

Contents

1 Post-transcriptional Control of Gene Expression During Mouse Oogenesis	1
Hugh J. Clarke	
2 Polarity and Asymmetry During Mouse Oogenesis and Oocyte Maturation	23
Malgorzata Kloc, Rafik M. Ghobrial, Ewa Borsuk, and Jacek Z. Kubiak	
3 Chromatin Structure and ATRX Function in Mouse Oocytes	45
Rabindranath De La Fuente, Claudia Baumann, and Maria M. Viveiros	
4 Cyclin B in Mouse Oocytes and Embryos: Importance for Human Reproduction and Aneuploidy	69
Zbigniew Polański, Hayden Homer, and Jacek Z. Kubiak	
5 Src Protein Kinases in Mouse and Rat Oocytes and Embryos	93
Mattan Levi, Lihi Ninio-Mani, and Ruth Shalgi	
6 Gradual Meiosis-To-Mitosis Transition in the Early Mouse Embryo	107
Aurélien Courtois and Takashi Hiragi	
7 Maternal Control of Mouse Preimplantation Development	115
Wenjing Zheng and Kui Liu	
8 Preimplantation Mouse Embryo: Developmental Fate and Potency of Blastomeres	141
Aneta Suwińska	
9 Creation of Trophectoderm, the First Epithelium, in Mouse Preimplantation Development	165
Yusuke Marikawa and Vernadeth B. Alarcon	

10	Cell Lineage Allocation Within the Inner Cell Mass of the Mouse Blastocyst	185
	Panagiotis Xenopoulos, Minjung Kang, and Anna-Katerina Hadjantonakis	
11	Formation of Distinct Cell Types in the Mouse Blastocyst	203
	Samantha A. Morris and Magdalena Zernicka-Goetz	
12	Cell Movements in the Egg Cylinder Stage Mouse Embryo	219
	Bradley Joyce and Shankar Srinivas	
13	Balancing the Dose in the Mouse	231
	Mary E. Donohoe	
14	Mouse Oviduct Development	247
	C. Allison Stewart and Richard R. Behringer	
15	Cell Lineages, Growth and Repair of the Mouse Heart	263
	Fabienne Lescroart and Sigolène M. Meilhac	
16	Cellular Reprogramming During Mouse Development	291
	Zoë D. Burke, Gabriela Miron-Buchacra, and David Tosh	
17	Differentiation of Definitive Endoderm from Mouse Embryonic Stem Cells	303
	Peter T.W. Kim and Christopher J. Ong	
18	Mouse and Human Pluripotent Stem Cells and the Means of Their Myogenic Differentiation	321
	I. Grabowska, K. Archacka, A.M. Czerwinska, M. Krupa, and M.A. Ciemerych	
19	Stem Cells and Corneal Epithelial Maintenance: Insights from the Mouse and Other Animal Models	357
	Richard L. Mort, Panagiotis Douvaras, Steven D. Morley, Natalie Dorà, Robert E. Hill, J. Martin Collinson, and John D. West	
20	Mouse-Induced Pluripotent Stem Cells	395
	Hui Zhang and Ying Jin	
21	Aging in the Mouse and Perspectives of Rejuvenation Through Induced Pluripotent Stem Cells (iPSCs)	413
	Ken-ichi Isobe, Zhao Cheng, Sachiko Ito, and Naomi Nishio	
	Index	429