RepliCel™

NEWS RELEASE

# First Participants Enrolled in RepliCel's Phase 1 Clinical Trial of its RCS-01 Dermatology Injectable

## Testing the use of a cell-based injectable as a regenerative alternative for the global dermal filler market addressing aged and UV-damaged skin

**VANCOUVER, BC – October 20, 2015 – RepliCel Life Sciences Inc. (OTCQB: REPCF) (TSX.V: RP)**, a clinical stage regenerative medicine company focused on the development of autologous cell therapies, today announced that the first three participants in the phase 1 clinical trial (NCT02391935) evaluating its RCS-01 product have been enrolled, and their tissue biopsies sent for processing prior to intra-dermal injections. RCS-01 is being developed as a potential treatment for UV-damaged and aged skin. It is a cell-based product comprised of non-bulbar dermal sheath (NBDS) cells isolated from hair follicles harvested from a small biopsy taken from the back of the participant's scalp. NBDS cells are highly expressive of a number of factors including type 1 collagen, an essential building block for the extracellular matrix supporting firm, youthful looking skin.

"The enrollment of our first three participants is a significant step in the clinical development of RCS-01 as we explore the product's safety, and via molecular markers, its potential to reverse the signs of aging by providing UV-naïve collagen-producing fibroblast cells directly into affected areas of the skin. We believe that as an autologous product, RCS-01 represents an industry game changer due to its potential to provide long-term, sustainable results for fine wrinkle lines and UV-damaged skin," stated Dr. Rolf Hoffmann, Chief Medical Officer of RepliCel. "We look forward to following up with these participants as we assess the safety and efficacy of RCS-01 as a cell-based treatment for fine wrinkle lines typically seen on the face, hands and other UV-affected areas."

"The launch of our RCS-01 clinical trial is an exciting milestone for the company and our shareholders. We now have three cell therapy products in clinical development, two of which are expected to read-out data in late 2016," stated Lee Buckler, RepliCel's Vice-President of Business and Corporate Development. "RCS-01 is also a perfect companion to our next-generation dermal injector on target for a CE-mark in 2016 initially for the injection of hyaluronic acid but ideally suited to improve any dermal injection. The product is also a candidate for licensing discussions in Japan where it is now possible to commercialize cell-based products faster than in any other regulated country in the world, and where there is a significant appetite, among Japanese industry players and consumers, for injectable aesthetic products."

**Clinical Trial Details**

The single-center study, located at IUF Leibniz-Institut für umweltmedizinische Forschung gGmbH in Düsseldorf, Germany will include a total of 30 male and female participants between the ages of 50 and 65 years. The study is designed to assess the safety profile of RCS-01 injections as compared to placebo injections. This study will also measure the impact these injections will have on skin markers related to aging through evaluation of gene expression profiles.

On the day of injection, baseline evaluations of participants' overall health and skin condition will be performed. Once all baseline assessments have been completed, pre-selected treatment evaluation sites

on the buttocks will receive intradermal injections of RCS-01 or placebo (cryomedium) or a 'sham' injection (a needle penetration without injection of liquid). A subgroup of participants (placebo subgroup) will be randomized to receive only injections of placebo or sham. Intradermal injections will be repeated four and eight weeks after receipt of initial injections according to a randomization schedule for a total of three injections per treatment site.

All participants will return to the clinic for at least ten visits during the two-year follow-up period to monitor long-term safety. At the 12-week time point, 18 randomly-selected participants from the RCS-01 subgroup will provide biopsies from all injection sites for analysis of skin markers related to aging. At the 26-week time point, the remaining participants will provide biopsies of all injection sites for histopathological analysis.

**About RepliCel Life Sciences**
RepliCel is a regenerative medicine company focused on developing autologous cell therapies that address conditions caused by a deficit of healthy cells required for normal healing and function. The company's product pipeline is comprised of two ongoing clinical trials (RCT-01: tendon repair and RCS-01: skin rejuvenation) as well as its RCH-01: hair restoration product under exclusive license by Shiseido Company for certain Asian countries. All product candidates are based on RepliCel's innovative technology utilizing cell populations isolated from a patient's healthy hair follicles. The company has also developed a propriety injection device (RCI-02) optimized for the administration of its products and licensable for use with other dermatology applications. Visit www.replicel.com for additional information.

For more information, please contact:

**CORPORATE/MEDIA:**
Tammey George, Director of Communications
Telephone: 604-248-8696 / tg@replicel.com

**INVESTOR RELATIONS:**
Lee Buckler, VP Business & Corporate Development
Telephone: 604-248-8693 / lee@replicel.com



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