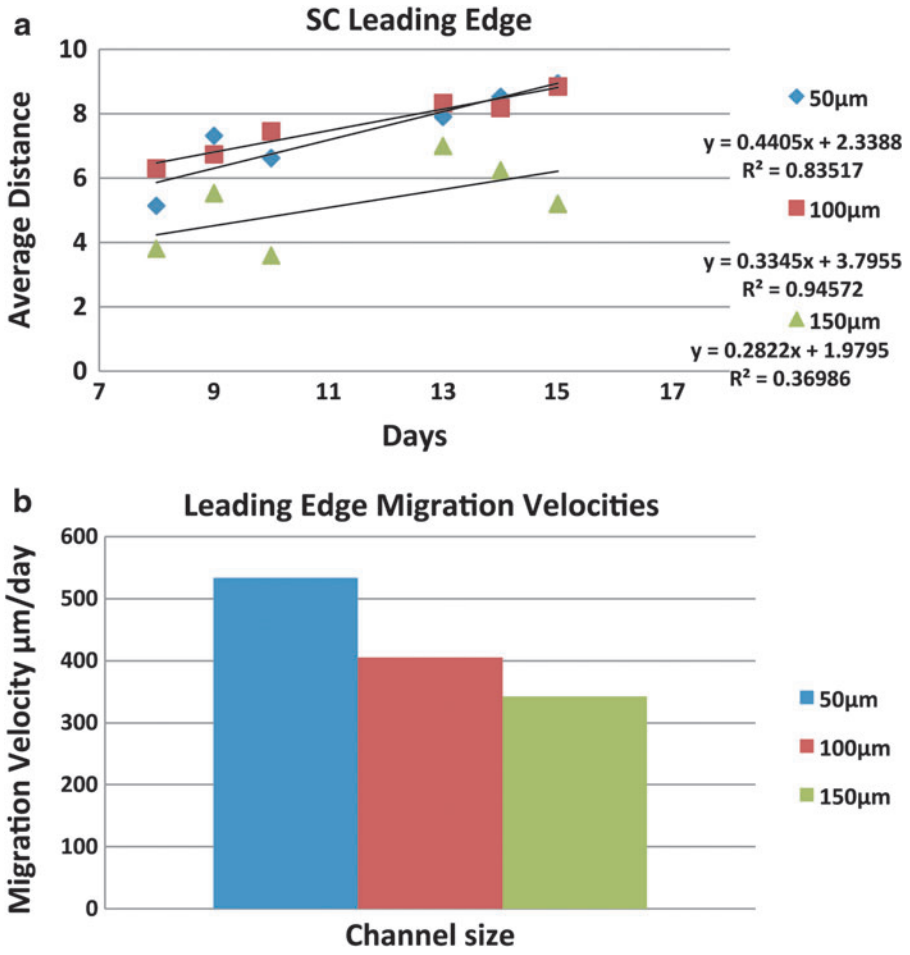
Supplementary Data

9	8	7	6	5	4	3	2	1	
	1	0	4	5	6	5	2	3	1
	2	0	0	0	2	1	0	0	2
2	6	0	0	6	8	14	10	5	3
	4	2	6	5	4	5	0	0	4
	1	15	3	0	1	0	1	4	5
4	6	6	2	0	12	11	3	0	6
8	11	5	2	22	6	17	1	3	7
		2	5	5	5	5	3	1	8
	21	28	11	5	4	2	3	2	9
2	17	20	13	19	7	12	19	28	10
2	0	0	2	7	10	5	0	9	11

SUPPLEMENTARY FIG. S1. Grid pattern for data acquisition. For each set of experiments, the images were taken daily of each sample in a grid pattern for the entire 1×1 cm patterned surface. The grid is composed of successive rectangular images (1600×1200 pixel) that are numbered sequentially (*column* and *row*) from one end to the other end of the microgrooves and from *top* to *bottom*. The number of cells in each image were counted and entered into each grid.

9	8	7	6	5	4	3	2	1	
	1	0	4	5	6	5	2	3	1
	2	0	0	0	2	1	0	0	2
2	6	0	0	6	8	14	10	5	3
	4	2	6	5	4	5	0	0	4
	1	15	3	0	1	0	1	4	5
4	6	6	2	0	12	11	3	0	6
8	11	5	2	22	6	17	1	3	7
		2	5	5	5	5	3	1	8
	21	28	11	5	4	2	3	2	9
2	17	20	13	19	7	12	19	28	10
2	0	0	2	7	10	5	0	9	11

SUPPLEMENTARY FIG. S2. Definition of leading edge. The leading edge is defined as the furthest location that the cells traversed in each *row* and is highlighted in *yellow*. An equivalent distance (e) of image x–y was calculated by multiplying the *column* number (x) by the actual length of the image (l).



SUPPLEMENTARY FIG. S3. Calculation of migration velocities. **(a)** The average distance the cells traverse based on the *column* number is plotted over time, and the y-axis indicates the *column* number in the images. **(b)** The slope from **(a)** is then converted into microns per day by multiplying the actual distance in the image (1212.12 µm) to obtain the migration velocity.

9	8	7	6	5	4	3	2	1	
0	1	0	0	0	0	0	0	0	1
0	1	0	0	0	0	0	0	0	2
1	0	0	0	0	0	0	0	0	3
0	1	0	0	0	0	0	0	0	4
0	1	0	0	0	0	0	0	0	5
1	0	0	0	0	0	0	0	0	6
1	0	0	0	0	0	0	0	0	7
0	0	1	0	0	0	0	0	0	8
0	1	0	0	0	0	0	0	0	9
1	0	0	0	0	0	0	0	0	10
1	0	0	0	0	0	0	0	0	11

SUPPLEMENTARY FIG. S4. Binary method. The binary method counts images as yes (1) or no (0), and it converts the entire grid into a binary field where only the images marked as ‘‘1,’’ highlighted in *yellow*, are selected for subsequent calculations.