**Figure Legends for Supplementary Figures.**

**Figure 1S.** Development of risk score model based on the four ARGs signature in patients with breast cancer from GSE7390 datasets. (A) The risk score distribution and survival status of patients; (B) Kaplan–Meier analysis of the prognostic model; (C) Heatmap of the four ARGs expression and clinical parameter profiles between high- and low-risk groups; (D) Time-dependent ROC analysis of the risk score model.

**Figure 2S.** Development of risk score model based on the four ARGs signature in patients with breast cancer from GSE88770 datasets. (A) The risk score distribution and survival status of patients; (B) Kaplan–Meier analysis of the prognostic model; (C) Heatmap of the four ARGs expression and clinical parameter profiles between high- and low-risk groups; (D) Time-dependent ROC analysis of the risk score model.

**Figure 3S.** The relationship between ARGs-based risk score and clinical features including M stage (A), age (B), N stage (C), clinical stage (D), ER status (E) and PR status (F).

**Figure 4S.** Function enrichment of these four prognostic genes (TNFSF12, SCG2, COL4A3 and TNNI3).