

## Series introduction

# Breast carcinoma and steroid hormones: a molecular morphological approach

The mammary gland is one of the target organs of hormones, and the development and progression of breast carcinomas are influenced by steroid hormone status in many cases. Most breast carcinomas are estrogen receptor positive and are indicated for antiestrogen therapy. In addition, recent advances in intracrinology have facilitated the analysis of the local metabolism of sex steroid hormones in breast carcinoma tissue. Aromatase is one of the key enzymes, which irreversibly converts circulating adrenal androgens into estrogens, and aromatase inhibitor is widely used for hormone-dependent breast carcinomas in postmenopausal women.

This special issue is a selection of papers from the symposium of the same title at the 41st Annual Meeting of the Japanese Society for Clinical Molecular Morphology in

September 2009 in Kobe, Japan. Among these, three manuscripts addressing several topics are presented. These topics include (1) significance of androgen in relation to intratumoral production of estrogens in breast carcinomas; (2) mechanisms regulating sex steroid hormones in the development of breast carcinomas; and (3) molecular mechanisms regulating the sensitivity and resistance to various hormone therapies. I hope that this special feature provides beneficial information to readers.

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