

**Table S2.** Demographic and clinical characteristics of samples involved in this study stratified by sagittal and vertical skeletal pattern.

[illegible]

Normal	1125(54.1)	61(72.6)	148(59.7)	429(67.5)	59(46.1)	43(39.4)	197(43.4)	6(22.2)	69(40.8)	113(50.4)	<0.001
Cross	234(11.3)	8(9.5)	4(1.6)	24(3.8)	1(0.8)	0(0.0)	4(0.9)	19(70.4)	85(50.3)	89(39.7)	
Deep	690(33.2)	14(16.7)	95(38.3)	175(27.5)	67(52.3)	66(60.6)	252(55.5)	0(0.0)	11(6.5)	10(4.5)	
Shallow	30(1.4)	1(1.2)	1(0.4)	8(1.3)	1(0.8)	0(0.0)	1(0.2)	2(7.4)	4(2.4)	12(5.4)	
<b>U1-ANS</b>											
<b>(mm) (mean (SD))</b>	27.60(3.08)	29.61(2.68)	26.40(2.83)	27.70(2.82)	29.55(2.58)	26.82(2.89)	28.60(2.84)	28.49(2.95)	25.04(3.18)	26.97(2.92)	<0.001
<b>U1-OP</b>											
<b>(mean (SD))</b>	54.09(7.65)	53.36(4.96)	56.27(8.16)	53.48(7.24)	52.88(7.77)	55.99(9.66)	54.34(8.00)	51.47(5.03)	55.03(8.25)	52.53(6.03)	<0.001
<b>U1-PP (mm)</b>											
<b>(mean (SD))</b>	27.28(3.12)	29.40(2.64)	26.05(2.87)	27.38(2.86)	29.27(2.64)	26.43(2.93)	28.29(2.88)	28.29(2.95)	24.69(3.17)	26.60(2.93)	<0.001
<b>U1-NA</b>											
<b>(mean (SD))</b>	27.92(8.76)	26.42(6.44)	27.94(9.24)	28.33(7.84)	23.91(8.90)	25.95(9.80)	24.95(8.94)	29.92(5.40)	33.64(8.17)	32.04(7.04)	<0.001
<b>U1-NA</b>											
<b>(mm) (mean (SD))</b>	5.65(2.85)	5.68(2.82)	5.39(2.96)	5.85(2.66)	4.77(2.51)	4.80(2.58)	4.78(2.66)	6.75(2.20)	6.67(3.03)	7.12(2.93)	<0.001
<b>U1-SN</b>											
<b>(mean (SD))</b>	108.46(9.48)	102.93(6.58)	110.64(9.47)	108.25(8.76)	102.49(9.07)	110.26(11.13)	106.48(9.77)	106.56(6.44)	114.44(9.10)	110.96(7.44)	<0.001
<b>U1-PP</b>											
<b>(mean (SD))</b>	119.54(8.88)	116.92(6.62)	119.78(9.31)	119.52(8.41)	116.31(8.86)	119.74(10.90)	117.96(9.14)	119.61(5.77)	123.82(8.91)	121.99(7.20)	<0.001
<b>U1-NPo</b>											
<b>(mm) (mean (SD))</b>	9.86(4.92)	10.75(3.88)	8.04(3.85)	9.78(3.48)	15.64(4.25)	11.30(3.81)	13.58(3.93)	4.33(2.69)	4.19(2.87)	5.21(3.37)	<0.001
<b>UL-EP (mm)</b>											
<b>(mean (SD))</b>	0.53(2.85)	0.85(2.56)	0.17(2.42)	0.50(2.24)	2.67(2.46)	1.66(2.08)	2.42(2.31)	-2.82(1.96)	-2.51(2.35)	-2.03(2.44)	<0.001
<b>Upper lip to S line (mean (SD))</b>	4.60(2.64)	4.20(2.91)	4.84(2.74)	4.64(2.45)	3.83(2.67)	4.77(2.40)	4.23(2.49)	3.47(3.54)	5.52(2.88)	4.93(2.76)	<0.001
<b>Upper Lip Length (ULL) (mm) (mean (SD))</b>	21.46(2.40)	22.55(1.97)	20.91(2.15)	21.45(2.25)	22.57(2.39)	21.90(2.35)	22.11(2.25)	21.39(1.98)	19.86(2.78)	20.71(2.29)	<0.001
<b>Basic upper lip thickness (mm) (mean (SD))</b>	14.48(1.97)	14.76(1.72)	14.44(1.84)	14.37(1.82)	13.84(1.85)	14.37(2.09)	14.17(2.01)	15.26(2.04)	15.43(2.07)	14.98(2.06)	<0.001
<b>Nasolabial A (mean</b>	95.74(11.83)	95.62(10.56)	94.46(12.10)	96.34(11.10)	99.26(11.28)	97.95(9.99)	99.43(11.19)	95.67(14.26)	87.81(12.18)	90.90(11.28)	<0.001

(SD)) Upper lip thickness (mm) (mean (SD))	14.85(2.50)	15.60(2.49)	14.67(2.54)	14.75(2.36)	14.08(2.21)	14.22(2.19)	14.54(2.44)	15.73(2.73)	15.96(2.81)	15.48(2.55)	<0.001
(SD)) Superior sulcus depth (mm) (mean (SD))	4.84(2.17)	4.64(2.12)	5.09(2.24)	4.79(2.14)	4.11(2.21)	4.86(2.20)	4.44(2.09)	4.48(2.05)	5.84(2.15)	5.27(2.03)	<0.001