

Death receptors: New opportunities in cancer therapy

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Abstract

© 2017 Park-media, Ltd. This article offers a detailed review of the current approaches to anticancer therapy that target the death receptors of malignant cells. Here, we provide a comprehensive overview of the structure and function of death receptors and their ligands, describe the current and latest trends in the development of death receptor agonists, and perform their comparative analysis. In addition, we discuss the DR4 and DR5 agonistic antibodies that are being evaluated at various stages of clinical trials. Finally, we conclude by stating that death receptor agonists may be improved through increasing their stability, solubility, and elimination half-life, as well as by overcoming the resistance of tumor cells. What's more, effective application of these antibodies requires a more detailed study of their use in combination with other anticancer agents.

Keywords

Apoptosis, Death receptors, DR4, DR5, TNF, Tumor cells

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