

Table S2. Values of the slopes obtained from the linear regressions and the R^2 values for DN-MyoVa cells in control and FSK-treated cases

Control DN-MyoVa		
Trajectory	Slope ($\mu\text{m/s}$)	R^2
1	0.159	0.989
2	0.128	0.985
3	0.097	0.954
4	0.218	0.943
5	0.081	0.95
6	0.224	0.988
7	0.126	0.921
8	0.195	0.946
9	0.259	0.944
10	0.158	0.848
Mean	0.165	
s.d.	0.058	

FSK DN-MyoVa		
Trajectory	Slope ($\mu\text{m/s}$)	R^2
1	0.094	0.967
2	0.182	0.957
3	0.14	0.955
4	0.21	0.978
5	0.115	0.963
6	0.181	0.991
7	0.112	0.958
8	0.15	0.948
9	0.184	0.984
10	0.101	0.841
Mean	0.147	
s.d.	0.041	

Group	Mean	s.d.	n	df	t^*	P
Miosin VA Control	0.1645	0.058	10	9	0.781674	$0.25 > P > 0.2$
Miosin VA FSK	0.1469	0.041	10			