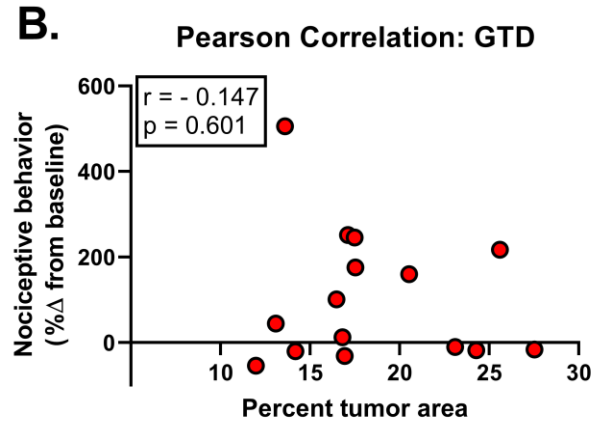
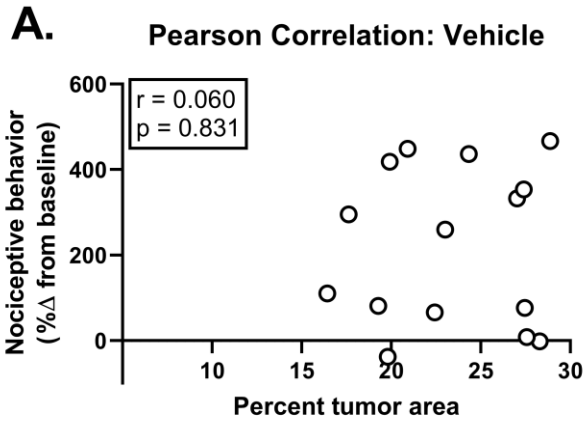


Supplemental Figure 1: Anatomical relationship between intratumoral sensory and sympathetic nerve fibers. Representative images from immunohistological staining of serial 20 μ m coronal tongue tumor sections with (A) PGP9.5, (B) TH, and (C) CGRP. DAPI was used to label the nuclei within the tumor. Nerve (N), Vasculature (V), and Tumor (T) are indicated in the merged image (right column) for each marker used. TH, tyrosine hydroxylase; CGRP, calcitonin-gene related peptide. Image magnification = 20x.



Supplemental Figure 2: Correlation between tumor size and gnaw-time. The relationship between the tumor size in the tongue expressed as percent tumor area and measured nociceptive behavior expressed as a percent change from baseline gnaw-time in tumor-bearing mice treated with **(A)** vehicle (saline, $n=15$, $p>0.05$) and **(B)** GTD (0.5mg/mouse, $n=15$, $p>0.05$) was evaluated with Pearson correlation. Note treatment groups could not be pooled given that treatment had a significant effect on both dependent variables.

Supplemental Table 1. HNSCC Demographic and Clinical Characteristics.

Variables	M±SD	n(%)
Age, years	59.38±6.95	
Sex		
Male		10(79.92)
Female		3(23.08)
Race		
White		11(84.62)
Other		2(15.38)
Radiation		
No		2(15.38)
Yes		11(84.62)
Chemotherapy		
No		6(46.15)
Yes		7(53.85)
Immunotherapy		
No		12(90.91)
Yes		1(7.69)
Nodal Stage		
N0		1(7.69)
N1		4(30.77)
N2		8(61.54)
Tumor Stage		
T1		1(7.69)
T2		7(53.85)
T3		2(15.38)
T4		3(23.08)
Metastasis		
M0		1(7.69)
MX		12(90.91)
Site		
Oropharynx		5(38.46)
HPV		
Neg		0(0)
Pos		5(100)
Oral cavity		8(61.54)
Smoking		
No		5(38.46)
Yes		8(61.54)
Alcohol		
No		4(30.77)
Yes		9(69.23)
PNI		
No		0(0)

Yes		13(100.00)
ECS		
No		8(61.54)
Yes		4(30.77)
Not Evaluated		1(7.69)

Mean±Standard deviation (M±SD), Human Papillomavirus (HPV), Perineural invasion (PNI), Extracapsular spread (ECS),