

# Age-Associated Biomarker Study

## TCGA Thyroid Cancer All Cases Fisher's Exact Tests

*Derek Chiu*

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

ER binding	Age association Age associated	Not age associated	Total
<b>ER binding</b>			
N	123	1555	1678
Row(%)	7.33%	92.67%	8.85%
Column(%)	13.23%	8.63%	
<b>Not ER binding</b>			
N	807	16465	17272
Row(%)	4.67%	95.33%	91.15%
Column(%)	86.77%	91.37%	
Total	930	18020	18950
	4.91%	95.09%	

```
##
## Fisher's Exact Test for Count Data
##
## data:  tab
## p-value = 6.138e-06
## alternative hypothesis: true odds ratio is not equal to 1
## 95 percent confidence interval:
##  1.314537 1.968013
## sample estimates:
## odds ratio
##  1.613793
```

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

ER binding	Age association Age associated	Not age associated	Total
<b>ER binding</b>			
N	42	1636	1678
Row(%)	2.50%	97.50%	8.85%
Column(%)	10.82%	8.81%	
<b>Not ER binding</b>			
N	346	16926	17272
Row(%)	2.00%	98.00%	91.15%
Column(%)	89.18%	91.19%	
Total	388	18562	18950
	2.05%	97.95%	

```
##
## Fisher's Exact Test for Count Data
##
## data:  tab
## p-value = 0.1749
## alternative hypothesis: true odds ratio is not equal to 1
## 95 percent confidence interval:
##  0.885512 1.741344
## sample estimates:
## odds ratio
##  1.255851
```

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

ER binding	Age association Age associated	Not age associated	Total
<b>Tier 1</b>			
N	135	2740	2875
Row(%)	4.70%	95.30%	15.17%
Column(%)	14.52%	15.21%	
<b>Tier 2 Only</b>			
N	195	3010	3205
Row(%)	6.08%	93.92%	16.91%
Column(%)	20.97%	16.70%	
<b>Not ER binding</b>			
N	600	12270	12870
Row(%)	4.66%	95.34%	67.92%
Column(%)	64.52%	68.09%	
Total	930	18020	18950
	4.91%	95.09%	

```
##
## Fisher's Exact Test for Count Data
##
## data:  tab
## p-value = 0.004165
## alternative hypothesis: two.sided
```

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

ER binding	Age association Age associated	Not age associated	Total
<b>Tier 1</b>			
N	65	2810	2875
Row(%)	2.26%	97.74%	15.17%
Column(%)	16.75%	15.14%	
<b>Tier 2 Only</b>			
N	76	3129	3205
Row(%)	2.37%	97.63%	16.91%
Column(%)	19.59%	16.86%	

ER binding	Age association Age associated	Not age associated	Total
<b>Not ER binding</b>			
N	247	12623	12870
Row(%)	1.92%	98.08%	67.92%
Column(%)	63.66%	68.00%	
Total	388	18562	18950
	2.05%	97.95%	

```
##
## Fisher's Exact Test for Count Data
##
## data:  tab
## p-value = 0.175
## alternative hypothesis: two.sided
```