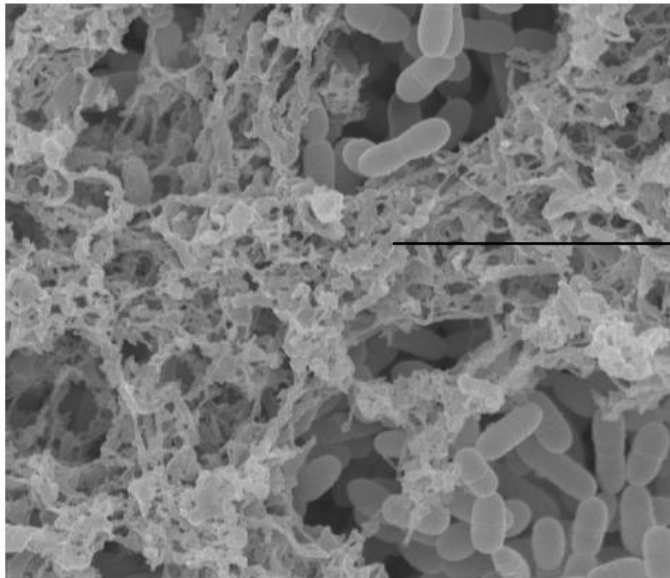


### **Streptococcus mutans**

Tooth decay is an infectious disease. *S. mutans* and *S. sobrinus* are known to be a major pathogen to tooth decay. *S. mutans* specifically bind to tooth surface and produce insoluble sticky exopolysaccharides known as glucan. Glucan is made from sucrose by *S. mutans* glucosyltransferase and is very important to form a dental plaque. Also, this organism produces acids from carbohydrates such as glucose and sucrose, causing to tooth demineralization.

Oral bacteria including *S. mutans* are also associated with gingivitis and bacteremia. Recently, oral bacteria are also related with systemic diseases such as arteriosclerosis, diabetes, hypertension and premature birth.

#### **Biofilm image of *Streptococcus mutans* (electron microscopy image)**



**Biofilm: 1% sucrose was added**

**Major virulence factor of *S. mutans***  
**biofilm formation**  
**Acid production**  
**Acid resistance**