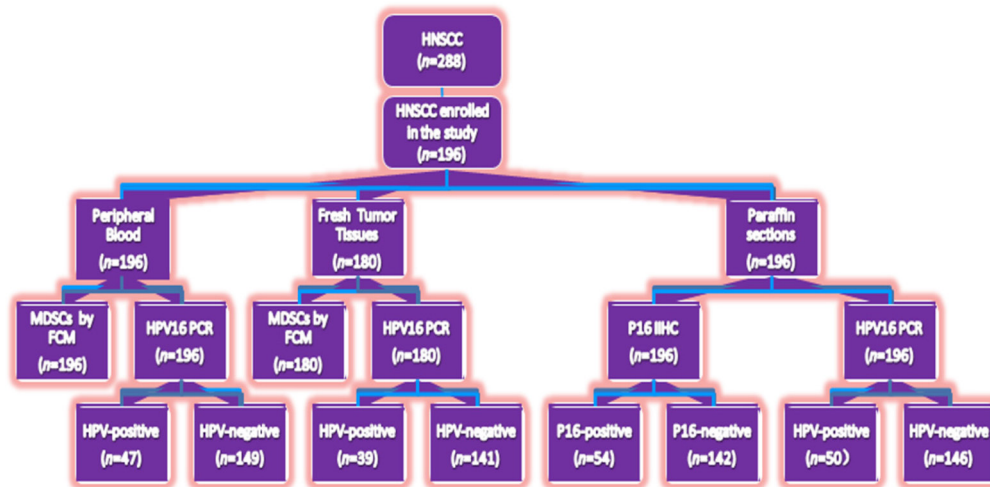
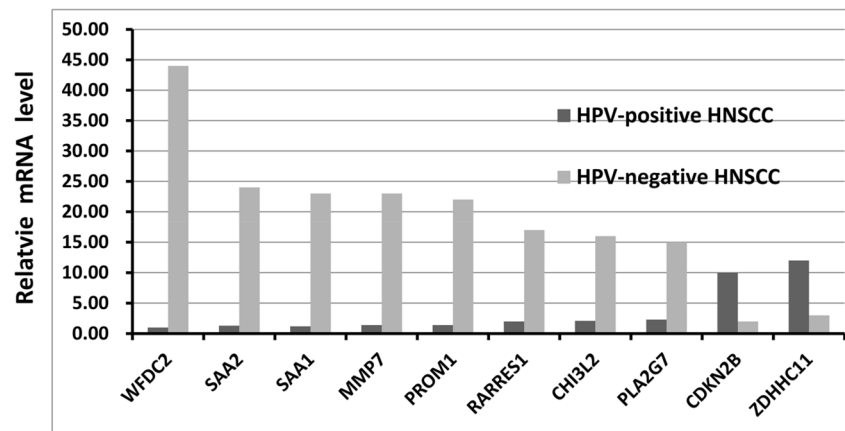


LncRNAs as an intermediate in HPV16 promoting myeloid-derived suppressor cell recruitment of head and neck squamous cell carcinoma

SUPPLEMENTARY MATERIALS



Supplementary Figure 1: Schematic diagram of this study.



Supplementary Figure 2: qRT-PCR validation of 10 differentially expressed mRNAs. The relative expression levels of top 10 mRNAs in HPV-positive and HPV-negative HNSCC ($P < 0.05$). The result showed the same trends of regulation as the microarray data.

Supplementary Table 1: The concordance of HPV16 by PCR and P16 IHC in peripheral blood and tumor tissues

| HPV Markers | Status | HPV 16 DNA (fresh tumor tissues) by PCR | | Kappa | P value |
|--|----------|---|--------------|-------|---------|
| | | Positive(n%) | Negative(n%) | | |
| HPV 16 DNA (peripheral blood) by PCR | Positive | 34(87.2) | 11(7.8) | 0.80 | 0.000 |
| | Negative | 5(12.8) | 130(92.2) | | |
| HPV 16 DNA (paraffin section) by PCR | Positive | 30(76.9) | 10(7.1) | 0.88 | 0.000 |
| | Negative | 9(23.1) | 131(92.9) | | |
| P 16 (paraffin section) by IHC | Positive | 34(87.2) | 18(12.8) | 0.66 | 0.040 |
| | Negative | 5(12.8) | 123(87.2) | | |

Supplementary Table 2: The expression of MPO in HNSCC patients by ICH and its association with clinicopathologic characteristics

| Variable | <i>n</i> | MPO | | <i>P</i> -value |
|---------------------------|----------|----------|----------|-----------------|
| | | Negative | Positive | |
| Age | | | | 0.566 |
| <60 | 89 | 43 | 46 | |
| ≥60 | 107 | 57 | 50 | |
| Gender | | | | 0.150 |
| Male | 111 | 62 | 49 | |
| Female | 85 | 38 | 47 | |
| Clinical stage | | | | 0.002 |
| T1-T2 | 86 | 68 | 18 | |
| T3-T4 | 110 | 32 | 78 | |
| Pathological stage | | | | 0.001 |
| Grade I | 53 | 28 | 15 | |
| Grade II+ III | 143 | 62 | 81 | |

Supplementary Table 3: The number of MDSCs in HNSCC patients, precancerous lesions and normal oral mucous tissues by FCM

| Group | <i>n</i> | MDSCs in peripheral blood(%) | <i>P</i> value | <i>n</i> | MDSCs in tumor tissue(%) | <i>P</i> value |
|----------------------------|-----------------|-------------------------------------|-----------------------|-----------------|---------------------------------|-----------------------|
| HPV-positive HNSCC | 47 | 13.84 ± 1.66 | 0.004 | 39 | 15.78± 2.64 | <0.001 |
| Precancerous lesions | 30 | 4.12±0.96 | | 30 | 5.12±1.47 | |
| Normal oral mucous tissues | 30 | 0.83±1.25 | | 30 | 0.67±2.14 | |