Prospective analysis of the expression status of FGFR2 and HER2 in colorectal and gastric cancer populations: DS-Screen Study

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**FGFR2, Gastric cancer/Colorectal cancer**

| IHC Score | Positivity | Criteria |
|-----------|------------|----------|
| 3+        | Positive   | ≥5% positive stained tumor cells with a strong membranous reactivity |
| 2+        | Positive   | ≥5% positive stained tumor cells with a weak to moderate membranous reactivity |
| 1+        | Negative   | ≥5% positive stained tumor cells with a weak membranous reactivity |
| 0         | Negative   | No membranous reactivity or membranous reactivity in <5% of tumor cells |

**HER2, Gastric cancer, Surgical specimen**

| IHC Score | Positivity | Criteria |
|-----------|------------|----------|
| 3+        | Positive   | Strong, complete basolateral or lateral membranous reactivity in ≥10% of tumor cells |
| 2+        | Positive   | Weak to moderate, complete basolateral or lateral membranous reactivity in ≥10% of tumor cells |
| 1+        | Negative   | Faint/barely perceptible membranous reactivity in ≥10% of tumor cells; cells reactive only in part of their membrane |
| 0         | Negative   | No reactivity or membranous reactivity in <10% of tumor cells |

**HER2, Gastric cancer, Biopsy specimen**

| IHC Score | Positivity | Criteria |
|-----------|------------|----------|
| 3+        | Positive   | Tumor cell cluster* with strong, complete basolateral or lateral membranous activity irrespective of percentage of tumor cells stained |
| 2+        | Positive   | Tumor cell cluster with weak to moderate, complete basolateral or lateral membranous activity irrespective of percentage of tumor cells stained |
| 1+        | Negative   | Tumor cell cluster with faint or barely membranous activity irrespective of percentage of tumor cells stained |
| 0         | Negative   | No reactivity or membranous reactivity in any tumor cells |

*"Tumor cell cluster" is defined as a cluster of 5 or more tumor cells*
**HER2, Colorectal cancer**

| IHC Score* | Positivity | Criteria | Location | N (%) |
|------------|------------|----------|----------|-------|
| 3+         | 9 Positive | Intense  | ≥50%     | 12 (3.1) |
|            | 8          |          | 10%, <50%|       |
| 0          | 7 Negative |          | <10%     | 4 (1.0)  |
| 2+         | 6 Positive | Moderate | ≥50%     | 8 (2.1)  |
|            | 5          |          | 10%, <50%| 38 (9.9) |
| 0          | 4          |          | <10%     |       |
| 1+         | 3 Negative | Faint    | ≥10%     | 94 (24.5)|
| 0          | 2          |          | <10%     |       |
| 0          | 1          | No staining | —        | 228** (59.4) |

* For colorectal cancer, two HER2 IHC scoring criteria (0 to 3+, 1 to 9) were defined.

**IHC Score 1 includes score 2, 4, and 7."