

Tulane to study how oral health affects HIV severity and treatment

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For people living with HIV, gum disease and tooth decay can cause severe problems and may impact the effectiveness of treatments to keep the virus at bay. Photo by Shutterstock.

Gum disease and tooth decay plague most people at some point and are often associated with aging or poor health. But for those living with HIV, these common issues could cause more severe problems and even impact the effectiveness of treatments to keep the virus at bay.

Tulane University researchers received a \$1.9 million grant from the National Institutes of Health to investigate the interplay between oral health, the severity of HIV infection and the efficacy of antiretroviral therapies (ART) used to treat HIV. The three-year study is funded by the National Institute of Dental and Craniofacial Research.

[Prasun Datta, PhD](#), principal investigator and associate professor of microbiology and immunology at the [Tulane National Primate Research Center](#), will study how chronic oral infections and resulting inflammation affects HIV levels and the effectiveness of ART to prevent replication of the virus.

Datta will evaluate the levels of simian immunodeficiency (SIV) the nonhuman primate equivalent of HIV, in subjects experiencing gum disease and tooth decay to understand how SIV affects the oral microbiome and the association between oral disease and ART. Because oral diseases are often associated with aging, the effects of aging on the progression of these diseases will also be evaluated.

“We are interested in how the unique microbial environment of each individual differs, and the role that plays in both disease outcome and treatment,” Datta said. “Because these chronic diseases of the mouth are so common, it’s important to understand how they could be affecting treatment for those living with HIV.”

Datta will collaborate with Jay Rappaport, PhD, professor of microbiology and immunology at the Tulane School of Medicine and director of the Tulane National Primate Research Center, and Jeffery Ebersole, PhD, professor of Biomedical Sciences and associate dean for research, at the University of Nevada School of Dental Medicine.