Supplementary Table 1. Basic morphological parameters measured per single cells.

Number	Parameter type	Name	
1		Area	Total pixels in the recognized cell region.
2		Compactness	(Perimeter)^2/Area
3	Shape descriptors	Inner radius	Radius of inscribed circle from the centroid of cell area.
4		Length width ratio	Length/Width
5		Perimeter	The arc length of recognized cell region.
6		Shape factor	4π(Area)/(Perimeter)^2
7		Correlation	Gray-Level Co-occurrence Matrix (GLCM) of cell region. $\mathrm{GLCM} = M$ Correlation $$= \sum_{i,j} \frac{(i - \mu_x)(j - \mu_y)M_i}{\sigma_x \sigma_y}$$ $$\mu_x = \sum_{i,j} jM_{i,j}$$ $$\mu_y = \sum_{i,j} iM_{i,j}$$
8	Texture descriptors	Energy	Gray-Level Co-occurrence Matrix (GLCM) of cell region. $\mathrm{GLCM} = M$ $$\mathrm{Energy} = \sum_{i,j} M_{i,j}^2$$
9		Entropy	Gray-Level Co-occurrence Matrix (GLCM) of cell region. $\mathrm{GLCM} = M$ Entropy $$= -\sum_{i,j} M_{ij} \log M_{i,j}$$
10		Inertia	Gray-Level Co-occurrence Matrix (GLCM) of cell region.

			$$\text{GLCM} = M$$ $$\text{Inertia} = \sum_{i,j} (i - j)^2 M_{ij}$$
11		Homogony	Gray-Level Co-occurrence Matrix (GLCM) of cell region. $\text{GLCM} = M$ Homogony $$= \sum_{i,j} \frac{M_{i,j}}{1 + |i - j|}$$
12		Intensity SD	Standard deviation of intensities of pixels in cell region.