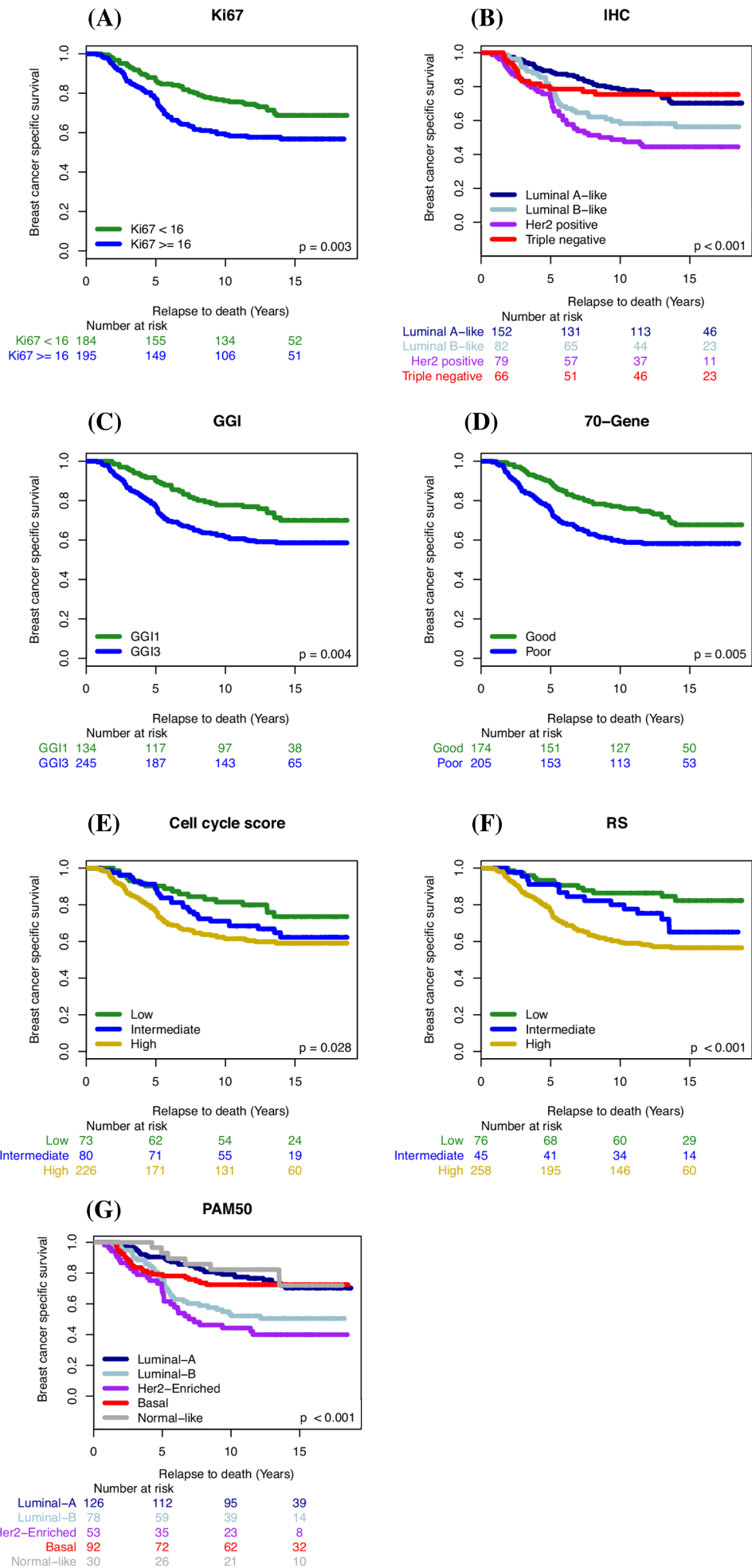


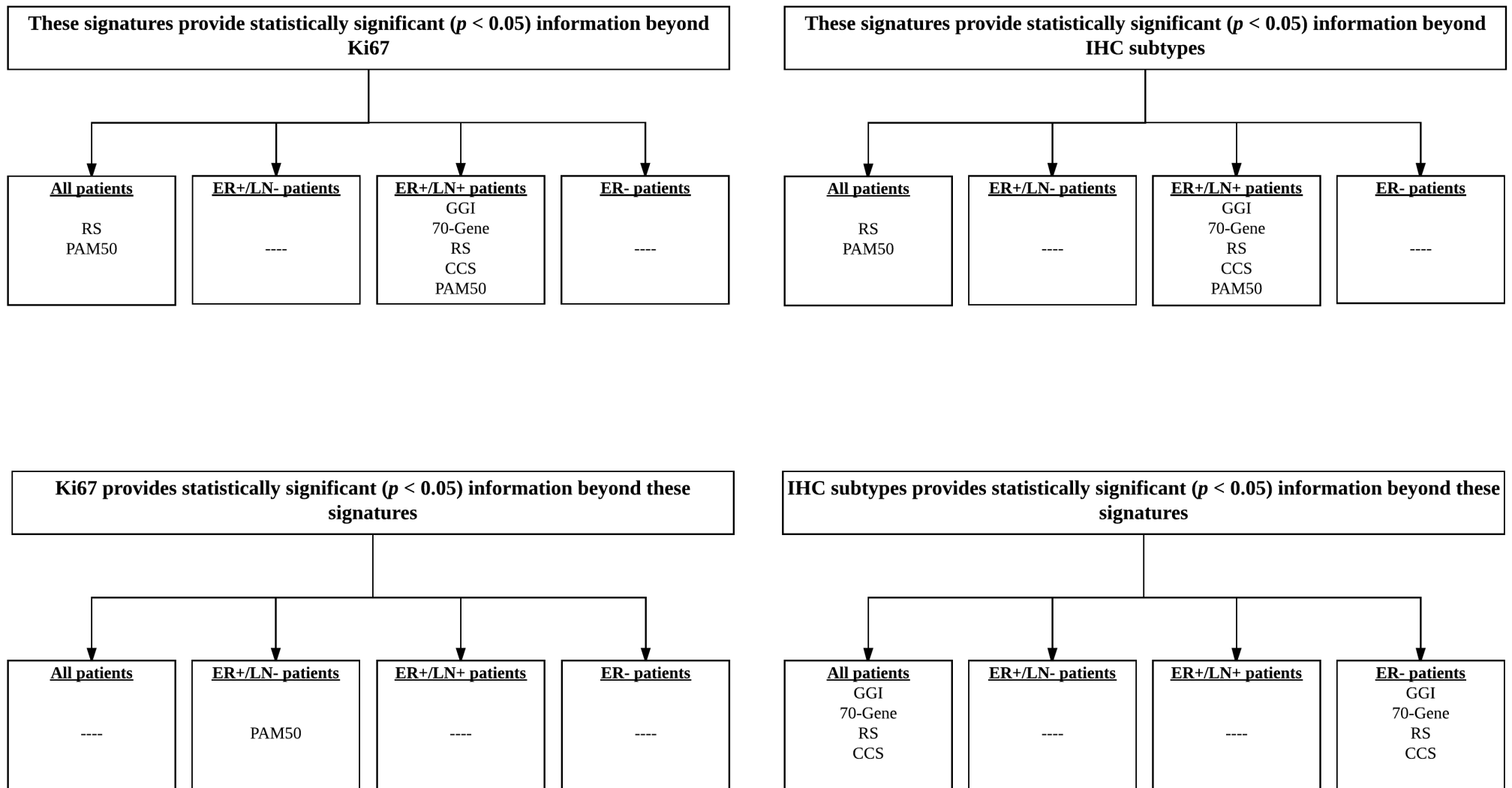
Supplementary Figure S1.



Supplementary figure S1: Survival analysis (Kaplan–Meier estimates) with Breast cancer specific survival (BCSS) as end point for All patients of Cohort 1.

(A). Ki67, (B) Immunohistochemical subtypes (IHC), (C) Genomic grade index (GGI), (D) 70-Gene, (E) Cell cycle score, (F) Recurrence score (RS), (G) PAM50

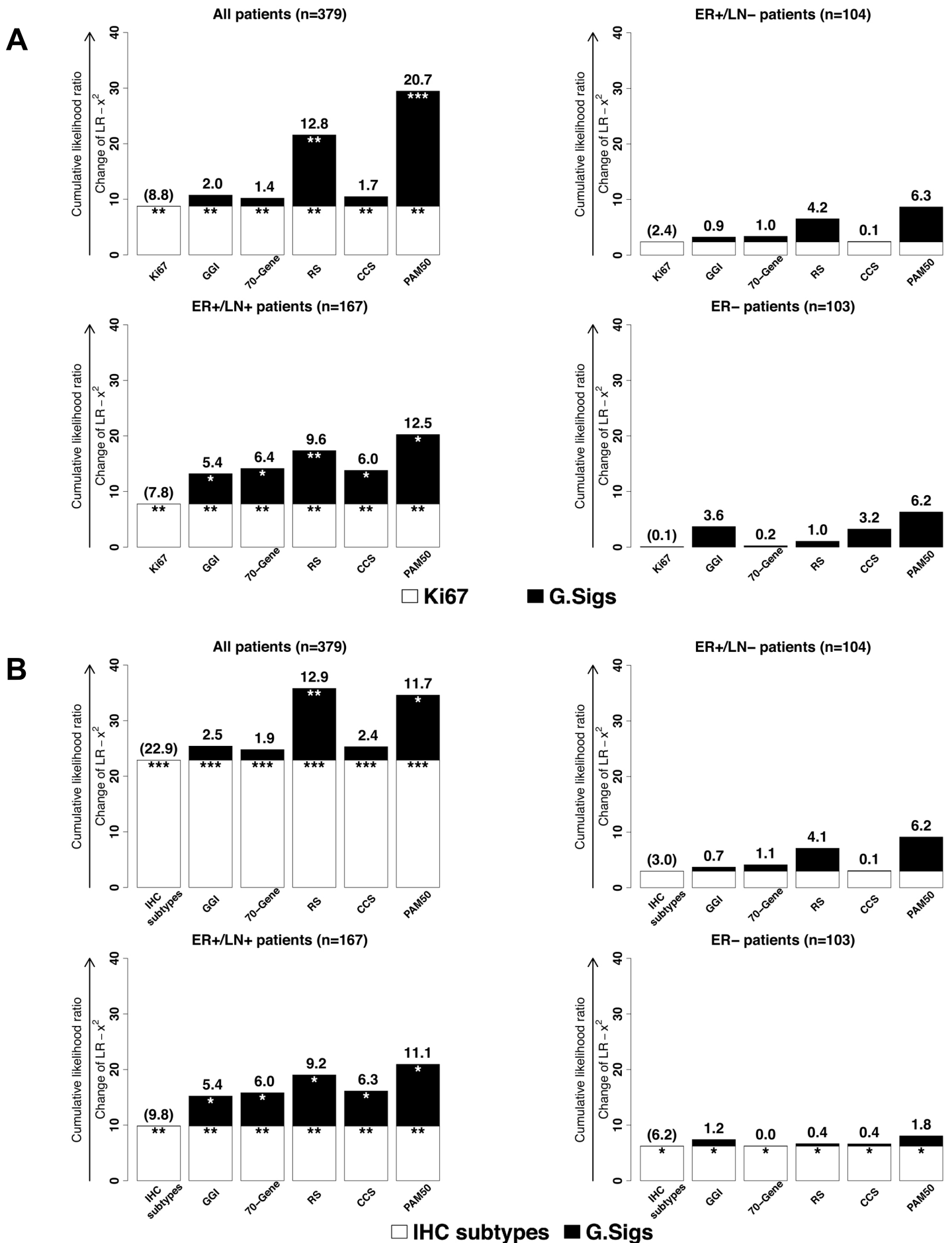
Supplementary figure S2.



Supplementary figure S2: Flowchart showing simplified results from Cohort 1 based on likelihood ratio test ($\Delta LR-\chi^2$).

GGI = Genomic grade index, RS = Recurrence score, CCS = Cell cycle score, ER+/- = Estrogen receptor positive/negative, LN+/- = Lymph node metastasis/no lymph node metastasis

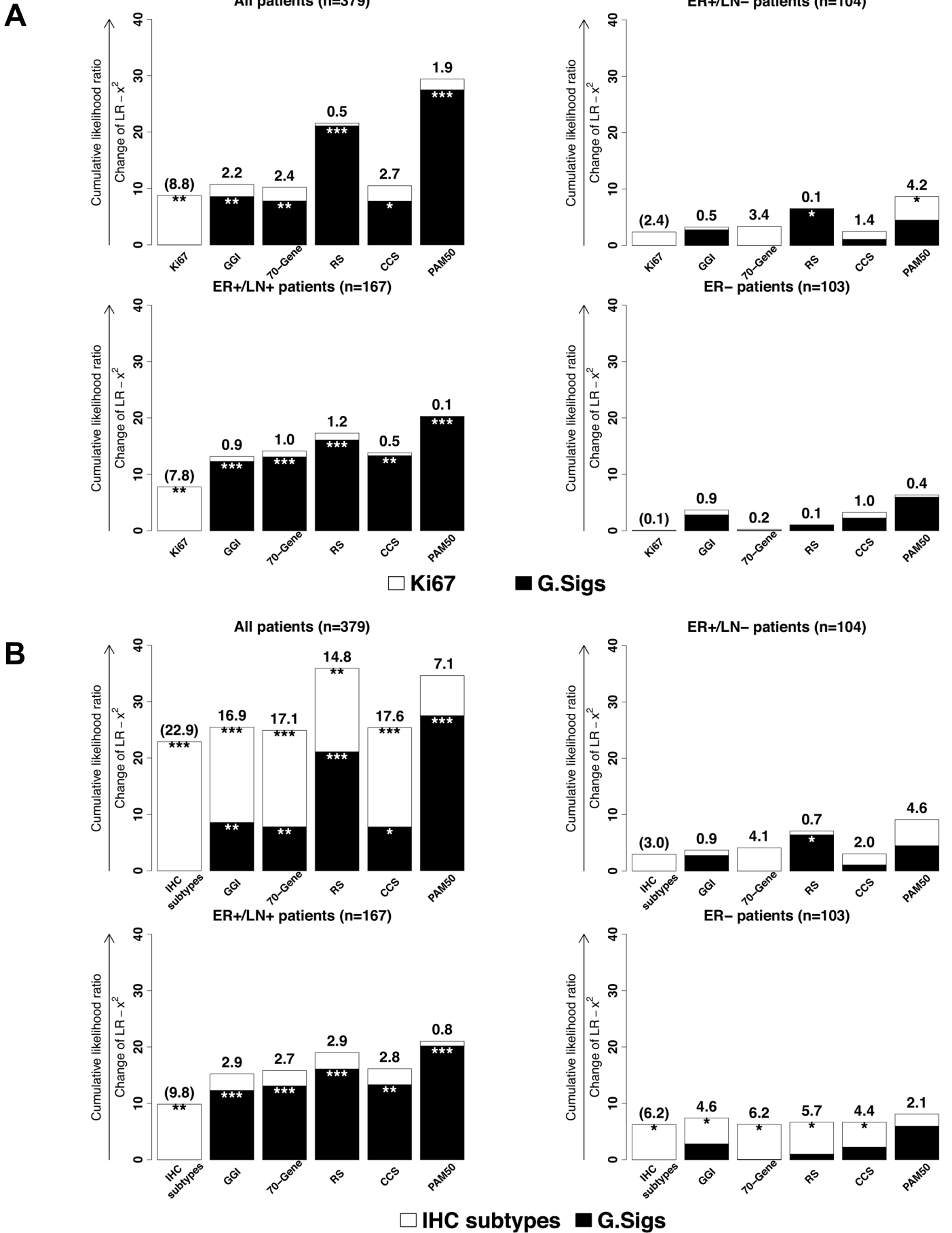
Supplementary figure S3.



Supplementary figure S3: Additional prognostic value of gene expression signatures beyond Ki67/IHC, Cohort 1.

The prognostic value of gene expression signatures when added to A) Ki67 and B) IHC for all, ER+/LN-, ER+/LN+, ER- patients in Cohort 1. White bars represent Ki67 or IHC, respectively, and black bars represent gene expression signatures. GGI = Genomic grade index, RS = Recurrence score, CCS = Cell cycle score, ER+/- = Estrogen receptor positive/negative, LN+/- = Lymph node metastasis/no lymph node metastasis, G.sigs = Gene expression signatures, IHC = ER/PR/HER2/Ki67.

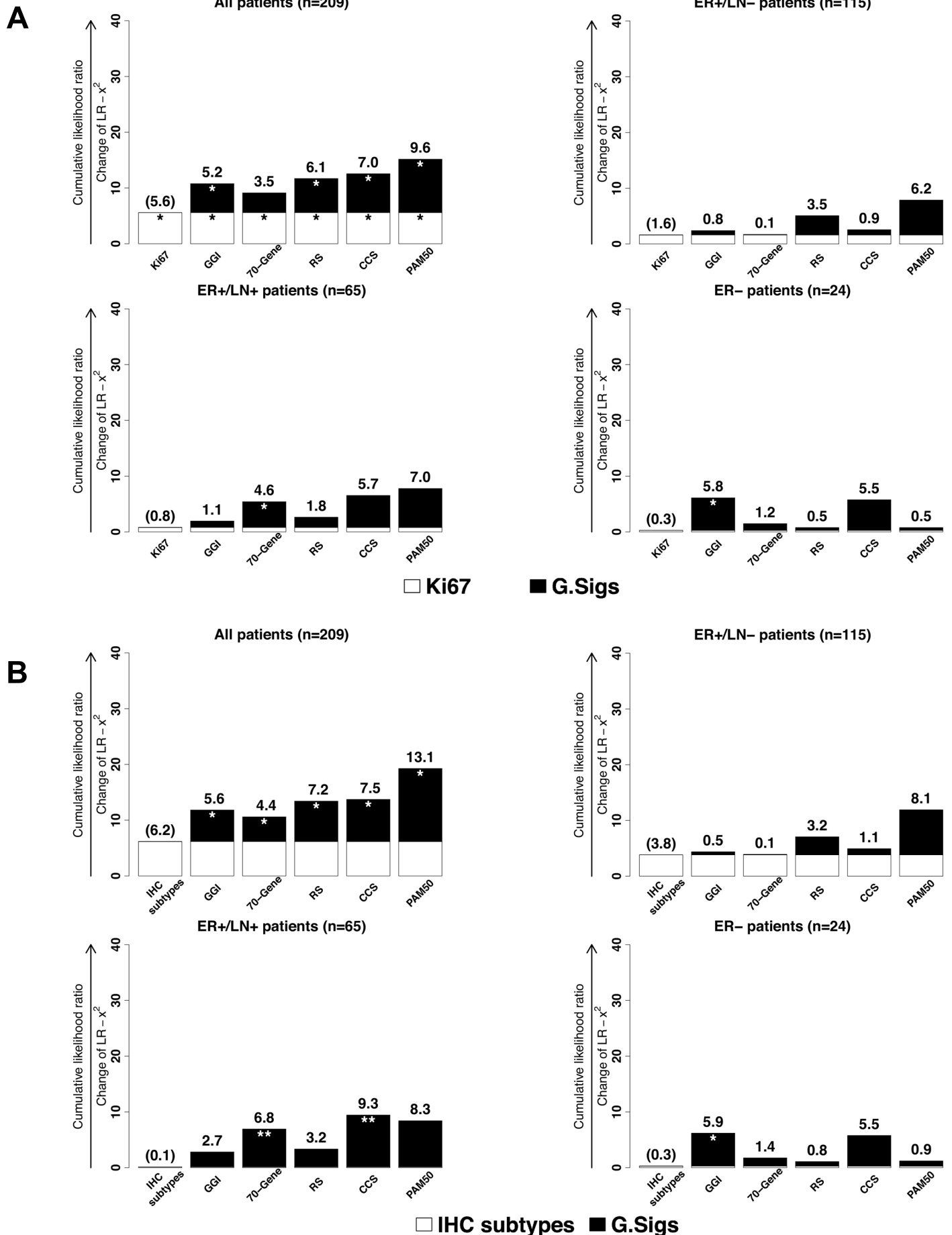
Supplementary figure S4.



Supplementary figure S4: Additional prognostic value of Ki67/IHC beyond gene expression signatures, Cohort 1.

The prognostic value of A) Ki67 and B) IHC when added to gene expression signatures for all, ER+/LN-, ER+/LN+, ER- patients in Cohort 1. White bars represent Ki67 or IHC, respectively, and black bars represent gene expression signatures. GGI = Genomic grade index, RS = Recurrence score, CCS = Cell cycle score, ER+/- = Estrogen receptor positive/negative, LN+/- = Lymph node metastasis/no lymph node metastasis, G.sigs = Gene expression signatures, IHC = ER/PR/HER2/Ki67.

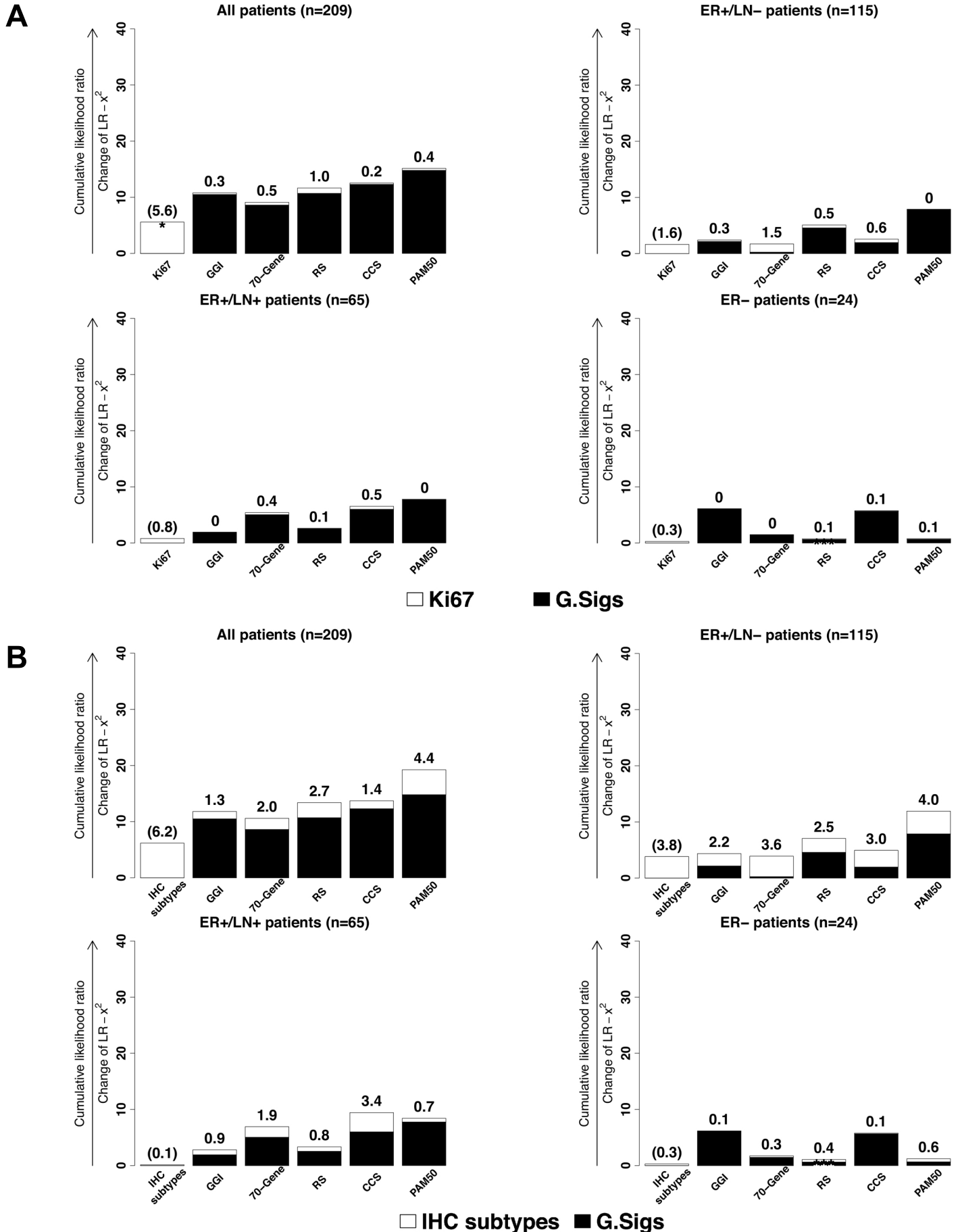
Supplementary figure S5.



Supplementary figure S5: Additional prognostic value of gene expression signatures beyond Ki67/IHC, Cohort 2.

The prognostic value of gene expression signatures when added to A) Ki67 and B) IHC for all, ER+/LN-, ER+/LN+, ER- patients in Cohort 2. White bars represent Ki67 or IHC, respectively, and black bars represent gene expression signatures. GGI = Genomic grade index, RS = Recurrence score, CCS = Cell cycle score, ER+/- = Estrogen receptor positive/negative, LN+/- = Lymph node metastasis/no lymph node metastasis, G.sigs = Gene expression signatures, IHC = ER/PR/HER2/Ki67.

Supplementary figure S6.



Supplementary figure S6: Additional prognostic value of Ki67/IHC beyond gene expression signatures, Cohort 2.

The prognostic value of A) Ki67 and B) IHC when added to gene expression signatures for all, ER+/LN-, ER+/LN+, ER- patients in Cohort 2. White bars represent Ki67 or IHC, respectively, and black bars represent gene expression signatures. GGI = Genomic grade index, RS = Recurrence score, CCS = Cell cycle score, ER+/- = Estrogen receptor positive/negative, LN+/- = Lymph node metastasis/no lymph node metastasis, G.sigs = Gene expression signatures, IHC = ER/PR/HER2/Ki67.