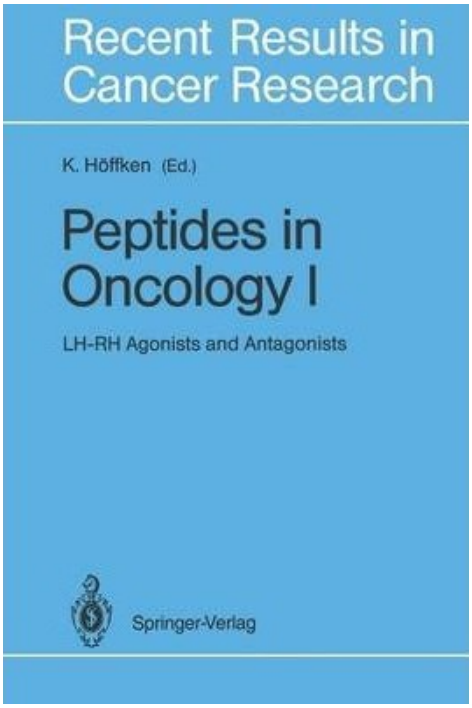


# Peptides in Oncology I : LH-RH Agonists and Antagonists

## Edited by K. Hoffken



Hormonal treatment of malignant diseases has been used for quite some years now, and progress in this field is still being made at a steady pace. The detection of new endocrine feed- back loops and the availability of new classes of hormonal agents made hormonal intervention with predictable outcome possible. Besides the intellectual challenge of modulating the hormone system, an important aspect of recent research on hormones and cancer is the reduction of treatment-related morbidity achieved with the new hormonal strategies. Thus, controlled intervention in the hypothalamic-gonadotropic axis is increasingly apt to replace surgical removal of the relevant glands, i. e. , the pituitary gland or the gonads. In the same way as, for example, aromatase inhibitors are being used as a substitute for adrenalectomy. The concept that secretion of hypothalamic gonadotropin- releasing hormone (GnRH), pituitary gonadotropins, and sex steroids are regulated via negative and positive feedback loops is based on the pioneering work of Hohlweg and Harris some 40 years ago. In 1971, a breakthrough was achieved with the isolation, structural analysis, and synthesis of the luteinizing hormone releasing hormone (LH-RH), or GnRH as it is now more appropriately termed, since it provokes the secretion of both gonadotropins, LH and FSH, and since then the progress made in this area of research has been remarkable. Both ago- nists and antagonists of LH-RH have been synthesized and extensively studied in preclinical and clinical settings.