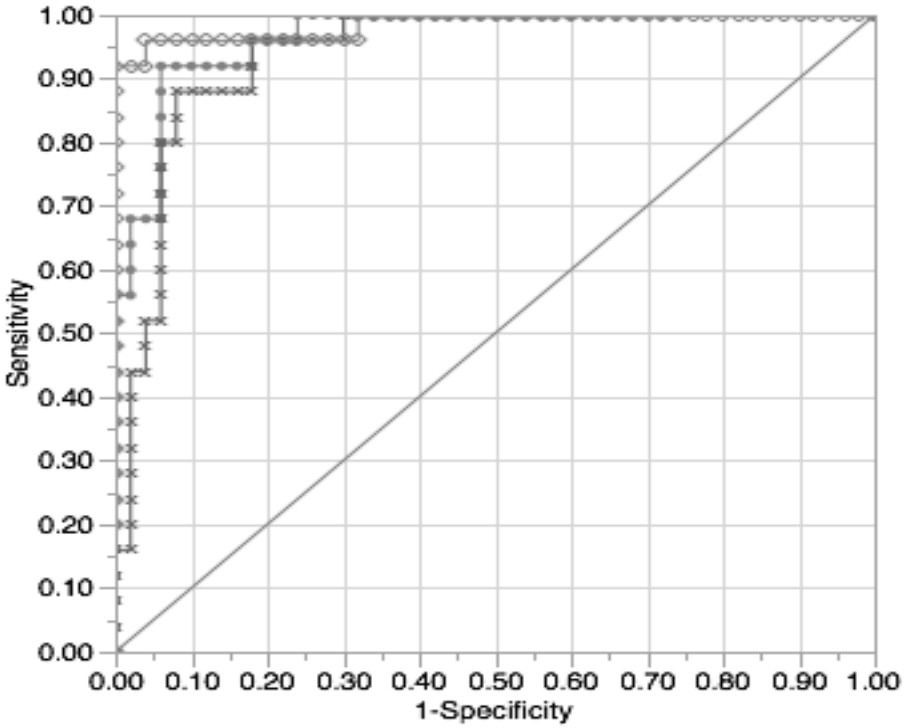
Drawings

Figure 1



	Group	AUC
●	Cancer	0.9664
✖	Benign	0.9416
◇	Control	0.9856

Confusion Matrix

Actual			Predicted
Training	**Cancer**	**Benign**	**Control**
Cancer	21	4	0
Benign	3	22	0
Control	0	2	23

Figure 2

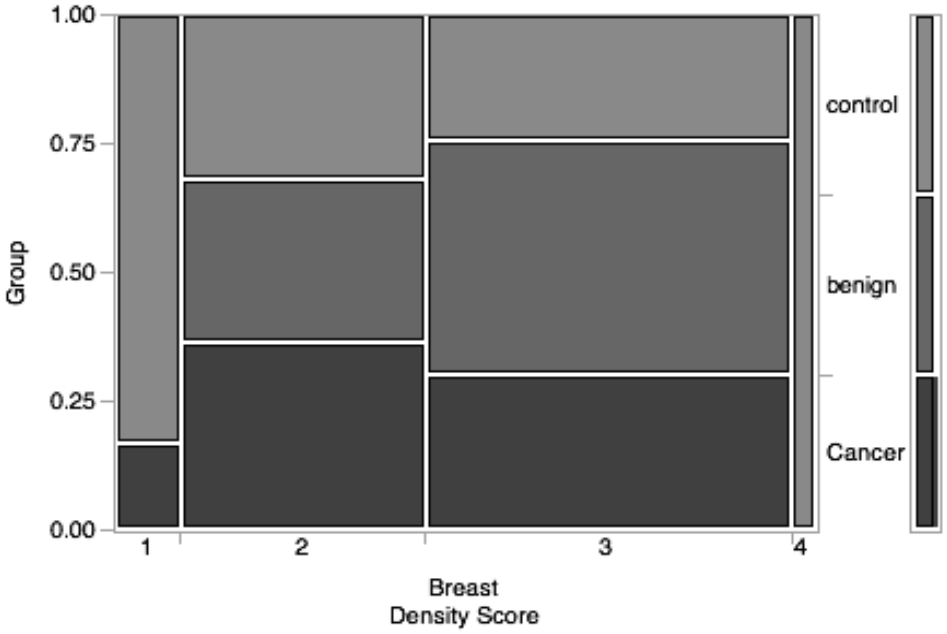

1.00
0.75
0.50
0.25
0.00
Group
1
2
3
4
Breast
Density Score
control
benign
Cancer

Figure 3

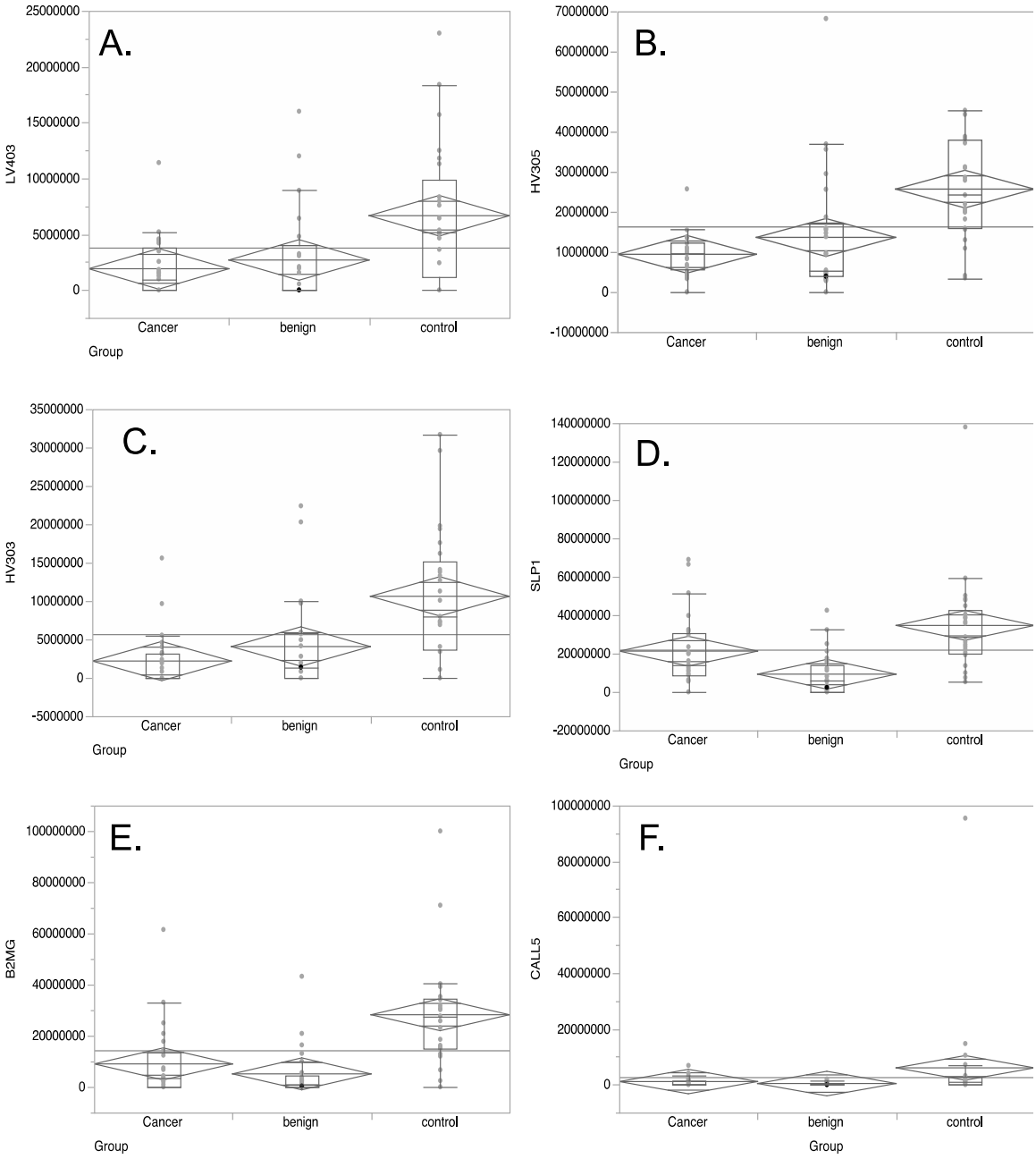

A.
LV403
25000000
20000000
15000000
10000000
5000000
0
Cancer
benign
control
Group
B.
HV305
70000000
60000000
50000000
40000000
30000000
20000000
10000000
0
-10000000
Cancer
benign
control
C.
HV303
35000000
30000000
25000000
20000000
15000000
10000000
5000000
0
-5000000
Cancer
benign
control
Group
D.
SLP1
140000000
120000000
100000000
80000000
60000000
40000000
20000000
0
-20000000
Cancer
benign
control
Group
E.
B2MG
100000000
80000000
60000000
40000000
20000000
0
Cancer
benign
control
Group
F.
CALL5
100000000
80000000
60000000
40000000
20000000
0
Cancer
benign
control
Group

Figure 3 (continued)

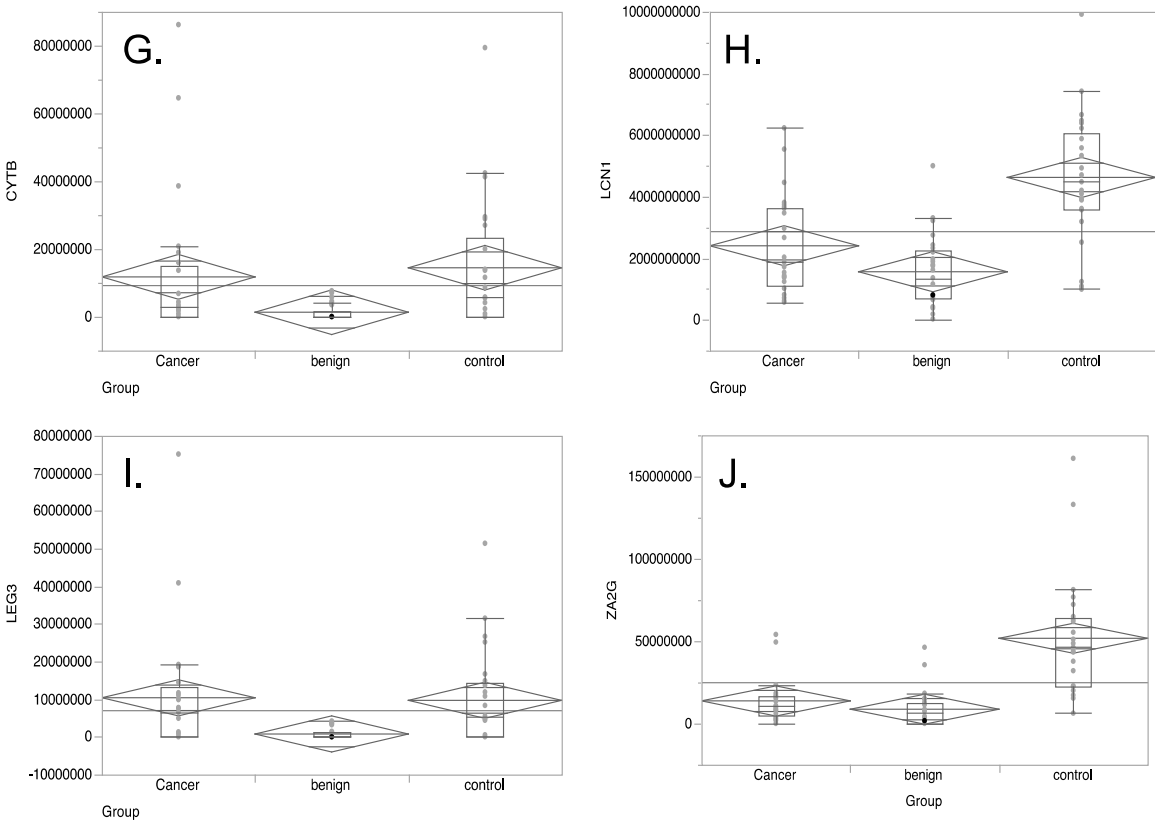


Figure 4

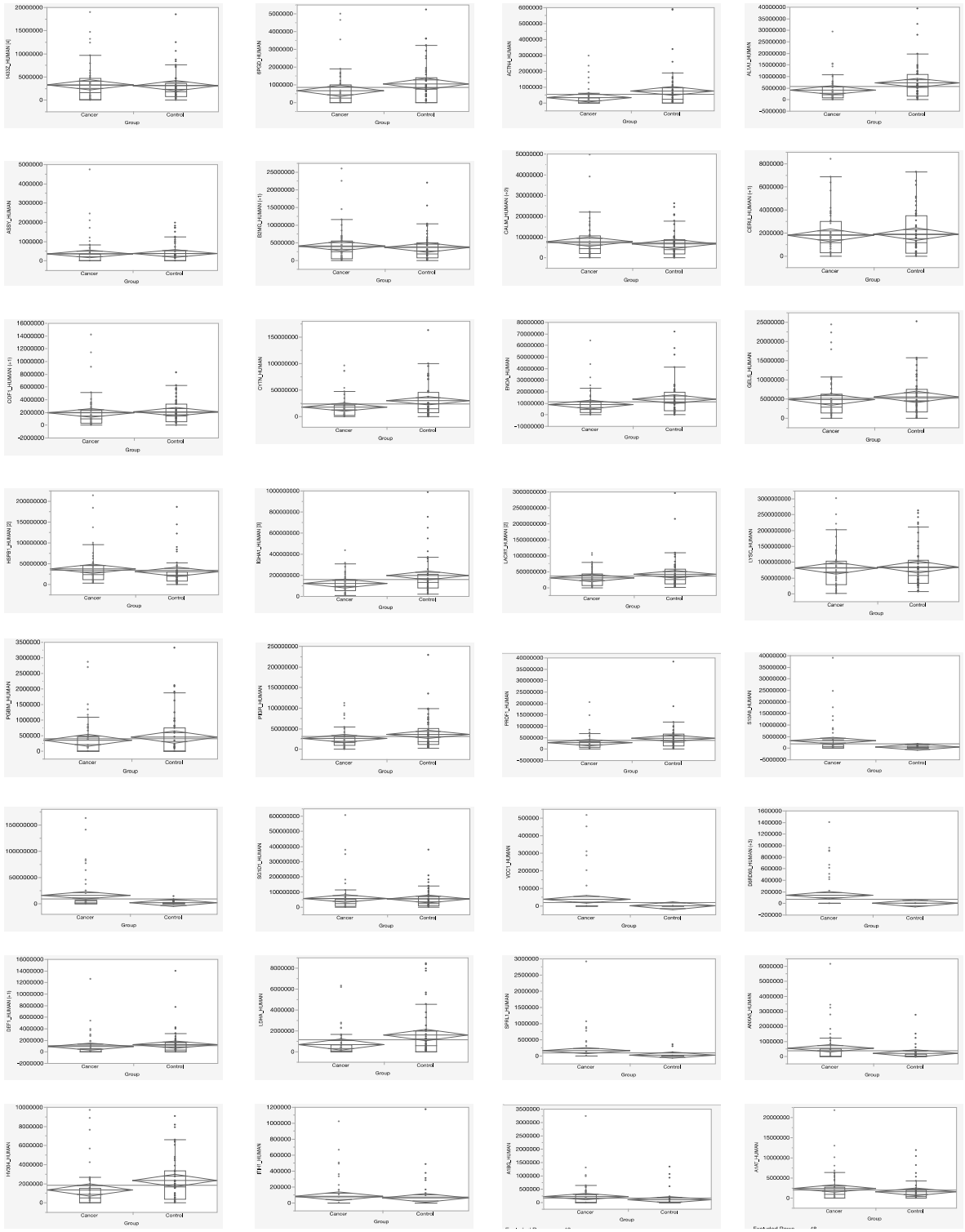


Figure 5:

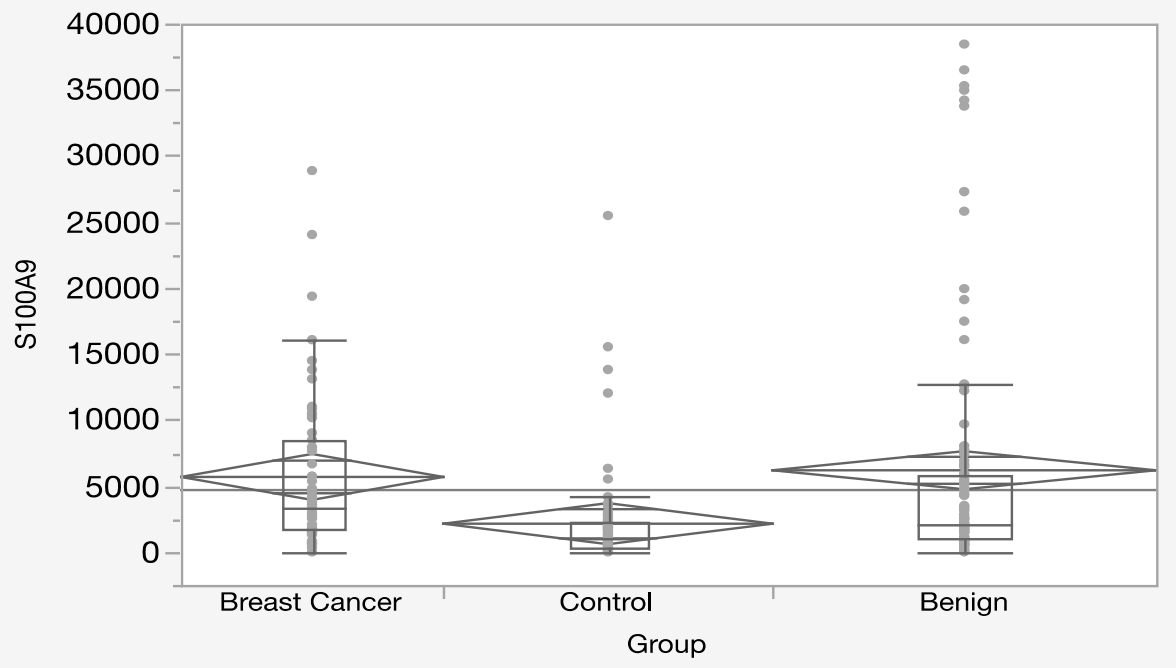

40000
35000
30000
25000
20000
15000
10000
5000
0
S100A9
Breast Cancer
Control
Benign
Group

Figure 6:

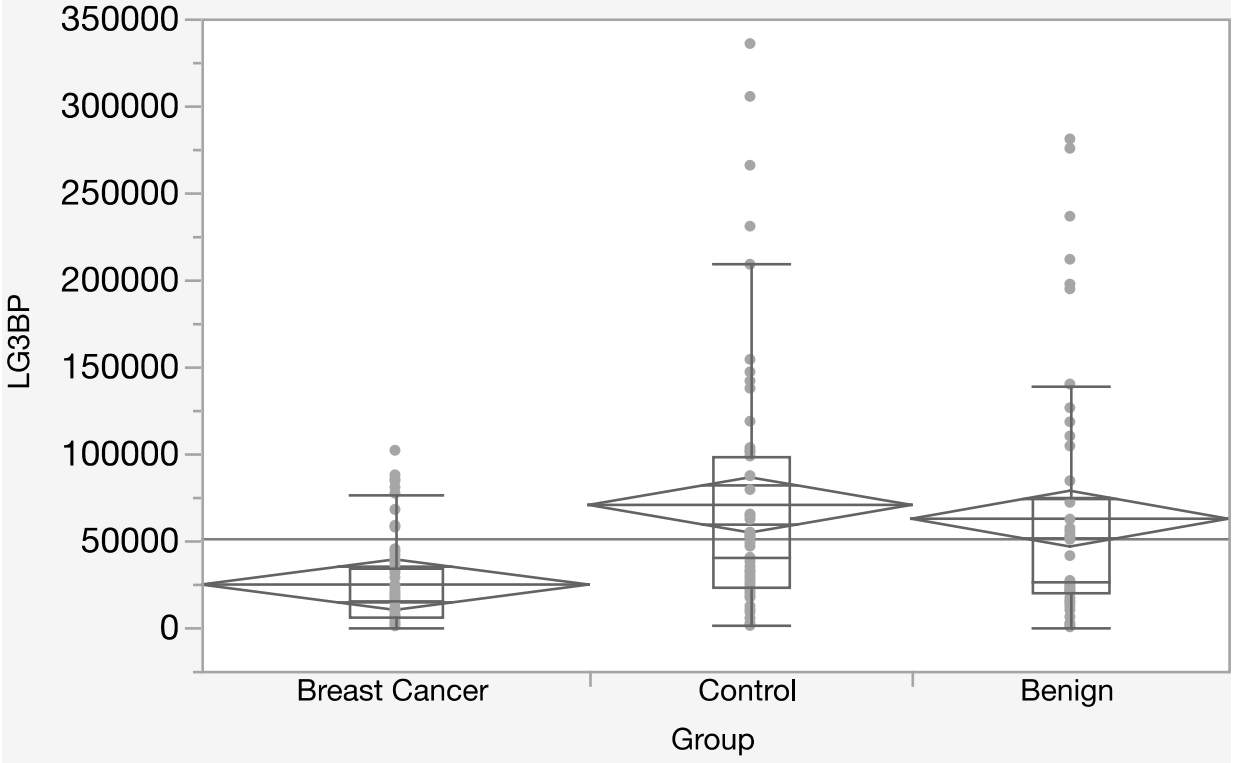

350000
300000
250000
200000
150000
100000
50000
0
LG3BP
Breast Cancer
Control
Benign
Group

Figure 7

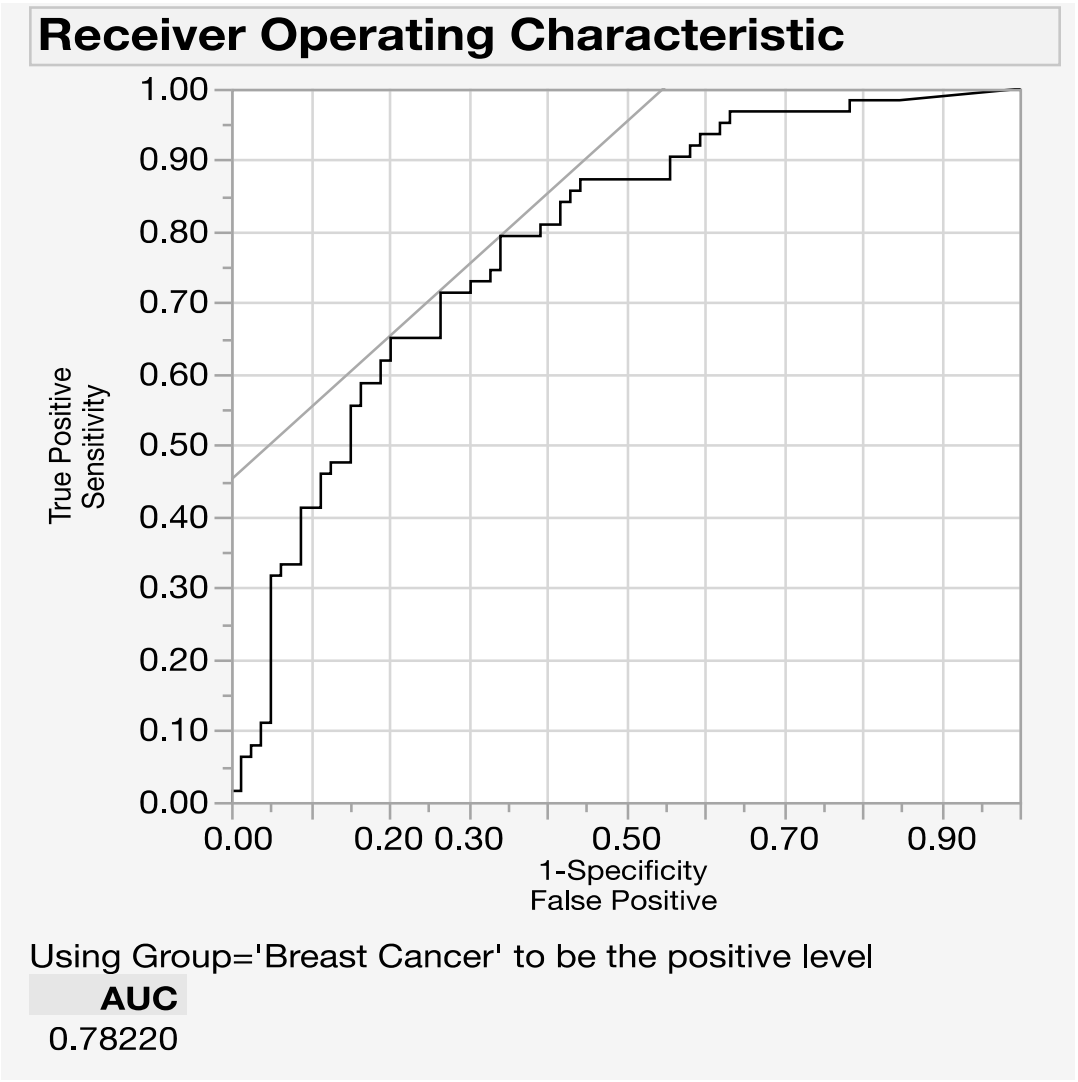

Receiver Operating Characteristic
True Positive
Sensitivity
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.00
0.20
0.30
0.50
0.70
0.90
1-Specificity
False Positive
Using Group='Breast Cancer' to be the positive level
AUC
0.78220

Figure 8

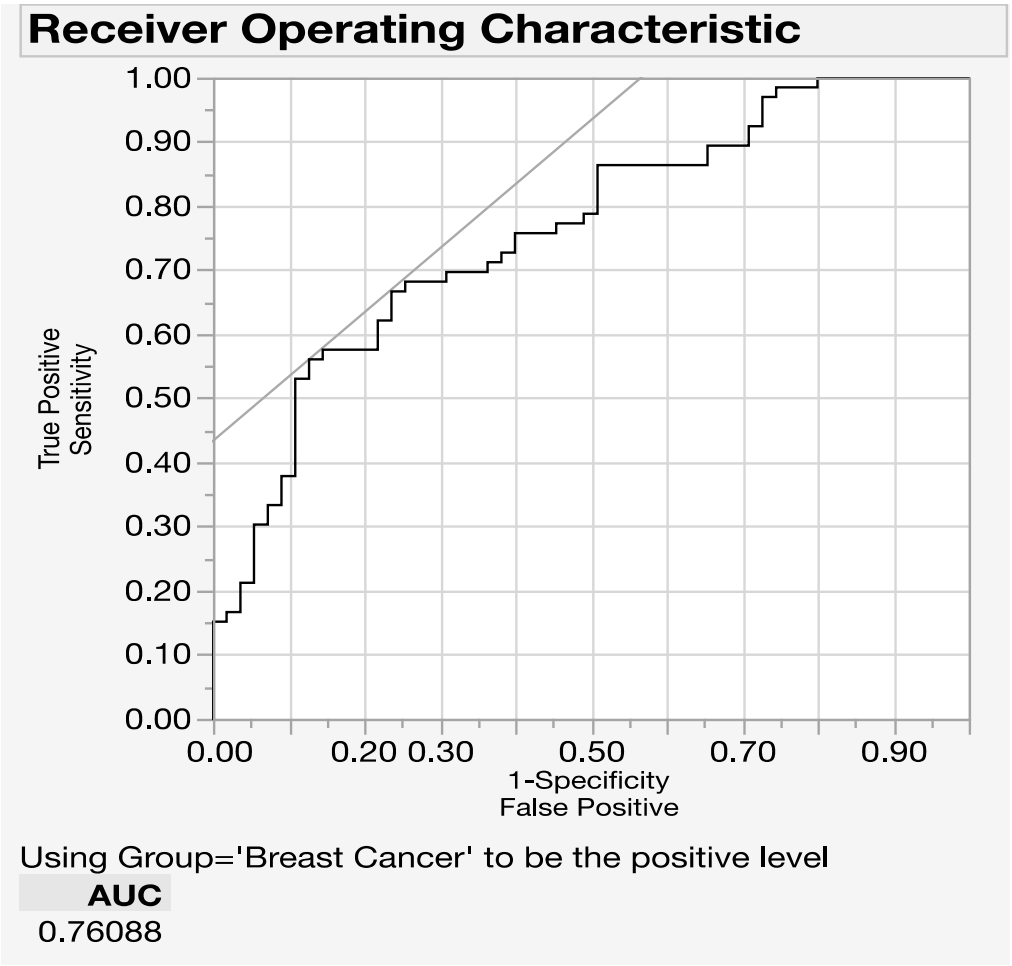

Receiver Operating Characteristic
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
True Positive
Sensitivity
0.00
0.20
0.30
0.50
0.70
0.90
1-Specificity
False Positive
Using Group='Breast Cancer' to be the positive level
AUC
0.76088

Figure 9

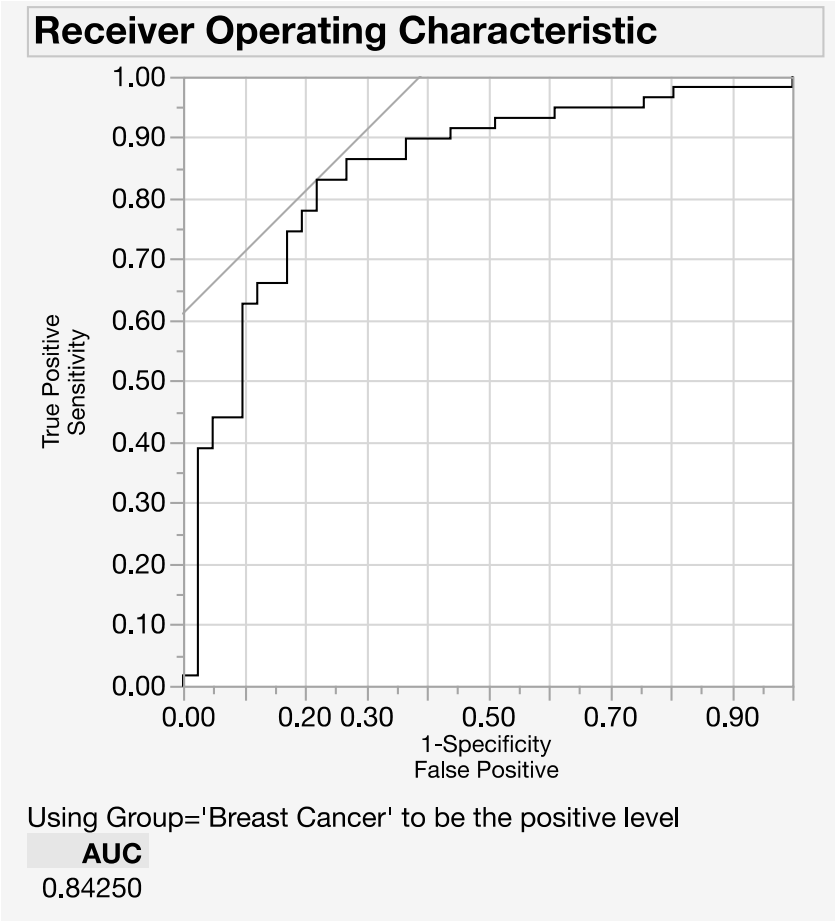

Receiver Operating Characteristic
True Positive
Sensitivity
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.00
0.20
0.30
0.50
0.70
0.90
1-Specificity
False Positive
Using Group='Breast Cancer' to be the positive level
AUC
0.84250

Figure 10

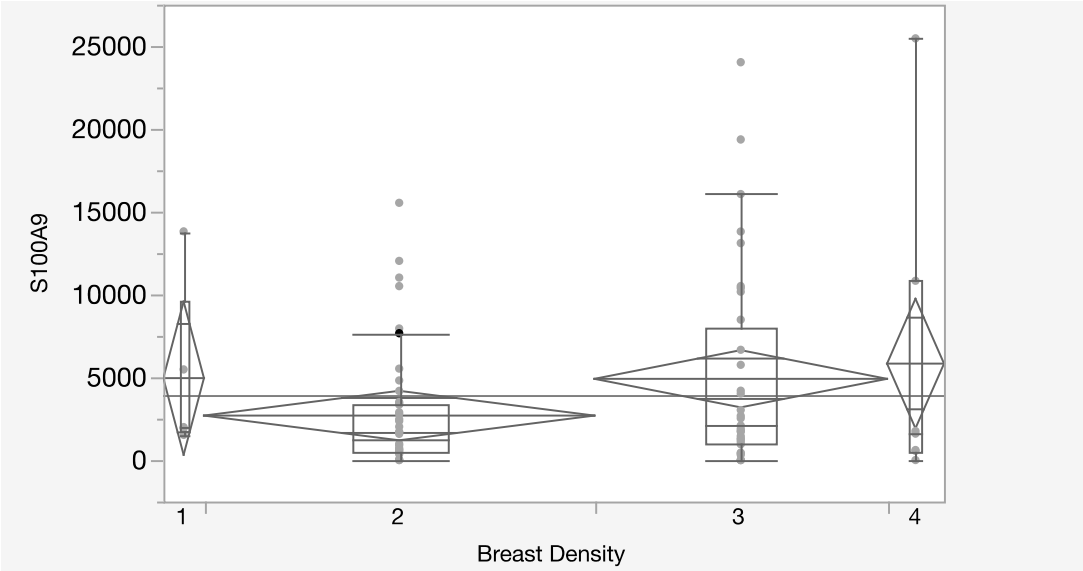


Figure 11

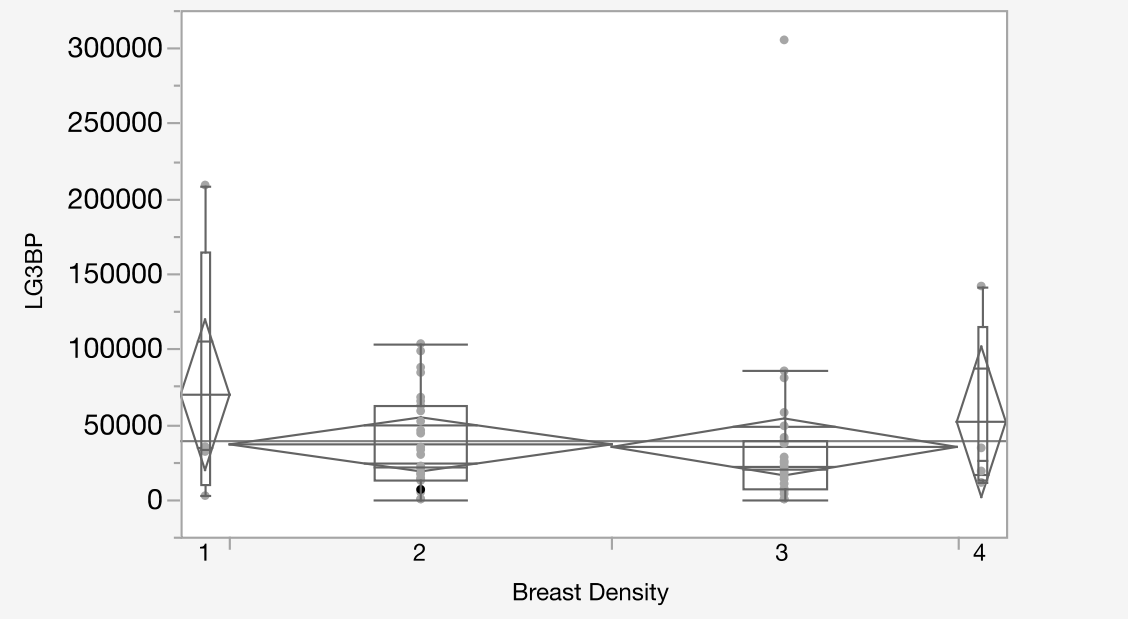

300000
250000
200000
150000
100000
50000
0
LG3BP
1
2
3
4
Breast Density

Figure 12 - APPENDIX I

Protein Name	**UniProt**	**IPI**	**Gene Name**
Lipocalin 1	P10325		LCN1_Human
Trypsin Fragments			
1. QSETCSPGSD	**2.** VTMLISGR		**3.** AVLEKTDEPGK
4. AVLEKTDEPGKYTADGGK	**5.** TDEPGKYTADGGK		**6.** HVAYIIR
7. DPKNNLEALEDFEK	**8.** SHVKDHYIFYCEGELHGKPVR		**9.** DHYIFYCEGELHGKPVR
10. SHVKDHYIFYCEGELHGK	**11.** LVGRDPKNNLEALEDFEK		**12.** GLSTESILIPR
13. NNLEALEDFEKAAGAR	**14.** YTADGGKHVAYIIR		**15.** AAGARGLSTESILIPR
16. TDEPGKYTADGGKHVAYIIR	**17.** AAGARGLSTESILIPRQSETCSPGSD		**18.** DHYIFYCEGELHGK
19. NNLEALEDFEK	**20.** AMTVDREFPEMNLESVTPMTLTTLEGGN		**21.** GLSTESILIPRQSETCSPGSD

Proteins selected through Experiment 1:

10 20 30 40 50 60

MKPLLLAVSL GLIAALQAHH LLASDEEIQD VSGTWYLK[20]**AM TVDREFPEMN LESVTPMTLT**

70 80 90 100 110 120

TLEGGNLEAK [2]**VTMLISGR**CQ EVK[3,4]**AVLEK**[5,16]**TD EPGK**[14]**YTADGG K**[6]**HVAYIIR**[8]**SH**

VK[9,10,18]**DHYIFYCE** 130 140 150 160 170

GELHGKPVRG VK[11]**LVGR**[7]**DPK**[13,19]**N NLEALEDFEK** [15,17]**AAGAR**[12,21]**GLSTE SILIPR**[1]**QSET**

CSPGSD

Figure 12 (continued) – Appendix I

Protein Name	**UniProt**	**IPI**	**Gene Name**
Zinc-α-2-glycoprotein	**P25311**		**ZA2G_Human**
Trypsin Fragments			
1. AGEVQEPELR	**2**. AYLEEECPATLR		3. CLAYDFYPGK
4. EIPAWVPFDPAAQITK	5. HVEDVPAFQALGSLNDLQFFR		6. LKCLAYDFYPGK
7. NILDRQDPPSVVVTSHQAPGEK	8. QDPPSVVVTSHQAPGEK		9. QKWEAEPVYVQR
10. WEAEPVYVQR	11. YSKNILDRQDPPSVVVTSHQAPGEK		12. YSLTYIYTGLSK
13. YYYDGKDYIEFNK	14. AYLEEECPATLRK		15. AKAYLEEECPATLRK
16. QVEGMEDWKQDSQLQK	17. CLAYDFYPGKIDVHWTR		

10 20 30 40 50 60

MVRMVPVLLS LLLLLGPAVP QENQDGR[12]**YSL TYIYTGLSK[5]H VEDVPAFQAL GSLNDLQFFR**

70 80 90 100 110 120

YNSKDRKSQP MGLWR[16]**QVEGM EDWKQDSQLQ K**AREDIFMET LKDIVEYYND SNGSHVLQGR

130 140 150 160 170 180

FGCEIENNRS SGAFWK[13]**YYYD GKDYIEFNK[4]E IPAWVPFDPA AQITK[9]QK[10]WEA**

EPVYVQR[15]AK[2,14]A 190 200 210 220 230

240

YLEEECPATL RK[11]YLKYS[7]KNI LDR[8]QDPPSVV VTSHQAPGEK KK[6]**LK[3,17]CLAYDF YPGKIDVHWT**

250 260 270 280 290

R[1]AGEVQEPEL RGDVLHNGNG TYQSWVVVAV PPQDTAPYSC HVQHSSLAQP LVVPWEAS

Figure 12 (continued) – Appendix I

Protein Name	UniProt	IPI	Gene Name
Ig heavy chain V-III region BRO	**P01766**		**HV305_Human**
Trypsin Fragments			
1. EVQLVESGGGLVQPGGSLR	**2. AEDTAVYYCAR**		**3.**

10 20 30 40 50 60

[1]**EVQLVESGGG LVQPGGSLR**L SCAASGFTFS YYNMNWVRQV TGKGLEWVSA IGTAGDQYYA

70 80 90 100 110 120

DSVKGRFTIS RNDSKNTLYL NMNSLR[2]**AEDT AVYYCAR**SPV SLVDGWLYYY YGSVWGQGTL

Protein Name	UniProt	IPI	Gene Name
Beta-2-microglobulin	**P61769**		**B2MG_Human**
Trypsin Fragments			
1. IQVYSRHPAENGK	**2. SNFLNCYVSGFHPSDIEVDLLK**		**3. IEKVEHSDLSFSK**
4. VEHSDLSFSK	**5. VNHVTLSQPK**		**6. DEYACRVNHVTLSQPK**

20 30 40 50 60

MSRSVALAVL ALLSLSGLEA IQRTPK[1]**IQVY SRHPAENGK[2]S NFLNCYVSGF HPSDIEVDLL**

70 80 90 100 110

KNGER[3]**IEK[4]VE HSDLSFSK**DW SFYLLYYTEF TPTEK[6]**DEYAC R[5]VNHVTLSQP K**IVKWDRDM

Protein Name	UniProt	IPI	Gene Name
Antileukoproteinase	**P03972**		**SLP1_Human**
Trypsin Fragments			
1. AGVCPPKKSAQCLR	**2. CCPDTCGIKCLDPVDTPNPTR**		**3. CLDPVDTPNPTR**
4. YKKPECQSDWQCPGK	**5. SCVSPVKA**		**6. KPECQSDWQCPGK**

20 30 40 50 60

MKSSGLFPFL VLLALGTLAP WAVEGSGKSF K[1]**AGVCPPKKS AQCLR[4]YK[6]KPE CQSDWQCPGK**

70 80 90 100 110 120

KR[2]**CCPDTCGI K[3]CLDPVDTPN PTR**RKPGKCP VTYGQCLMLN PPNFCEMDGQ CKRDLKCCMG

130

MCGK[5]**SCVSPV KA**

Protein Name	UniProt	IPI	Gene Name
Ig Heavy Chain V-III VH26	**P01764**		**HV303_Human**
Trypsin Fragments			
1. EVQLLESGGGLVQPGGSLR	**2. AEDTAVYYCAK**		**3.**

10 20 30 40 50 60

MEFGLSWLFL VAILKGVQC[1]**E VQLLESGGGL VQPGGSLR**LS CAASGFTFSS YAMSWVRQAP

70 80 90 100 110

GKGLEWVSAI SGSGGSTYYG DSVKGRFTIS RDNSKNTLYL QMNSLR[2]**AEDT AVYYCAK**

Protein Name	UniProt	IPI	Gene Name
Cystatin-B	**P04080**		**CYTB_Human**
Trypsin Fragments			
1. AVSFSQVVAGTNFIK	**2. SQVVAGTNYFIK**		**3. VFQSLPHENKPLETL SNYQTNK**
4. VHVGDEDFVHLR			

10 20 30 40 50 60

MMCGAPSATQ PATAETQHIA DQVRSQLEEK ENKKFPVFK[1]**A VSFK[2]SQVVAG TNYFIK[4]VHVG**

70 80 90

DEDFVHLR[3]VF QSLPHENKPL TLSNYQTNKA KHDELTYF

Protein Name	UniProt	IPI	Gene Name
Ig Lambda Chain V-IV region HiL	**P01717**		**LV403_Human**
Trypsin Fragments			
1. SYELTQPPSVSVSPGQTAR	**2.**		**3.**

10 20 30 40 50 60

SYELTQPPSV SVSPGQTARI TCSANALPNQ YAYWYQQKPG RAPVMVIYKD TQRPSGIPQR

70 80 90 100

FSSSTSGTTV TLTISGVQAE DEADYYCQAW DNSASIFGGG TKLTVLG

Protein Name	UniProt	IPI	Gene Name
Galectin-3	**P17931**		**LEG3_Human**
Trypsin Fragments			
1. IQVLVEPDHFK	**2. QSVFPFESGKPFK**		**3. VIVCNTKLDNNWGR**
4. IALDFQR	**5. VAVNDAHLLQYNHR**		**6. GNDVAFHFNPR**
7. MLITILGTVKPNANR	**8. RVIVCNTKLDNNWGR**		**9. KLNEISK**

```
10         20         30         40         50         60
MADNFSLHDA LSGSGNPNPQ GWPGAWGNQP AGAGGYPGAS YPGAYPGQAP PGAYPGQAPP
70         80         90        100        110        120
GAYPGAPGAY PGAPAPGVYP GPPSGPGAYP SSGQPSATGA YPATGPYGAP AGPLIVPYNL
130        140        150        160        170        180
PLPGGVVPR[7]M LITILGTVKP NANR[4]IALDFQ R[6]GNDVAFHFN PRFNENNR[8]R[3]V IVCNTKLDNN
190        200        210        220        230        240
WGREER[2]QSVF PFESGKPFK[1]I QVLVEPDHFK [5]VAVNDAHLLQ YNHRVK[9]KLNE ISKLGISGDI
250
DLTSASYTMI
```

Proteins selected from Experiment 2:

Protein Name	UniProt	IPI	Gene Name
Calmodulin-like protein 5	**Q9NZT1**		**CALL5_Human**
Trypsin Fragments			
1. AGELTPEEEAQYKK	**2. KAFSAVDTDGNGTINAQELGAALK**		**3. AFSAVDTDGNGTINAQELGAALK**
4. AGLEDLQVAFR	**5. EADVDQDGRVNYEEFAR**		**6. NLSEAQLR**

10 20 30 40 50 60

M[1]**AGELTPEEE AQYK[2]K[3]AFSAV DTDGNGTINA QELGAALK**AT GK[6]**NLSEAQLR** KLISEVDSDG

70 80 90 100 110 120

DGEISFQEFL TAAKKAR[4]**AGL EDLQVAFR**AF DQDGDGHITV DELRRAMAGL GQPLPQEELD

130 140

AMIR[5]**EADVDQ DGRVNYEEFA R**MLAQE