**Supplementary Table S4. Clinicopathological characteristics of breast tumours relative to BMP4 and SMAD7 expression.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Samples** | | **BMP4 expression** | | | |  |  | **Samples** | | **SMAD7 expression** | | | |  |
|  |  | ***n*** | **(%)** | **Negative** | | **Positive** | | ***P*** |  | ***n*** | **(%)** | **Negative** | | **Positive** | | ***P*** |
|  |  |  |  | ***n*** | **%** | ***n*** | **%** |  |  |  |  | ***n*** | **%** | ***n*** | **%** |  |
| *Total patients* † | | 535 |  |  |  |  |  |  |  | 535 |  |  |  |  |  |  |
|  | Benign component | 300 | 56.1 | 107 | 35.7 | 193 | 64.3 |  |  | 269 | 50.3 | 79 | 29.4 | 190 | 70.6 |  |
|  | DCIS component | 167 | 31.2 | 86 | 51.5 | 81 | 48.5 | 0.00087 |  | 183 | 34.2 | 81 | 44.3 | 102 | 55.7 | 0.0012 |
|  | Invasive component | 417 | 77.9 | 217 | 52.0 | 200 | 48.0 | <0.0001 |  | 429 | 80.2 | 256 | 59.7 | 173 | 41.3 | < 0.0001 |
| *Invasive pathology* ‡ | | 417 |  |  |  |  |  |  |  | 429 |  |  |  |  |  |  |
|  | Ductal only | 305 | 74.2 | 176 | 57.7 | 129 | 42.3 |  |  | 313 | 73.0 | 207 | 66.1 | 106 | 33.9 |  |
|  | Lobular component | 64 | 15.6 | 23 | 35.9 | 41 | 64.1 | 0.00149 |  | 66 | 15.4 | 35 | 53.0 | 31 | 47.0 | 0.044 |
|  | Tubular component | 25 | 6.1 | 8 | 32.0 | 17 | 68.0 | 0.0129 |  | 26 | 6.1 | 9 | 34.6 | 17 | 65.4 | 0.0013 |
|  | Other | 17 | 4.1 | 6 | 35.3 | 11 | 64.7 | 0.0697 |  | 13 | 3.0 | 4 | 30.8 | 9 | 69.2 | 0.0089 |
|  | Unknown | 6 | - | 2 | - | 4 | - | - |  | 11 | 2.6 | 6 | - | 5 | - |  |
| *Grade* \* | | 417 |  |  |  |  |  |  |  | 429 |  |  |  |  |  |  |
|  | Grade 1 | 101 | 25.4 | 46 | 45.5 | 55 | 54.5 |  |  | 109 | 26.7 | 52 | 47.8 | 57 | 52.2 |  |
|  | Grade 2 | 201 | 50.5 | 108 | 53.7 | 93 | 46.3 |  |  | 197 | 48.2 | 127 | 64.5 | 70 | 35.5 |  |
|  | Grade 3 | 96 | 24.1 | 58 | 60.4 | 38 | 39.6 | 0.11 |  | 103 | 25.2 | 75 | 72.9 | 28 | 27.1 | 0.0005 |
|  | Unknown | 19 | - | 5 | - | 14 | - |  |  | 20 | - | 3 | - | 17 | - |  |
| *Axillary lymph node* \* | | 417 |  |  |  |  |  |  |  | 429 |  |  |  |  |  |  |
|  | Positive | 125 | 30 | 70 | 56.0 | 55 | 44.0 |  |  | 131 | 30.8 | 84 | 33.1 | 47 | 27.3 |  |
|  | Negative | 290 | 69.5 | 146 | 50.3 | 144 | 49.7 | 0.29 |  | 295 | 69.2 | 170 | 66.9 | 125 | 72.7 | 0.207 |
|  | Unknown | 2 | 0.5 | 1 | - | 1 | - |  |  | 3 | - | 2 | - | 1 | - |  |
| *Estrogen receptor* \* | | 417 |  |  |  |  |  |  |  | 429 |  |  |  |  |  |  |
|  | Positive | 313 | 77.9 | 158 | 50.5 | 155 | 49.5 |  |  | 324 | 78.3 | 84 | 57.7 | 47 | 42.3 |  |
|  | Negative | 89 | 22.1 | 55 | 61.8 | 34 | 38.2 | 0.059 |  | 90 | 21.7 | 170 | 75.6 | 125 | 24.4 | 0.0021 |
|  | Unknown | 15 | - | 4 | - | 11 | - |  |  | 15 | - | 2 | - | 1 | - |  |
| *Progesterone receptor* \* | | 417 |  |  |  |  |  |  |  | 429 |  |  |  |  |  |  |
|  | Positive | 230 | 66.1 | 127 | 65.8 | 103 | 66.5 |  |  | 241 | 67.7 | 141 | 58.5 | 100 | 41.5 |  |
|  | Negative | 118 | 33.9 | 66 | 34.2 | 52 | 33.5 | 0.898 |  | 115 | 32.3 | 82 | 71.3 | 33 | 28.7 | 0.0196 |
|  | Unknown | 69 | - | 27 | - | 42 | - |  |  | 73 | - | 33 | - | 40 | - |  |
| *HER2 receptor* \* | | 417 |  |  |  |  |  |  |  | 429 |  |  |  |  |  |  |
|  | Positive | 51 | 15.6 | 34 | 66.7 | 17 | 33.3 |  |  | 53 | 15.7 | 29 | 54.7 | 24 | 45.3 |  |
|  | Negative | 276 | 84.4 | 147 | 53.3 | 129 | 46.7 | 0.077 |  | 284 | 84.3 | 184 | 64.8 | 100 | 35.2 | 0.163 |
|  | Unknown | 90 | - | 36 | - | 54 | - |  |  | 92 | - | 43 | - | 49 | - |  |

† Significance (Pearson Chi2 test) measured against benign component

‡ Significance (Pearson Chi2 test) measured against ductal only

\* Percentages calculated from total with known status