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Titolo	Resistance to Photodynamic Therapy in Cancer // edited by Valentina Rapozzi, Giulio Jori
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Collana	Resistance to Targeted Anti-Cancer Therapeutics, , 2196-5501 ; ; 5
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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	Basic and Clinical Aspects of photodynamic Therapy -- Mechanisms of Resistance to Photodynamic Therapy -- Tumor Vascular Microenvironment Determines responsiveness to Photodynamic Therapy -- Autophagy Pathways Activated in Response to PDT Contribute to Cell Resistance Against ROS Damage -- Methods to isolate the Resistant Cells to Photodynamic Therapy -- GRP78-Targeting Subtilase Cytotoxin Sensitizes Cancer Cells to Photodynamic Therapy -- Optimization of Photodynamic Therapy Response by Survivin Gene Knockdown in Human Metastatic Breast Cancer -- Cellular Targets and Molecular Responses Associated with Photodynamic Therapy -- The Use of Nanoparticle-Delivered Photosensitizers Can Overcome the Development of Resistance to PDT in Tumors -- Mechanisms of tumor cells resistance to ALA/PDT -- Overcoming the Resistance of Meolanoma to Photodynamic Therapy.
Sommario/riassunto	This volume provides a comprehensive review of resistance induced by photodynamic therapy (PDT) in tumor cells. Understanding the

underlying mechanisms in this process leads to the improvement of therapeutic modality, in combination with chemotherapy, immunotherapy, and radiotherapy. Photodynamic therapy is a minimally invasive therapeutic procedure that can exert a selective or preferential cytotoxic activity toward malignant cells. The procedure involves administration of an intrinsically non-toxic photosensitizing agent (PS) followed by irradiation at a wavelength corresponding to a visible absorption band of the sensitizer. In the presence of oxygen, a series of events lead to direct tumor cell death, damage to the microvasculature, and induction of a local inflammatory reaction. Studies reveal that PDT can be curative, particularly in early stage tumors and this volume explores the potential of PDT, but also reveals strategic approaches to overcome resistance in tumor cells.

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