1. Record Nr. UNINA9910131532303321 Autore William Cho **Titolo** The origin, function and diagnostic potential of extracellular microRNA in human body fluids // topic editors: Andrey Turchinovich and William Cho Pubbl/distr/stampa Frontiers Media SA, 2014 [Lausanne, Switzerland]:,: Frontiers Media SA,, [2014] ©2014 Descrizione fisica 1 online resource (114 pages): illustrations; digital file(s) Frontiers Research Topics, , 1664-8714 Collana Soggetti **MicroRNA** Blood plasma **Blood - Diseases** Genetics **Epigenetics** Hematologic Diseases Medicine Health & Biological Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph "Published in: Frontiers in genetics" -- front cover. Nota di bibliografia Includes bibliographical references. Sommario/riassunto Short non-coding RNA molecules, microRNAs (miRNAs), posttranscriptionally regulate gene expression in living cells. In recent years, miRNAs have been found in a wide spectrum of mammalian body fluids including blood plasma, saliva, urine, milk, seminal plasma, tears and amniotic fluid as extracellular circulating nuclease-resistant entities. The changes in miRNA spectra observed in certain fluids correlated with various pathological conditions suggesting that extracellular miRNAs can serve as informative biomarkers for certain

diseases including cancer. However, the mechanism of generation and a biological role of extracellular miRNAs remain unclear. The current

theories regarding extracellular miRNA origin and function suggest that these miRNAs can be either non-specific 'by-products' of cellular activity and cell death or specifically released cell-cell signaling messengers. The goal of this Research Topic is to bring together upto-date knowledge about the extracellular miRNA and its role in disease diagnostics and, possibly, inter-cellular communication.