

Supporting Information

Deep learning for chemotherapy response of metastatic colorectal cancer: comparing and combining H&E staining histopathology and infrared spectral histopathology.

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Table S1: PFS predicted for each sub-image by the CNN on HE images Vs real PFS. All values are expressed in months.

| Real PFS | PFS predicted | | | | | |
|----------|---------------|--------------------|--------------|--------------|--------------|--------------|
| | Average | Standard variation | Sub-image #1 | Sub-image #2 | Sub-image #3 | Sub-image #4 |
| 14.9 | 23 | 1,5 | 22 | 25 | | |
| 15.3 | 19 | 2,1 | 17 | 22 | 17 | 20 |
| 15.4 | 19 | 4,4 | 26 | 14 | 20 | 17 |
| 20.7 | 22 | 6,8 | 32 | 16 | 23 | 15 |
| 35.1 | 31 | 3,0 | 27 | 29 | 31 | 35 |
| 41.3 | 29 | 1,1 | 31 | 29 | 29 | 28 |

Table S2: PFS predicted for each sub-image by the CNN on IR images Vs real PFS. All values are expressed in months.

| Real PFS | PFS predicted | | | |
|----------|---------------|--------------------|--------------|--------------|
| | Average | Standard variation | Sub-image #1 | Sub-image #2 |
| 14.9 | 19 | 1,5 | 18 | 21 |
| 15.3 | 17 | 4 | 21 | 13 |
| 15.4 | 14 | 1,5 | 13 | 16 |
| 20.7 | 24 | 1,5 | 26 | 23 |
| 35.1 | 35 | 2 | 33 | 38 |
| 41.3 | 27 | 2 | 29 | 25 |

Table S3: PFS predicted for each sub-image by the fusion CNN Vs real PFS. All values are expressed in months.

| Real PFS | PFS predicted | | | |
|----------|---------------|--------------------|--------------|--------------|
| | Average | Standard deviation | Sub-image #1 | Sub-image #2 |
| 14.9 | 21 | 1,5 | 19 | 22 |
| 15.3 | 20 | 0 | 20 | 20 |
| 15.4 | 18 | 5 | 23 | 13 |
| 20.7 | 26 | 4,5 | 30 | 21 |
| 35.1 | 37 | 1 | 38 | 36 |
| 41.3 | 34 | 0,5 | 33 | 34 |