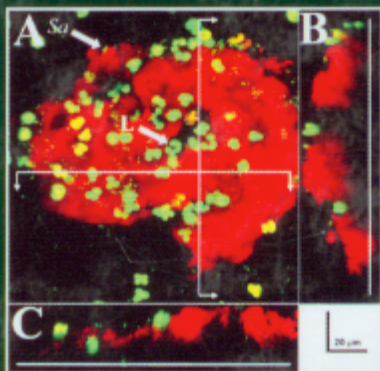


Evidence indicates that rather than existing in a planktonic or free-living form, microbes show a preference for living in a sessile form within complex communities called biofilms. Biofilms appear to afford microbes a survival advantage by optimizing nutrition, offering protection against hostile elements, and providing a network for cell-to-cell signaling and genetic exchange. Prosthetic device infections, such as those involving artificial heart valves, intravascular catheters, or prosthetic joints, are prime examples of biofilm-associated infections. With the increasing use of such devices in the modern practice of medicine, the prevalence of these infections is expected to rise. Unfortunately, one of the most troubling characteristics of microbes found in biofilms is a profound resistance to antimicrobial agents.



As biofilm-associated infections are particularly difficult to treat, they result in significant mortality, morbidity, and increased economic burden. Clearly, a better understanding of the pathogenesis of these infections and improved means for prevention and treatment are urgently needed!

In **Biofilms, Infection, and Antimicrobial Therapy**, Drs. Pace, Rupp, and Finch assemble the contributions of more than 50 of the world's leading authorities on microbial biofilms who present recent findings on antibacterial tolerance and bacterial persistence associated with biofilms and discuss the implications of those findings with regard to human health.

Offering valuable information that will have broad appeal for both research scientists and active clinicians, **Biofilms, Infection, and Antimicrobial Therapy** explores:

- Up-to-date treatments of intravascular catheter and orthopedic implant infections, as well as prosthetic valve endocarditis
- Molecular mechanisms of bacterial adherence, biofilm formation, regulation of biofilm maintenance, and cell-to-cell communication
- Organism-specifics related to *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*, coagulase-negative staphylococci, and *Candida albicans*
- The relation of pharmacokinetics and pharmacodynamics to the treatment of biofilm-associated infections

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