

Preface

Pulmonary diseases such as asthma and COPD (chronic obstructive pulmonary disease) are a major health problem in Europe, and there is a great demand for noninvasive clinical tools to assess them. Computer-based respiratory sound analysis is a relatively new method which is rapidly developing from its origin, auscultation with a stethoscope, towards a quantitative medical tool with diagnostic capabilities.

The BIOMED 1 programme of the European Community financed a Concerted Action project CORSA (Computerized Respiratory Sound Analysis) during the years 1994–1997. The main task of the project was to develop guidelines for recording and analysis of respiratory sounds (Workpackage I) and they will be published in *European Respiratory Review*. Workpackage III focused on signal processing and feature extraction techniques applicable to respiratory sound analysis. Selected papers presented in WP III were collected and rewritten to form the contents of this special issue of *Technology and Health Care*. The papers span a wide range of topics from real-time signal processing to flow-volume analysis of adventitious respiratory sounds, reflecting the varying interests of the participants of the workpackage. The authors were engineers, pulmonary physicians, clinical physiologists and physicists working on different aspects of respiratory sound analysis.

We hope that this issue will prove useful to researchers in the field of respiratory sound analysis. We want to thank all the participants of CORSA WP III for their invaluable contribution during the project. It has been a pleasure to observe how well engineers and medical doctors have been able to work together towards a common goal, to improve the capabilities of respiratory sound analysis. We are also very grateful to the journal *Technology and Health Care* for providing a forum for publication of the results of CORSA WP III.

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