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Assembly of the human oral microbiome age 1 to 12

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At the 97th General Session & Exhibition of the International Association for Dental Research (IADR), held in conjunction with the 48th Annual Meeting of the American Association for Dental Research (AADR) and the 43rd Annual Meeting of the Canadian Association for Dental Research (CADR), Ann Griffen, Ohio State University, Columbus, gave an oral presentation on "Assembly of the Human Oral Microbiome Age 1 to 12." The IADR/AADR/CADR General Session & Exhibition is held at the Vancouver Convention Centre West Building in Vancouver, BC, Canada from June 19-22, 2019.

The composition of the oral microbiome is critically important in oral health and disease, but the patterns and mechanisms underlying community assembly have not been comprehensively studied.

Griffen and coauthors examined the composition of the oral bacterial microbiome in a cohort of children evenly distributed between one and 12 years of age by high throughput 16S rRNA gene sequencing.

They found that species richness increased with age in both supragingival and subgingival plaque and trended up in saliva. Among the clinical variables they examined, only age, plaque levels and presence of calculus showed a significant effect on microbial community composition.

The results suggest that maturing oral microbial communities in children follow a common pattern. They become more complex with advancing

age and include a stable core of major species. They also include a shared group of early species that are lost or decrease in abundance with advancing age and another group that is gained with age. Longitudinal data are needed to confirm the results of this cross-sectional study.

More information: This oral presentation, #1109, was held on Thursday, June 20, 2019 at 2 p.m. in Room 213 of the Vancouver Convention Centre West Building, Vancouver, BC, Canada.

Provided by International & American Associations for Dental Research