Editorial Note

In our Editorial Note in January this year, we said that we intended to publish state-of-the-art review articles, especially those commissioned from members of our streamlined Editorial Board. We would like to present the first of these reviews in this issue of *Biology of the Neonate*. Dr. John McIntyre and Prof. Imti Choonara of the Academic Division of Child Health at Nottingham University and the Children's Hospital, Derby, have produced a review dealing with drug toxicity in the neonate. This is a timely reminder for our readers that neonates are not small adults and they metabolise drugs differently from older infants and children. In neonatal medicine there have been a number of therapeutic misadventures including administration of chloramphenicol and sulphonamides, unlimited use of supplemental oxygen and application of hexachlorophene to the neonatal skin. All of these misadventures had drastic consequences for neonates which could probably have been prevented with properly conducted studies and clinical trials. Dr. Bill Silverman [1] has reviewed the tragedy of retinopathy of prematurity in his excellent monograph, and those who would like to learn from history should be sure to read it.

Recently, there have been a large number of randomised clinical trials in neonatal medicine, and the evidence for neonatal treatments has accumulated rapidly [2]. There are now over 170 systematic reviews in the neonatal module of the Cochrane Library, but in about 40% the evidence has been adjudged to be insufficient, usually because of the paucity of data, to demonstrate beneficial effects on outcome [2]. Another problem with recent studies has been the scarcity of long-term outcome data and this has led to the late discovery that early postnatal dexamethasone treatment, although having beneficial effects on the lung, has adverse effects on the developing central nervous system [3, 4]. The introduction of dexamethasone into the neonatologist's armoury after 1985 contrasts with the much more logical and controlled introduction of surfactant treatment in the decade following this.

Our neonatal patients deserve to have all new drugs adequately tested in trials which include long-term outcomes before they are used widely in practice. This is not an easy course of action as pharmaceutical companies are reluctant to support studies of established drugs or new ones with a limited future market. Drs. Millar and Schmidt [5] are to be congratulated for carrying out a study which will inform neonatologists of the relative benefits and costs of caffeine (C) treatment for apnoea (A) of prematurity (P) (CAP study).

We are pleased to include the review by Dr. John McIntyre and Prof. Imti Choonara in this issue of *Biology of the Neonate* and hope to publish further articles on various topics within the wide field of fetal and neonatal research in the near future. We would welcome readers' suggestions for topics and contributors to these state-of-the-art reviews.

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References

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- 3 Yeh TF, Lin YJ, Huang, CC, Chen YJ, Tsai WF, Lien YJ: Early postnatal (<12 h) dexamethasone therapy for prevention of BPD in preterm infants with RDS – a two-year follow-up study. Pediatrics 1998;101:E7.
- 4 Halliday HL, Ehrenkranz RA, Doyle LW: Early postnatal (<96 h) corticosteroids for preventing chronic lung disease in preterm infants. Cochrane Database Syst Rev 2003;1: CD001146.
- 5 Millar D, Schmidt B: Controversies surrounding xanthine therapy. Semin Neonatol 2004;9: 239–244.