

**Supplementary Table 2. LIS volume is dramatically decreased by compressive stress.**

Exp. #	LIS volume <sup>1</sup> ( $\mu\text{m}^3$ )		% change
	Control	Compressive Stress	
1	8799	544	-93.8
2	14444	1866	-87.1
3	13735	818	-94.0
4	16645	1425	-91.4
5	6338	1892	-70.1
		mean $\pm$ SD	-87.3 $\pm$ 10.0

<sup>1</sup>LIS volumes were computed by first using the technique detailed in Supplementary Table 1 to obtain cell area in each slice, then subtracting this area from the total image area. Image slices were summed over the height of the stack and total LIS volume computed. Similar results were obtained when LIS volume was computed directly with cell-impermeant dextran (data not shown).