

Abstract

Effects of Glucocorticoid Receptor Activation on the Expression of Intercellular Adhesion Regulatory Genes in Breast Cancer Cells In Vitro [†]

Diana Grigoreva ^{1,*}, Ekaterina Zhidkova ¹, Olga Zhukova ², Ekaterina Lesovaya ^{1,3} and Marianna Yakubovskaya ¹

¹ N.N. Blokhin NMRCO, Moscow, Russia; zhidkova_em@mail.ru (E.Z.); lesovenok@yandex.ru (E.L.); mgyakubovskaya@mail.ru (M.Y.)

² MIREA—Russian Technological University, Moscow, Russia; zukova2001@bk.ru

³ I.P. Pavlov Ryazan State Medical University, Ryazan, Russia

* Correspondence: grigodidmit@gmail.com

[†] Presented at the 2nd International Electronic Conference on Biomolecules: Biomacromolecules and the Modern World Challenges, 1–15 Nov 2022; Available online: <https://iecbm2022.sciforum.net/>.

Abstract: Combinations of anticancer chemotherapeutics with glucocorticoids (GCs) are usually used to broaden therapeutic range of main cytostatic and to diminish side effects of chemotherapy. However, long-term GC administration leads to tumor resistance and metastasis promotion. GC effects are mediated by glucocorticoid receptor, regulating gene expression via DNA-dependent transactivation associated with GC side effects, and therapeutically important transrepression. We aimed to find out molecular markers associated with GC-stimulated motility and migration of breast cancer cells. We showed that GCs stimulate the invasion and metastasis of breast cancer cells after 120 h of treatment and determined markers of GC-associated adhesion loss.

Keywords: glucocorticoids; breast cancer; cell adhesion; metastasis

Citation: Grigoreva, D.; Zhidkova, E.; Zhukova, O.; Lesovaya, E.; Yakubovskaya, M. Effects of Glucocorticoid Receptor Activation on the Expression of Intercellular Adhesion Regulatory Genes in Breast Cancer Cells In Vitro. *Biol. Life Sci. Forum* **2022**, *2*, x. <https://doi.org/10.3390/xxxxx>

Academic Editor(s):

Published: 1 November 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Author Contributions:

Funding: Work was partial supported by RSCF (17-75-20124) and RFBR (16-04-01410, 15-04-04006).

Institutional Review Board Statement:

Informed Consent Statement:

Data Availability Statement:

Conflicts of Interest: