

**Supplementary material to:**

**Pretreatment late-phase DCE-MRI predicts outcome in locally advanced cervix cancer**

**Kjersti V. Lund, Trude G. Simonsen, Gunnar B. Kristensen, Einar K. Rofstad**

**Supplementary Table 1**

Patient characteristics ( $N = 80$ ).

| Characteristic                               |         |
|--|---------|
| Age, years                                   |         |
| Median                                       | 57      |
| Range  | 22–88   |
| Histology, number of patients                |         |
| Squamous cell carcinoma                      | 68      |
| Adenocarcinoma                               | 10      |
| Undifferentiated                             | 2       |
| Volume, cm <sup>3</sup>                      |         |
| Median                                       | 40.7    |
| Range  | 2.1–319 |
| FIGO stage, number of patients               |         |
| I  | 7       |
| II   | 55      |
| III  | 15      |
| IV   | 3       |
| Pelvic lymph node status, number of patients |         |
| Positive                                     | 35      |
| Negative                                     | 45      |

## Supplementary Table 2

Multivariate Cox regression analysis of clinical and SITC parameters together with LETV.

|                   | Disease-free survival |              |       |       | Overall survival |               |       |              |
|-------------------|-----------------------|--------------|-------|-------|------------------|---------------|-------|--------------|
|                   | p-values              |              |       |       | p-values         |               |       |              |
| Tumor volume      | 0.93                  | 0.83         | 0.80  | 0.96  | 0.88             | 0.99          | 0.96  | 0.80         |
| FIGO stage        | 0.053                 | <b>0.047</b> | 0.050 | 0.051 | 0.082            | 0.066         | 0.082 | 0.073        |
| Lymph node status | 0.72                  | 0.68         | 0.74  | 0.78  | 0.75             | 0.80          | 0.78  | 0.69         |
| LETV (EF-method)  | <b>0.025</b>          | 0.085        | 0.26  | 0.098 | <b>0.0022</b>    | <b>0.0077</b> | 0.057 | <b>0.019</b> |
| TVDS              | 0.89                  |              |       |       | 0.73             |               |       |              |
| TFDS              |                       | 0.23         |       |       |                  | 0.14          |       |              |
| TVIS              |                       |              | 0.73  |       |                  |               | 0.87  |              |
| TFIS              |                       |              |       | 0.26  |                  |               |       | 0.27         |

p-values refer to multivariate regression analyses involving tumor volume, FIGO stage, lymph node status, LETV (EF-method), and either TVDS, TFDS, TVIS, or TFIS. SITC, signal intensity *versus* time curve; LETV (EF-method), low enhancing tumor volume (enhancing fraction method); TVDS, tumor volume with decreasing signal; TFDS, tumor fraction with decreasing signal; TVIS, tumor volume with increasing signal; TFIS, tumor fraction with increasing signal.

### Supplementary Table 3

Multivariate Cox regression analysis of clinical and late-phase SITC parameters together with LETV.

|                   | Disease-free survival |              |              |       | Overall survival |              |       |              |
|-------------------|-----------------------|--------------|--------------|-------|------------------|--------------|-------|--------------|
|                   | p-values              |              |              |       | p-values         |              |       |              |
| Tumor volume      | 0.99                  | 0.95         | 0.88         | 0.91  | 0.96             | 0.85         | 0.81  | 0.66         |
| FIGO stage        | 0.053                 | <b>0.046</b> | <b>0.048</b> | 0.050 | 0.083            | 0.064        | 0.080 | 0.070        |
| Lymph node status | 0.75                  | 0.69         | 0.77         | 0.80  | 0.70             | 0.75         | 0.71  | 0.64         |
| LETV (SI-method)  | <b>0.048</b>          | 0.15         | 0.47         | 0.17  | <b>0.0036</b>    | <b>0.014</b> | 0.12  | <b>0.033</b> |
| TVDS              | 0.93                  |              |              |       | 0.68             |              |       |              |
| TFDS              |                       | 0.21         |              |       |                  | 0.14         |       |              |
| TVIS              |                       |              | 0.53         |       |                  |              | 0.91  |              |
| TFIS              |                       |              |              | 0.23  |                  |              |       | 0.27         |

p-values refer to multivariate regression analyses involving tumor volume, FIGO stage, lymph node status, LETV (SI-method), and either TVDS, TFDS, TVIS, or TFIS. SITC, signal intensity *versus* time curve; LETV (SI-method), low enhancing tumor volume (signal intensity method); TVDS, tumor volume with decreasing signal; TFDS, tumor fraction with decreasing signal; TVIS, tumor volume with increasing signal; TFIS, tumor fraction with increasing signal.

## Supplementary Table 4

Multivariate Cox regression analysis of clinical and late-phase SITC parameters together with LETF.

|                   | Disease-free survival |              |              |       | Overall survival |              |              |              |
|-------------------|-----------------------|--------------|--------------|-------|------------------|--------------|--------------|--------------|
|                   | p-values              |              |              |       | p-values         |              |              |              |
| Tumor volume      | 0.65                  | 0.58         | 1.00         | 0.44  | 0.58             | 0.20         | 0.51         | 0.12         |
| FIGO stage        | 0.060                 | <b>0.049</b> | <b>0.044</b> | 0.057 | 0.093            | 0.066        | 0.060        | 0.074        |
| Lymph node status | 0.69                  | 0.64         | 0.78         | 0.79  | 0.81             | 0.83         | 0.66         | 0.66         |
| LETF (SI-method)  | 0.16                  | 0.45         | 0.51         | 0.55  | <b>0.0021</b>    | <b>0.025</b> | <b>0.043</b> | <b>0.038</b> |
| TVDS              | 0.98                  |              |              |       | 0.34             |              |              |              |
| TFDS              |                       | 0.16         |              |       |                  | 0.14         |              |              |
| TVIS              |                       |              | 0.12         |       |                  |              | 0.091        |              |
| TFIS              |                       |              |              | 0.19  |                  |              |              | 0.20         |

p-values refer to multivariate regression analyses involving tumor volume, FIGO stage, lymph node status, LETF (SI-method), and either TVDS, TFDS, TVIS, or TFIS. SITC, signal intensity *versus* time curve; LETF (SI-method), low enhancing tumor fraction (signal intensity method); TVDS, tumor volume with decreasing signal; TFDS, tumor fraction with decreasing signal; TVIS, tumor volume with increasing signal; TFIS, tumor fraction with increasing signal.