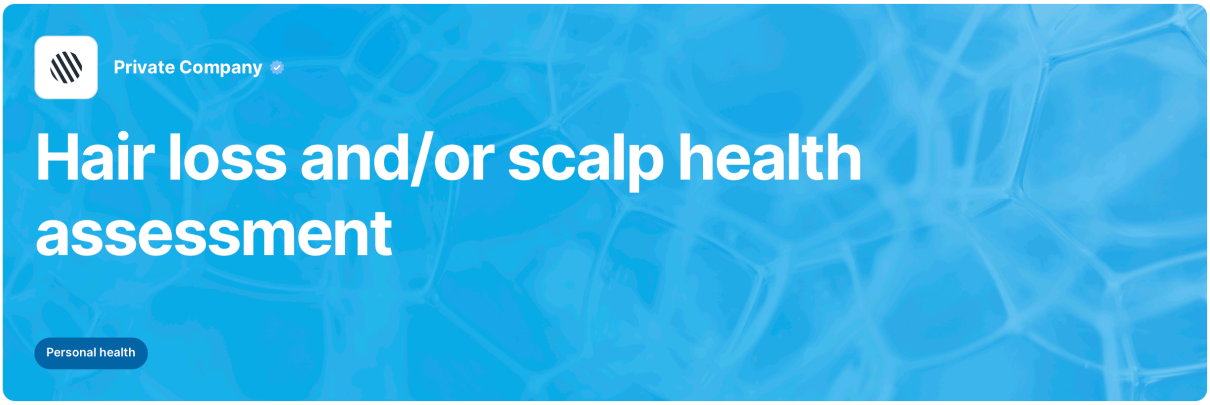

Background

We are a major player and market leader in the consumer health & beauty industry, with a portfolio that spans multiple channels, demographics and categories. Many consumers experience hair thinning (due to hair loss or excessive shedding), scalp or other hair and skin concerns but struggle to understand the underlying causes or determine the best course of action. Without clear insights into their unique biological factors, they often rely on trial and error with cosmetic and personal care solutions, leading to frustration and inconsistent results. A diagnostic solution that can assess an individual's baseline status, using relevant biological readouts, would offer valuable insight. By identifying key factors—whether biomarkers, scalp health indicators, relevant root cause indicators, imaging analysis, sensor data, or other relevant assessments—such a tool could provide tailored product recommendations to help consumers address their specific concerns with greater confidence. Beyond initial guidance, a solution that provides early cues of effectiveness and allows consumers to track their progress over time would reinforce product efficacy, build consumer trust, and encourage long-term adherence to personalized regimens by demonstrating measurable improvements.

What we're looking for

We are seeking a diagnostic tool, system, device, or platform that can assess hair loss and scalp health based on relevant biological readouts (e.g., biomarkers, hair growth, scalp or skin benefit endpoints, stress endpoints, etc.). The solution should be consumer-friendly and allow for repeat measurements to track changes over time, helping to demonstrate our products' efficacy to consumers. An ideal solution would not only assess hair and scalp health but also guide consumers toward the most suitable products and care routines. However, recognizing that technology may not be there yet, our primary focus is on generating meaningful insights that can inform personalized hair and scalp care, offer early detection/proof points to demonstrate efficacy, and help consumers stay on their regimen.

Solutions of interest include:

- Tests that use scalp swab/sampling to detect and monitor changes in biomarkers on scalp/sebum
- Hair pull or cut hair sample testing to analyze biomarkers indicative of various root causes of hair thinning/loss/imbalances (e.g., stress, hormonal imbalances, nutritional deficiencies, metabolism, aging, lifestyle/environment, etc.)
- Tools to measure and monitor biomarkers, such as estrogen, progesterone levels, testosterone, DHT, cortisol, and/or inflammatory markers, among others
- Advanced imaging technologies (e.g., 3D ultra-high frequency ultrasound, visual analytics, hyperspectral imaging) enabling measuring and monitoring of various root causes of hair thinning/loss/imbalances and/or blood flow/vasodilation
- Biosensors or non-invasive (skin and/or scalp) sensors to track hydration, inflammation, and blood flow
- Microbiome testing system to analyze scalp health and/or factors implicated in hair loss
- Wearable or patch-based diagnostic device for real-time tracking
- At-home test kits for quick, self-administered hair/scalp sampling diagnostics
- Smartphone-based diagnostic app using AI to assess scalp and hair health

Our must-have requirements are:

- Allows consumers to track product efficacy
- Measures biological (hair, skin, biomarkers, etc.) and/or physiological (stress, etc.) responses following consumer use of supplements and/or topical consumer products
- Provides a detailed summary on the types of endpoints which can be evaluated/measured/quantified
- Robust concepts/proposals with the ability to deliver results through testing/pilot by the end of 2025

Our nice-to-have's are:

- Provides early proof points within 1 to 4 months (ideally 1-2 months) of use to show intervention effectiveness
- Consumer-friendly and minimally invasive for ease of use
- Validated diagnostic models
- Demonstrated reproducibility
- Scalable
- High sensitivity
- Cost-effective and accessible at a low cost

What's out of scope:

- Requires invasive procedures (e.g., biopsies) or frequent blood sampling
- Requires extensive user intervention or complex calibration
- Medical or disease-related markers/diagnostics, since this is only for consumer cosmetic applications, and is intended for use on healthy individuals and those without a disease state (e.g., plaque psoriasis, dermatitis, alopecia, telogen effluvium)

Acceptable technology readiness levels (TRL): Levels 4-9

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
Co-development
Supply/purchase
Licensing
Material transfer

Benefits:

Sponsored Research

Funding is proposal dependent, but an accepted proposal could expect support in the range of ~$50,000-250,000 for POC project(s) (tech readiness and milestone dependent) with the potential for follow-on funding.

Expertise

Partners will interact with a project lead to mutually develop a project plan and engage in regular meetings to ensure success. Partners will have access to internal team/experts as appropriate.

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