Supplementary Figure S6: Illustration of the effect of dataset composition on the prognostic value of PgR and OPG expression independent of adjuvant treatment

Kaplan-Meier analysis was performed in two arbitrarily defined dataset pools: For Panels (A), (B), (E), and (F) the 882 ER positive patients from the seven datasets in which a prognostic value of OPG was detected (see Supplementary Table S3) were combined as dataset-pool #1. Kaplan-Meier graphs of event free survival according to PgR expression (A and B) or OPG expression (E and F) are shown for those 863 patients who were either untreated (A, E) or treated with endocrine therapy (B, F). For Panels (C), (D), (G), and (H) the 1059 ER positive patients from the 11 datasets in which no prognostic value of OPG has been detected were combined as dataset-pool #2. Again, Kaplan-Meier graphs of event free survival according to PgR (C, D) expression or OPG expression (G, H) are shown for those 733 patients who were either untreated (C, G) or treated with endocrine therapy (D, H). Independent of treatment, the prognostic effect of both PgR and OPG was only detected in dataset pool #1 (Panels A, B, E, and F) and not in dataset pool #2 (Panels C, D, G, and H).

In Panels I and K we also included results for the prognostic effect of OPG in ER positive breast cancer patients obtained using the KM plotter website (kmplot.com). For this analysis the uppper quartiles of the cohorts were applied as optimal cutoff for high expression (Gyorffy et al. 2012, Endocr. Relat. Cancer 19, 197–208). A highly prognostic value of OPG was detected for both ER positive patients which had either received no adjuvant treatment (Panel I) or tamoxifen (Panel K) (Mihály et al. 2013, Breast Cancer Res. Treat. 140, 219–232).