

Description of Additional Supplementary Files

Title: Supplementary Movie 1. Cell migration decision-making into the wider path.

Description: Phase contrast time-lapse imaging of MDA-MB-231 cell migration through the 15 μm feeder track into the 12 μm branch of a Y-shaped collagen microtrack. Time in h:min. Scale bar, 20 μm .

Title: Supplementary Movie 2. Cell migration decision-making into the narrower path.

Description: Phase contrast time-lapse imaging of MDA-MB-231 cell migration through the 15 μm feeder track into the 7 μm branch of a Y-shaped collagen microtrack. Time in h:min. Scale bar, 20 μm .

Title: Supplementary Movie 3. Intracellular ATP:ADP ratio during migration into the wider path.

Description: Confocal fluorescent time-lapse imaging of the normalized PercevalHR ratio (intracellular ATP:ADP ratio) of MDA-MB-231 cell migration through the 15 μm feeder track into the 12 μm branch of a Y-shaped collagen microtrack. Intracellular ATP:ADP levels were assigned a hue on the color spectrum from purple (low intracellular ATP:ADP ratio) to yellow (high intracellular ATP:ADP ratio). Time in h:min. Scale bar, 20 μm .

Title: Supplementary Movie 4. Intracellular ATP:ADP ratio during migration into the narrow path.

Description: Confocal fluorescent time-lapse imaging of the normalized PercevalHR ratio (intracellular ATP:ADP ratio) of MDA-MB-231 cell migration through the 15 μm feeder track into the 7 μm branch of a Y-shaped collagen microtrack. Intracellular ATP:ADP levels were assigned a hue on the color spectrum from purple (low intracellular ATP:ADP ratio) to yellow (high intracellular ATP:ADP ratio). Time in h:min. Scale bar, 20 μm .