

Exploring protein biomarkers in saliva using a proteomic approach

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Proteomic analysis of saliva is an emerging field. Over 80 percent of serum proteins are present in saliva. Systemic and oral changes can therefore theoretically alter the salivary proteomes. Our laboratory has an interest in using salivary proteomes to differentiate normal and diseased subjects as well as exploring the potentials of using salivary protein biomarkers in differentiating certain degrees of systemic and oral changes resulting from diseases. While saliva samples provide us with a non-invasive and easily repetitive potential in sample collection, the current salivary proteomic technologies have certain limitations. We will discuss the current studies dealing with salivary proteomes and how we may improve future studies. We will focus our discussion on oral candidiasis and diabetes as representative of oral and systemic conditions. Salivary proteomics may in the near future provide us a tool to explore disease-related biomarkers for developing salivary-based diagnostic tools.

Biography

Sompop Bencharit is an Assistant Professor in the Department of Prosthodontics, School of Dentistry, and in the Department of Pharmacology, School of Medicine, at the University of North Carolina at Chapel Hill. Dr. Bencharit is a board-certified prosthodontist and a protein structural biologist. His research interests include salivary proteomics, protein structural biology, dental implants and tissue regeneration. He serves as Editor-in-chief for the journal, Stem Cells in Oral Medicine. He also serves as an editorial board member and reviewer for several international journals.