







Special Issue Reprint

Aggregatibacter actinomycetemcomitans: A D-3 (Dysbiosis, Damage, Disease) Periodontal Pathobiont

www.mdpi.com/books/reprint/10521

Edited by Daniel H. Fine

ISBN 978-3-7258-3063-3 (Hardback) ISBN 978-3-7258-3064-0 (PDF)



This reprint is devoted to the oral microbe Aggregatibacter actinomycetemcomitans and its associated distinctive form of rapidly destructive periodontitis that results in early tooth loss, predominantly occurring in adolescents and children of African descent. Three chapters are related to the biological and clinical characteristics of the disease, while six chapters are devoted genetic features uniquely suited for local disruption of the host's homeostatic balance. The final two chapters illustrate how a deep molecular understanding of A. actinomycetemcomitans has been used to develop therapies for diseases such as staphylococcal infections and leukemias. The reprint illustrates A. actinomycetemcomitans's 1) highly adaptable nature, 2) its influence on its microbial cohorts, 3) its modulation of local host responsiveness, and 4) its relationship to tissue damage, microbial survival tactics, and metabolic and competitive ecological strategies. These microbe-related processes can be applied to other infectious diseases. The Damage–Response Framework is illustrated as the most appropriate way to consider this microbe, its effect on its host, and the relationship of time to the extent of damage or repair.





MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

