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Released-active antibodies: Breakthrough concept of antibodies-based therapeutics

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Transformation of the antibodies (Abs) substances to final dosage form is a difficult task. The antibodies-based drugs have some limitations while manufacturing and using like stability, toxicity, administration. I am pleased to acquaint you with the drugs based on released-active Abs which have overcome the mentioned disadvantages. Phenomenon of released-activity was explored and represented to the scientific community by Russian Professor Oleg Epstein. He suggested combining multiple circles of consecutive decrease in the substance's initial concentration and physical treatment up to the desired dilution with the use as a substance such biotechnological product as Abs. This forward-looking manufacturing technique allows us to receive reproducible product with unique features. Although the final dilution is too high to content any molecule of initial substance these technologically treated product has an ability not to neutralize the targets but modify the interaction between the target and corresponding molecule-regulator. High efficacy and lack of toxicity of release-active Abs-based drugs were confirmed in plenty of preclinical studies and in top-quality clinical trials. Another astonishing effect of released-activity is observed during conjoin use of the released-active substance with the initial one. Such application helps to increase the effectiveness simultaneously with decreasing toxicity (against the initial substance in the same dose plus placebo) and could be used for production of beneficial and advantaged biosimilars. Drugs based on released-active Abs is turning to be unique medicines which combine the high efficacy and safety and several of them are already presented on the market of 16 countries.

Biography

Elena Don was graduated with a Master degree in Molecular and Cellular Biotechnology from Moscow State University of Fine Chemical Technologies, Russia. Presently she is a PhD student focusing on pharmacology and immunoassays development at Institute of General Pathology and Pathophysiology, Russia. She underwent a study course in immunoassay techniques at AB Biotechnology (Edinburgh, UK). She has published a number of manuscripts in reputed journals in English and Russian and successfully participated in international conferences and congresses.

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