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Collana	Results and Problems in Cell Differentiation, , 1861-0412 ; ; 64
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Soggetti	Cancer Proteins Stem cells Cytology - Technique Cell death Cancer Biology Stem Cell Biology Cytological Techniques Cell Death
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1 Introduction: How we encountered TCTP and our purpose in studying it -- 2 Structural insights into TCTP and its interactions with ligands and proteins -- 3 Structure-Function relationship of TCTP -- 4 The Translational Controlled Tumour Protein TCTP: Biological Functions and Regulation -- 5 Current understanding of the TCTP interactome -- 6 Role and fate of TCTP in protein degradative pathways -- 7 Roles of the Translationally Controlled Tumor Protein (TCTP) in plant development -- 8 Function of Translationally controlled tumor protein in organ growth: Lessons from Drosophila studies -- 9 Translationally controlled tumor protein (TCTP/HRF) present in animal venoms -- 10 Tctp in Neuronal Circuitry Assembly -- 11 Elusive role of TCTP protein and mRNA in cell cycle and cytoskeleton regulation -- 12 TCTP protein and the cellular response to ionizing radiation-induced DNA damage -- 13 TCTP has a crucial role in the different stages of Prostate Cancer

malignant progression -- 14 Role of TCTP for cellular differentiation and cancer therapy -- 15 Targeting TCTP with sertraline and thioridazine in cancer treatment -- 16 . History of Histamine Releasing Factor (HRF)/TCTP including a Potential Therapeutic Target in Asthma and Allergy.

Sommario/riassunto

This book highlights the role of the Translationally Controlled Tumor Protein (TCTP) in cell signaling, cell fate and the resulting connection to disease development. It begins by discussing the structure/function of TCTP, before exploring its role in different species ranging from plants to Drosophila and covering fields such as development, the cytoskeleton, cell division, DNA fragility and apoptosis. In turn, the book's final section is devoted to the role of TCTP in disease, namely asthma and diverse cancers, and ultimately as a target for the treatment of malignancies. What is the common denominator between all these processes and why is TCTP necessary in order for them to occur, even in the worst case such as cancer? The book seeks to provide meaningful answers to this and other key questions. Presenting a broad and revealing view on the topic, it offers an informative guide for scientists and students alike.
