

1. Record Nr.	UNINA9910988288003321
Titolo	Oral Microbiome : Symbiosis, Dysbiosis and Microbiome Interventions for Maintaining Oral and Systemic Health / / edited by Naile Dame-Teixeira, Dongmei Deng, Thuy Do
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-79146-0
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (XV, 296 p. 39 illus., 37 illus. in color.)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1472
Disciplina	610.72
Soggetti	Medicine - Research Biology - Research Dentistry Medical microbiology Immunology Mucous membrane Biomedical Research Medical Microbiology Mucosal Immunology Translational Immunology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1: Introduction -- Chapter 1. The oral microbiome and us -- Part 2: Symbiosis -- Chapter 2. Acquisition of the oral microbiome -- Chapter 3. Symbiosis between the oral microbiome and the human host: microbial homeostasis and stability of the host -- Chapter 4. The Impact of Diet and Nutrition on the Oral Microbiome -- Chapter 5. Link between oral and gut microbiome: the Oral-Gut Axes -- Chapter 6. Nitrite production from nitrate in the oral microbiome and its contribution to oral and systemic health -- Chapter 7. Positive role of saliva in the oral microbiome -- Part 3. Dysbiosis -- Chapter 8. Interaction of the systemic inflammatory state, inflammatory mediators and the oral microbiome -- Chapter 9. The Oral Microbiome: A Key Determinant of Oral Health -- Chapter 10. Oral microbiome and cancer

-- Chapter 11. Oral disease and its association with cognitive decline and dementia -- Chapter 12. Dysbiosis of oral microbiome/citrullination and links to Rheumatoid arthritis -- Chapter 13. The Oral Microbiome in Diabetes, Arterial Hypertension, and Obesity: A Scoping Review. Chapter 14. Hormonal environment shapes the oral microbiome -- Part 4. Microbiome interventions for maintaining oral and systemic health -- Chapter 15. Periodontal treatment to improve general health and systematic diseases -- Chapter 16. Effects of antimicrobial agents used for dental treatments - Impacts on the human oral ecosystem and the resistome -- Chapter 17. Modulation of the Human Microbiome: Probiotics, Prebiotics, and Microbial Transplants.

---

## Sommario/riassunto

Human oral and systemic health exists in a symbiotic relationship with the microbiome. This book explores the dynamics of symbiosis and dysbiosis between the host and the oral microbiome, along with potential treatment strategies that involve modulating the oral microbiome. Systemic inflammatory diseases can communicate through the oral-gut axis, utilizing signals like cytokines and host defensins, which alter gene expression and, in turn, the composition of the oral microbiome. These alterations can lead to oral health issues such as periodontitis and candidiasis. Moreover, conditions associated with metabolic syndrome — such as obesity, hypertension, hyperglycemia, and dyslipidemia—can worsen oral microbiome dysbiosis. Conversely, the oral microbiota can also affect systemic health. This book presents evidence on how systemic health conditions impact the oral microbiota and vice versa, highlighting the potential of the oral microbiome as a biomarker for systemic health issues. Looking forward, predictive health models may lead to more personalized healthcare strategies. This volume is a valuable resource for researchers, students, and healthcare professionals interested in the health implications of the oral microbiome.

---