

# Harnessing advanced skin microbiome profiling analysis starts with quality samples



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# CAPTURE IT ALL

It is no longer a challenge to fully capture low biomass samples.



**DNAgenOTEK**<sup>®</sup>  
www.dnagenotek.com

**OMNIGENE·SKIN**  
for microbiome

Collection instructions  
REF OMR-140

■ DNA Genotek Inc.  
3000 - 500 Palladium Drive  
Ottawa, ON, Canada K2V 1C2  
Subsidiary of OraSure Technologies, Inc.  
Patent (www.dnagenotek.com/legalnotices)

**For Research Use Only**  
Not for use in diagnostic procedures  
Contains 1 collection kit  
15°C-25°C (59°F-77°F)

**IMPORTANT!**  
Collect only from the skin location indicated on the packaging label.



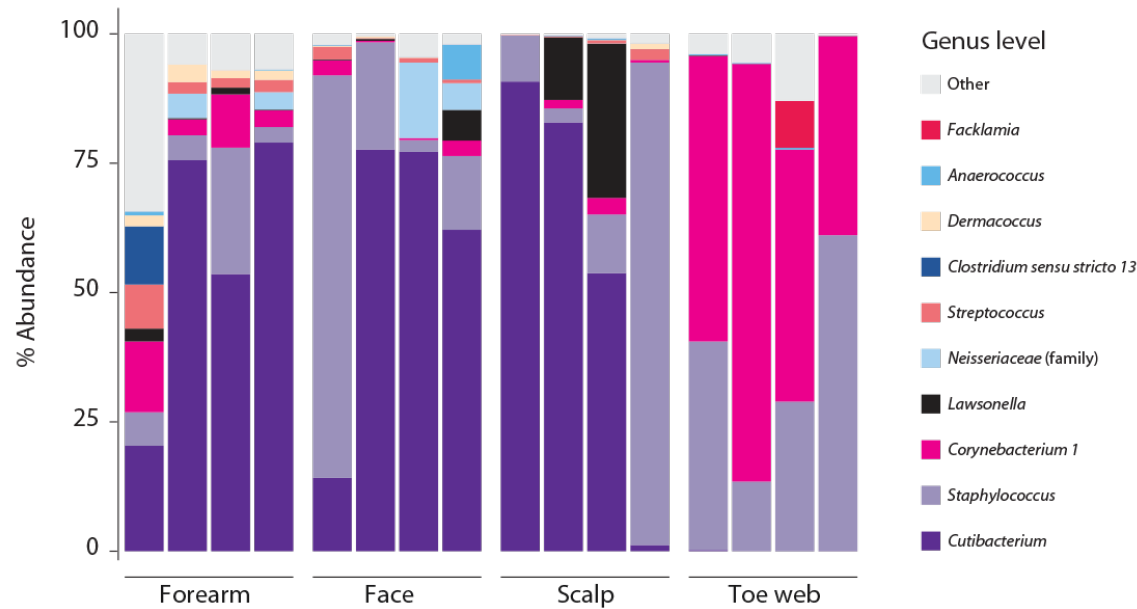
Samples were collected from the **3 major types of skin sites** as described in the literature:

**1**  
Sebaceous  
(face, scalp)

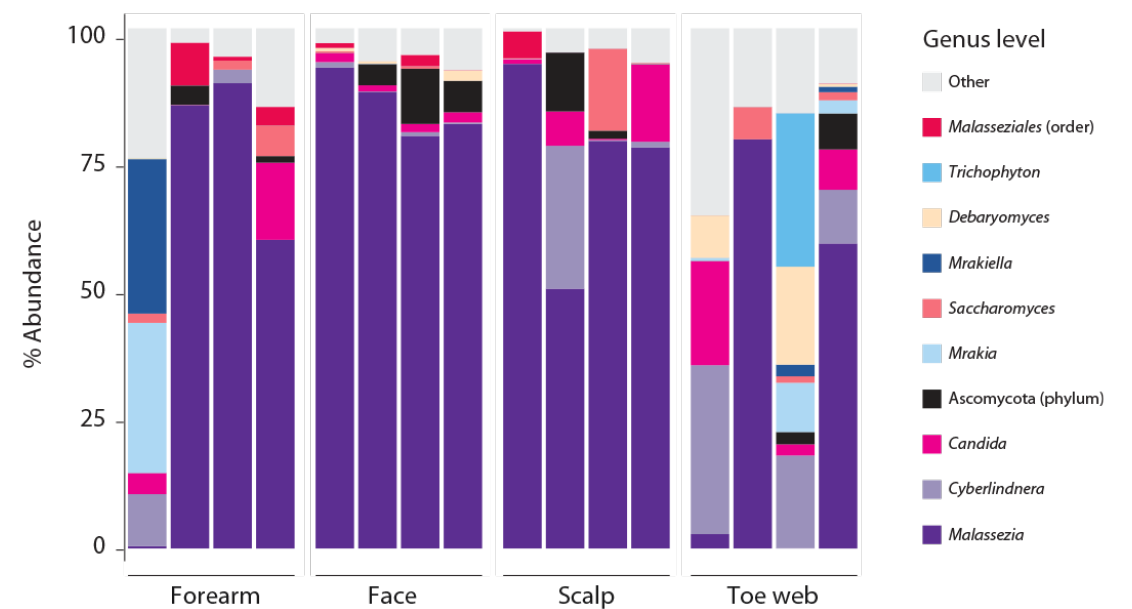
**2**  
Dry  
(forearm)

**3**  
Wet  
(toe web)

Bacterial relative abundance



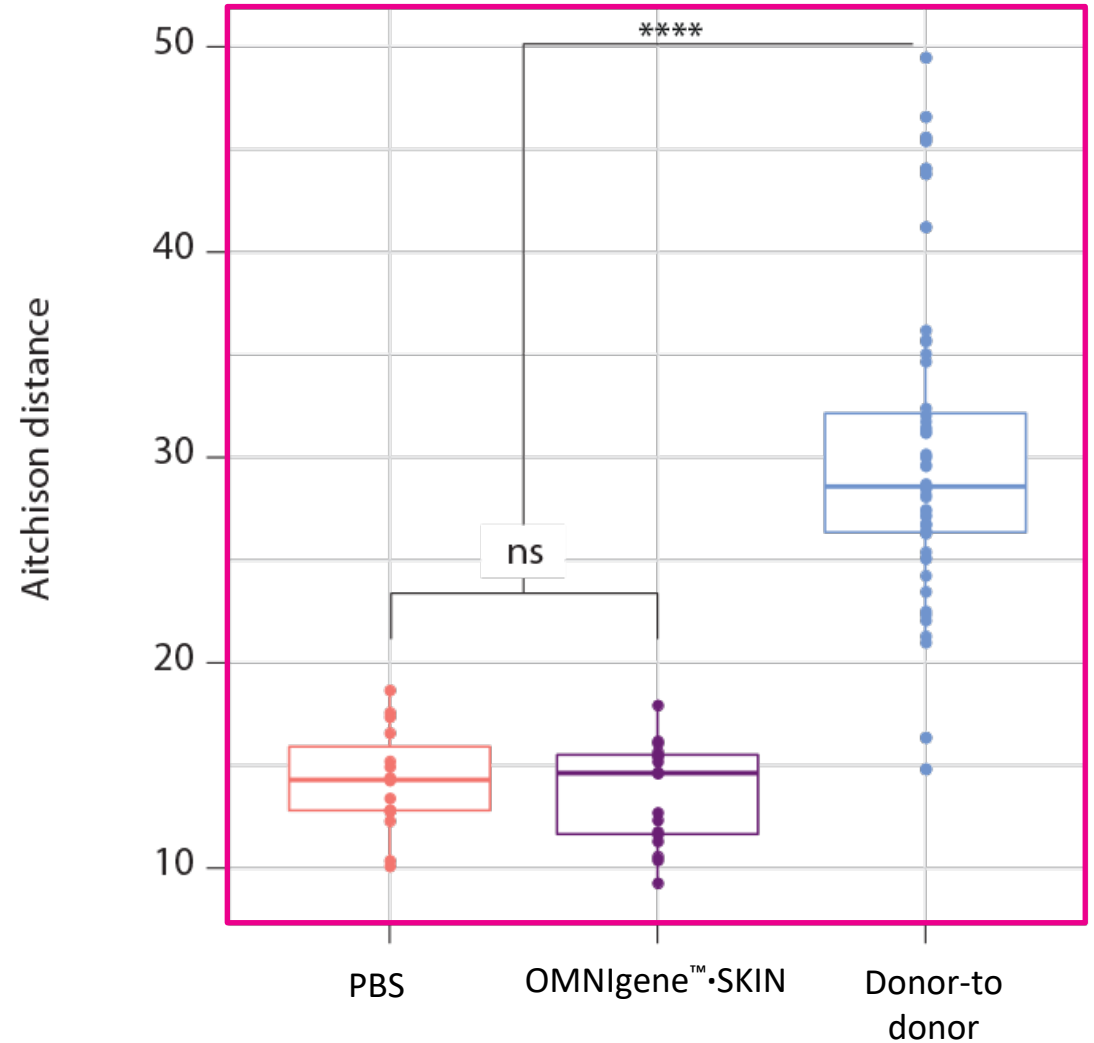
Fungal relative abundance



## Accurate skin microbiome profiling

OMNIGENE<sup>®</sup>•SKIN collection device does not introduce a bias and provides **accurate microbiome profiles** when compared to the original samples.

Difference in microbiome profiles (Aitchison distance)



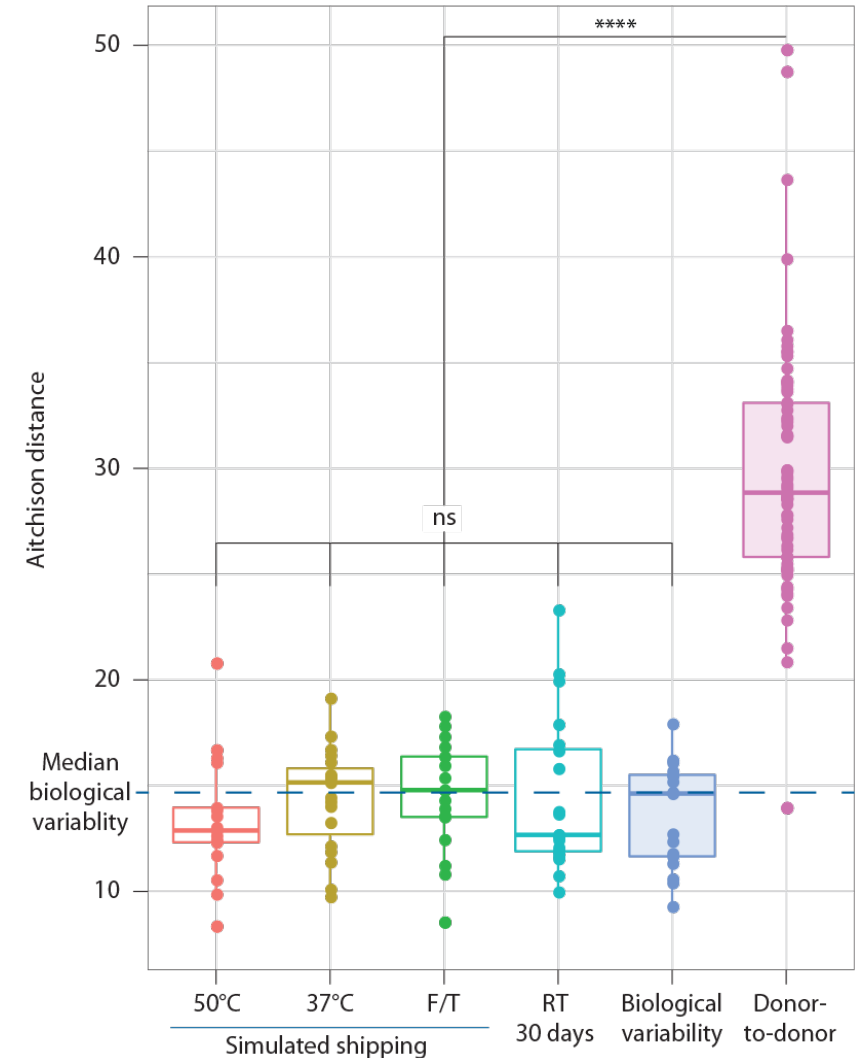


## High quality stabilized microbiome samples

OMNigene®•SKIN collection devices provides stable and high quality DNA for successful downstream analysis.

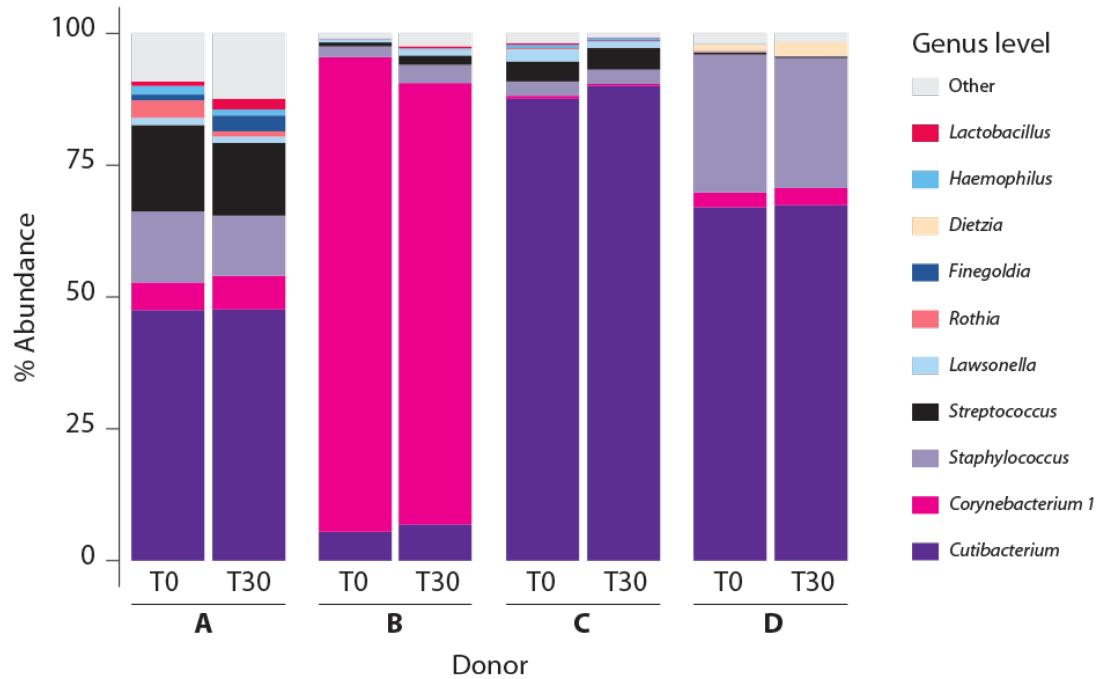
	Proportion of samples compatible with WGS ([DNA] > 0.5 ng/μl)	Average proportion of bacterial reads (Range)	Number of <i>Cutibacterium acnes</i> strain detected
Face (sebaceous)	100%	27% (8 to 63%)	20
Scalp (sebaceous)	100%	38% (6 to 63%)	20
Forearm (dry)	0%	N/A	N/A
Toe web (wet)	40%	96% (93 to 99%)	N/A

Difference in microbiome profiles (Aitchison distance)

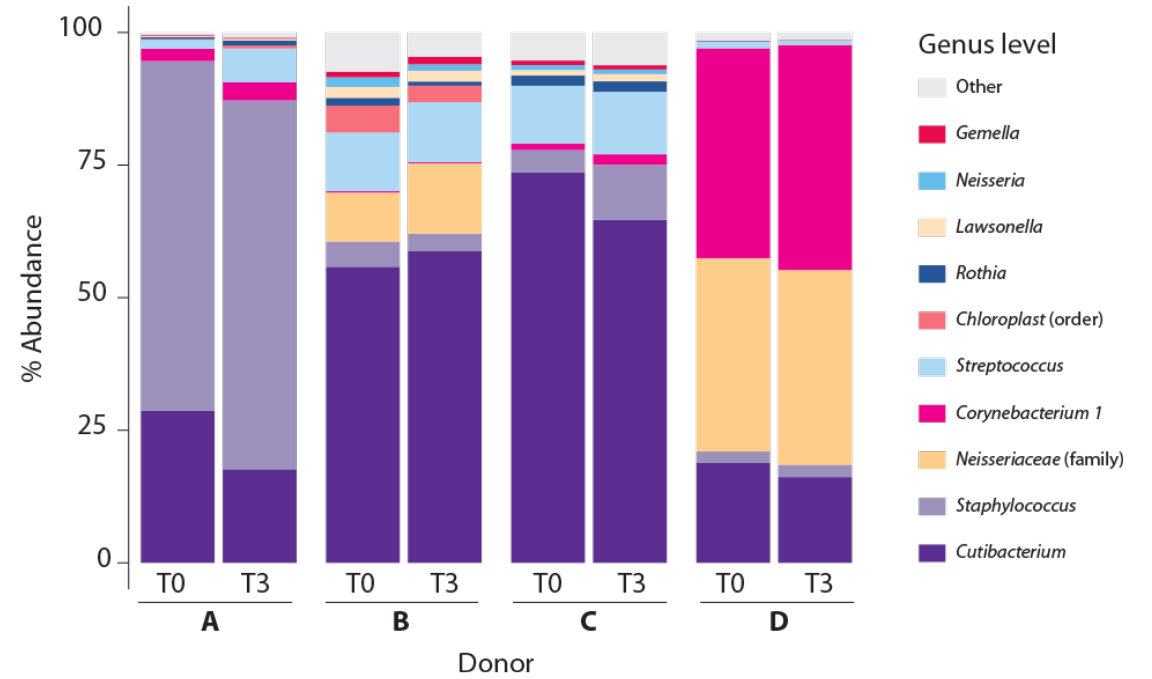


OMNIGENE® SKIN collection devices preserves the relative abundance of microbial species during storage and shipping.

Bacterial relative abundance (30 days at ambient temp.)




Bacterial relative abundance (3 days at 37°C)

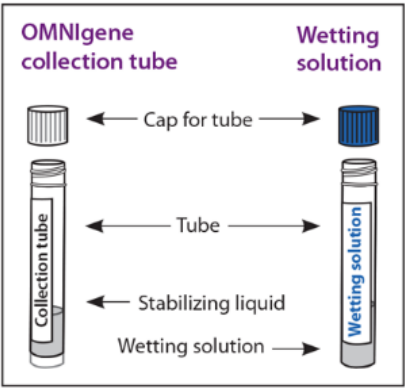


# OMNigene<sup>®</sup>•SKIN An easy self-collection process

OMNigene<sup>®</sup>•SKIN collection device user instructions are developed and validated to ensure successful self-collection by naive donors.



**OMNigene<sup>®</sup>•SKIN**  
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OMNigene collection tube

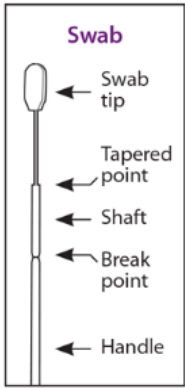
Wetting solution

Cap for tube

Tube

Stabilizing liquid

Wetting solution



Swab

Swab tip

Tapered point

Shaft

Break point

Handle

**Summary and explanation of the kit:**

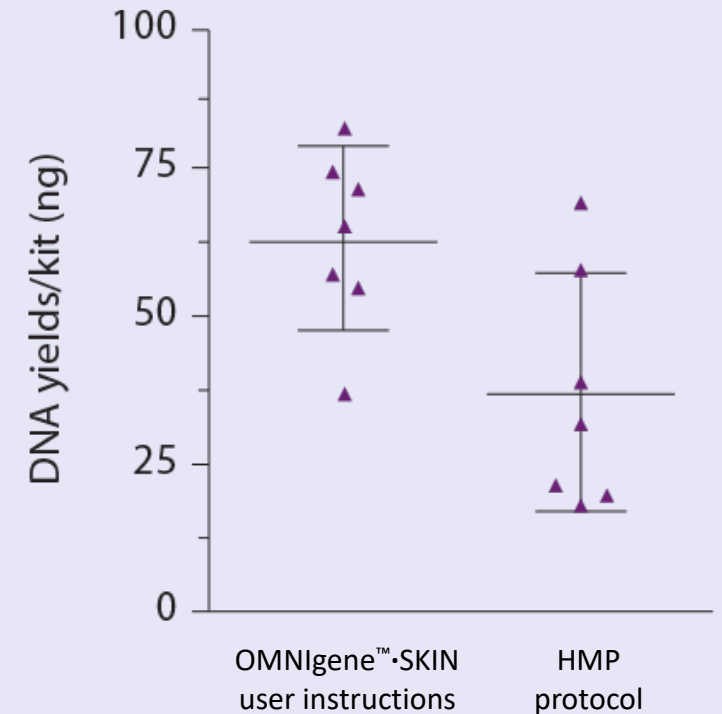
OMNigene•SKIN collection kit provides the materials and instructions for stabilizing microbial DNA from a skin sample.

**Preparation:**

Collect a microbiome sample from the skin location recommended by the kit provider using the swab provided in the kit.

**Warnings and precautions:**

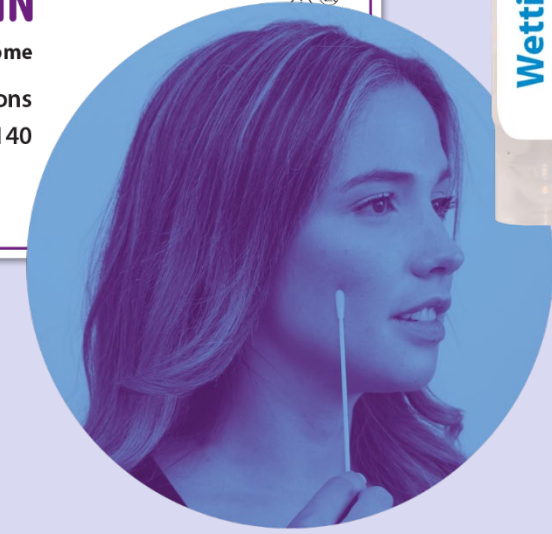
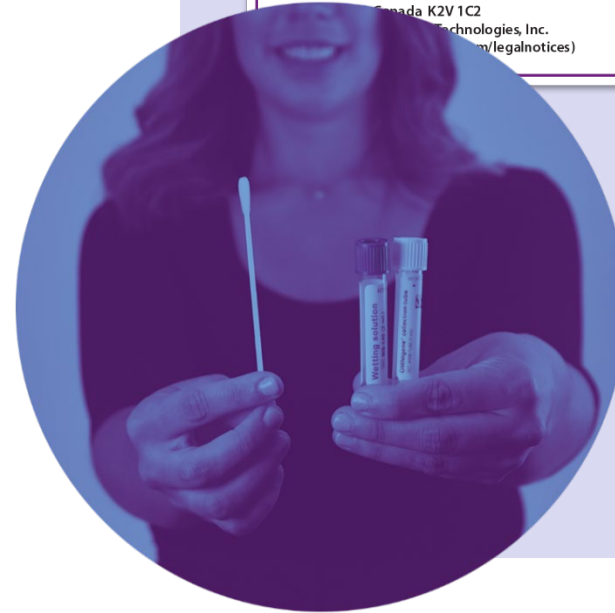
- Collection tubes should remain sealed until collection time to prevent contamination.
- Ensure the swab tip does NOT come into contact with any surface prior to collection.
- Avoid contact with the eye area.
- Do NOT spill the stabilizing liquid in the **OMNigene collection tube**. Wash with water if stabilizing liquid comes in contact with eyes or skin. Do NOT ingest.
- If the **Wetting solution** is spilled, pat the area dry.
- Small items may pose a choking hazard.



## A validated skin microbiome collection system

### OMNigene<sup>®</sup>·SKIN collection devices provide:

- ✓ Skin site specific microbial signatures
- ✓ High quality DNA
- ✓ Stable DNA for easy storage and transportation
- ✓ Accurate representation of the microbiome profile
- ✓ An easy self-collection method of collecting skin samples for microbiome analysis



**Easy self-collection method**

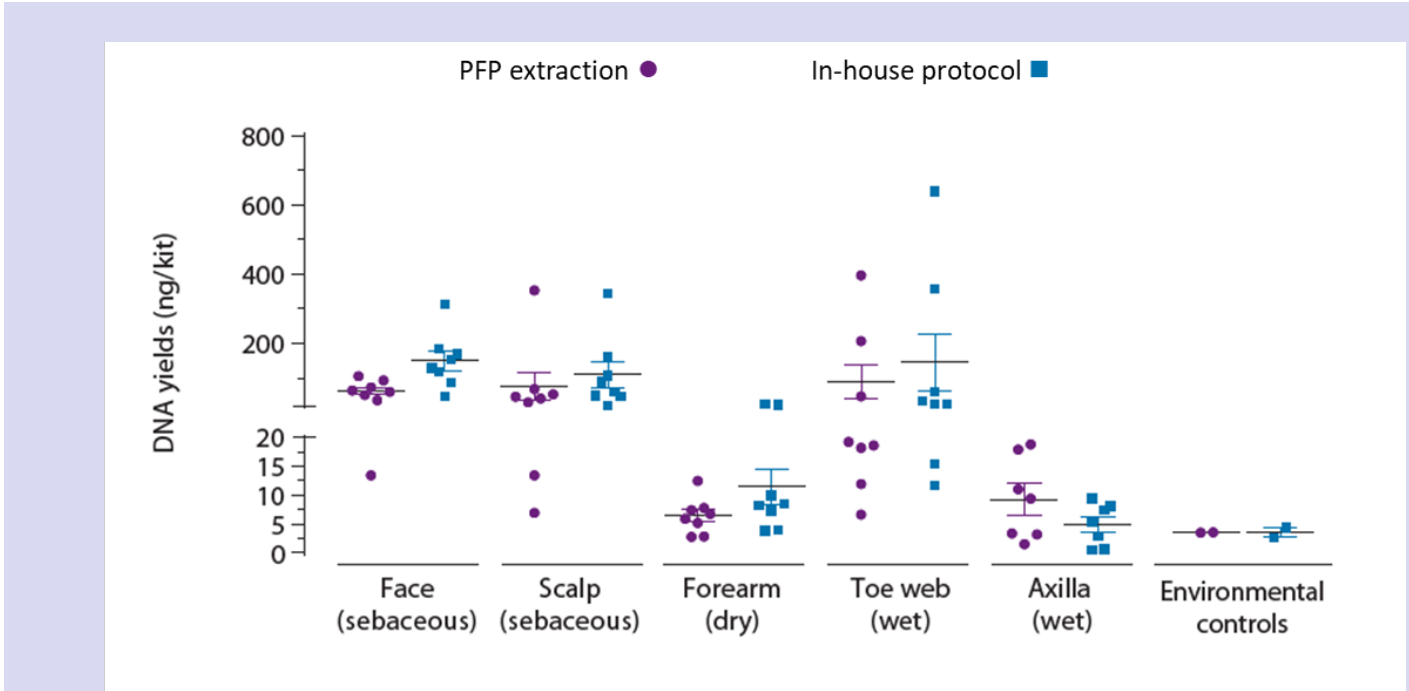




## High quality samples deserve optimal processing

**OMNIGene® SKIN collection devices should be paired with the best extraction method to optimize sample yields.**

The extraction method presented here has been adapted and implemented by Diversigen to ensure optimal DNA yields from skin.



Total DNA yields (ng) extracted from samples collected in OMNIGene™ SKIN from 5 commonly studied sites which together represent three major types of skin sites (sebaceous, wet, dry). Paired samples collected by 8 donors were extracted using either Qiagen's PowerFecal Pro (PFP) kit or DNA Genotek's in-house protocol and quantified using the PicoGreen assay. Mean DNA yield from each site is presented.

# Thank You

Visit us in the exhibition hall!