# SALIVA VS BLOOD

## DNA collection: The cost battle

## Sample collection

#### SALIVA

- Non-invasive collection
- Easy to use (practical for children)
- High donor participation rate
- No trained personnel required
- Expected compliance rate of 70%-90%<sup>1</sup>
- Collect more samples in less time

Up to 200% increase in compliance

## BLOOD

- Invasive collection
- Disliked by donors
- Low donor participation rate
- Trained phlebotomist required
- Expected compliance rate of 30%<sup>2</sup>

## Transport

## STANDARD MAIL FOR SALIVA<sup>3</sup>

## RAGene<sup>®</sup>

ORACOllect<sup>®</sup>

## Storage



## COLD CHAIN FOR BLOOD

- Average cost to ship (central location)
  = US\$80/sample<sup>5</sup>
- Requires dry ice (dry ice for 100 tubes = US\$600)
- Requires multiple shipping containers
- Must be shipped express or overnight

#### **FROZEN**<sup>4</sup>

#### **ROOM TEMPERATURE**<sup>4</sup>

- No freezer required for saliva samples
- Years of stability at room temperature



- Freezer costs can reach US\$7,000
- Electricity to store blood samples at -80°C to -120°C = US\$62/hr.
- Power outage can result in unusable samples

"We have collected numerous [samples from] family members who were not willing to go for a blood draw, as well as children, elderly patients and overseas relatives.

#### The ease of shipping and self-collection are remarkable. Our lab is very impressed with this timely product."

Ruth McPherson, MD, PhD, and Nihan Kavaslar, PhD Lipoproteins and Atherosclerosis Research Group, University of Ottawa Heart Institute

1 Hansen TV, Simonsen MK, Nielsen FC, Hundrup YA. Collection of blood, saliva, and buccal cell samples in a pilot study on the Danish nurse cohort: comparison of the response rate and quality of genomic DNA. Cancer Epidemiol Biomarkers Prev. 2007;16(10):2072-2076.

2 Galbete C, et al. Lifestyle factors modify obesity risk linked to PPARG2 and FTO variants in an elderly population: a cross-sectional analysis in the SUN Project. Genes Nutr. 2013;8(1):61-67.

- 3 https://www.dnagenotek.com/US/pdf/PD-WP-009.pdf 4 https://www.dnagenotek.com/ROW/pdf/PD-WP-005.pdf
- 5 https://blog.dnagenotek.com/dna-saliva-kits-or-traditional-blood-collection-which-is-more-cost-effective

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