

METHOD TO PREDICT ACTIVE GROWTH OF BACTERIA ADHERED
TO A SURFACE

ABSTRACT:

The present invention described provides a start microbial replication factor, as well as methods for assaying and using the start microbial replication factor. A start microbial replication factor can be used to stimulate the growth of bacteria in suspension or bound to a surface. Agents that inhibit or enhance a start microbial replication factor can also be identified. The present invention also describes processes to treat or control the growth of bacteria which are bound to surfaces. Both proliferation and metabolism of bacteria which are adhered to surfaces are independent of both time and nutrient supply. Growth of adherent bacteria is density dependent. The present invention also provides a process to predict when bacterial growth will exhibit rapid growth on a surface. The invention also provides novel strains of transformed bacteria and methods of using the bacteria strains to measure microbial growth in the presence or absence of a start microbial replication factor. The transformed bacteria have a bacterial reporter gene under the control of a promoter whose expression is coordinately regulated with cell growth.

No figure to accompany abstract upon publication.