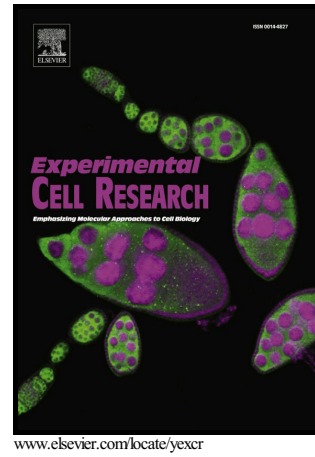


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The three branches of the unfolded protein response exhibit differential significance in breast cancer growth and stemness

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Abstract

The unfolded protein response (UPR) is widely activated in cancers. The mammalian UPR encompasses three signaling branches, namely inositol-requiring enzyme-1 α (IRE1 α), protein kinase R (PKR)-like endoplasmic reticulum kinase (PERK) and activating transcription factor 6 α (ATF6 α). The functional significance of each branch in tumorigenesis is incompletely understood, especially in cancer stem cells (CSCs). Here, we report that inhibition and silencing of the three UPR sensors has differential effects on breast cancer growth and the CSC population. The levels of PERK and ATF6 α strongly correlate with the

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