

Biotechnological Perspectives for Grape & Wine Industry

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Innovation in Biotechnology

Biomarkers in health and disease

Neurodegenerative Disorders

- Parkinson
- Alzheimer
- Mscl
- Schizophrenia

Diabetes

Stem Cells

- Neuroprotection
- Differentiation
- Reprogramming

Plants

Research



Services



biocant PARK
PORTUGUESE BIOTECHNOLOGY PARK

Biotech 'Omics Platforms

Next-Gen Sequencing

Genomics, Transcriptomics, miRNAomics, Metagenomics

Mass-Spectrometry

Proteomics, Metabolomics, Secretomics, Dynamic Interactome,
Degradomics, Lipidomics, Targeted analysis of small molecules

High-Throughput Phenotypic Screening

Stem Cells

Bioinformatics

Biotechnological Perspectives for Grape & Wine Industry

I. Microbial Footprint

II. Metabolic Fingerprint



I. Microbial Footprint

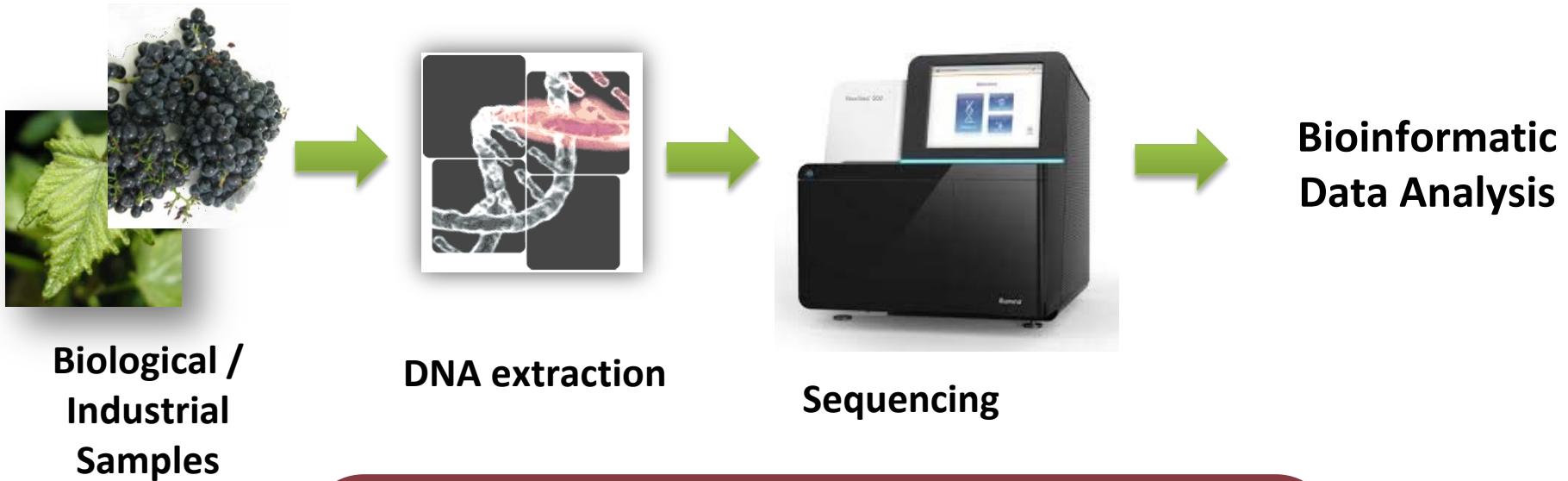


1. Analysis of whole microbial communities using Metagenomics approaches
2. Development of faster microbial analysis for quality control

I. Microbial Footprint



1. Analysis of whole microbial communities using Metagenomics approaches

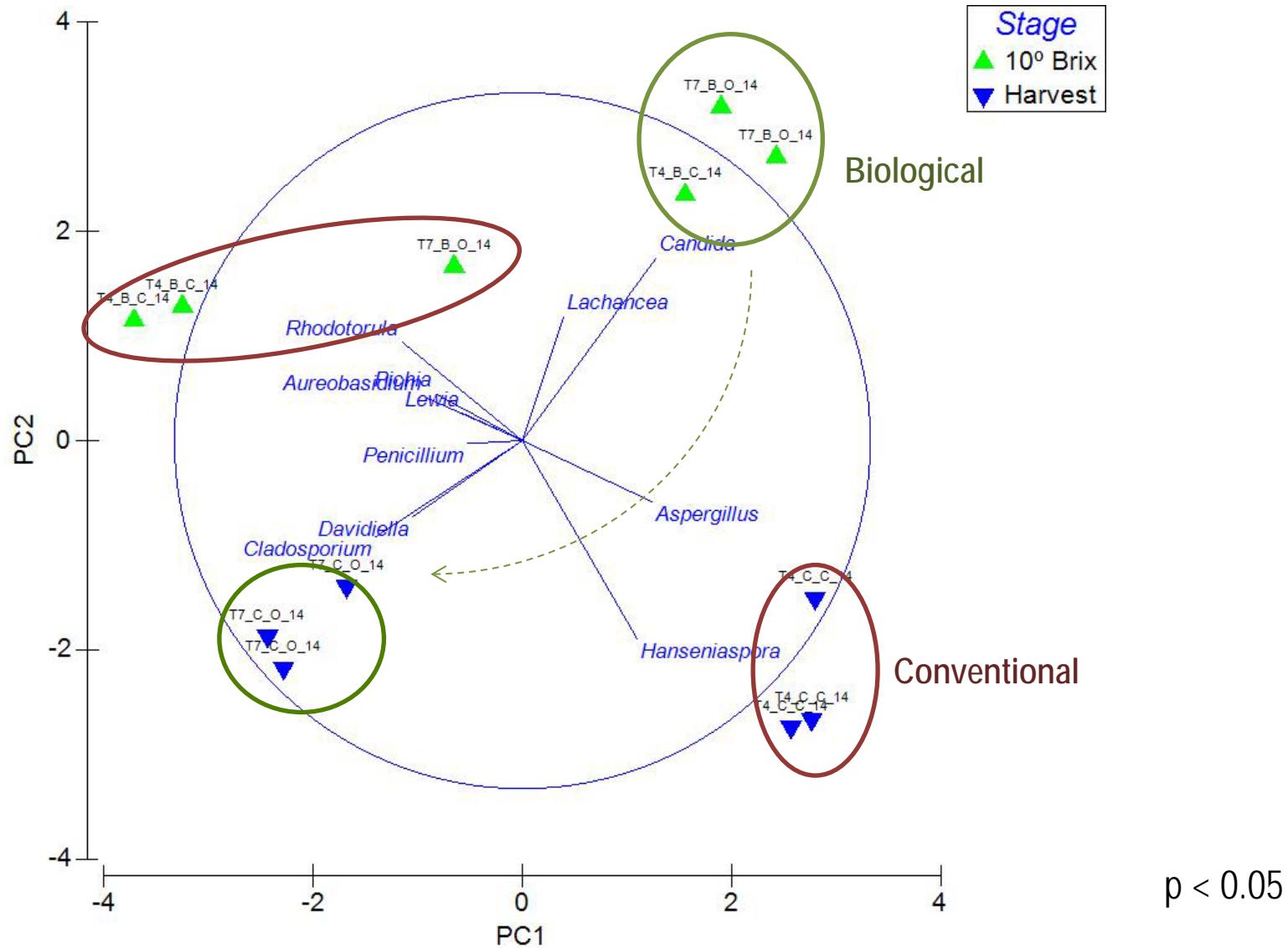


- ✓ Microbial Biodiversity Analysis
- ✓ Functional Analysis

I. Microbial Footprint



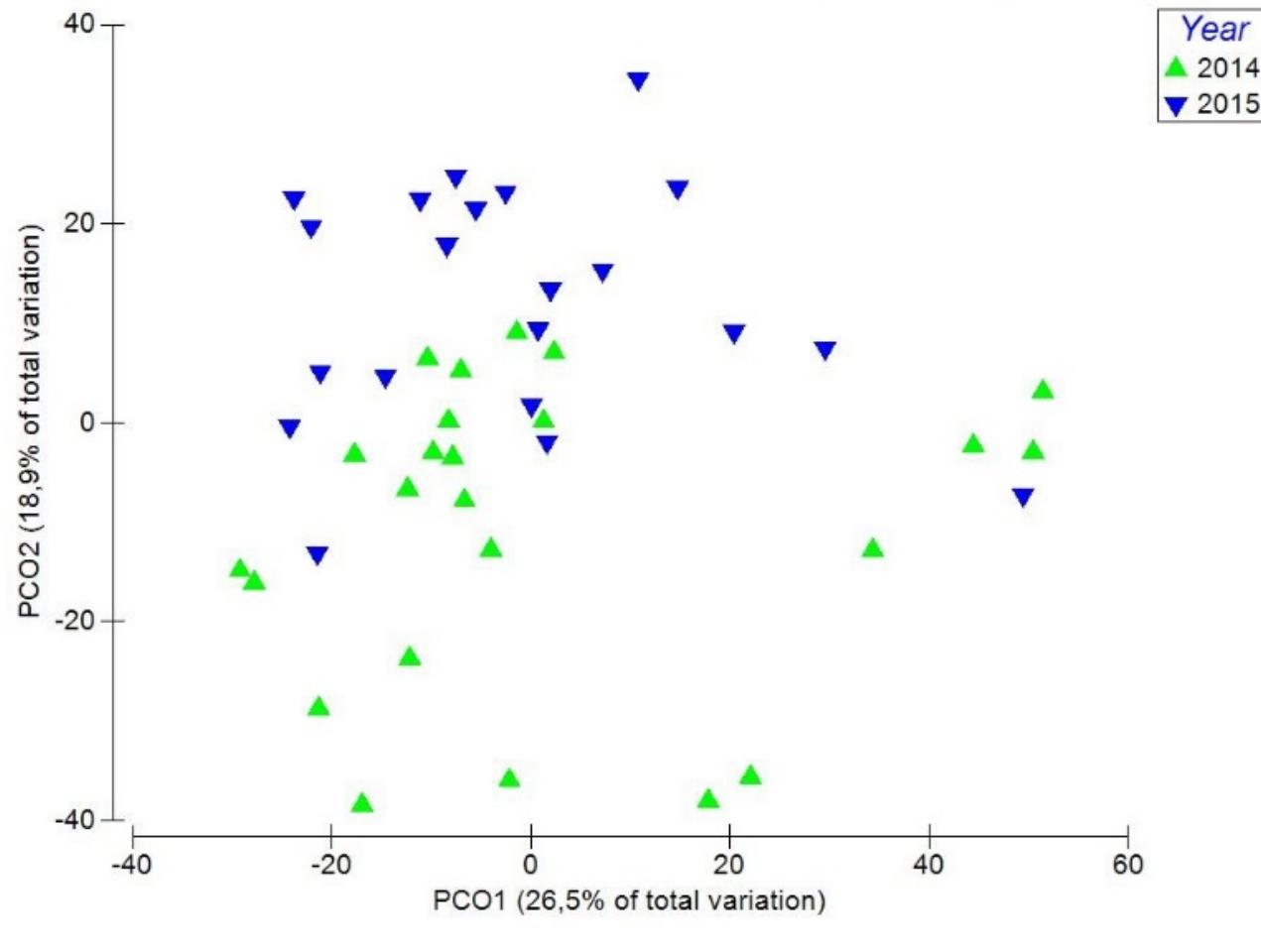
1a. Analysis of whole microbial communities under different production systems



I. Microbial Footprint



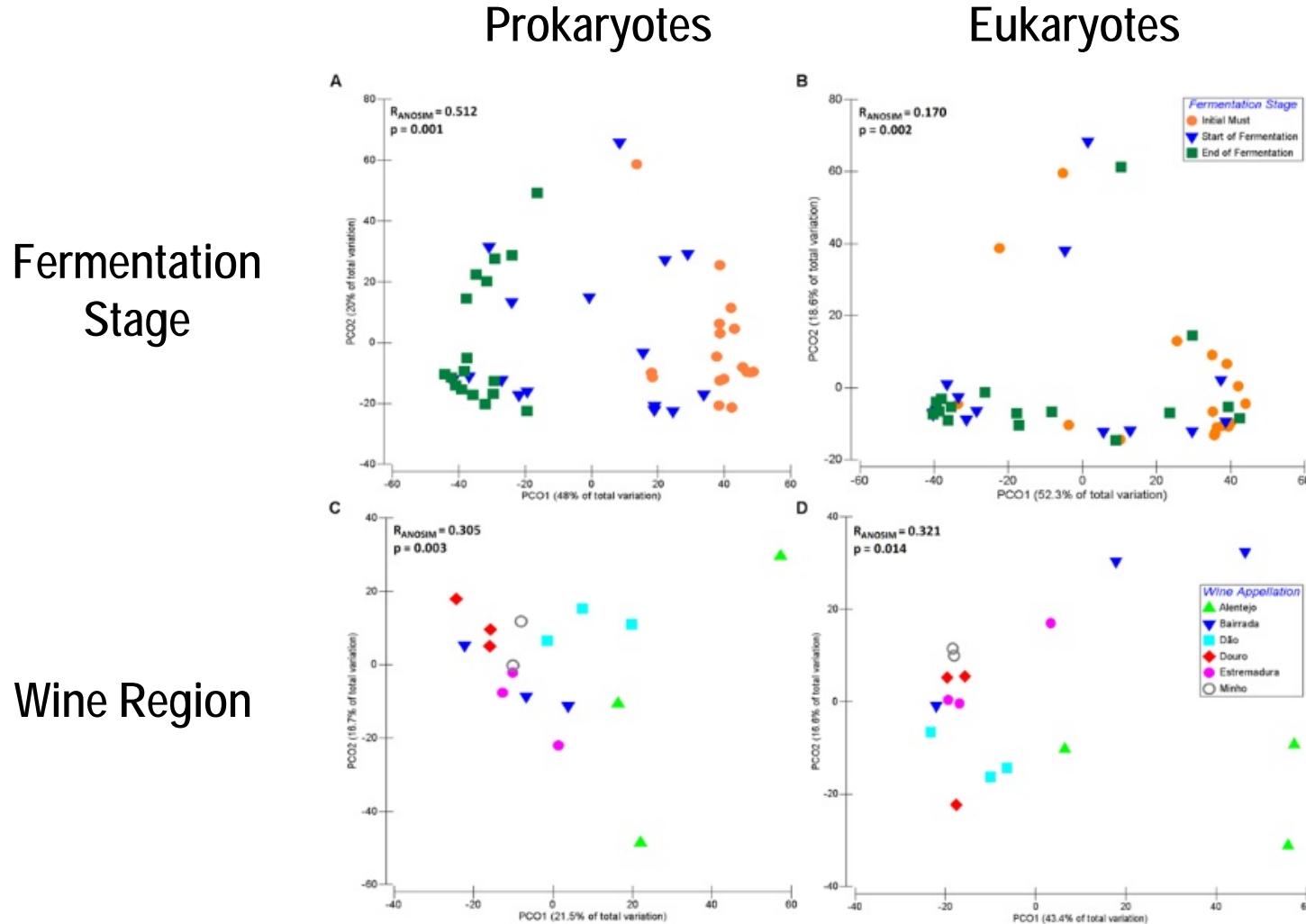
1b. Analysis of whole microbial communities in two consecutive years



I. Microbial Footprint



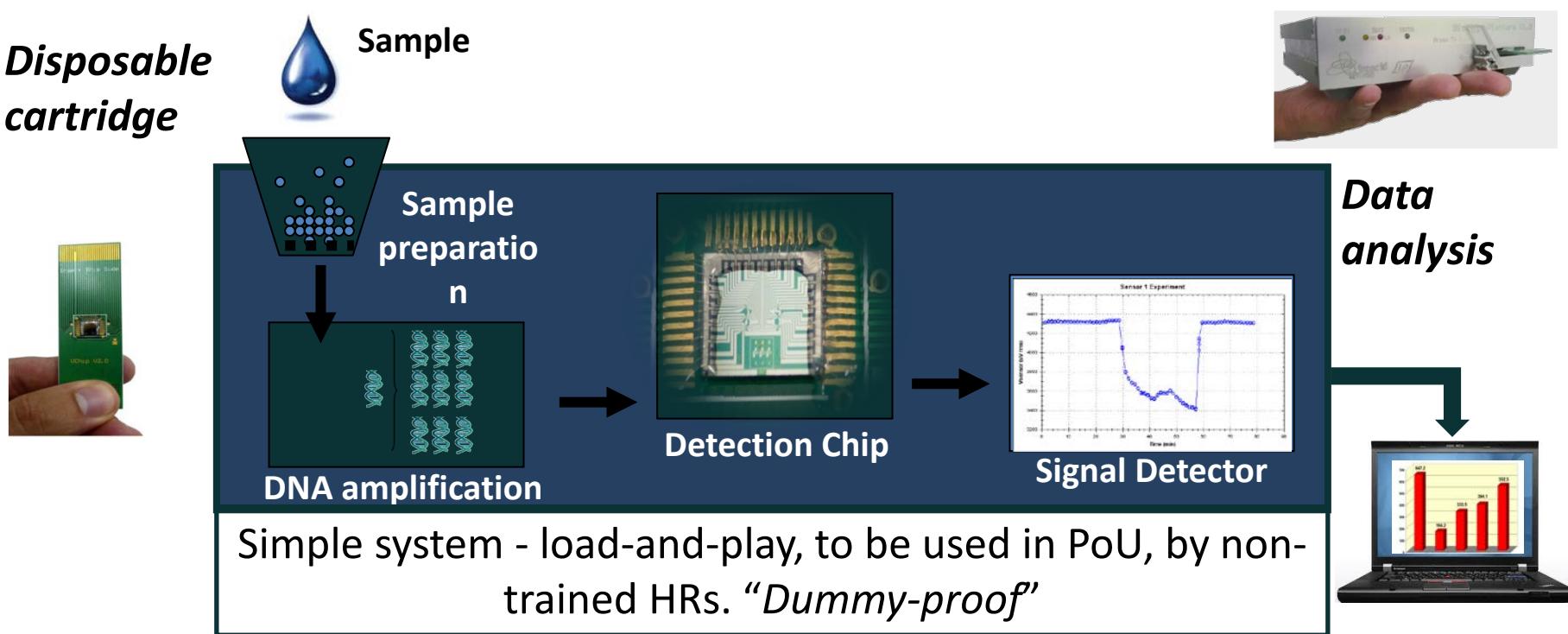
1c. Analysis of whole microbial communities during fermentation



I. Microbial Footprint



2. Development of faster microbial analysis for quality control



Probes for trunk diseases are developed, we are now expanding the system for oenological applications to test for spoilage yeasts.

Price target: 10€/sample (at this moment)

Time-to-market: ~3 years.

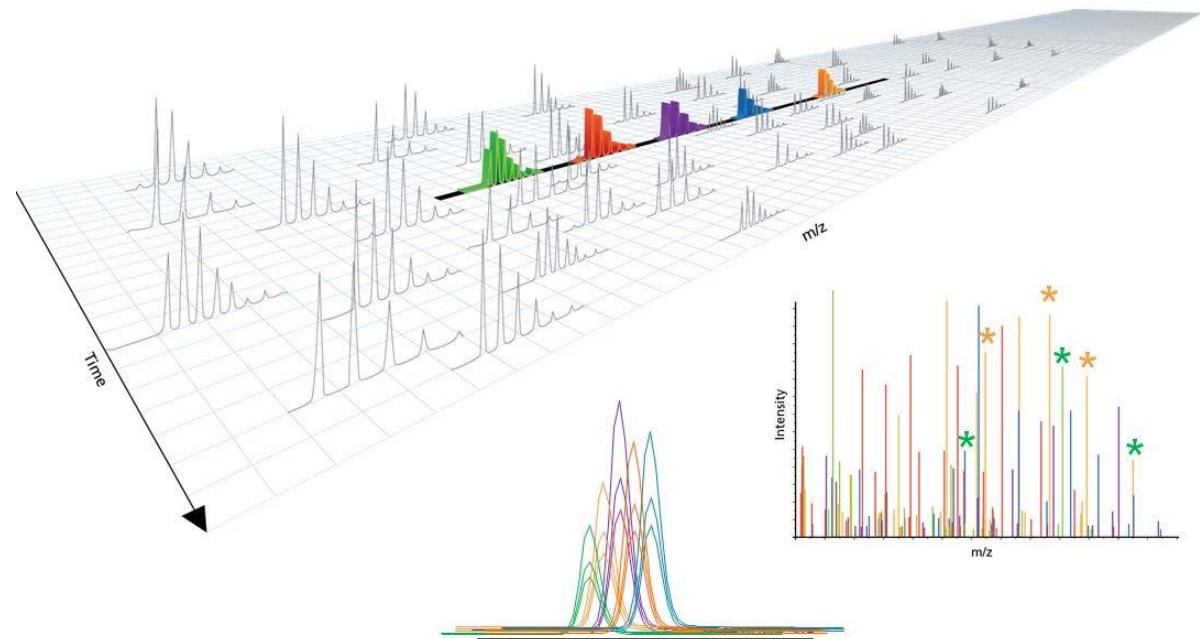
2. Metabolic Fingerprint



- High Resolution Mass Spectrometry

It is now possible to carry out “data independent” acquisition methods, and so we can build a DIGITAL RECORD with 1000’s of features per second, and query for ions at a later stage – whenever and as many as necessary.

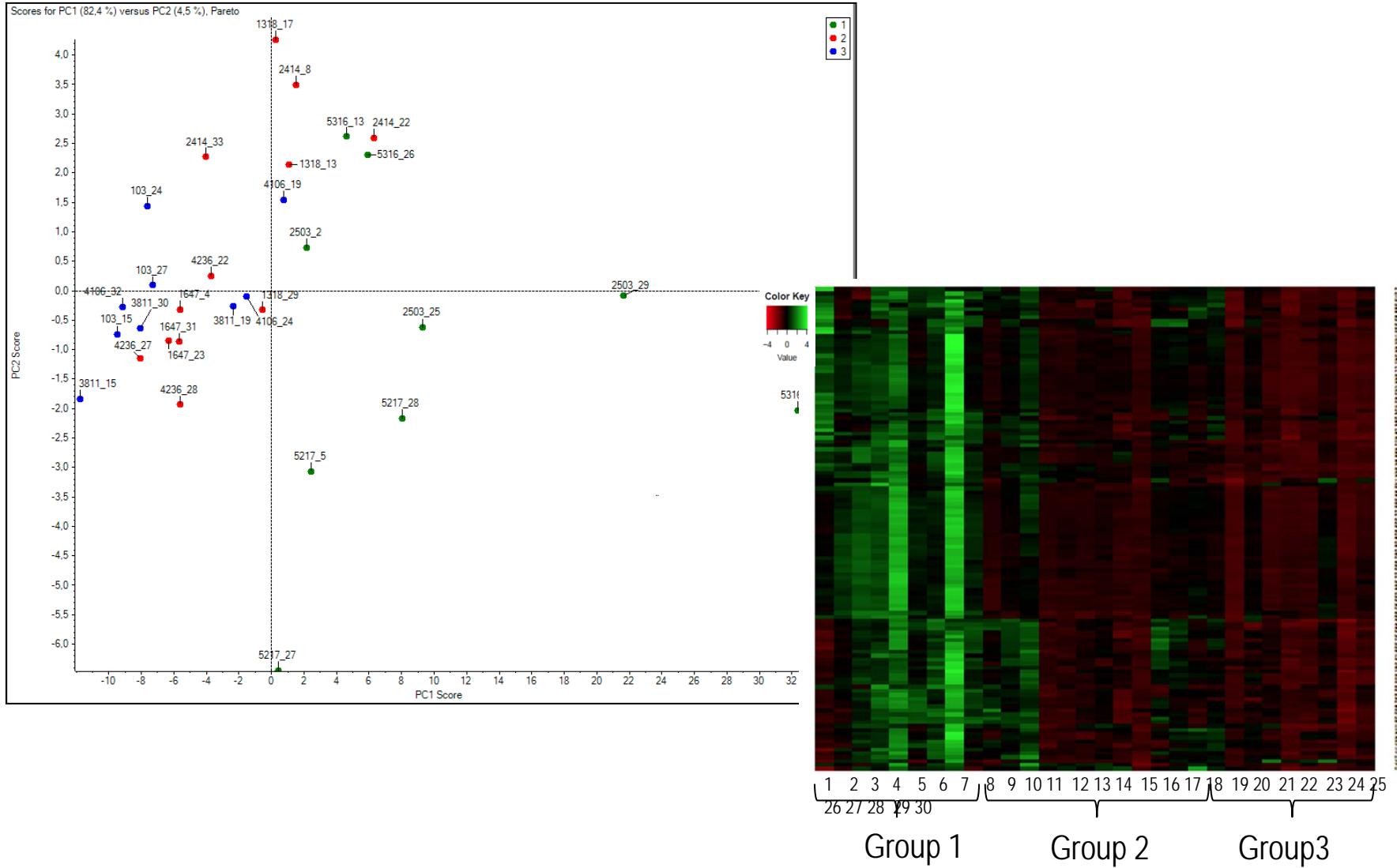
- Unbiased
- Highly reproducible



2. Metabolic Fingerprint



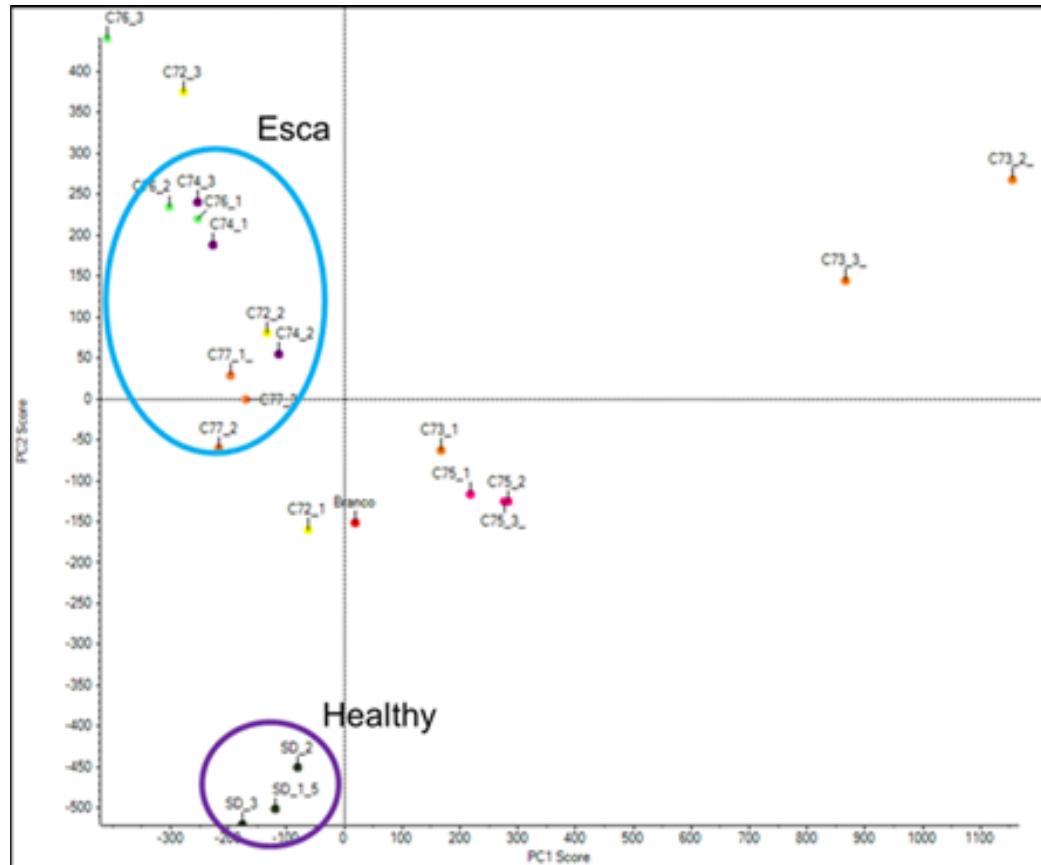
2a. Metabolic characterization of 3 distinct groups of Touriga Nacional clones



2. Metabolic Fingerprint



2c. Untargeted MS for biomarker selection for GTDs

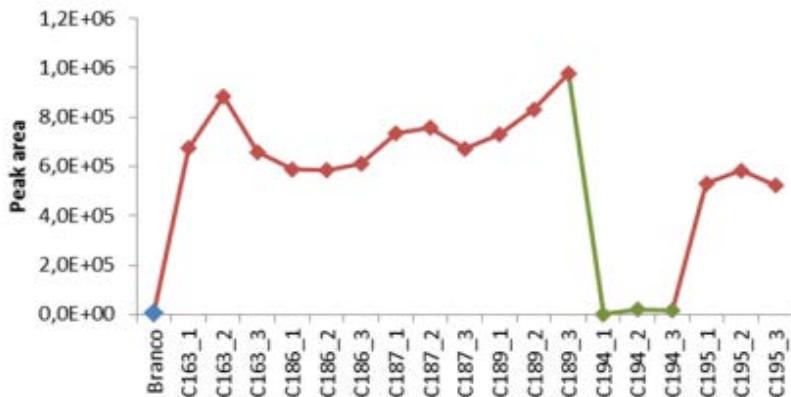


2. Metabolic Fingerprint



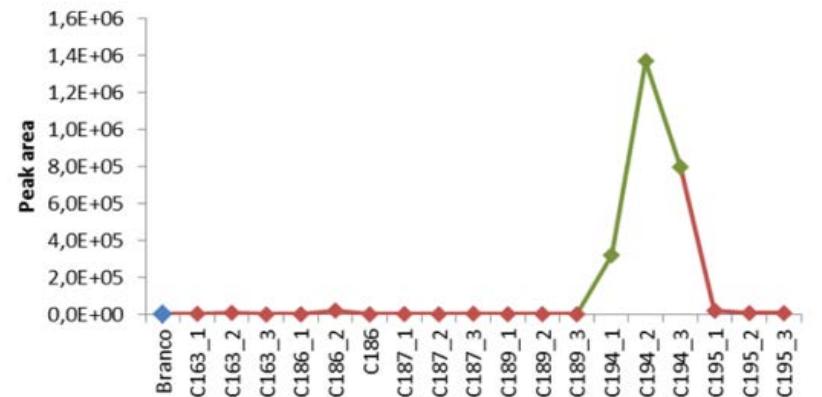
2c. Untargeted MS for biomarker selection for GTDs

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ESCA

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Healthy

Thank You!

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