Foreword

Dear colleagues,

On behalf of the European Society for Analytical Cellular Pathology and the International Society for Diagnostic Quantitative Pathology, we warmly welcome you to the International Conference on Applied Genomics in Amsterdam.

The genomics revolution has had an enormous impact on biomedical sciences in general and several disease areas in particular. Genomics research has yielded unprecedented insights into basic mechanisms of diseases such as cancer, degenerative diseases and congenital disorders. The current challenge to the medical-scientific community is to carry these new insights further and to translate them into new diagnostic, prognostic and therapeutic applications in patient management. Indeed, in diagnostic surgical pathology, which has traditionally depended on the use of phenotypical classification systems, genomics-based classifications are now emerging. In cancer patients, features like histological type and tumor differentiation grade, sometimes combined with additional markers like proliferation, DNA ploidy or immunohistochemical markers, have routinely been employed for classification and as determinants of prognosis and therapy. Now we are witnessing the emergence of genetic tumor profiling as the basis for tumor classification and clinical decision making in oncology leading to revolutionary shifts in diagnostic and therapeutic practice.

The results of translational research on the application of genomics will urge us to substantially rewrite parts of pathology, oncology and other medical disciplines in the years to come. Genetic tumor profiling has already led to, and will continue to lead to the identification of new molecular targets for innovative anticancer agents. Pharmaceutical and biotechnology companies have introduced high-throughput micro-array based screening to identify new anticancer drugs acting at newly identified molecular targets. Indeed, several new agents designed to act at specific genes or gene

products that are frequently altered in cancer, have entered clinical evaluation in cancer patients. In the near future, several of these agents are likely to become available for use in daily practice. For physician involved in the treatment of cancer patients, it will therefore become increasingly important to obtain information on the tumor's genetic and proteomic profile as pivotal input for the patient's treatment plan.

Also the evolution of the European Society of Analytical Cellular Pathology and the International Society for Diagnostic Quantitative Pathology into one new society fits in this scheme. The new International Society for Cellular Oncology that will be founded during this meeting, exactly focuses on the challenges to medical sciences described above, and will provide a powerful forum for scientist in this area.

The International Conference on Applied Genomics brings together a broad variety of biomedical and clinical disciplines involved in, and affected by the genomics revolution. The latest genomics developments are reviewed through a large number of oral and poster presentations, with special emphasis on the translation of genomics from the research laboratory into routine diagnosis and patient management. The Conference program focuses on translational genomics in oncology, but technological issues apply directly to other diseases, and developments in other diseases than cancer are also highlighted.

We hope that the International Conference on Applied Genomics will meet your expectations and will help you to prepare for a future that may be closer than anyone could imagine only a few years ago. No doubt, the vibrating Amsterdam scenery will create the optimal environment for top notch scientific exchange, and will get you a good time as well!

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