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Nota di contenuto	Section 1: Introduction -- Chapter 1: Introduction: An overview of host-directed therapies for tuberculosis -- Section 2: Targeting immunometabolism -- Chapter 2: Sirtuin deacetylases: Linking Mycobacterial infection and host metabolism -- Chapter 3:The mammalian target of rapamycin complex 1 (mTORC1): an ally of M. tuberculosis in host cells -- Chapter 4: HIF-1 as a potential therapeutic target for tuberculosis treatment -- Chapter 5: Nuclear receptors in host-directed therapies against tuberculosis -- Section 3: Enhancing anti-mycobacterial mechanisms -- Chapter 6: Autophagy as a target for host-directed therapy against tuberculosis -- Chapter 7: Metformin: a leading HDT candidate for TB -- Chapter 8: Statins as host-directed therapy for tuberculosis -- Chapter 9: Antimycobacterial attributes of mitochondria: An insight into host defense mechanisms -- Section 4: Targeting immune cells -- Chapter 10: Conventional and unconventional lymphocytes in immunity against Mycobacterium tuberculosis -- Chapter 11: Targeting inhibitory cells such as Tregs and MDSCs in the tuberculous granuloma -- Chapter 12: Targeting suppressor T cells -- Chapter 13: Neutrophil-mediated mechanisms as targets for host-directed therapies against tuberculosis -- Chapter 14: Type I interferon and interleukin-1 driven inflammatory pathways as targets for HDT in tuberculosis -- Chapter 15: Mucosal-associated invariant and V9V2 T cells -- Chapter 16: Airway epithelial cells.- Section 5: Preclinical models for assessing HDTs -- Chapter 17: In vitro

models of human granuloma formation to analyze host-directed therapies -- Chapter 18: C3HeB/FeJ as a key mouse strain for testing host-directed therapies against tuberculosis -- Chapter 19: The Rabbit Model for Assessing Host-Directed Therapies for Tuberculosis -- Section 6: Clinical trials of HDTs and special considerations for study endpoints -- Chapter 20:Clinical trials of TB-HDT candidates -- Chapter 21:Outcomes for clinical trials of host-directed therapies for tuberculosis -- Chapter 22: Pharmacological considerations for clinical trials of host-directed therapies for tuberculosis.

Sommario/riassunto

This book discusses specific immune cell regulatory pathway(s), immune cell types, or other mechanisms involved in host responses to tuberculosis that can be potentially targeted for host-directed therapy (HDT). The pathways/mechanisms investigated are either protective – thus calling for pathway/factor enhancing drugs – or maladaptive – thus calling for pathway/factor inhibitory drugs. Discovery and development (pre-clinical and clinical) of candidate HDT agents will also be elucidated, as well as approaches for HDT of other diseases. The benefit to the reader will derive from learning about the biology of multiple host pathways involved in health and disease, how these pathways are disrupted or dysregulated during tuberculosis, and which druggable targets exist in these pathways. This book provides the reader with a roadmap of current and future directions of HDT against tuberculosis. Since the host pathways/factors involved in protective or maladaptive responses to tuberculosis are not disease-specific, information learned from the context of tuberculosis likely will be relevant to other infectious and non-infectious diseases.