

Supplementary table 2. Multivariable test of wGII and centrality, adjusted by tumour size, pathological grade and tumour purity using linear mixed-effects model, with patients as the random control. The multivariable linear model was built using R package “nlme”, and the codes are:

```
lme(wgii~Centrality+TumourPurity+Grade+Size,data=df_lme,random=~1|Pt_ID).
```

	T-value	P-value
Centrality	1.985	0.048
Tumour size	2.748	0.009
Pathological grade	6.039	<0.001
Tumour purity	-1.068	0.286