

# Breast Cancer Prognosis

August 20, 2015

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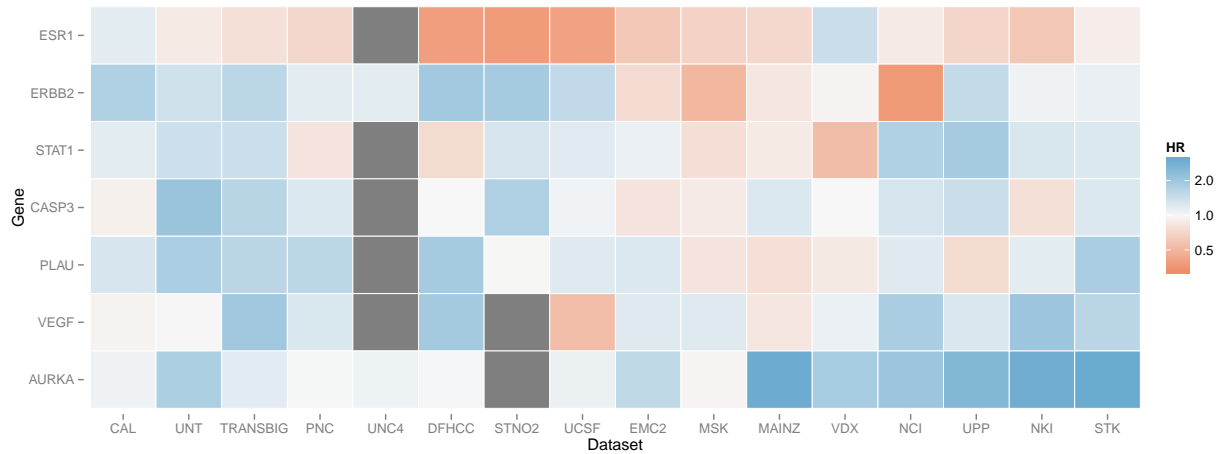
# 1 Datasets

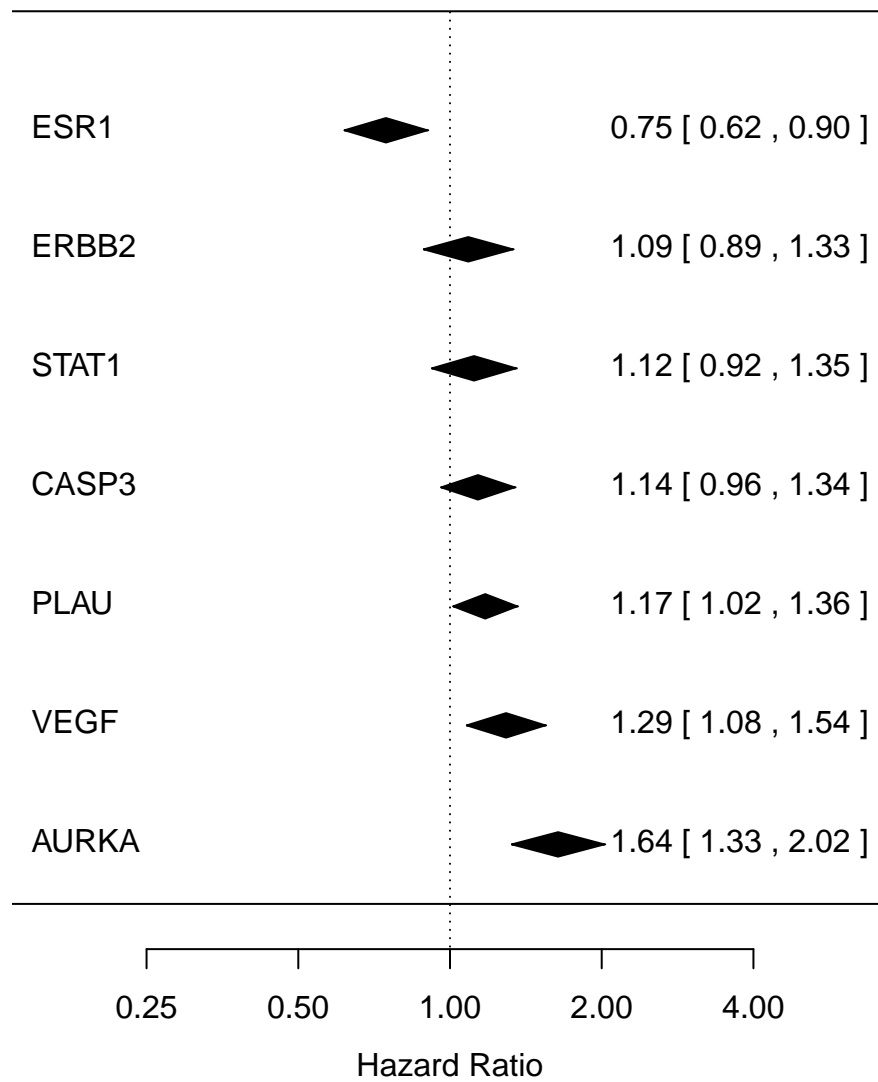
From MetaGxBreast, we selected patients from studies which tracked recurrence-free survival. When recurrence-free survival was unavailable, we used distant metastasis-free survival. We identified 2749 patients from 16 datasets.

	Number of samples
CAL	117
DFHCC	115
EMC2	204
MAINZ	200
MSK	82
NCI	99
NKI	319
PNC	85
STK	159
STNO2	95
TRANSBIG	198
UCSF	133
UNC4	240
UNT	125
UPP	234
VDX	344
Sum	2749

# 2 Summary of Results

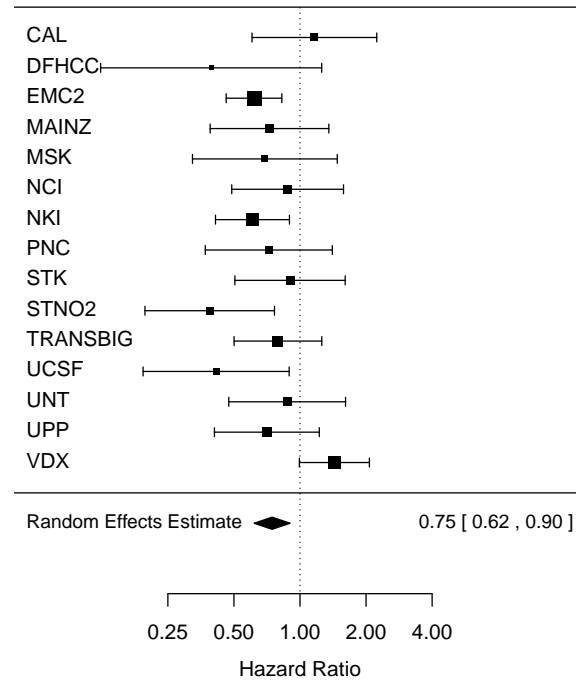
Gene Name	P-value	Hazard Ratio
ESR1	0.00237	0.75 [0.62, 0.90]
ERBB2	0.41959	1.09 [0.89, 1.33]
STAT1	0.26143	1.12 [0.92, 1.35]
CASP3	0.13474	1.14 [0.96, 1.34]
PLAU	0.02989	1.17 [1.02, 1.36]
VEGF	0.00500	1.29 [1.08, 1.54]
AURKA	0.00000	1.64 [1.33, 2.02]



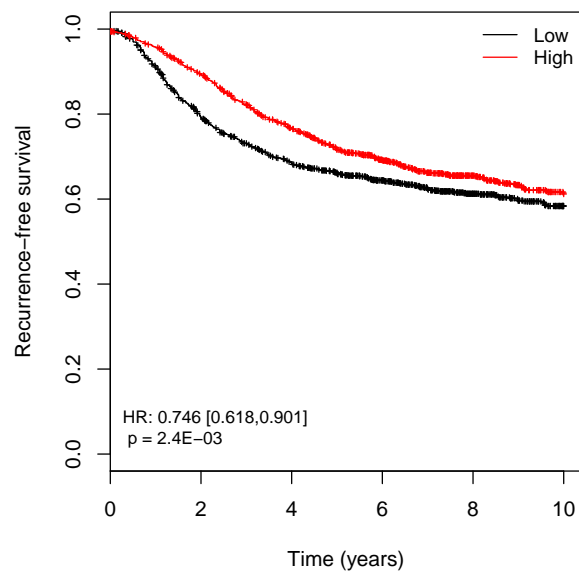


### 3 ESR1

#### Meta-analysis: ESR1



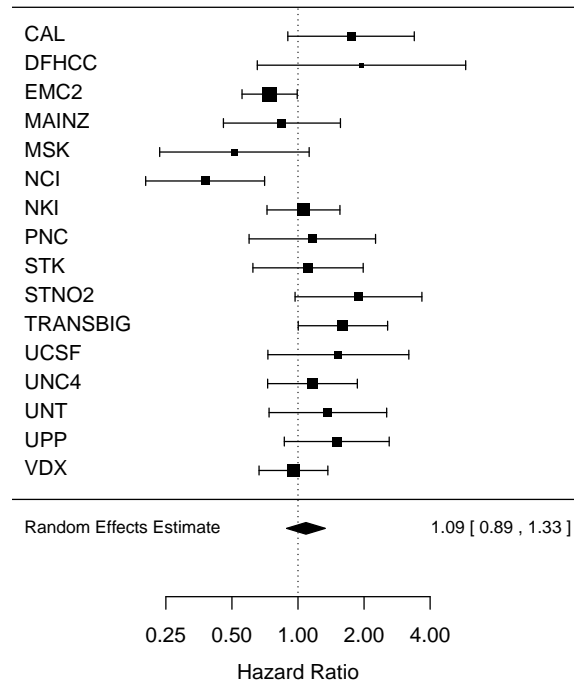
#### Pooled survival: ESR1



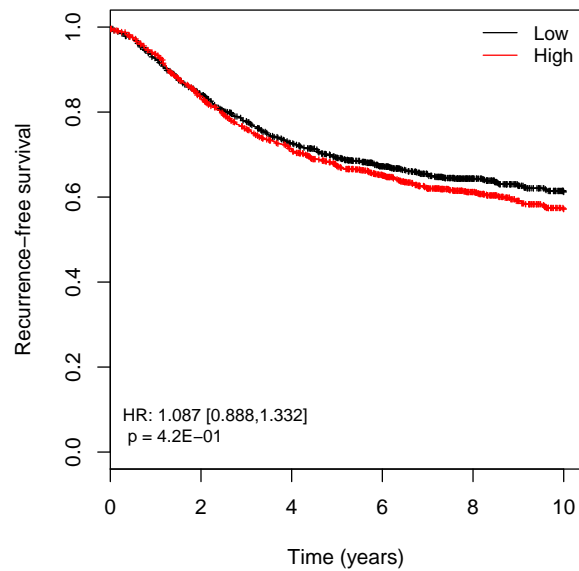
Random effects model: 0.75 [0.62, 0.90], p = 2.4E-03

## 4 ERBB2

### Meta-analysis: ERBB2



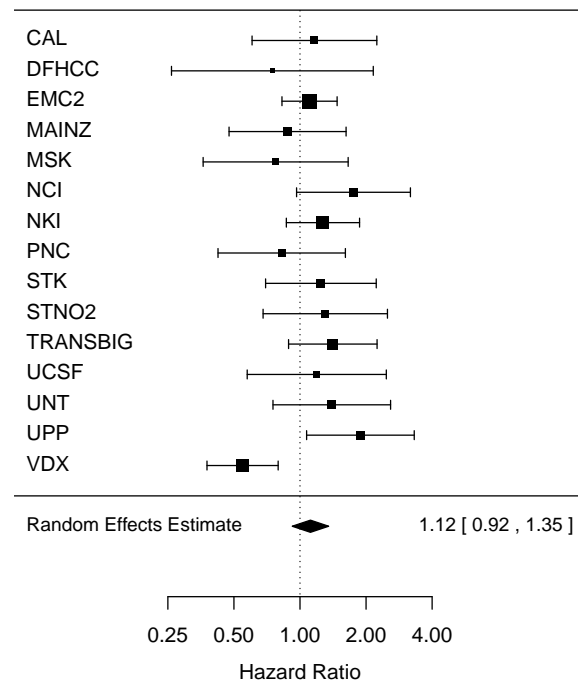
### Pooled survival: ERBB2



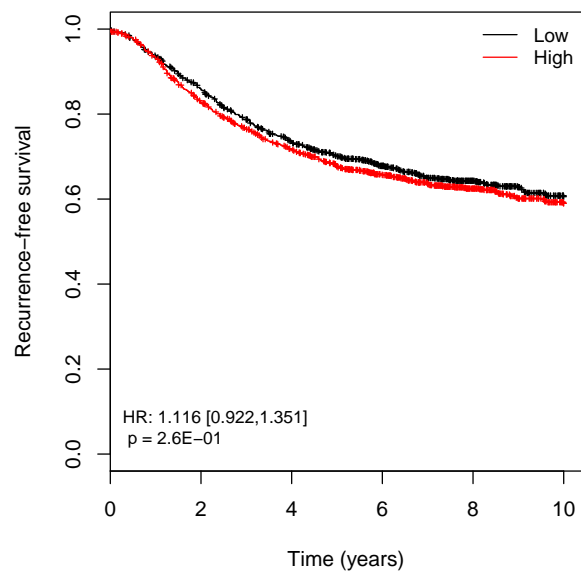
Random effects model: 1.09 [0.89, 1.33],  $p = 4.2E-01$

## 5 STAT1

### Meta-analysis: STAT1



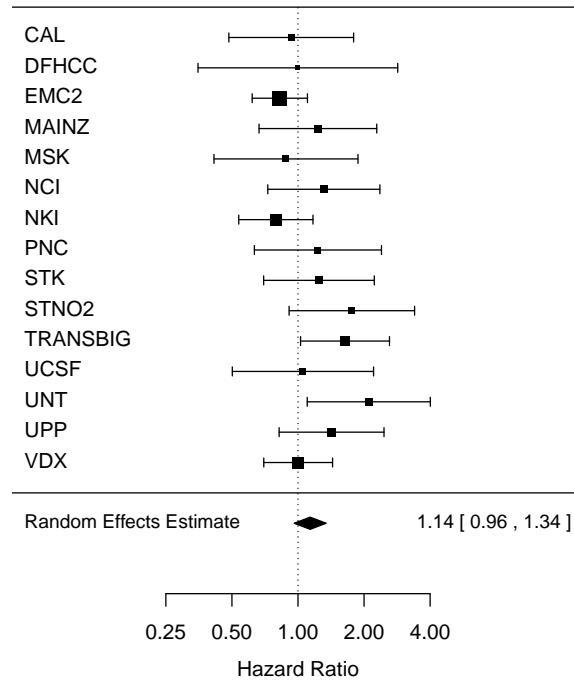
### Pooled survival: STAT1



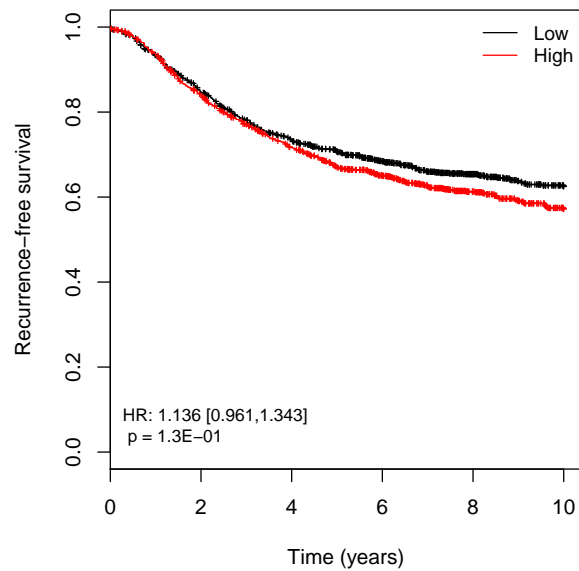
Random effects model: 1.12 [0.92, 1.35],  $p = 2.6E-01$

## 6 CASP3

### Meta-analysis: CASP3



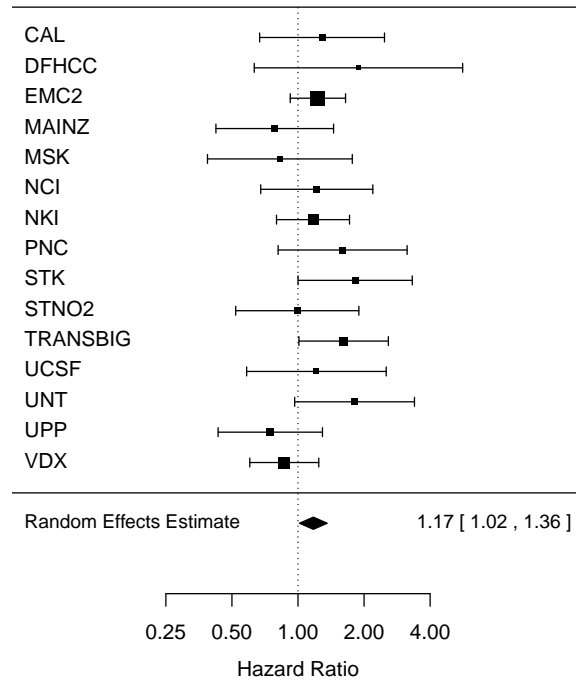
### Pooled survival: CASP3



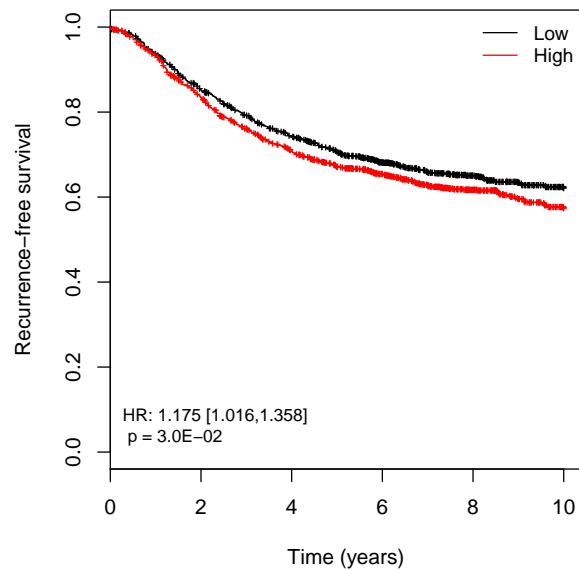
Random effects model: 1.14 [0.96, 1.34], p = 1.3E-01

## 7 PLAU

### Meta-analysis: PLAU



### Pooled survival: PLAU

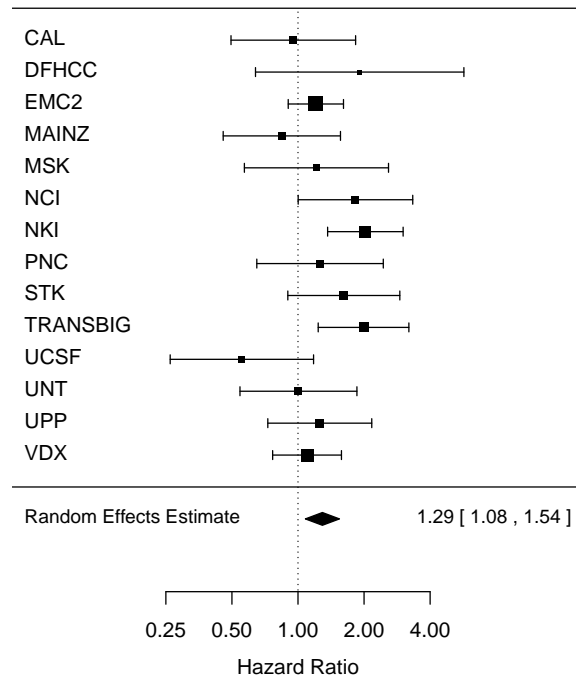


Random effects model: 1.17 [1.02, 1.36], p = 3.0E-02

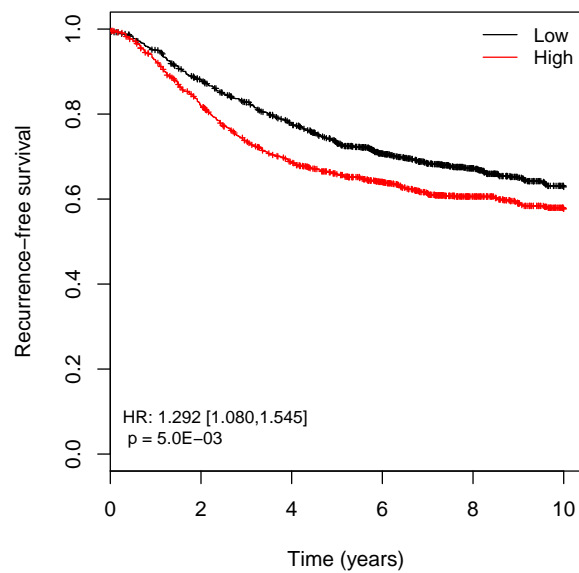


## 8 VEGF

### Meta-analysis: VEGF



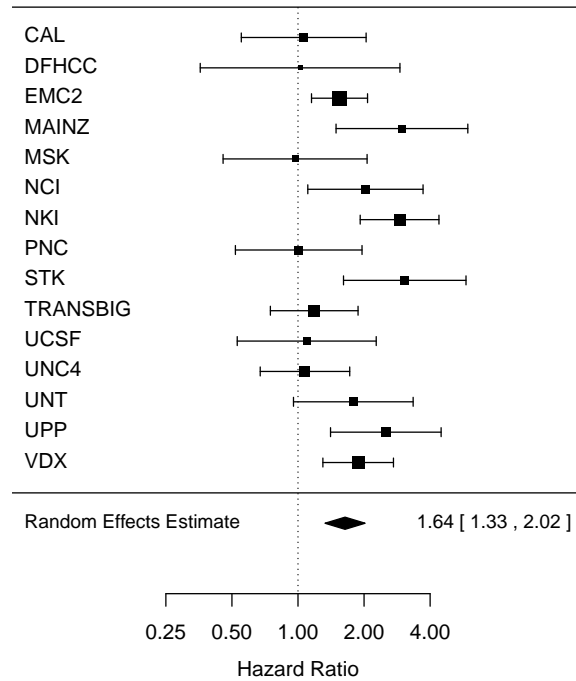
### Pooled survival: VEGF



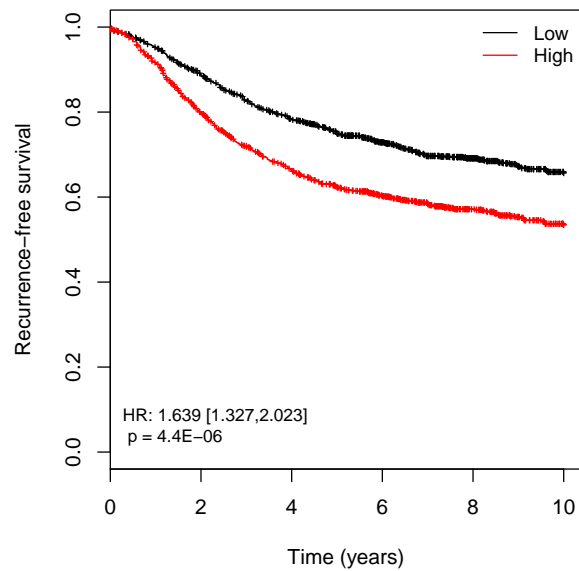
Random effects model: 1.29 [1.08, 1.54],  $p = 5.0E-03$

## 9 AURKA

### Meta-analysis: AURKA



### Pooled survival: AURKA



Random effects model: 1.64 [1.33, 2.02],  $p = 4.4E-06$