Principles of Cloning, Second Edition

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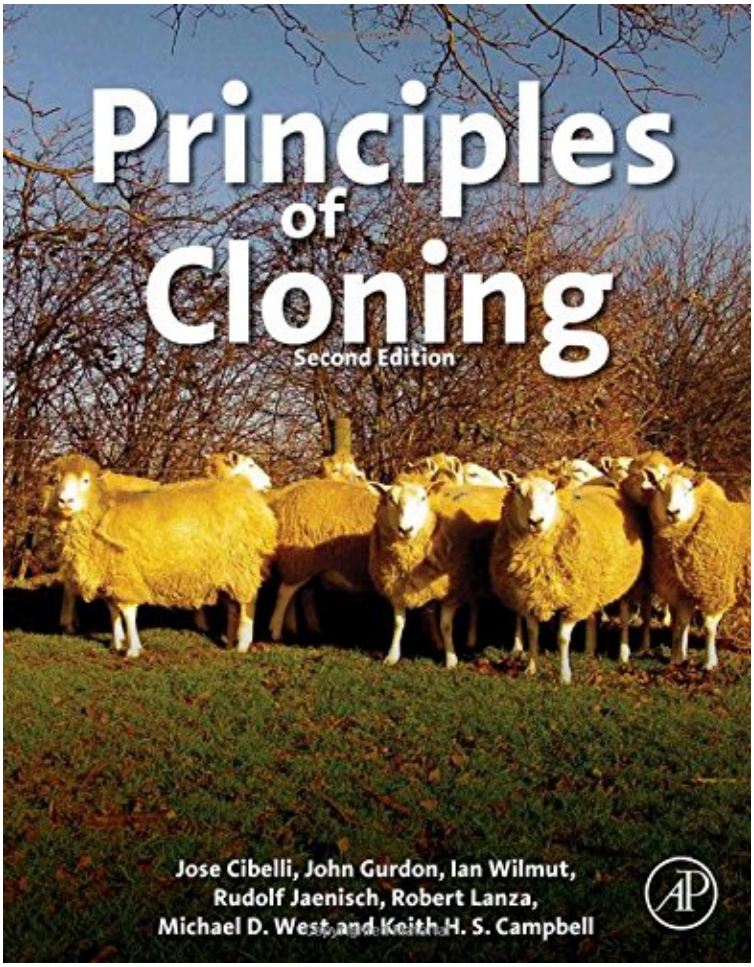

#3916973 in Books 2013-11-11Original language:EnglishPDF # 1 11.25 x 9.00 x 1.25l, 4.05 #File Name: 0123865417572 pages | File size: 27.Mb

From Academic Press : Principles of Cloning, Second Edition before purchasing it in order to gage whether or not it would be worth my time, and all praised Principles of Cloning, Second Edition:

Principles of Cloning, Second Edition is the fully revised edition of the authoritative book on the science of cloning. The book presents the basic biological mechanisms of how cloning works and progresses to discuss current and potential applications in basic biology, agriculture, biotechnology, and medicine. Beginning with the history and theory behind cloning, the book goes on to examine methods of micromanipulation, nuclear transfer, genetic modification, and pregnancy and neonatal care of cloned animals. The cloning of various speciesincluding mice, sheep, cattle, and non-mammalsis considered as well. The Editors have been involved in a number of breakthroughs using cloning technique, including the first demonstration that cloning works in differentiated cells done by the

Recipient of the 2012 Nobel Prize for Physiology or Medicine Dr John Gurdon; the cloning of the first mammal from a somatic cell Drs Keith Campbell and Ian Wilmut; the demonstration that cloning can reset the biological clock - Drs Michael West and Robert Lanza; the demonstration that a terminally differentiated cell can give rise to a whole new individual Dr Rudolf Jaenisch and the cloning of the first transgenic bovine from a differentiated cell Dr Jose Cibelli. The majority of the contributing authors are the principal investigators on each of the animal species cloned to date and are expertly qualified to present the state-of-the-art information in their respective areas.First and most comprehensive book on animal cloning, 100% revisedDescribes an in-depth analysis of current limitations of the technology and research areas to exploreOffers cloning applications on basic biology, agriculture, biotechnology, and medicine

From the Back CoverPrinciples of Cloning is the first comprehensive book on cloning since Dolly the sheep was cloned. The contributing authors are the principal investigators on each of the animal species cloned to date and are expertly qualified to present the state-of-the-art information in their respective areas. The book spans from the earliest experiments in amphibians to the latest research on mammals as told by the scientists who performed this work. Covering the basic biological mechanisms of how cloning works, the book rounds out the discussion with a look at current and potential applications in basic biology, agriculture, biotechnology, and medicine. In addition to providing a clear and thorough understanding of cloning technology, the book also emphasizes the value of cloning in basic and applied research. Written in a clear, easy-to-comprehend style, this book is a great introduction to anyone interested in the science of cloning.About the AuthorDr. Jose Cibelli is internationally recognized as one of the pioneers in the area of cloning for the production of animals and embryonic stem cells. Dr. Cibelli and his colleagues were responsible for the generation of the world's first transgenic cloned calves, the first stem cells by nuclear transfer in bovine, and the first embryonic stem cells by parthenogenesis in primates. His work has been published in numerous scientific journals including Science, Nature Biotechnology, Nature Medicine, Nature Methods, PNAS, and JAMA. He has testified about cloning in public forums sponsored by the US Food and Drug administration, the USA National Academy of Sciences, Canadian House of Commons, the USA Department of Agriculture, the United Nations Commission for Human Rights and the British Royal Society. He is currently Professor of Animal Biotechnology at Michigan State University, USA.Robert Lanza, M.D. is currently Chief Scientific Officer at Advanced Cell Technology, and Adjunct Professor of Surgical Sciences at Wake Forest University School of Medicine. He has several hundred scientific publications and patents, and over 30 books, including Principles of Tissue Engineering (1st through 4th Editions), Methods of Tissue Engineering, Principles of Cloning (1st and 2nd Editions), Essentials of Stem Cell Biology (1st and 2nd Editions), XENO, Yearbook of Cell Tissue Transplantation, One World: The Health Survival of the Human Species in the 21st Century (as editor, with forewords by C. Everett Koop and former President Jimmy Carter), and Medical Science the Advancement of World Health. Dr. Lanza received his B.A. and M.D. degrees from the University of Pennsylvania, where he was both a University Scholar and Benjamin Franklin Scholar. He is a former Fulbright Scholar, and studied as a student in the laboratory of Richard Hynes (MIT), Jonas Salk (The Salk Institute), and Nobel laureates Gerald Edelman (Rockefeller University) and Rodney Porter (Oxford University). He also worked closely (and coauthored a series of papers) with the late Harvard psychologist B.F. Skinner and heart transplant pioneer Christiaan Barnard. Dr. Lanza's current area of research focuses on the use of stem cells in regenerative medicine.