Methods of Tissue Engineering

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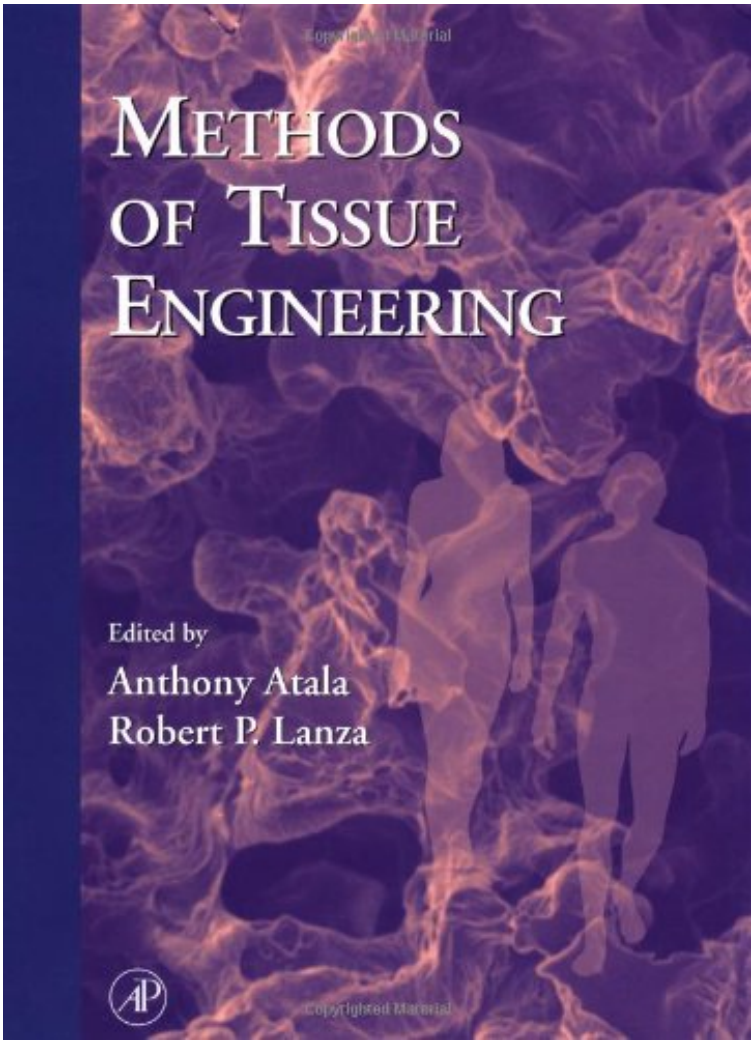

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From Academic Press : Methods of Tissue Engineering before purchasing it in order to gage whether or not it would be worth my time, and all praised Methods of Tissue Engineering:

This book will be a resource for the experienced tissue engineer, a starting point for the student, and a guidebook for the next generation of tissue engineers. Contained in one volume is a comprehensive reference that combines the tools, experimental protocols, detailed descriptions, and "know-how" for the successful engineering of tissues and organs. The practical information contained in the numerous protocols covers every area of tissue engineering and will prove essential to scientists working in this field. Contributions by leaders in the latest areas of research will also be of

interest to biotechnological and pharmaceutical researchers. Key Features* Provides comprehensive protocols covering every area of tissue engineering, including polymer synthesis, cell culture, encapsulation, bioreactors, therapeutics, and the creation of tissues and organs;* Includes contributions by leaders in the latest areas of research, such as stem cells and fetal tissue engineering

"This book is prepared for students in their early stages of learning tissue engineering as well as for advanced scientists in the life sciences field. This book serves as a guidebook for the next generation of scientists seeking more fundamental understanding on tissue engineering."Soon Hong Yuk, Hannam University for PHARMACEUTICAL RESEARCH (July 2002)From the Back CoverTissue engineering is a dynamic and rapidly growing field emerging from the cross-disciplinary efforts of engineers, physical and life scientists, and physicians to create new tissues and organs from cells and synthetic molds. Recent developments have led to a great expansion of clinical applications using tissue engineering technologies. This book serves as a starting point for the student, a resource for the experienced tissue engineer, and a guidebook for the next generation of tissue engineers. Contained in one volume is a comprehensive reference that combines the tools, experimental protocols, detailed descriptions, and "know-how" for the successful engineering of tissues and organs. KEY FEATURES* Contains practical, hands-on information for tissue engineers and students* Provides comprehensive protocols covering numerous topics, including polymer synthesis, cell culture, encapsulation, bioreactors, therapeutics, and the creation of tissues and organs* Includes contributions by leaders in the latest areas of research, such as stem cells and fetal tissue engineeringABOUT THE EDITORS:Anthony Atala, M.D., is an associate professor of surgery and the Director of Tissue Engineering and Cellular Therapeutics at Children's Hospital and Harvard Medical School in Boston. He is a surgeon, researcher, and expert on tissue engineering and stem cell biology. He received his M.D. from the University of Louisville in 1985 and completed his research and clinical fellowships in pediatric urologic surgery at Children's Hospital and Harvard Medical School. Dr. Atala has received numerous awards and honors, including the Christopher Columbus Foundation Award for Innovative Scientific and Clinical Discovery. Robert P. Lanza, M.D., is Medical Director and Vice President of Medical and Scientific Development at Advanced Cell Technology. Dr. Lanza is a former Fulbright Scholar and has been nominated for a MacArthur Foundation "genius" award. He received his B.A. and M.D. from the University of Pennsylvania, where he was both a University Scholar and a Benjamin Franklin Scholar. As a student, he studied in the laboratory of Richard Hynes (MIT), Gerald Edelman (Rockefeller University), and Jonas Salk (The Salk Institute). He also worked closely with the late Harvard psychologist B.F. Skinner and heart transplant pioneer Christiaan Barnard.About the AuthorAnthony Atala, M.D., is the Director of the Wake Forest Institute for Regenerative Medicine, and the W.H. Boyce Professor and Chair of the Department of Urology at Wake Forest University. Dr. Atala is a practicing surgeon and a researcher in the area of regenerative medicine. His current work focuses on growing new human cells, tissues and organs. Dr. Atala works with several journals and serves in various roles, including Editor-in-Chief of Current Stem Cell Research and Therapy, and Therapeutic Advances in Urology; as Associate Editor of the Journal of Tissue Engineering and Regenerative Medicine, The Journal of Rejuvenation Research, Nanotechnology in Engineering and Medicine, Gene Therapy and Regulation, and Current s in Urology; as Executive Board Member or Section Editor of the journal Tissue Engineering and International Journal of Artificial Organs, and as Editorial Board member of the International Journal of Stem Cells, Stem Cell Letters, Expert Opinion on Biological Therapy, Biomedical Materials, Recent Patents on Regenerative Medicine, the Journal of the American College of Surgeons, the Journal of Urology, BMC Urology, Urology, and Current Opinion in Urology. Dr. Atala is a recipient of the US Congress funded Christopher Columbus Foundation Award, bestowed on a living American who is currently working on a discovery that will significantly affect society, and the Gold Cystoscope Award for advances in his field. Dr. Atala was named by Scientific American as a Medical Treatments Leader of the Year for his contributions to the fields of cell, tissue and organ regeneration. In 2006, he was named by Fast Company magazine as one of 50 people who will change how we work and live over the next 10 years. Dr. Atalas work was listed as Discover Magazine`s Number 1 Top Science Story of the Year in the field of medicine, and as Time Magazines top 10 medical breakthroughs of the year in 2007. A Time Magazine poll ranked Dr. Atala as the 56th most influential person of the year in 2007. Esquire Magazine in 2008 named Dr. Atala one of the 75 most influential persons of the 21st century. Fast Company Magazine named Dr. Atala one of 100 Most Creative People in Business in 2009. Dr. Atala was featured in U.S. News World Report as one of 14 Medical Pioneers Who Arent Holding Back. Dr. Atala has led or served several national professional and government committees, including the National Institutes of Health working group on Cells and Developmental Biology, and the National Institutes of Health Bioengineering Consortium. He is currently an NIH Quantum Grant awardee. Dr. Atala heads a team of over 250 physicians and researchers. Ten applications of technologies developed in Dr. Atala's laboratory have been used clinically. He is the editor of nine books, including Minimally Invasive Urology, Methods of Tissue Engineering, Principles of Regenerative Medicine, and Foundations of Regenerative Medicine, and has published more than 300 journal articles and has applied for or received over 200 national and international patents.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.