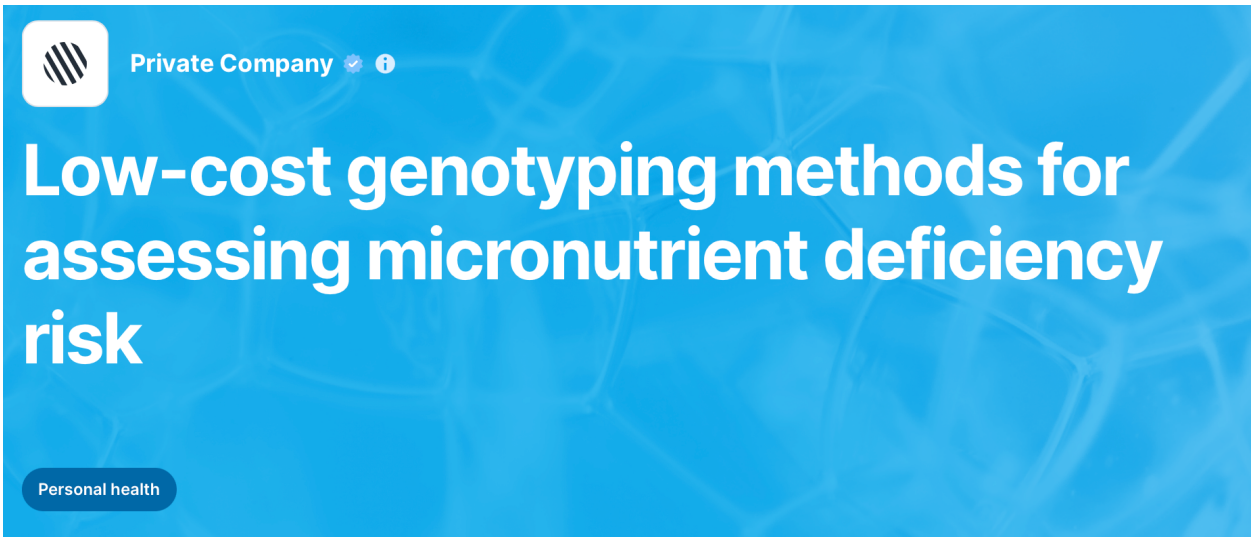

Background

We are a global consumer health company, delivering over-the-counter products that empower individuals to take control of their health and well-being. Millions worldwide are unable to fully meet their nutritional needs, leading to fatigue, weakened immunity, cognitive impairments, and long-term health risks. Many individuals remain unaware of their deficiencies or those they have a predisposed risk to. DNA Testing offers consumers insights into genes they have that are associated with deficiencies in key micronutrients, due to the presence of Single Nucleotide Polymorphisms (SNPs) impacting absorption, metabolism or storage. Based on individual genetic risk, the consumer can then receive personalised nutritional or supplementation recommendations.

Typically, these tests consist of the following steps:

- DNA Collection Kit purchased online or in-store
- Consumer collects cheek swab or salvia sample at home
- The sample is sent to a centralised lab for analysis
- Results are shared to consumers digitally, typically via an app 2-3 weeks after the sample is received by the lab
- The report provides the consumer insights into their individual risk of having a specific micronutrient deficiency

The typical commercial cost of these services for consumers is over $135. The most established methodology used for this genetic analysis is microarray screening. We are interested in emerging technologies that can be used to offer a lower cost-per-test for consumers that maintain or exceed current accuracy.

What we're looking for

We are looking for a low-cost genotyping technology—either lab-based or in-home—that accurately identifies SNPs associated with key micronutrient deficiencies, is

compatible with non-invasive sample collection, and can be scaled for high-volume consumer testing.

Solutions of interest include:

- Loop-mediated isothermal amplification (LAMP)
- Targeted amplicon sequencing
- Nanopore adaptive sequencing
- Allelic PCR – based methods
- TaqMan-style fluorescent probe assays
- Digital PCR (dPCR)
- CRISPR-based detection (e.g., SHERLOCK, DETECTR)
- Recombinase polymerase amplification (RPA)
- High-resolution melting (HRM) analysis
- Microarray SNP chips

Our must-have requirements are:

- Compatible with a user friendly and minimally invasive sample collection method (e.g cheek swab, saliva collection etc)
- Path to a lab processing cost ≤ $10 per sample after scaling (i.e. total consumables, reagents, extraction and genotyping)
- Method to scaling delivery either through dispersed at home testing or high throughput centralized labs
- Demonstrated high analytical accuracy (sensitivity and specificity ≥ 95%)

Our nice-to-have's are:

- Quick turnaround time for lab based solutions (<12 hours processing time)
- Clear ability to realize ROI when considering capital investment into equipment purchase to run the test and the processing costs

What's out of scope:

- Solutions requiring invasive sample collection, such as blood draws

Acceptable technology readiness levels (TRL): Levels 5-9

1. Basic principles observed
2. Concept development
3. Experimental proof of concept
4. Validated in lab conditions
5. Validated in relevant environment
6. Demonstrated in relevant environment
7. Regulatory approval
8. Product in production
9. Product in market

What we can offer you

Eligible partnership models:

- Sponsored research

Please contact the University of South Florida Technology Transfer office representative for submission - Karla Schramm at kschramm@usf.edu