

# DELIVERED TARGETED CANCER THERAPY

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## **Abstract**

Gonadotropin Releasing Hormone (GnRH or LHRH) is a decapeptide responsible for the control, and secretion of the gonadotropin hormones (LH and FSH) and the regulation of the reproductive axis [1]. Altered GnRH peptide analogues have been used for the treatment of infertility and hormone-dependent cancer. Drug delivery systems based on GnRH (GnRH conjugates) constitute a novel targeted approach for the treatment of hormone-dependent cancer, compared to chemotherapy that is characterized by serious side effects [1, 2]. The advantage of targeted cancer therapy stems from the fact that tumor cells overexpress GnRH receptors in contrast to healthy cells [2]. The development of a novel and targeted cancer treatment with reduced side effects remains a challenge for the pharmaceutical industry. The promising target of our research is the synthesis and development of a modified cytotoxic compound conjugated with GnRH peptide analogues in order for the cytotoxic compound to be selectively released in cancer cells.

## **References:**

- [1] Schally, A.V. et al. *Biochem.Biophysic. Res.Comm.*, **1971**, 43(2), 393-399
- [2] Emons, G. et al. *Gynecol. Oncol.*, **2014**, 133(3), 427-432