

## SUPPLEMENTAL FIGURE LEGENDS

### **Supplemental Figure 1. LAT1 expression in breast cancer clinical samples. (A-E)**

Using the Curtis Breast Cohort, LAT1 expression was compared between **(A)** normal breast versus invasive ductal carcinoma (mean with standard deviation, unpaired t-test \*\*\*\* $p < 0.0001$ ), **(B)** ER+ and ER- breast tumor samples (mean with standard deviation, unpaired t-test \*\*\*\* $p < 0.0001$ ), **(C)** breast tumor samples based on grade (mean with standard deviation, unpaired t-test \*\*\*\* $p < 0.0001$ ), and **(D)** overall survival of patients split into LAT1-high or -low groups based on median LAT1 gene expression (logrank test). **(E-F)** Using the KM Plotter tool, **(E)** overall and **(F)** distant metastasis-free survival were determined based on median LAT1 gene expression. Logrank tests.

### **Supplemental Figure 2: Alterations in tryptophan catabolites in breast cancer**

**subtypes.** Ultra-high performance liquid chromatography/mass spectrometry was used to measure the concentrations of tryptophan and its catabolites in the plasma from women with breast cancer. Subtypes are defined by ER and HER2 positivity. Two-tailed t-test, \* $p < 0.05$ .

### **Supplemental Figure 3: Alterations in tryptophan catabolites in breast cancer and pregnancy-associated breast cancer.**

Ultra-high performance liquid chromatography/mass spectrometry was used to measure the concentrations of tryptophan and its catabolites in the plasma from women with or without breast cancer, where pregnancy status was known. Two-tailed t-test, \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , \*\*\*\* $p < 0.0001$ .

**Supplemental Figure 4: Alterations in tryptophan catabolites by breast cancer**

**stage.** Ultra-high performance liquid chromatography/mass spectrometry was used to measure the concentrations of tryptophan and its catabolites in the plasma from women with breast cancer, and data was divided by breast cancer stage at diagnosis. Two-tailed t-test, \*\* $p < 0.01$ .