

TechConnect Ventures

Sprint Challenge Brief:

Skin Health Innovation

BACKGROUND

While most human organs perform multiple functions, those responsibilities tend to correlate with one another. Human skin, on the other hand, is the multi-talented workhorse, accomplishing many divergent tasks. Among other roles, it provides protection against macro and microscopic threats, helps regulate temperature, participates in the generation of Vitamin D, and communicates a wealth of information regarding health and mood to the external world. As a consequence of its myriad functions, skin is also the intersection of various health conditions and diseases.

Many factors can impact skin health, such as hydration, mental health, nutrition and hygiene. Conversely, skin health can impact those conditions themselves. By some estimates, almost 7 in 10 older adults (over 65) have at least one skin condition that requires treatment. As a result, skin health is a vital aspect of an individual's health.

TechConnect Ventures' client, a multi-billion dollar, global personal care company, seeks scientifically-validated technology solutions focused on improving skin health/achieving better skin health goals for aging (older adults) consumers that:

- Enable individuals to better understand their skin health,
- Provide personalized detection/monitoring/treatment guidance, or
- Improve skin health through:
 - Strengthening of the skin barrier,
 - Improving circulation,
 - Protecting sensitive skin, and/or
 - Restoration of skin health function

Physiological conditions of interest include but are not limited to:

- Thinning skin:
 - Fragile skin
 - Skin tears (including those from incontinence)
- Skin sensation-related conditions such as:
 - Diminished tactile sensation (skin numbness)
 - Paresthesia (tingling skin)
- Other skin conditions prevalent in older adults such as:
 - Xerosis (dry skin)
 - Pruritus (itching)
 - Eczema
 - Psoriasis

- Bruising and swelling linked to decreased blood circulation
- Wound healing and management:
 - Accelerated wound healing (acute wounds)
 - Burns (minor wounds)
 - Diminish risk of infection/chronic wound development (preventative solutions only)
 - Compromised clotting (i.e. novel methods for wound closure, acute wounds)
 - Scar prevention

The client seeks all technologies and services capable of providing individuals insight or improvement to skin health, including:

- Detection technology, especially solutions which incorporate artificial intelligence (AI) or machine learning (ML):
 - Software or app-based solutions
 - Handheld devices for use by consumers and which do not require professional assistance
- Adaptations:
 - Innovations to existing solutions resulting in improved efficiency, speed, effectiveness, etc.
 - Innovations from other applications modified for skin health
- Innovations in materials such as:
 - Non-wovens (i.e. nanofibers with enhanced properties)
 - Adhesives technologies (low trauma or irritation for users)
 - New methods/technologies for wound closures (including post-operative cases)
 - Novel technologies to control/stop bleeding
 - New product formats (i.e. second skin)
 - Smart polymers (i.e. instant gelling, color changing for dressing)

All material innovations should be sustainable (either biobased, biodegradable, or produced from renewable feedstocks), odorless, compatible with skin, and not animal-derived. Furthermore, certain materials are not in scope, including: natural latex rubber, dry natural rubber, any animal-derived components, fluorocarbons, phthalates, azo-pigments, organic tin compounds (e.g. TBT tributyltin).

Proposed technologies should have a minimum TRL (Technology Readiness Level) of 4 or greater. The client will consider technologies having potential impact and ability to drive immediate impact beyond current solutions. The client will not consider technologies without supporting scientific data or those which rely on pharmaceutical ingredients.

The client team will review all eligible responses. TechConnect Ventures will contact select respondents and invite them to present a brief pitch to the client team, anticipated to occur in January 2022.

Through this project, TechConnect Ventures will facilitate interaction between the client and active researchers or technology developers. Submissions and novel concepts from individuals and organizations in academia and research are of significant interest, but we invite all viable technology providers to respond for potential commercial opportunities with the client.

REQUIREMENTS

Solvers submitting an Entry are encouraged to highlight key innovation areas in their Submission that meet criteria including:

- Nature of the innovation
- Anticipated user demographic(s) and consumer benefits
- Anticipated performance
- Sustainability of proposed innovation
- Technical maturity

BUSINESS OPPORTUNITY FOR SOLVERS

TechConnect Ventures will include all complete and eligible entries in an exclusive innovation opportunity report to our client. TechConnect Ventures or the client will contact solvers with well-matched capabilities to discuss potential partnership opportunities, including – but not limited to – demonstrations, consulting, contract research, licensing, and more. TechConnect Ventures may also invite top-rated entries to register or participate in an upcoming TechConnect Ventures event or pitch program.

PARTICIPATION RULES & GUIDELINES

Solvers are encouraged to review the [Rules](#) and [Guidelines](#) provided on the Sprint page for details about participation, including submission criteria, eligibility information, and more.

QUESTIONS? Contact us challenge@techconnectventures.com