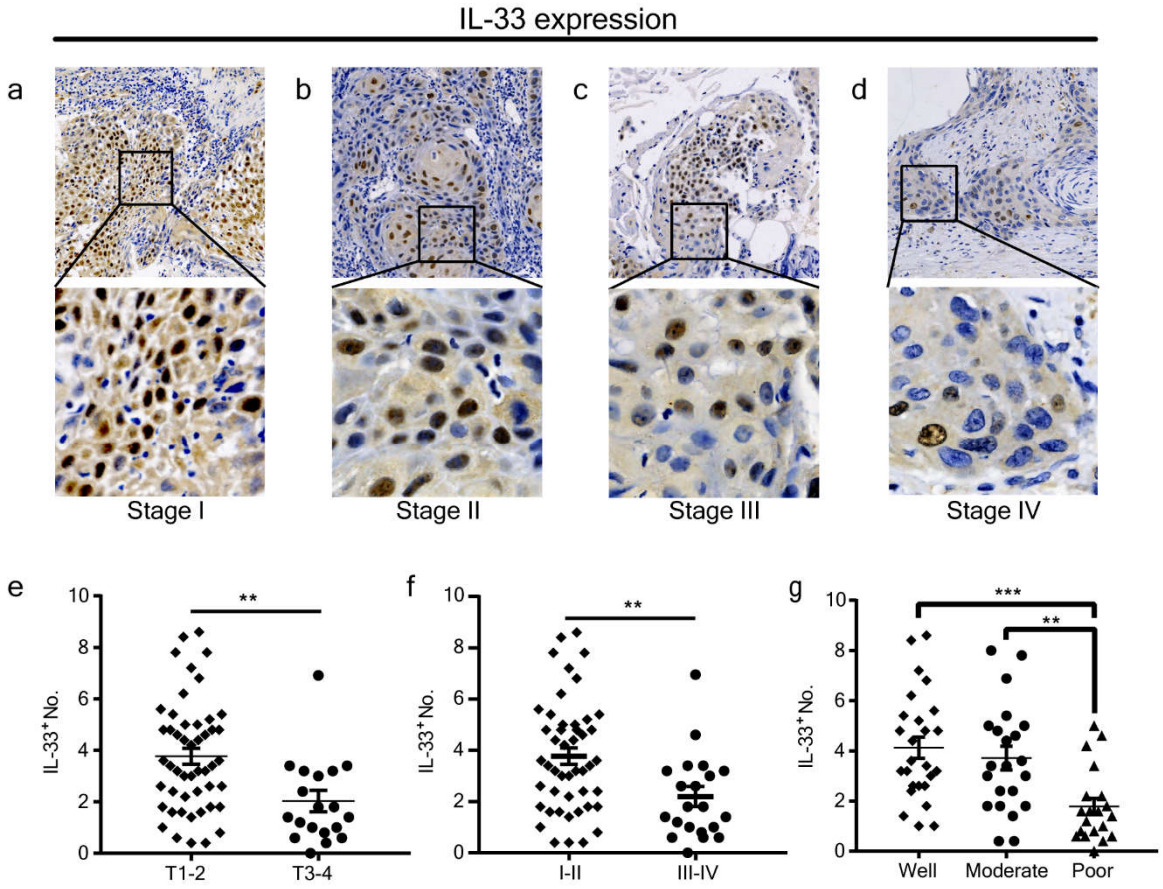
Cancer Immunology, Immunotherapy (submitted in 2018) – Yi-hui Wen et al.

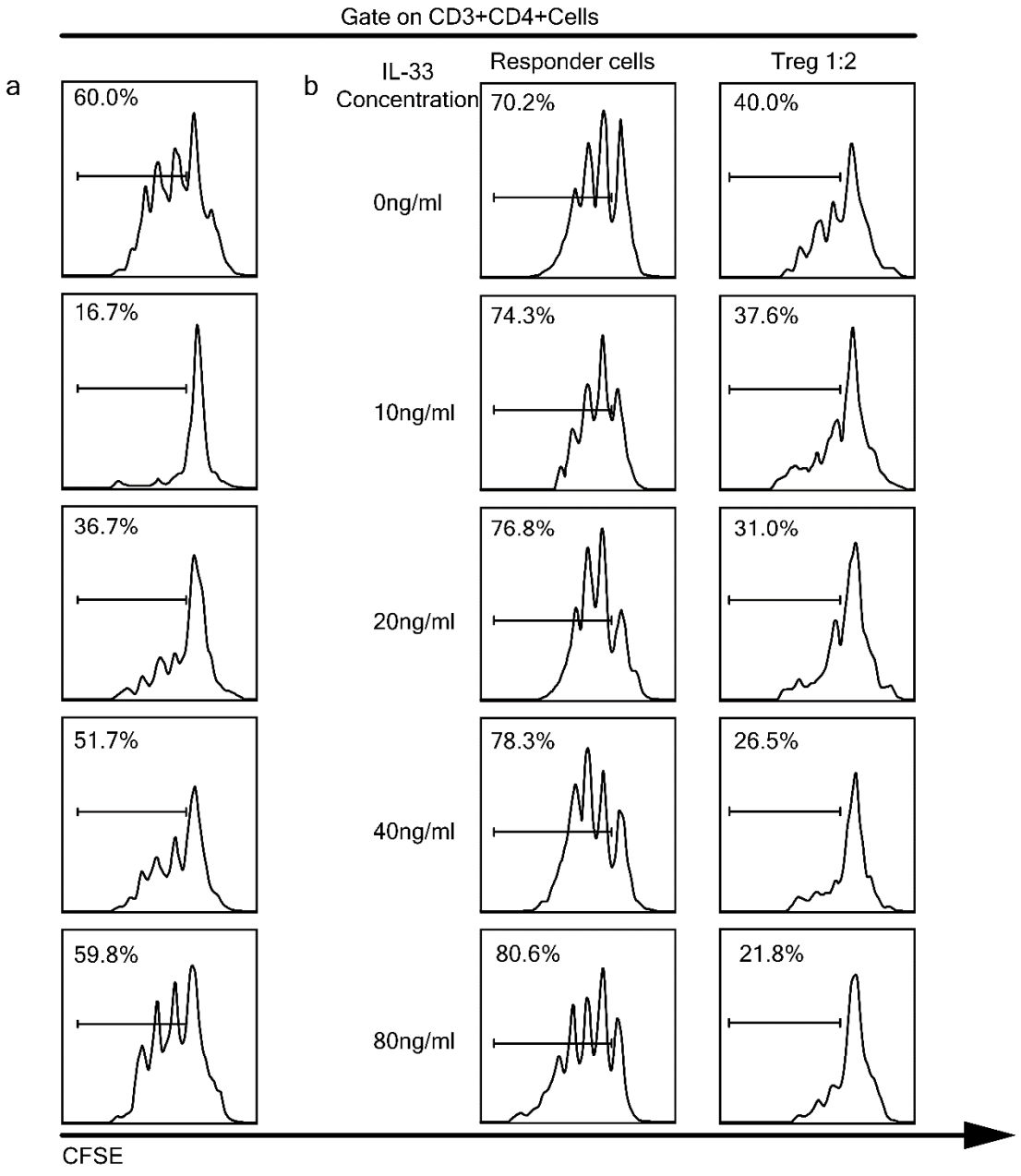
supplementary Table 1. Clinical characteristics of HNSCC patients.

Characteristic		Total
Gender	Male	64
	Female	4
Age	<60	32
	≥60	36
Tumor Differentiation	Well	26
	Moderate	22
	Poor	20
Tumor Grade	T1-2	49
	T3-4	19
Lymph Node Metastasis	No	57
	Yes	11
AJCC TNM Stage	I-II	47
	III-IV	21



supplementary Figure 1. Parenchymal IL-33$^+$ cells infiltration was associated with favorable prognosis in HNSCC.

(a-d) Representative figures of IL-33$^+$ cells in tumor from clinical stage I to IV. **(e-f)** IL-33 expression is lower in both advanced T stage and clinical stage (**e**: 3.78 ± 0.30 and 2.032 ± 0.42; **f**: 3.77±0.32 and 2.2±0.39). **g** Parenchymal IL-33$^+$ cells were significantly reduced in poorly differentiated HNSCC. **p<0.01, ***p<0.001.


Gate on CD3+CD4+Cells
a
60.0%
16.7%
36.7%
51.7%
59.8%
b
IL-33 Concentration
Responder cells
Treg 1:2
0ng/ml
10ng/ml
20ng/ml
40ng/ml
80ng/ml
70.2%
74.3%
76.8%
78.3%
80.6%
40.0%
37.6%
31.0%
26.5%
21.8%
CFSE
c
Proliferation of responder cells %
100
80
60
40
20
0
0
20
40
60
80
100
IL-33 Concentration (ng/ml)
Responder cells
With Treg

supplementary Figure 2. IL-33 mediated Treg cells activation is dose-dependent.

a The suppression of the proliferation of responder T cells under different ratio, representative figures are shown. **b** IL-33 boosts the proliferation of responder T cells alone, but also increase the immunosuppressive ability of Treg cells in a dose-dependent manner, representative figures are shown. **c** IL-33 increased the proliferation of T cells without Tregs, whereas decreased the proliferation of T cells with the presence of Tregs. Data are mean ± SEM and are representative of three independent experiments.