Record Nr. UNINA9910688229903321 Autore Kimberly Sue Schluns **Titolo** Diverse functions of mucosal resident memory T cells [[electronic resource] /] / edited by Kimberly Sue Schluns and Kim Klonowski Frontiers Media SA, 2015 Pubbl/distr/stampa France:,: Frontiers Media SA,, 2015 **ISBN** 9782889195398 (ebook) Descrizione fisica 1 online resource (86 pages): colour illustrations, charts Collana Frontiers Research Topics Disciplina 616.07/9 Soggetti Microbiology & Immunology Biology Health & Biological Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Bibliographic Level Mode of Issuance: Monograph

Includes bibliographical references.

Sommario/riassunto

Nota di bibliografia

Note generali

Early studies recognized the unique phenotype and attributes of T cells found in mucosal tissues, such as the intestines, skin, lung and female reproductive tract. This special topic issue will cover many aspects of mucosal-resident T cell biology during infection and disease and is dedicated to Leo Lefrancois, a pioneer in this field who recently passed away. A major proportion of these mucosal T cells are memory T cells, now recognized as a major constituent of memory T cells referred to as tissue-resident memory T cells. Unlike central and effector memory T cell subsets, tissue-resident memory T cells exhibit tissue specificity with minimal systemic migration. Nonetheless, tissue-resident memory T cells share a similar origin and display some overlapping phenotypes with their other memory T cell counterparts. Articles in this issue will describe the different types of memory T cells residing in mucosal tissues, their origins and functions as well as how they vary among discrete mucosal sites. Manuscripts will consider the unique physiological environments and cellular constituents which facilitate tissue residency while preserving tissue function. Additionally, there will be descriptions of the various mechanisms responsible for the migration and segregation of tissue resident memory CD8 T cells from

the peripheral T cell pool. Although the mechanisms facilitating the sequestration of tissue-resident memory T cells within a respective tissue has not well characterized, various theories will also be discussed. Lastly, how these T cells contribute to immunity to pathogens, cancer, and autoimmunity and could be modified through vaccination or therapeutic intervention will be described. As mucosal tissues are the major portals of pathogen entry and frequent transformation, the activities and persistence of tissue resident memory T cells is crucial for mediating protection at these sites.