1. Record Nr. UNINA9910300342003321 Posttranslational Protein Modifications in the Reproductive System // **Titolo** edited by Peter Sutovsky Pubbl/distr/stampa New York, NY:,: Springer New York:,: Imprint: Springer,, 2014 **ISBN** 1-4939-0817-0 Edizione [1st ed. 2014.] 1 online resource (259 p.) Descrizione fisica Collana Advances in Experimental Medicine and Biology, , 0065-2598;; 759 Disciplina 572.645 Soggetti Reproductive medicine Endocrinology Molecular biology Reproductive Medicine Endocrinology Molecular Medicine 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 at the end of each chapters and index. Nota di contenuto Sperm Proteases and Extracellular Ubiquitin-Proteasome System Involved in Fertilization of Ascidians and Sea Urchins (Hitoshi Sawada, Masako Mino and Mari Akasaka) -- Isgylation: A Conserved Pathway in Mammalian Pregnancy (Thomas R. Hansen and James K. Pru) -- Srcfamily Tyrosine Kinases in Oogenesis, Oocyte Maturation and Fertilization: An Evolutionary Perspective (William H. Kinsey) --Posttranslationally Modified Tubulins and Other Cytoskeletal Proteins: Their Role in Gametogenesis, Oocyte Maturation, Fertilization and Preimplantation Embryo Development (Heide Schatten and Qing-Yuan Sun) -- Deubiquitinating Enzymes in Oocyte Maturation, Fertilization and Preimplantation Embryo Development (Namdori R. Mtango, Keith E. Latham and Peter Sutovsky) -- Posttranslational Modifications of Zona

Pellucida Proteins (Naoto Yonezawa) -- Role of aberrant protein modification, assembly and localization in cloned embryo phenotypes (Keith E. Latham) -- Role of Posttranslational Protein Modifications in Epididymal Sperm Maturation and Extracellular Quality Control (Gail A. Cornwall) -- Ubiquitin-Proteasome System in Spermatogenesis (Rohini

Bose, Gurpreet Manku, Martine Culty and Simon S. Wing) -- Role of Posttranslational Modifications in C. elegans and Ascaris Spermatogenesis and Sperm Function (Long Miao and Steven W. L' Hernault).

## Sommario/riassunto

This book's aim is to increase the awareness of a great variety of posttranslational modifications in the male and female reproductive system. Some of the most intriguing reproductive strategies, mechanisms, and pathways involving PTM are discussed, with an added angle of evolutionary conservation and diversity. The book also chapters on sperm-egg binding, as well as on histone modification in both the embryo and sperm. Chapters are also devoted to protein ubiquitination, the regulation of sperm function during fertilization in mammals and tubulin modifications in gametes and embryos. There are no other current books on posttranslational protein modifications as they relate to reproduction, making this contribution unique in the field. It is useful for both researchers and graduate students alike.