

Insights into the role of sulfated glycans in cancer cell adhesion and migration through use of branched peptide probe

Jlenia Brunetti,^{a*} Lorenzo Depau,^a Chiara Falciani,^b Mariangela Gentile,^c Elisabetta Mandarini,^a Giulia Riolo,^a Pietro Lupetti,^c Alessandro Pini^{a,b} and Luisa Bracci^{a,b}

a University of Siena, Department of Medical Biotechnologies, Siena 53100, Italy

b SetLance srl, via Fiorentina 1, Siena 53100, Italy

c University of Siena, Department of Life Sciences, Siena 53100, Italy

* corresponding author jlenia.brunetti@unisi.it

Supplementary material

Figure S1. Movie of PANC-1 cell migration in wound healing assay without NT4 peptide (control). CytoSMART Lux 10x System was used to take pictures every 10 min for a total of 22 h.

Figure S2. Movie of PANC-1 cell migration in wound healing assay with 10 μ M NT4 peptide. CytoSMART Lux 10x System was used to take pictures every 10 min for a total of 22 h.

Figure S3. Movie of PANC-1 cell migration in a Matrigel wound healing assay without NT4 peptide (control). CytoSMART Lux 10x System was used to take pictures every 7.5 min for a total of 24 h.

Figure S4. Movie of PANC-1 cell migration in a Matrigel wound healing assay with 10 μ M NT4 peptide. CytoSMART Lux 10x System was used to take pictures every 7.5 min for a total of 24 h.

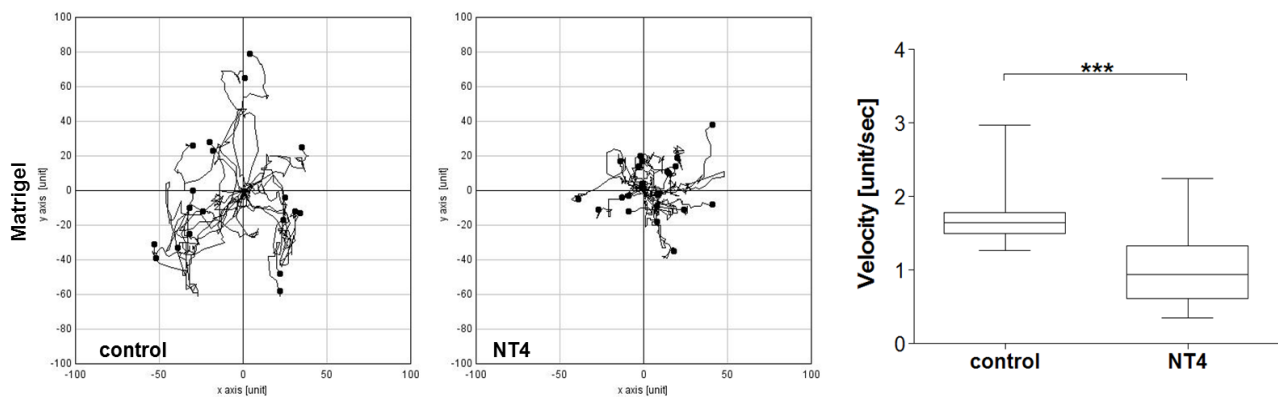


Figure S5. Directionality of cancer cell migration analyzed by time lapse microscopy using an in vitro wound healing assay in the presence of Matrigel. PANC-1 cancer cells were seeded on each side of a culture insert, covered with Matrigel and then incubated with and without 10 μ M NT4 (central panels and left panels, respectively). Cells were tracked every 15 min for 10 hours post-wounding and their paths plotted on a polar grid. Each plot represents 22 individual cell tracks. Velocity (unit/sec; where unit correspond to nm) of each analysed cell is reported in the box plot graph (right panels) where the median value is indicated by the line inside each box. *** $p < 0.001$ calculated using one-tailed Student t-test.