Preface

H.	Henry	Halliday ^a
B.	Bengt	Robertson ^b
C.P.	Christian P.	Speer ^c
H.	Hervé	Walti ^d

^aBelfast, ^bStockholm, ^cTübingen, ^dParis

In recent years, the efficacy of exogenous surfactant for prevention and treatment of neonatal respiratory distress syndrome (RDS) has been confirmed in several large randomized clinical trials, and surfactant therapy is now part of the routine management of babies with immature lungs. Indications for surfactant substitution are gradually widening, and promising results have also been obtained in babies with, for example, meconium aspiration syndrome and pneumonia. Controlled trials of surfactant therapy for adult respiratory distress syndrome are in progress. This rapid clinical development has been paralleled by growing insight into the functional role of various surfactant components and the mechanisms by which exogenous surfactant exerts its therapeutic effect. Of particular interest in this context are the specific surfactant-associated proteins that apparently control important mechanisms both in the normal life-cycle of endogenous surfactant and in the pulmonary defence system. Hydrophobic proteins seem to be essential components of modified natural surfactants for clinical use.

Significant contributions to the field of surfactant research have been made by an international network of neonatologists and basic scientists, originally known as the Collaborative European Multicenter Study Group. This group has organized several large clinical multicenter trials of surfactant treatment for RDS including the first study documenting reduced mortality in treated babies [Pediatrics 1988;88:683-691], and in addition they have undertaken extensive collaborative experimental work on biochemical, biophysical, and physiological aspects of the pulmonary surfactant system. The original European network has gradually expanded and now includes hospitals and laboratories in Israel, North America, Brazil, and China. Annual workshops have been organized since 1986 to promote the exchange of information and ideas between the units involved.

The present supplement is based on the proceedings of the 10th annual meeting, to be held in Versailles, May 14-16, 1995. It includes invited reviews of important topics related to the functional significance of surfactant proteins, molecular interactions in the alveolar lining layer, and recent development in the use of surfactant for treatment of RDS and other forms of lung disease, as well as the complete abstracts of free communications, illustrating the wide range of expertise represented by members of the network. Although most of the papers presented at the meeting are based on work with one particular surfactant preparation (Curosurf®), a number of fundamental problems are addressed and we believe the information published in the following pages will be of interest to all clinicians and basic scientists involved in surfactant research. Representing the scientific committee of the meeting, we wish to thank the Chief Editor of

Biology of the Neonate J.P. Relier for the opportunity to distribute the proceedings of the workshop to the readers of the journal.