

Contents

Preface

List of contributors

The color plate section appears between pages 86 and 87 (and is also available from www.cambridge.org/9780521184175)

- 1 **Mammalian spermatogenesis and sperm structure: anatomical and compartmental analysis** 1
Peter Sutovsky and Gaurishankar Manandhar
- 2 **Sperm chromatin stability and susceptibility to damage in relation to its structure** 31
Jeffrey A. Shaman and W. Steven Ward
- 3 **Genomic and proteomic approaches to defining sperm production and function** 49
Sarah J. Conner and Christopher L.R. Barratt
- 4 **Sperm maturation in the human epididymis** 72
Trevor G. Cooper and Ching-Hei Yeung
- 5 **Controls of sperm motility** 108
Claude Gagnon and Eve de Lamirande
- 6 **Regulation of capacitation** 134
Bart M. Gadella and Pablo E. Visconti
- 7 **Reactive oxygen species: friend or foe** 170
R. John Aitken and Liza Bennetts

8	Testing sperm manufacturing quality: the sperm–zona binding assay Sergio Oehninger and Daniel Franken	194
9	Genetics: a basic science perspective Peter H. Vogt	217
10	Sex chromosome abnormalities and male infertility: a clinical perspective Shai Shefi and Paul J. Turek	261
11	Epigenetic patterning in male germ cells: importance of DNA methylation to progeny outcome Sophie La Salle and Jacquetta M. Trasler	279
12	The DAZ gene family and human germ cell development from embryonic stem cells Mark S. Fox, Renee A. Reijo Pera and Amander T. Clark	323
	Index	351