### Table S1: Clinical characteristics of patients in TARGET program osteosarcoma project.

| Characteristics          | Factor                      | Group | Count | Percent   |
|--------------------------|-----------------------------|-------|-------|-----------|
| Gender                   | Female                      | F     | 39    | 42.39%    |
|                          | Male                        | M     | 53    | 57.61%    |
| Metastatic status at diagnosis | Met                        |       | 22    | 23.91%    |
|                          | Non-metastatic              | None  | 70    | 76.09%    |
| Overall Survival, OS     | >= 1825 days (5 year)       | Good  | 29    | 31.52%    |
|                          | < 1825 & >= 730 days (2~5 year) | Medi  | 32    | 34.78%    |
|                          | < 730 days (2 year)         | Poor  | 31    | 33.70%    |
| Response                 | Necrosis >= 90% or Stage 3/4 | Good  | 21    | 22.83%    |
|                          | Necrosis < 90% or Stage 1/2 | Poor  | 28    | 30.43%    |
|                          | No histologic information   | None  | 43    | 46.74%    |

### Table S2: Clinicopathological characteristics of 47 osteosarcoma patients.

| Characteristics          | Factor | Count | Percentage (%) |
|--------------------------|--------|-------|----------------|
| Age (years)              |        |       |                |
|                          | ≤ 10   | 6     | 12.7           |
|                          | 10 - 18| 31    | 66.0           |
|                          | 18 ≤   | 10    | 21.3           |
| Gender                   | Male   | 28    | 59.6           |
|                          | Female | 19    | 40.4           |
| Enneking                 | IIB    | 27    | 57.4           |
|                          | III    | 20    | 42.6           |
| Lung or Bone metastasis  | Yes    | 21    | 44.7           |
|                          | No     | 26    | 55.3           |
|                          | PR     | 15    | 31.9           |
| Treatment response       | SD     | 15    | 31.9           |
|                          | PD     | 15    | 31.9           |
|                          | NA     | 2     | 4.3            |