## Supplementary Data

# The Tumor Coagulome as a Transcriptional Target and a Potential Effector of Glucocorticoids in Human Cancers

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# Supplementary Materials and Methods

## Cell culture and reagents

The human OSCC cell lines, PE/CA-PJ34 and PE/CA-PJ41, were purchased from ECACC (European Collection of Authenticated Cell Cultures). Cells were cultured in Dulbecco's Modified Eagle Medium (DMEM) supplemented with 10% fetal calf serum, 2 mM glutamine and streptomycin/penicillin. Lung carcinoma cell lines (A549, H2122, H1944, H1975 and H460 cells) were obtained from Rene Bernard's lab (Netherlands Cancer Institute, Netherlands) (Prekovic et al, 2021). Dexamethasone (D4902) and mifepristone (M8046) were purchased from Sigma Aldrich. Human recombinant TNFα (210-TA) was purchased from R&D Systems Biotechne. Cancer cell growth was evaluated with crystal violet staining (Sigma Aldrich).

## Immunoblot analysis

Proteins were extracted and transferred to nitrocellulose membranes following immunoblot procedures and ECL reaction, as described elsewhere (Galmiche et al., 2010). Immunoblots were quantified using the Image J software (https://imagej.nih.gov/ij/download.html). The following primary antibodies were used: anti-TF (TF9-10H10, Sigma Aldrich), anti-uPA (Ab169754, Abcam), anti-PAI-1 (Ab66705, Abcam), anti-GR (12041S, Cell Signaling), and anti-β-actin (A5441, Sigma-Aldrich).

## Fluorescence Microscopy

Cells grown on glass coverslips were fixed with 3.7% paraformaldehyde, permeabilized with 0.01% TritonX100, and stained with relevant antibodies. Coverslips were mounted in Mowiol (Calbiochem) and observed with a Nikon Eclipse TE2000U microscope equipped with a plan APO VC 60X / 1.40 objective under oil immersion.

## Suppl. Tables and Figures

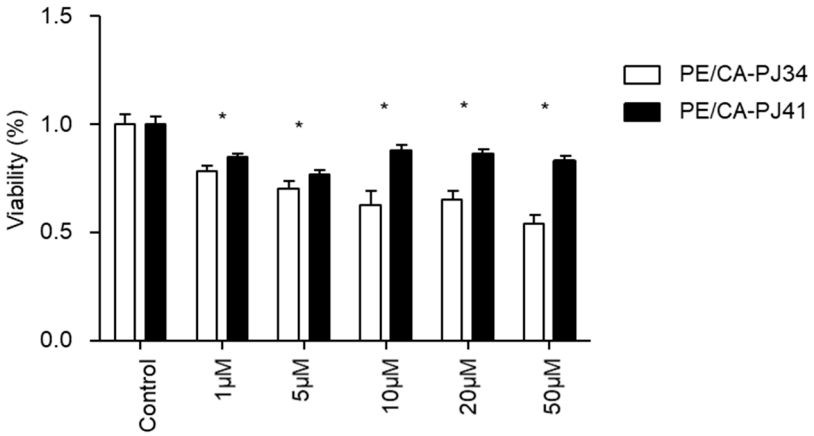


**Figure S1. Viability of OSCC cells treated with dexamethasone**

PE/CA-PJ34 and PE/CA-PJ41 were treated with dexamethasone at the indicated concentrations for 6 days. Cell viability was determined by Crystal Violet analysis. Results are represented as relative values, with control set as 1. Student's t test was used to compare each condition with control (*$p<0.05$).

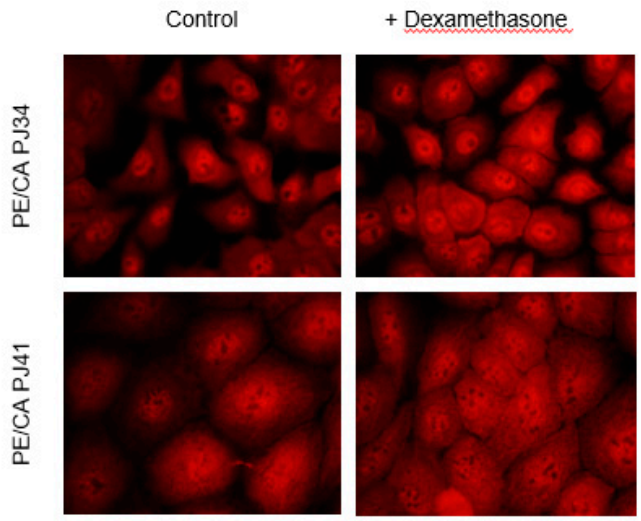


**Figure S2. Immunofluorescence labelling of PAI-1 in OSCC cells exposed to dexamethasone.**

PE/CA-PJ34 and PE/CA-PJ41 cells were exposed to dexamethasone (10 μM for 48 hours) and processed for PAI-1 staining.

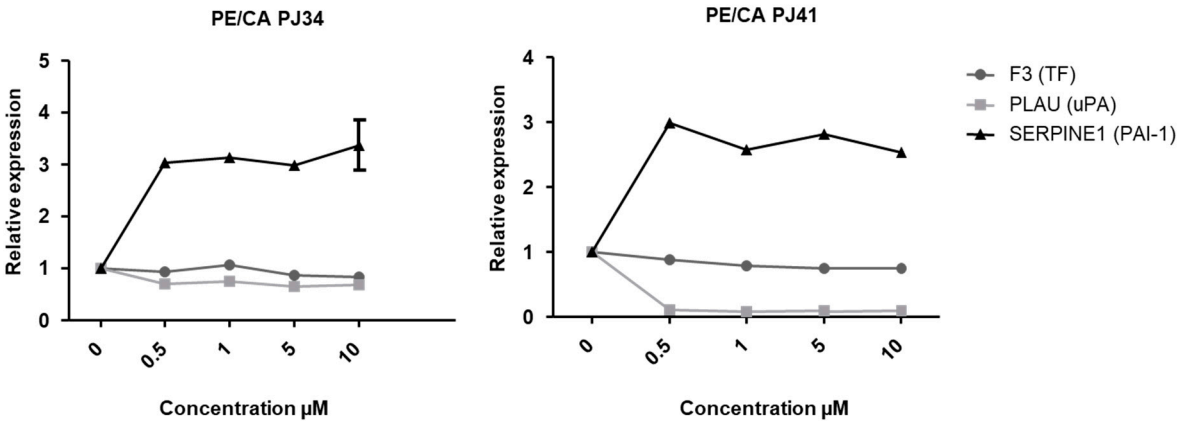


**Figure S3. Dose-response analysis of *F3, PLAU and SERPINE1* expression in OSCC cells exposed to dexamethasone**

QPCR analysis of the expression of *F3*, *PLAU* and *SERPINE1* in OSCC cells treated with dexamethasone (48 hour exposure) at increasing concentrations. Results are represented as relative expression, with control set as 1.

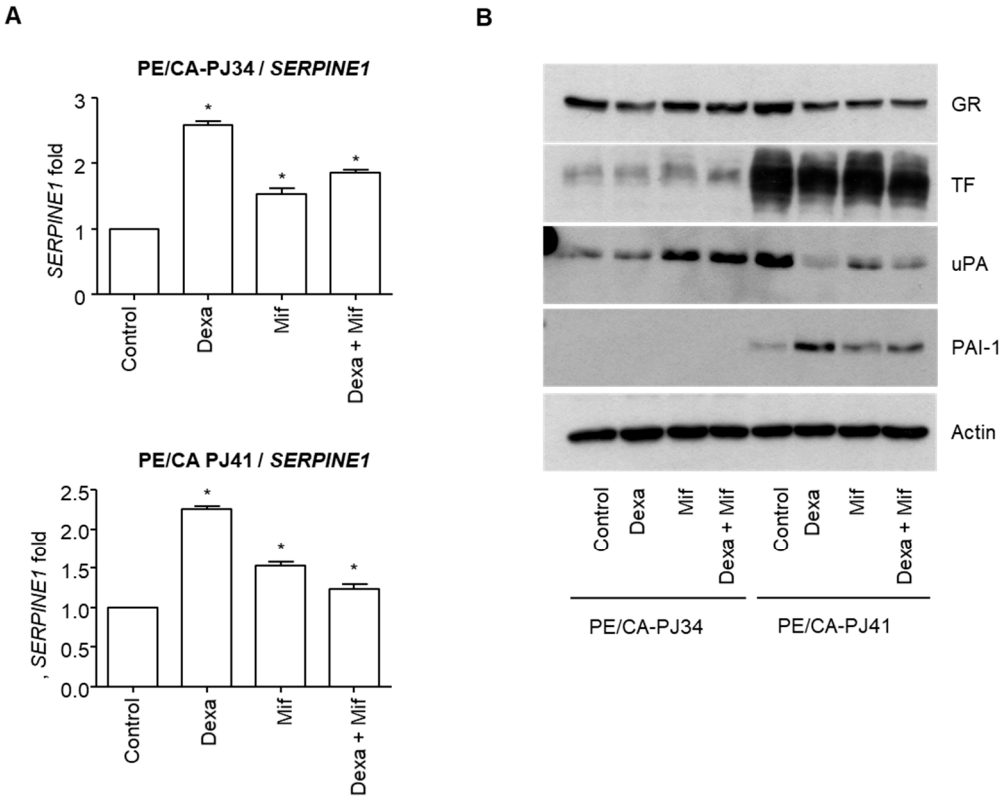


**Figure S4. Effect of mifepristone, a GR antagonist, on the components of the coagulome**

(A) QPCR analysis of the expression of *SERPINE1* in PE/CA-PJ34 and PE/CA-PJ41. Cells were treated with mifepristone (10 µM) for 24h followed by +/- dexamethasone (10 µM) for 48 hours. Student's T test was used to compare each condition with control (*p<0.05). (B) Immunoblot analysis of the expression of GR, TF, uPA and PAI-1 in OSCC cell lines treated with mifepristone (10 µM) +/- dexamethasone (10 µM). Actin was used as control.

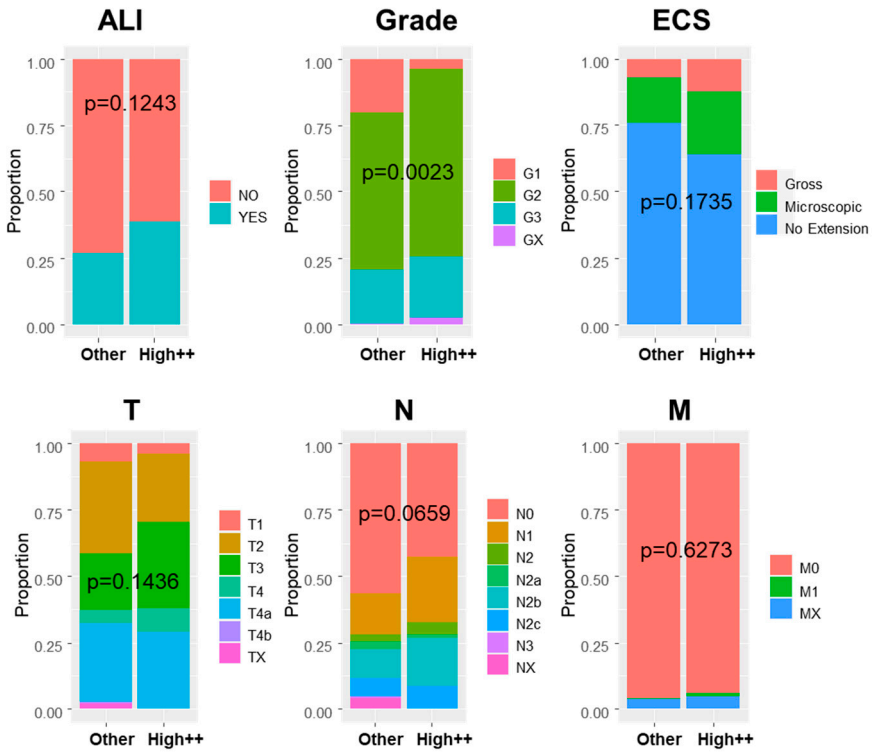


**Figure S5. Clinical characteristics of OSCC tumors with high GR-activity/ high *SERPINE1***

(A) The subset of OSCC tumors with a “high GR activity” and “high *SERPINE1”* (i.e. “High++”, n=82) were compared with other OSCC regarding the occurrence of angiolymphatic invasion (ALI), tumor grade, extracapsular spread (ECS) and the TNM (tumor size (T), nodal involvement (N), metastasis (M)). Categories were compared using the Chi-squared test. $p<0.05$ was set as threshold for significance.

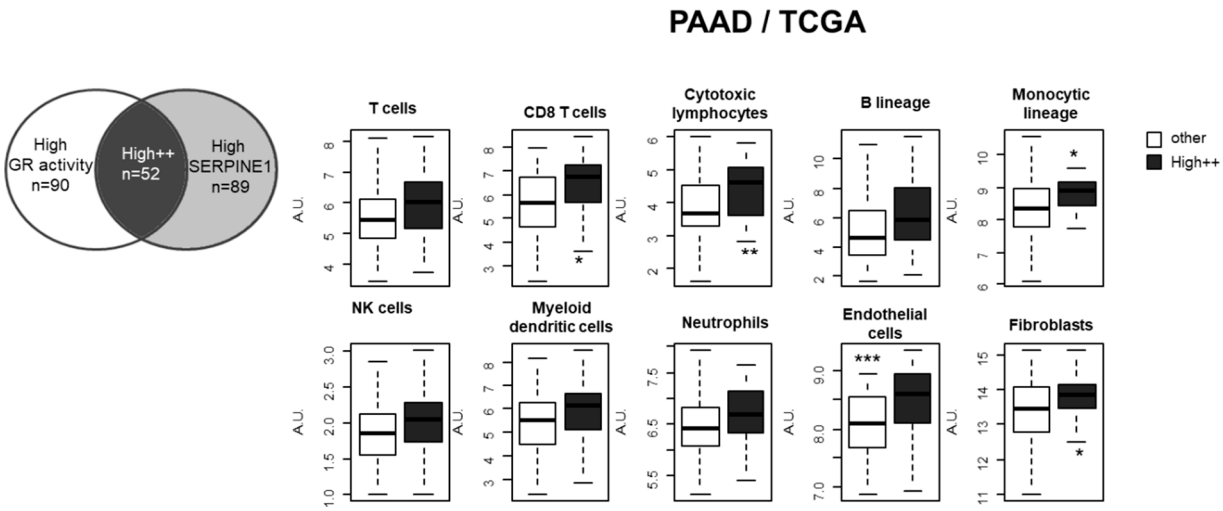


**Figure S6. TME analysis in PAAD tumors high in GR-activity and *SERPINE1***

(A) The subset of PAAD tumors with a “high GR activity” (upper half) and high *SERPINE1* expression (upper half) (i.e. “High++”) were identified n=52 (West et al., 2018). (B) The abundance of eight types of immune cells, and endothelial cells and fibroblasts in PAAD/TCGA tumors was stratified according to their GR-activity score and *SERPINE1* expression. Wilcoxon-Mann-Whitney was used to compare groups. *p<0.05 after FDR was set as threshold for significance.

**Supplementary Table S1**

OSCC groups according to GR-activity and *SERPINE1* expression

| TCGA / OSCC sample | GR SCORE | GR-activity group | SERPINE1 group | High GR-activity / High SERPINE1 |
|---|---|---|---|---|
| TCGA-4P-AA8J-01 | -0,204 | LOW | HIGH | other |
| TCGA-BA-4074-01 | 0,404 | HIGH | LOW | other |
| TCGA-BA-4075-01 | 0,215 | HIGH | HIGH | High++ |
| TCGA-BA-5149-01 | 0,078 | HIGH | HIGH | High++ |
| TCGA-BA-5151-01 | 0,237 | HIGH | LOW | other |
| TCGA-BA-5152-01 | 0,071 | HIGH | LOW | other |
| TCGA-BA-5556-01 | 0,004 | LOW | HIGH | other |
| TCGA-BA-5557-01 | -0,063 | LOW | HIGH | other |
| TCGA-BA-5558-01 | 0,016 | LOW | LOW | other |
| TCGA-BA-6872-01 | -0,173 | LOW | HIGH | other |
| TCGA-BA-6873-01 | 0,152 | HIGH | HIGH | High++ |
| TCGA-BA-7269-01 | -0,088 | LOW | LOW | other |
| TCGA-BA-A6D8-01 | -0,413 | LOW | LOW | other |
| TCGA-BA-A6DB-01 | 0,115 | HIGH | LOW | other |
| TCGA-BA-A6DD-01 | 0,012 | LOW | HIGH | other |
| TCGA-BA-A6DE-01 | 0,034 | HIGH | LOW | other |
| TCGA-BA-A6DG-01 | 0,088 | HIGH | HIGH | High++ |
| TCGA-BA-A6DJ-01 | 0,074 | HIGH | HIGH | High++ |
| TCGA-BB-4224-01 | 0,146 | HIGH | LOW | other |
| TCGA-BB-7863-01 | 0,077 | HIGH | LOW | other |
| TCGA-BB-7872-01 | 0,243 | HIGH | HIGH | High++ |
| TCGA-BB-8601-01 | 0,058 | HIGH | LOW | other |
| TCGA-BB-A5HU-01 | 0,135 | HIGH | HIGH | High++ |
| TCGA-BB-A5HZ-01 | 0,046 | HIGH | LOW | other |
| TCGA-BB-A6UO-01 | 0,034 | HIGH | HIGH | High++ |
| TCGA-C9-A47Z-01 | 0,053 | HIGH | LOW | other |
| TCGA-C9-A480-01 | 0,053 | HIGH | LOW | other |
| TCGA-CN-4725-01 | 0,008 | LOW | HIGH | other |
| TCGA-CN-4726-01 | 0,087 | HIGH | HIGH | High++ |
| TCGA-CN-4728-01 | 0,008 | LOW | HIGH | other |
| TCGA-CN-4729-01 | -0,072 | LOW | HIGH | other |
| TCGA-CN-4730-01 | -0,051 | LOW | LOW | other |
| TCGA-CN-4731-01 | -0,034 | LOW | LOW | other |
| TCGA-CN-4733-01 | 0,042 | HIGH | HIGH | High++ |
| TCGA-CN-4734-01 | 0,004 | LOW | HIGH | other |
| TCGA-CN-4736-01 | 0,046 | HIGH | LOW | other |
| TCGA-CN-4737-01 | -0,102 | LOW | LOW | other |
| TCGA-CN-4740-01 | 0,066 | HIGH | HIGH | High++ |
| TCGA-CN-4741-01 | -0,013 | LOW | LOW | other |
| TCGA-CN-4742-01 | -0,025 | LOW | HIGH | other |
| TCGA-CN-5358-01 | 0,079 | HIGH | HIGH | High++ |
| TCGA-CN-5359-01 | 0,084 | HIGH | LOW | other |
| TCGA-CN-5364-01 | -0,034 | LOW | LOW | other |
| TCGA-CN-5367-01 | 0,279 | HIGH | HIGH | High++ |
| TCGA-CN-5369-01 | 0,158 | HIGH | LOW | other |
| TCGA-CN-5370-01 | 0,283 | HIGH | HIGH | High++ |
| TCGA-CN-5373-01 | -0,053 | LOW | LOW | other |
| TCGA-CN-6011-01 | -0,358 | LOW | LOW | other |
| TCGA-CN-6013-01 | -0,096 | LOW | HIGH | other |
| TCGA-CN-6016-01 | -0,356 | LOW | HIGH | other |
| TCGA-CN-6017-01 | 0,017 | LOW | LOW | other |
| TCGA-CN-6018-01 | 0,105 | HIGH | HIGH | High++ |
| TCGA-CN-6019-01 | -0,069 | LOW | HIGH | other |
| TCGA-CN-6020-01 | 0,035 | HIGH | HIGH | High++ |
| TCGA-CN-6024-01 | 0,031 | HIGH | HIGH | High++ |
| TCGA-CN-6994-01 | -0,164 | LOW | HIGH | other |
| TCGA-CN-6995-01 | -0,057 | LOW | HIGH | other |
| TCGA-CN-6996-01 | 0,127 | HIGH | LOW | other |
| TCGA-CN-6998-01 | 0,041 | HIGH | HIGH | High++ |
| TCGA-CN-A49A-01 | -0,032 | LOW | LOW | other |

| | | | | |
|---|---|---|---|---|
| TCGA-CN-A63V-01 | -0,002 | LOW | LOW | other |
| TCGA-CN-A642-01 | 0,155 | HIGH | LOW | other |
| TCGA-CQ-5323-01 | -0,032 | LOW | LOW | other |
| TCGA-CQ-5324-01 | -0,108 | LOW | LOW | other |
| TCGA-CQ-5325-01 | 0,114 | HIGH | LOW | other |
| TCGA-CQ-5326-01 | 0,037 | HIGH | HIGH | High++ |
| TCGA-CQ-5327-01 | 0,186 | HIGH | LOW | other |
| TCGA-CQ-5329-01 | 0,225 | HIGH | HIGH | High++ |
| TCGA-CQ-5330-01 | 0,106 | HIGH | HIGH | High++ |
| TCGA-CQ-5331-01 | 0,189 | HIGH | LOW | other |
| TCGA-CQ-5332-01 | -0,006 | LOW | HIGH | other |
| TCGA-CQ-5333-01 | -0,222 | LOW | LOW | other |
| TCGA-CQ-5334-01 | -0,057 | LOW | LOW | other |
| TCGA-CQ-6218-01 | 0,076 | HIGH | LOW | other |
| TCGA-CQ-6219-01 | 0,089 | HIGH | LOW | other |
| TCGA-CQ-6220-01 | -0,126 | LOW | LOW | other |
| TCGA-CQ-6221-01 | 0,016 | LOW | LOW | other |
| TCGA-CQ-6222-01 | 0,055 | HIGH | LOW | other |
| TCGA-CQ-6223-01 | 0,031 | HIGH | LOW | other |
| TCGA-CQ-6224-01 | 0,048 | HIGH | HIGH | High++ |
| TCGA-CQ-6225-01 | -0,064 | LOW | LOW | other |
| TCGA-CQ-6227-01 | 0,069 | HIGH | HIGH | High++ |
| TCGA-CQ-6228-01 | 0,248 | HIGH | LOW | other |
| TCGA-CQ-6229-01 | 0,115 | HIGH | HIGH | High++ |
| TCGA-CQ-7063-01 | 0,014 | LOW | HIGH | other |
| TCGA-CQ-7065-01 | -0,187 | LOW | HIGH | other |
| TCGA-CQ-7067-01 | 0,016 | LOW | HIGH | other |
| TCGA-CQ-7068-01 | -0,042 | LOW | LOW | other |
| TCGA-CQ-7069-01 | -0,197 | LOW | HIGH | other |
| TCGA-CQ-7071-01 | 0,223 | HIGH | LOW | other |
| TCGA-CQ-7072-01 | 0,022 | LOW | HIGH | other |
| TCGA-CQ-A4C6-01 | -0,021 | LOW | HIGH | other |
| TCGA-CQ-A4C7-01 | 0,117 | HIGH | HIGH | High++ |
| TCGA-CQ-A4C9-01 | -0,128 | LOW | LOW | other |
| TCGA-CQ-A4CA-01 | -0,145 | LOW | LOW | other |
| TCGA-CQ-A4CB-01 | 0,173 | HIGH | HIGH | High++ |
| TCGA-CQ-A4CD-01 | 0,001 | LOW | HIGH | other |
| TCGA-CQ-A4CE-01 | 0,131 | HIGH | LOW | other |
| TCGA-CQ-A4CG-01 | 0,138 | HIGH | HIGH | High++ |
| TCGA-CQ-A4CH-01 | -0,008 | LOW | HIGH | other |
| TCGA-CQ-A4CI-01 | -0,001 | LOW | LOW | other |
| TCGA-CR-6471-01 | 0,012 | LOW | LOW | other |
| TCGA-CR-6484-01 | 0,043 | HIGH | LOW | other |
| TCGA-CR-6488-01 | -0,096 | LOW | HIGH | other |
| TCGA-CR-6491-01 | -0,159 | LOW | HIGH | other |
| TCGA-CR-6492-01 | 0,058 | HIGH | LOW | other |
| TCGA-CR-6493-01 | -0,064 | LOW | HIGH | other |
| TCGA-CR-7365-01 | -0,013 | LOW | HIGH | other |
| TCGA-CR-7367-01 | 0,125 | HIGH | LOW | other |
| TCGA-CR-7368-01 | 0,069 | HIGH | LOW | other |
| TCGA-CR-7369-01 | 0,208 | HIGH | HIGH | High++ |
| TCGA-CR-7372-01 | -0,066 | LOW | LOW | other |
| TCGA-CR-7373-01 | 0,177 | HIGH | HIGH | High++ |
| TCGA-CR-7376-01 | 0,079 | HIGH | HIGH | High++ |
| TCGA-CR-7377-01 | 0,072 | HIGH | HIGH | High++ |
| TCGA-CR-7379-01 | 0,116 | HIGH | LOW | other |
| TCGA-CR-7380-01 | 0,021 | LOW | LOW | other |
| TCGA-CR-7382-01 | 0,120 | HIGH | HIGH | High++ |
| TCGA-CR-7386-01 | 0,079 | HIGH | HIGH | High++ |
| TCGA-CR-7390-01 | 0,091 | HIGH | HIGH | High++ |
| TCGA-CR-7391-01 | 0,064 | HIGH | LOW | other |
| TCGA-CR-7392-01 | 0,105 | HIGH | HIGH | High++ |
| TCGA-CR-7393-01 | 0,159 | HIGH | LOW | other |
| TCGA-CR-7394-01 | 0,089 | HIGH | LOW | other |
| TCGA-CR-7395-01 | 0,076 | HIGH | LOW | other |
| TCGA-CR-7397-01 | 0,028 | HIGH | HIGH | High++ |
| TCGA-CR-7401-01 | -0,036 | LOW | LOW | other |
| TCGA-CV-5436-01 | -0,093 | LOW | LOW | other |

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|---|---|---|---|---|
| TCGA-CV-5442-01 | -0,061 | LOW | LOW | other |
| TCGA-CV-5966-01 | 0,006 | LOW | LOW | other |
| TCGA-CV-5970-01 | 0,097 | HIGH | HIGH | High++ |
| TCGA-CV-5971-01 | 0,235 | HIGH | LOW | other |
| TCGA-CV-5973-01 | -0,375 | LOW | HIGH | other |
| TCGA-CV-5976-01 | -0,092 | LOW | HIGH | other |
| TCGA-CV-5977-01 | -0,034 | LOW | HIGH | other |
| TCGA-CV-5979-01 | -0,139 | LOW | HIGH | other |
| TCGA-CV-6003-01 | -0,121 | LOW | HIGH | other |
| TCGA-CV-6433-01 | 0,053 | HIGH | LOW | other |
| TCGA-CV-6436-01 | -0,299 | LOW | LOW | other |
| TCGA-CV-6441-01 | 0,124 | HIGH | LOW | other |
| TCGA-CV-6933-01 | -0,212 | LOW | HIGH | other |
| TCGA-CV-6934-01 | 0,145 | HIGH | HIGH | High++ |
| TCGA-CV-6936-01 | -0,049 | LOW | LOW | other |
| TCGA-CV-6937-01 | -0,028 | LOW | HIGH | other |
| TCGA-CV-6938-01 | 0,102 | HIGH | LOW | other |
| TCGA-CV-6939-01 | 0,302 | HIGH | LOW | other |
| TCGA-CV-6940-01 | -0,085 | LOW | HIGH | other |
| TCGA-CV-6941-01 | 0,029 | HIGH | HIGH | High++ |
| TCGA-CV-6942-01 | 0,064 | HIGH | HIGH | High++ |
| TCGA-CV-6945-01 | -0,079 | LOW | HIGH | other |
| TCGA-CV-6948-01 | 0,252 | HIGH | LOW | other |
| TCGA-CV-6951-01 | -0,005 | LOW | LOW | other |
| TCGA-CV-6952-01 | 0,120 | HIGH | HIGH | High++ |
| TCGA-CV-6953-01 | 0,102 | HIGH | LOW | other |
| TCGA-CV-6954-01 | 0,137 | HIGH | LOW | other |
| TCGA-CV-6955-01 | 0,016 | LOW | LOW | other |
| TCGA-CV-6956-01 | -0,106 | LOW | LOW | other |
| TCGA-CV-6959-01 | 0,122 | HIGH | HIGH | High++ |
| TCGA-CV-6960-01 | -0,137 | LOW | HIGH | other |
| TCGA-CV-6961-01 | 0,012 | LOW | HIGH | other |
| TCGA-CV-7090-01 | -0,119 | LOW | HIGH | other |
| TCGA-CV-7091-01 | 0,104 | HIGH | LOW | other |
| TCGA-CV-7095-01 | -0,179 | LOW | HIGH | other |
| TCGA-CV-7097-01 | 0,294 | HIGH | HIGH | High++ |
| TCGA-CV-7099-01 | 0,108 | HIGH | HIGH | High++ |
| TCGA-CV-7100-01 | -0,019 | LOW | LOW | other |
| TCGA-CV-7102-01 | 0,105 | HIGH | HIGH | High++ |
| TCGA-CV-7103-01 | -0,115 | LOW | LOW | other |
| TCGA-CV-7104-01 | 0,073 | HIGH | HIGH | High++ |
| TCGA-CV-7178-01 | 0,221 | HIGH | HIGH | High++ |
| TCGA-CV-7180-01 | -0,122 | LOW | LOW | other |
| TCGA-CV-7183-01 | -0,131 | LOW | LOW | other |
| TCGA-CV-7235-01 | 0,131 | HIGH | HIGH | High++ |
| TCGA-CV-7236-01 | 0,203 | HIGH | HIGH | High++ |
| TCGA-CV-7238-01 | 0,028 | HIGH | HIGH | High++ |
| TCGA-CV-7243-01 | -0,122 | LOW | HIGH | other |
| TCGA-CV-7252-01 | 0,099 | HIGH | HIGH | High++ |
| TCGA-CV-7253-01 | 0,014 | LOW | LOW | other |
| TCGA-CV-7254-01 | 0,217 | HIGH | LOW | other |
| TCGA-CV-7255-01 | -0,093 | LOW | HIGH | other |
| TCGA-CV-7263-01 | -0,028 | LOW | LOW | other |
| TCGA-CV-7407-01 | 0,145 | HIGH | HIGH | High++ |
| TCGA-CV-7409-01 | -0,017 | LOW | LOW | other |
| TCGA-CV-7411-01 | 0,000 | LOW | HIGH | other |
| TCGA-CV-7413-01 | -0,120 | LOW | LOW | other |
| TCGA-CV-7414-01 | 0,010 | LOW | HIGH | other |
| TCGA-CV-7416-01 | 0,001 | LOW | HIGH | other |
| TCGA-CV-7423-01 | -0,065 | LOW | HIGH | other |
| TCGA-CV-7425-01 | 0,110 | HIGH | LOW | other |
| TCGA-CV-7427-01 | 0,158 | HIGH | LOW | other |
| TCGA-CV-7428-01 | 0,002 | LOW | LOW | other |
| TCGA-CV-7429-01 | 0,171 | HIGH | HIGH | High++ |
| TCGA-CV-7432-01 | 0,060 | HIGH | LOW | other |
| TCGA-CV-7434-01 | -0,011 | LOW | LOW | other |
| TCGA-CV-7435-01 | 0,167 | HIGH | HIGH | High++ |
| TCGA-CV-7438-01 | 0,022 | LOW | HIGH | other |

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|---|---|---|---|---|
| TCGA-CV-7446-01 | 0,589 | HIGH | LOW | other |
| TCGA-CV-7568-01 | 0,258 | HIGH | HIGH | High++ |
| TCGA-CV-A45O-01 | -0,158 | LOW | LOW | other |
| TCGA-CV-A45P-01 | 0,084 | HIGH | LOW | other |
| TCGA-CV-A45Q-01 | -0,650 | LOW | LOW | other |
| TCGA-CV-A45R-01 | -0,033 | LOW | LOW | other |
| TCGA-CV-A45T-01 | 0,024 | LOW | HIGH | other |
| TCGA-CV-A45U-01 | 0,038 | HIGH | LOW | other |
| TCGA-CV-A45V-01 | 0,050 | HIGH | LOW | other |
| TCGA-CV-A45X-01 | -0,002 | LOW | LOW | other |
| TCGA-CV-A463-01 | 0,252 | HIGH | LOW | other |
| TCGA-CV-A464-01 | 0,005 | LOW | HIGH | other |
| TCGA-CV-A465-01 | -0,058 | LOW | LOW | other |
| TCGA-CV-A468-01 | 0,141 | HIGH | LOW | other |
| TCGA-CV-A6JD-01 | -0,187 | LOW | HIGH | other |
| TCGA-CV-A6JE-01 | -0,274 | LOW | LOW | other |
| TCGA-CV-A6JN-01 | -0,368 | LOW | HIGH | other |
| TCGA-CV-A6JO-01 | 0,038 | HIGH | HIGH | High++ |
| TCGA-CV-A6JT-01 | -0,452 | LOW | HIGH | other |
| TCGA-CV-A6JU-01 | -0,203 | LOW | LOW | other |
| TCGA-CV-A6JY-01 | 0,010 | LOW | LOW | other |
| TCGA-CV-A6JZ-01 | 0,180 | HIGH | HIGH | High++ |
| TCGA-CV-A6K0-01 | 0,164 | HIGH | HIGH | High++ |
| TCGA-CV-A6K2-01 | 0,060 | HIGH | LOW | other |
| TCGA-CX-7082-01 | 0,043 | HIGH | LOW | other |
| TCGA-CX-7085-01 | 0,097 | HIGH | HIGH | High++ |
| TCGA-CX-7086-01 | 0,123 | HIGH | LOW | other |
| TCGA-CX-7219-01 | 0,271 | HIGH | HIGH | High++ |
| TCGA-CX-A4AQ-01 | -0,305 | LOW | LOW | other |
| TCGA-D6-6515-01 | 0,089 | HIGH | LOW | other |
| TCGA-D6-6516-01 | -0,035 | LOW | LOW | other |
| TCGA-D6-6823-01 | -0,072 | LOW | LOW | other |
| TCGA-D6-6825-01 | 0,138 | HIGH | HIGH | High++ |
| TCGA-D6-6827-01 | 0,217 | HIGH | LOW | other |
| TCGA-D6-8569-01 | -0,049 | LOW | HIGH | other |
| TCGA-D6-A4Z9-01 | 0,059 | HIGH | LOW | other |
| TCGA-D6-A4ZB-01 | -0,126 | LOW | LOW | other |
| TCGA-D6-A6EM-01 | -0,171 | LOW | LOW | other |
| TCGA-D6-A6EN-01 | -0,216 | LOW | LOW | other |
| TCGA-D6-A6EO-01 | 0,006 | LOW | LOW | other |
| TCGA-DQ-5624-01 | 0,096 | HIGH | HIGH | High++ |
| TCGA-DQ-5625-01 | 0,117 | HIGH | HIGH | High++ |
| TCGA-DQ-5630-01 | 0,086 | HIGH | HIGH | High++ |
| TCGA-DQ-5631-01 | -0,042 | LOW | HIGH | other |
| TCGA-DQ-7588-01 | -0,147 | LOW | LOW | other |
| TCGA-DQ-7592-01 | 0,116 | HIGH | HIGH | High++ |
| TCGA-F7-8489-01 | 0,007 | LOW | HIGH | other |
| TCGA-F7-A50G-01 | -0,027 | LOW | LOW | other |
| TCGA-F7-A50J-01 | 0,025 | LOW | HIGH | other |
| TCGA-F7-A61S-01 | -0,016 | LOW | HIGH | other |
| TCGA-F7-A61W-01 | -0,081 | LOW | HIGH | other |
| TCGA-F7-A624-01 | 0,279 | HIGH | LOW | other |
| TCGA-H7-7774-01 | 0,083 | HIGH | LOW | other |
| TCGA-H7-8501-01 | 0,355 | HIGH | HIGH | High++ |
| TCGA-H7-8502-01 | 0,143 | HIGH | HIGH | High++ |
| TCGA-H7-A6C4-01 | 0,172 | HIGH | HIGH | High++ |
| TCGA-HD-7831-01 | -0,058 | LOW | HIGH | other |
| TCGA-HD-7832-01 | -0,067 | LOW | LOW | other |
| TCGA-HD-7917-01 | 0,167 | HIGH | LOW | other |
| TCGA-HD-8634-01 | -0,001 | LOW | LOW | other |
| TCGA-HD-8635-01 | 0,089 | HIGH | HIGH | High++ |
| TCGA-HD-A4C1-01 | 0,121 | HIGH | LOW | other |
| TCGA-HD-A633-01 | -0,017 | LOW | HIGH | other |
| TCGA-HD-A6HZ-01 | 0,118 | HIGH | HIGH | High++ |
| TCGA-HD-A6I0-01 | -0,476 | LOW | LOW | other |
| TCGA-HL-7533-01 | 0,013 | LOW | HIGH | other |
| TCGA-IQ-7631-01 | -0,298 | LOW | LOW | other |
| TCGA-IQ-7632-01 | 0,080 | HIGH | LOW | other |

| | | | | |
|---|---|---|---|---|
| TCGA-IQ-A61E-01 | 0,126 | HIGH | HIGH | High++ |
| TCGA-IQ-A61G-01 | 0,020 | LOW | HIGH | other |
| TCGA-IQ-A61H-01 | 0,240 | HIGH | LOW | other |
| TCGA-IQ-A61J-01 | 0,030 | HIGH | LOW | other |
| TCGA-IQ-A6SG-01 | 0,032 | HIGH | HIGH | High++ |
| TCGA-IQ-A6SH-01 | -0,161 | LOW | LOW | other |
| TCGA-KU-A66T-01 | 0,101 | HIGH | HIGH | High++ |
| TCGA-KU-A6H8-01 | 0,207 | HIGH | LOW | other |
| TCGA-MT-A51X-01 | -0,029 | LOW | HIGH | other |
| TCGA-MT-A67A-01 | -0,113 | LOW | LOW | other |
| TCGA-MT-A67D-01 | 0,098 | HIGH | LOW | other |
| TCGA-MT-A67F-01 | 0,168 | HIGH | HIGH | High++ |
| TCGA-MT-A7BN-01 | -0,220 | LOW | HIGH | other |
| TCGA-P3-A5QA-01 | -0,007 | LOW | HIGH | other |
| TCGA-P3-A5QF-01 | 0,123 | HIGH | LOW | other |
| TCGA-P3-A6T0-01 | 0,039 | HIGH | HIGH | High++ |
| TCGA-P3-A6T2-01 | 0,128 | HIGH | HIGH | High++ |
| TCGA-P3-A6T3-01 | -0,007 | LOW | HIGH | other |
| TCGA-P3-A6T4-01 | 0,165 | HIGH | HIGH | High++ |
| TCGA-P3-A6T5-01 | -0,247 | LOW | LOW | other |
| TCGA-P3-A6T6-01 | -0,146 | LOW | LOW | other |
| TCGA-P3-A6T7-01 | 0,155 | HIGH | HIGH | High++ |
| TCGA-P3-A6T8-01 | 0,031 | HIGH | HIGH | High++ |
| TCGA-QK-A64Z-01 | 0,111 | HIGH | LOW | other |
| TCGA-QK-A652-01 | -0,021 | LOW | LOW | other |
| TCGA-QK-A6IG-01 | -0,063 | LOW | HIGH | other |
| TCGA-QK-A6IH-01 | -0,368 | LOW | LOW | other |
| TCGA-QK-A6II-01 | -0,412 | LOW | LOW | other |
| TCGA-QK-A6IJ-01 | -0,550 | LOW | LOW | other |
| TCGA-QK-A6VB-01 | 0,091 | HIGH | LOW | other |
| TCGA-QK-A8Z7-01 | 0,050 | HIGH | LOW | other |
| TCGA-QK-A8Z9-01 | -0,027 | LOW | HIGH | other |
| TCGA-QK-AA3K-01 | 0,059 | HIGH | HIGH | High++ |
| TCGA-RS-A6TO-01 | -0,016 | LOW | HIGH | other |
| TCGA-T2-A6WX-01 | -0,106 | LOW | HIGH | other |
| TCGA-T2-A6WZ-01 | -0,363 | LOW | LOW | other |
| TCGA-T2-A6X2-01 | 0,014 | LOW | HIGH | other |
| TCGA-T3-A92N-01 | 0,041 | HIGH | HIGH | High++ |
| TCGA-UF-A719-01 | -0,084 | LOW | LOW | other |
| TCGA-UF-A71A-01 | -0,027 | LOW | HIGH | other |
| TCGA-UF-A71A-06 | -0,022 | LOW | LOW | other |
| TCGA-UF-A71B-01 | 0,042 | HIGH | LOW | other |
| TCGA-UF-A71E-01 | -0,118 | LOW | LOW | other |
| TCGA-UF-A7JA-01 | -0,137 | LOW | LOW | other |
| TCGA-UF-A7JC-01 | -0,106 | LOW | HIGH | other |
| TCGA-UF-A7JD-01 | 0,109 | HIGH | HIGH | High++ |
| TCGA-UF-A7JO-01 | 0,122 | HIGH | LOW | other |
| TCGA-UF-A7JS-01 | -0,510 | LOW | HIGH | other |
| TCGA-UF-A7JT-01 | -0,004 | LOW | HIGH | other |
| TCGA-UP-A6WW-01 | -0,253 | LOW | LOW | other |
| TCGA-WA-A7GZ-01 | -0,048 | LOW | LOW | other |
| TCGA-WA-A7H4-01 | 0,056 | HIGH | LOW | other |

**Supplementary Table S2**

GO terms most enriched in DEG in "High++" OSCC compared to other OSCC

| GO term | Fold enrichment | p (FDR) |
|---|---|---|
| dendritic cell homeostasis | >100 | 0.03 |
| negative regulation of endodermal cell differentiation | 79 | 0.04 |
| Interleukin 11 mediated signaling pathway | 79 | 0.04 |
| Positive regulation of monocyte aggregation | 79 | 0.04 |
| Positive regulation of platelet aggregation | 30 | 0.02 |
| Wound healing, spreading of epidermal cells | 27 | 0.02 |