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# Foreword

# ICT X Satellite Meeting on Molecular Epidemiology

## Linking Toxicology to Epidemiology – Biomarkers and New Technologies

Haikko, Porvoo, Finland, 8–10 July 2004

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It is our great pleasure to provide summaries of the work to be presented by lead scientists in molecular epidemiology at the ICT X Satellite Meeting on Molecular Epidemiology, Haikko, Finland. The meeting program includes reporting of recent advances and the latest methodological approaches in this field of research. The main themes of the meeting focus on biomarker research, mechanisms of disease causation, risk assessment and prevention, recent technological advances, and new concepts and future areas in international collaboration.

The Keynote Lectures provide an overview of recent developments in key areas of molecular epidemiologic investigation of major diseases including cancer, cardiovascular disease, and respiratory diseases. Strategies are described for biologic-based exposure assessment, markers of intermediate effect, predictive markers of subsequent disease, and assessment of disease susceptibility patterns. Lectures on important disease-causing agents, including air pollution, diesel exhaust, metals and wood dust provide a link between population-based epidemiology, human biomarker studies, and experimental toxicology. Methodologic advances in laboratory sciences for population-based studies and in the design of molecular epidemiologic studies are discussed, in view of needs for advancement in the understanding of human disease. The poster session abstracts summarize results from studies carried out in the main topic areas of the meeting. In particular, multiple studies investigating associations between genetic polymorphisms and disease outcomes are reported.

We hope that the meeting will contribute to discussions and development of molecular epidemiology, and will offer views how to incorporate genomics into research on environmental and occupational health. The aim is to contribute to a better understanding of gene-environment interactions in the etiology and development of human diseases, and to find ways how to use this knowledge for disease prevention.

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