**Supporting Information**

*Engineered Mycobacterium tuberculosis* antigen assembly into core-shell nanobeads for diagnosis of tuberculosis

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# Table S1. Plasmids, oligonucleotides and strains used

|  |  |  |
| --- | --- | --- |
| **Plasmids/oligonucleotides/**  **strains** | **Description or genotype** | **Source** |
| **Plasmids** | | |
| pUC57\_tb7.7 | Contains synthetic gene encoding TB7.7 | GenScript (USA) |
| pET14b\_cfp10-rv3615c-phaC-esat6-rv3020v | pET14b derivative. Used for amplifying *cfp10* and subcloning *esat6*. |  |
| pPolyC | pET-14b derivative. Contains *phaC* gene from *Cupriavidus necator* | (2) |
| pPOLYC\_cfp10-tb7.7-phaC-esat6 | pPOLYC derivative. Contains *cfp10, tb7.7* and *esat6* genes. AmpR. | This study |
| pMCS69 | pBBR1MCS derivative containing genes phaA and phaB from *C. necator*. CmR. | (3) |
| **Oligonucleotides** | | |
| XbaI cfp10 fwd | 5’-CCCTCTAGAATATAGGAGATAGGTATGGCAGAAATG-3 | This study |
| SpeI cfp10 rev | 5’-GCTACTAGTGAAACCCATTTGAGAGCTCAG-3’ | This study |
| **Strains** | | |
| *E. coli* XL1Blue | *endA1 gyrA96(nalR) thi-1 recA1 relA1 lac glnV44 F'[ ::Tn10 proAB+ lacIq Δ(lacZ)M15] hsdR17(rK- mK+)* | Stratagene |
| Clearcoli BL21 (DE3) | *F– ompT hsdSB (rB- mB-) gal dcm lon λ(DE3 [lacI lacUV5-T7 gene 1 ind1 sam7 nin5]) msbA148 ΔgutQΔkdsD ΔlpxL ΔlpxMΔpagP ΔlpxP ΔeptA* | Lucigen |

# Table S2. Amino acid sequence of the CFP10-TB7.7-PhaC-ESAT6 fusion protein

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | M**AEMKTDAAT** | **LAQEAGNFER** | **ISGDLKTQID** | **QVESTAGSLQ** | **GQWRGAAGTA** |
| 51 | **AQAAVVRFQE** | **AANKQKQELD** | **EISTNIRQAG** | **VQYSRADEEQ** | **QQALSSQMGF** |
| 101 | **TSGGGGGMSG** | **HALAARTLLA** | **AADELVGGPP** | **VEASAAALAG** | **DAAGAWRTAA** |
| 151 | **VELARALVRA** | **VAESHGVAAV** | **LFAATAAAAA** | **AVDRGDPPTS** | **MATGKGAAAS** |
| 201 | **TQEGKSQPFK** | **VTPGPFDPAT** | **WLEWSRQWQG** | **TEGNGHAAAS** | **GIPGLDALAG** |
| 251 | **VKIAPAQLGD** | **IQQRYMKDFS** | **ALWQAMAEGK** | **AEATGPLHDR** | **RFAGDAWRTN** |
| 301 | **LPYRFAAAFY** | **LLNARALTEL** | **ADAVEADAKT** | **RQRIRFAISQ** | **WVDAMSPANF** |
| 351 | **LATNPEAQRL** | **LIESGGESLR** | **AGVRNMMEDL** | **TRGKISQTDE** | **SAFEVGRNVA** |
| 401 | **VTEGAVVFEN** | **EYFQLLQYKP** | **LTDKVHARPL** | **LMVPPCINKY** | **YILDLQPESS** |
| 451 | **LVRHVVEQGH** | **TVFLVSWRNP** | **DASMAGSTWD** | **DYIEHAAIRA** | **IEVARDISGQ** |
| 501 | **DK**INVLGFCV | GGTIVSTALA | VLAARGEHPA | ASVTLLTTLL | DFADTGILDV |
| 551 | FVDEGHVQLR | **EATLGGGAGA** | **PCALLR**GLEL | ANTFSFLRPN | DLVWNYVVDN |
| 601 | YLKGNTPVPF | DLLFWNGDAT | NLPGPWYCWY | LR**HTYLQNEL** | **KVPGKLTVCG** |
| 651 | **VPVDLASIDV** | **PTYIYGSRED** | **HIVPWTAAYA** | **STALLANKLR** | **FVLGASGHIA** |
| 701 | **GVINPPAK**NK | RSHWTNDALP | ESPQQWLAGA | IEHHGSWWPD | WTAWLAGQAG |
| 751 | AK**RAAPANYG** | **NARYRAIEPA** | **PGRYVKAKAV** | **LAVAIDKRGG** | **GGGLEMTEQQ** |
| 801 | **WNFAGIEAAA** | **SAIQGNVTSI** | **HSLLDEGK**QS | LTK**LAAAWGG** | **SGSEAYQGVQ** |
| 851 | **QKWDATATEL** | **NNALQNLART** | **ISEAGQAMAS** | **TEGNVTGMFA** |  |

**NOTE:** . In bold, peptides identified by MALDI-TOF/MS. Sequence coverage: 81%.

# Table S3. Confidence intervals for AUC, sensitivity and specificity of each cytokine between the different groups: (PTB vs TSTn; PTB vs TSTp and TSTp vs TSTn)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Difference/**  **Ratio** |  | AUC (IC 95%) | Sen (IC 95%) | Spe (IC 95%) |
| **PTB**  **vs**  **TSTn** | **Difference** | **IFNγ** | 0.818 (0.65-0.987) | 0.7273 (0.3903-0.9398) | 0.7857 (0.4920-0.9534) |
| **IP10** | 0.844 (0.677-1.011) | 0.9091 (0.5872-0.9977) | 0.7857 (0.4920-0.9534) |
| **IL-2** | 0.916 (0.798-1.033) | 0.9091 (0.5872-0.9977) | 0.8571 (0.5719-0.9822) |
| **TNFα** | 0.422 (0.188-0.656) | 0 (NaN-0.2316) | 1(0.7151-NaN) |
| **CCL3** | 0.656 (0.423-0.889) | 0.8182 (0.4822-0.9772) | 0.5714 (0.2886-0.8234 |
| **CCL11** | 0.838 (0.639-1.037) | 0.8182 (0.4822-0.9772) | 0.9286 (0.6613-0.9982) |
| **Ratio** | **IFNγ** | 0.896 (0.774-1.018) | 0.7273 (0.3903-0.9398) | 0.9286 (0.6613-0.9982) |
| **IP10** | 0.896 (0.76-1.033) | 1 (0.7151-NaN) | 0.7857 (0.4920-0.9534) |
| **IL-2** | 0.929 (0.829-1.028) | 0.9091 (0.5872-0.9977) | 0.8571 (0.5719-0.9822) |
| **TNFα** | 0.39 (0.158-0.621) | 0.8182 (0.4822-0.9772) | 0.2857 (0.0839-0.5810) |
| **CCL3** | 0.656 (0.423-0.889) | 0.8182 (0.4822-0.9772) | 0.5714 (0.2886-0.8234) |
| **CCL11** | 0.857 (0.681-1.033) | 0.8182 (0.4822-0.9772) | 0.9286 (0.6613-0.9982) |
| **PTB**  **vs**  **TSTp** | **Difference** | **IFNγ** | 0.826 (0.65-1.001) | 0.8182 (0.4822-0.9772) | 0.7500 (0.4281-0.9451) |
| **IP10** | 0.864 (0.701-1.027) | 0.7273 (0.3903-0.9398) | 1.0000 (0.7354-NaN) |
| **IL-2** | 0.902 (0.769-1.034) | 0.8182 (0.4822-0.9772) | 0.9167 (0.6152-0.9979) |
| **TNFα** | 0.682 (0.453-0.911) | 0.6364 (0.3079-0.8907) | 0.7500 (0.4281-0.9451) |
| **CCL3** | 0.644 (0.395-0.892) | 0.5455 (0.2338-0.8325) | 0.8333 (0.5159-0.9791) |
| **CCL11** | 0.886 (0.722-1.05) | 0.8182 (0.4822-0.9772) | 1 (0.7354-NaN) |
| **Ratio** | **IFNγ** | 0.871 (0.726-1.017) | 0.7273 (0.3903-0.9398) | 0.9167 (0.6152-0.9979) |
| **IP10** | 0.871 (0.721-1.021) | 0.9091 (0.5872-0.9977) | 0.7500 (0.4281-0.9451) |
| **IL-2** | 0.902 (0.769-1.034) | 0.8182 (0.4822-0.9772) | 0.9167 (0.6152-0.9979) |
| **TNFα** | 0.902 (0.777-1.026) | 0.8182 (0.4822-0.9772) | 0.9167 (0.6152-0.9979) |
| **CCL3** | 0.644 (0.394-0.893) | 0.5455 (0.2338-0.8325) | 0.8333 (0.5159-0.9791) |
| **CCL11** | 0.894 (0.745-1.043) | 0.8182 (0.4822-0.9772) | 1 (0.7354- NaN) |
| **TSTp**  **vs**  **TSTn** | **Difference** | **IFNγ** | 0.464 (0.23-0.699) | 0.08333 (0.0021-0.3848) | 1 (0.7684-NaN) |
| **IP10** | 0.583 (0.354-0.813) | 0.6667 (0.3489-0.9008) | 0.571 (0.2886-0.8234) |
| **IL-2** | 0.643 (0.414-0.872) | 1 (0.7354-NaN) | 0.3571 (0.1276-0.6486) |
| **TNFα** | 0.25 (0.058-0.442) | 0 (NaN-0.2316) | 1 (0.7354- NaN) |
| **CCL3** | 0.518 (0.283-0.753) | 1 (0.7354-NaN) | 0.2143 (0.0466-0.5080) |
| **CCL11** | 0.53 (0.29-0.769) | 0.5000 (0.2109-0.7891) | 0.7857 (0.4920-0.9534) |
| **Ratio** | **IFNγ** | 0.524 (0.288-0.759) | 0.2500 (0.0549-0.5719) | 0.9286 (0.6613-0.9982) |
| **IP10** | 0.607 (0.38-0.834) | 0.4167 (0.1517-0.7233) | 0.857 (0.5719-0.9822) |
| **IL-2** | 0.649 (0.422-0.875) | 1 (0.7354- NaN) | 0.3571 (0.1276-0.6486) |
| **TNFα** | 0.089 (-0.017-0.196) | 0 (NaN-0.2316) | 1 (0.7354-NaN) |
| **CCL3** | 0.512 (0.276-0.748) | 1(0.7354-NaN) | 0.2143 (0.0466-0.5080) |
| **CCL11** | 0.542 (0.301-0.782) | 0.5000(0.2109-0.7891) | 0.7857 (0.4920-0.9534) |

# Table S4. Confidence intervals for AUC, sensitivity and specificity of each cytokine between the different groups: PTB vs Healthy individuals (TSTp + TSTn) and Infected individuals (PTB + TSTp) vs TSTn.

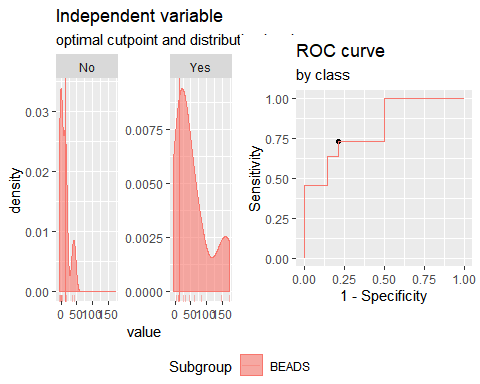
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Difference/**  **Ratio** |  | AUC (IC 95%) | Sen (IC 95%) | Spe (IC 95%) |
| **PTB**  **vs**  **(TSTp+TSTn)** | **Difference** | **IFNγ** | 0.822 (0.678-0.965) | 0.6364 (0.3079-0.8907) | 0.8846 (0.6985-0.9755) |
| **IP10** | 0.853 (0.711-0.995) | 0.7273 (0.3903-0.9398) | 0.9231 (0.7487-0.9905) |
| **IL-2** | 0.909 (0.807-1.011) | 0.8182 (0.4822-0.9772) | 0.9231 (0.7487-0.9905) |
| **TNFα** | 0.542 (0.331-0.753) | 0.6364 (0.3079-0.8907) | 0.5385 (0.3337-0.7341) |
| **CCL3** | 0.65 (0.432-0.868) | 0.8182 (0.4822-0.9772) | 0.5385 (0.3337-0.7341) |
| **CCL11** | 0.86 (0.691-1.029) | 0.8182 (0.4822-0.9772) | 0.9615 (0.8036-0.9990) |
| **Ratio** | **IFNγ** | 0.885 (0.771-0.998) | 0.7273 (0.3903-0.9398) | 0.9231 (0.7487-0.9905) |
| **IP10** | 0.885 (0.778-0.991) | 0.9091 (0.5872-0.9977) | 0.8077 (0.6065-0.9345) |
| **IL-2** | 0.916 (0.818-1.014) | 0.8182(0.4822-0.9772) | 0.9231 (0.7487-0.9905) |
| **TNFα** | 0.626 (0.44-0.812) | 0.8182(0.4822-0.9772) | 0.5769 (0.3692-0.7665) |
| **CCL3** | 0.65 (0.432-0.869) | 0.8182(0.4822 -0.9772) | 0.5385(0.3337-0.7341) |
| **CCL11** | 0.874 (0.73-1.018) | 0.8182 (0.4822-0.9772) | 0.9615 (0.8036-0.9990) |
| **(PTB+TSTp)**  **vs**  **TSTn** | **Difference** | **IFNγ** | 0.634 (0.448-0.819) | 0.7826 (0.5630-0.9254) | 0.5000 (0.2304-0.7696) |
| **IP10** | 0.708 (0.527-0.889) | 0.6522 (0.4273-0.8362) | 0.7857 (0.4920-0.9534) |
| **IL-2** | 0.773 (0.612-0.935) | 0.6957 (0.4708-0.8679) | 0.8571 (0.5719-0.9822) |
| **TNFα** | 0.332 (0.147-0.517) | 0 (NaN-0.2316) | 1(0.8518- NaN) |
| **CCL3** | 0.584 (0.385-0.783) | 0.5652 (0.3449-0.7681) | 0.7143 (0.4190-0.9161) |
| **CCL11** | 0.677 (0.491-0.863) | 0.6957 (0.4708-0.8679) | 0.7857 (0.4920-0.9534) |
| **Ratio** | **IFNγ** | 0.702 (0.533-0.871) | 0.4783 (0.2682-0.6941) | 0.9286 (0.6613-0.9982) |
| **IP10** | 0.745 (0.574-0.917) | 0.6522 (0.4273-0.8362) | 0.8571 (0.5719-0.9822) |
| **IL-2** | 0.783 (0.628-0.937) | 0.6957 (0.4708-0.8679) | 0.8571 (0.5719-0.9822) |
| **TNFα** | 0.233 (0.077-0.389) | 0 ( NaN-0.2316) | 1 (0.8518-NaN) |
| **CCL3** | 0.581 (0.382-0.78) | 0.5652 (0.3449-0.7681) | 0.7143 (0.4190-0.9161) |
| **CCL11** | 0.693 (0.509-0.876) | 0.6957 (0.4708-0.8679) | 0.7857 (0.4920-0.9534) |

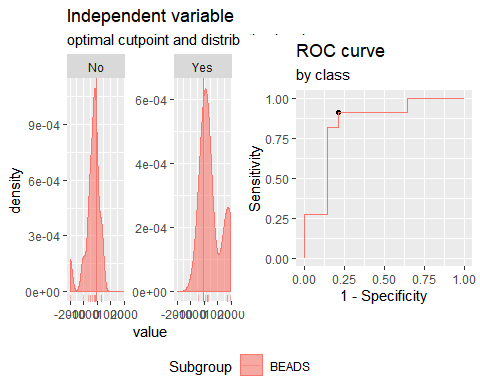
# Details of the ROC analysis performed for individual and cytokine combinations

# Details of the ROC analysis performed for each cytokine evaluated.

**Analysis PTB vs TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

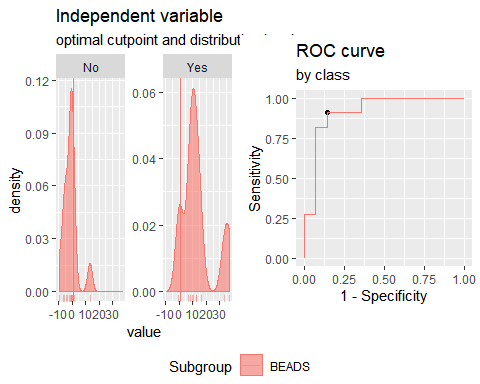
**IFNγ**  
 Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8182 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 14.8205 0.513 0.76 0.7273 0.7857 8 3 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -6.045 -2.323 2.627 13.459 30.103 37.008 134.669 173.913 45.019  
 No (TSTn) -6.045 -3.791 -0.333 7.366 10.103 13.696 39.306 43.573 14.787  
 Yes (pTB) 4.560 7.312 12.919 32.351 55.558 72.591 160.570 173.913 57.506  
 NAs  
 overall 0 No 0 Yes 0

 **IP10**  
 Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8442 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -46.7508 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -1997.979 -944.812 -337.466 -46.751 35.653 251.111 1718.033  
 No (TSTn) -1997.979 -1365.221 -511.676 -205.549 -360.622 -94.031 327.698  
 Yes (pTB) -419.981 -233.366 34.696 225.597 540.003 1004.074 1819.003  
 Max. SD NAs  
 overall 1915.317 824.238 0  
 No 337.740 591.528 0  
 Yes 1915.317 822.164 0



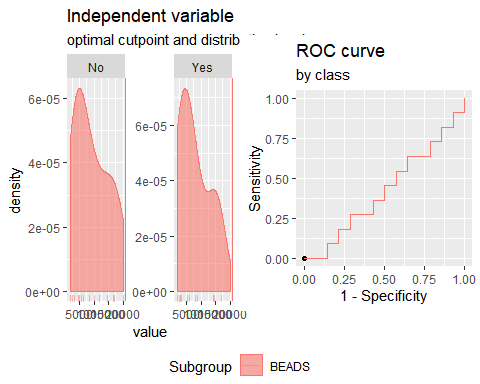
**IL2**  
 Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9156 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9491 0.7662 0.88 0.9091 0.8571 10 1 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -9.247 -6.044 -0.955 0.318 5.258 10.263 29.996 37.222 11.398  
 No -9.247 -7.204 -4.298 -0.796 -1.282 0.198 5.775 13.208 5.195  
 Yes -0.382 0.284 7.887 10.263 13.581 14.669 35.328 37.222 11.858  
 NAs  
 overall 0  
 No 0  
 Yes 0

Multiple optimal cutpoints found, applying break\_ties.



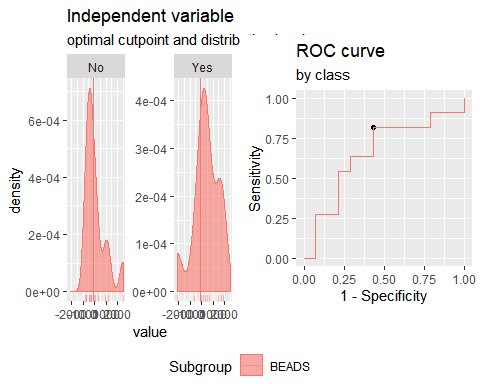
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.4221 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 Inf 0 0.56 0 1 0 11 0 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall 1841.040 2066.785 3458.645 6342.813 8537.618 14105.20 16951.15  
 No 1920.867 2410.888 4674.842 7476.587 9153.103 13794.49 18008.90  
 Yes 1841.040 2245.748 3293.073 6176.805 7754.273 11462.78 15764.48  
 Max. SD NAs  
 overall 19937.60 5604.953 0  
 No 19937.60 5956.919 0  
 Yes 16874.28 5297.311 0



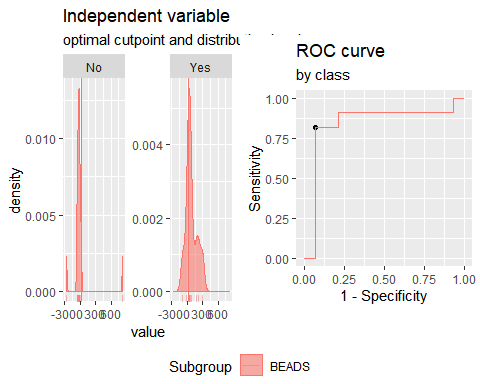
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6558 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -64.3795 0.3896 0.68 0.8182 0.5714 9 2 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -2136.280 -757.569 -438.551 -16.564 186.615 665.090 1826.702  
 No -759.162 -753.985 -455.148 -278.073 60.991 240.161 1652.318  
 Yes -2136.280 -1371.224 -42.956 307.210 346.500 1051.463 1779.952  
 Max. SD NAs  
 overall 2465.435 1003.081 0  
 No 2465.435 911.198 0  
 Yes 1857.869 1133.681 0



**CCL11**

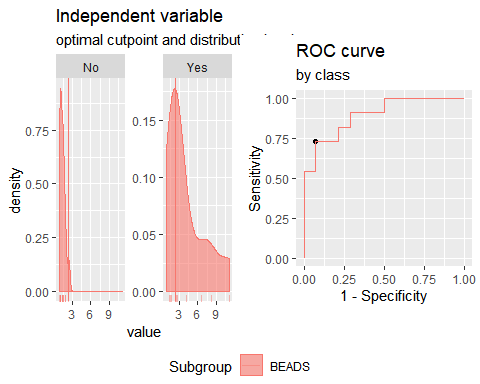
Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8377 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 29.8881 0.7468 0.88 0.8182 0.9286 9 2 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -271.455 -82.706 -36.332 -10.866 44.432 38.954 282.685 826.836  
 No -271.455 -133.163 -46.194 -25.237 17.022 -15.304 300.581 826.836  
 Yes -88.708 -49.787 33.890 38.954 79.319 126.180 260.232 297.653  
 SD NAs  
 overall 194.975 0  
 No 243.010 0  
 Yes 109.889 0



**Analysis PTB vs TSTn. Responses for all groups and cytokinescorrected for background by division (ratio).**

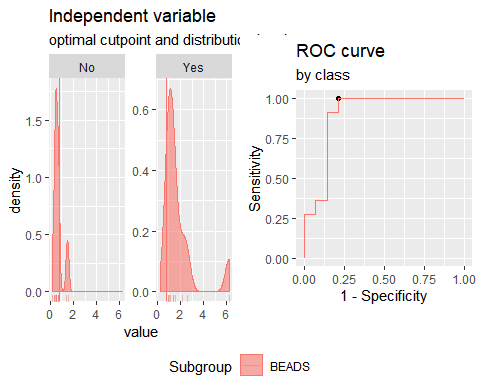
**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 2.2597 0.6558 0.84 0.7273 0.9286 8 3 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.838 0.920 1.233 1.480 2.509 2.372 7.906 11.221 2.529 0  
 No 0.838 0.887 0.962 1.305 1.319 1.462 2.009 2.372 0.435 0  
 Yes 1.317 1.393 1.912 2.520 4.024 5.324 9.732 11.221 3.255 0



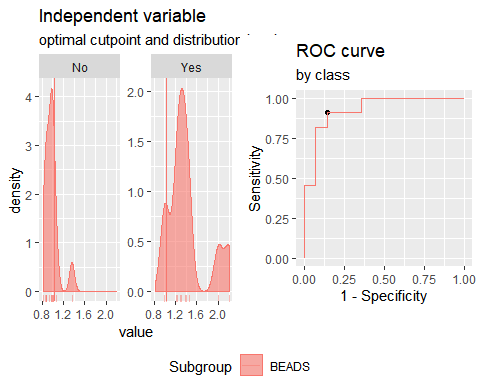
**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7703 0.7857 0.88 1 0.7857 11 0 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.222 0.378 0.545 0.781 1.178 1.388 2.500 6.228 1.198 0  
 No 0.222 0.321 0.451 0.545 0.667 0.702 1.467 1.557 0.379 0  
 Yes 0.770 0.846 1.024 1.357 1.829 1.848 4.408 6.228 1.558 0



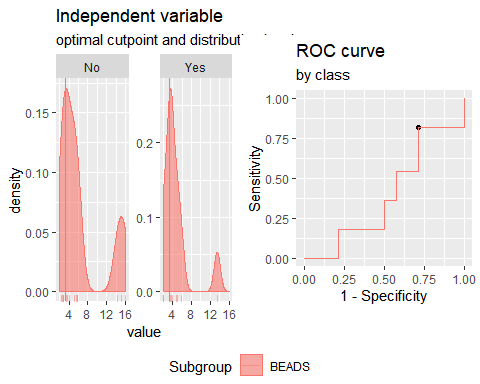
**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9286 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.0245 0.7662 0.88 0.9091 0.8571 10 1 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.821 0.872 0.971 1.010 1.168 1.308 1.894 2.200 0.340 0  
 No 0.821 0.853 0.885 0.976 0.977 1.006 1.173 1.361 0.131 0  
 Yes 0.989 1.007 1.229 1.308 1.412 1.428 2.102 2.200 0.373 0



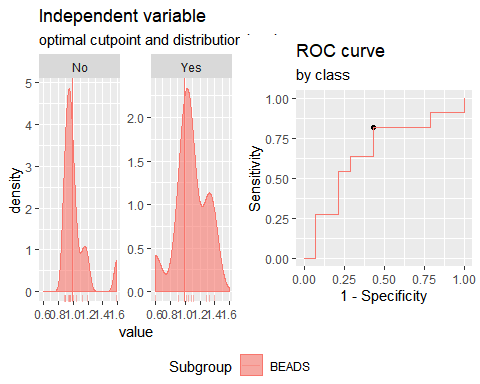
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.3896 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 3.2806 0.1039 0.52 0.8182 0.2857 9 2 10 4  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 2.039 2.210 3.281 3.892 5.644 5.752 14.873 16.032 4.208 0  
 No 2.487 2.624 2.989 4.660 6.411 5.757 15.385 16.032 4.860 0  
 Yes 2.039 2.090 3.311 3.849 4.669 4.950 9.728 13.470 3.148 0



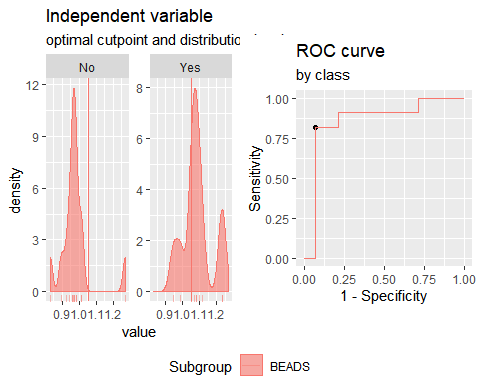
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6558 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9884 0.3896 0.68 0.8182 0.5714 9 2 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.598 0.888 0.945 0.998 1.046 1.116 1.383 1.589 0.198 0  
 No 0.888 0.890 0.937 0.964 1.028 1.035 1.331 1.589 0.184 0  
 Yes 0.598 0.751 0.993 1.047 1.070 1.204 1.363 1.395 0.221 0



**CCL11**

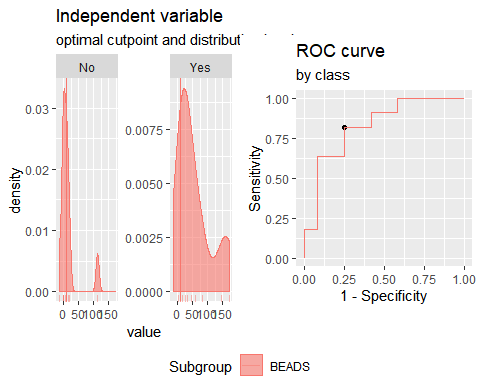
Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8571 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.051 0.7468 0.88 0.8182 0.9286 9 2 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.829 0.901 0.959 0.986 1.024 1.077 1.233 1.270 0.106 0  
 No 0.829 0.872 0.946 0.969 0.977 0.983 1.104 1.270 0.097 0  
 Yes 0.944 0.965 1.051 1.077 1.084 1.105 1.232 1.233 0.087 0



**Analysis PTB vs TSTp. Responses for all groups and cytokines corrected for background by subtraction.**

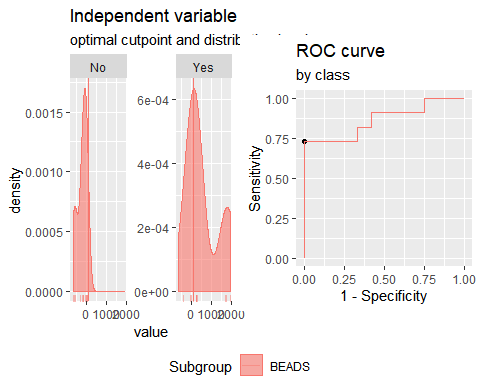
**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8258 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 11.0172 0.5682 0.7826 0.8182 0.75 9 2 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -14.133 -1.628 4.675 11.017 33.835 38.929 143.842 173.913  
 No -14.133 -7.287 -0.927 6.697 13.923 12.238 62.270 113.385  
 Yes 4.560 7.312 12.919 32.351 55.558 72.591 160.570 173.913  
 SD NAs  
 overall 49.891 0  
 No 32.672 0  
 Yes 57.506 0



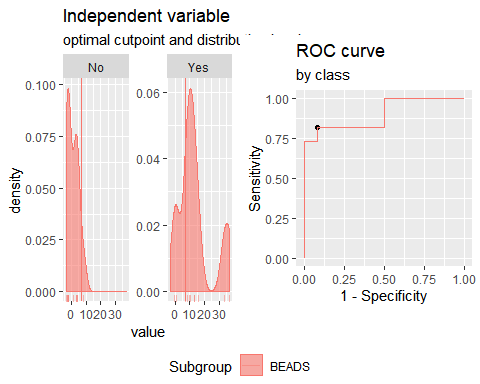
**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8636 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 93.1022 0.7273 0.8696 0.7273 1 8 3 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -658.117 -566.201 -179.143 -12.899 149.730 220.056 1720.361  
 No -658.117 -610.676 -335.156 -153.565 -208.021 -11.183 41.838  
 Yes -419.981 -233.366 34.696 225.597 540.003 1004.074 1819.003  
 Max. SD NAs  
 overall 1915.317 695.573 0  
 No 44.508 247.402 0  
 Yes 1915.317 822.164 0



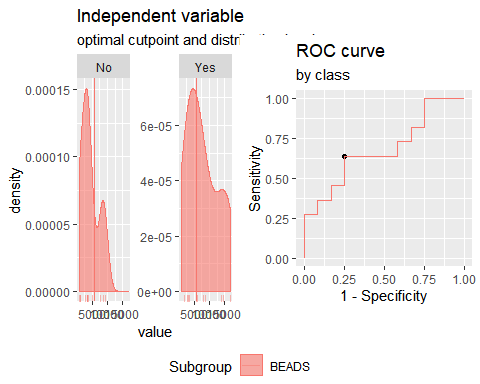
**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 7.0677 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -3.408 -2.650 -1.064 3.802 6.936 10.075 31.715 37.222 10.642  
 No -3.408 -3.004 -2.329 -0.163 0.844 3.636 6.092 8.196 3.747  
 Yes -0.382 0.284 7.887 10.263 13.581 14.669 35.328 37.222 11.858  
 NAs  
 overall 0  
 No 0  
 Yes 0



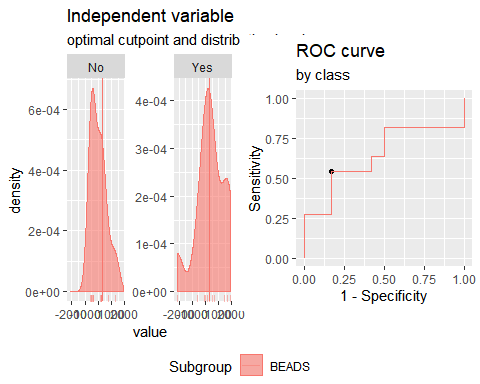
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6818 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 5539.663 0.3864 0.6957 0.6364 0.75 7 4 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall 886.691 1059.894 2907.839 3580.945 5898.783 8351.840 14599.727  
 No 886.691 971.615 2323.397 3509.007 4197.917 5667.229 8917.506  
 Yes 1841.040 2245.748 3293.073 6176.805 7754.273 11462.780 15764.478  
 Max. SD NAs  
 overall 16874.281 4504.221 0  
 No 9237.983 2909.772 0  
 Yes 16874.281 5297.311 0



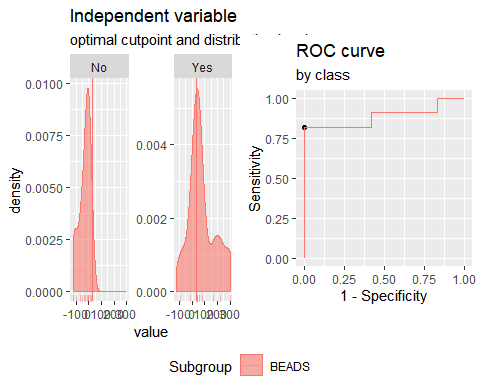
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6439 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 307.2103 0.3788 0.6957 0.5455 0.8333 6 5 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -2136.280 -603.541 -446.171 161.359 170.828 586.773 1675.616  
 No -579.902 -552.284 -488.502 -89.976 9.796 257.478 991.071  
 Yes -2136.280 -1371.224 -42.956 307.210 346.500 1051.463 1779.952  
 Max. SD NAs  
 overall 1857.869 888.308 0  
 No 1305.391 592.148 0  
 Yes 1857.869 1133.681 0



**CCL11**

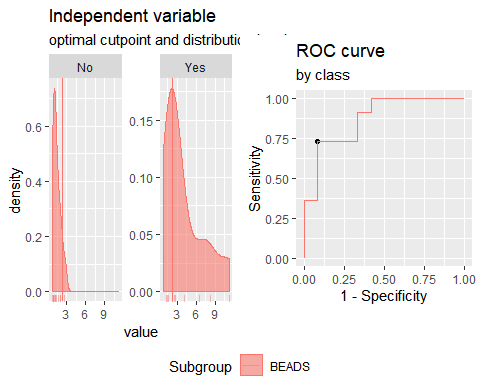
Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8864 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 29.8881 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -122.061 -98.366 -27.808 1.348 21.908 38.790 217.419 297.653  
 No -122.061 -109.619 -52.941 -17.105 -30.718 -1.052 18.908 24.694  
 Yes -88.708 -49.787 33.890 38.954 79.319 126.180 260.232 297.653  
 SD NAs  
 overall 98.395 0  
 No 45.476 0  
 Yes 109.889 0



**Analysis PTB vs TSTp. Responses for all groups and cytokinescorrected for background by division (ratio).**

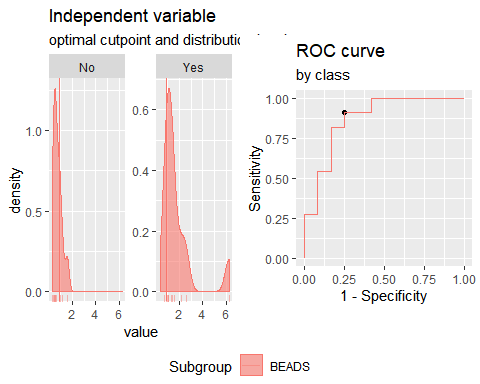
**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8712 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 2.2597 0.6439 0.8261 0.7273 0.9167 8 3 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.800 0.926 1.254 1.633 2.662 2.612 8.074 11.221 2.601 0  
 No 0.800 0.868 0.967 1.254 1.414 1.733 2.341 2.707 0.584 0  
 Yes 1.317 1.393 1.912 2.520 4.024 5.324 9.732 11.221 3.255 0



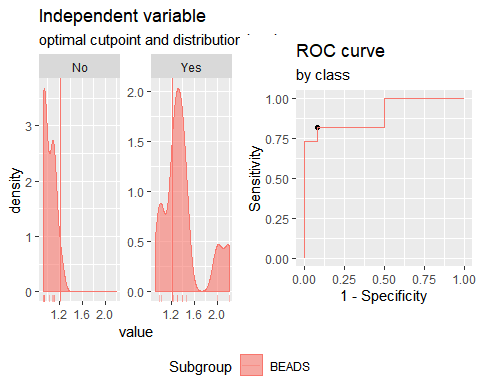
**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8712 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9212 0.6591 0.8261 0.9091 0.75 10 1 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.363 0.438 0.634 0.960 1.272 1.373 2.544 6.228 1.210 0  
 No 0.363 0.401 0.514 0.634 0.761 0.911 1.362 1.583 0.356 0  
 Yes 0.770 0.846 1.024 1.357 1.829 1.848 4.408 6.228 1.558 0



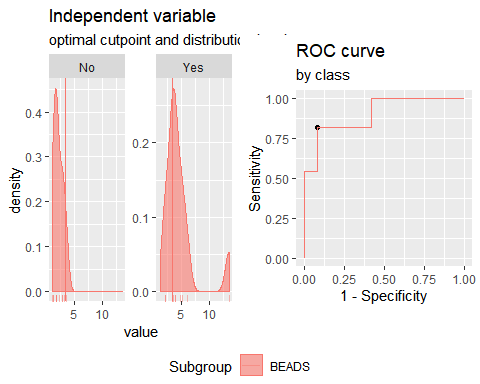
**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.2237 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.920 0.928 0.969 1.113 1.210 1.303 1.949 2.200 0.328 0  
 No 0.920 0.924 0.937 0.993 1.025 1.104 1.168 1.226 0.102 0  
 Yes 0.989 1.007 1.229 1.308 1.412 1.428 2.102 2.200 0.373 0



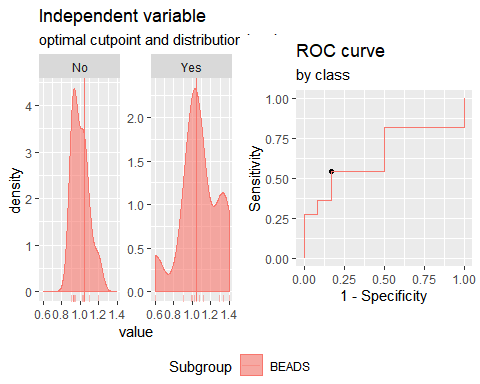
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 3.2806 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 1.129 1.189 1.810 2.794 3.334 3.734 5.897 13.47 2.559 0  
 No 1.129 1.156 1.581 1.810 2.110 2.775 3.378 3.62 0.817 0  
 Yes 2.039 2.090 3.311 3.849 4.669 4.950 9.728 13.47 3.148 0



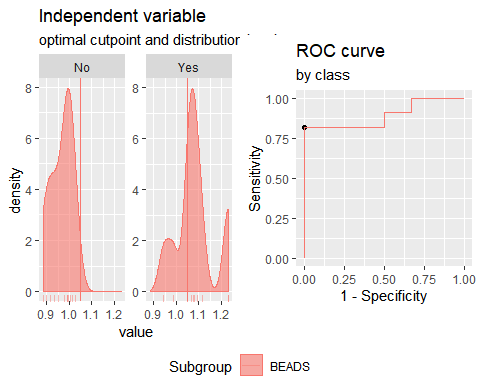
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6439 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.047 0.3788 0.6957 0.5455 0.8333 6 5 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.598 0.904 0.933 1.025 1.034 1.091 1.327 1.395 0.166 0  
 No 0.904 0.916 0.927 0.986 1.001 1.040 1.144 1.194 0.088 0  
 Yes 0.598 0.751 0.993 1.047 1.070 1.204 1.363 1.395 0.221 0



**CCL11**

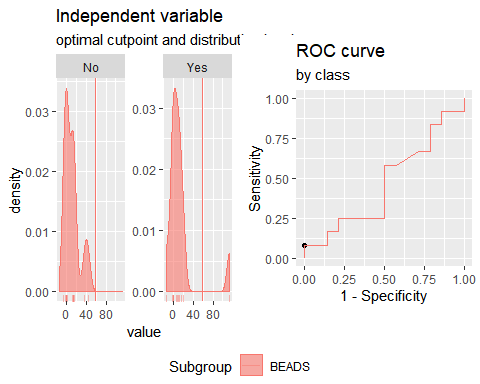
Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8939 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.051 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.885 0.901 0.965 1.003 1.023 1.071 1.219 1.233 0.091 0  
 No 0.885 0.893 0.931 0.984 0.966 0.998 1.022 1.029 0.048 0  
 Yes 0.944 0.965 1.051 1.077 1.084 1.105 1.232 1.233 0.087 0



**Analysis TSTp vs TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

**IFNγ**

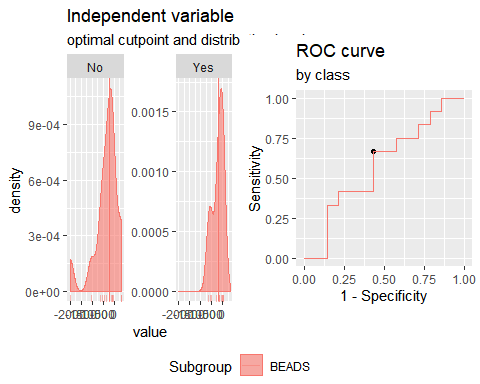
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.4643 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 59.0875 0.0833 0.5769 0.0833 1 1 11 0 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -14.133 -5.178 -0.760 6.697 11.866 13.696 41.932 113.385 24.231  
 No -6.045 -3.791 -0.333 7.366 10.103 13.696 39.306 43.573 14.787  
 Yes -14.133 -7.287 -0.927 6.697 13.923 12.238 62.270 113.385 32.672  
 NAs  
 overall 0  
 No 0  
 Yes 0



**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5833 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -197.017 0.2381 0.6154 0.6667 0.5714 8 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -1997.979 -932.908 -500.549 -179.143 -290.191 -30.476 252.845  
 No -1997.979 -1365.221 -511.676 -205.549 -360.622 -94.031 327.698  
 Yes -658.117 -610.676 -335.156 -153.565 -208.021 -11.183 41.838  
 Max. SD NAs  
 overall 337.740 463.574 0  
 No 337.740 591.528 0  
 Yes 44.508 247.402 0

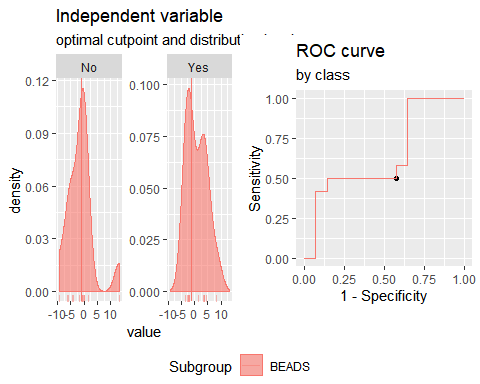
Multiple optimal cutpoints found, applying break\_ties.



**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6429 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.9935 -0.0714 0.4615 0.5 0.4286 6 6 8 6  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -9.247 -6.029 -2.617 -0.796 -0.301 1.685 7.240 13.208 4.624 0  
 No -9.247 -7.204 -4.298 -0.796 -1.282 0.198 5.775 13.208 5.195 0  
 Yes -3.408 -3.004 -2.329 -0.163 0.844 3.636 6.092 8.196 3.747 0

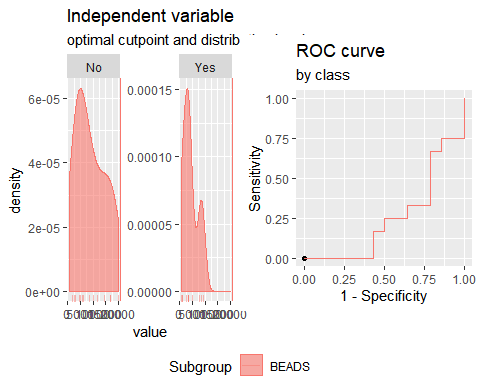
Multiple optimal cutpoints found, applying break\_ties.



**TNFα**

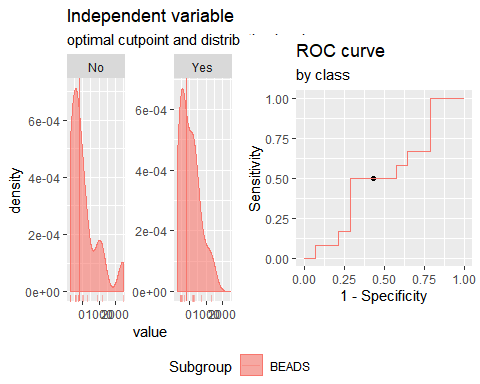
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.25 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 Inf 0 0.5385 0 1 0 12 0 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall 886.691 1088.087 3182.569 4938.565 6866.094 9092.311 16929.229  
 No 1920.867 2410.888 4674.842 7476.587 9153.103 13794.490 18008.900  
 Yes 886.691 971.615 2323.397 3509.007 4197.917 5667.229 8917.506  
 Max. SD NAs  
 overall 19937.605 5340.763 0  
 No 19937.605 5956.919 0  
 Yes 9237.983 2909.772 0

Multiple optimal cutpoints found, applying break\_ties.



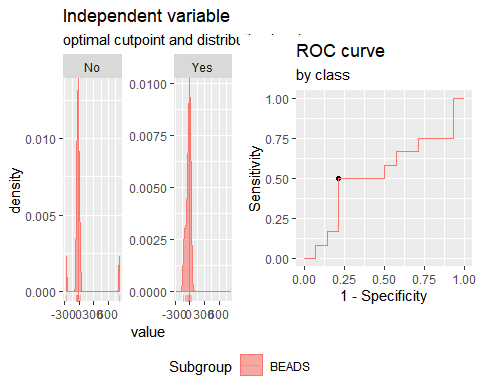
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5179 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -211.452 0.0714 0.5385 0.5 0.5714 6 6 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -759.162 -742.416 -475.848 -278.073 37.363 263.555 1282.665  
 No -759.162 -753.985 -455.148 -278.073 60.991 240.161 1652.318  
 Yes -579.902 -552.284 -488.502 -89.976 9.796 257.478 991.071  
 Max. SD NAs  
 overall 2465.435 765.967 0  
 No 2465.435 911.198 0  
 Yes 1305.391 592.148 0



**CCL11**

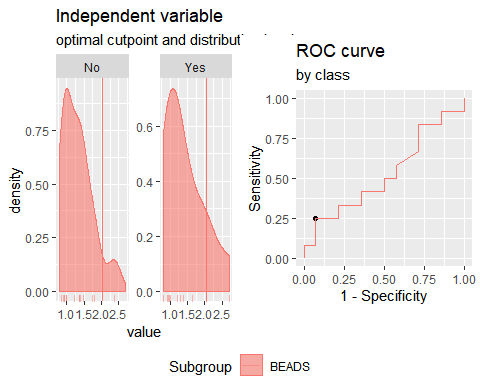
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5298 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -11.073 0.2857 0.6538 0.5 0.7857 6 6 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -271.455 -116.405 -48.707 -22.249 -5.012 -2.402 22.824 826.836  
 No -271.455 -133.163 -46.194 -25.237 17.022 -15.304 300.581 826.836  
 Yes -122.061 -109.619 -52.941 -17.105 -30.718 -1.052 18.908 24.694  
 SD NAs  
 overall 179.463 0  
 No 243.010 0  
 Yes 45.476 0



**Analysis TSTp vs TSTn. Responses for all groups and cytokines corrected for background by division (ratio).**

**IFNγ**

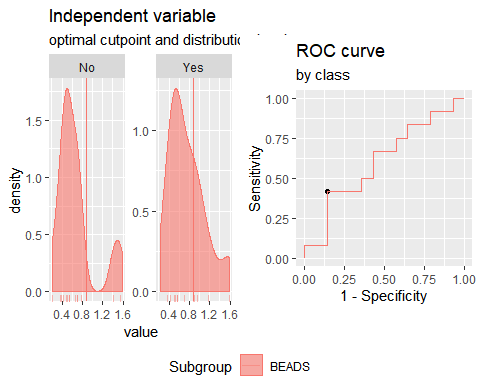
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5238 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 2.0332 0.1786 0.6154 0.25 0.9286 3 9 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.800 0.857 0.960 1.265 1.363 1.595 2.289 2.707 0.501 0  
 No 0.838 0.887 0.962 1.305 1.319 1.462 2.009 2.372 0.435 0  
 Yes 0.800 0.868 0.967 1.254 1.414 1.733 2.341 2.707 0.584 0



**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6071 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.876 0.2738 0.6538 0.4167 0.8571 5 7 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.222 0.366 0.493 0.567 0.710 0.852 1.522 1.583 0.365 0  
 No 0.222 0.321 0.451 0.545 0.667 0.702 1.467 1.557 0.379 0  
 Yes 0.363 0.401 0.514 0.634 0.761 0.911 1.362 1.583 0.356 0

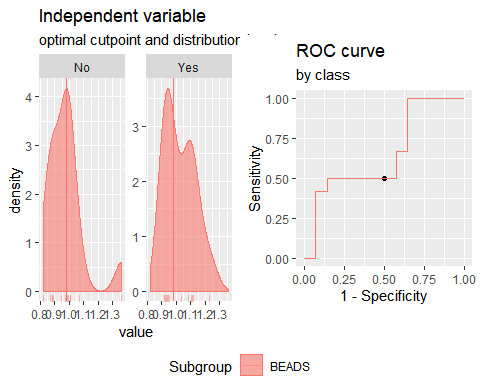
Multiple optimal cutpoints found, applying break\_ties.



**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6488 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9789 0 0.5 0.5 0.5 6 6 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.821 0.873 0.929 0.976 0.999 1.063 1.200 1.361 0.119 0  
 No 0.821 0.853 0.885 0.976 0.977 1.006 1.173 1.361 0.131 0  
 Yes 0.920 0.924 0.937 0.993 1.025 1.104 1.168 1.226 0.102 0

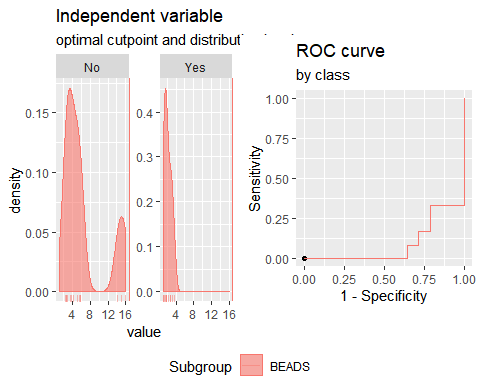
Multiple optimal cutpoints found, applying break\_ties.



**TNFα**

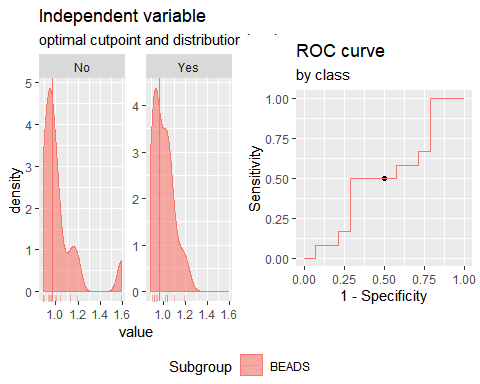
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.0893 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 Inf 0 0.5385 0 1 0 12 0 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 1.129 1.206 1.938 2.808 4.426 4.902 14.832 16.032 4.166 0  
 No 2.487 2.624 2.989 4.660 6.411 5.757 15.385 16.032 4.860 0  
 Yes 1.129 1.156 1.581 1.810 2.110 2.775 3.378 3.620 0.817 0

Multiple optimal cutpoints found, applying break\_ties.



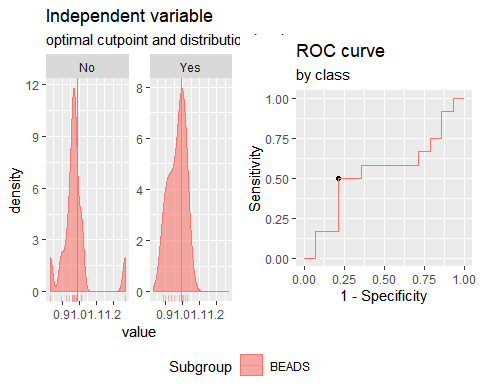
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5119 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9647 0 0.5 0.5 0.5 6 6 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.888 0.892 0.929 0.964 1.015 1.041 1.193 1.589 0.146 0  
 No 0.888 0.890 0.937 0.964 1.028 1.035 1.331 1.589 0.184 0  
 Yes 0.904 0.916 0.927 0.986 1.001 1.040 1.144 1.194 0.088 0



**CCL11**

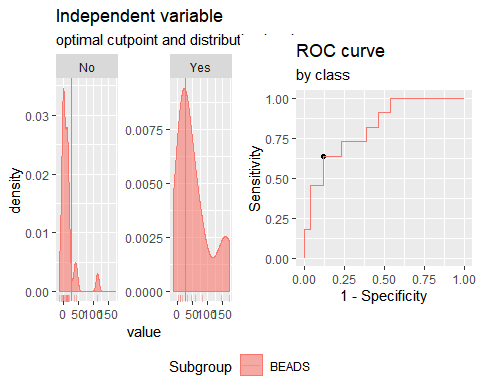
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5417 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9902 0.2857 0.6538 0.5 0.7857 6 6 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.829 0.887 0.937 0.971 0.972 0.996 1.026 1.270 0.077 0  
 No 0.829 0.872 0.946 0.969 0.977 0.983 1.104 1.270 0.097 0  
 Yes 0.885 0.893 0.931 0.984 0.966 0.998 1.022 1.029 0.048 0



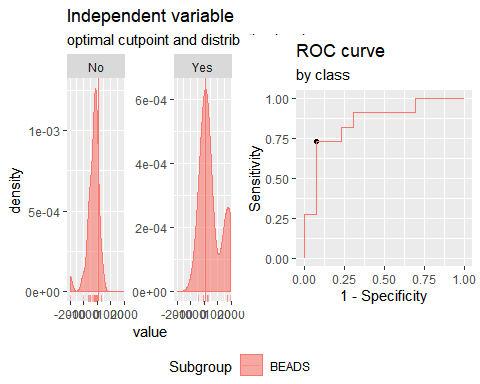
**Analysis PTB vs TSTp+TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8217 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 26.5005 0.521 0.8108 0.6364 0.8846 7 4 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -14.133 -3.271 0.000 11.017 24.856 26.501 120.153 173.913  
 No -14.133 -5.178 -0.760 6.697 11.866 13.696 41.932 113.385  
 Yes 4.560 7.312 12.919 32.351 55.558 72.591 160.570 173.913  
 SD NAs  
 overall 41.668 0  
 No 24.231 0  
 Yes 57.506 0

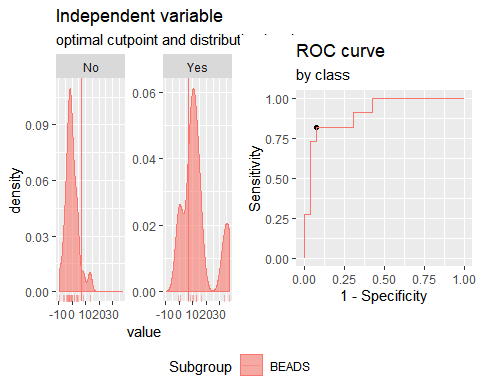


**"IP10**"  
 Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8531 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 93.1022 0.6503 0.8649 0.7273 0.9231 8 3 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -1997.979 -731.395 -337.466 -94.016 -43.376 93.102 1704.064  
 No -1997.979 -932.908 -500.549 -179.143 -290.191 -30.476 252.845  
 Yes -419.981 -233.366 34.696 225.597 540.003 1004.074 1819.003  
 Max. SD NAs  
 overall 1915.317 696.410 0  
 No 337.740 463.574 0  
 Yes 1915.317 822.164 0



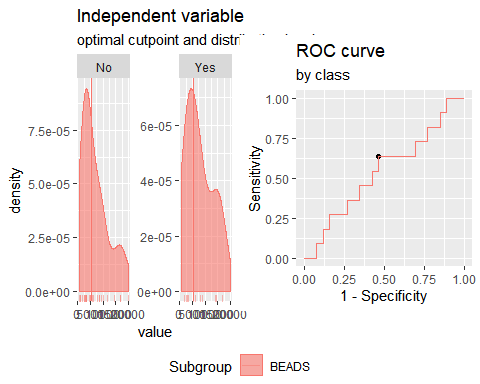
**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 7.0677 0.7413 0.8919 0.8182 0.9231 9 2 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -9.247 -5.864 -1.934 0.318 3.826 8.196 19.680 37.222 9.761  
 No -9.247 -6.029 -2.617 -0.796 -0.301 1.685 7.240 13.208 4.624  
 Yes -0.382 0.284 7.887 10.263 13.581 14.669 35.328 37.222 11.858  
 NAs  
 overall 0  
 No 0  
 Yes 0



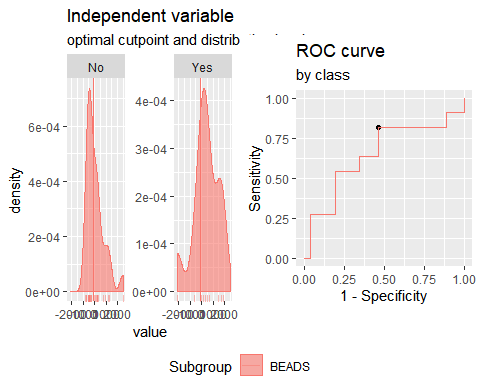
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.542 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 5539.663 0.1748 0.5676 0.6364 0.5385 7 4 12 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall 886.691 1191.464 3152.992 5539.663 7130.148 9237.983 16893.50  
 No 886.691 1088.087 3182.569 4938.565 6866.094 9092.311 16929.23  
 Yes 1841.040 2245.748 3293.073 6176.805 7754.273 11462.780 15764.48  
 Max. SD NAs  
 overall 19937.60 5269.953 0  
 No 19937.60 5340.763 0  
 Yes 16874.28 5297.311 0



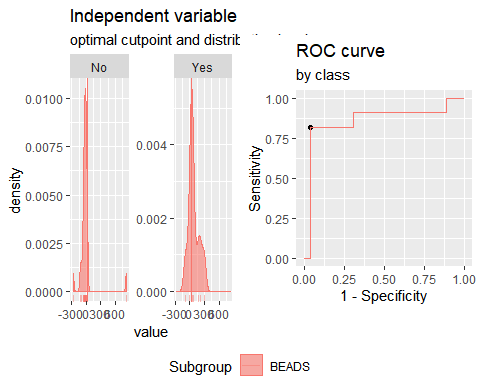
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6503 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -64.3795 0.3566 0.6216 0.8182 0.5385 9 2 12 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -2136.280 -752.790 -460.681 -16.564 129.268 508.456 1733.203  
 No -759.162 -742.416 -475.848 -278.073 37.363 263.555 1282.665  
 Yes -2136.280 -1371.224 -42.956 307.210 346.500 1051.463 1779.952  
 Max. SD NAs  
 overall 2465.435 885.981 0  
 No 2465.435 765.967 0  
 Yes 1857.869 1133.681 0



**CCL11**

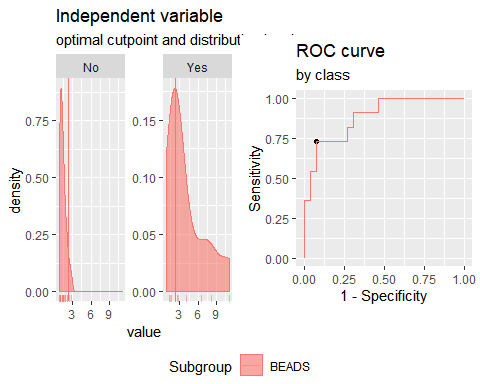
Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8601 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 29.8881 0.7797 0.9189 0.8182 0.9615 9 2 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -271.455 -103.963 -38.462 -11.073 20.059 29.888 237.779 826.836  
 No -271.455 -116.405 -48.707 -22.249 -5.012 -2.402 22.824 826.836  
 Yes -88.708 -49.787 33.890 38.954 79.319 126.180 260.232 297.653  
 SD NAs  
 overall 165.068 0  
 No 179.463 0  
 Yes 109.889 0



**Analysis PTB vs TSTp+TSTn. Responses for all groups and cytokines corrected for background by division (ratio).**

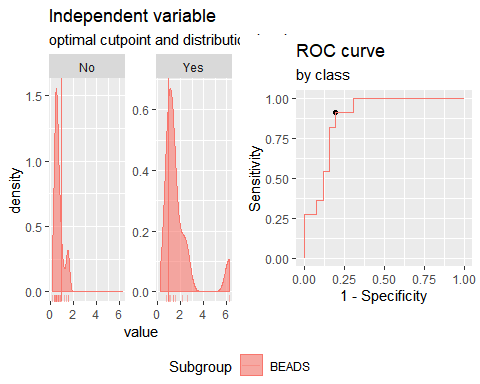
**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8846 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 2.2597 0.6503 0.8649 0.7273 0.9231 8 3 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.800 0.898 1.000 1.409 2.154 2.260 6.897 11.221 2.154 0  
 No 0.800 0.857 0.960 1.265 1.363 1.595 2.289 2.707 0.501 0  
 Yes 1.317 1.393 1.912 2.520 4.024 5.324 9.732 11.221 3.255 0



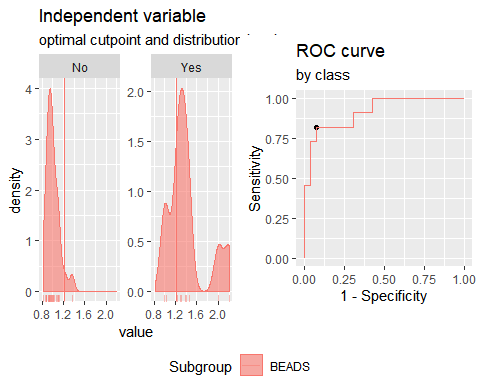
**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8846 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9212 0.7168 0.8378 0.9091 0.8077 10 1 5 21  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.222 0.372 0.519 0.770 1.043 1.180 2.234 6.228 1.017 0  
 No 0.222 0.366 0.493 0.567 0.710 0.852 1.522 1.583 0.365 0  
 Yes 0.770 0.846 1.024 1.357 1.829 1.848 4.408 6.228 1.558 0



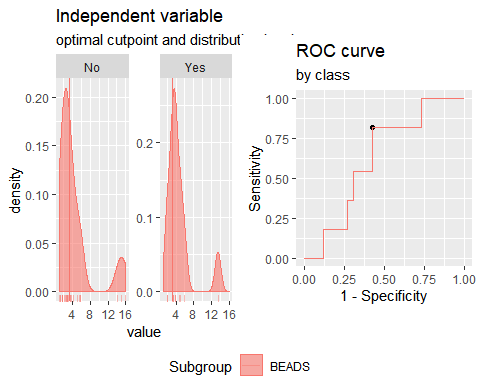
**IL2**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9161 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.2237 0.7413 0.8919 0.8182 0.9231 9 2 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.821 0.879 0.945 1.010 1.122 1.226 1.567 2.200 0.292 0  
 No 0.821 0.873 0.929 0.976 0.999 1.063 1.200 1.361 0.119 0  
 Yes 0.989 1.007 1.229 1.308 1.412 1.428 2.102 2.200 0.373 0



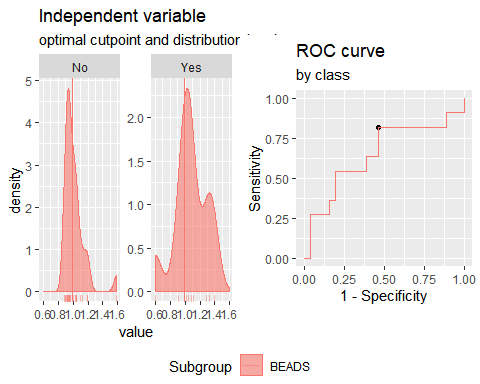
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6259 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 3.2806 0.3951 0.6486 0.8182 0.5769 9 2 11 15  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 1.129 1.267 2.294 3.341 4.498 5.092 14.380 16.032 3.850 0  
 No 1.129 1.206 1.938 2.808 4.426 4.902 14.832 16.032 4.166 0  
 Yes 2.039 2.090 3.311 3.849 4.669 4.950 9.728 13.470 3.148 0



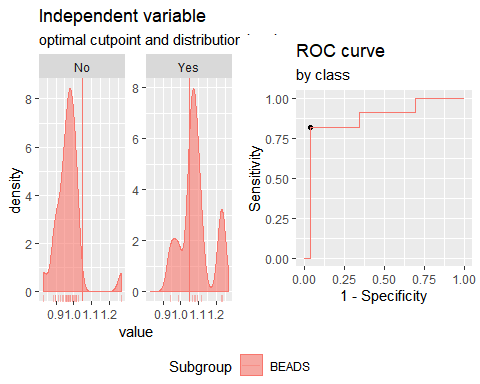
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6503 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9884 0.3566 0.6216 0.8182 0.5385 9 2 12 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.598 0.890 0.934 0.998 1.032 1.081 1.344 1.589 0.170 0  
 No 0.888 0.892 0.929 0.964 1.015 1.041 1.193 1.589 0.146 0  
 Yes 0.598 0.751 0.993 1.047 1.070 1.204 1.363 1.395 0.221 0



**CCL11**

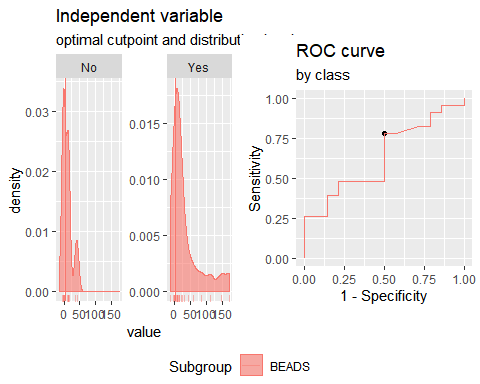
Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8741 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.051 0.7797 0.9189 0.8182 0.9615 9 2 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.829 0.893 0.951 0.986 1.005 1.051 1.231 1.270 0.095 0  
 No 0.829 0.887 0.937 0.971 0.972 0.996 1.026 1.270 0.077 0  
 Yes 0.944 0.965 1.051 1.077 1.084 1.105 1.232 1.233 0.087 0



**Analysis PTB+TSTp vs TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

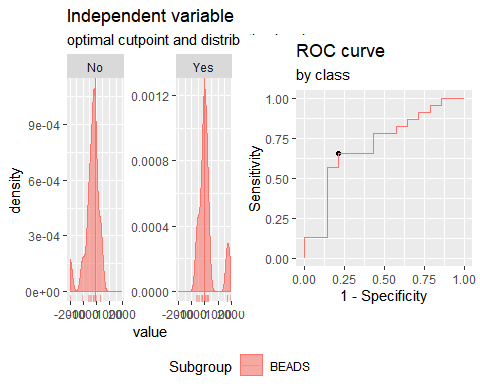
**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6335 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 4.5601 0.2826 0.6757 0.7826 0.5 18 5 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -14.133 -3.271 0.000 11.017 24.856 26.501 120.153 173.913  
 No -6.045 -3.791 -0.333 7.366 10.103 13.696 39.306 43.573  
 Yes -14.133 -1.628 4.675 11.017 33.835 38.929 143.842 173.913  
 SD NAs  
 overall 41.668 0  
 No 14.787 0  
 Yes 49.891 0



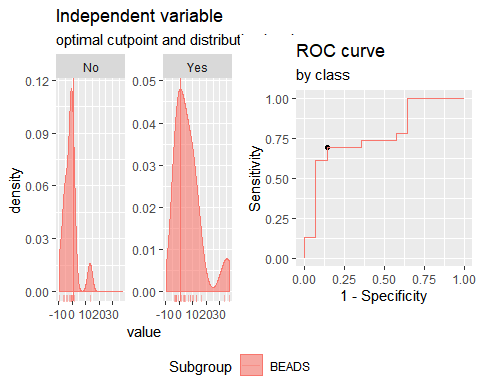
**IP10**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7081 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -46.7508 0.4379 0.7027 0.6522 0.7857 15 8 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -1997.979 -731.395 -337.466 -94.016 -43.376 93.102 1704.064  
 No -1997.979 -1365.221 -511.676 -205.549 -360.622 -94.031 327.698  
 Yes -658.117 -566.201 -179.143 -12.899 149.730 220.056 1720.361  
 Max. SD NAs  
 overall 1915.317 696.410 0  
 No 337.740 591.528 0  
 Yes 1915.317 695.573 0

**IL2**

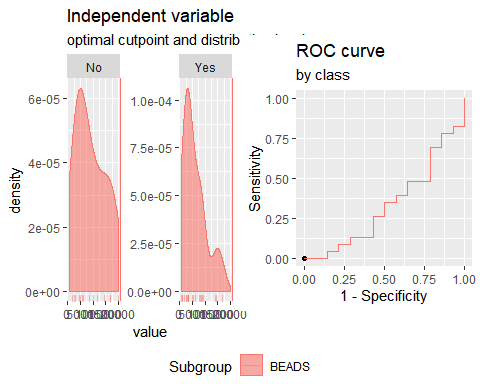
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7733 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9491 0.5528 0.7568 0.6957 0.8571 16 7 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -9.247 -5.864 -1.934 0.318 3.826 8.196 19.680 37.222 9.761  
 No -9.247 -7.204 -4.298 -0.796 -1.282 0.198 5.775 13.208 5.195  
 Yes -3.408 -2.650 -1.064 3.802 6.936 10.075 31.715 37.222 10.642  
 NAs  
 overall 0  
 No 0  
 Yes 0

Multiple optimal cutpoints found, applying break\_ties.



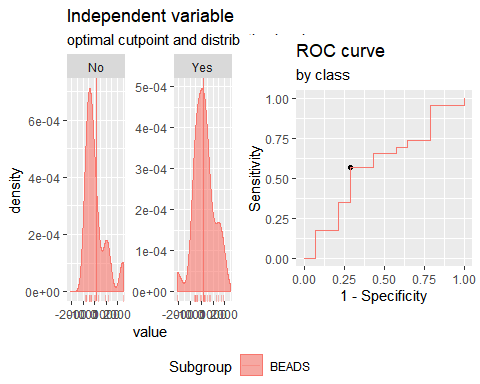
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.3323 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 Inf 0 0.3784 0 1 0 23 0 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall 886.691 1191.464 3152.992 5539.663 7130.148 9237.983 16893.50  
 No 1920.867 2410.888 4674.842 7476.587 9153.103 13794.490 18008.90  
 Yes 886.691 1059.894 2907.839 3580.945 5898.783 8351.840 14599.73  
 Max. SD NAs  
 overall 19937.60 5269.953 0  
 No 19937.60 5956.919 0  
 Yes 16874.28 4504.221 0



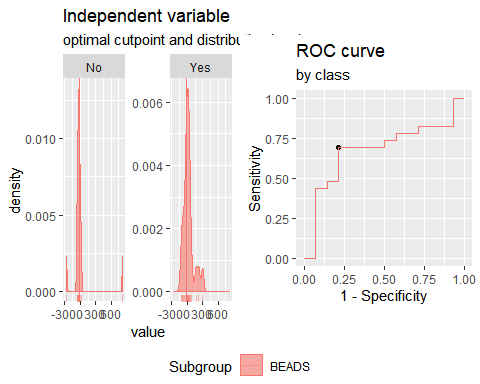
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5839 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 156.998 0.2795 0.6216 0.5652 0.7143 13 10 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95%  
 overall -2136.280 -752.790 -460.681 -16.564 129.268 508.456 1733.203  
 No -759.162 -753.985 -455.148 -278.073 60.991 240.161 1652.318  
 Yes -2136.280 -603.541 -446.171 161.359 170.828 586.773 1675.616  
 Max. SD NAs  
 overall 2465.435 885.981 0  
 No 2465.435 911.198 0  
 Yes 1857.869 888.308 0



**CCL11**

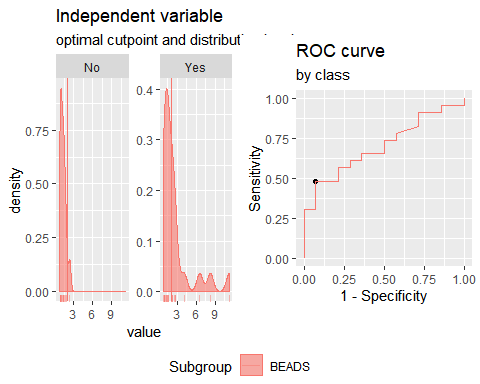
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.677 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -11.073 0.4814 0.7297 0.6957 0.7857 16 7 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max.  
 overall -271.455 -103.963 -38.462 -11.073 20.059 29.888 237.779 826.836  
 No -271.455 -133.163 -46.194 -25.237 17.022 -15.304 300.581 826.836  
 Yes -122.061 -98.366 -27.808 1.348 21.908 38.790 217.419 297.653  
 SD NAs  
 overall 165.068 0  
 No 243.010 0  
 Yes 98.395 0



**Analysis PTB+TSTp vs TSTn. Responses for all groups and cytokines corrected for background by division (ratio).**

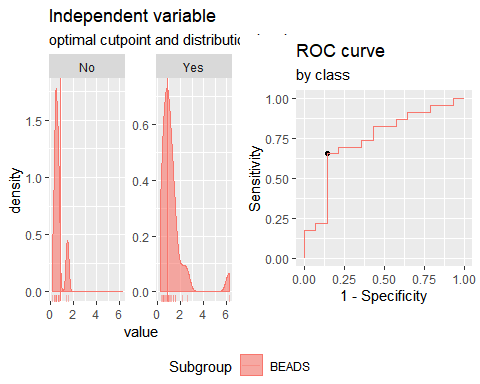
**IFNγ**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7019 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 2.0332 0.4068 0.6486 0.4783 0.9286 11 12 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.800 0.898 1.000 1.409 2.154 2.260 6.897 11.221 2.154 0  
 No 0.838 0.887 0.962 1.305 1.319 1.462 2.009 2.372 0.435 0  
 Yes 0.800 0.926 1.254 1.633 2.662 2.612 8.074 11.221 2.601 0



**IP10**

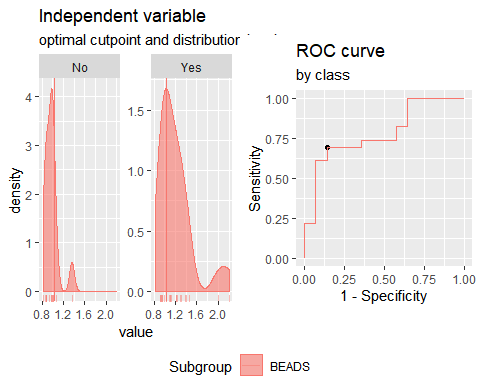
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7453 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.876 0.5093 0.7297 0.6522 0.8571 15 8 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.222 0.372 0.519 0.770 1.043 1.180 2.234 6.228 1.017 0  
 No 0.222 0.321 0.451 0.545 0.667 0.702 1.467 1.557 0.379 0  
 Yes 0.363 0.438 0.634 0.960 1.272 1.373 2.544 6.228 1.210 0



**IL2**

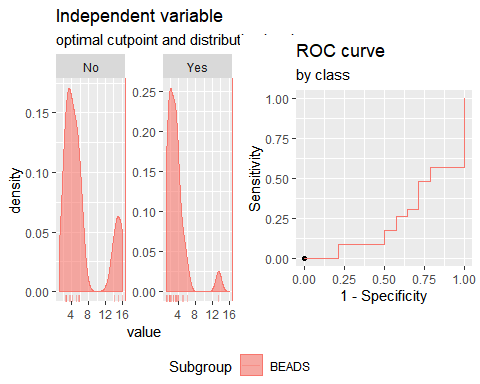
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7826 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.0245 0.5528 0.7568 0.6957 0.8571 16 7 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.821 0.879 0.945 1.010 1.122 1.226 1.567 2.200 0.292 0  
 No 0.821 0.853 0.885 0.976 0.977 1.006 1.173 1.361 0.131 0  
 Yes 0.920 0.928 0.969 1.113 1.210 1.303 1.949 2.200 0.328 0

Multiple optimal cutpoints found, applying break\_ties.



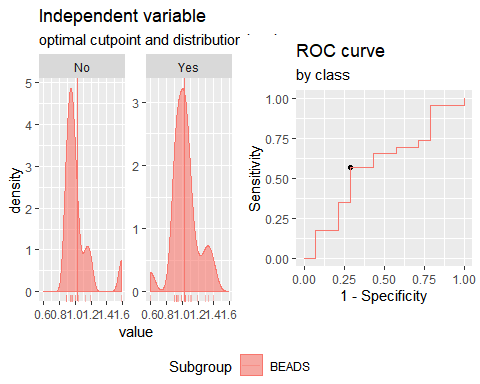
**TNFα**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.2329 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 Inf 0 0.3784 0 1 0 23 0 14  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 1.129 1.267 2.294 3.341 4.498 5.092 14.380 16.032 3.850 0  
 No 2.487 2.624 2.989 4.660 6.411 5.757 15.385 16.032 4.860 0  
 Yes 1.129 1.189 1.810 2.794 3.334 3.734 5.897 13.470 2.559 0



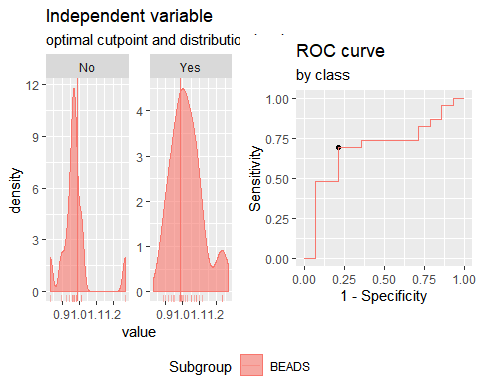
**CCL3**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5807 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.0247 0.2795 0.6216 0.5652 0.7143 13 10 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.598 0.890 0.934 0.998 1.032 1.081 1.344 1.589 0.170 0  
 No 0.888 0.890 0.937 0.964 1.028 1.035 1.331 1.589 0.184 0  
 Yes 0.598 0.904 0.933 1.025 1.034 1.091 1.327 1.395 0.166 0



**CCL11**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoTsTp   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6925 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9863 0.4814 0.7297 0.6957 0.7857 16 7 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.829 0.893 0.951 0.986 1.005 1.051 1.231 1.270 0.095 0  
 No 0.829 0.872 0.946 0.969 0.977 0.983 1.104 1.270 0.097 0  
 Yes 0.885 0.901 0.965 1.003 1.023 1.071 1.219 1.233 0.091 0

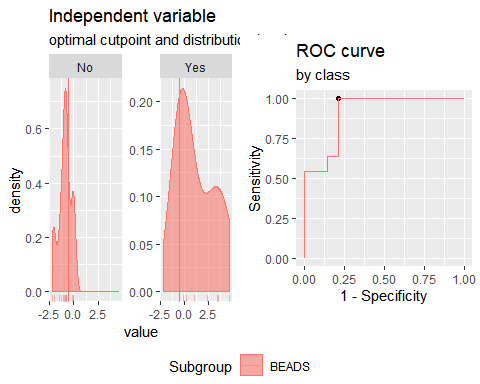


# B. Details of the ROC analysis performed for each cytokine combination evaluated

**Analysis PTB vs TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

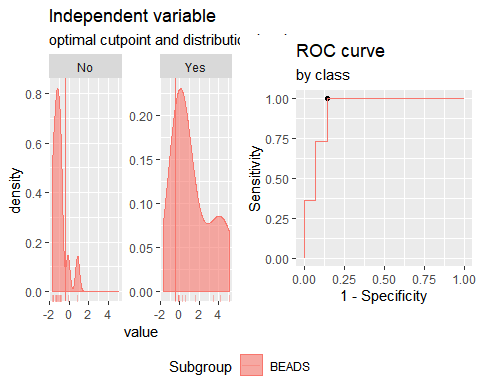
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5451 0.7857 0.88 1 0.7857 11 0 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.168 -1.910 -0.903 -0.503 0.000 0.004 3.475 4.620 1.717 0  
 No -2.168 -2.067 -1.209 -0.864 -0.925 -0.620 -0.013 0.004 0.661 0  
 Yes -0.545 -0.524 -0.497 0.181 1.177 2.907 4.054 4.620 1.945 0



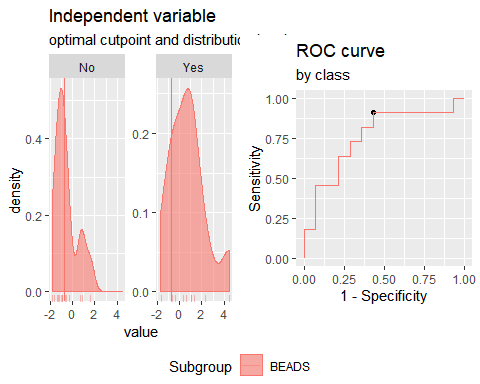
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9351 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4449 0.8571 0.92 1 0.8571 11 0 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.696 -1.669 -1.243 -0.445 0.000 0.243 4.023 5.074 1.816 0  
 No -1.696 -1.681 -1.381 -1.193 -1.018 -0.881 0.211 0.851 0.681 0  
 Yes -0.445 -0.313 -0.141 0.243 1.296 2.566 4.616 5.074 2.003 0



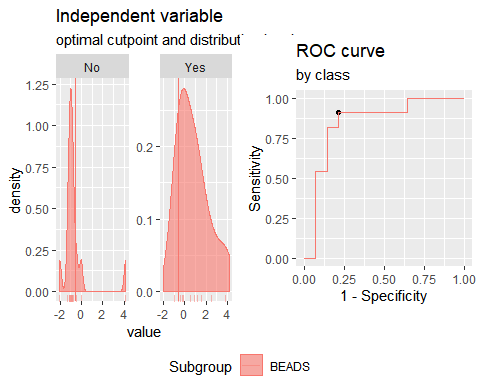
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7597 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.7404 0.4805 0.72 0.9091 0.5714 10 1 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.738 -1.628 -0.941 -0.504 0.000 0.876 2.202 4.442 1.457 0  
 No -1.738 -1.647 -1.240 -0.870 -0.570 -0.325 1.130 1.603 0.988 0  
 Yes -1.635 -1.188 -0.498 0.663 0.725 1.213 3.397 4.442 1.671 0



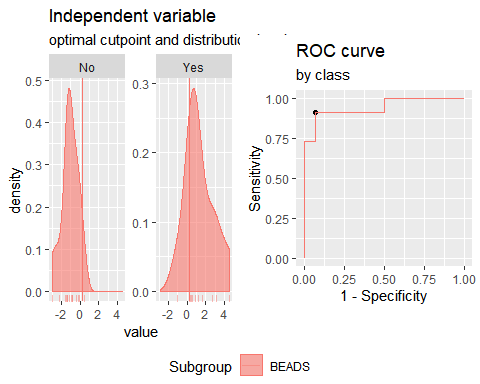
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8442 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5955 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.020 -1.253 -1.013 -0.595 0.000 0.542 3.572 4.166 1.572 0  
 No -2.020 -1.540 -1.116 -0.929 -0.585 -0.732 1.445 4.166 1.437 0  
 Yes -1.022 -0.809 -0.305 0.542 0.744 1.384 3.180 3.833 1.467 0



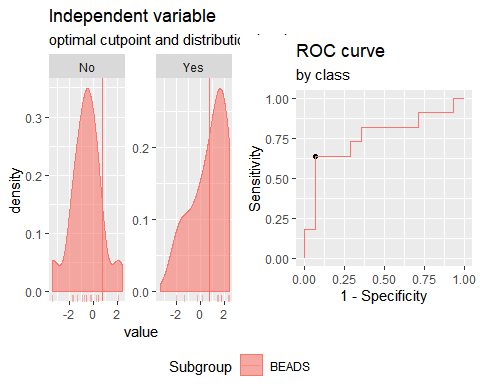
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9416 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2305 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.901 -2.124 -1.189 -0.151 0.000 0.588 3.052 4.491 1.706 0  
 No -2.901 -2.482 -1.423 -1.071 -1.055 -0.481 0.088 0.410 0.876 0  
 Yes -1.048 -0.409 0.426 0.933 1.342 2.194 3.813 4.491 1.566 0



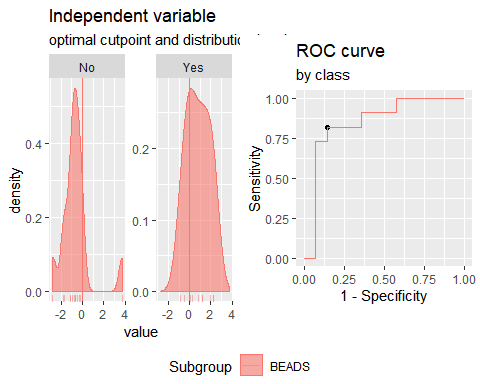
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7597 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7384 0.5649 0.8 0.6364 0.9286 7 4 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.410 -1.938 -0.921 -0.212 0.000 1.411 2.317 2.401 1.512 0  
 No -3.410 -2.333 -1.271 -0.603 -0.606 0.107 1.023 2.114 1.290 0  
 Yes -1.984 -1.664 -0.044 1.411 0.771 1.752 2.384 2.401 1.468 0



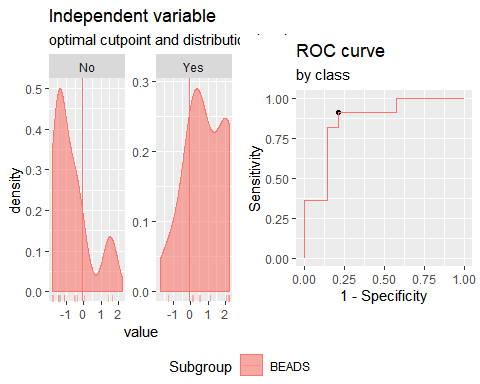
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8506 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0235 0.6753 0.84 0.8182 0.8571 9 2 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.786 -1.776 -0.836 -0.276 0.000 0.869 2.247 3.725 1.465 0  
 No -2.786 -2.142 -1.117 -0.711 -0.621 -0.322 1.311 3.725 1.454 0  
 Yes -0.836 -0.651 0.009 0.869 0.791 1.595 2.247 2.247 1.082 0



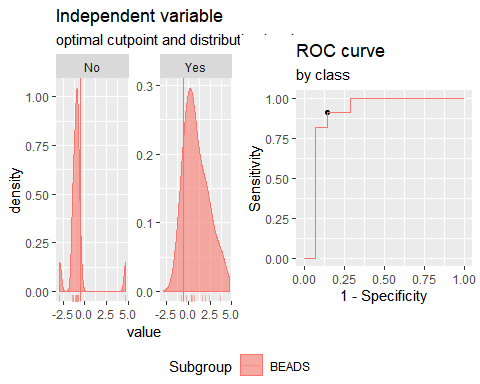
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8636 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0572 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.787 -1.675 -1.285 -0.057 0.000 1.148 2.208 2.222 1.364 0  
 No -1.787 -1.752 -1.441 -1.097 -0.699 -0.417 1.498 1.643 1.086 0  
 Yes -1.285 -0.671 0.114 0.559 0.890 2.135 2.216 2.222 1.175 0



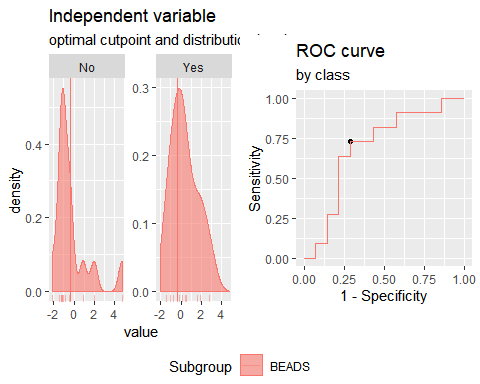
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9026 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5241 0.7662 0.88 0.9091 0.8571 10 1 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.893 -1.374 -0.932 -0.752 0.000 0.406 3.455 4.710 1.718 0  
 No -2.893 -1.913 -1.278 -0.930 -0.714 -0.791 1.321 4.710 1.660 0  
 Yes -0.778 -0.651 0.087 0.406 0.909 1.794 3.058 3.719 1.369 0



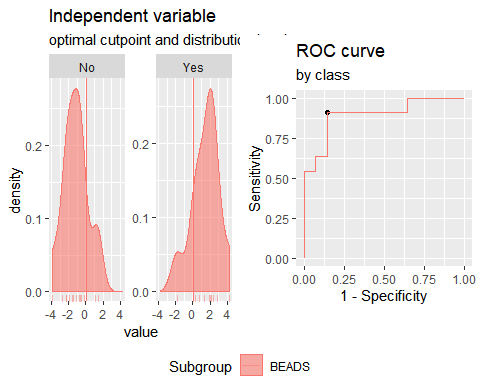
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6948 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3248 0.4416 0.72 0.7273 0.7143 8 3 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.080 -1.411 -1.102 -0.401 0.000 0.521 2.641 4.735 1.577 0  
 No -2.080 -1.646 -1.205 -0.941 -0.266 -0.332 2.937 4.735 1.761 0  
 Yes -1.401 -1.237 -0.516 0.087 0.338 1.080 2.348 2.810 1.308 0



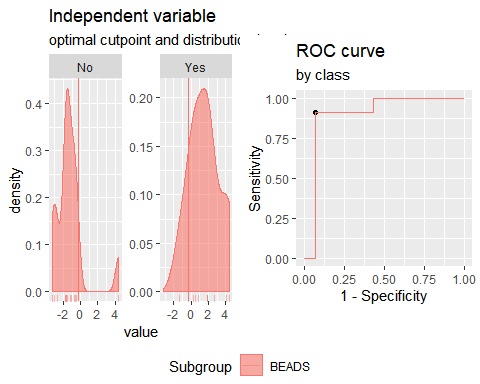
**"Combination IP10 + IL2+CCL3**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0229 0.7662 0.88 0.9091 0.8571 10 1 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.844 -2.628 -1.599 -0.220 0.000 1.486 2.760 4.240 2.015 0  
 No -3.844 -3.115 -2.157 -1.235 -1.180 -0.573 1.256 1.486 1.436 0  
 Yes -1.838 -0.907 0.585 1.990 1.502 2.292 3.540 4.240 1.622 0



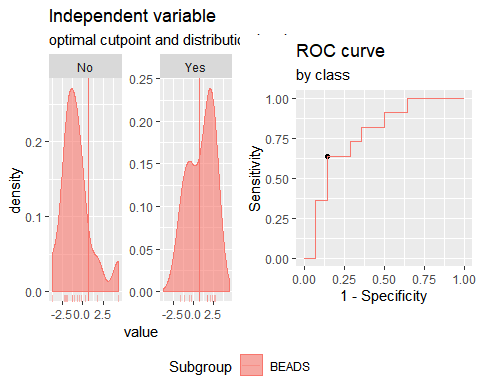
**"Combination IP10 + IL2+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3071 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.220 -2.989 -1.614 -0.582 0.000 1.832 4.343 4.423 2.238 0  
 No -3.220 -3.121 -1.771 -1.549 -1.195 -0.778 1.273 4.423 1.834 0  
 Yes -1.331 -0.819 0.363 1.832 1.521 2.286 4.233 4.416 1.762 0



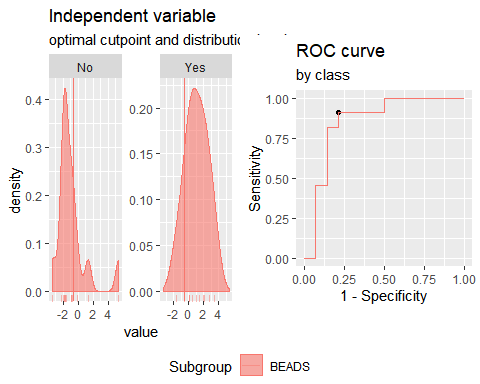
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7727 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7086 0.4935 0.76 0.6364 0.8571 7 4 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.729 -2.238 -1.332 -0.479 0.000 1.708 2.681 4.448 1.979 0  
 No -3.729 -2.771 -1.980 -1.147 -0.747 -0.213 2.734 4.448 1.997 0  
 Yes -1.627 -1.348 -0.361 1.694 0.950 2.242 2.639 2.710 1.564 0



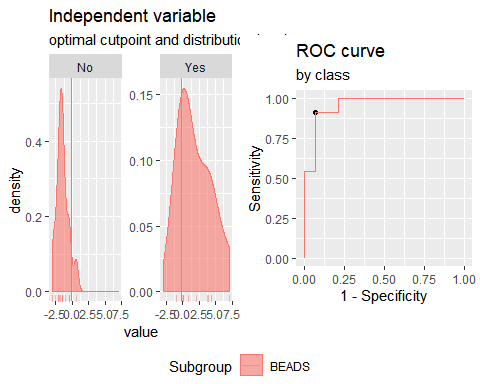
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8506 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5493 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.353 -2.206 -1.619 -0.549 0.000 1.340 3.368 5.433 2.074 0  
 No -3.353 -2.646 -1.829 -1.548 -0.840 -0.733 2.772 5.433 2.110 0  
 Yes -1.569 -1.059 0.143 1.118 1.069 2.096 3.173 3.497 1.513 0



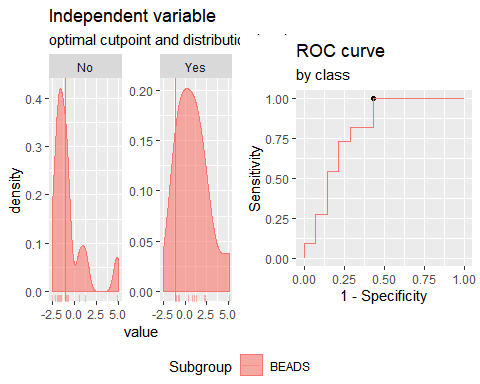
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9545 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1935 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.983 -2.503 -1.571 -0.513 0.000 0.564 4.296 7.092 2.481 0  
 No -2.983 -2.735 -2.009 -1.567 -1.499 -1.157 -0.099 0.564 0.915 0  
 Yes -0.998 -0.596 -0.028 0.853 1.908 3.871 5.740 7.092 2.556 0



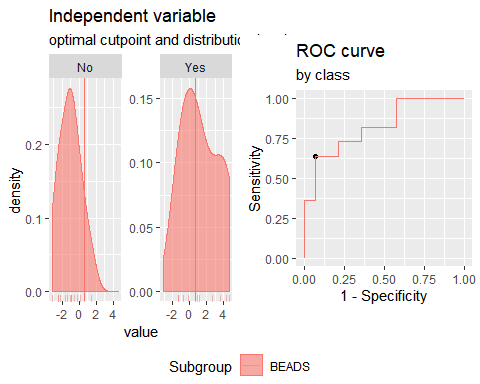
**"Combination IFNγ+CCL3+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8052 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.0475 0.5714 0.76 1 0.5714 11 0 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.480 -2.155 -1.465 -0.720 0.000 1.071 4.384 5.080 2.020 0  
 No -2.480 -2.308 -1.756 -1.272 -0.710 -0.728 2.556 4.889 1.913 0  
 Yes -1.048 -1.036 -0.652 0.863 0.904 1.785 3.722 5.080 1.852 0



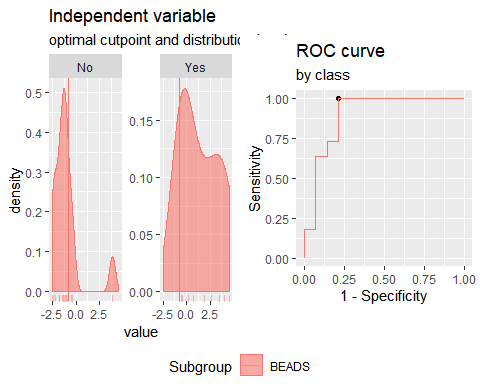
**"Combination IFNγ+CCL3+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8247 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.6584 0.5649 0.8 0.6364 0.9286 7 4 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.111 -2.463 -1.304 -0.575 0.000 0.966 4.218 4.672 2.087 0  
 No -3.111 -2.700 -2.040 -0.997 -1.050 -0.261 0.888 1.446 1.276 0  
 Yes -1.304 -1.299 -0.426 0.966 1.337 3.159 4.521 4.672 2.197 0



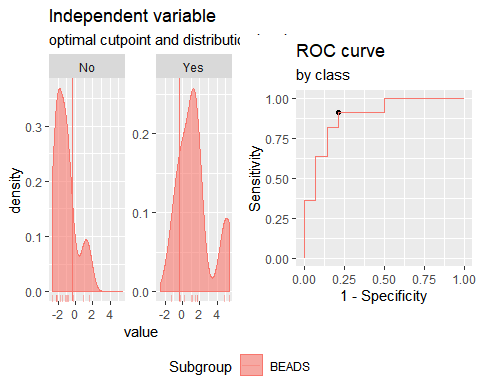
**"Combination IFNγ+CCL11+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8053 0.7857 0.88 1 0.7857 11 0 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.487 -2.380 -1.344 -0.786 0.000 0.754 4.026 4.546 2.136 0  
 No -2.487 -2.448 -1.795 -1.320 -1.066 -0.977 1.124 3.879 1.562 0  
 Yes -0.805 -0.796 -0.487 0.754 1.356 3.022 4.304 4.546 2.040 0



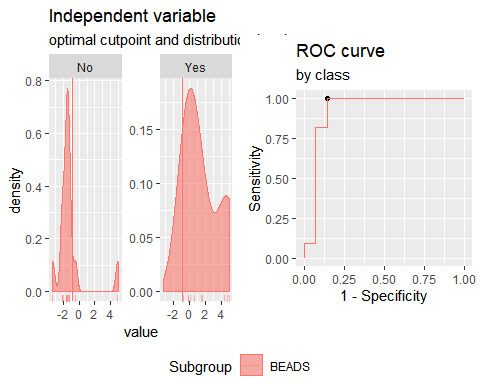
**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8896 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.329 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.590 -2.159 -1.458 -0.329 0.000 1.169 4.212 5.405 2.069 0  
 No -2.590 -2.313 -2.112 -1.322 -1.143 -0.811 1.184 1.573 1.216 0  
 Yes -1.235 -0.782 0.040 1.169 1.455 1.760 5.114 5.405 2.047 0



**"Combination IFNγ+CCL11+IL2"**

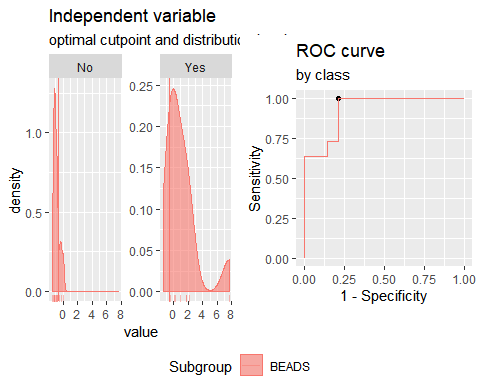
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9221 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8636 0.8571 0.92 1 0.8571 11 0 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.293 -2.129 -1.521 -0.864 0.000 0.561 4.850 4.999 2.391 0  
 No -3.293 -2.539 -1.852 -1.482 -1.159 -1.215 1.408 4.864 1.849 0  
 Yes -0.864 -0.796 -0.131 0.561 1.475 3.006 4.898 4.999 2.238 0



**Analysis PTB vs TSTn. Responses for all groups and cytokines corrected for background by division (ratio).**

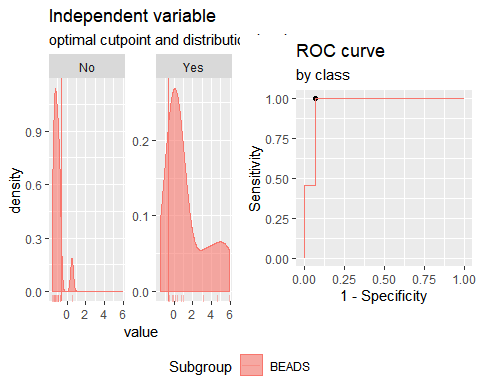
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9286 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5878 0.7857 0.88 1 0.7857 11 0 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.415 -1.255 -1.117 -0.587 0.000 0.180 2.133 7.659 1.887 0  
 No -1.415 -1.321 -1.167 -1.017 -0.897 -0.814 -0.146 0.041 0.418 0  
 Yes -0.588 -0.587 -0.496 0.237 1.142 1.777 4.937 7.659 2.400 0



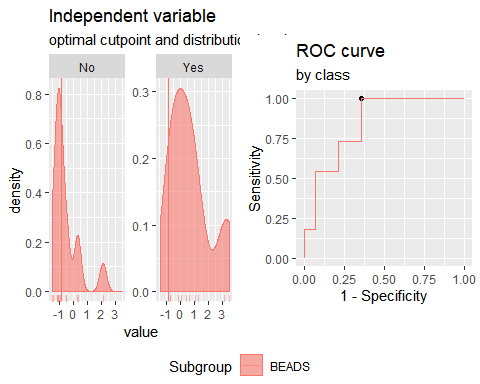
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6242 0.9286 0.96 1 0.9286 11 0 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.537 -1.454 -1.198 -0.743 0.000 0.300 4.331 5.899 1.901 0  
 No -1.537 -1.487 -1.313 -1.152 -1.033 -0.929 -0.303 0.514 0.510 0  
 Yes -0.624 -0.561 -0.153 0.300 1.315 2.077 5.266 5.899 2.223 0



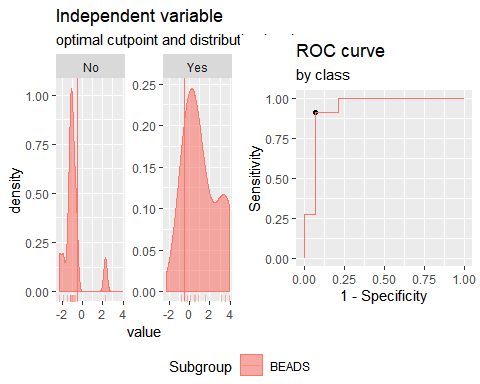
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8377 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8174 0.6429 0.8 1 0.6429 11 0 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.446 -1.327 -0.948 -0.472 0.000 0.429 2.951 3.504 1.345 0  
 No -1.446 -1.403 -1.093 -0.912 -0.566 -0.463 0.987 2.144 0.952 0  
 Yes -0.817 -0.740 -0.383 0.429 0.720 1.177 3.328 3.504 1.465 0



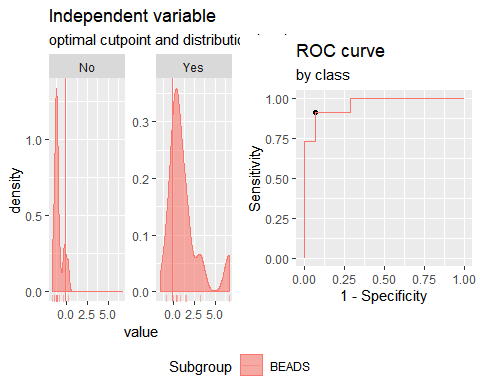
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9351 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4576 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.249 -1.797 -1.089 -0.669 0.000 0.591 3.458 3.940 1.683 0  
 No -2.249 -2.013 -1.216 -1.050 -0.917 -0.802 0.454 2.266 1.024 0  
 Yes -0.755 -0.606 -0.048 0.591 1.167 2.361 3.741 3.940 1.661 0



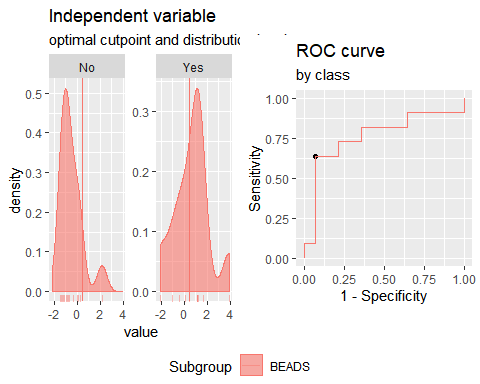
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1102 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.642 -1.416 -1.201 -0.351 0.000 0.338 2.862 6.668 1.806 0  
 No -1.642 -1.497 -1.258 -1.177 -0.989 -0.876 -0.038 0.171 0.523 0  
 Yes -0.866 -0.488 0.160 0.460 1.259 1.526 4.925 6.668 2.089 0



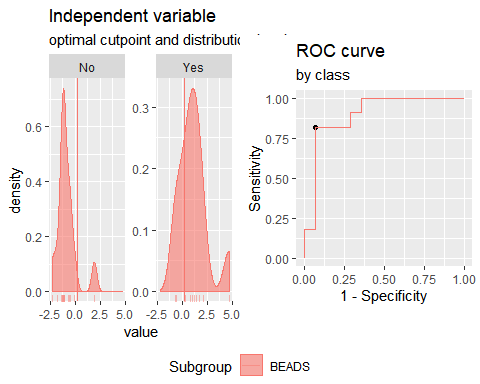
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7597 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.4851 0.5649 0.8 0.6364 0.9286 7 4 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.114 -1.418 -1.059 -0.300 0.000 1.159 2.071 3.921 1.379 0  
 No -1.419 -1.417 -1.168 -0.803 -0.522 -0.058 0.955 2.168 0.961 0  
 Yes -2.114 -1.587 -0.180 1.159 0.664 1.204 2.801 3.921 1.581 0



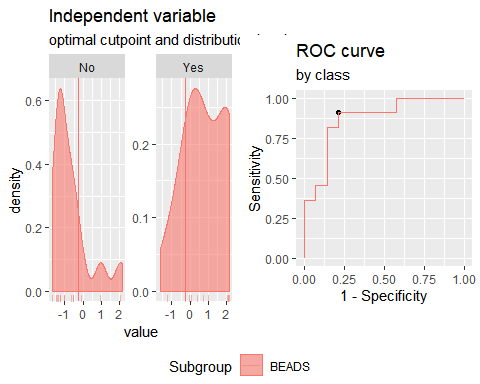
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8961 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1726 0.7468 0.88 0.8182 0.9286 9 2 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.242 -1.671 -1.179 -0.569 0.000 0.977 2.057 4.710 1.561 0  
 No -2.242 -1.924 -1.262 -1.122 -0.873 -0.590 0.623 1.924 0.966 0  
 Yes -0.699 -0.641 0.265 0.977 1.111 1.594 3.400 4.710 1.488 0



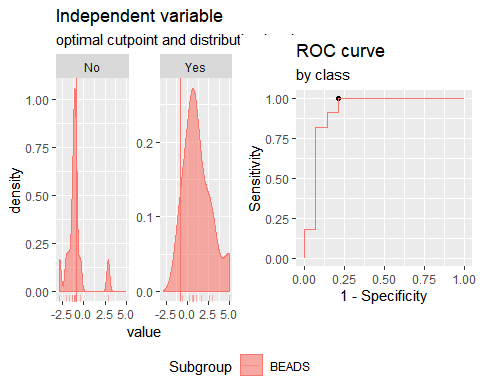
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8701 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2491 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.661 -1.439 -1.244 -0.249 0.000 0.986 2.138 2.161 1.319 0  
 No -1.661 -1.525 -1.324 -1.037 -0.657 -0.532 1.371 2.085 1.045 0  
 Yes -1.244 -0.747 -0.001 0.768 0.836 2.100 2.153 2.161 1.174 0



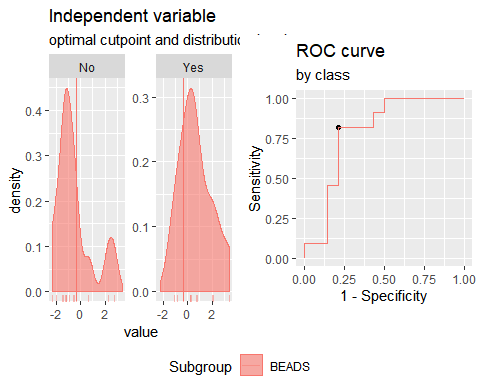
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9221 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8844 0.7857 0.88 1 0.7857 11 0 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.861 -2.032 -1.125 -0.862 0.000 0.727 2.937 4.972 1.852 0  
 No -2.861 -2.367 -1.369 -1.113 -1.008 -0.935 0.745 2.888 1.272 0  
 Yes -0.884 -0.740 0.440 0.727 1.283 2.178 3.961 4.972 1.700 0



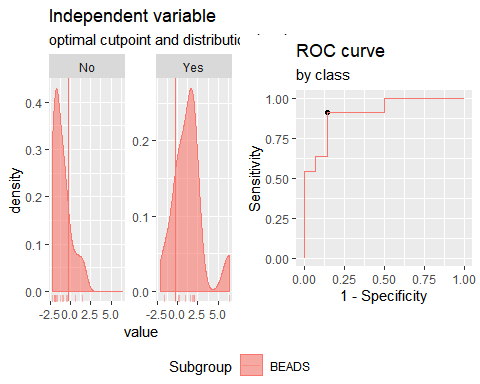
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7857 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3235 0.6039 0.8 0.8182 0.7857 9 2 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.275 -1.908 -1.129 -0.372 0.000 0.745 2.641 3.409 1.526 0  
 No -2.275 -2.103 -1.395 -1.036 -0.541 -0.410 2.420 2.739 1.475 0  
 Yes -1.078 -0.973 -0.060 0.282 0.688 1.428 2.751 3.409 1.353 0



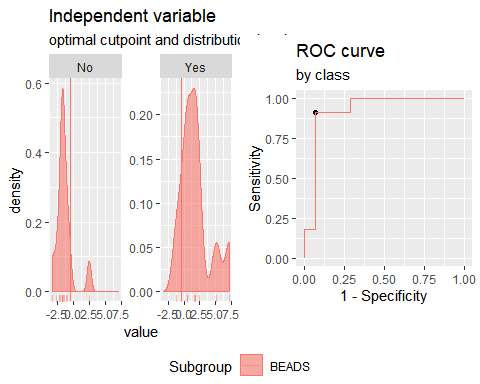
**"Combination IP10 + IL2+CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2314 0.7662 0.88 0.9091 0.8571 10 1 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.189 -2.033 -1.587 -0.349 0.000 1.512 2.058 6.375 1.976 0  
 No -2.189 -2.094 -1.877 -1.401 -1.084 -0.614 0.913 1.512 1.085 0  
 Yes -1.584 -0.908 0.146 1.591 1.379 1.968 4.219 6.375 2.025 0



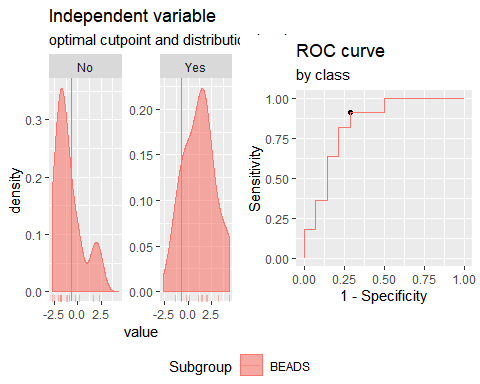
**"Combination IP10 + IL2+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9221 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4207 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.261 -2.540 -1.709 -0.936 0.000 1.658 4.596 7.164 2.476 0  
 No -3.261 -2.850 -1.995 -1.699 -1.435 -1.178 0.517 2.492 1.320 0  
 Yes -1.225 -0.823 0.553 1.658 1.826 2.145 6.143 7.164 2.428 0



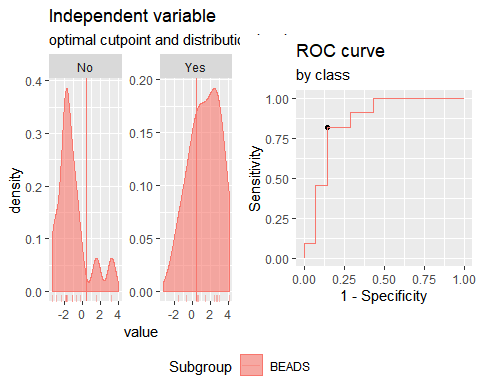
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8377 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6929 0.6234 0.8 0.9091 0.7143 10 1 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.675 -2.442 -1.693 -0.275 0.000 1.552 3.024 4.417 1.916 0  
 No -2.675 -2.586 -1.825 -1.443 -0.968 -0.432 1.909 2.342 1.494 0  
 Yes -1.418 -1.055 -0.034 1.432 1.231 1.988 3.806 4.417 1.711 0



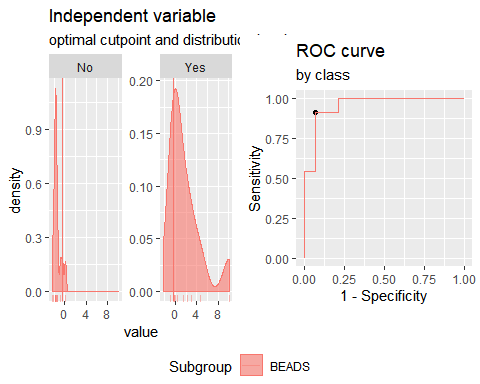
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8571 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.4163 0.6753 0.84 0.8182 0.8571 9 2 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.294 -2.773 -1.736 -0.654 0.000 1.593 3.234 4.083 2.121 0  
 No -3.294 -3.029 -1.882 -1.687 -1.103 -0.754 2.192 3.307 1.744 0  
 Yes -1.603 -1.154 0.446 1.402 1.404 2.682 3.514 4.083 1.723 0



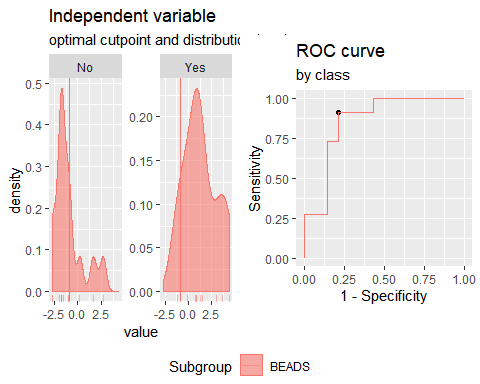
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9545 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3922 0.8377 0.92 0.9091 0.9286 10 1 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.258 -2.022 -1.670 -0.798 0.000 0.117 4.440 10.113 2.727  
 No -2.258 -2.133 -1.826 -1.664 -1.460 -1.398 -0.236 0.117 0.656  
 Yes -0.964 -0.678 -0.178 0.343 1.858 2.640 7.448 10.113 3.243  
 NAs  
 overall 0  
 No 0  
 Yes 0



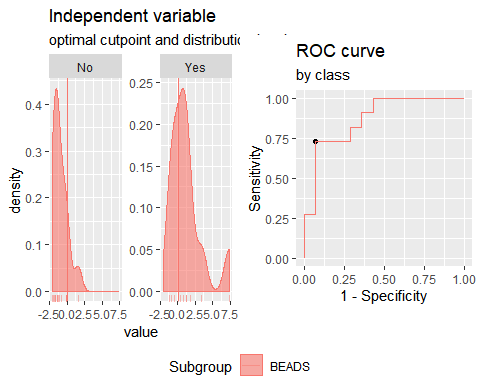
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8571 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8641 0.6948 0.84 0.9091 0.7857 10 1 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.682 -2.538 -1.717 -0.864 0.000 1.278 3.525 4.360 1.992 0  
 No -2.682 -2.675 -1.764 -1.638 -1.012 -0.892 2.013 2.684 1.549 0  
 Yes -1.176 -1.020 0.317 0.879 1.287 2.290 4.004 4.360 1.775 0



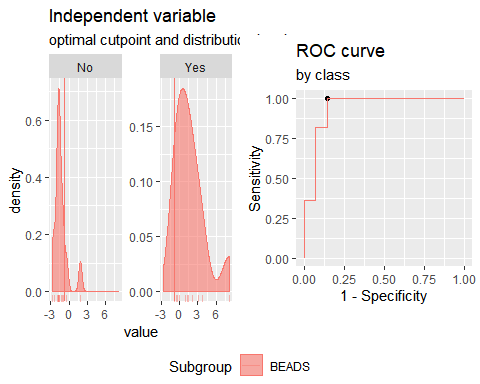
**"Combination IFNγ+CCL3+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8701 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0705 0.6558 0.84 0.7273 0.9286 8 3 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.034 -1.942 -1.401 -0.513 0.000 0.849 3.124 7.366 2.067 0  
 No -2.034 -1.995 -1.708 -1.321 -0.992 -0.304 0.529 1.572 1.005 0  
 Yes -1.157 -0.997 -0.221 0.849 1.263 1.521 5.410 7.366 2.410 0



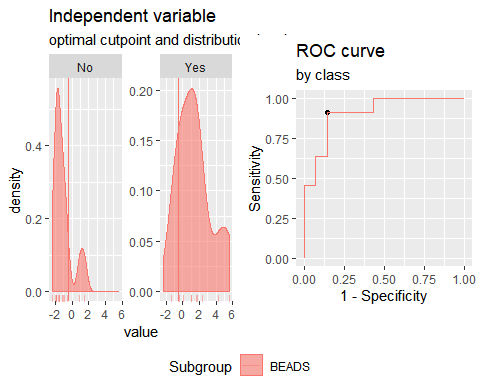
**"Combination IFNγ+CCL11+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9416 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.7978 0.8571 0.92 1 0.8571 11 0 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.649 -2.323 -1.662 -0.798 0.000 1.277 3.568 8.155 2.415 0  
 No -2.649 -2.496 -1.774 -1.644 -1.343 -1.084 0.425 1.870 1.092 0  
 Yes -0.798 -0.689 -0.177 1.277 1.710 2.563 5.923 8.155 2.590 0



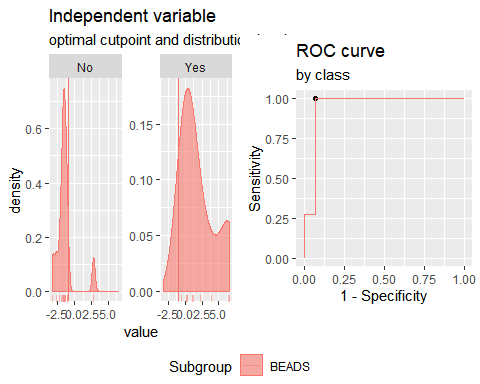
**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4671 0.7662 0.88 0.9091 0.8571 10 1 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.322 -1.947 -1.567 -0.541 0.000 1.086 3.959 5.606 2.040 0  
 No -2.322 -2.087 -1.861 -1.533 -1.128 -0.952 1.127 1.488 1.104 0  
 Yes -1.343 -0.905 -0.133 1.086 1.435 2.053 4.981 5.606 2.087 0



**"Combination IFNγ+CCL11+IL2"**

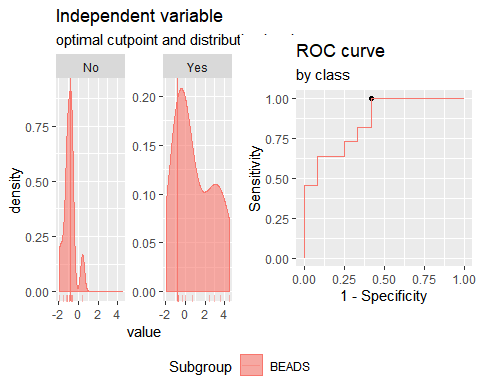
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9481 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.9831 0.9286 0.96 1 0.9286 11 0 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.268 -2.662 -1.722 -1.039 0.000 1.127 5.910 6.574 2.622 0  
 No -3.268 -2.939 -1.944 -1.656 -1.479 -1.369 0.316 2.834 1.384 0  
 Yes -0.983 -0.788 0.167 1.127 1.882 3.124 6.484 6.574 2.655 0



**Analysis PTB vs TSTp. Responses for all groups and cytokines corrected for background by subtraction.**

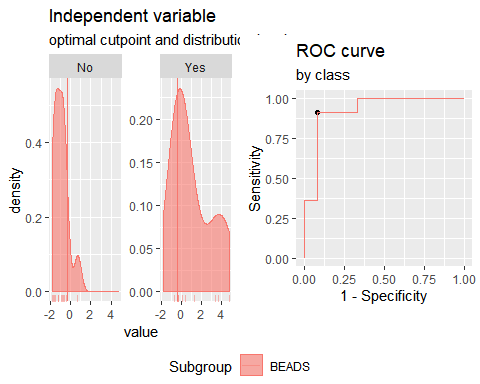
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8561 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8488 0.5833 0.7826 1 0.5833 11 0 5 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.918 -1.506 -0.912 -0.683 0.000 0.216 3.489 4.501 1.708 0  
 No -1.918 -1.712 -1.151 -0.912 -0.913 -0.669 -0.147 0.433 0.575 0  
 Yes -0.849 -0.804 -0.687 -0.001 0.996 2.706 4.027 4.501 1.990 0



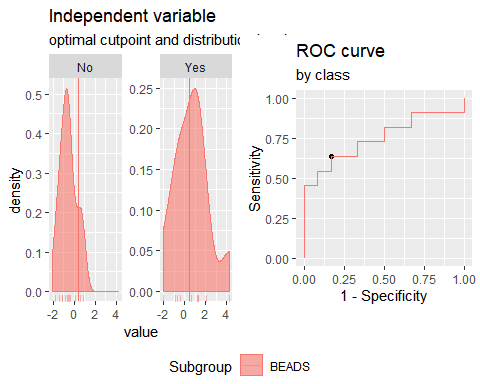
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9242 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3687 0.8258 0.913 0.9091 0.9167 10 1 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.777 -1.672 -1.045 -0.387 0.000 0.258 3.652 4.763 1.749 0  
 No -1.777 -1.726 -1.526 -1.045 -0.972 -0.679 0.108 0.713 0.699 0  
 Yes -0.717 -0.543 -0.319 0.102 1.060 2.356 4.222 4.763 1.955 0



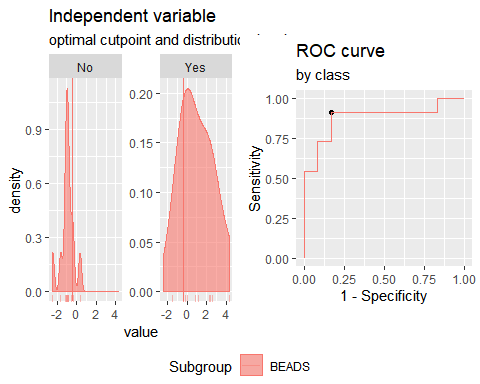
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.75 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.4094 0.4697 0.7391 0.6364 0.8333 7 4 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.058 -1.770 -0.872 -0.392 0.000 0.720 1.938 4.234 1.409 0  
 No -1.807 -1.608 -1.128 -0.643 -0.580 -0.245 0.692 0.827 0.788 0  
 Yes -2.058 -1.481 -0.533 0.614 0.633 1.280 3.121 4.234 1.685 0



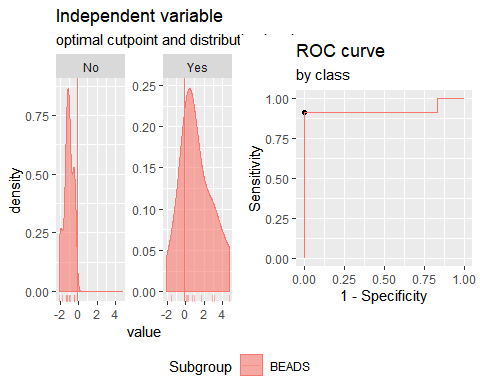
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8788 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4136 0.7424 0.8696 0.9091 0.8333 10 1 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.425 -1.597 -0.990 -0.414 0.000 0.610 2.558 4.301 1.600 0  
 No -2.425 -1.975 -1.092 -0.940 -0.934 -0.713 -0.028 0.361 0.676 0  
 Yes -1.505 -0.959 -0.248 0.860 1.019 2.340 3.441 4.301 1.715 0



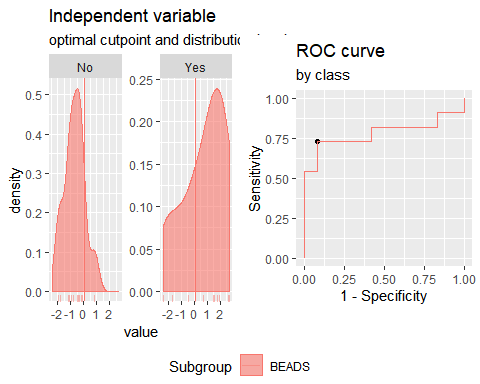
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9242 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.083 0.9091 0.9565 0.9091 1 10 1 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.043 -1.745 -1.189 -0.465 0.000 0.502 3.052 4.718 1.699  
 No -2.043 -1.894 -1.302 -1.068 -1.087 -0.808 -0.456 -0.446 0.499  
 Yes -1.507 -0.795 0.151 0.707 1.186 2.275 3.896 4.718 1.765  
 NAs  
 overall 0  
 No 0  
 Yes 0



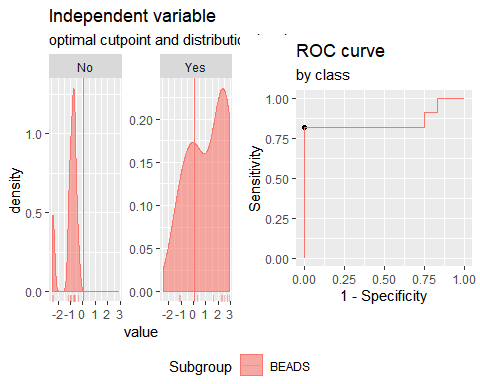
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7803 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0825 0.6439 0.8261 0.7273 0.9167 8 3 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.369 -1.916 -1.012 -0.317 0.000 1.136 2.574 2.692 1.467 0  
 No -1.929 -1.859 -1.088 -0.664 -0.696 -0.271 0.342 0.830 0.769 0  
 Yes -2.369 -2.031 -0.192 1.441 0.759 1.890 2.667 2.692 1.693 0



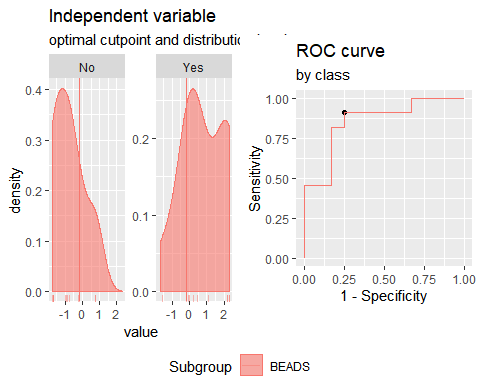
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8561 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0757 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.419 -2.270 -0.997 -0.689 0.000 0.959 2.683 2.887 1.590  
 No -2.419 -2.406 -1.039 -0.811 -1.049 -0.706 -0.470 -0.360 0.667  
 Yes -1.152 -1.092 0.084 1.603 1.145 2.414 2.794 2.887 1.521  
 NAs  
 overall 0  
 No 0  
 Yes 0



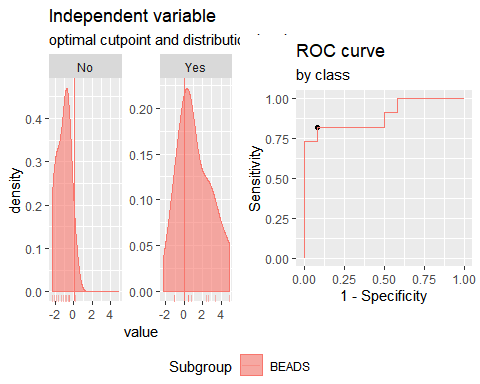
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8561 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1824 0.6591 0.8261 0.9091 0.75 10 1 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.706 -1.688 -0.944 -0.151 0.000 0.756 2.293 2.303 1.345 0  
 No -1.706 -1.698 -1.652 -0.883 -0.754 -0.188 0.755 0.759 0.890 0  
 Yes -1.562 -0.872 -0.024 0.466 0.822 2.201 2.302 2.303 1.298 0



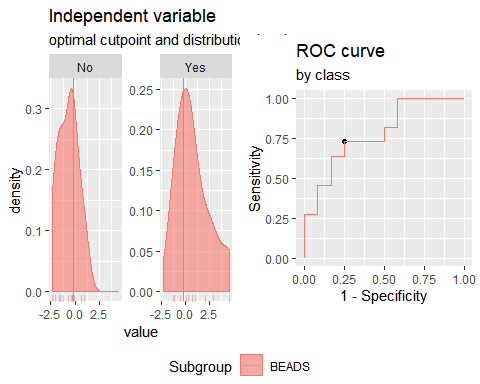
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8939 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0632 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.279 -2.090 -1.093 -0.503 0.000 0.483 3.300 4.888 1.807 0  
 No -2.279 -2.189 -1.681 -0.971 -1.107 -0.558 -0.167 0.147 0.746 0  
 Yes -1.112 -1.066 0.257 0.491 1.208 2.470 4.134 4.888 1.870 0



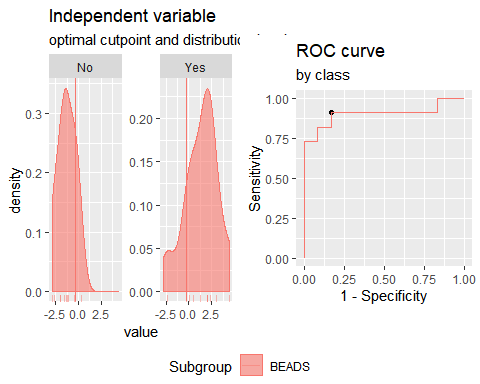
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7803 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1837 0.4773 0.7391 0.7273 0.75 8 3 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.308 -1.964 -1.171 -0.246 0.000 0.694 2.835 4.526 1.594 0  
 No -2.308 -2.139 -1.536 -0.500 -0.716 -0.213 0.820 1.013 1.032 0  
 Yes -1.208 -1.171 -0.370 0.316 0.781 1.539 3.723 4.526 1.770 0



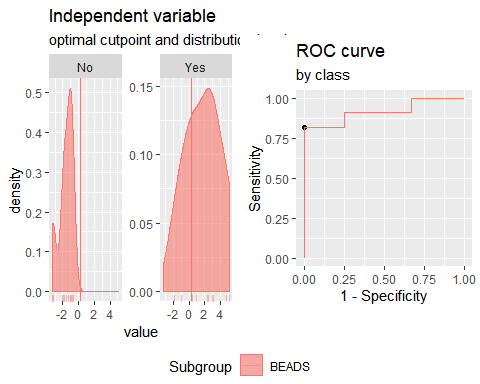
**"Combination IP10 + IL2+CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2996 0.7424 0.8696 0.9091 0.8333 10 1 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.811 -2.593 -1.438 -0.300 0.000 1.642 2.945 4.453 1.962 0  
 No -2.811 -2.704 -1.945 -1.266 -1.268 -0.369 -0.016 0.312 0.969 0  
 Yes -2.381 -1.340 0.286 2.020 1.383 2.252 3.729 4.453 1.844 0



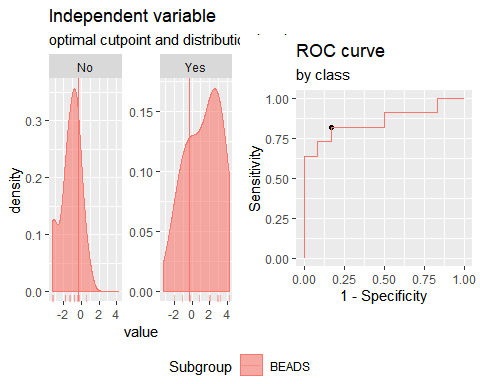
**"Combination IP10 + IL2+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9167 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2421 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -3.276 -3.122 -1.662 -0.891 0.000 1.601 4.629 5.116 2.384  
 No -3.276 -3.254 -1.941 -1.401 -1.622 -0.992 -0.735 -0.655 0.887  
 Yes -1.840 -1.429 0.306 2.325 1.769 3.056 4.958 5.116 2.245  
 NAs  
 overall 0  
 No 0  
 Yes 0



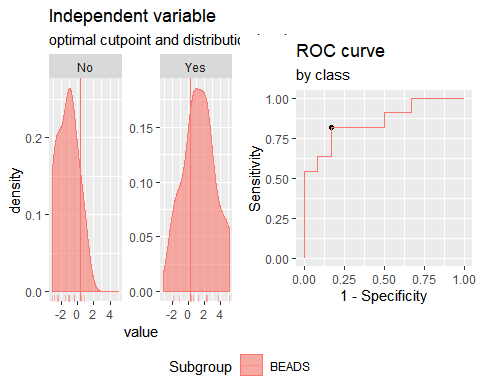
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8561 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3268 0.6515 0.8261 0.8182 0.8333 9 2 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.264 -3.049 -1.314 -0.375 0.000 1.432 3.243 4.244 2.055 0  
 No -3.264 -3.208 -1.795 -1.018 -1.230 -0.446 0.108 0.566 1.148 0  
 Yes -2.027 -1.534 -0.234 1.991 1.342 2.942 3.755 4.244 2.010 0



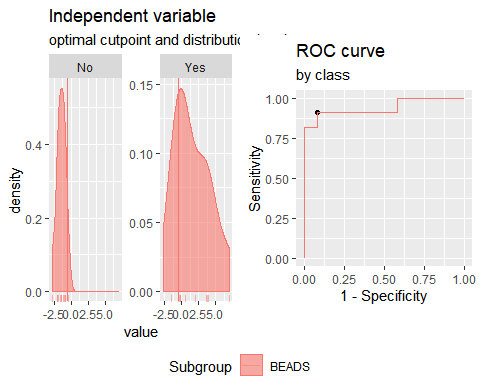
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8561 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2749 0.6515 0.8261 0.8182 0.8333 9 2 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.124 -2.855 -1.370 -0.409 0.000 1.034 3.650 5.105 2.149 0  
 No -3.124 -2.991 -2.456 -1.154 -1.289 -0.467 0.624 0.781 1.277 0  
 Yes -1.895 -1.509 0.359 1.288 1.406 2.328 4.450 5.105 2.049 0



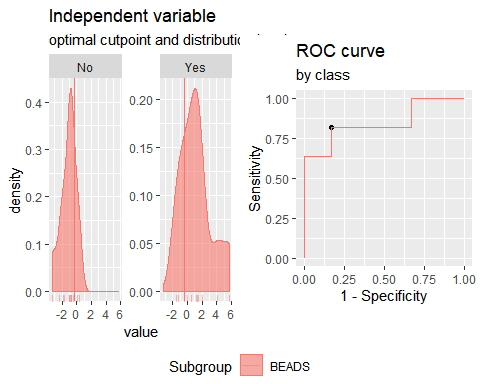
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9394 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5404 0.8258 0.913 0.9091 0.9167 10 1 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.733 -2.008 -1.531 -0.924 0.000 0.190 3.858 6.991 2.421  
 No -2.733 -2.336 -1.936 -1.475 -1.486 -1.006 -0.710 -0.449 0.624  
 Yes -1.536 -1.038 -0.333 0.560 1.621 3.702 5.428 6.991 2.633  
 NAs  
 overall 0  
 No 0  
 Yes 0



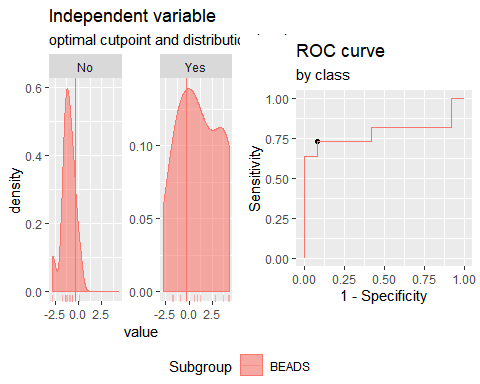
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8485 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3488 0.6515 0.8261 0.8182 0.8333 9 2 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.270 -2.293 -1.144 -0.407 0.000 0.910 3.854 5.728 2.021 0  
 No -3.270 -2.759 -1.721 -0.927 -1.115 -0.624 0.229 0.318 1.027 0  
 Yes -1.516 -1.377 -0.182 1.240 1.217 1.787 4.889 5.728 2.170 0



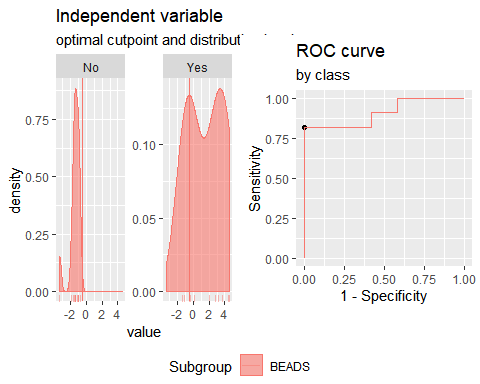
**"Combination IFNγ+CCL3+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7879 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2986 0.6439 0.8261 0.7273 0.9167 8 3 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.763 -1.819 -1.346 -0.639 0.000 0.760 4.183 4.343 2.013 0  
 No -2.763 -2.167 -1.421 -1.105 -1.095 -0.628 -0.124 0.135 0.737 0  
 Yes -1.829 -1.776 -0.611 0.965 1.194 3.291 4.289 4.343 2.305 0



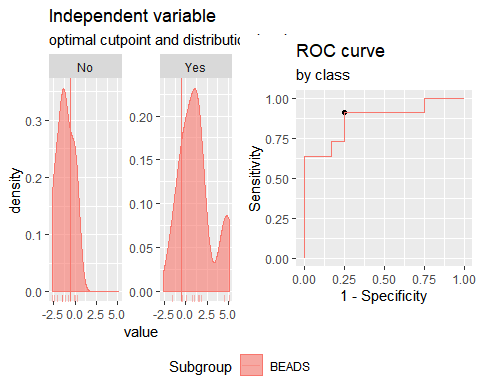
**"Combination IFNγ+CCL11+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.495 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -3.381 -1.816 -1.409 -0.958 0.000 1.106 4.341 4.582 2.237  
 No -3.381 -2.534 -1.532 -1.372 -1.448 -1.003 -0.878 -0.800 0.681  
 Yes -1.412 -1.297 -0.438 2.043 1.580 3.418 4.496 4.582 2.289  
 NAs  
 overall 0  
 No 0  
 Yes 0



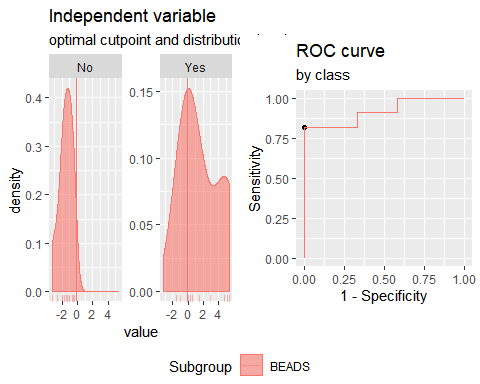
**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8712 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5076 0.6591 0.8261 0.9091 0.75 10 1 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.622 -2.38 -1.449 -0.379 0.000 0.879 4.231 5.108 1.963 0  
 No -2.622 -2.51 -1.657 -1.312 -1.153 -0.472 0.146 0.247 0.951 0  
 Yes -1.592 -1.05 -0.164 0.971 1.258 1.708 4.803 5.108 2.037 0



**"Combination IFNγ+CCL11+IL2**"

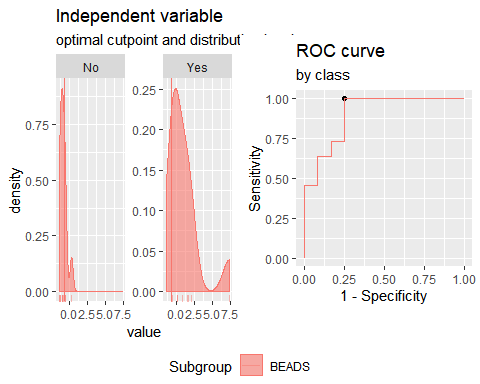
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9167 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1361 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -3.240 -2.524 -1.485 -0.693 0.000 0.441 5.143 5.427 2.426  
 No -3.240 -2.877 -1.985 -1.406 -1.506 -0.950 -0.448 -0.359 0.857  
 Yes -1.493 -1.272 -0.051 0.584 1.643 3.874 5.301 5.427 2.538  
 NAs  
 overall 0  
 No 0  
 Yes 0



**Analysis PTB vs TSTp. Responses for all groups and cytokines corrected for background by division (ratio).**

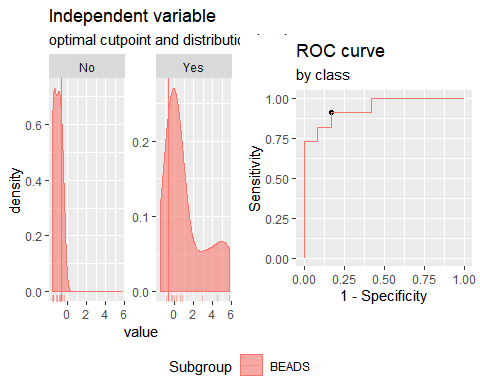
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.7118 0.75 0.8696 1 0.75 11 0 3 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.411 -1.379 -1.007 -0.676 0.000 0.187 1.979 7.387 1.886 0  
 No -1.411 -1.399 -1.242 -1.007 -0.902 -0.710 -0.188 0.274 0.468 0  
 Yes -0.712 -0.711 -0.623 0.100 0.984 1.603 4.702 7.387 2.355 0



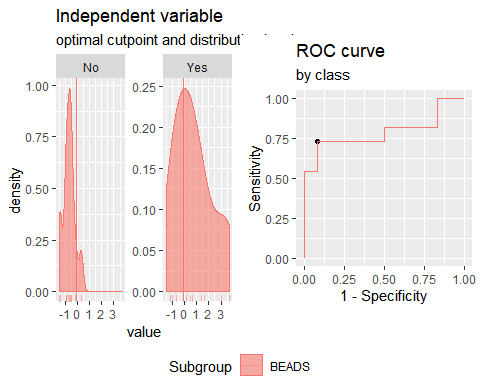
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9394 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6971 0.7424 0.8696 0.9091 0.8333 10 1 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -1.552 -1.508 -1.070 -0.697 0.000 0.069 4.356 5.710 1.893  
 No -1.552 -1.529 -1.479 -1.070 -1.044 -0.752 -0.446 -0.369 0.410  
 Yes -0.827 -0.762 -0.316 0.150 1.139 1.875 5.114 5.710 2.227  
 NAs  
 overall 0  
 No 0  
 Yes 0



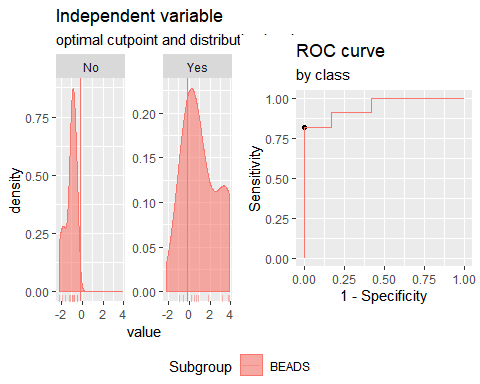
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7879 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1111 0.6439 0.8261 0.7273 0.9167 8 3 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.453 -1.347 -0.892 -0.497 0.000 0.414 2.880 3.700 1.330 0  
 No -1.453 -1.408 -0.903 -0.651 -0.681 -0.486 0.061 0.316 0.486 0  
 Yes -1.135 -1.037 -0.397 0.511 0.742 1.517 3.357 3.700 1.571 0



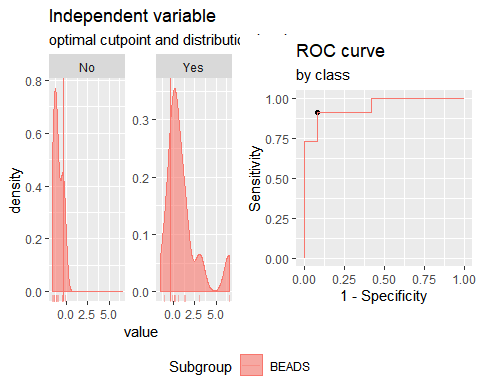
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.947 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2028 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.186 -1.855 -0.954 -0.555 0.000 0.577 3.718 3.887 1.698  
 No -2.186 -2.020 -1.298 -0.954 -1.103 -0.759 -0.481 -0.475 0.537  
 Yes -0.922 -0.739 -0.011 0.662 1.203 2.529 3.833 3.887 1.723  
 NAs  
 overall 0  
 No 0  
 Yes 0



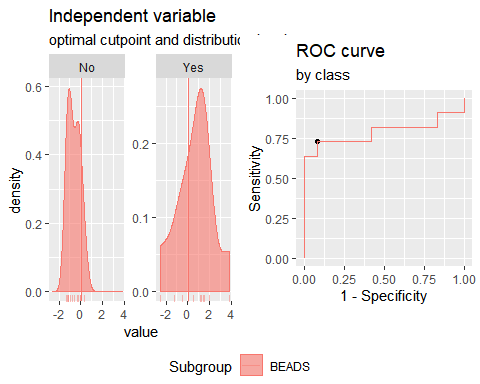
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.947 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3341 0.8258 0.913 0.9091 0.9167 10 1 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -1.589 -1.486 -1.147 -0.372 0.000 0.210 2.919 6.515 1.806  
 No -1.589 -1.534 -1.401 -1.147 -0.986 -0.504 -0.263 -0.129 0.498  
 Yes -1.087 -0.711 -0.033 0.282 1.076 1.332 4.802 6.515 2.113  
 NAs  
 overall 0  
 No 0  
 Yes 0



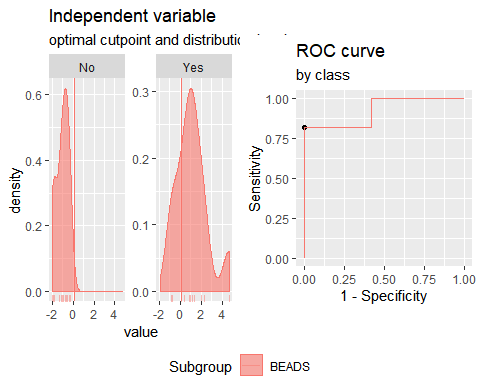
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7879 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0397 0.6439 0.8261 0.7273 0.9167 8 3 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.563 -1.338 -1.041 -0.223 0.000 0.840 1.971 3.820 1.389 0  
 No -1.350 -1.284 -1.112 -0.690 -0.622 -0.184 0.148 0.387 0.564 0  
 Yes -2.563 -1.881 -0.218 1.167 0.679 1.464 2.921 3.820 1.710 0



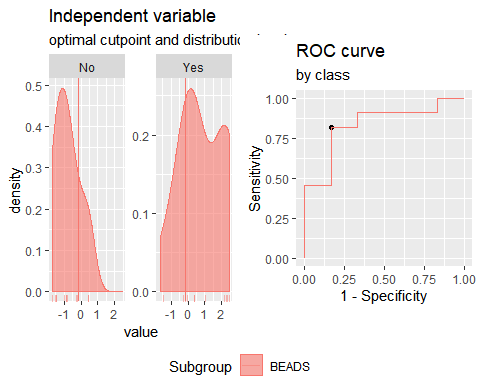
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9242 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1559 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -1.945 -1.859 -0.975 -0.527 0.000 0.957 2.319 4.692 1.583  
 No -1.945 -1.900 -1.421 -0.975 -1.045 -0.593 -0.351 -0.287 0.581  
 Yes -0.815 -0.793 0.272 1.025 1.140 1.714 3.521 4.692 1.550  
 NAs  
 overall 0  
 No 0  
 Yes 0



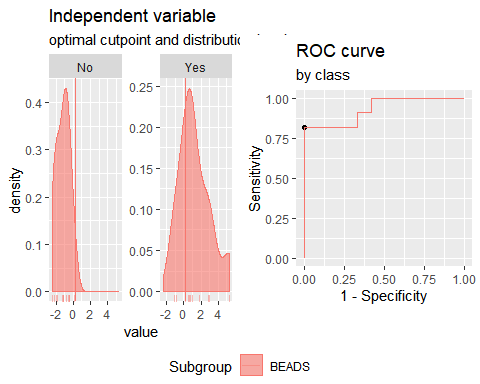
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8333 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1508 0.6515 0.8261 0.8182 0.8333 9 2 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.667 -1.515 -0.926 -0.237 0.000 0.450 2.359 2.451 1.315 0  
 No -1.667 -1.587 -1.445 -0.872 -0.765 -0.261 0.449 0.460 0.729 0  
 Yes -1.458 -0.871 -0.083 0.386 0.834 2.228 2.408 2.451 1.323 0



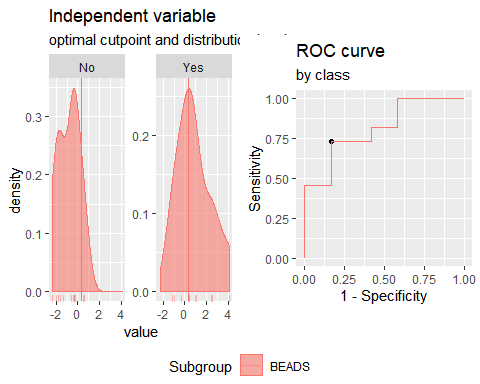
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9318 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2283 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.400 -2.138 -1.148 -0.508 0.000 0.662 3.002 5.299 1.863 0  
 No -2.400 -2.267 -1.855 -1.148 -1.187 -0.599 -0.171 0.122 0.777 0  
 Yes -1.073 -0.949 0.406 0.713 1.295 2.332 4.157 5.299 1.854 0



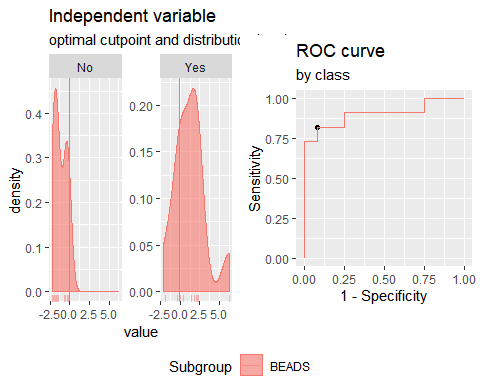
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8106 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.3198 0.5606 0.7826 0.7273 0.8333 8 3 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.301 -1.986 -1.055 -0.323 0.000 0.558 2.563 4.110 1.555 0  
 No -2.301 -2.138 -1.668 -0.524 -0.824 -0.288 0.551 0.634 0.973 0  
 Yes -1.186 -1.055 -0.017 0.414 0.898 1.786 3.340 4.110 1.605 0



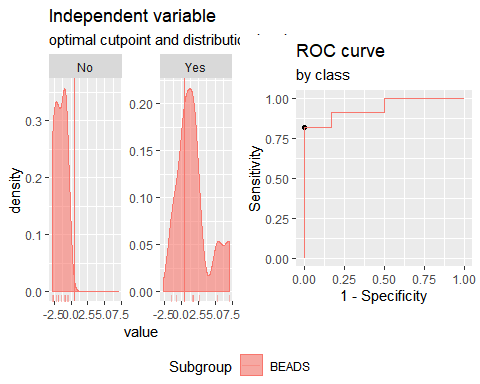
**"Combination IP10 + IL2+CCL3**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0528 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.145 -2.023 -1.568 -0.344 0.000 0.961 2.282 6.239 1.980  
 No -2.145 -2.081 -1.881 -1.449 -1.186 -0.457 -0.084 -0.016 0.794  
 Yes -1.872 -1.137 0.014 1.465 1.294 2.129 4.266 6.239 2.098  
 NAs  
 overall 0  
 No 0  
 Yes 0



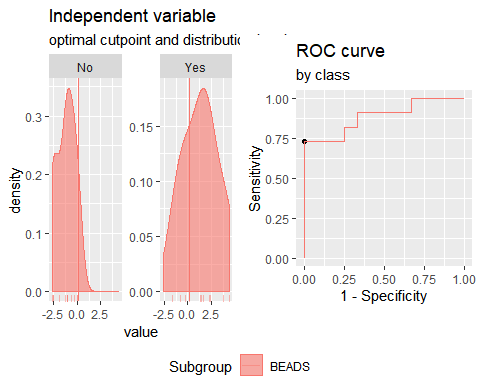
**"Combination IP10 + IL2+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9394 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.4257 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.743 -2.706 -1.681 -0.729 0.000 1.054 5.093 7.111 2.498  
 No -2.743 -2.726 -2.274 -1.657 -1.609 -0.907 -0.480 -0.354 0.855  
 Yes -1.488 -1.108 0.443 1.646 1.755 2.176 6.240 7.111 2.535  
 NAs  
 overall 0  
 No 0  
 Yes 0



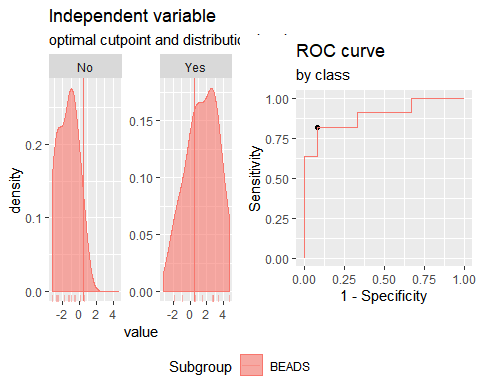
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8864 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1622 0.7273 0.8696 0.7273 1 8 3 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.613 -2.582 -1.171 -0.282 0.000 1.392 3.682 4.416 1.963 0  
 No -2.613 -2.600 -2.087 -1.096 -1.245 -0.500 0.028 0.054 0.978 0  
 Yes -1.600 -1.214 -0.060 1.478 1.359 2.390 4.118 4.416 1.879 0



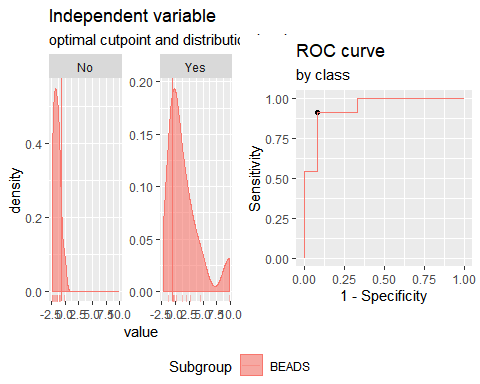
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8939 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.4879 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.184 -2.784 -1.511 -0.480 0.000 1.107 3.272 4.682 2.149 0  
 No -3.184 -2.974 -2.514 -1.228 -1.388 -0.566 0.299 0.532 1.194 0  
 Yes -1.859 -1.370 0.499 1.526 1.514 2.752 4.005 4.682 1.939 0



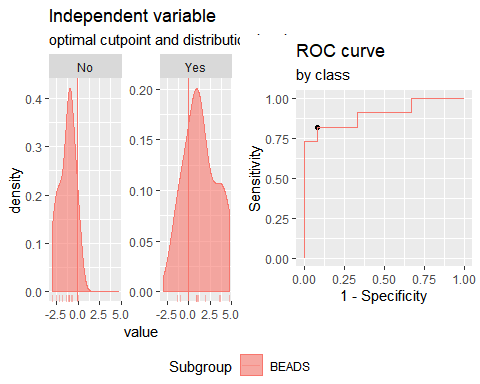
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9394 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6354 0.8258 0.913 0.9091 0.9167 10 1 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.228 -2.196 -1.527 -0.896 0.000 -0.014 4.407 9.806 2.721  
 No -2.228 -2.216 -1.924 -1.527 -1.466 -1.010 -0.543 -0.112 0.633  
 Yes -1.242 -0.939 -0.436 0.083 1.599 2.355 7.197 9.806 3.233  
 NAs  
 overall 0  
 No 0  
 Yes 0



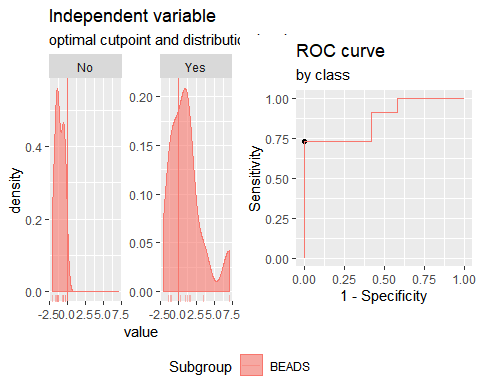
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9015 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.045 0.7348 0.8696 0.8182 0.9167 9 2 1 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.970 -2.509 -1.222 -0.709 0.000 0.965 3.680 4.716 2.017  
 No -2.970 -2.733 -1.953 -1.050 -1.304 -0.786 -0.049 -0.017 0.929  
 Yes -1.341 -1.160 0.446 0.987 1.422 2.795 4.202 4.716 1.933  
 NAs  
 overall 0  
 No 0  
 Yes 0



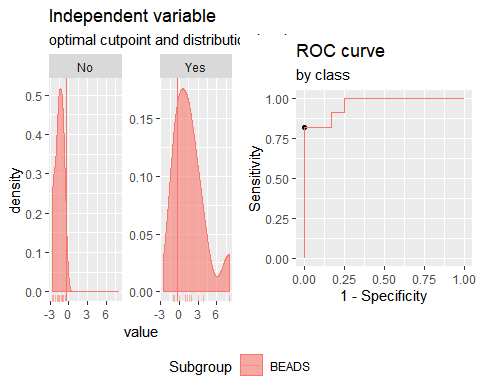
**"Combination IFNγ+CCL3+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8712 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0149 0.7273 0.8696 0.7273 1 8 3 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.066 -1.743 -1.293 -0.623 0.000 0.731 3.386 7.111 2.063  
 No -2.066 -1.900 -1.494 -1.228 -1.102 -0.611 -0.283 -0.263 0.593  
 Yes -1.354 -1.209 -0.475 1.080 1.203 1.610 5.341 7.111 2.435  
 NAs  
 overall 0  
 No 0  
 Yes 0



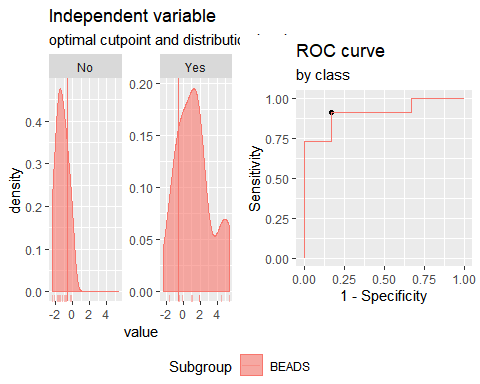
**"Combination IFNγ+CCL11+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9621 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3615 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.578 -2.467 -1.543 -0.826 0.000 1.054 3.768 7.982 2.439  
 No -2.578 -2.534 -1.876 -1.543 -1.525 -1.068 -0.676 -0.510 0.659  
 Yes -0.970 -0.898 -0.216 1.214 1.664 2.491 5.916 7.982 2.602  
 NAs  
 overall 0  
 No 0  
 Yes 0



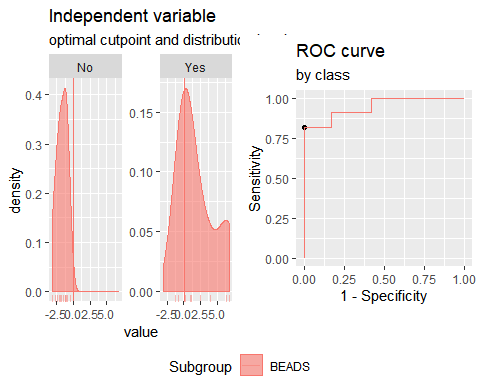
**"Combination IFNγ+CCL3+IL2**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6094 0.7424 0.8696 0.9091 0.8333 10 1 2 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -2.336 -2.125 -1.485 -0.609 0.000 0.995 4.206 5.434 2.020  
 No -2.336 -2.242 -1.704 -1.344 -1.245 -0.777 -0.160 -0.098 0.711  
 Yes -1.613 -1.111 -0.243 1.066 1.358 1.938 4.946 5.434 2.129  
 NAs  
 overall 0  
 No 0  
 Yes 0



**"Combination IFNγ+CCL11+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.947 23 11 12  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0669 0.8182 0.913 0.8182 1 9 2 0 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD  
 overall -3.069 -2.650 -1.636 -0.880 0.000 0.651 6.067 6.798 2.634  
 No -3.069 -2.854 -2.144 -1.636 -1.667 -1.097 -0.640 -0.436 0.800  
 Yes -1.228 -1.054 0.082 1.047 1.819 3.193 6.552 6.798 2.754  
 NAs  
 overall 0  
 No 0  
 Yes 0

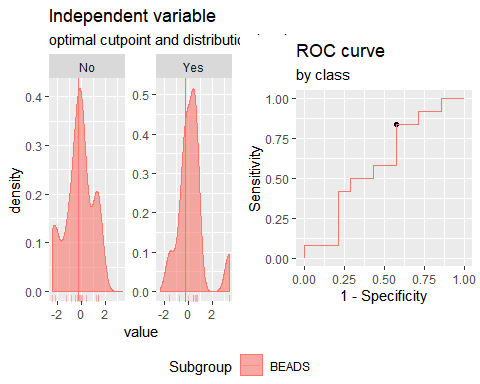


**Analysis TSTp vs TSTn. Responses for all groups and cytokinescorrected for background by subtraction.**

**"Diferencia entre B2 y B1**

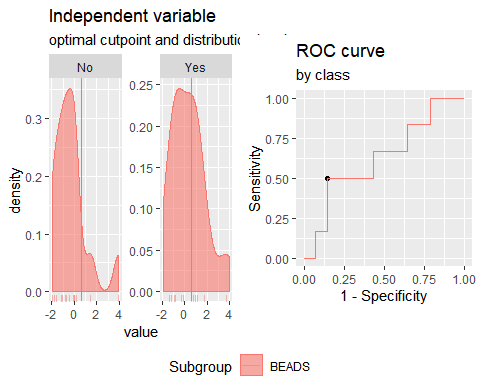
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5952 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2887 0.2619 0.6154 0.8333 0.4286 10 2 8 6  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.375 -2.025 -0.434 -0.014 0.000 0.538 1.422 3.396 1.184 0  
 No -2.375 -2.248 -0.749 -0.120 -0.225 0.315 1.403 1.433 1.177 0  
 Yes -1.558 -1.110 -0.258 0.213 0.262 0.595 1.927 3.396 1.187 0



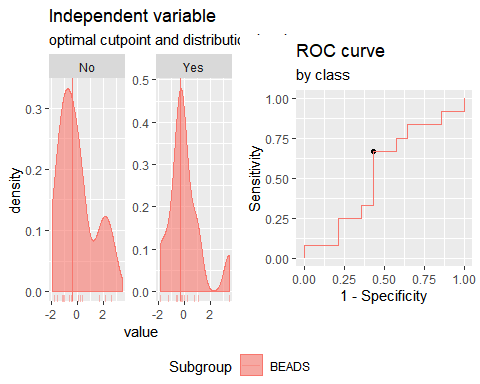
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.631 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5953 0.3571 0.6923 0.5 0.8571 6 6 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.925 -1.749 -1.044 -0.244 0.000 0.737 3.220 3.959 1.502 0  
 No -1.925 -1.835 -1.124 -0.572 -0.285 0.006 2.323 3.959 1.521 0  
 Yes -1.386 -1.301 -0.874 0.221 0.332 1.009 2.613 3.725 1.472 0



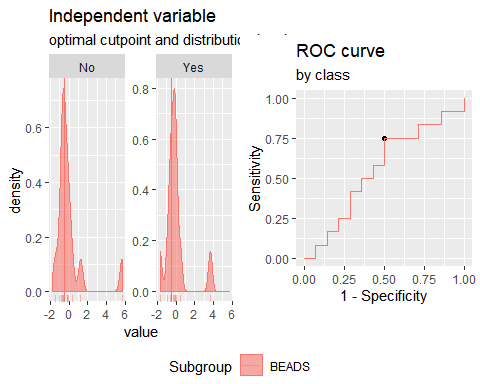
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5357 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3335 0.2381 0.6154 0.6667 0.5714 8 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.879 -1.708 -0.920 -0.285 0.000 0.360 2.555 3.473 1.336 0  
 No -1.769 -1.612 -1.027 -0.441 -0.042 0.360 2.354 2.680 1.376 0  
 Yes -1.879 -1.525 -0.582 -0.185 0.049 0.373 2.184 3.473 1.346 0



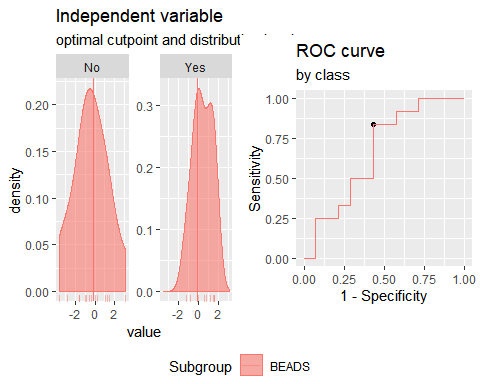
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5536 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5201 0.25 0.6154 0.75 0.5 9 3 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.725 -1.352 -0.633 -0.352 0.000 -0.035 3.057 5.673 1.520 0  
 No -1.475 -1.155 -0.666 -0.496 0.050 -0.055 2.790 5.673 1.739 0  
 Yes -1.725 -1.272 -0.549 -0.232 -0.058 -0.040 1.902 3.663 1.293 0



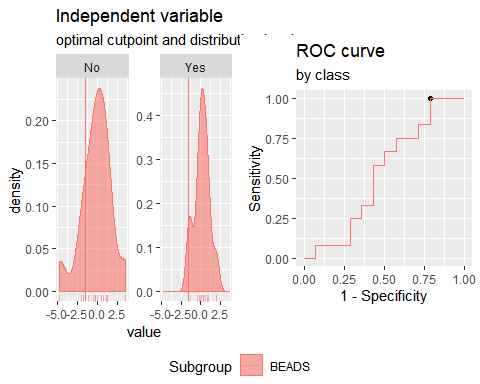
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6667 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1522 0.4048 0.6923 0.8333 0.5714 10 2 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.550 -2.484 -0.849 -0.020 0.000 1.176 1.620 3.113 1.476 0  
 No -3.550 -3.046 -1.408 -0.446 -0.364 0.811 2.035 3.113 1.757 0  
 Yes -1.258 -1.005 -0.127 0.342 0.425 1.310 1.616 1.623 0.968 0



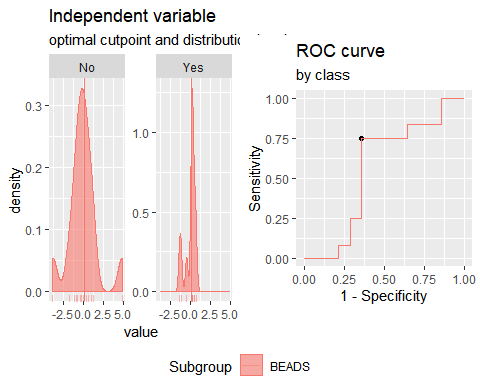
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5298 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.51 0.2143 0.5769 1 0.2143 12 0 11 3  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.724 -1.927 -0.454 0.055 0.000 0.866 1.785 3.593 1.548 0  
 No -4.724 -2.954 -0.961 -0.093 -0.121 1.082 2.128 3.593 1.948 0  
 Yes -1.510 -1.390 -0.260 0.214 0.141 0.681 1.423 1.934 0.959 0



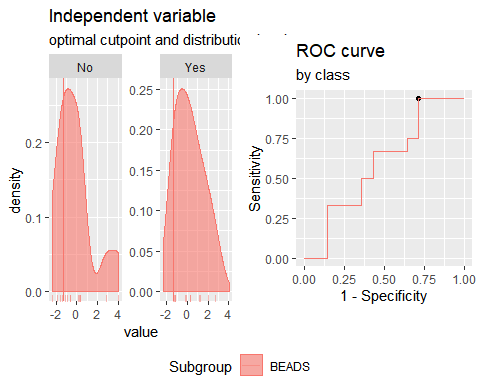
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5595 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1394 0.3929 0.6923 0.75 0.6429 9 3 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.755 -1.649 -0.638 0.175 0.000 0.511 1.188 4.827 1.428 0  
 No -3.755 -2.457 -0.770 -0.098 -0.029 0.561 2.489 4.827 1.884 0  
 Yes -1.320 -1.220 -0.006 0.238 0.034 0.368 0.659 0.757 0.660 0



**"Combination IL2 + CCL3"**

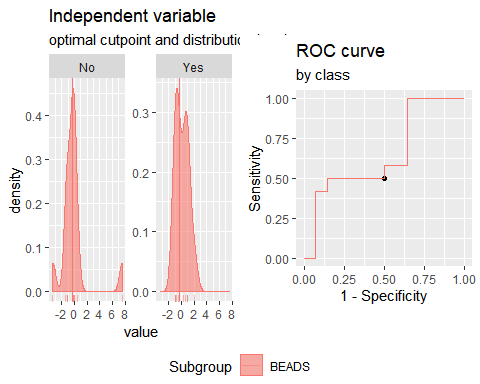
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5893 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.3486 0.2857 0.6154 1 0.2857 12 0 10 4  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.342 -1.848 -1.167 -0.164 0.000 0.361 2.804 4.062 1.579 0  
 No -2.342 -2.073 -1.340 -0.613 -0.181 0.303 3.257 4.062 1.775 0  
 Yes -1.349 -1.296 -1.134 0.061 0.212 1.200 2.351 2.747 1.361 0



**"Combination IL2 + CCL11**"

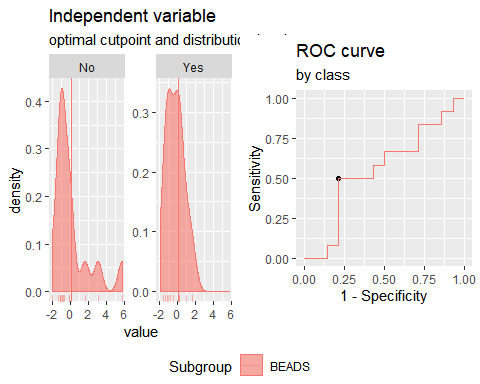
Multiple optimal cutpoints found, applying break\_ties.

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6488 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3177 0 0.5 0.5 0.5 6 6 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.420 -1.309 -0.984 -0.280 0.000 0.476 1.746 7.557 1.856 0  
 No -3.420 -2.084 -1.113 -0.295 -0.089 0.006 2.975 7.557 2.401 0  
 Yes -1.013 -1.001 -0.808 0.021 0.104 0.888 1.438 2.003 0.999 0



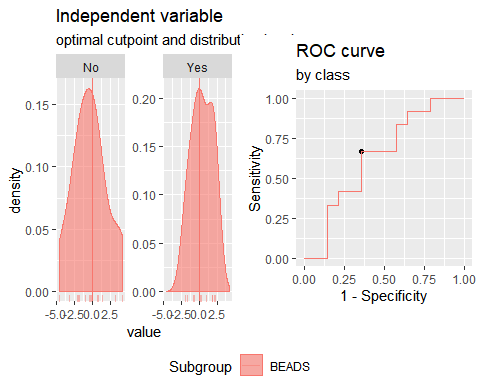
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5536 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1738 0.2857 0.6538 0.5 0.7857 6 6 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.892 -1.412 -1.009 -0.486 0.000 0.233 2.752 5.776 1.630 0  
 No -1.892 -1.490 -1.026 -0.673 0.154 0.118 4.047 5.776 2.069 0  
 Yes -1.458 -1.339 -0.991 -0.104 -0.179 0.263 1.339 1.661 0.959 0



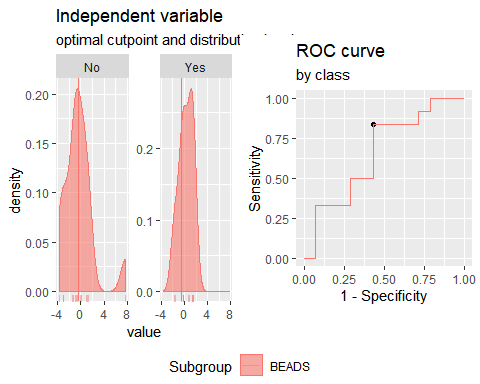
**"Combination IP10 + IL2+CCL3**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.631 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.004 0.3095 0.6538 0.6667 0.6429 8 4 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.590 -2.900 -1.450 -0.036 0.000 1.346 3.011 4.254 2.017 0  
 No -4.590 -3.680 -1.925 -0.313 -0.333 0.887 3.599 4.254 2.393 0  
 Yes -1.974 -1.771 -0.718 0.247 0.389 1.895 2.214 2.306 1.473 0



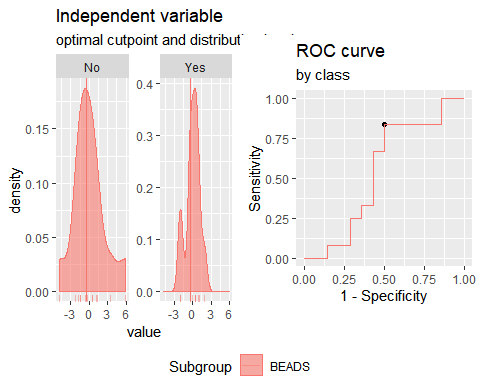
**"Combination IP10 + IL2+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6607 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4149 0.4048 0.6923 0.8333 0.5714 10 2 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.621 -3.008 -1.167 -0.172 0.000 1.052 1.631 7.749 2.159 0  
 No -3.621 -3.236 -1.428 -0.689 -0.241 0.759 3.598 7.749 2.771 0  
 Yes -1.784 -1.601 -0.269 0.261 0.282 1.396 1.614 1.645 1.168 0



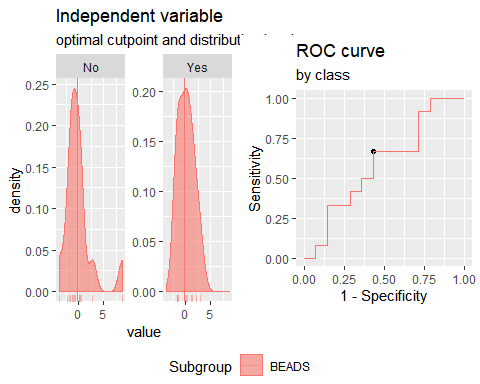
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5417 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4365 0.3333 0.6538 0.8333 0.5 10 2 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.795 -2.140 -1.177 -0.188 0.000 0.782 3.139 5.968 2.023 0  
 No -4.795 -3.092 -1.469 -0.442 0.002 1.075 4.389 5.968 2.597 0  
 Yes -2.036 -1.985 -0.424 0.174 -0.002 0.597 1.445 1.939 1.152 0



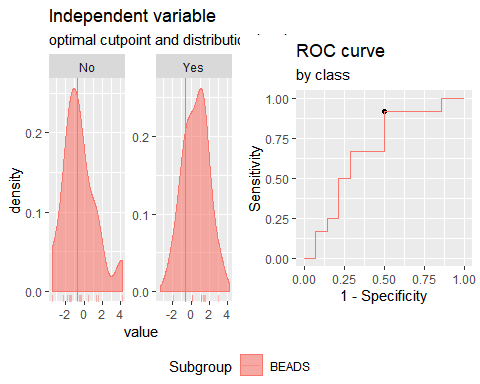
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5893 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2319 0.2381 0.6154 0.6667 0.5714 8 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.827 -2.075 -1.641 -0.206 0.000 0.430 2.877 8.698 2.366 0  
 No -3.827 -2.751 -1.581 -0.827 -0.059 0.335 4.844 8.698 2.947 0  
 Yes -1.771 -1.736 -1.544 -0.039 0.068 1.218 2.429 2.912 1.566 0



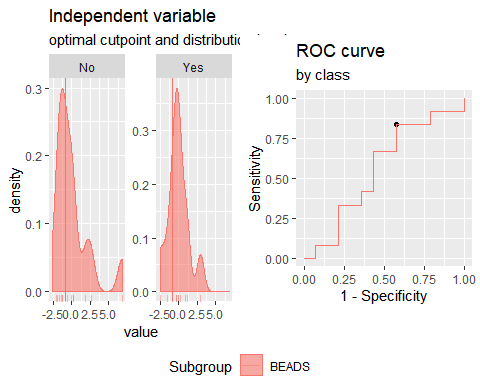
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6786 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6544 0.4167 0.6923 0.9167 0.5 11 1 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.370 -2.149 -1.237 -0.350 0.000 1.277 2.595 4.151 1.684 0  
 No -3.370 -2.637 -1.507 -0.615 -0.437 0.308 2.441 4.151 1.877 0  
 Yes -1.871 -1.202 -0.635 0.654 0.510 1.362 2.191 2.932 1.325 0



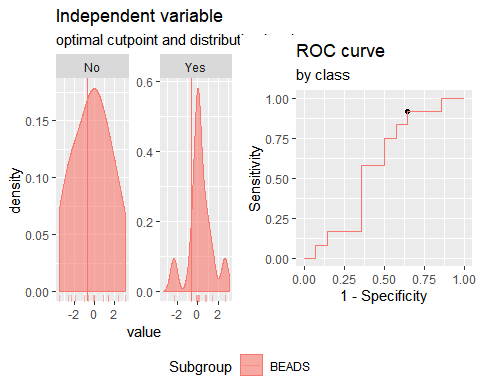
**"Combination IFNγ+CCL3+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5595 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8042 0.2619 0.6154 0.8333 0.4286 10 2 8 6  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.531 -1.980 -1.231 -0.327 0.000 0.205 2.867 6.814 1.937 0  
 No -2.012 -1.928 -1.309 -0.648 0.081 0.203 4.092 6.814 2.361 0  
 Yes -2.531 -2.006 -0.797 -0.172 -0.094 0.389 1.951 2.947 1.388 0



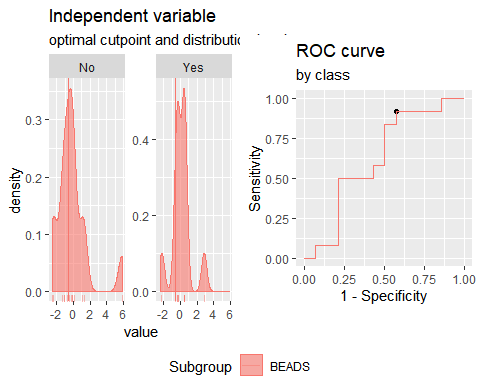
**"Combination IFNγ+CCL3+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5774 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6377 0.2738 0.6154 0.9167 0.3571 11 1 9 5  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.415 -2.538 -0.630 -0.010 0.000 0.866 2.602 3.103 1.607 0  
 No -3.415 -2.883 -1.637 -0.070 -0.194 1.240 2.627 3.103 1.913 0  
 Yes -2.364 -1.415 -0.110 0.073 0.226 0.748 1.980 2.680 1.200 0



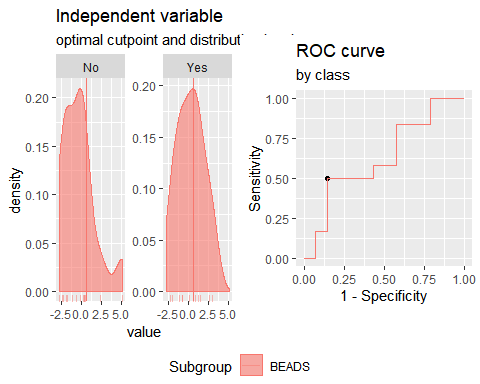
**"Combination IFNγ+CCL11+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.625 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5767 0.3452 0.6538 0.9167 0.4286 11 1 8 6  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.446 -2.319 -0.639 -0.250 0.000 0.491 2.476 5.865 1.659 0  
 No -2.446 -2.387 -1.085 -0.354 -0.102 0.075 2.895 5.865 2.031 0  
 Yes -2.211 -1.312 -0.308 0.112 0.119 0.496 1.588 2.870 1.162 0



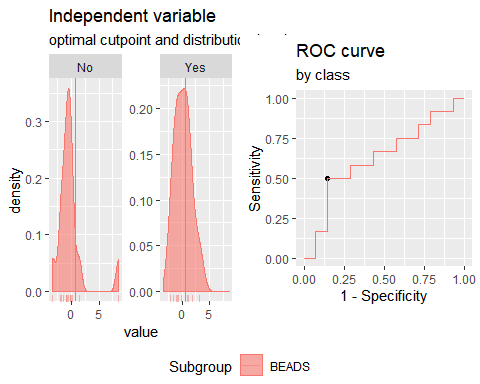
**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.631 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.6345 0.3571 0.6923 0.5 0.8571 6 6 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.668 -2.300 -1.522 0.034 0.000 0.818 2.910 5.100 1.880 0  
 No -2.668 -2.450 -1.761 -0.343 -0.254 0.390 3.301 5.100 2.075 0  
 Yes -2.192 -2.036 -0.784 0.416 0.296 1.313 2.791 3.009 1.662 0



**"Combination IFNγ+CCL11+IL2"**

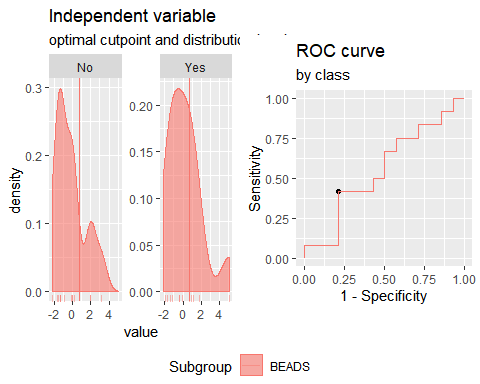
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.631 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.6307 0.3571 0.6923 0.5 0.8571 6 6 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.410 -2.019 -1.037 -0.432 0.000 0.631 2.867 8.594 2.239 0  
 No -3.410 -2.468 -1.318 -0.673 -0.162 -0.045 3.899 8.594 2.762 0  
 Yes -2.038 -1.782 -0.886 0.241 0.189 1.011 2.467 3.199 1.516 0



**Analysis TSTp vs TSTn. Responses for all groups and cytokines corrected for background by division (ratio).**

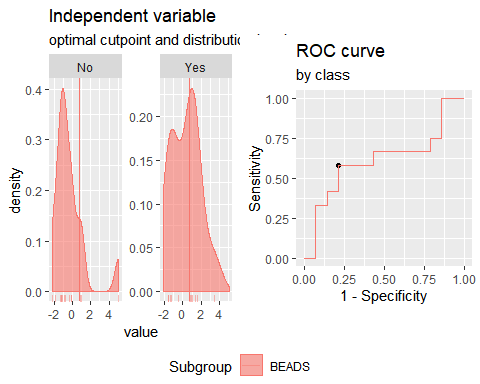
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5536 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7418 0.2024 0.6154 0.4167 0.7857 5 7 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.165 -1.841 -1.332 -0.204 0.000 0.887 2.915 5.078 1.741 0  
 No -2.165 -1.860 -1.344 -0.475 -0.207 0.159 2.425 3.222 1.606 0  
 Yes -1.889 -1.772 -1.208 -0.193 0.242 0.991 3.280 5.078 1.928 0



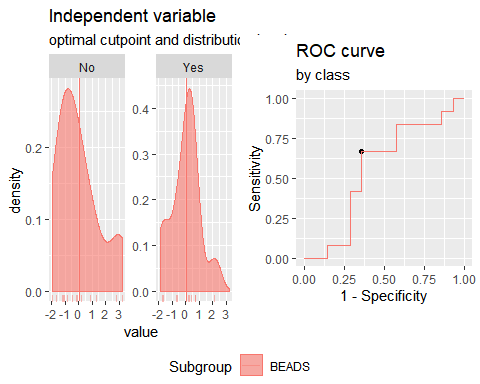
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6131 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7489 0.369 0.6923 0.5833 0.7857 7 5 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.136 -1.751 -1.245 -0.370 0.000 0.899 2.949 5.073 1.673 0  
 No -2.136 -1.931 -1.188 -0.821 -0.275 -0.074 2.415 5.073 1.782 0  
 Yes -1.543 -1.542 -1.279 0.789 0.321 1.163 2.415 3.395 1.550 0



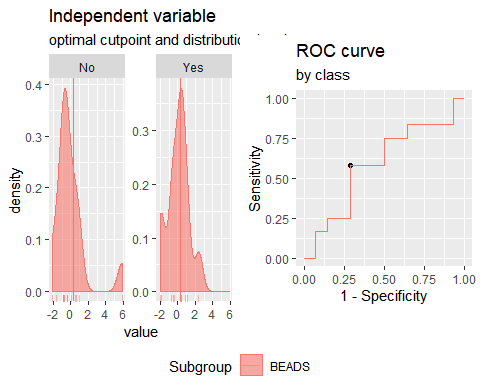
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5595 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0302 0.3095 0.6538 0.6667 0.6429 8 4 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.901 -1.717 -0.967 -0.035 0.000 0.662 2.639 3.217 1.332 0  
 No -1.901 -1.741 -1.122 -0.289 -0.003 0.692 2.945 3.217 1.562 0  
 Yes -1.738 -1.685 -0.635 0.151 0.003 0.517 1.377 2.162 1.072 0



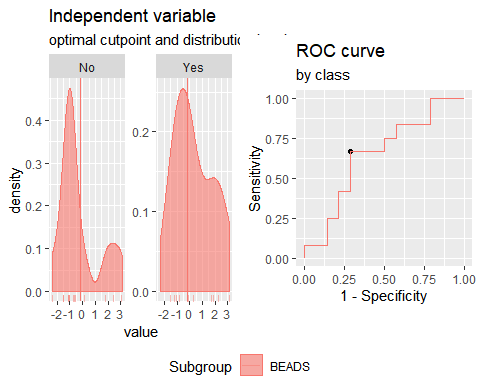
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5893 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2793 0.2976 0.6538 0.5833 0.7143 7 5 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.056 -1.971 -0.834 -0.370 0.000 0.546 2.089 5.896 1.598 0  
 No -2.056 -1.776 -0.885 -0.541 -0.021 0.440 2.738 5.896 1.903 0  
 Yes -2.013 -1.920 -0.571 0.287 0.025 0.552 1.696 2.417 1.235 0



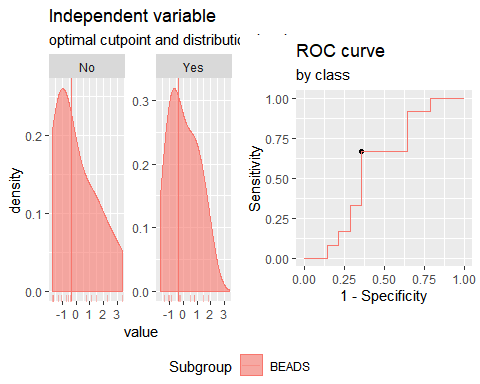
**"Combination IP10 + IL2**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6488 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1569 0.381 0.6923 0.6667 0.7143 8 4 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.335 -1.539 -1.092 -0.633 0.000 1.352 2.879 3.102 1.562 0  
 No -2.335 -1.819 -1.104 -0.877 -0.307 -0.029 2.627 3.037 1.593 0  
 Yes -1.490 -1.323 -0.885 -0.105 0.358 1.752 2.633 3.102 1.511 0



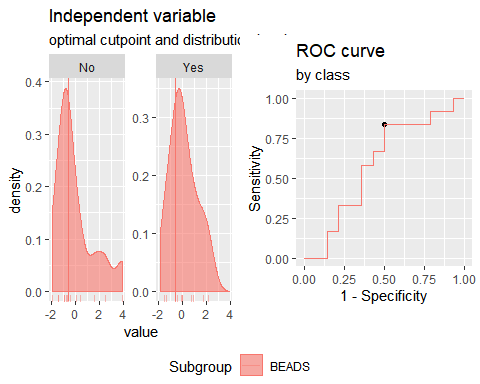
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5774 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3413 0.3095 0.6538 0.6667 0.6429 8 4 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.688 -1.659 -1.038 -0.351 0.000 0.851 2.168 3.341 1.339 0  
 No -1.688 -1.677 -1.244 -0.490 -0.035 0.999 2.643 3.341 1.580 0  
 Yes -1.382 -1.198 -0.914 -0.211 0.041 0.847 1.639 1.870 1.059 0



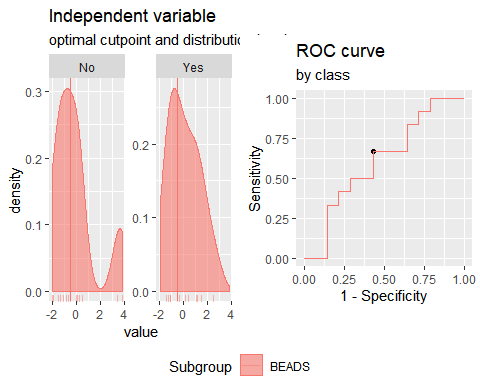
**"Combination IP10 + CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5893 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6305 0.3333 0.6538 0.8333 0.5 10 2 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.890 -1.481 -0.892 -0.431 0.000 0.638 2.375 3.860 1.392 0  
 No -1.890 -1.612 -0.944 -0.662 -0.054 0.338 2.949 3.860 1.631 0  
 Yes -1.487 -1.412 -0.629 -0.067 0.063 0.760 1.891 2.125 1.118 0



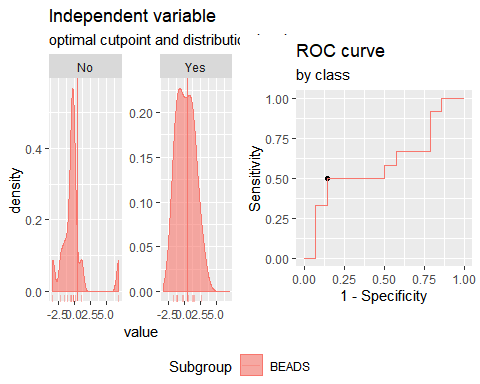
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6071 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4705 0.2381 0.6154 0.6667 0.5714 8 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.942 -1.777 -1.056 -0.403 0.000 0.471 3.242 3.840 1.529 0  
 No -1.942 -1.898 -1.261 -0.571 -0.103 0.200 3.609 3.840 1.770 0  
 Yes -1.426 -1.316 -1.033 -0.074 0.120 1.139 1.984 2.512 1.259 0



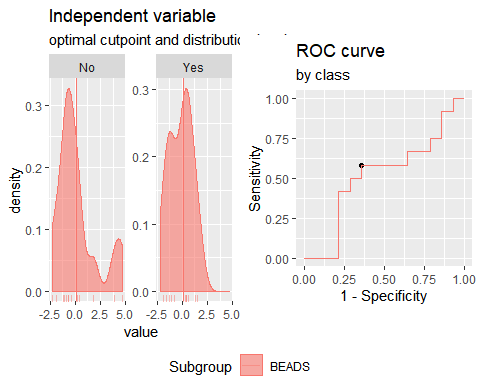
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5952 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.442 0.3571 0.6923 0.5 0.8571 6 6 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.358 -2.022 -1.074 -0.210 0.000 0.553 2.353 6.937 1.901 0  
 No -3.358 -2.538 -0.930 -0.308 -0.121 -0.102 3.158 6.937 2.306 0  
 Yes -1.798 -1.566 -1.094 0.112 0.142 1.290 1.982 2.662 1.373 0



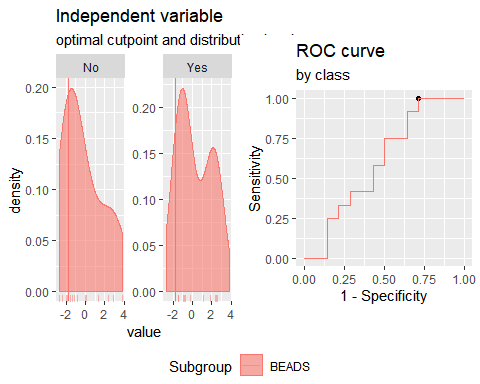
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5179 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.102 0.2262 0.6154 0.5833 0.6429 7 5 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.234 -1.888 -1.087 -0.158 0.000 0.401 3.400 4.663 1.645 0  
 No -2.234 -1.992 -1.015 -0.525 0.151 0.333 4.195 4.663 2.019 0  
 Yes -1.897 -1.707 -1.154 0.180 -0.176 0.447 1.410 1.494 1.128 0



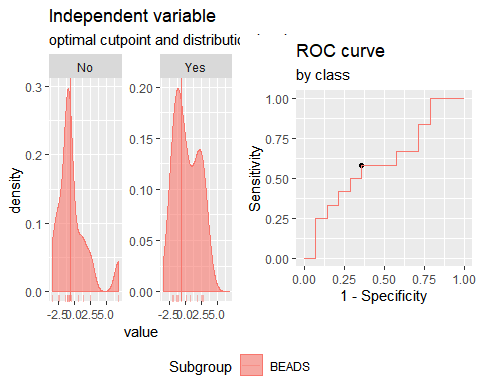
**"Combination IP10 + IL2+CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6012 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.8014 0.2857 0.6154 1 0.2857 12 0 10 4  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.667 -2.278 -1.433 -0.797 0.000 1.739 2.808 3.819 1.890 0  
 No -2.667 -2.490 -1.813 -0.956 -0.223 1.015 3.212 3.819 2.068 0  
 Yes -1.801 -1.601 -1.045 -0.479 0.260 2.012 2.521 2.580 1.711 0



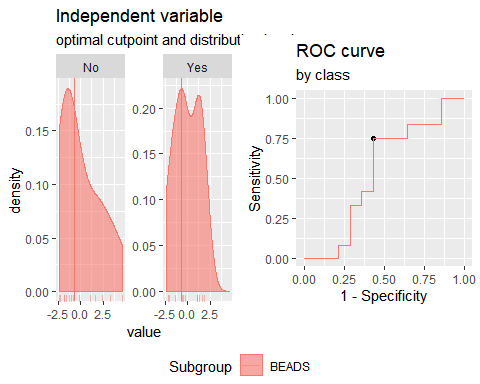
**"Combination IP10 + IL2+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6012 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6239 0.2262 0.6154 0.5833 0.6429 7 5 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.389 -2.513 -1.261 -0.815 0.000 1.265 2.791 6.916 2.234 0  
 No -3.389 -2.844 -1.271 -0.910 -0.241 0.367 4.074 6.916 2.575 0  
 Yes -1.907 -1.837 -1.200 -0.208 0.281 2.116 2.738 2.835 1.828 0



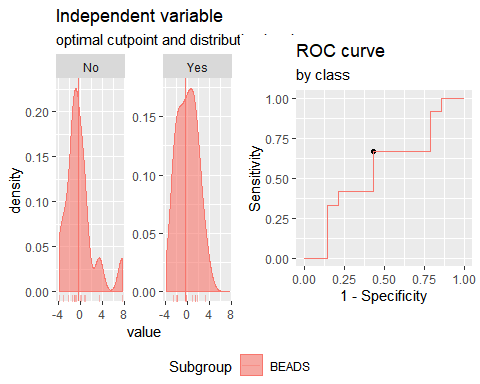
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5417 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6386 0.3214 0.6538 0.75 0.5714 9 3 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.316 -2.225 -1.509 -0.522 0.000 1.255 3.108 4.642 1.854 0  
 No -2.316 -2.283 -1.690 -0.858 0.031 1.504 3.798 4.642 2.229 0  
 Yes -2.103 -2.022 -0.826 -0.374 -0.036 1.160 1.718 1.860 1.393 0



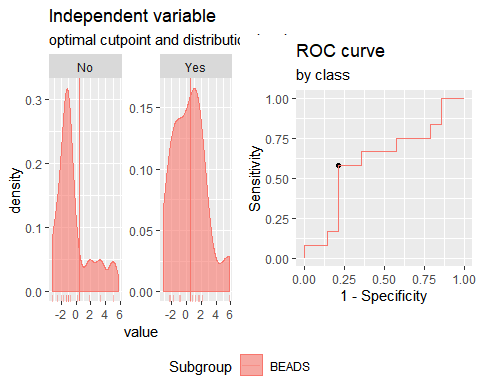
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5595 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2599 0.2381 0.6154 0.6667 0.5714 8 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.733 -2.853 -1.622 -0.205 0.000 0.993 3.429 7.720 2.379 0  
 No -3.733 -3.224 -1.295 -0.806 -0.037 0.638 4.968 7.720 2.851 0  
 Yes -2.560 -2.241 -1.713 -0.115 0.043 1.456 2.466 3.258 1.803 0



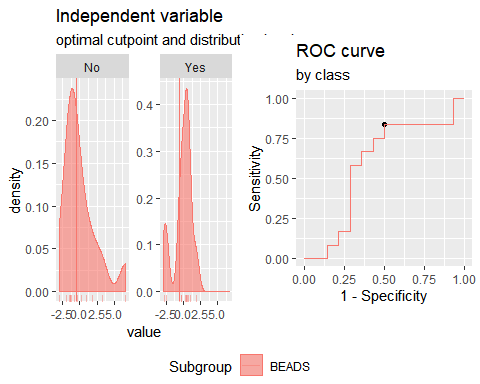
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6131 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5066 0.369 0.6923 0.5833 0.7857 7 5 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.160 -2.519 -1.668 -0.911 0.000 1.482 4.616 5.787 2.296 0  
 No -3.160 -2.789 -1.668 -1.004 -0.394 -0.096 3.917 5.052 2.290 0  
 Yes -2.309 -2.257 -1.240 0.662 0.460 1.623 3.770 5.787 2.313 0



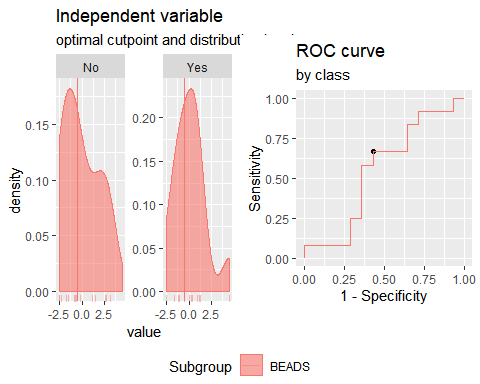
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5893 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5528 0.3333 0.6538 0.8333 0.5 10 2 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.910 -2.696 -1.338 -0.254 0.000 0.694 2.888 6.678 2.009 0  
 No -2.910 -2.319 -1.411 -0.664 0.063 0.790 4.430 6.678 2.490 0  
 Yes -2.775 -2.601 -0.390 0.351 -0.074 0.660 1.424 1.895 1.355 0



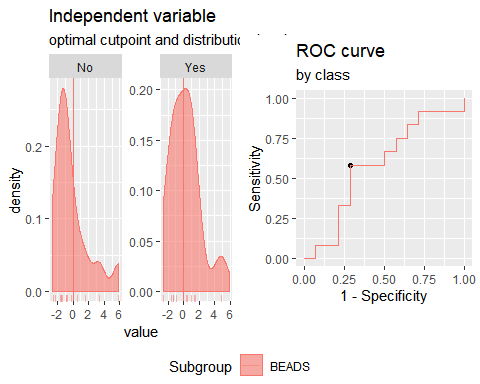
**"Combination IFNγ+CCL3+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5536 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5076 0.2381 0.6154 0.6667 0.5714 8 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.519 -2.502 -1.391 -0.340 0.000 1.184 3.070 4.555 1.897 0  
 No -2.519 -2.504 -1.702 -0.656 -0.123 1.420 2.914 3.167 2.021 0  
 Yes -2.504 -2.011 -1.139 0.158 0.143 0.980 2.776 4.555 1.819 0



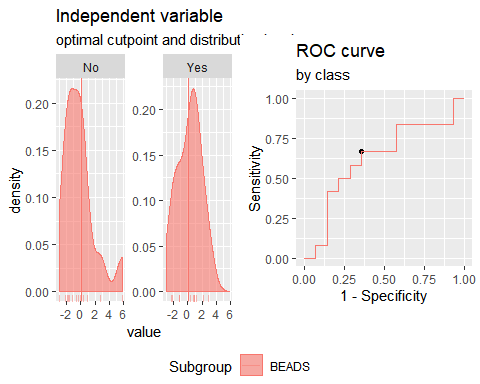
**"Combination IFNγ+CCL11+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.5833 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0126 0.2976 0.6538 0.5833 0.7143 7 5 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.61 -2.440 -1.436 -0.758 0.000 0.865 4.447 5.875 2.126 0  
 No -2.51 -2.328 -1.532 -0.875 -0.141 0.353 4.240 5.875 2.332 0  
 Yes -2.61 -2.003 -1.284 0.195 0.165 1.068 3.027 4.810 1.948 0



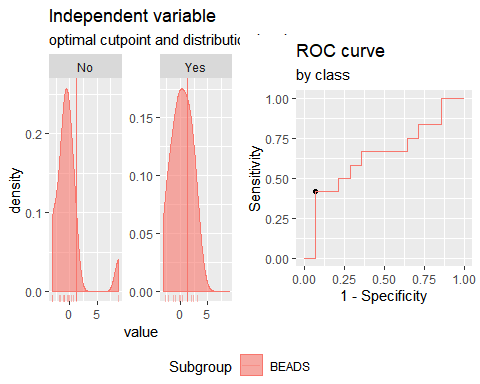
**"Combination IFNγ+CCL3+IL2**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.625 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1286 0.3095 0.6538 0.6667 0.6429 8 4 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.989 -2.268 -1.542 0.059 0.000 0.936 2.844 5.855 1.978 0  
 No -2.989 -2.445 -1.720 -0.497 -0.190 0.278 3.844 5.855 2.276 0  
 Yes -2.304 -2.224 -1.158 0.537 0.222 1.056 2.507 2.872 1.634 0



**"Combination IFNγ+CCL11+IL2"**

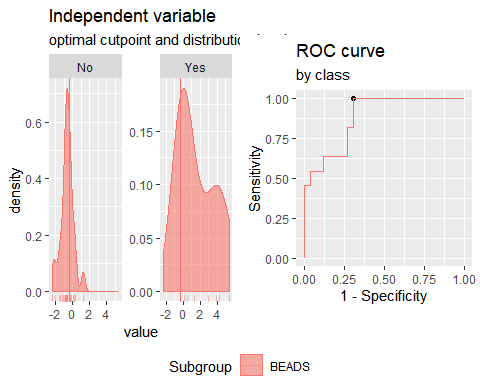
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6429 26 12 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.239 0.3452 0.6923 0.4167 0.9286 5 7 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.144 -3.012 -1.235 -0.257 0.000 1.009 2.935 8.953 2.443 0  
 No -3.144 -3.131 -1.643 -0.716 -0.209 0.151 3.863 8.953 2.925 0  
 Yes -2.677 -2.450 -1.020 0.120 0.244 1.482 2.704 3.127 1.825 0



**Analysis PTB vs TSTp+TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

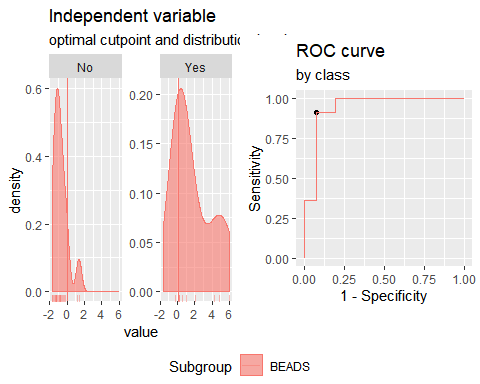
**"Combination IFNγ +IP10**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8811 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3609 0.6923 0.7838 1 0.6923 11 0 8 18  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.357 -1.704 -0.798 -0.361 0.000 0.129 4.019 5.439 1.669 0  
 No -2.357 -1.954 -0.948 -0.638 -0.666 -0.299 0.274 1.242 0.742 0  
 Yes -0.361 -0.360 -0.297 0.462 1.575 3.498 4.841 5.439 2.185 0



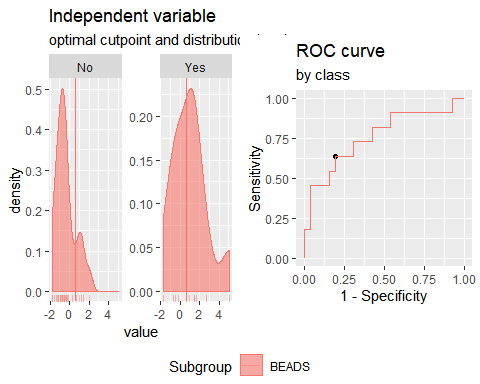
**"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9406 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0912 0.8322 0.9189 0.9091 0.9231 10 1 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.645 -1.601 -1.184 -0.484 0.000 0.168 4.396 5.970 1.773 0  
 No -1.645 -1.631 -1.243 -0.869 -0.735 -0.398 0.962 1.482 0.796 0  
 Yes -0.251 -0.080 0.151 0.595 1.736 3.186 5.409 5.970 2.239 0



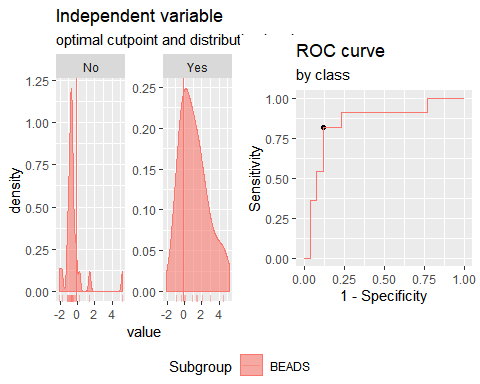
**"Combination IFNγ + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7587 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.6443 0.4441 0.7568 0.6364 0.8077 7 4 5 21  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.736 -1.704 -0.952 -0.468 0.000 0.924 2.176 5.054 1.429 0  
 No -1.736 -1.697 -1.080 -0.599 -0.415 -0.117 1.345 2.040 0.988 0  
 Yes -1.696 -1.173 -0.353 0.924 0.982 1.547 3.886 5.054 1.844 0



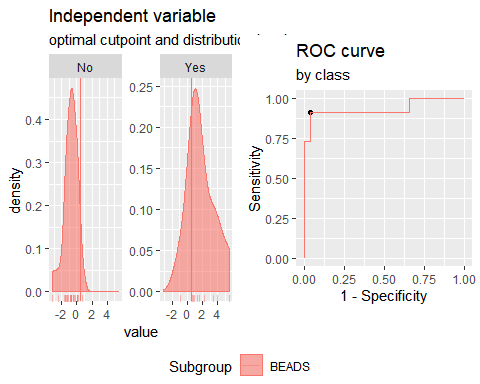
**"Combination IFNγ + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8497 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1271 0.7028 0.8649 0.8182 0.8846 9 2 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.072 -1.287 -0.853 -0.595 0.000 0.152 3.293 5.179 1.562 0  
 No -2.072 -1.637 -0.892 -0.712 -0.464 -0.523 1.106 5.179 1.310 0  
 Yes -0.900 -0.636 -0.067 0.880 1.096 1.814 3.738 4.479 1.615 0



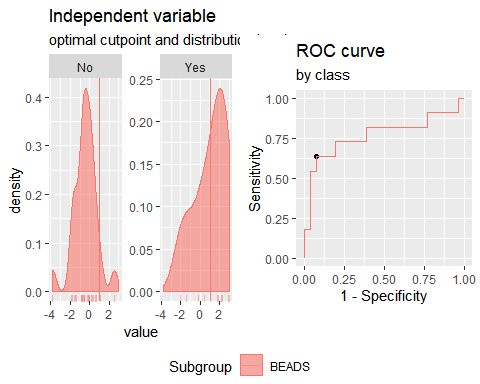
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9336 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5281 0.8706 0.9459 0.9091 0.9615 10 1 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.166 -1.767 -0.972 -0.391 0.000 0.702 3.563 5.536 1.706 0  
 No -3.166 -2.199 -1.265 -0.679 -0.777 -0.219 0.155 0.734 0.851 0  
 Yes -0.972 -0.222 0.760 1.353 1.837 2.857 4.731 5.536 1.841 0



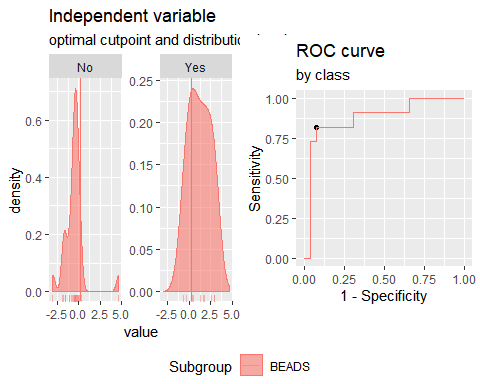
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7692 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.0276 0.5594 0.8378 0.6364 0.9231 7 4 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.809 -1.908 -0.859 -0.142 0.000 0.656 2.644 3.013 1.514 0  
 No -3.809 -1.852 -0.875 -0.497 -0.458 0.145 1.033 2.564 1.191 0  
 Yes -2.051 -1.711 0.132 1.770 1.083 2.215 2.989 3.013 1.695 0



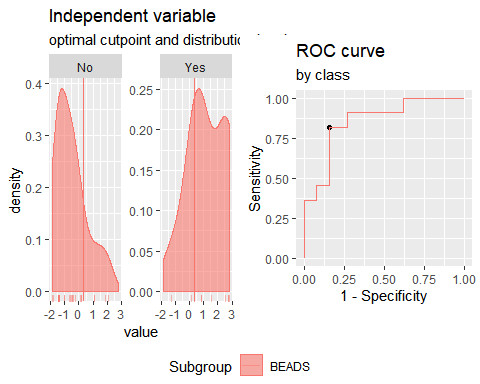
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8776 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2332 0.7413 0.8919 0.8182 0.9231 9 2 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.036 -1.772 -0.728 -0.315 0.000 0.274 2.920 4.661 1.492 0  
 No -3.036 -1.833 -1.000 -0.444 -0.506 -0.220 0.225 4.661 1.286 0  
 Yes -0.728 -0.508 0.272 1.288 1.197 2.148 2.920 2.921 1.280 0



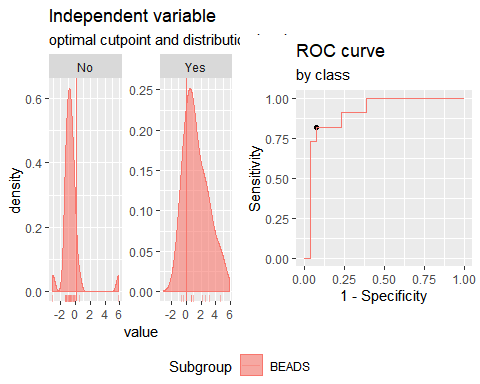
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8566 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.3296 0.6643 0.8378 0.8182 0.8462 9 2 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.842 -1.519 -1.362 -0.375 0.000 0.864 2.730 2.815 1.412 0  
 No -1.842 -1.709 -1.400 -0.610 -0.527 0.043 1.665 2.050 1.084 0  
 Yes -1.261 -0.564 0.349 0.864 1.245 2.648 2.782 2.815 1.348 0



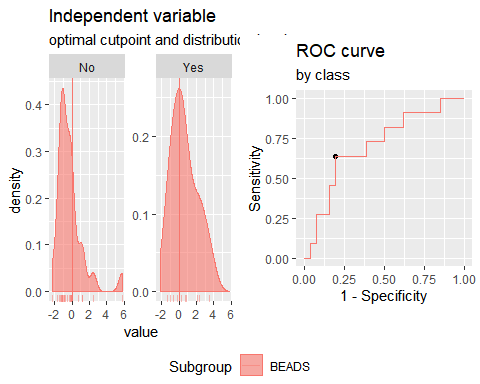
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0894 0.7413 0.8919 0.8182 0.9231 9 2 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.105 -1.380 -0.928 -0.588 0.000 0.476 3.404 5.849 1.735 0  
 No -3.105 -1.416 -1.216 -0.759 -0.575 -0.356 0.333 5.849 1.467 0  
 Yes -0.618 -0.473 0.397 0.767 1.358 2.402 3.871 4.649 1.605 0



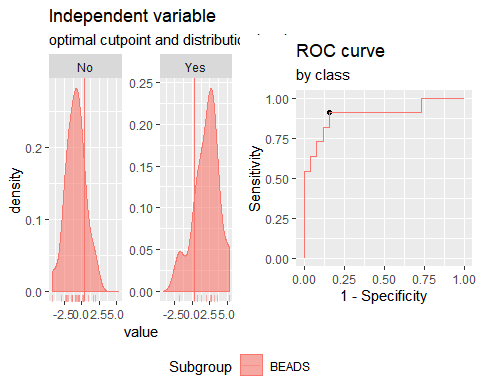
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7063 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0348 0.4441 0.7568 0.6364 0.8077 7 4 5 21  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.222 -1.490 -1.143 -0.252 0.000 0.711 2.632 5.770 1.597 0  
 No -2.222 -1.608 -1.174 -0.684 -0.256 -0.064 2.122 5.770 1.596 0  
 Yes -1.329 -1.173 -0.391 0.309 0.604 1.439 2.918 3.457 1.495 0



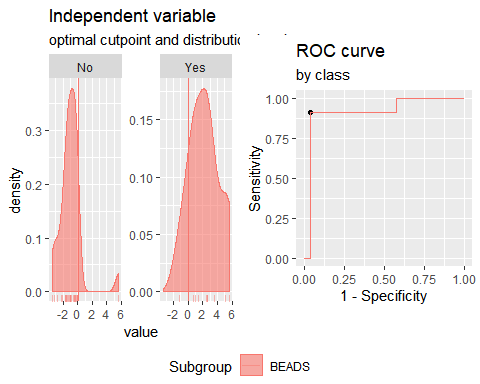
**"Combination IP10 + IL2+CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8986 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.3579 0.7552 0.8649 0.9091 0.8462 10 1 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.169 -2.396 -1.400 -0.385 0.000 1.370 3.243 5.317 2.049 0  
 No -4.169 -2.714 -1.797 -0.848 -0.881 -0.030 1.441 1.977 1.379 0  
 Yes -1.802 -0.722 1.054 2.669 2.082 2.952 4.495 5.317 1.890 0



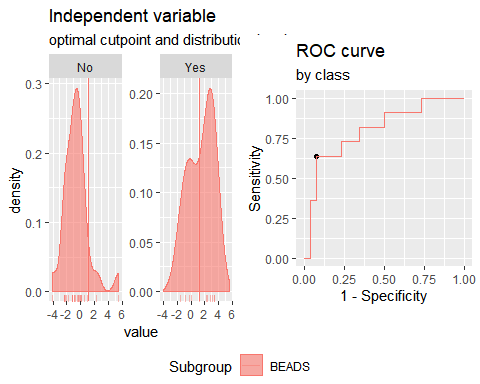
**"Combination IP10 + IL2+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9126 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.0434 0.8706 0.9459 0.9091 0.9615 10 1 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.395 -2.829 -1.333 -0.427 0.000 0.733 5.243 5.622 2.269 0  
 No -3.395 -3.084 -1.609 -0.990 -0.929 -0.308 -0.012 5.622 1.637 0  
 Yes -1.159 -0.558 0.832 2.560 2.196 3.103 5.375 5.595 2.071 0



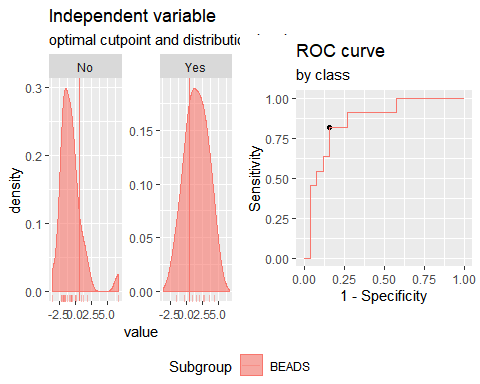
**"Combination IP10 + CCL3+CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8007 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.1401 0.5594 0.8378 0.6364 0.9231 7 4 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.038 -2.332 -1.178 -0.254 0.000 1.012 3.369 5.543 2.017 0  
 No -4.038 -2.337 -1.679 -0.833 -0.610 -0.011 2.018 5.543 1.802 0  
 Yes -1.558 -1.191 -0.095 2.261 1.442 2.943 3.400 3.452 1.809 0



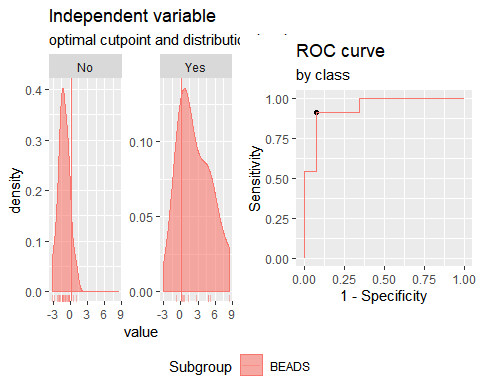
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8601 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5174 0.6643 0.8378 0.8182 0.8462 9 2 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.561 -2.238 -1.591 -0.599 0.000 0.968 3.802 6.731 2.134 0  
 No -3.561 -2.253 -1.817 -0.843 -0.678 -0.113 1.669 6.731 1.929 0  
 Yes -1.449 -0.870 0.526 1.648 1.604 2.780 4.028 4.407 1.752 0



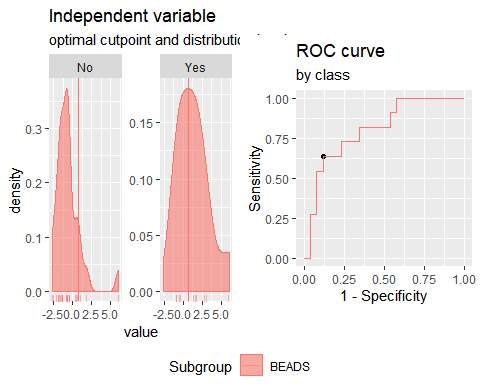
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9406 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.196 0.8322 0.9189 0.9091 0.9231 10 1 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.054 -2.291 -1.397 -0.701 0.000 0.462 4.969 8.472 2.417 0  
 No -3.054 -2.584 -1.661 -1.250 -1.089 -0.393 0.422 1.026 0.949 0  
 Yes -0.792 -0.298 0.396 1.393 2.574 4.845 6.854 8.472 2.899 0



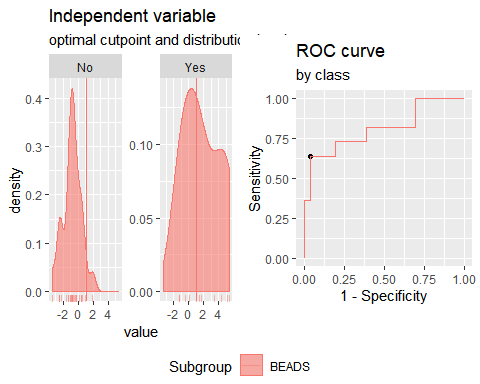
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8042 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7567 0.521 0.8108 0.6364 0.8846 7 4 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.597 -2.227 -1.327 -0.612 0.000 0.757 3.673 6.062 2.008 0  
 No -2.597 -2.434 -1.517 -0.756 -0.567 -0.401 1.623 6.062 1.725 0  
 Yes -0.864 -0.851 -0.382 1.308 1.341 2.258 4.529 5.956 2.063 0



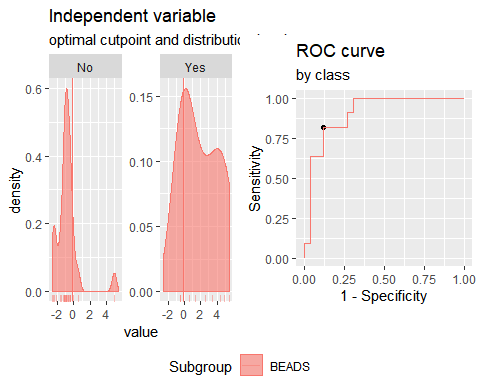
**"Combination IFNγ+CCL3+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8112 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.0671 0.5979 0.8649 0.6364 0.9615 7 4 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.360 -2.441 -1.190 -0.474 0.00 0.541 4.599 5.440 2.030 0  
 No -3.360 -2.503 -1.279 -0.787 -0.77 -0.162 0.846 1.968 1.190 0  
 Yes -1.191 -1.191 -0.154 1.415 1.82 3.951 5.331 5.440 2.472 0



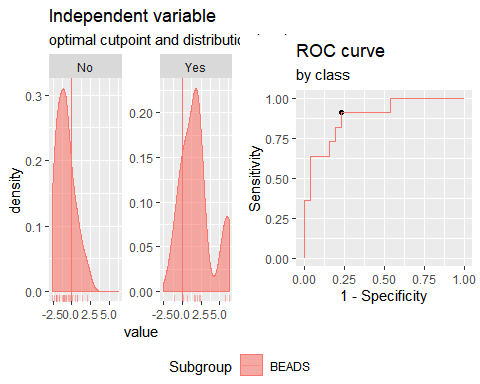
**"Combination IFNγ+CCL11+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9056 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1766 0.7028 0.8649 0.8182 0.8846 9 2 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.587 -2.422 -1.116 -0.548 0.000 0.001 4.883 5.499 2.110 0  
 No -2.587 -2.458 -1.288 -0.941 -0.818 -0.491 0.389 4.953 1.399 0  
 Yes -0.548 -0.539 -0.138 1.322 1.934 3.883 5.182 5.499 2.298 0



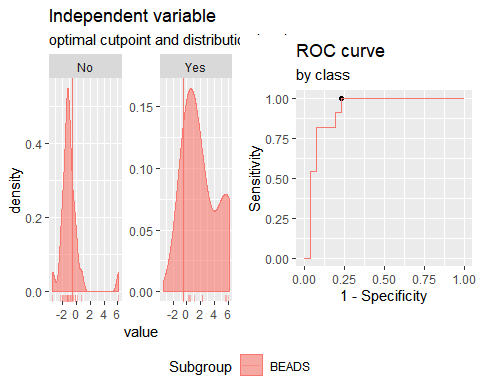
**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8881 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0025 0.6783 0.8108 0.9091 0.7692 10 1 6 20  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.584 -2.148 -1.313 -0.531 0.000 0.759 3.046 6.326 2.044 0  
 No -2.584 -2.257 -1.898 -0.981 -0.838 -0.192 1.280 2.135 1.214 0  
 Yes -1.081 -0.542 0.378 1.725 1.981 2.330 6.039 6.326 2.284 0



**"Combination IFNγ+CCL11+IL2"**

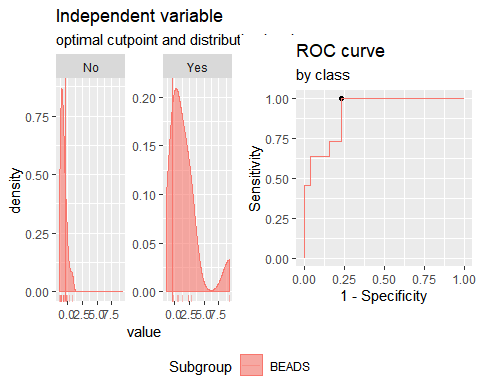
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9196 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5677 0.7692 0.8378 1 0.7692 11 0 6 20  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.411 -2.079 -1.319 -0.687 0.000 0.373 5.806 6.140 2.365 0  
 No -3.411 -2.278 -1.482 -1.217 -0.886 -0.620 0.590 6.140 1.660 0  
 Yes -0.568 -0.503 0.311 1.082 2.095 3.894 5.890 6.029 2.525 0



**Analysis PTB vs TSTp+TSTn. Responses for all groups and cytokines corrected for background by division (ratio).**

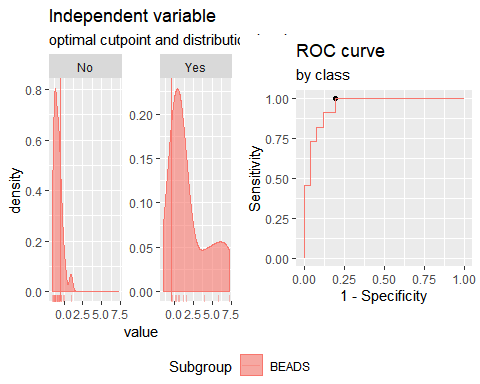
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9161 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3932 0.7692 0.8378 1 0.7692 11 0 6 20  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.366 -1.209 -1.016 -0.528 0.000 0.008 2.514 9.306 1.889 0  
 No -1.366 -1.223 -1.070 -0.778 -0.694 -0.459 0.263 0.788 0.518 0  
 Yes -0.393 -0.392 -0.286 0.577 1.641 2.386 6.103 9.306 2.822 0



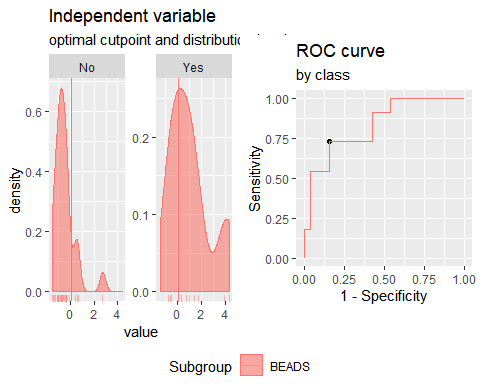
**"Combination IFNγ + IL2**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9545 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.405 0.8077 0.8649 1 0.8077 11 0 5 21  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.474 -1.352 -1.142 -0.572 0.000 0.125 4.334 7.233 1.896 0  
 No -1.474 -1.374 -1.184 -0.841 -0.788 -0.551 0.074 0.923 0.543 0  
 Yes -0.405 -0.331 0.143 0.672 1.863 2.759 6.489 7.233 2.603 0



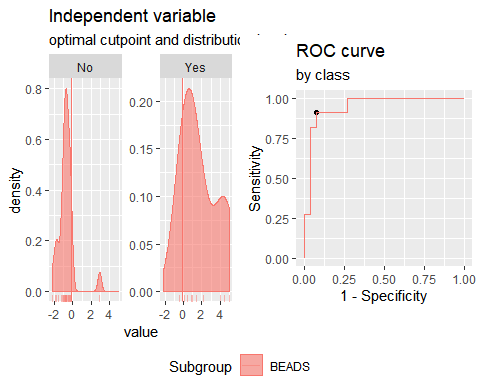
**"Combination IFNγ + CCL3**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8322 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1295 0.5734 0.8108 0.7273 0.8462 8 3 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.437 -1.328 -0.776 -0.496 0.000 0.405 2.983 4.353 1.361 0  
 No -1.437 -1.351 -0.984 -0.674 -0.464 -0.291 0.654 2.739 0.861 0  
 Yes -0.700 -0.611 -0.186 0.751 1.096 1.615 4.155 4.353 1.713 0



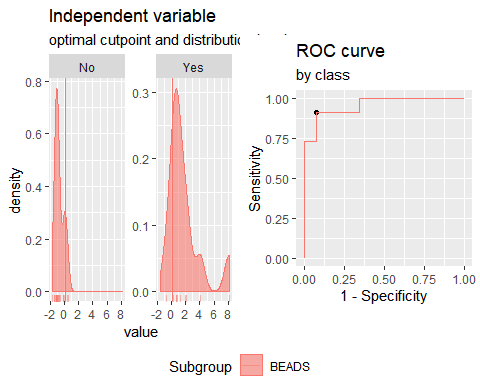
**"Combination IFNγ + CCL11**"

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9476 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1534 0.8322 0.9189 0.9091 0.9231 10 1 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.178 -1.797 -0.888 -0.515 0.000 0.096 4.073 4.965 1.691 0  
 No -2.178 -1.832 -1.025 -0.760 -0.721 -0.443 -0.148 2.901 0.905 0  
 Yes -0.481 -0.317 0.287 1.023 1.704 3.061 4.693 4.965 1.922 0



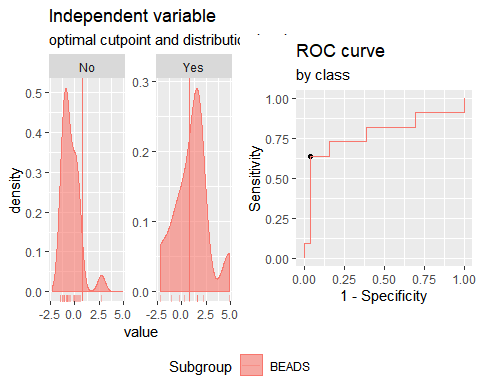
**"Combination IP10 + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9545 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1668 0.8322 0.9189 0.9091 0.9231 10 1 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.632 -1.356 -1.116 -0.659 0.000 0.399 2.528 8.120 1.810 0  
 No -1.632 -1.364 -1.153 -0.973 -0.748 -0.238 0.329 0.488 0.598 0  
 Yes -0.722 -0.278 0.477 0.826 1.767 2.084 6.063 8.120 2.451 0



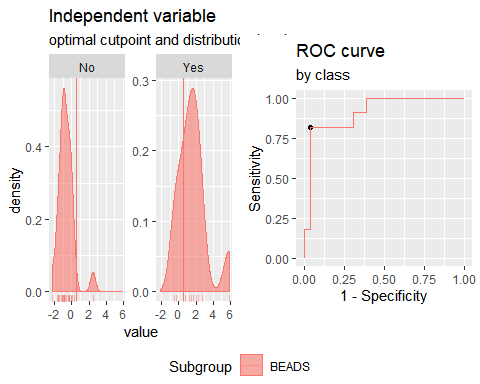
**"Combination IP10 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7762 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.7883 0.5979 0.8649 0.6364 0.9615 7 4 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.238 -1.438 -1.017 -0.278 0.000 0.490 2.285 4.842 1.393 0  
 No -1.440 -1.407 -1.039 -0.697 -0.423 0.052 0.545 2.733 0.893 0  
 Yes -2.238 -1.627 0.010 1.580 1.000 1.624 3.507 4.842 1.853 0



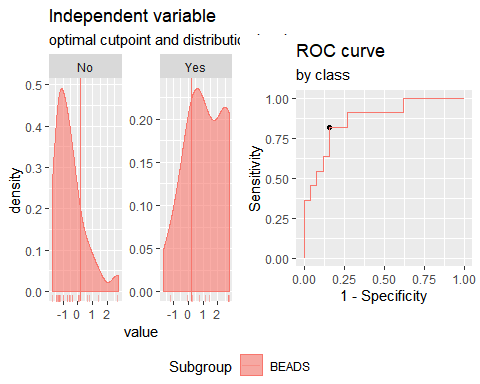
**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9126 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5213 0.7797 0.9189 0.8182 0.9615 9 2 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.203 -1.609 -1.021 -0.430 0.000 0.521 2.509 5.851 1.578 0  
 No -2.203 -1.646 -1.107 -0.842 -0.680 -0.276 0.226 2.466 0.878 0  
 Yes -0.470 -0.391 0.622 1.446 1.608 2.146 4.267 5.851 1.730 0



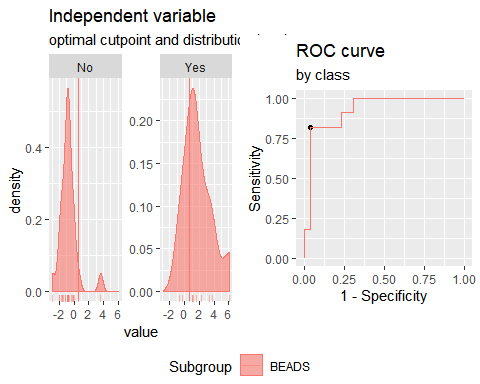
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8706 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1816 0.6643 0.8378 0.8182 0.8462 9 2 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.689 -1.440 -1.205 -0.388 0.000 0.729 2.711 2.770 1.369 0  
 No -1.689 -1.445 -1.226 -0.676 -0.517 -0.084 1.240 2.669 1.007 0  
 Yes -1.203 -0.624 0.245 1.151 1.222 2.692 2.756 2.770 1.368 0



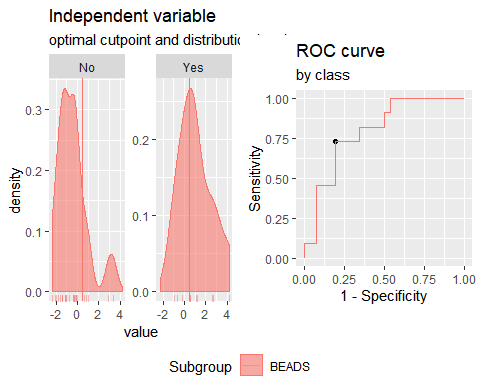
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9266 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.612 0.7797 0.9189 0.8182 0.9615 9 2 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.895 -1.980 -0.959 -0.657 0.000 0.612 3.653 6.072 1.860 0  
 No -2.895 -2.019 -1.362 -0.863 -0.774 -0.477 0.467 3.622 1.166 0  
 Yes -0.657 -0.479 0.851 1.183 1.830 2.835 4.925 6.072 1.952 0



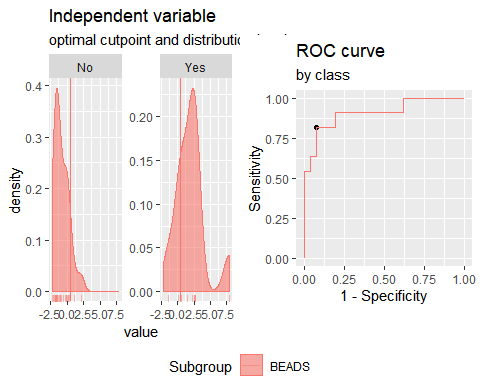
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7937 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5013 0.535 0.7838 0.7273 0.8077 8 3 5 21  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.282 -2.004 -1.114 -0.232 0.000 0.666 3.013 4.168 1.572 0  
 No -2.282 -2.018 -1.363 -0.587 -0.450 -0.117 2.452 3.373 1.373 0  
 Yes -0.952 -0.822 0.165 0.592 1.063 1.927 3.426 4.168 1.555 0



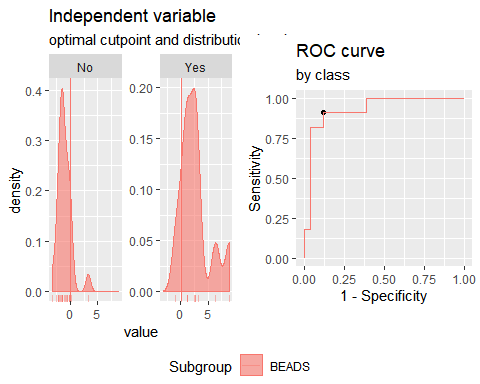
**"Combination IP10 + IL2+CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9091 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.4548 0.7413 0.8919 0.8182 0.9231 9 2 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.179 -1.967 -1.477 -0.254 0.000 0.648 2.758 7.866 2.022 0  
 No -2.179 -1.998 -1.666 -1.093 -0.844 -0.064 0.904 2.127 1.070 0  
 Yes -1.471 -0.682 0.552 2.248 1.994 2.668 5.322 7.866 2.374 0



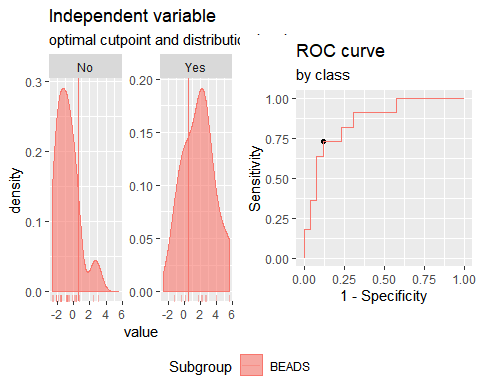
**"Combination IP10 + IL2+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9301 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.038 0.7937 0.8919 0.9091 0.8846 10 1 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.233 -2.257 -1.492 -0.777 0.000 1.109 3.907 8.875 2.495 0  
 No -3.233 -2.442 -1.820 -1.419 -1.101 -0.526 0.223 3.288 1.238 0  
 Yes -0.924 -0.443 1.111 2.386 2.603 2.943 7.628 8.875 2.823 0



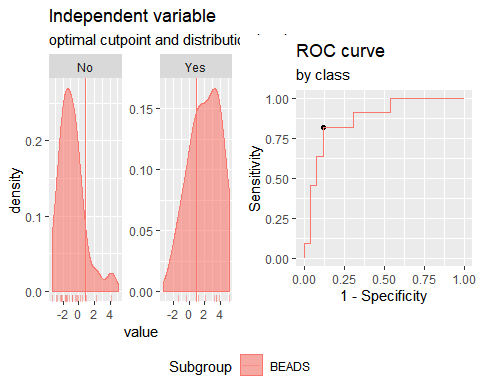
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8601 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.5181 0.6119 0.8378 0.7273 0.8846 8 3 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.62 -2.264 -1.532 -0.584 0.000 0.667 3.241 5.597 1.976 0  
 No -2.62 -2.419 -1.677 -0.861 -0.777 0.042 1.952 3.039 1.390 0  
 Yes -1.22 -0.786 0.327 2.092 1.835 2.708 4.823 5.597 1.988 0



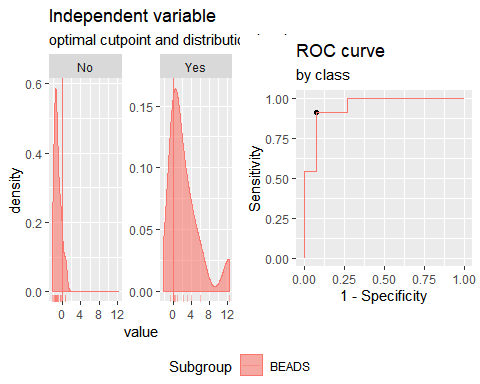
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8741 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.9001 0.7028 0.8649 0.8182 0.8846 9 2 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.312 -2.744 -1.613 -0.457 0.000 1.024 3.911 5.113 2.192 0  
 No -3.312 -2.826 -1.959 -1.055 -0.871 -0.165 1.993 4.196 1.643 0  
 Yes -1.406 -0.874 0.939 2.062 2.058 3.525 4.477 5.113 1.979 0



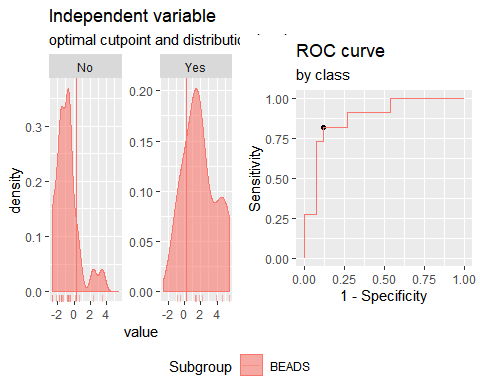
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9476 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0054 0.8322 0.9189 0.9091 0.9231 10 1 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.192 -1.867 -1.502 -0.849 0.000 0.253 4.454 12.330 2.728 0  
 No -2.192 -1.933 -1.683 -1.355 -1.115 -0.569 0.432 0.656 0.757 0  
 Yes -0.673 -0.339 0.249 0.859 2.635 3.555 9.191 12.330 3.805 0



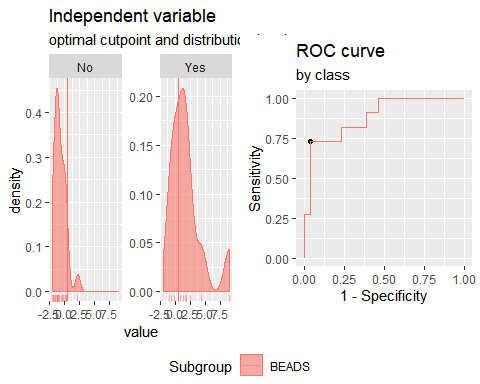
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8811 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2742 0.7028 0.8649 0.8182 0.8846 9 2 3 23  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.611 -2.595 -1.518 -0.628 0.000 1.311 4.057 5.512 2.045 0  
 No -2.611 -2.595 -1.587 -0.823 -0.817 -0.486 1.964 3.475 1.414 0  
 Yes -0.903 -0.712 0.792 1.470 1.931 3.063 5.112 5.512 2.054 0



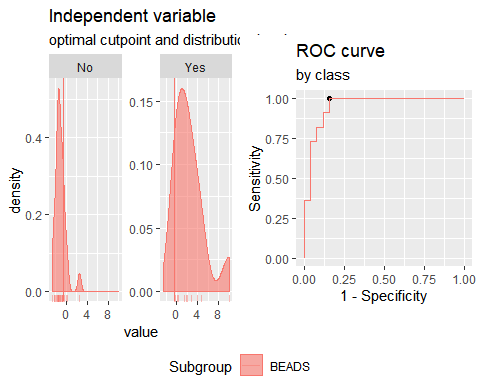
**"Combination IFNγ+CCL3+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8846 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.469 0.6888 0.8919 0.7273 0.9615 8 3 1 25  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.998 -1.867 -1.256 -0.487 0.000 0.341 2.891 9.052 2.089 0  
 No -1.998 -1.908 -1.416 -1.039 -0.790 -0.257 0.317 2.197 0.944 0  
 Yes -0.968 -0.782 0.139 1.364 1.868 2.171 6.739 9.052 2.831 0



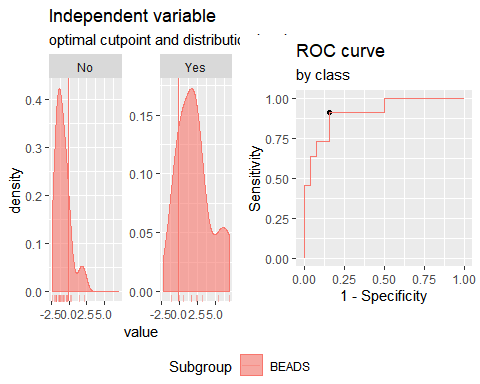
**"Combination IFNγ+CCL11+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9545 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4212 0.8462 0.8919 1 0.8462 11 0 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.516 -2.190 -1.430 -0.654 0.000 0.216 4.193 10.061 2.433 0  
 No -2.516 -2.248 -1.551 -1.295 -1.048 -0.625 0.189 2.567 1.008 0  
 Yes -0.421 -0.281 0.269 1.979 2.477 3.479 7.395 10.061 3.028 0



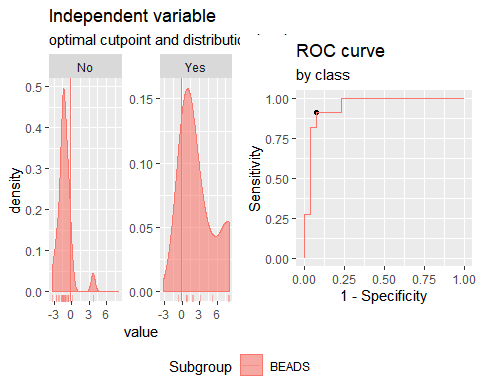
**"Combination IFNγ+CCL3+IL2"**

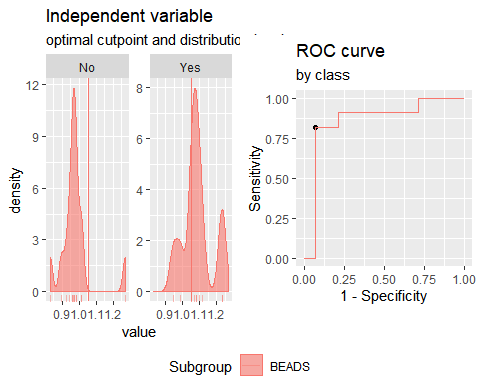
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.9126 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1361 0.7552 0.8649 0.9091 0.8462 10 1 4 22  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.300 -1.906 -1.346 -0.688 0.000 0.479 3.659 6.980 2.079 0  
 No -2.300 -1.978 -1.691 -1.170 -0.884 -0.395 1.206 2.133 1.049 0  
 Yes -1.154 -0.645 0.255 1.678 2.090 2.813 6.244 6.980 2.443 0



**"Combination IFNγ+CCL11+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.951 37 11 26  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1315 0.8322 0.9189 0.9091 0.9231 10 1 2 24  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.208 -2.560 -1.480 -0.787 0.000 0.689 5.710 8.118 2.629 0  
 No -3.208 -2.620 -1.708 -1.294 -1.142 -0.712 0.078 3.723 1.262 0  
 Yes -0.607 -0.369 0.696 1.822 2.699 4.112 8.053 8.118 3.083 0

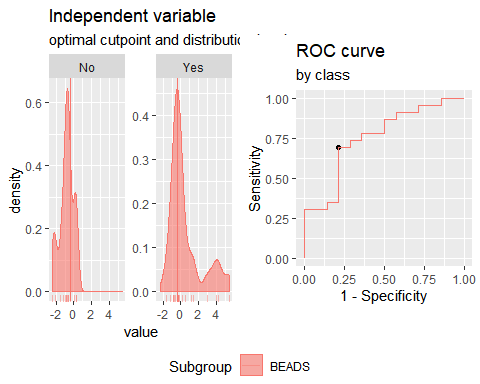
**CCL11**  
 Method: maximize\_metric   
 Predictor: var   
 Outcome: Grupo   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8571 25 11 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.051 0.7468 0.88 0.8182 0.9286 9 2 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall 0.829 0.901 0.959 0.986 1.024 1.077 1.233 1.270 0.106 0  
 No 0.829 0.872 0.946 0.969 0.977 0.983 1.104 1.270 0.097 0  
 Yes 0.944 0.965 1.051 1.077 1.084 1.105 1.232 1.233 0.087 0



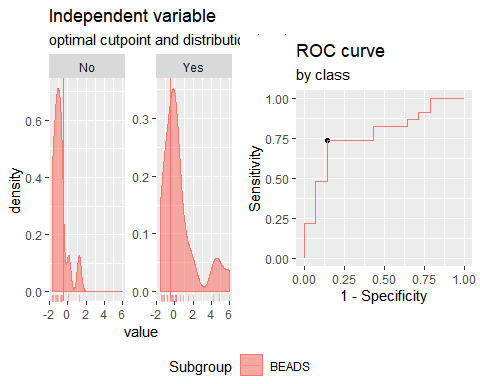
**Analysis PTB+TSTp vs TSTn. Responses for all groups and cytokines corrected for background by subtraction.**

**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7547 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3609 0.4814 0.7297 0.6957 0.7857 16 7 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.357 -1.704 -0.798 -0.361 0.000 0.129 4.019 5.439 1.669 0  
 No -2.357 -2.169 -1.119 -0.733 -0.810 -0.446 0.262 0.281 0.781 0  
 Yes -1.613 -1.116 -0.516 -0.291 0.493 0.852 4.215 5.439 1.878 0

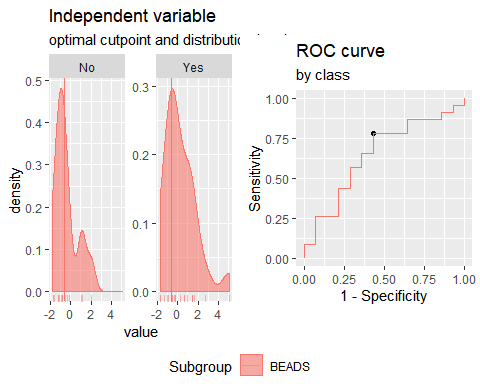
 **"Combination IFNγ + IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7795 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.484 0.5963 0.7838 0.7391 0.8571 17 6 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.645 -1.601 -1.184 -0.484 0.000 0.168 4.396 5.970 1.773 0  
 No -1.645 -1.645 -1.293 -1.061 -0.877 -0.724 0.497 1.253 0.772 0  
 Yes -1.507 -1.365 -0.674 0.058 0.534 0.782 4.792 5.970 2.001 0

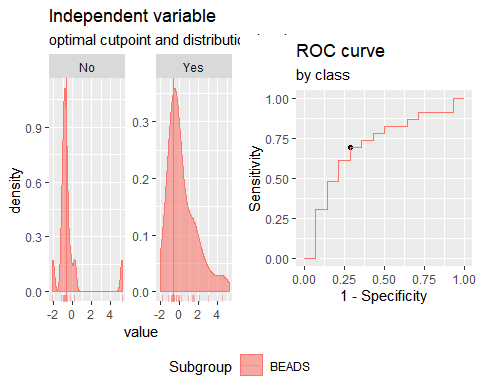


**"Combination IFNγ + CCL3"**

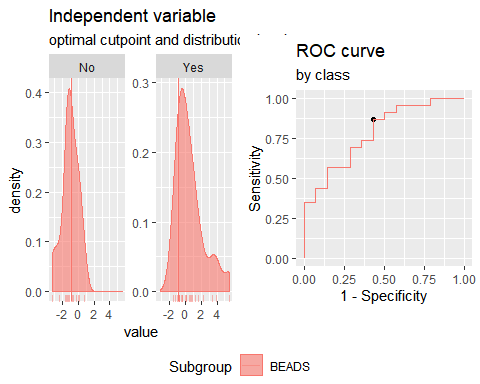
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6491 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6502 0.354 0.7027 0.7826 0.5714 18 5 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.736 -1.704 -0.952 -0.468 0.000 0.924 2.176 5.054 1.429 0  
 No -1.735 -1.636 -1.180 -0.767 -0.431 -0.158 1.477 2.040 1.112 0  
 Yes -1.736 -1.659 -0.641 -0.205 0.262 1.163 2.609 5.054 1.556 0

 **"Combination IFNγ + CCL11"**

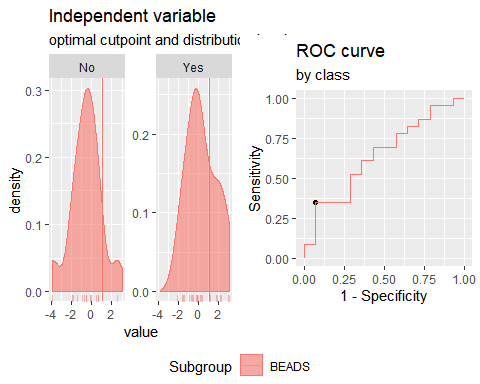
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.705 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6234 0.4099 0.7027 0.6957 0.7143 16 7 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.072 -1.287 -0.853 -0.595 0.000 0.152 3.293 5.179 1.562 0  
 No -2.072 -1.478 -0.974 -0.772 -0.372 -0.554 1.956 5.179 1.676 0  
 Yes -1.797 -1.134 -0.696 -0.362 0.227 1.103 2.906 4.479 1.479 0

**"Combination IP10 + IL2"**

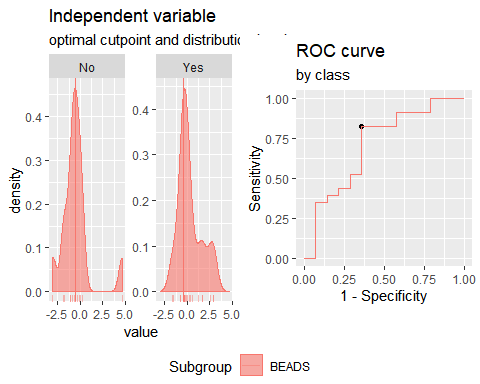
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7857 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8107 0.441 0.7568 0.8696 0.5714 20 3 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.166 -1.767 -0.972 -0.391 0.000 0.702 3.563 5.536 1.706 0  
 No -3.166 -2.665 -1.407 -0.998 -0.979 -0.303 0.365 0.734 1.033 0  
 Yes -1.525 -1.221 -0.677 0.109 0.596 1.149 3.881 5.536 1.775 0

**"Combination IP10 + CCL3"**

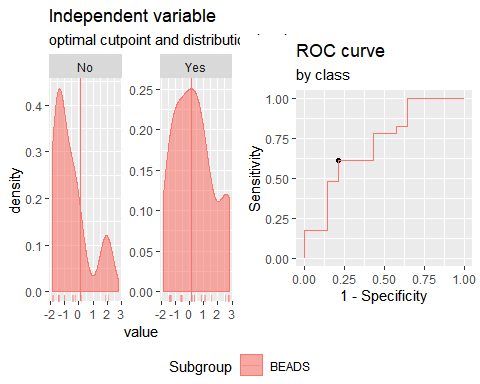
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.646 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 1.0276 0.2764 0.5676 0.3478 0.9286 8 15 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.809 -1.908 -0.859 -0.142 0.000 0.656 2.644 3.013 1.514 0  
 No -3.809 -2.550 -1.282 -0.526 -0.533 0.317 1.324 2.564 1.487 0  
 Yes -2.051 -1.593 -0.690 0.008 0.324 1.464 2.896 3.013 1.468 0

**"Combination IP10 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7081 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.479 0.4689 0.7568 0.8261 0.6429 19 4 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.036 -1.772 -0.728 -0.315 0.000 0.274 2.920 4.661 1.492 0  
 No -3.036 -2.271 -1.060 -0.580 -0.474 -0.120 1.810 4.661 1.718 0  
 Yes -1.607 -1.458 -0.408 -0.199 0.288 0.912 2.884 2.921 1.292 0

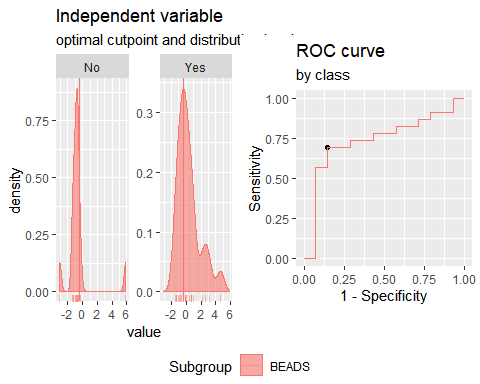
**"Combination IL2 + CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7174 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.1332 0.3944 0.6757 0.6087 0.7857 14 9 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.842 -1.519 -1.362 -0.375 0.000 0.864 2.730 2.815 1.412 0  
 No -1.842 -1.812 -1.448 -1.048 -0.600 -0.277 1.916 2.050 1.239 0  
 Yes -1.430 -1.406 -0.610 0.193 0.365 1.106 2.746 2.815 1.409 0



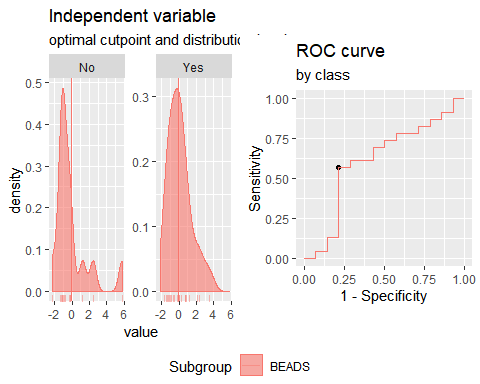
**"Combination IL2 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7391 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3925 0.5528 0.7568 0.6957 0.8571 16 7 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.105 -1.380 -0.928 -0.588 0.000 0.476 3.404 5.849 1.735 0  
 No -3.105 -1.950 -1.204 -0.796 -0.542 -0.634 1.854 5.849 1.956 0  
 Yes -1.432 -1.356 -0.671 -0.116 0.330 0.751 3.047 4.649 1.539 0



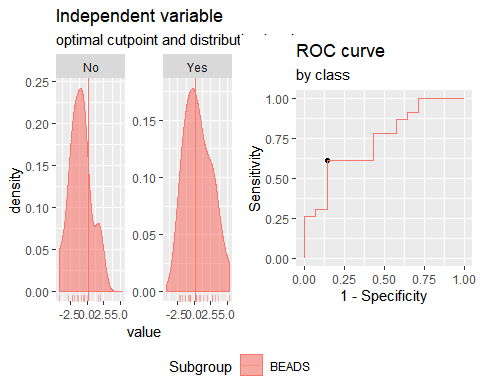
**"Combination CCL3 + CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6118 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1067 0.3509 0.6486 0.5652 0.7857 13 10 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.222 -1.490 -1.143 -0.252 0.000 0.711 2.632 5.770 1.597 0  
 No -2.222 -1.695 -1.170 -0.872 -0.095 -0.182 3.597 5.770 2.048 0  
 Yes -1.661 -1.435 -0.973 -0.101 0.058 0.714 2.347 3.457 1.298 0



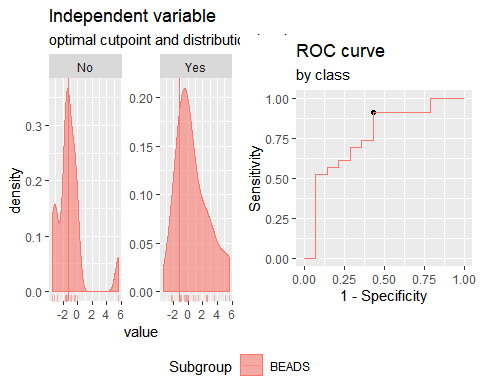
**"Combination IP10 + IL2+CCL3"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7391 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 0.2461 0.4658 0.7027 0.6087 0.8571 14 9 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.169 -2.396 -1.400 -0.385 0.000 1.370 3.243 5.317 2.049 0  
 No -4.169 -3.317 -2.171 -1.116 -1.056 -0.361 1.743 1.977 1.659 0  
 Yes -2.248 -2.024 -0.848 0.358 0.643 2.314 3.619 5.317 2.025 0



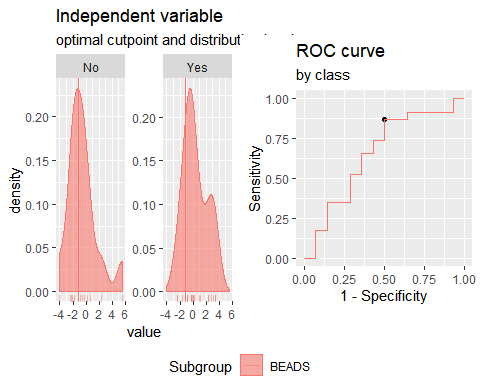
**"Combination IP10 + IL2+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.764 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.2201 0.4845 0.7838 0.913 0.5714 21 2 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.395 -2.829 -1.333 -0.427 0.000 0.733 5.243 5.622 2.269 0  
 No -3.395 -3.268 -1.673 -1.413 -0.997 -0.503 1.912 5.622 2.161 0  
 Yes -2.249 -2.021 -0.989 -0.079 0.607 2.013 4.998 5.595 2.155 0



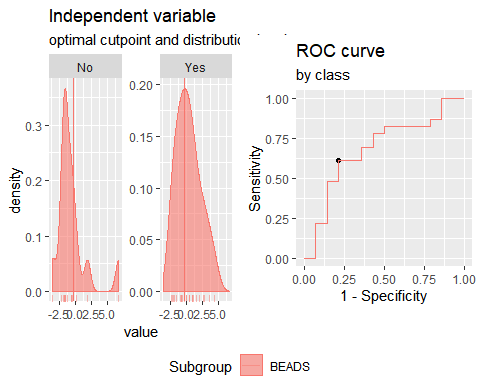
**"Combination IP10 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6553 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.1677 0.3696 0.7297 0.8696 0.5 20 3 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -4.038 -2.332 -1.178 -0.254 0.000 1.012 3.369 5.543 2.017 0  
 No -4.038 -2.919 -1.970 -1.018 -0.551 0.082 3.470 5.543 2.326 0  
 Yes -2.339 -2.253 -0.859 -0.048 0.335 1.701 3.325 3.452 1.774 0



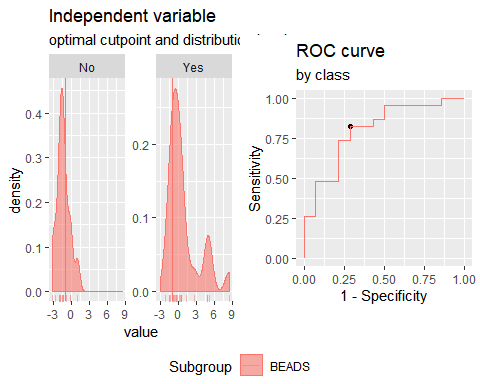
**"Combination IL2 + CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6832 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2906 0.3944 0.6757 0.6087 0.7857 14 9 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.561 -2.238 -1.591 -0.599 0.000 0.968 3.802 6.731 2.134 0  
 No -3.561 -2.715 -1.761 -1.433 -0.619 -0.496 3.551 6.731 2.458 0  
 Yes -2.232 -2.076 -0.843 0.025 0.377 1.403 3.573 4.407 1.868 0



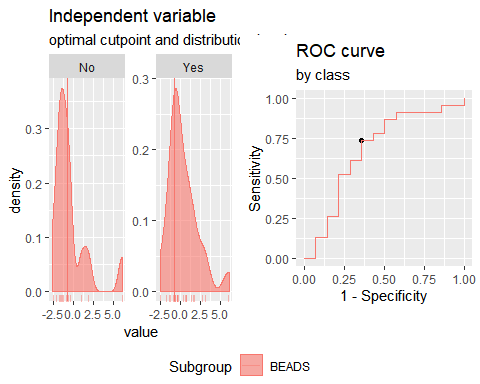
**"Combination IFNγ+IP10+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8043 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.033 0.5404 0.7838 0.8261 0.7143 19 4 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.054 -2.291 -1.397 -0.701 0.000 0.462 4.969 8.472 2.417 0  
 No -3.054 -2.835 -1.919 -1.408 -1.333 -0.908 0.289 1.026 1.068 0  
 Yes -2.184 -1.406 -0.828 -0.225 0.811 0.996 5.202 8.472 2.658 0



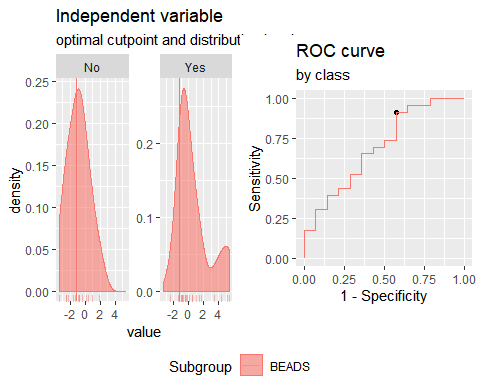
**"Combination IFNγ+CCL3+CCL11"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.677 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.7299 0.382 0.7027 0.7391 0.6429 17 6 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.597 -2.227 -1.327 -0.612 0.000 0.757 3.673 6.062 2.008 0  
 No -2.528 -2.284 -1.641 -1.093 -0.450 -0.487 3.311 6.062 2.211 0  
 Yes -2.597 -1.800 -0.784 -0.386 0.274 1.032 3.069 5.956 1.871 0



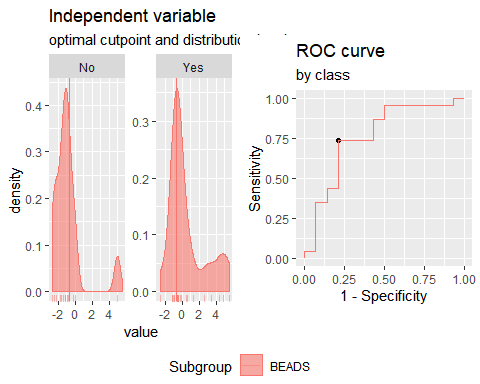
**"Combination IFNγ+CCL3+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6957 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.191 0.3416 0.7297 0.913 0.4286 21 2 8 6  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.360 -2.441 -1.190 -0.474 0.000 0.541 4.599 5.440 2.030 0  
 No -3.360 -2.821 -1.987 -0.822 -0.887 0.046 1.305 1.968 1.467 0  
 Yes -2.414 -1.273 -0.889 -0.214 0.540 1.241 5.143 5.440 2.160 0



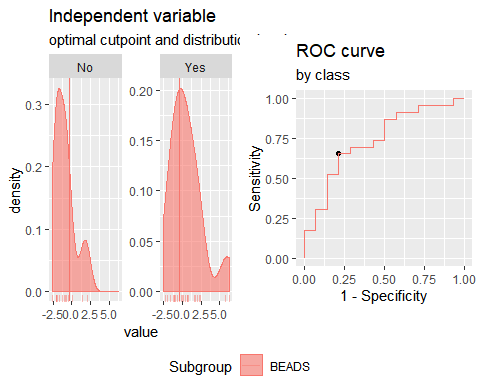
**"Combination IFNγ+CCL11+IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7609 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6141 0.5248 0.7568 0.7391 0.7857 17 6 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.587 -2.422 -1.116 -0.548 0.000 0.001 4.883 5.499 2.110 0  
 No -2.587 -2.471 -1.662 -1.108 -0.828 -0.708 1.734 4.953 1.832 0  
 Yes -2.474 -1.120 -0.773 -0.469 0.504 0.948 4.814 5.499 2.144 0



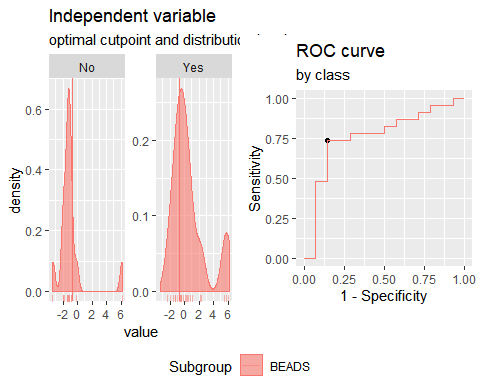
**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7391 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.3428 0.4379 0.7027 0.6522 0.7857 15 8 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.584 -2.148 -1.313 -0.531 0.000 0.759 3.046 6.326 2.044 0  
 No -2.584 -2.275 -2.049 -1.148 -0.954 -0.578 1.692 2.135 1.379 0  
 Yes -2.307 -2.022 -1.030 0.127 0.581 1.650 5.413 6.326 2.187 0



**"Combination IFNγ+CCL11+IL2"**

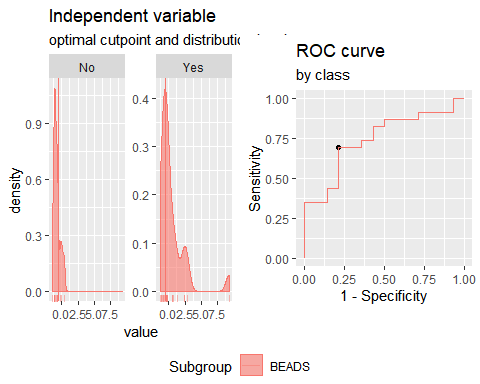
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.764 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6873 0.5963 0.7838 0.7391 0.8571 17 6 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.411 -2.079 -1.319 -0.687 0.000 0.373 5.806 6.140 2.365 0  
 No -3.411 -2.499 -1.694 -1.271 -0.896 -0.949 2.059 6.140 2.157 0  
 Yes -2.368 -1.862 -0.849 -0.200 0.545 0.920 5.727 6.029 2.362 0



**Analysis PTB+TSTp vs TSTn. Responses for all groups and cytokinescorrected for background by division (ratio).**

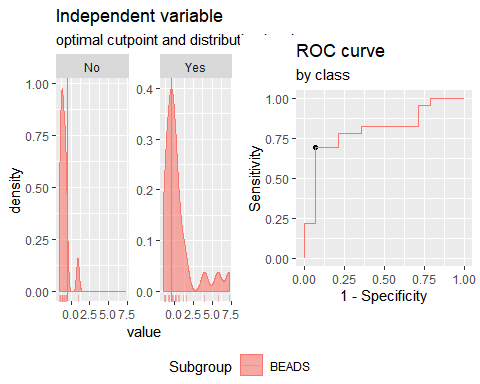
**"Combination IFNγ +IP10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7453 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5276 0.4814 0.7297 0.6957 0.7857 16 7 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.366 -1.209 -1.016 -0.528 0.000 0.008 2.514 9.306 1.889 0  
 No -1.366 -1.256 -1.075 -0.899 -0.757 -0.659 0.127 0.347 0.492 0  
 Yes -1.230 -1.190 -0.747 -0.352 0.461 0.683 2.851 9.306 2.261 0

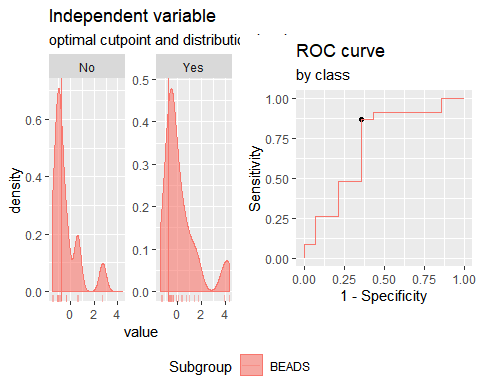


**"Combination IFNγ + IL2"**

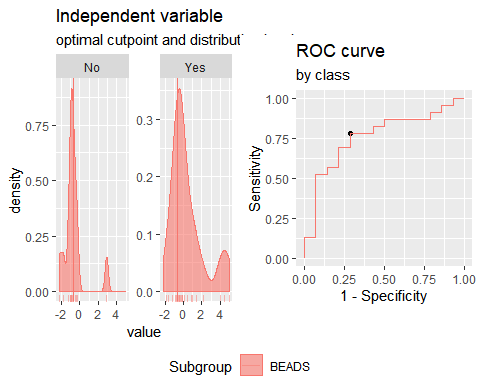
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.8043 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4283 0.6242 0.7838 0.6957 0.9286 16 7 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.474 -1.352 -1.142 -0.572 0.000 0.125 4.334 7.233 1.896 0  
 No -1.474 -1.416 -1.211 -1.025 -0.885 -0.764 -0.031 0.923 0.596 0  
 Yes -1.262 -1.217 -0.685 -0.256 0.539 0.596 5.568 7.233 2.207 0

**"Combination IFNγ + CCL3"**

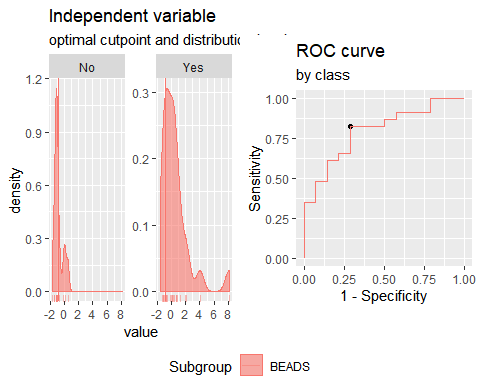
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7081 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.7002 0.5124 0.7838 0.8696 0.6429 20 3 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.437 -1.328 -0.776 -0.496 0.000 0.405 2.983 4.353 1.361 0  
 No -1.437 -1.388 -1.024 -0.816 -0.412 -0.291 1.397 2.739 1.107 0  
 Yes -1.320 -1.199 -0.621 -0.306 0.250 0.578 3.735 4.353 1.460 0

**"Combination IFNγ + CCL11"**

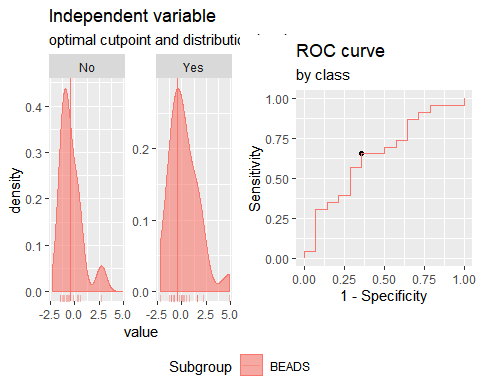
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7609 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6866 0.4969 0.7568 0.7826 0.7143 18 5 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.178 -1.797 -0.888 -0.515 0.000 0.096 4.073 4.965 1.691 0  
 No -2.178 -1.922 -1.025 -0.844 -0.688 -0.563 0.858 2.901 1.154 0  
 Yes -1.848 -1.529 -0.658 -0.186 0.419 0.959 4.377 4.965 1.846 0

**"Combination IP10 + IL2"**

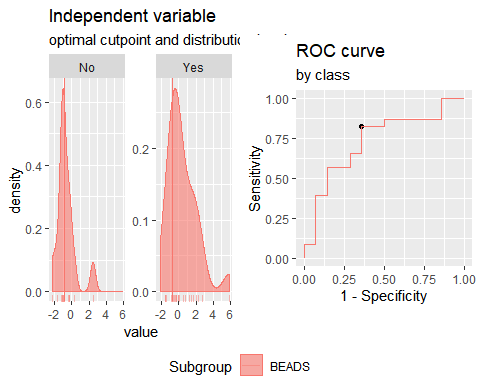
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7981 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8358 0.5404 0.7838 0.8261 0.7143 19 4 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.632 -1.356 -1.116 -0.659 0.000 0.399 2.528 8.120 1.810 0  
 No -1.632 -1.461 -1.181 -1.086 -0.867 -0.736 0.248 0.488 0.612 0  
 Yes -1.308 -1.188 -0.792 0.105 0.528 0.758 3.822 8.120 2.090 0

**"Combination IP10 + CCL3"**

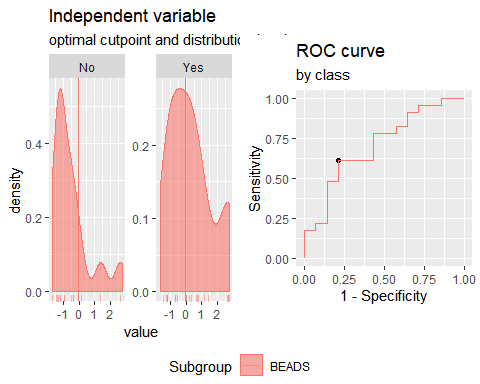
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.646 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.4544 0.295 0.6486 0.6522 0.6429 15 8 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.238 -1.438 -1.017 -0.278 0.000 0.490 2.285 4.842 1.393 0  
 No -1.440 -1.438 -1.150 -0.722 -0.393 0.148 1.323 2.733 1.118 0  
 Yes -2.238 -1.210 -0.842 -0.012 0.239 1.184 2.119 4.842 1.510 0

**"Combination IP10 + CCL11"**

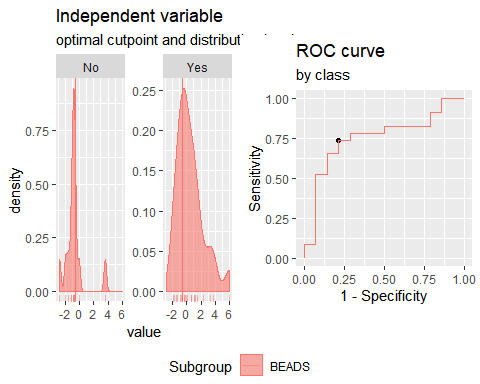
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7329 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.8072 0.4689 0.7568 0.8261 0.6429 19 4 5 9  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.203 -1.609 -1.021 -0.430 0.000 0.521 2.509 5.851 1.578 0  
 No -2.203 -1.852 -1.107 -0.958 -0.670 -0.328 1.034 2.466 1.089 0  
 Yes -1.595 -1.529 -0.681 -0.088 0.408 1.339 2.644 5.851 1.708 0

**"Combination IL2 + CCL3"**

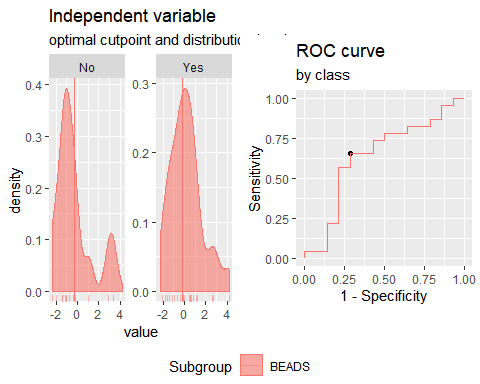
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7081 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.0455 0.3944 0.6757 0.6087 0.7857 14 9 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.689 -1.440 -1.205 -0.388 0.000 0.729 2.711 2.770 1.369 0  
 No -1.689 -1.532 -1.297 -0.963 -0.521 -0.374 1.841 2.669 1.217 0  
 Yes -1.438 -1.286 -0.676 0.045 0.317 0.962 2.738 2.770 1.383 0

**"Combination IL2 + CCL11"**

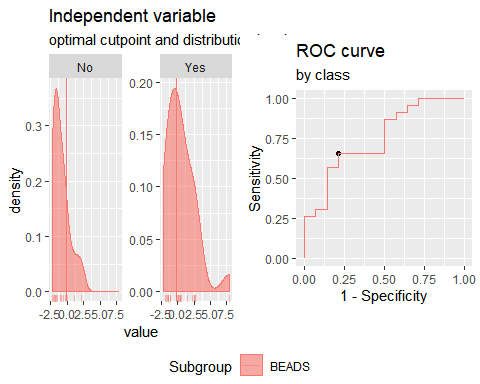
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7547 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.7035 0.5248 0.7568 0.7391 0.7857 17 6 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.895 -1.980 -0.959 -0.657 0.000 0.612 3.653 6.072 1.860 0  
 No -2.895 -2.337 -1.211 -0.911 -0.797 -0.725 1.195 3.622 1.443 0  
 Yes -1.966 -1.700 -0.718 -0.051 0.485 1.152 3.736 6.072 1.944 0

**"Combination CCL3 + CCL11"**

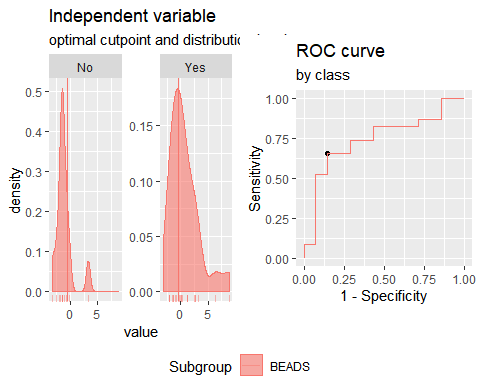
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6398 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.2324 0.3665 0.6757 0.6522 0.7143 15 8 4 10  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.282 -2.004 -1.114 -0.232 0.000 0.666 3.013 4.168 1.572 0  
 No -2.282 -2.098 -1.308 -0.894 -0.324 -0.181 3.080 3.373 1.685 0  
 Yes -2.024 -1.719 -0.822 -0.113 0.197 0.741 2.679 4.168 1.503 0

**"Combination IP10 + IL2+CCL3"**

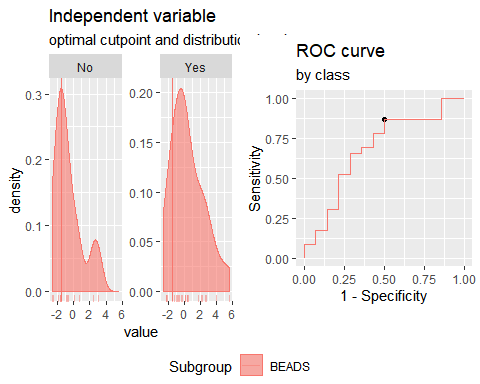
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7484 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.1446 0.4379 0.7027 0.6522 0.7857 15 8 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.179 -1.967 -1.477 -0.254 0.000 0.648 2.758 7.866 2.022 0  
 No -2.179 -2.070 -1.815 -1.261 -0.890 -0.343 1.434 2.127 1.265 0  
 Yes -1.815 -1.670 -1.222 0.146 0.542 1.854 2.776 7.866 2.222 0

**"Combination IP10 + IL2+CCL11"**

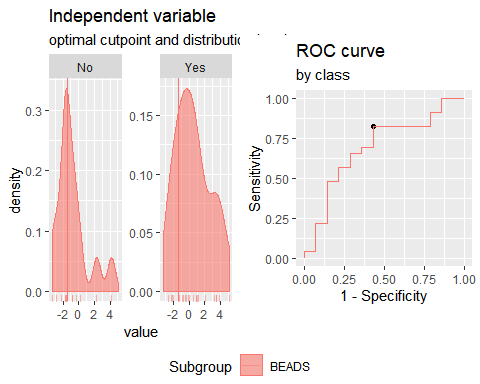
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7453 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5008 0.5093 0.7297 0.6522 0.8571 15 8 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.233 -2.257 -1.492 -0.777 0.000 1.109 3.907 8.875 2.495 0  
 No -3.233 -2.773 -1.803 -1.472 -1.167 -0.855 1.071 3.288 1.501 0  
 Yes -2.190 -2.130 -1.162 0.038 0.710 1.757 6.067 8.875 2.731 0

**"Combination IP10 + CCL3+CCL11"**

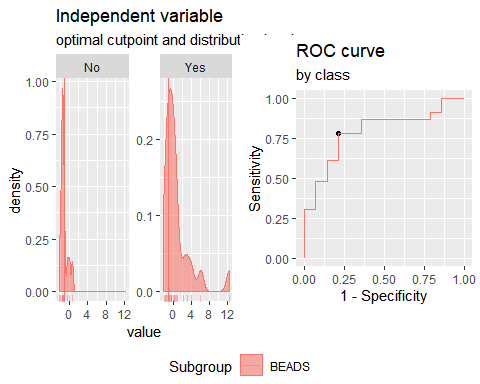
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6832 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.5284 0.3696 0.7297 0.8696 0.5 20 3 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.620 -2.264 -1.532 -0.584 0.000 0.667 3.241 5.597 1.976 0  
 No -2.620 -2.535 -1.677 -1.245 -0.693 -0.067 2.611 3.039 1.708 0  
 Yes -2.208 -2.168 -0.861 0.137 0.422 1.913 3.919 5.597 2.042 0

**"Combination IL2 + CCL3+CCL11"**

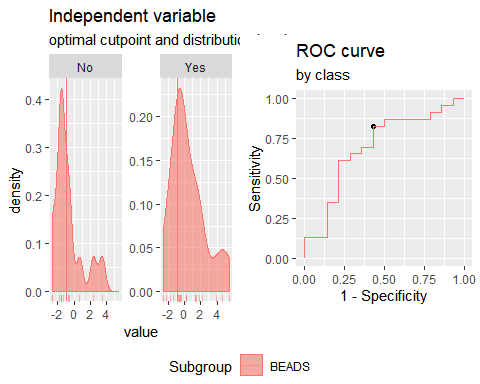
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6925 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.4058 0.3975 0.7297 0.8261 0.5714 19 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.312 -2.744 -1.613 -0.457 0.000 1.024 3.911 5.113 2.192 0  
 No -3.312 -3.020 -1.717 -1.497 -0.821 -0.423 2.974 4.196 1.995 0  
 Yes -2.714 -2.314 -1.055 -0.010 0.500 1.637 3.808 5.113 2.195 0

**"Combination IFNγ+IP10+IL2"**

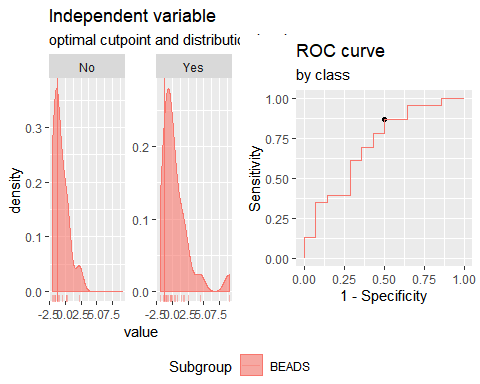
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7919 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.1225 0.5683 0.7838 0.7826 0.7857 18 5 3 11  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.192 -1.867 -1.502 -0.849 0.000 0.253 4.454 12.330 2.728 0  
 No -2.192 -2.043 -1.683 -1.493 -1.254 -1.184 0.181 0.589 0.769 0  
 Yes -1.843 -1.809 -1.003 -0.293 0.764 0.757 5.853 12.330 3.196 0

**"Combination IFNγ+CCL3+CCL11"**

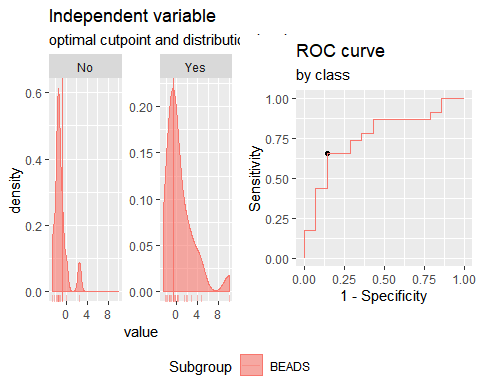
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.6957 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.9027 0.3975 0.7297 0.8261 0.5714 19 4 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.611 -2.595 -1.518 -0.628 0.000 1.311 4.057 5.512 2.045 0  
 No -2.611 -2.600 -1.587 -1.432 -0.712 -0.572 2.768 3.475 1.771 0  
 Yes -2.595 -2.151 -0.823 -0.377 0.433 1.431 4.630 5.512 2.114 0

**"Combination IFNγ+CCL3+CCL10"**

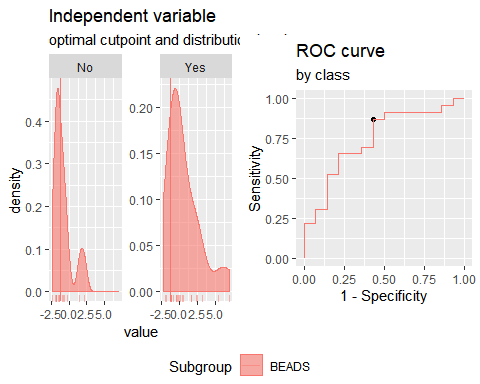
Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7112 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.2414 0.3696 0.7297 0.8696 0.5 20 3 7 7  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -1.998 -1.867 -1.256 -0.487 0.000 0.341 2.891 9.052 2.089 0  
 No -1.998 -1.951 -1.615 -1.162 -0.781 0.032 0.991 2.197 1.171 0  
 Yes -1.852 -1.445 -0.989 -0.221 0.475 1.115 4.234 9.052 2.388 0

**"Combination IFNγ+CCL11+CCL10"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.764 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.5967 0.5093 0.7297 0.6522 0.8571 15 8 2 12  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.516 -2.190 -1.430 -0.654 0.000 0.216 4.193 10.061 2.433 0  
 No -2.516 -2.358 -1.551 -1.408 -1.057 -0.742 0.967 2.567 1.237 0  
 Yes -2.170 -1.959 -1.052 -0.283 0.644 1.751 4.662 10.061 2.764 0

**"Combination IFNγ+CCL3+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7453 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -1.2638 0.441 0.7568 0.8696 0.5714 20 3 6 8  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -2.30 -1.906 -1.346 -0.688 0.000 0.479 3.659 6.980 2.079 0  
 No -2.30 -2.027 -1.763 -1.378 -0.908 -0.702 1.719 2.133 1.285 0  
 Yes -2.01 -1.793 -1.141 -0.136 0.553 1.652 5.276 6.980 2.291 0

**"Combination IFNγ+CCL11+IL2"**

Method: maximize\_metric   
 Predictor: var   
 Outcome: GrupoNew   
 Direction: >=   
 Subgroups: BEADS   
   
 Subgroup: BEADS   
 ---------------------------------------------------------------------------   
 AUC n n\_pos n\_neg  
 0.7795 37 23 14  
   
 optimal\_cutpoint youden acc sensitivity specificity tp fn fp tn  
 -0.6074 0.6242 0.7838 0.6957 0.9286 16 7 1 13  
   
 Predictor summary:   
 Min. 5% 1st Qu. Median Mean 3rd Qu. 95% Max. SD NAs  
 overall -3.208 -2.560 -1.480 -0.787 0.000 0.689 5.710 8.118 2.629 0  
 No -3.208 -2.844 -1.721 -1.390 -1.185 -1.066 0.856 3.723 1.574 0  
 Yes -2.538 -2.121 -1.122 -0.206 0.721 1.343 7.704 8.118 2.900 0

