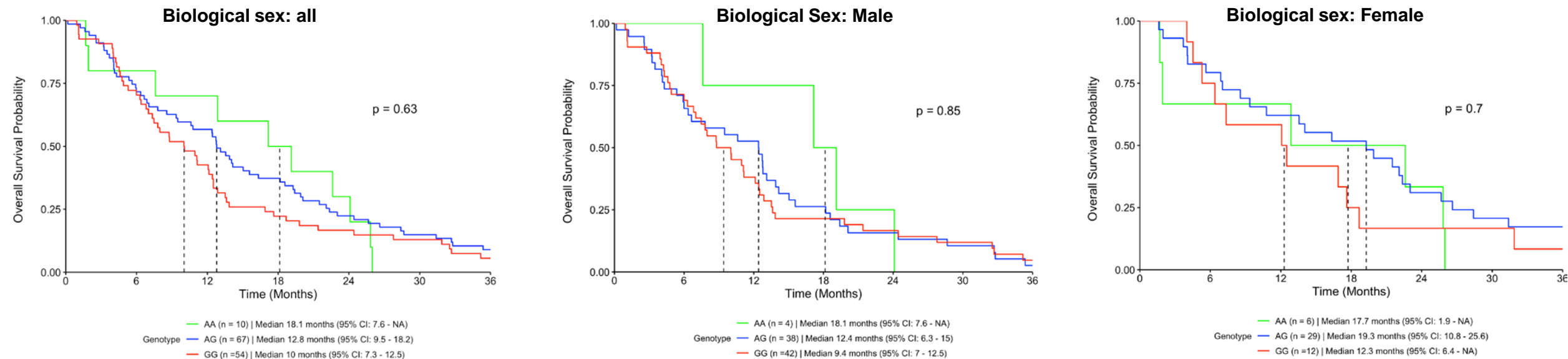
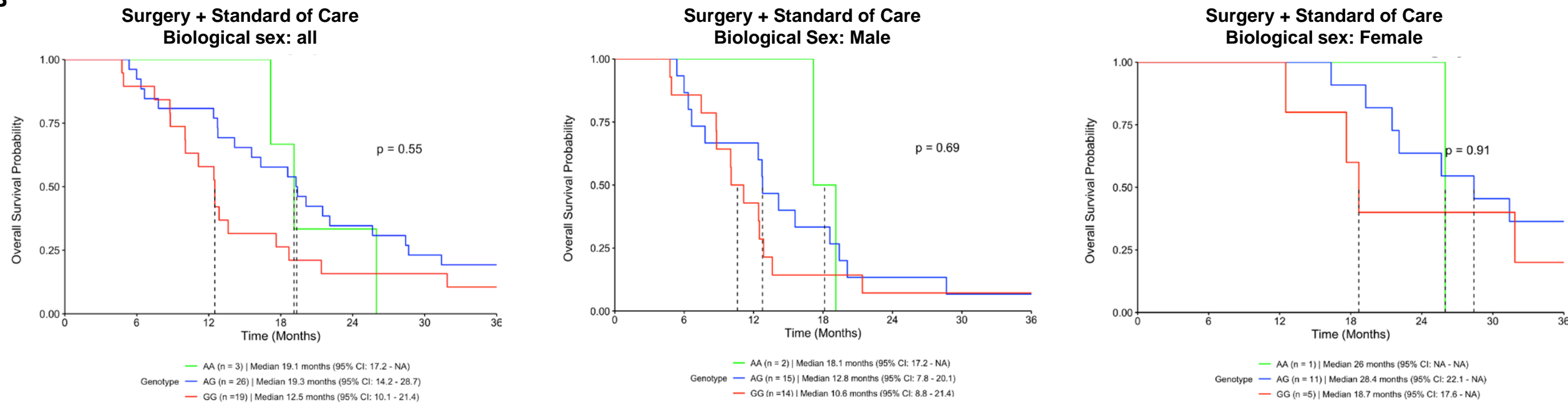
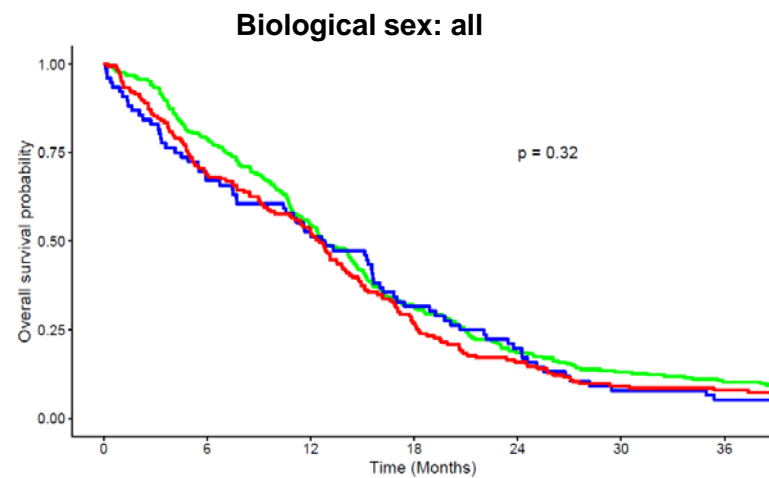


Supplementary Figure 1: TSPO gene expression analysis in different GBM cohort datasets. Patient GBM samples from the TCGA-GBM database, using the three different platforms (A) Affymetrix HG-U133A platform, (B) Agilent-4502A platform, (C) RNA-seq platform, (D) the Rembrandt database, and (E) the Gravendeel database, were analyzed using GlioVis. mRNA TSPO expression levels in GBM samples were compared to tumor-free brain samples using each database. Patient numbers and p-value of the pairwise comparisons using Tukey's Honest Significant Difference test are indicated in each graph.

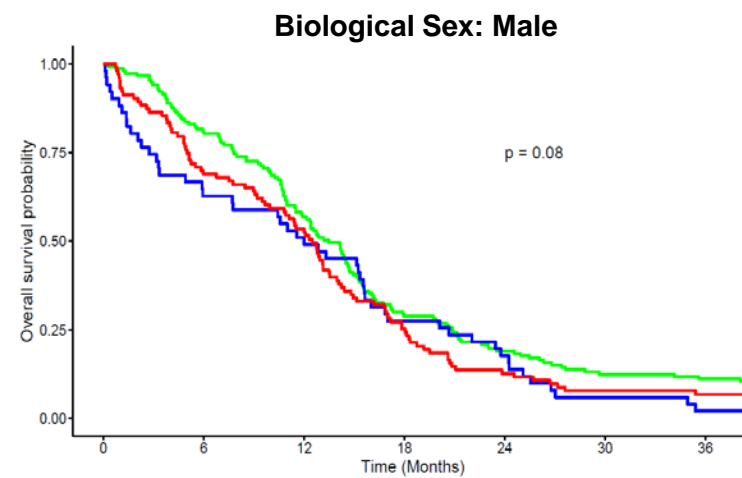
A**B**

Supplementary Figure 2: Overall survival curves in the carriers of the TSPO rs6971 polymorphism stratified by genotype, biological sex, and treatment, using the CWRU dataset. (A) Overall survival probability curves in the entire population (left panel), male subgroup (middle panel), and female subgroup (right panel) comparing the wild-type A/A, heterozygous A/G, and variant G/G genotypes for the TSPO rs6971 polymorphism using the patient data from the CWRU cohort. (B) Overall survival curves stratifying by treatment (those who underwent surgical resection followed by standard of care treatment) in the entire population (left panel), the male subgroup (middle panel), and the female subgroup (right panel) comparing the wild-type A/A, heterozygous A/G, and variant G/G genotypes for the TSPO rs6971 polymorphism. Genotype patient numbers and statistical analysis are indicated in each graph.



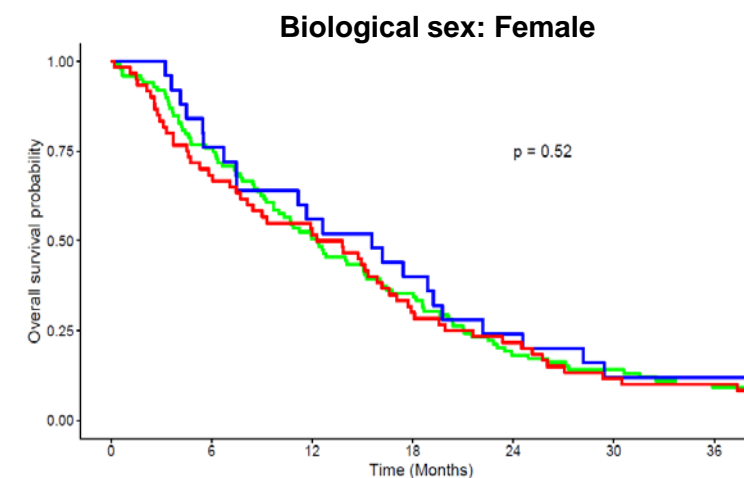
Genotype

- AA (n = 252) | Median 12.75 months (95% CI: 11.83 – 14.6)
- AG (n = 76) | Median 12.73 months (95% CI: 10.43 – 16)
- GG (n = 163) | Median 12.5 months (95% CI: 10.8 – 14.07)



Genotype

- AA (n = 153) | Median 13.47 months (95% CI: 11.9 – 14.73)
- AG (n = 51) | Median 12 months (95% CI: 7.7 – 15.63)
- GG (n = 103) | Median 12.5 months (95% CI: 10.8 – 13.97)

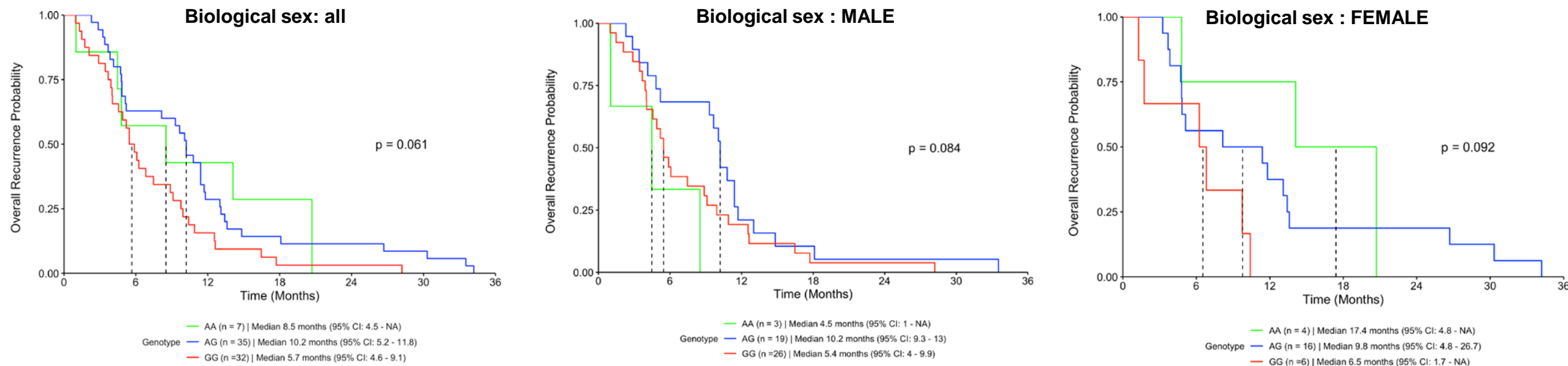


Genotype

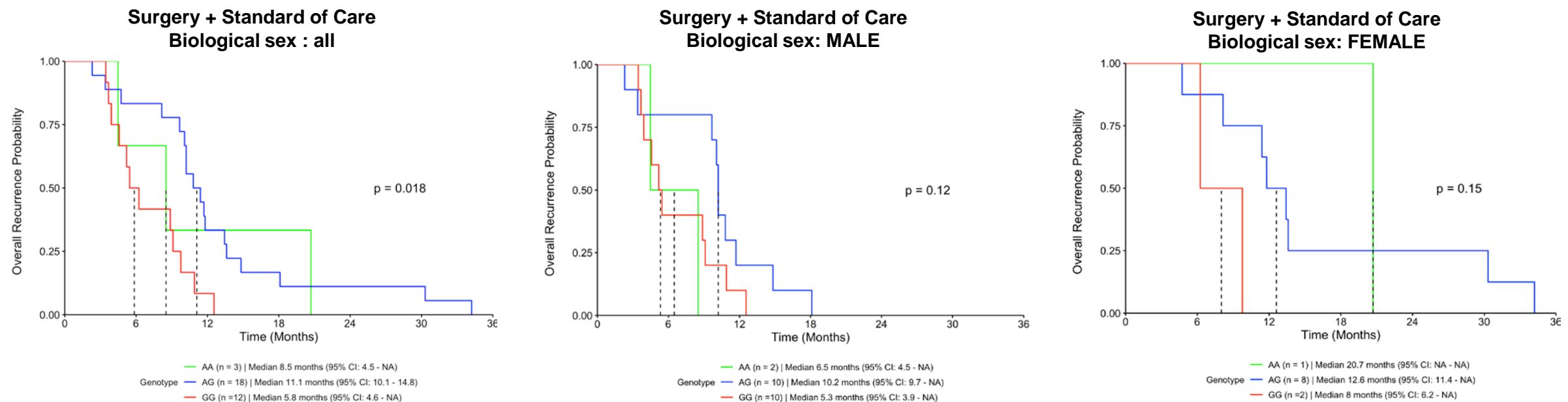
- AA (n = 99) | Median 12.33 months (95% CI: 9.7 – 16.07)
- AG (n = 25) | Median 15.57 months (95% CI: 7.5 – 22.2)
- GG (n = 60) | Median 13.03 months (95% CI: 8.13 – 16.6)

Supplementary Figure 3: Overall survival curves in the carriers of the TSPO rs6971 polymorphism stratified by genotype and biological sex, using the TCGA-GBM dataset. Overall survival probability curves in the entire population (left panel), male subgroup (middle panel), and female subgroup (right panel) comparing the wild-type A/A, heterozygous A/G, and variant G/G genotypes for the TSPO rs6971 polymorphism using the patient data from the TCGA-GBM database. Genotype patient numbers and statistical analysis are indicated in each graph.

A



B



Supplementary Figure 4: Progression-free survival (PFS) curves in the carriers of TSPO rs6971 polymorphism stratified by genotype, biological sex, and treatment, using the CWRU dataset. (A) Overall recurrence probability curves in the entire population (left panel), males (middle panel), and females (right panel) comparing the wild-type A/A, heterozygous A/G, and variant G/G genotypes for the TSPO rs6971 polymorphism using patient data from the CWRU cohort. (B) Overall recurrence probability curves stratifying by treatment (those who underwent surgical resection followed by standard of care treatment) in the entire population (left panel), males (middle panel), and females (right panel), comparing the wild-type A/A, heterozygous A/G, and variant G/G genotypes for the TSPO rs6971 polymorphism. Genotype patient numbers and statistical analysis are indicated in each graph.