

1. Record Nr.	UNINA9910824532003321
Titolo	Angiogenesis [[electronic resource] ] : an integrative approach from science to medicine // edited by William D. Figg, Judah Folkman
Pubbl/distr/stampa	New York, NY, : Springer, c2008
ISBN	1-281-37805-4 9786611378059 0-387-71518-5
Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (616 p.)
Altri autori (Persone)	FiggWilliam D FolkmanM. Judah
Disciplina	612.13
Soggetti	Neovascularization Blood - Circulation
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 and index.
Nota di contenuto	Physiological & Pathological Angiogenesis: Biology of the Angiogenic Process -- History of Angiogenesis -- Angiogenesis and Vascular Remodeling in Inflammation and Cancer: Biology and Architecture of the Vasculature -- Endothelial Cell Activation -- Pericytes, the Mural Cells of the Microvascular System -- Matrix Metalloproteinases and Their Endogenous Inhibitors -- Integrins in Angiogenesis -- Angiogenesis and Regulatory Proteins -- Fibroblast Growth Factor-2 in Angiogenesis -- Vascular Permeability/Vascular Endothelial Growth Factor -- Platelet-Derived Growth Factor -- Angiopoietins and Tie Receptors -- Basement Membrane Derived Inhibitors of Angiogenesis -- Angiostatin and Endostatin: Angiogenesis Inhibitors in Blood and Stroma -- Thrombospondins: Endogenous Inhibitors of Angiogenesis -- Molecular & Cellular Mechanisms of the Angiogenic Process -- Overview of Angiogenesis During Tumor Growth -- Hypoxic Regulation of Angiogenesis by HIF-1 -- Regulation of Angiogenesis by von Hippel Lindau Protein and HIF2 -- Nitric Oxide in Tumor Angiogenesis -- VEGF Signal Transduction in Angiogenesis -- Delta-like Ligand 4/Notch Pathway in Tumor Angiogenesis -- Immune Cells and Inflammatory Mediators as Regulators of Tumor Angiogenesis -- Contribution of

Endothelial Progenitor Cells to the Angiogenic Process -- Tumor Angiogenesis and the Cancer Stem Cell Model -- Targeting the Tumor Microenvironment (Stroma) for Treatment of Metastasis -- Functional Assessments of Angiogenesis -- Normalization of Tumor Vasculature and Microenvironment -- Targeted Drug Delivery to the Tumor Neovasculature -- Models for Angiogenesis -- Surrogates for Clinical Development -- Imaging of Angiogenesis -- Tumor Endothelial Markers -- Clinical Translation of Angiogenesis Inhibitors -- Overview and Clinical Applications of VEGF-A -- Protein Tyrosine Kinase Inhibitors as Antiangiogenic Agents -- Therapeutic Strategies that Target the HIF System -- The Clinical Utility of Bevacizumab -- Development of Thalidomide and Its IMiD Derivatives -- TNP-470: The Resurrection of the First Synthetic Angiogenesis Inhibitor -- Clinical Development of VEGF Trap -- Recent Advances in Angiogenesis Drug Development -- Combination of Antiangiogenic Therapy with Other Anticancer Therapies -- Immunotherapy of Angiogenesis with DNA Vaccines -- Challenges of Antiangiogenic Therapy of Tumors -- Pharmacogenetics of Antiangiogenic Therapy -- Angiogenesis in Health & Disease -- Angiogenesis in the Central Nervous System -- Lymphatic Vascular System and Lymphangiogenesis -- Ocular Neovascularization -- Angiogenesis and Pathology in the Oral Cavity -- Revascularization of Wounds: The Oxygen-Hypoxia Paradox -- Journeys in Coronary Angiogenesis -- Perspectives on the Future of Angiogenesis Research.

---

Sommario/riassunto

Dr. Judah Folkman, "father of angiogenesis", (1933-2008) was the Director of the Vascular Biology Program, Andrus Professor of Pediatric Surgery, and Professor of Cell Biology at Harvard University's Boston Children's Hospital. In the 1971 issue of The New England Journal of Medicine, he proposed the theory that tumor growth is angiogenesis dependent. This premise was the basis of this field of research and has become the focus of scientists worldwide. Because of Folkman's discovery and research, the possibilities of antiangiogenic and angiogenic therapy have broadened beyond cancer to many noncancerous diseases. This book represents the first collection in a volume of which Dr. Folkman is co-editor. Dr. Folkman authored nearly 400 original papers and more than 100 book chapters. Dr. William Figg is the chief of the Molecular and Clinical Pharmacology Program at the National Cancer Institute, National Institutes of Health. Over the past 15 years, his laboratory and clinic at the NCI have focused on the development of angiogenesis inhibitors. Dr. Figg has published more than 380 publications.

---