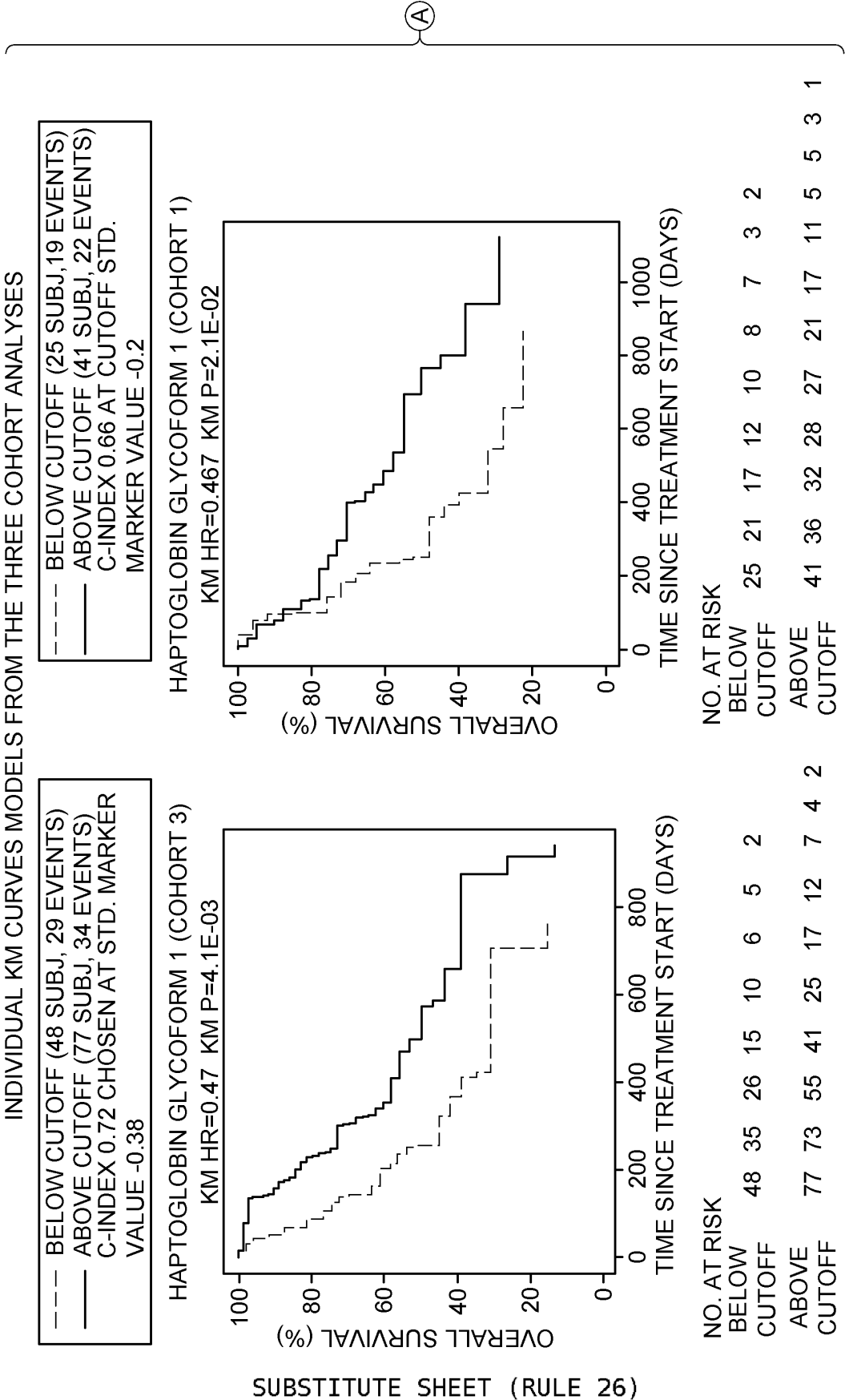
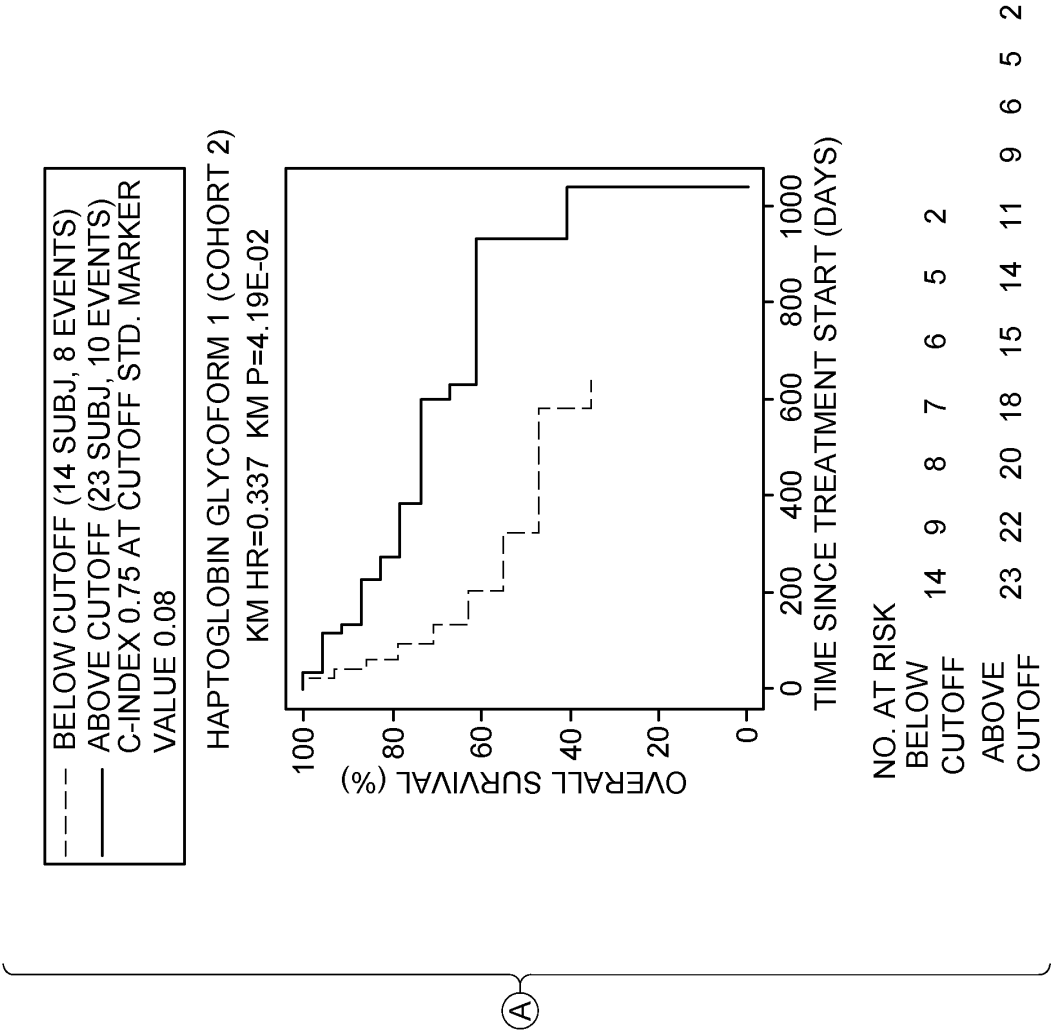


FIG. 144

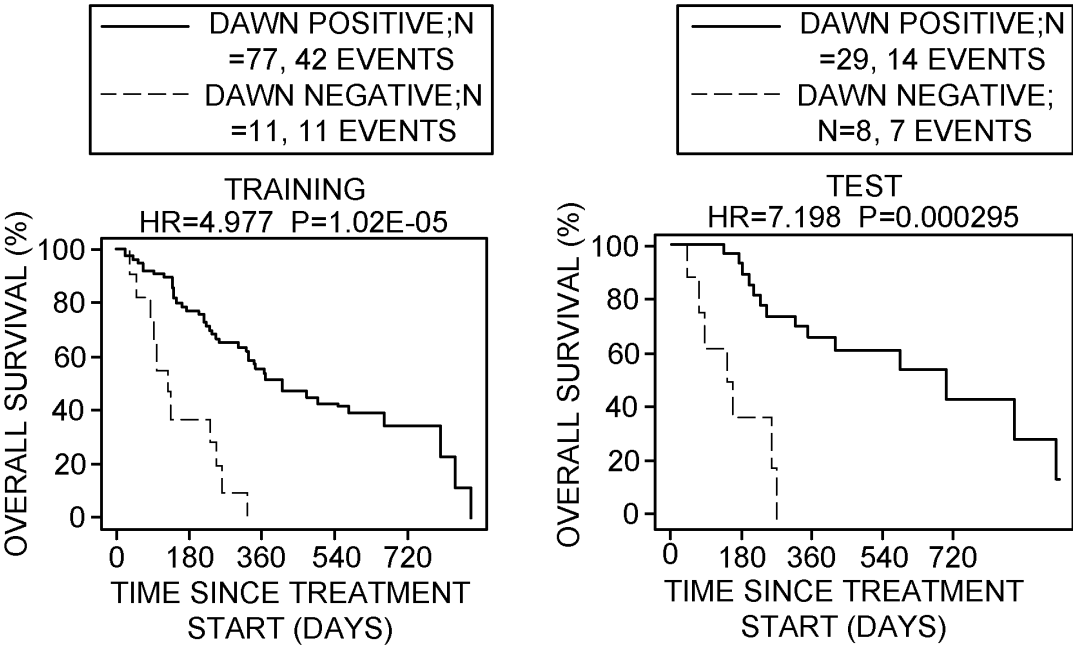




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DAWN™ IO NSCLC: ORTHOGONAL SAMPLES CONFIRM THE OS
SIGNAL FROM EARLIER PILOT

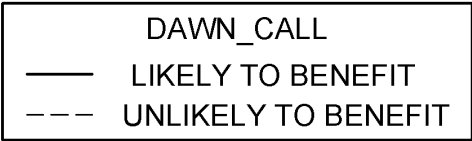
EXPANDED COHORT CURRENTLY UNDERGOING VALIDATION:
ANTICIPATE COMPLETION LATER IN 2022



NO. AT RISK		NO. AT RISK	
DAWN LTB	77 54 29 16 7	DAWN POS	29 25 15 10 4
DAWN UTB	11 4	DAWN NEG	8 3
	N(TRAIN; TEST)	TRAINING MEDIAN OS (DAYS)	TEST MEDIAN OS (DAYS)
LIKELY TO BENEFIT	77; 29	410 (95% CI: 325, NA)	705 (95% CI: 422, NA)
UNLIKELY TO BENEFIT	11; 8	129 (95% CI: 95, NA)	151 (95% CI: 87, NA)

FIG. 146

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OVERALL SURVIVAL BY DAWN NSCLC PREDICTION GROUPS (TRAINING SET)
HR=3.961, P=1.86E-05

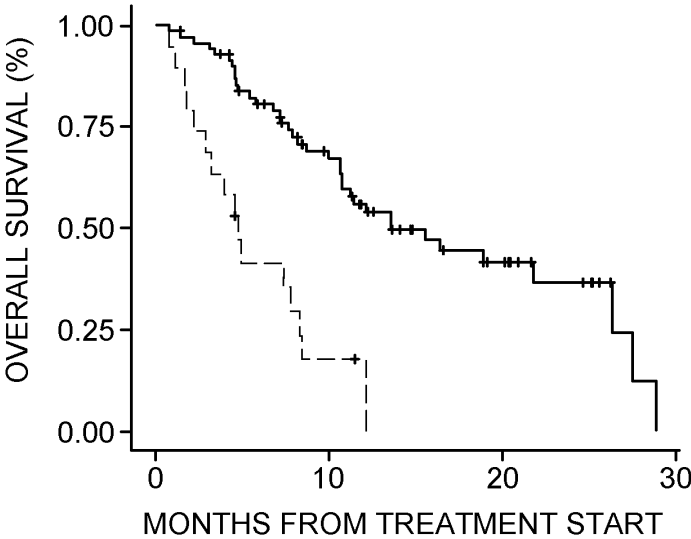
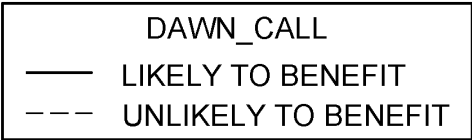


FIG. 147A



OVERALL SURVIVAL BY DAWN NSCLC PREDICTION GROUPS (TESTING SET)
HR=3.858, P=0.00532

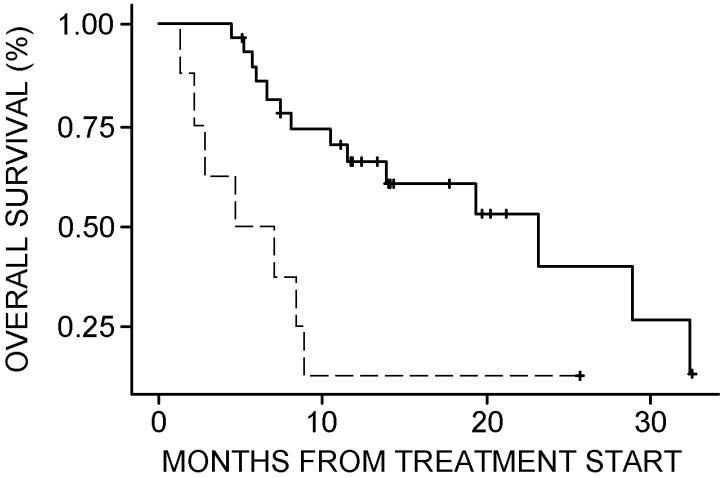


FIG. 147B

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MEAN DAWN V1A SCORE BY COLLECTION TIME
STRATIFIED BY EARLY FAILURE/SUSTAINED CONTROL STATUS

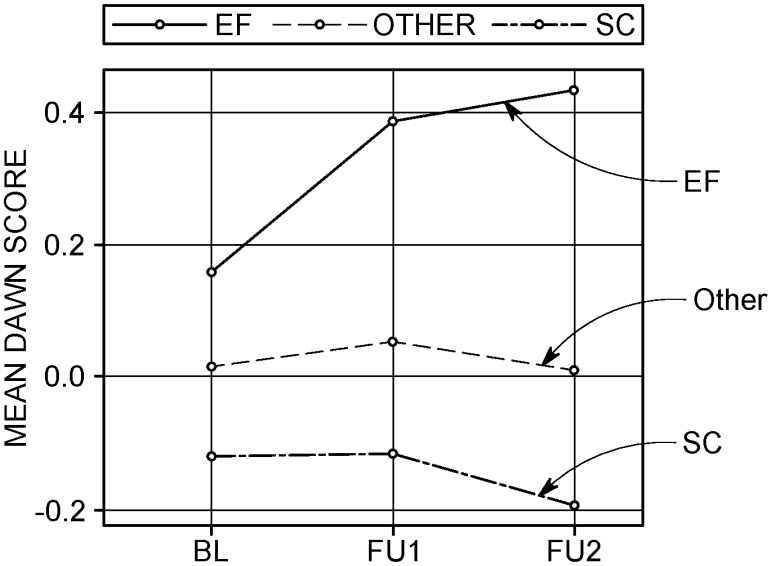


FIG. 148

MEAN DAWN V1A SCORE BY COLLECTION TIME
STRATIFIED BY EARLY FAILURE/SUSTAINED CONTROL STATUS

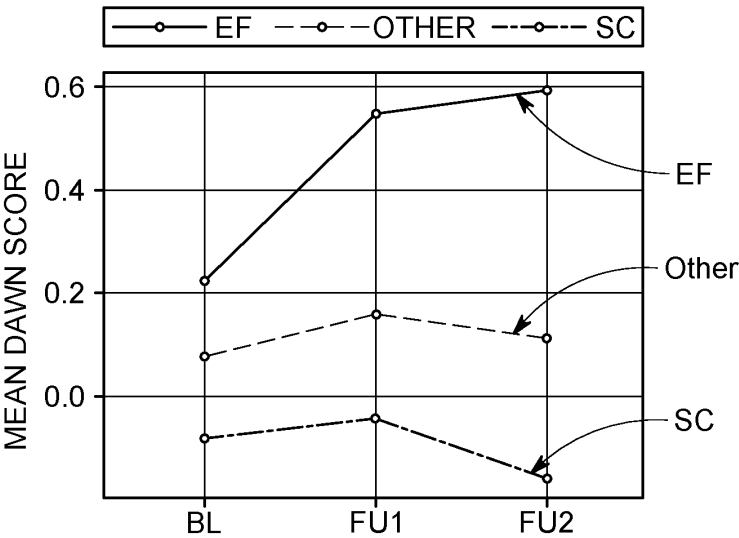


FIG. 149

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IPI/NIVO
MEAN DAWN V1A SCORE BY COLLECTION TIME
STRATIFIED BY EARLY FAILURE/SUSTAINED CONTROL STATUS

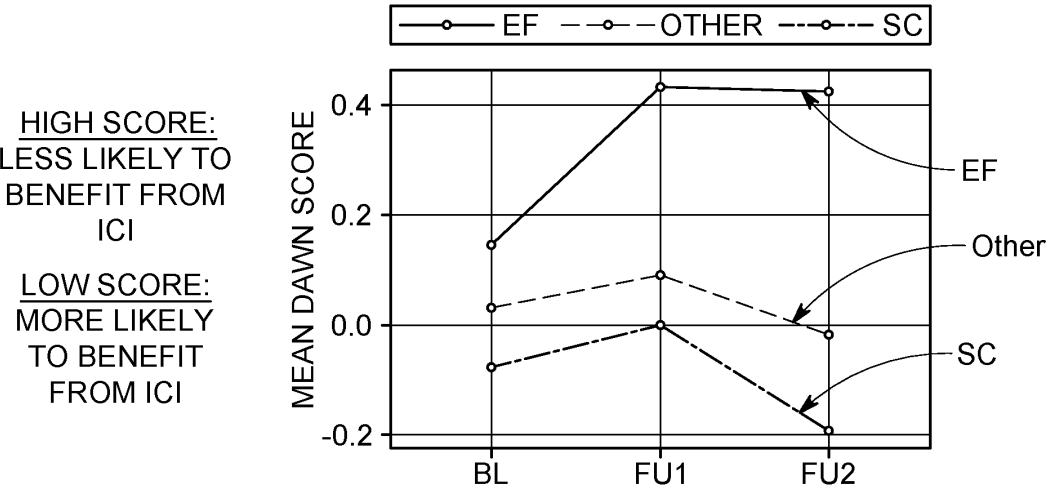


FIG. 150

PEMBRO
MEAN DAWN V1A SCORE BY COLLECTION TIME
STRATIFIED BY EARLY FAILURE/SUSTAINED CONTROL STATUS

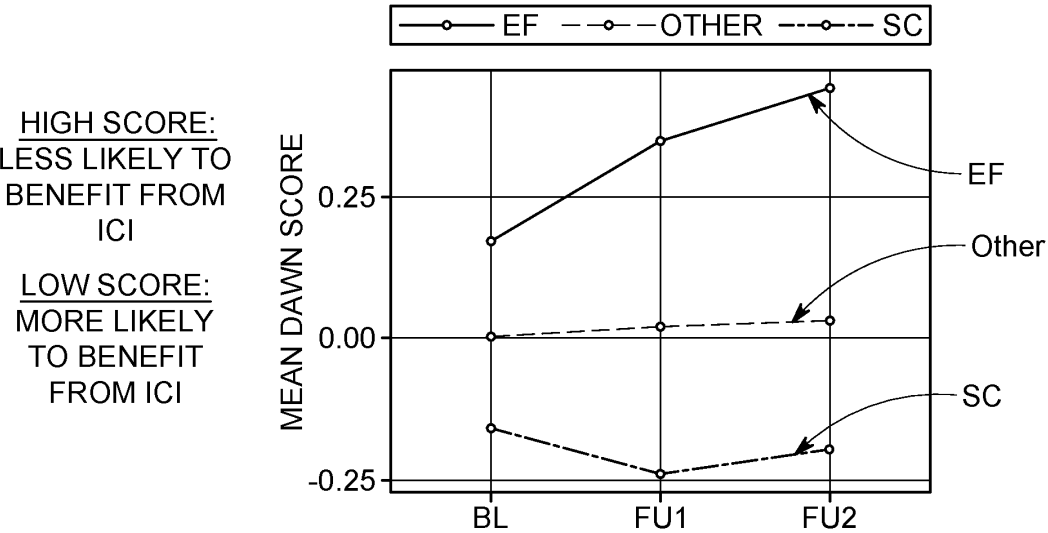


FIG. 151