12 Ethnic Aspects of Cancer Trials in Asia

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Abstract. New drugs which have potential in cancer therapy are emerging every day and there is an increasing demand for trial patients all over the world. Asia being the most populated continent, as well as a large market for drug sales, has its own epidemiology of disease. The Asian races also have specific genomics that might affect response to drug treatment. In addition, there are cultural issues to be considered when considering clinical trials. In conclusion, more clinical trials should be done among Asian populations for the best results of drug treatment.

Today, cancer still remains as one of the most important health hazards in the world. Progress in terms of cure has been slow due to complexity of the disease. Current available treatment modalities, particularly surgery and radiotherapy, are only effective when the cancer is discovered in early stages. Treatment for advanced-stage cancer, which is often palliative, largely depends on drug therapy. Drug therapy is also impor-
tant and increasingly so as an adjunct treatment to curative surgery or radiotherapy. However, available drugs are still limited because drug development is a lengthy process and the majority of investigative agents could not pass either preclinical or clinical testing. Discovery of new drugs continues to be the most important task in the battle against cancer.

With the rapid explosion of knowledge in biotechnology and pathogenesis of cancer in the last two decades, discovery and synthesis of potentially useful cancer drugs has become more efficient. However, extensive testing in humans requires large numbers of subjects for clinical trial before the drug can be approved for treatment. Therefore, the demand for patient accrual for cancer drug trials is high.

Asia has the largest population of all continents. Socioeconomic development in Asia has been rapid over the last two decades, which makes Asia now the largest market for drug sales. In the past, most of the drugs used in Asia follow the recommendations of Western countries. The regulatory authorities in North America and Europe approve drugs based on clinical trials that were conducted in non-Asian countries. It was assumed that the efficacy and adverse reaction of new drugs should be similar in Asian and non-Asian populations, but our experience in cancer trials has suggested the contrary.

12.1 Ethnic Differences in Cancer Epidemiology

The types of cancer that we see in Asian countries are very different from those of Western countries. Cancers such as hepatocellular carcinoma are rarely seen in Western countries and nasopharyngeal carcinoma is a unique disease of southern Chinese populations. These are all common cancers that we see in Asia, but there is no treatment paradigm that we can derive from clinical trials conducted in non-Asian countries for these cancers.

Hong Kong, mainly populated by Chinese, has a slightly different cancer epidemiology compared with non-Asian populations. From the Hong Kong Cancer registry report in 2002, the most common cancers are lung, colon, and breast cancer, which is no different from Western countries. However, the incidence rate of hepatocellular carcinoma in Hong Kong was 23.2, much higher than the 2.4 per 100,000 population