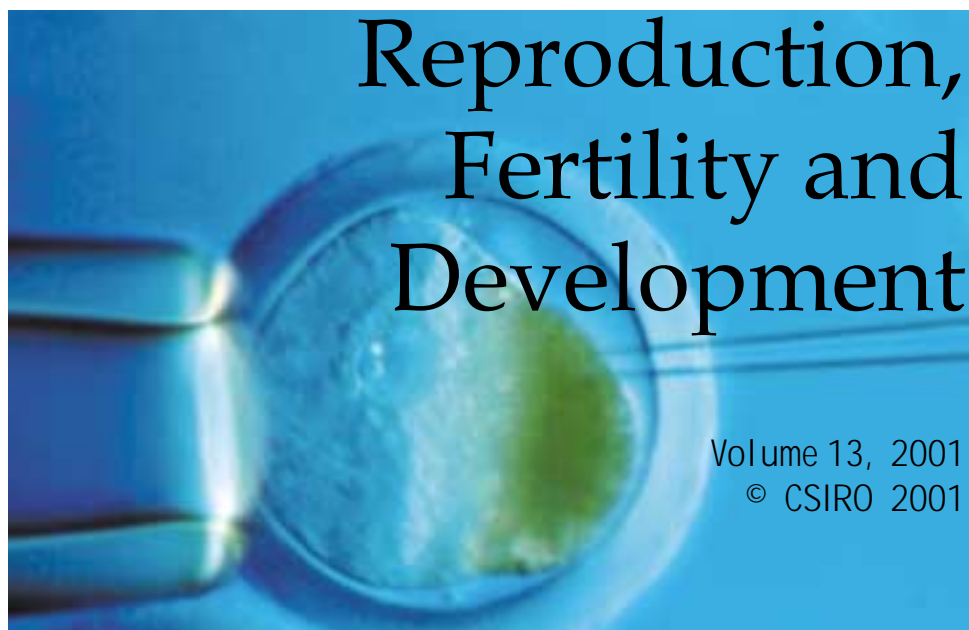


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Foreword

Both men and women produce estrogens. Traditionally, however, estrogens were considered prototypical female hormones and key biological elements underlying the distinguishing features of femininity. Many studies have examined the biological and clinical roles of estrogens in natural conditions as well as exogenous estrogen therapy in menopausal women. Estrogens were considered essential for female reproduction and estrogen receptor deficiency was believed to be incompatible with life.

In contrast, estrogens were considered to have a minor role in male reproductive biology. However, in recent years, these conventional views have been revised in the light of exciting findings that have redefined our understanding of how and where estrogens work. These findings include the biological consequences of inactivating estrogen receptors or the enzyme that produces estrogens (aromatase) and the discovery of a new estrogen receptor subtype (ER β). The identification of major roles for estrogen action in bone and cardiovascular health in men, as well as in the male reproductive tract and prostate, have vastly expanded the scope for understanding estrogen action in males. They all point to important and unexpected roles for estrogens in male reproductive biology and medicine. In another setting, there have been controversial and alarming claims that global chemical pollution may be involved in widespread deleterious effects on male reproductive health resulting from previously unknown low-level estrogen-like activity.

These exciting new biological findings led to support from the Australian Academy of Science to support this meeting entitled 'Estrogens and Male Health' in their prestigious Boden Conference series. This initiative was intended to bring together key international researchers to this meeting in order to clarify the issues that will dominate basic and clinical research over the next decade on the

mechanism of action, therapeutic uses and toxicology of estrogens in men. The 2000 Boden Conference was held in Sydney on 2 and 3 November 2000 as a satellite meeting to the International Congress of Endocrinology. The meeting provided a multidisciplinary focus with contributions from clinicians and scientists reviewing the newest concepts in understanding estrogen action in male health. The opening session included presentations that summarized the lessons learned from the estrogen-receptor- and aromatase-deficient mouse models and a review of the molecular details of estrogen receptor action. The next session on the role of estrogens in development saw presentations on the effects of estrogens in marsupials, rodents and men during development of the reproductive tract and bone. This was followed by a similar session describing the role for estrogens in mature bone and reproductive tract, as well as the cardiovascular system. In addition to the biological roles, the potential therapeutic uses of estrogens were highlighted. These early sessions set the scene for the next session on estrogens and the environment, in which the toxicology and environmental effects of estrogens were discussed. The final session on new drugs closed the symposium with discussion of estrogens, antiestrogens and phytoestrogens that might be used for therapeutic purposes in the male.

These discussions foreshadow the new approaches for the next decade. We trust that readers will find this a provocative and innovative collection of articles that will stimulate their own research programs.

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