**Table S1. Clinical characteristics of included patients.**

|  |  |  |
| --- | --- | --- |
| Characteristics | Training cohort (n=501) | Validation cohort(n=108) |
| Age |  |  |
| < 60 | 280(55.89%) | 62(57.41%) |
| ≥ 60 | 221(44.11%) | 46(42.59%) |
| Clinical stage |  |  |
| Stage III | 421(84.03%) | 93(86.11%) |
| Stage IV | 80(15.97%) | 15(13.89%) |
| Histological grade |  |  |
| Grade 1 | 6(1.20%) |  |
| Grade 2 | 57(11.38%) |  |
| Grade 3 | 436(87.03%) |  |
| Grade 4 | 2(0.40%) |  |
| Vital status |  |  |
| Alive | 187(37.33%) | 23(21.30%) |
| Dead | 314(62.67%) | 85(78.70%) |
| Progression status |  |  |
| No progression | 128(25.55%) | 9(8.33%) |
| progression | 373(74.45%) | 99(91.67%) |