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Sommario/riassunto	<p><i>Stenotrophomonas maltophilia</i> is a Gram-negative bacterium found in water, plant rhizospheres, animals, and foods. It is associated with a variety of infections in humans, involving respiratory tract (most common), soft tissue and bone, blood, eye, heart, and brain. This opportunistic pathogen is of serious concern to the immunocompromised patient population, and it is also being isolated with increasing frequency from the respiratory tract of individuals with cystic fibrosis. The observed increase worldwide in antibiotic resistance and the ability of this organism to make biofilms on epithelial cells and medical devices make it difficult for health-care personnel to treat infections caused by this pathogen. Recently, several genomes of <i>S. maltophilia</i> have been sequenced, revealing high genetic diversity among isolates. This pathogen uses a variety of molecular mechanisms to acquire and demonstrate resistance to an impressive array of antimicrobial drugs. Research has also focused on the pathogenesis of <i>S. maltophilia</i> in animal models and the resulting host immune response. <i>S. maltophilia</i> is recognized as an important organism in the plant microbiome. This environmental bacterium uses a diffusible signal mechanism for controlling its colonization and interaction with other bacteria and plants. <i>S. maltophilia</i> has also gained considerable research interest for its biotechnological applications, with recent studies on enzyme production, anti-biofilm strategies, biodegradation, and bioremediation. This e-book focuses on the latest developments in</p>

the areas of physiology, genomics, infection and immunity, host-pathogen interaction, pathogenesis, antimicrobial resistance and therapy, molecular epidemiology, applied and environmental microbiology, bioremediation and biotechnology.

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