### Supplementary Table S1. Patients’ characteristics

| CHARACTERISTICS | ADENOCARCINOMA | N (%) | SQUAMOUS CELL CARCINOMA | N (%) |
|-----------------|----------------|-------|--------------------------|-------|
| **All Cases**   | 342            |       | 108                      |       |
| **Gender**      |                |       |                          |       |
| Male            | 207 (60.5)     |       | Male                     | 93 (86)|
| Female          | 135 (39.5)     |       | Female                   | 15 (13.9)|
| **Age (yr)**    |                | 64    |                          | 64    |
| Median          |                |       |                          |       |
| Range           | 16-86          |       |                          | 37-84 |
| **Stage (TNM 6th)** |        |       |                          |       |
| IA              | 105 (30.7)     |       | IA                       | 33 (30.6)|
| IB              | 74 (21.6)      |       | IB                       | 24 (22.2)|
| IIA             | 35 (10.2)      |       | IIA                      | 8 (7.4)|
| IIB             | 69 (20.2)      |       | IIB                      | 29 (26.9)|
| IIIA            | 33 (9.6)       |       | IIIA                     | 6 (5.6)|
| IIIB            | 15 (4.4)       |       | IIIB                     | 8 (7.4)|
| IV              | 11 (3.2)       |       | IV                       | 0 (0)|
Supplementary Table S2. Patients’ characteristics (samples of primary NSCLC and NSCLC metastases located on tissue microarrays)

| CHARACTERISTICS          | PRIMARY LUNG TUMORS | N (%) |
|--------------------------|---------------------|-------|
| All Cases                |                     | 42    |
| Gender                   | Male                | 27 (64) |
|                          | Female              | 15 (36) |
| Age (yr)                 | Median              | 59    |
|                          | Range               | 37-79 |
| Histopathology           | Adenocarcinoma      | 25 (59) |
|                          | Squamous cell carcinoma | 4 (10) |
|                          | Large cell          | 9 (21) |
|                          | Mixed / Other       | 4 (10) |
| Tumor grade              | 1                   | 5 (12) |
|                          | 2                   | 14 (33) |
|                          | 3                   | 20 (48) |
|                          | 4                   | 1 (2) |
|                          | unspecified         | 2 (5) |
| Tumor stage              | IV                  | 42 (100) |

| CHARACTERISTICS          | METASTASES          | N (%) |
|--------------------------|---------------------|-------|
| All Cases                |                     | 54    |
| Gender                   | Male                | 35 (65) |
|                          | Female              | 19 (35) |
| Age (yr)                 | Median              | 60    |
|                          | Range               | 36-79 |
| Histopathology (of primary tumor) | Adenocarcinoma | 35 (65) |
|                          | Squamous cell carcinoma | 9 (17) |
|                          | Large cell          | 6 (11) |
|                          | Mixed / Other       | 4 (7) |
| Tumor grade (of primary) | 1                   | 5 (9) |
|                          | 2                   | 20 (37) |
|                          | 3                   | 25 (46) |
|                          | 4                   | 1 (2) |
|                          | unspecified         | 3 (6) |
| Type of metastasis       | Brain               | 48 (89) |
|                          | Lymph node          | 1 (2) |
|                          | Other               | 5 (9) |
Supplementary Table S3. Multivariate survival analysis in LUAD

| IHC SCORE | RELATIVE RISK | 95% CI  | P     |
|-----------|---------------|---------|-------|
| G         | 1.27          | 1.07-1.52 | 0.008* |
| T         | 1.25          | 1.05-1.49 | 0.011* |
| N         | 1.47          | 1.22-1.77 | < 0.001* |
| M         | 1.4           | 0.67-2.91  | 0.37  |
| Gender (f. v.s. m.) | 0.58       | 0.44-0.77  | < 0.001* |
| Age       | 1.02          | 1.002-1.03 | 0.021* |
| PCK1 (score) | 1.002    | 0.99-1.01  | 0.58  |
| PCK2 (score) | 0.995    | 0.992-0.999 | 0.006* |
| LDHB (score)  | 1.001       | 0.9992-1.002 | 0.42  |
| GLUT1 (score) | 0.9996  | 0.997-1.003 | 0.78  |

G, tumor grade; *significant at P<0.05