Members of the genus *Simonsiella*, aerobic multicellular filamentous gliding bacteria, were detected in swabblings from the palates of 32% of 212 human subjects free of gross oral pathologies. Nutritional evaluations for 142 of the subjects showed a significantly greater daily intake among 53 *Simonsiella* carriers for 13 dietary variables, including four fat components, but there was no significantly greater daily intake for any of the carbohydrate components. Overall, there was a general excess dietary intake by *Simonsiella* carriers. The mean dietary intake of the carriers was numerically greater than that of the noncarriers for 70 of 74 dietary variables.
iron agreed with nutritional profiles of dental students (6) and of dentists and their wives (2).

All persons included in the dietary survey considered themselves to be in normal oral health and none reported using drugs at the time of the investigation. Of these, 11 Simonsiella carriers volunteered for a free-of-charge dental examination. Their oral conditions, which were assessed by one examiner in a complete dental examination of the hard and soft tissues, including X-ray photography by the Panorex method, ranged from an excellent state of health to various degrees of dental decay, periodontitis, and deposits of calculus. None had pathological symptoms on the palate or on other parts of the mouth.

The finding that almost all dietary variables had a higher mean in the group of Simonsiella carriers than in the group in which simonsiellas were not detected and that a number of these dietary components showed statistically significant differences with respect to the actual amounts of foods consumed suggested that the occurrence of human-adapted Simonsiella sp. (8) is at least to some extent influenced by the dietary components and habits of an individual. Of particular interest is the significantly higher dietary intake of fat and protein, but not sugar, by Simonsiella carriers. Previously, dietary fats were known to be cariostatic (10). The potential antiadhesive mechanisms of lipids have been reviewed by Freter (5). Moreover, the chemical structures, quantities, and relative amounts of fatty acids were shown to affect the microbial flora associated with tissues of higher organisms (1). The selective advantage of diet on simonsiellas rests on the nutrition of Simonsiella sp., on the Simonsiella-epithelium cell-cell interactions, or on the physiological condition and health of the host.

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LITERATURE CITED