|                                       |                | Mut. in HER2<br>(n=174) |                | Р          | Mut. in BRAF<br>(n=196) |                | Р          | Mut. in PIK3CA<br>(n=164) |                 | Р              |
|---------------------------------------|----------------|-------------------------|----------------|------------|-------------------------|----------------|------------|---------------------------|-----------------|----------------|
|                                       |                | n                       | %<br>[95%CI]   | value      | n                       | %<br>[95%Cl]   | value      | n                         | %<br>[95%Cl]    | value          |
| Exposure to<br>Passive<br>Smoking     | Never          | 2                       | 4%<br>[1%-13%] | - 1,0* -   | 4                       | 6%<br>[2%-15%] | - 0.741* - | 2                         | 4%<br>[<1%-14%] | - 0.586*       |
|                                       | Ever           | 6                       | 5%<br>[2%-11%] |            | 6                       | 5%<br>[2%-10%] |            | 2                         | 2%<br>[<1%-6%]  |                |
| Cumulative<br>duration of<br>exposure | Never          | 2                       | 4%             | <br>- NC - | 4                       | 6%             | <br>- NC   | 2                         | 4%              | -<br>- NC<br>- |
|                                       | ≤20 years      | 3                       | 8%             |            | 3                       | 7%             |            | 1                         | 3%              |                |
|                                       | 20 to 30years  | 2                       | 5%             |            | 1                       | 2%             |            | 1                         | 3%              |                |
|                                       | >30 years      | 1                       | 3%             |            | 2                       | 5%             |            | 0                         | 0%              |                |
| Time of<br>exposure                   | Never          | 2                       | 3%             | NC         | 5                       | 6%             | NC         | 2                         | 4%              | NC             |
|                                       | Childhood      | 2                       | 3%             |            | 2                       | 3%             |            | 0                         | 0%              |                |
|                                       | Adulthood only | 4                       | 10%            |            | 3                       | 7%             |            | 2                         | 2%              |                |
| Exposure at workplace                 | Never          | 8                       | 6%             | 0.225*     | 9                       | 5%             | 0.568*     | 4                         | 3%              | 0.559*         |
|                                       | Ever           | 0                       | 0%             |            | 1                       | 4%             |            | 0                         | 0%              |                |
| Domestic<br>exposure                  | Never          | 2                       | 3%             | 0.330*     | 5                       | 6%             | 0.359*     | 2                         | 3.5%            | 0.433*         |
|                                       | Ever           | 6                       | 6%             |            | 5                       | 4%             |            | 2                         | 1.9%            |                |

Table S1 – Somatic mutation profile according to exposure to passive smoking in univariate analysis

Mut.: mutation; Rearr.: rearrangement; NC: not computable

\*Fisher test; others are Chi-squared tests



