1. Record Nr. UNINA9910132231803321

Titolo	Xenopus development / / edited by Malgorzata Kloc, Jacek Z. Kubiak
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley-Blackwell, , 2014 ©2014
ISBN	1-118-49282-X 1-118-49283-8 1-118-49284-6
Descrizione fisica	1 online resource (461 p.)
Classificazione	SCI072000
Disciplina	597.8/654
Soggetti	Xenopus laevis Xenopus - Larvae - Microbiology Microorganisms - Development Embryology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Machine generated contents note: I. Oocyte and early embryo 1. Polarity, cell cycle control and developmental potential of Xenous laevis oocyte. Malgorzata Kloc & Jacek Z. Kubiak. (The Methodist Hospital, Houston, USA & IGDR, CNRS/Univ. Rennes 1, France). 2. Cell cycle regulation & cytoskeleton in Xenopus. Marc W. Kirschner (Harvard University, USA) or Kinases and phosphatases in Xenopus oocytes and embryos. Tim Hunt (University of Cambridge, GB) or Randall W. King (Harvard University, USA). 3. DNA replication and repair in Xenopus. Julian J. Blow (University of Dundee, Wellcome Trust Centre for Gene Regulation & Expression, GB) or Marcel Mechali (IGH, CNRS, Montpellier, France). 4. Gene expression in Xenopus laevis development and nuclear transfer. John B. Gurdon (The Wellcome Trust/Cancer Research UK Gurdon Institute, GB). 5. Translational control in Xenopus development. Joel D. Richter (Univ. of Massachusetts, USA). II. Midblastula transition, gastrulation and neurulation 6. Apoptosis in Xenopus embryos. Sally Kornbluth (Duke University, USA) or Jean Gautier Columbia University College of Physicians and Surgeons, New York, USA. 7. Cell cleavage

and polarity in Xenopus leavis embryo epithelium. Jean-Pierre Tassan (IGDR, CNRS/Univ. Rennes, France) or John B. Wallingford (University of Texas at Austin, TX, USA) 8. Germ cell specification, Mary Lou King (University of Miami, USA). 9. Mesoderm formation in Xenopus. James C. Smith (The Gurdon Institute, GB) or Laurent Kodjabachian (CNRS/Univ. Provence, Marseille, France) or Sergei Y. Sokol (Mount Sinai School of Medicine, New York, USA) or Eddy De Robertis (University of California, Los Angeles, USA) or Pierre McCrea (MDAnderson Cancer Center, Houston TX, USA). 10. Neural tube formation in Xenopus. Naoto Ueno (National Institute for Basic Biology, Okazaki, Japan.). 11. Left-right axis control in Xenopus development. Ali H. Brivanlou (The Rockefeller University, New York, USA). III. Metamorphosis and organogenesis 12. Metamorphosis and endocrine system development in Xenopus. Barbara A. Demeneix (CNRS, Paris, France). 13. Xenopus laevis kidney development. Rachel Miller (MD Anderson Cancer Center, University of Texas, Houston, USA). 14. Xenopus nervous system development. Christine E. Holt (Cambridge University, GB) or Eric J. Bellefroid (Universite Libre de Bruxelles, Institut de biologie et de medecine moleculaires, Belgium). 15. Gonads development in Xenopus and other anurans. Rafal P. Piprek (Jagiellonian University, Krakow, Poland). 16. Immune system development in Xenopus. Louis Du Pasquier (Universitat Basel, Switzerland). IV. Novel techniques and approaches 17. MicroRNA in Xenopus development. Nancy Papalopulu (University of Manchester, GB). 18. Genetics of Xenopus tropicalis development. Richard M. Harland (University of California, Berkeley, USA) or Nicolas Pollet (Institute of Systems and Synthetic Biology, Genopole, CNRS, Universite d'Evry Val d'Essonne, Evry, France). 19. Transgenic Xenopus laevis as an experimental tool for amphibian regeneration study. Yoko Ueda (Nara Women's University, Nara, Japan). 20. The Xenopus model for regeneration research. Jonathan MW Slack (Centre for Regenerative Medicine, University of Bath, Bath, BA2 7AY, United Kingdom and Stem and Cell Institute, University of Minnesota, MN, USA). .

Sommario/riassunto

"Xenopus frogs have long been used as model organisms in basic and biomedical research. These frogs have helped unlock basic developmental and cellular processes that have led to scientific breakthroughs and have had practical application in cancer research and regenerative medicine. Xenopus Developmentdiscusses the biology and development of this important genus, and will be a great tool to researchers using these frogs in their research. Divided into four sections, the highlights key Xenopus development from embryo to metamorphosis, and the cellular processes, organogenesis, and biological development"--
"Provides broad overview of the developmental biology of both Xenopus laevis and Xenopus tropicalis"--