



Metabolomics Workshop



Saliva Metabolomics

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■ Purpose

Evaluate the effects of Listerine mouthrinse on saliva metabolome

■ Background

Saliva



<https://www.google.com/>

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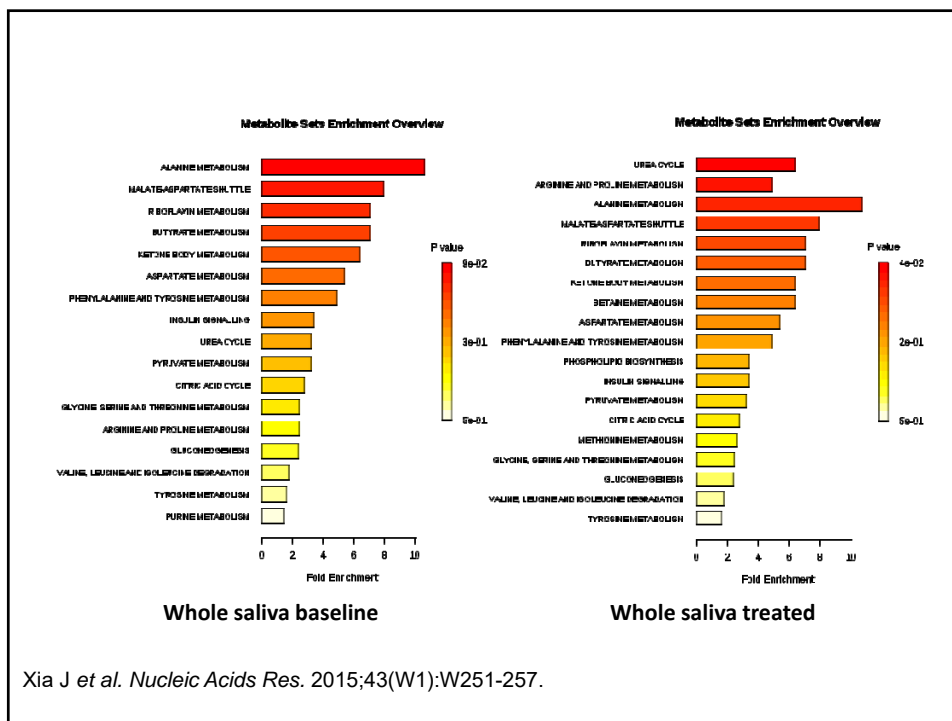
Methods

Tulpan D *et al.*, *BMC bioinformatics*. 2011;12:400.

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Results-Metabolites Identified

	Saline Rinse		Whole Saliva	
	Baseline	45 min	Baseline	45 min
Oxalacetic acid	+	+	+	+
Dimethylmalonic acid	+	+	+	+
9-Methyluric acid	+	+	+	+
1,3,7-Trimethyluric acid	-	+	+	+
3,7-Dimethyluric acid	-	+	-	-
Guanidoacetic acid	-	+	+	+
2,5-Furandicarboxylic acid	-	+	+	+
Hydroquinone	+	-	+	-
3-Hydroxyisovaleric acid	+	+	+	+
Dimethylsulfide	-	-	+	+
Acetoacetic acid	-	-	+	+
Quinone	-	-	+	+
2-Aminoisobutyric acid	-	-	+	-
Guanine	-	-	+	-
2,4-Diamino-6-hydroxypyrimidine	-	-	+	-
Pyruvic acid	+	-	-	-
Phosphoenolpyruvic acid	-	+	-	-
Dimethylamine	-	+	-	-
Glycine	-	+	-	-
Glycolic acid	-	+	-	-
Urea	-	-	-	+
D-Threitol	-	-	-	+
Choline	-	-	-	+



Conclusions and discussions

1. Identified 23 metabolites, how to increase sensitivity?
2. Quantitation- how? Concentration, how?
3. Pathway enrichment, pathway impact-What does it mean biologically?
4. Volcano Plot correlation of peaks, how to correlate to metabolites?
5. Standardized sample collection and preparation.



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