

Salivary Diagnosis: miRNA's new directions

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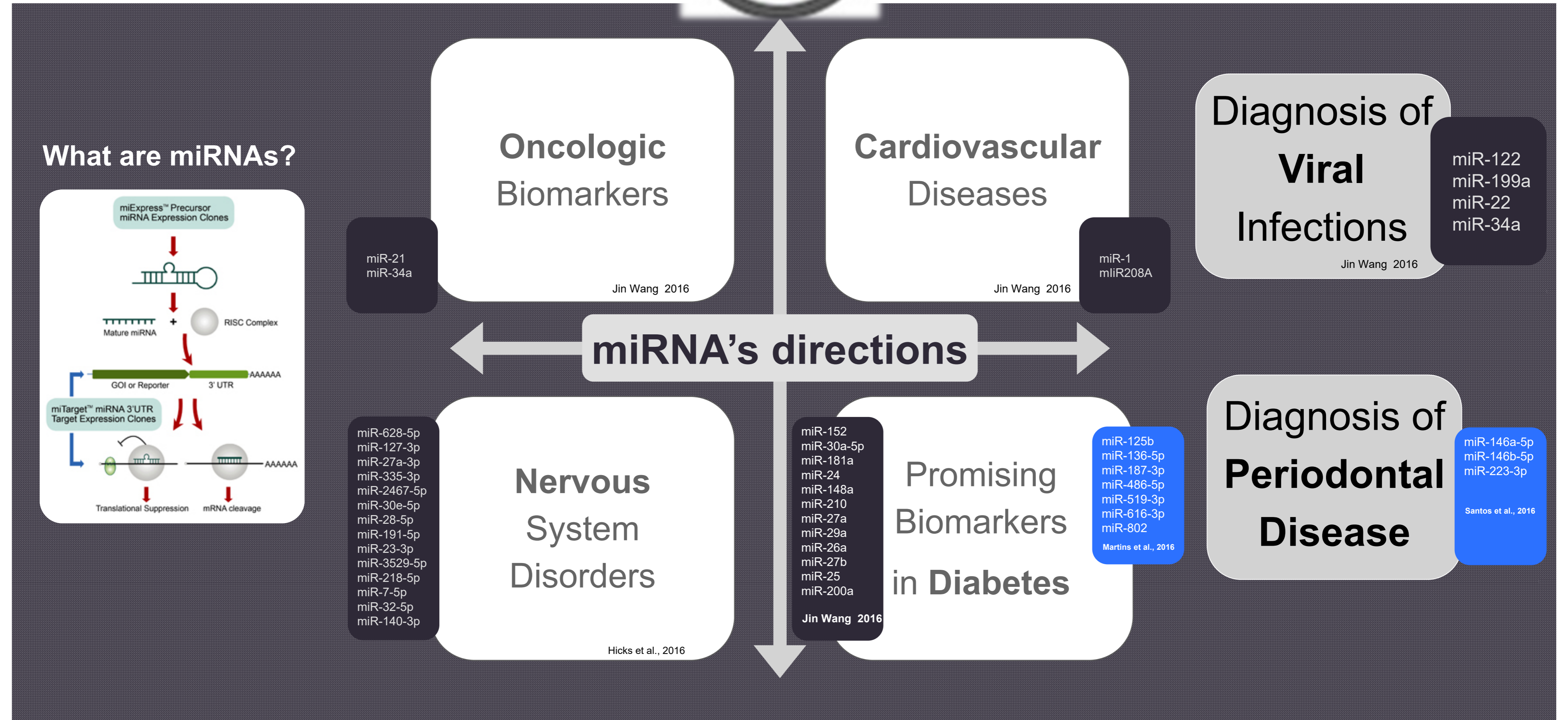
Saliva & Diagnostics

| Diagnosis of Oral Diseases by Saliva | | Diagnosis of Systemic Diseases by Saliva | |
|--------------------------------------|---------------|--|---|
| Oral Diseases | Molecule | Systematic Diseases | Molecule |
| Caries | Nucleic acids | Diabetes mellitus | Metabolites |
| Periodontal diseases | Protein | Cardiovascular disease | Protein |
| Oral cancer | Protein | Viral infections | Protein (antigens & antibodies) and nucleic acids (DNA & RNA) |
| Sjögren's syndrome | Protein | Pancreatic cancer | Nucleic acids |
| | | Breast cancer | Nucleic acids |
| | | Lung cancer | Protein |
| | | Prostate cancer | Nucleic acids (miRNA) |
| | | Autism spectrum disorders | Nucleic acids (miRNA) |

Main oral diseases (Sousa et al., 2014)

Blood exudate present in saliva (Yoshizawa et al., 2013)

miRNAs & Diagnostics



New Directions → Saliva & miRNAs & Diagnostics

Most **miRNAs** have been explored as blood or serum biomarkers. Our group aims at using **saliva's** excellent collection and processing advantages to test if the miRNAs proposed as blood or serum biomarkers can be validated in saliva. So far, using bioinformatics tools it has been possible to suggest **9 miRNAs** as **promising salivary biomarkers** for **type II diabetes mellitus** since they regulate proteins which we have shown to be altered in diabetic patients. Our group intends to validate these biomarkers for **type II diabetes mellitus salivary diagnosis**. Using the same approach **3 potential salivary biomarkers** to aid in **Periodontal disease** have also been proposed and will be validated.

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