

Putting the Strain on *S. Mutans*

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here is something going on at the University of Florida. This is FYEO (For Your Eyes Only) stuff, so unless you have TSC (Top Secret Clearance), you are to SRRN (Stop Reading Right Now).

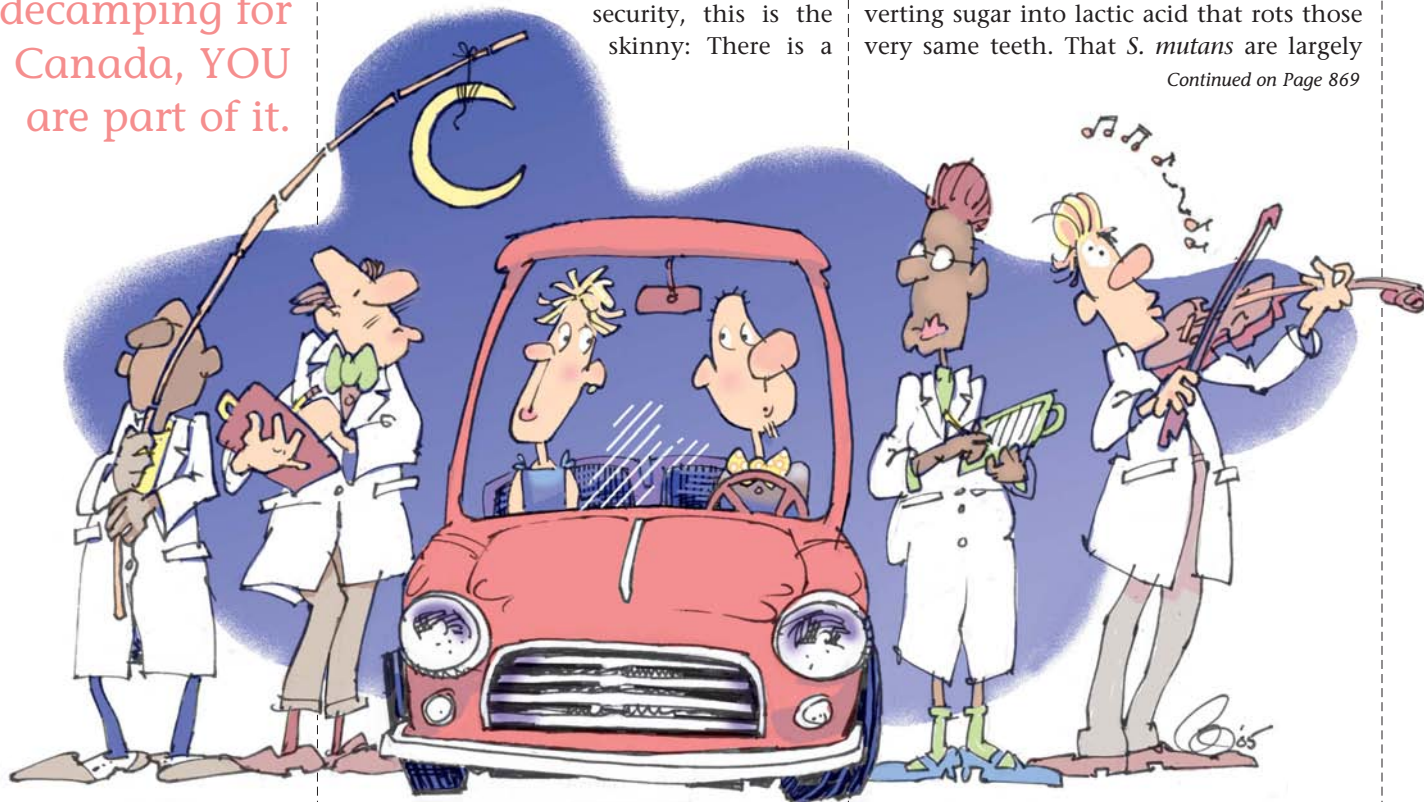
Jeffrey Hillman, DMD, PhD, of Orogenics knows about it; so does Kenneth Burrell, DDS, senior director of the American Dental Association, Council on Scientific Affairs. Because we are among a very select group of scientific elitists, we have access to all this hush-hush material discreetly issued periodically OAM (Once a Month) by a privately funded publication called PS (*Popular Science*). One-year subscription (12 issues), pay \$12.95 (save 73 percent).

If you pass the gimlet-eyed scrutiny of security, this is the skinny: There is a

revolution coming and whether you accept it or start decamping for Canada, YOU are part of it. There are 15 to 30 volunteers already enlisted according to dental researcher Hillman at the University of Florida. These intrepid souls who possibly were under the impression that they were to be given some SPF 45 to test on their bared epidermis at South Beach while lavishly ensconced at the Miami Hilton for 30 days are, instead, to be lavishly swabbed with *Streptococcus mutans* on their bare teeth!

Would you be foolish enough to volunteer for this? Of course not! As a scientific tooth-oriented health professional, you know the story of *S. mutans*. These mean-spirited bacteria grow on human teeth, converting sugar into lactic acid that rots those very same teeth. That *S. mutans* are largely

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responsible for providing us with a living is beside the point. The point is that Hillman has engineered a new strain of these bacteria that *doesn't produce lactic acid*. How Hillman was able to convince even one *S. mutans*, let alone an entire test tube of them, to eschew the production of lactic acid is on a NTK (Need To Know) basis for which even *Popular Science* is not privy.

There's more. Instead of lactic acid, this newly engineered *S. mutans* has been outfitted with an antibiotic "that helps it displace the indigenous cavity-inducing strain." Here's where you come in. Armed with nothing more than a Q-Tip and maybe a SIG-Sauer 9 mm, you swab your volunteer's teeth with Hillman's mutant bacteria. Offering any explanation that seems even remotely plausible, the swabee is given a sack full of Tootsie Rolls and Gummi Bears, and dispatched home to eat even more sugar. If this advice sticks in your craw, maybe Hillman himself will have to put in a personal appearance to explain in simple terms that the ingested sugar will help colonize the new *S. mutans* strain. These new confused bacteria, instead of creating a cavity as they had been trained to do since early childhood, are now unwittingly forming a tooth security guard. This will revolutionize the practice of dentistry in terms of drilling and filling. Who knows what engineered bacteria can be trained to do or not do next? How about eating fat?

What the revolutionized practice will be like is not clear, but it underlines the necessity of not letting this information leak to the nation's restorative

dentists who will immediately try to confiscate and horde all Q-Tip supplies. Hillman is ecstatic. "If there was a market for preventing cavities in rats, I'd be a millionaire," he exalted.

Hillman should be made aware that there wasn't a market for bleaching teeth until a relatively short time ago, so anything is possible.

Burrell, ADA's man, is equally blown away, although he doesn't seem

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—Jeffrey Hillman, DMD, PhD

to hold any patents on these new model streptococci. Both these spokesmen are thinking outside the box, because they are not sure whether the new strain can be transferred to others with, say, a kiss. Should this occur, the Bureau of Osculatory Interdiction, under the aegis of the Food and Drug Administration, will most certainly delay the revolution by at least 20 years. Hillman, however, is confident there will be no "horizontal transmission" as he delicately put it. Just to make sure, however, spouses of the volunteers will be monitored. Should the volunteer not have a spouse, one will be provided. If the strain has the decency to stay put, not wandering willy-nilly from mouth to mouth, the

dental revolution could get airborne commercial-wise within five to six years. If it doesn't, there could be a lot of kissing going on and the Q-Tip market would bottom out.

If you are interested in some intensive osculatory experimentation in the name of science, contact the University of Florida at their research facility in Kissimmee, Fla. **CDA**