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Secretor Status and Caries

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Sir,

I was pleased to read the paper by Kárpáti et al. in *Caries Research* 2014;48:178–185 (Caries and ABO secretor status in a Hungarian population of children and adolescents: an exploratory study). This paper refers several times to the research that I carried out in Iceland, which was published in *FEMS Microbiology Immunology* in 1989 (Holbrook WP, Blackwell CC: Secretor status and dental caries in Iceland. *FEMS Microbiol Immunol* 1989;47:397–400). At that time we found a clear link between the salivary non-secretors in Iceland and a high level of dental caries. One of the main points of this study was that the prevalence of non-secretors in Iceland was high as was the prevalence of caries. Kárpáti et al., however, did not delve deeper into the reports from Iceland that were published in *Caries Research* in 1993 (Holbrook WP: Dental caries and cariogenic factors in pre-school urban Icelandic children. *Caries Res* 1993;27:431–437 and Holbrook et al.:

Prediction of dental caries in pre-school children. *Caries Res* 1993;27:424–430). In these two papers, I was able to show a lower level of dental caries and a higher level of being caries free among the group that were non-secretors. This fits in well with the findings in the study of Kárpáti from 2014. This work was carried out on children aged 4–6 years and included deciduous and newly erupted permanent teeth. The protective effect of being a secretor of blood-group proteins in saliva was evident only in the primary dentition and in being caries-free at 6 years. It is possible that the increased complexity of interacting cariogenic and caries-protective factors removes the significance of any link between the non-secretion of blood group proteins into saliva and caries scores. Certainly, the significant link that was observed in young adults in 1989 was not seen in children in 1994, when caries levels in Iceland had started to fall. While the association between the non-secretion and the higher caries score is interesting, the matter probably becomes more complex with an interaction with caries-protective factors such as toothpaste, oral hygiene, and dental treatment.

It is possible that the salivary secretor status plays a role in determining total caries risk but the interplay of causative and protective factors for caries has become more complex in the past 20 years and it would, perhaps, be interesting to reexamine some of the known or presumed caries-risk factors and to reevaluate them in the light of reduced prevalence of caries in recent years.