HUMAN REPRODUCTION AND DEVELOPMENTAL BIOLOGY

Human Reproduction and Developmental Biology

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Preface

The biology of reproduction and development forms a large and cohesive part of the scientific basis of medicine but until recently has not achieved the prominence that it deserves in medical undergraduate teaching. We think that this area of knowledge more than any other demonstrates the fundamental unity of the basic medical sciences and in writing this book we have sought to present the subject in an integrated manner, so reflecting our approach to its teaching. In our experience we have found that the traditional boundaries between the so-called preclinical 'subjects' are often arbitrary and unhelpful.

Our aim has been to explain the biological principles of human reproduction and development by tracing the process from the formation of gametes and their union, through the intrauterine development of the fetus, to birth, growth and ageing. We have also included a chapter on contraception because of its vital importance for the future, but we have excluded any discussion of classical genetics as there are already many excellent texts.

In a book of this size we have not been able to discuss all the topics as fully as we would have liked and so reluctantly we have had to leave out interesting experimental and clinical evidence for many of our statements and conclusions. In spite of this, we hope to show that reproductive and developmental biology rests on a sound experimental foundation. Indeed, the astonishingly rapid advances in this field in the past 20 years are largely due to the development of important new experimental techniques such as radio-immunoassay, electron microscopy and tissue culture.

It is our intention that this book should serve as a useful introduction for medical students and that it may provide a scientific basis for further studies in obstetrics, fertility and paediatrics. We also hope that it will interest students of mammalian biology, midwifery and nursing. We assume that readers will have an elementary working knowledge of physiology, biochemistry, cell biology and human anatomy. At the end of each chapter we have provided some limited suggestions for further reading for those who wish to explore other areas more thoroughly but these lists are not intended to be comprehensive as it is apparent that most students do not have time to use extensive bibliographies.

The task of writing this book has been exacting but enjoyable and has been made easier by the friendly tolerance of our colleagues. We offer special thanks to Lydia Malim whose excellent illustrations speak for themselves. We greatly appreciate the expert manner in which she has interpreted our crude sketches and the high quality of the results.

David Begley
Anthony Firth
Robin Hoult

King's College, November 1978

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