

BIOTHERAPEUTIC POTENTIAL OF RNAi TECHNOLOGY

PRZEMYSŁAW SOŁEK^{1,2}, ALEKSANDRA MAZIARZ³, MAREK KOZIOROWSKI^{1, 2}

¹Institute of Applied Biotechnology and Basic Sciences, ²Centre of Applied Biotechnology and Basic Sciences, University of Rzeszow, Werynia 502, 36-100 Kolbuszowa, ³Faculty of Medicine, Centre for Innovative Research in Medical and Natural Sciences, University of Rzeszow, Warzywna 1a; 35-310 Rzeszów, e-mail: pp.solek@gmail.com, a.maziarz01@gmail.com

Summary

In the last few years, RNA interference (RNAi) has become widely used as an experimental tool for the analyses of genes and their functions. With increasing knowledge about the molecular mechanisms of function of endogenous RNA interference, small interfering RNA (siRNA), may occur as innovative bio-drugs for treatment of diseases such as cancer. Knowledge and understanding of the molecular pathways important for carcinogenesis create opportunities for cancer therapy using RNAi mechanism. New therapies are essential for tumors treatment, and small interfering RNAs may provide a viable strategy.