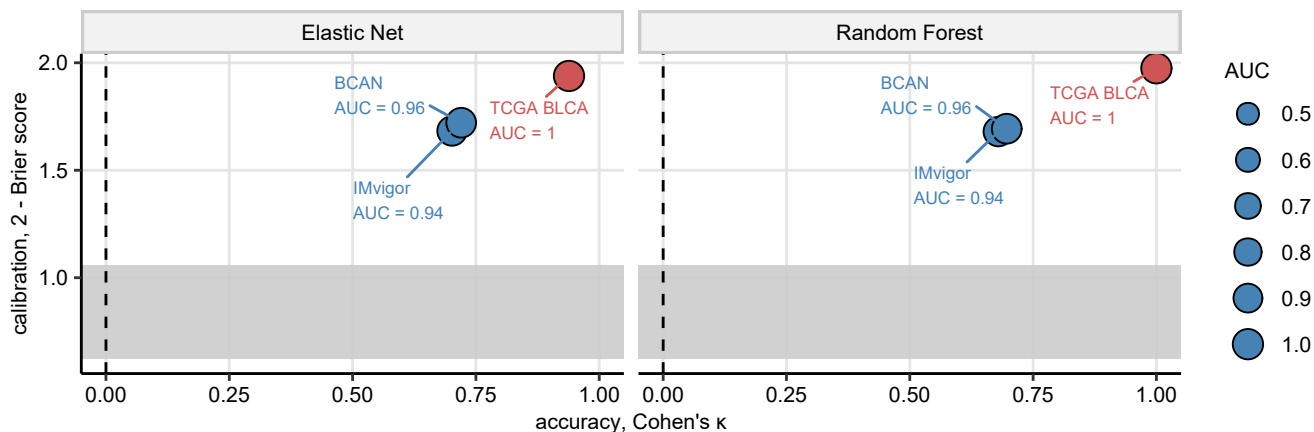


**A****Prediction of consensus classes****B****TCGA BLCA, Elastic Net**

predicted class	observed class			
	LumP	LumU	Stroma-rich	Ba/Sq
Ba/Sq	0.32% (n = 1)	0% (n = 0)	0.32% (n = 1)	40% (n = 122)
Stroma rich	0.65% (n = 2)	0% (n = 0)	13% (n = 40)	0.65% (n = 2)
LumU	1.3% (n = 4)	11% (n = 34)	0% (n = 0)	0.32% (n = 1)
LumP	32% (n = 99)	0.32% (n = 1)	0% (n = 0)	0.32% (n = 1)

**TCGA BLCA, Random Forest**

predicted class	observed class			
	LumP	LumU	Stroma-rich	Ba/Sq
Ba/Sq	0% (n = 0)	0% (n = 0)	0% (n = 0)	41% (n = 126)
Stroma rich	0% (n = 0)	0% (n = 0)	13% (n = 41)	0% (n = 0)
LumU	0% (n = 0)	11% (n = 35)	0% (n = 0)	0% (n = 0)
LumP	34% (n = 106)	0% (n = 0)	0% (n = 0)	0% (n = 0)

**IMvigor, Elastic Net**

predicted class	observed class			
	LumP	LumU	Stroma-rich	Ba/Sq
Ba/Sq	1.4% (n = 2)	0% (n = 0)	3.6% (n = 5)	29% (n = 41)
Stroma rich	0.72% (n = 1)	2.9% (n = 4)	14% (n = 19)	1.4% (n = 2)
LumU	0.72% (n = 1)	8.6% (n = 12)	2.9% (n = 4)	2.2% (n = 3)
LumP	27% (n = 37)	3.6% (n = 5)	0% (n = 0)	2.2% (n = 3)

**IMvigor, Random Forest**

predicted class	observed class			
	LumP	LumU	Stroma-rich	Ba/Sq
Ba/Sq	2.9% (n = 4)	2.2% (n = 3)	3.6% (n = 5)	29% (n = 41)
Stroma rich	0% (n = 0)	0% (n = 0)	13% (n = 18)	3.6% (n = 5)
LumU	0.72% (n = 1)	8.6% (n = 12)	2.9% (n = 4)	1.4% (n = 2)
LumP	26% (n = 36)	4.3% (n = 6)	0.72% (n = 1)	0.72% (n = 1)

**BCAN, Elastic Net**

predicted class	observed class			
	LumP	LumU	Stroma-rich	Ba/Sq
Ba/Sq	0% (n = 0)	1.7% (n = 2)	1.7% (n = 2)	37% (n = 44)
Stroma rich	1.7% (n = 2)	0% (n = 0)	15% (n = 18)	3.4% (n = 4)
LumU	0.85% (n = 1)	5.9% (n = 7)	1.7% (n = 2)	1.7% (n = 2)
LumP	22% (n = 26)	4.2% (n = 5)	0% (n = 0)	2.5% (n = 3)

**BCAN, Random Forest**

predicted class	observed class			
	LumP	LumU	Stroma-rich	Ba/Sq
Ba/Sq	0.85% (n = 1)	1.7% (n = 2)	1.7% (n = 2)	36% (n = 42)
Stroma rich	0.85% (n = 1)	0% (n = 0)	15% (n = 18)	4.2% (n = 5)
LumU	1.7% (n = 2)	6.8% (n = 8)	0.85% (n = 1)	0.85% (n = 1)
LumP	21% (n = 25)	3.4% (n = 4)	0.85% (n = 1)	4.2% (n = 5)