

Table supplement 1a: Descriptive statistics of the mean value and its standard deviation as well as the median values prior and after chemotherapy for all parameters of the FDG kinetics in all patients (n=31).

| Parameter | Median prior | Mean prior | SD prior | Median after | Mean after | SD after |
|-----------|--------------|------------|----------|--------------|------------|----------|
| k1 | 0.480 | 0.527 | 0.299 | 0.403 | 0.441 | 0.316 |
| k2 | 0.581 | 0.600 | 0.292 | 0.620 | 0.584 | 0.257 |
| k3 | 0.061 | 0.075 | 0.103 | 0.048 | 0.063 | 0.050 |
| k4 | 0.013 | 0.037 | 0.082 | 0.030 | 0.035 | 0.030 |
| Influx | 0.038 | 0.059 | 0.061 | 0.033 | 0.043 | 0.042 |
| VB | 0.119 | 0.160 | 0.177 | 0.103 | 0.152 | 0.178 |
| FD | 1.281 | 1.266 | 0.109 | 1.221 | 1.194 | 0.141 |
| mean SUV | 3.547 | 4.622 | 2.778 | 2.095 | 2.834 | 2.058 |

*The unit of k1-k4 and influx is 1/min. VB and SUV are relative measures. FD is an absolute value (range: 0-2) for the given parameters.

Table supplement 1b: Descriptive statistics of the mean value and its standard deviation as well as the median values prior and after chemotherapy for all parameters of the FDG kinetics with respect to response (n=12) and non-response (n=13).

| Study | Parameter | Resp. median | Resp. mean | Resp. SD | Non-Resp. median | Non-Resp. mean | Non-Resp. SD | Probability (p<0.1) |
|-------|-----------|--------------|------------|----------|------------------|----------------|--------------|---------------------|
| prior | k1 | 0.478 | 0.522 | 0.326 | 0.599 | 0.621 | 0.297 | 0.3270 |
| | k2 | 0.581 | 0.560 | 0.248 | 0.699 | 0.611 | 0.303 | 0.6635 |
| | k3 | 0.025 | 0.060 | 0.061 | 0.064 | 0.095 | 0.156 | 0.8704 |
| | k4 | 0.008 | 0.045 | 0.091 | 0.012 | 0.042 | 0.104 | 0.9339 |
| | VB | 0.099 | 0.115 | 0.106 | 0.088 | 0.169 | 0.253 | 0.7442 |
| | FD | 1.248 | 1.240 | 1.132 | 1.313 | 1.313 | 0.076 | 0.1278 |
| | mean SUV | 3.015 | 3.918 | 2.575 | 4.756 | 5.481 | 3.135 | 0.1419 |
| | influx | 0.027 | 0.054 | 0.066 | 0.038 | 0.056 | 0.059 | 0.7856 |
| after | k1 | 0.366 | 0.358 | 0.274 | 0.760 | 0.592 | 0.345 | 0.0735* |
| | k2 | 0.661 | 0.595 | 0.263 | 0.627 | 0.629 | 0.216 | 1.0000 |
| | k3 | 0.074 | 0.077 | 0.048 | 0.039 | 0.056 | 0.055 | 0.2253 |
| | k4 | 0.051 | 0.051 | 0.032 | 0.017 | 0.028 | 0.028 | 0.0734* |
| | VB | 0.077 | 0.102 | 0.092 | 0.095 | 0.134 | 0.154 | 0.6033 |
| | FD | 1.181 | 1.159 | 1.129 | 1.246 | 1.242 | 0.109 | 0.0941* |
| | mean SUV | 2.048 | 2.472 | 1.856 | 2.853 | 3.468 | 2.185 | 0.1333 |
| | influx | 0.031 | 0.055 | 0.062 | 0.032 | 0.033 | 0.017 | 0.7728 |

*The unit of k1-k4 and influx is 1/min. VB and SUV are relative measures. FD is an absolute value (range: 0-2) for the given parameters.