

Fighting tooth decay with microbes

Our mouth is a habitat for more than hundreds of different species of bacteria which colonize in our mouth, teeth and gums. These bacteria form a biofilm on our teeth and convert leftover sugar on teeth and gum into lactic acid which erodes enamel and causes tooth decay. *Streptococcus mutans* is most cariogenic of these bacteria which promote tooth decay.

Florida-based company ONI BioPharma has engineered a new *S. mutans* strain developed by Dr J. Hillman, called SMaRT, that **cannot** produce lactic acid—plus, it releases an antibiotic that kills the natural decay-causing strain. The strain prevented the natural strain of *S. mutans* from colonizing the teeth and was able to stay on the surface of teeth indefinitely. Thus the mutant strain can replace the natural strain layered on teeth and gum. Importantly, it had no side effect. It is hoped that dentists will only need to swab SMaRT, onto teeth once to keep them healthy for a lifetime.

Source and for more information

<http://www.reuters.com/article/2009/03/19/idUS206210+19-Mar-2009+BW20090319>

<http://www.ncbi.nlm.nih.gov/pubmed/12369203>

<http://www.biotechnologyforums.com/thread-1789.html> ›