

**Table S2. Clinical characteristics of HNSCC patients in the validation cohort**

	<b>HNSCC (n = 59)</b>	<b>Normal tissue (n = 31)</b>	<b>Normal saliva (n = 35)</b>
	<b>n (%)</b>	<b>n (%)</b>	<b>n (%)</b>
<b>Median age (range)</b>	59±12 (35-87)	32±11 (18-57)	58±12 (32-77)
<b>Male</b>	47 (80%)	16 (52%)	12 (34%)
<b>Female</b>	12 (20%)	15 (48%)	23 (66%)
<b>Race</b>			
<b>Caucasian</b>	52 (88%)	16 (52%)	25 (71%)
<b>African American</b>	5 (9%)	12 (38%)	7 (20%)
<b>Others</b>	2 (3%)	3 (10%)	3 (9%)
<b>Smoking status</b>			
<b>Pack-years (range)</b>	43.1 (5-110)	73.9 (3-274)	280 (183-730)
<b>Smokers</b>	47 (80%)	9 (29%)	18 (51%)
<b>Non-smokers</b>	12 (20%)	22 (71%)	17 (49%)
<b>Drinking status</b>			
<b>Drink</b>	34 (58%)	4 (13%)	24 (69%)
<b>Do not drink</b>	19 (32%)	27 (87%)	11 (31%)
<b>Unknown</b>	6 (10%)		
<b>HPV16 positive</b>	18 (31%)		
<b>Tumor site</b>			
<b>Oral cavity</b>	15 (26%)		
<b>Oropharynx</b>	25 (42%)		
<b>Larynx</b>	17 (29%)		
<b>Hypopharynx</b>	2 (3%)		
<b>TNM stage</b>			
<b>I</b>	5 (9%)		
<b>II</b>	10 (17%)		
<b>III</b>	9 (15%)		
<b>IV</b>	32 (54%)		
<b>Unknown</b>	3 (5%)		
<b>Disease status</b>			
<b>No evidence of disease</b>	34 (58%)		
<b>Alive with disease</b>	7 (12%)		
<b>Dead of disease</b>	7 (12%)		
<b>Dead of unrelated causes</b>	11 (18%)		