Preface

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The recent increase in hormone-dependent tumors, such as breast cancer, endometrial cancer and prostate cancer, has brought about rapid progress in fundamental research and shown the clinical significance of hormone therapy in these fields in Japan as well as in Western countries.

The 1st Conference on the Treatment of Hormone-Dependent Tumors was held in Tokyo on January 31, 1998. The main theme of that year's meeting was 'estrogen-dependent tumors'. Various discussions between leading Japanese clinical and basic researchers contributed to a deeper understanding of the molecular mechanisms of estrogen action in relation to estrogen receptors and the occurrence of refractoriness in the treatment of estrogen-dependent tumors, which is expected to stimulate further research in this field [1].

The main subject of the 2nd Conference held in Tokyo on January 30, 1999, focused on 'hormone-dependent tumor growth'. Estrogen and the estrogen receptor system, including other mechanisms in each tumor, play an important role in the regulation for growth stimulation and inhibition of these tumors. Detailed functions of the estrogen receptor, coactivator/corepressor and transcription should be clarified and further studies concerning the cross-talk between sex hormones and other signaling molecules are expected. Knowledge about aromatase and the intracrinology of estrogen in hormone-dependent tumors has given us helpful information to understand the important factors of hormone therapy of these tumors. However, several clinical observations cannot be explained despite the progress in basic research [2].

At the 3rd Conference held in Tokyo on January 29, 2000, the 'current status of hormone therapy and strategy

for the future', was timely selected as the main subject. At this conference, the clinical significance of hormone therapy in hormone-dependent tumors, and basic research and its clinical application were presented. Hormone therapies, such as antiestrogens (tamoxifen, toremifene), aromatase inhibitors, medroxyprogesterone acetate (MPA), and LH-RH agonists for breast cancer, MPA and GnRH analogs for gynecological cancers, and antiandrogens and GnRH agonists for prostate cancer, have been widely used in Japan as well as in Western countries. Some combined endocrine therapies are known to be more effective than single treatment. Fundamental research concerning intracrinology, nuclear receptors, and GnRH presented at this meeting supported the usefulness of some combinations. The articles presented at the 3rd Conference are published in this supplement to *Oncology*. Now, it is good for physicians to have many opportunities to use several hormonal agents in the treatment of hormone-dependent tumors, but some unknown points still remain concerning the best order or combinations of these hormonal agents.

Further studies are needed to solve the problems concerning the discrepancy between the results of basic research and the antitumor effects of clinical treatments in the hormone-dependent tumors. It is expected that clinical and basic research in this field will harmonize well with each other to find more effective hormone therapy.

References

- 1 Mori H (ed): Estrogen-dependent tumors. *Oncology* 1998;54(suppl 1):1-59.
- 2 Koyama H (ed): Hormone-dependent tumor growth. *Oncology* 1999;57(suppl 2):1-64.