Physico-chemical properties of anticancer drug NSC631570

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One of the most significant problems of cancer therapy is the damaging activity of anticancer drugs against normal body cells. All attempts to develop a therapeutic agent with a selective cytotoxic effect on tumor cells had no much success because of the high degree of biological identity between healthy and malignant cells. The celandine is being used in the medicine over more than 3500 years. The first data concerning the therapeutic effect of the juice of celandine in the patient with malignant melanoma were published in Germany in 1536. From that time drugs based on biologically active substances of celandine are widely used to treat cancer and non-cancer disease. It is well known that tumor cell is more negatively charged as compared to normal cell. We have used this feature of the tumor cell to give NSC631570 a property to selectively interact with it, without endangering healthy cells and tissues. The drug is strongly positively charged. Due to this it has an ability to be selectively accumulated in tumor tissue and to induce tumor cell apoptosis only in tumor cells without harmful effect on normal cells. Potent selective antitumor effect of NSC631570 has been repeatedly proven by the results of clinical trials. There is an assumption that the same high selective cytotoxicity of drug on tumor cells of different origin is the result of its interaction with a ubiquitous tumor-specific (or overexpressed in tumor cells) compound involved in the induction of cell death. It remains to find this compound.

Biography

Wassil Nowicky has received his degree of a Dr. Sci. Tech from the University of Vienna. He is the Director of Nowicky Pharma and the Inventor of the Anticancer Preparation NSC631570. He is a Member of New York Academy of Sciences, European Union for Applied Immunology and American Association for Scientific Progress. He has more than 49 papers published in reputed journals.

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