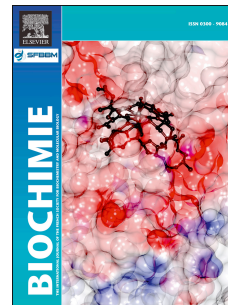


# Accepted Manuscript

Selectin-independent adhesion during ovarian cancer metastasis

Nadezhda A. Khaustova, Diana V. Maltseva, Leticia Oliveira-Ferrer, Christine Stürken, Karin Milde-Langosch, Julia A. Makarova, Sergey Rodin, Udo Schumacher, Alexander G. Tonevitsky



PII: S0300-9084(17)30233-X

DOI: [10.1016/j.biochi.2017.09.009](https://doi.org/10.1016/j.biochi.2017.09.009)

Reference: BIOCHI 5272

To appear in: *Biochimie*

Received Date: 26 May 2017

Revised Date: 0300-9084 0300-9084

Accepted Date: 12 September 2017

Please cite this article as: N.A. Khaustova, D.V. Maltseva, L. Oliveira-Ferrer, C. Stürken, K. Milde-Langosch, J.A. Makarova, S. Rodin, U. Schumacher, A.G. Tonevitsky, Selectin-independent adhesion during ovarian cancer metastasis, *Biochimie* (2017), doi: 10.1016/j.biochi.2017.09.009.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Nadezhda A. Khaustova<sup>a†</sup>, Diana V. Maltseva<sup>a†\*</sup>, Leticia Oliveira-Ferrer<sup>b</sup>, Christine Stürken<sup>c</sup>, Karin Milde-Langosch<sup>b</sup>, Julia A. Makarova<sup>d</sup>, Sergey Rodin<sup>a,e</sup>, Udo Schumacher<sup>c</sup>, Alexander G. Tonevitsky<sup>d</sup>

<sup>a</sup> SRC Bioclinicum, Moscow, 115088, Russia, khaunadia@gmail.com,  
d.maltseva@bioclinicum.com

<sup>b</sup> Department of Gynecology, University Medical Center Hamburg-Eppendorf, Hamburg, D-20246, Germany, ferrer@uke.de, milde@uke.de

<sup>c</sup> Department of Anatomy and Experimental Morphology, University Medical Center Hamburg-Eppendorf, Hamburg, D-20246, Germany, c.stuerken@uke.de, uschumac@uke.de

<sup>d</sup> P. Herzen Moscow Oncology Research Institute, Moscow, 125284, Russia, j-makarova@ya.ru, tonevitsky@mail.ru

<sup>e</sup> Department of Medical Biochemistry and Biophysics, Karolinska Institutet, 17177 Stockholm, Sweden, sergey.rodin@ki.se

<sup>†</sup> These authors contributed equally

\* Corresponding author. Tel: +7 495 665 33 49.

E-mail address: [d.maltseva@bioclinicum.com](mailto:d.maltseva@bioclinicum.com)

## ABSTRACT

*Purpose:* Ovarian cancer (OvCa) progression mainly takes place by intraperitoneal spread. Adhesion of tumor cells to the mesothelial cells which form the inner surface of the peritoneum is a crucial step in this process. Cancer cells use in principle different molecules of the leukocyte adhesion cascade to facilitate adhesion. This cascade is initiated by selectin-ligand interactions followed by integrin - extracellular matrix protein interactions. Here we address the question whether all tumor cells predominantly employ selectin-dependent leukocyte-like adhesion cascade (SDAC) or whether they use integrin mediated adhesion for OvCa progression as well.

*Methods:* A comparative transcriptomic analysis of the human OvCa cell lines OVCAR8 and SKOV3 was performed. Intraperitoneal xenograft model of OVCAR8 cells was used to determine whether there is a correlation between SDAC gene expression and the metastatic

*Abbreviations:* OvCa: ovarian cancer; c-Fos: a transcription factor of the activating protein-1 (AP-1) family; OVCAR8-c-Fos: OVCAR8 cells overexpressing c-Fos; SKOV3-c-Fos: SKOV3 cells overexpressing c-Fos; SDAC: selectin-dependent leukocyte-like adhesion cascade.

Download English Version:

<https://daneshyari.com/en/article/5508899>

Download Persian Version:

<https://daneshyari.com/article/5508899>

[Daneshyari.com](https://daneshyari.com)