Age-Associated Biomarker Study
TCGA Thyroid Cancer Females Fisher's Exact Tests

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July 23, 2018

Table 1: ER binding and age associated gene counts for TCGA Thyroid cancer data, Females, FDR 0.05

ER binding	Age association Age associated	Not age associated	Total
ER binding			
N	68	1610	1678
Row(%)	4.05%	95.95%	8.85%
Column(%)	11.06%	8.78%	
Not ER binding			
N	547	16725	17272
Row(%)	3.17%	96.83%	91.15%
Column(%)	88.94%	91.22%	
Total	615	18335	18950
	3.25%	96.75%	

```
## 
##  Fisher's Exact Test for Count Data
## 
## data:  tab
## p-value = 0.06014
## alternative hypothesis: true odds ratio is not equal to 1
## 95 percent confidence interval:
##  0.9833882 1.6734620
## sample estimates:
## odds ratio 
##   1.291381
```

Table 2: ER binding and age associated gene counts for TCGA Thyroid cancer data, Females, FDR 0.01

ER binding	Age association Age associated	Not age associated	Total
ER binding			
N	16	1662	1678
Row(%)	0.95%	99.05%	8.85%
Column(%)	10.32%	8.84%	
Not ER binding			
N	139	17133	17272
Row(%)	0.80%	99.20%	91.15%
Column(%)	89.68%	91.16%	
Total	155	18795	18950
	0.82%	99.18%	

```
## 
##  Fisher's Exact Test for Count Data
## 
## data:  tab
## p-value = 0.4785
## alternative hypothesis: true odds ratio is not equal to 1
## 95 percent confidence interval:
##  0.6582714 2.0020601
## sample estimates:
## odds ratio
##   1.186596
```

Table 3: NKI ER binding and age associated gene counts for TCGA Thyroid cancer data, Females, FDR 0.05

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	112	2763	2875
Row(%)	3.90%	96.10%	15.17%
Column(%)	18.21%	15.07%	
Tier 2 Only			
N	121	3084	3205
Row(%)	3.78%	96.22%	16.91%
Column(%)	19.67%	16.82%	
Not ER binding			
N	382	12488	12870
Row(%)	2.97%	97.03%	67.92%
Column(%)	62.11%	68.11%	
Total	615	18335	18950
	3.25%	96.75%	

```
## 
##  Fisher's Exact Test for Count Data
## 
## data:  tab
## p-value = 0.007114
## alternative hypothesis: two.sided
```

Table 4: NKI ER binding and age associated gene counts for TCGA Thyroid cancer data, Females, FDR 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	30	2845	2875
Row(%)	1.04%	98.96%	15.17%
Column(%)	19.35%	15.14%	
Tier 2 Only			
N	28	3177	3205
Row(%)	0.87%	99.13%	16.91%
Column(%)	18.06%	16.90%	

ER binding	Age association Age associated	Not age associated	Total
Not ER binding			
N	97	12773	12870
Row(%)	0.75%	99.25%	67.92%
Column(%)	62.58%	67.96%	
Total	155	18795	18950
	0.82%	99.18%	

```
## 
##  Fisher's Exact Test for Count Data
## 
## data:  tab
## p-value = 0.2672
## alternative hypothesis: two.sided
```