

Periodontal Microbiome

Oral-Systemic Health Research Program

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Pilot 1: Pharmacogenetics for Dentistry:

Implement Warfarin pharmacogenetics testing prior to dental procedures.

Timing of Warfarin withdraw prior to dental procedures: impact of VKOR1 and CYP2C9 variants. CYP2D6 for pain management.

Pilot Project 2:

T2D and periodontal disease and/or microbiome type

Requirements:

T2D pts and controls with GWAS AND dental access

Questions:

1) Does PD effect T2D GWAS signals, i.e., can T2D signals be stratified by PD?

2) Does the oral microbiome effect T2D GWAS signals, i.e., can T2D signals be stratified by microbiome?

3) Interaction of 1 and 2?

FOR EACH SNP (plus interactions)

Diabetic status

non

pre

T2D

PD

Low

Moderate

Severe

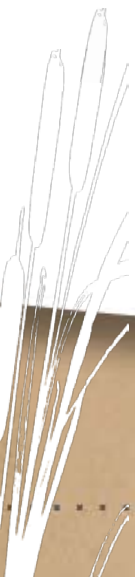


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FOR EACH SNP (plus interactions)

Oral Microbiome	<u>Diabetic status</u>		
	non	pre	T2D
Type A			
Type B			
Type C			



Potential Outcomes:

Dental Pharmacogenetics

Better understanding of the risks for T2D: onset, severity and control

Better understanding of the genetics of T2D

Better understanding of the role of environment to T2D

Other disorders - CAD

Geisinger: dental services

Mayo: specialized dental services.

MCW: ?

University of Washington: dental school.

VA: dental services plus integrated EHR for its medical and dental services.

Harvard system: dental school

Univ of Chicago: ?

Univ of Alabama: dental school.

Northwestern: currently does not have dental services.

Johns Hopkins: specialized dental services. [/](#)

Loyola Univ: dental services

Mount Sinai: dental services

Duke: no dental services.

Univ North Carolina: dental school.

St Jude's: ?

Vanderbilt: dental services.

Cleveland Clinic: specialized dental services.

Univ of Maryland: dental school.

Penn Dental School Bruce Shenker



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