Telescope Innovations and Standard Lithium Demonstrate Low-Temperature, High-Purity Production of Lithium Sulfide for Solid-State Batteries

Vancouver, British Columbia--(Newsfile Corp. - August 28, 2024) - Telescope Innovations Corp. (CSE: TELI) (OTCQB: TELIF) ("**Telescope Innovations**" or the "**Company**"), a leading developer of advanced technologies and services for the global pharmaceutical and chemical industries, announces the successful outcome of a research collaboration with Standard Lithium Ltd. (TSXV: SLI) (NYSE American: SLI) ("**Standard Lithium**").

Over the past year, Telescope Innovations and Standard Lithium have worked together to develop a new method for producing high-purity lithium sulfide, a key material needed for the next generation of solid-state batteries ("**SSBs**"). These advanced batteries are expected to power future electric vehicles ("**EVs**") and other high-tech devices, offering greater efficiency and safety compared to today's lithium-ion batteries.

WHY IS THIS IMPORTANT?

Lithium sulfide plays a crucial role in next-generation solid-state battery technologies, particularly as a component in sulfide-based solid electrolytes. These solid electrolytes are essential for all-solid-state batteries, which offer significant advantages over traditional lithium-ion batteries, including enhanced safety, higher energy density, and longer cycle life.

However, the production of lithium sulfide has traditionally faced significant challenges:

- **High temperatures:** Most synthesis methods require high temperatures, leading to increased energy consumption and production costs.
- **Purity concerns:** Achieving and maintaining high purity is crucial, as impurities can compromise the quality of the final product and the performance of SSBs.
- **Scalability:** Scaling up production from the laboratory to meet industry demands has been a persistent challenge; as a result, there is no existing stable supply of low-cost, high purity lithium sulfide available to service the developing SSB supply chain.

OUR SOLUTION

Telescope Innovations approached these challenges by applying their expertise in advanced process chemistry, utilizing robotics and artificial intelligence to identify a novel, scalable, and more direct route to produce lithium sulfide. This low-temperature, high-purity process offers several distinct advantages:

- **Reduced production costs:** Lower temperatures directly reduce energy consumption, making the production process more cost-effective relative to existing lithium sulfide production routes.
- **Improved product purity:** The high-purity production method significantly minimizes impurities, ensuring a higher quality end product that meets the stringent requirements for advanced SSB technologies.
- **IP protected:** Provisional patents for this novel and innovative synthesis have been filed.
- **Simplified production:** The low-temperature process allows for simpler equipment and less complex procedures, facilitating easier management and scalability.
- **Environmental benefits:** The reduction in energy consumption and the potential use of less hazardous reagents make this process more environmentally friendly, aligning with the growing demand for sustainable technologies.

Professor Jason Hein, CTO of Telescope Innovations, stated, "This collaboration has leveraged our expertise in chemistry alongside Standard Lithium's deep knowledge of battery materials. We've developed a solution with the potential to transform the solid-state battery industry. This project addresses the critical limitation of a constrained supply chain for next-generation battery materials, and aims to establish a pivotal North American-based resource and infrastructure. We are excited to build upon this partnership as we continue to advance innovative technologies."

"Our work in the Smackover Formation remains our primary focus, driving the development of sustainable lithium production. However, as part of our mission to stay at the forefront of industry advancements, we are also positioning ourselves to meet the demands of next generation battery technologies. This collaboration is a continuation of our long-standing commitment to innovation in lithium technology," said Dr. Andy Robinson, President and COO of Standard Lithium. "This project with Telescope Innovations is an important part of that strategy. By working with the brightest minds in the industry and leveraging these learnings, we are not only advancing our technological capabilities but also enhancing our ability to attract strategic partnerships-just as we have successfully done in the past. This approach continues to create value for our shareholders and ensures we are well-prepared for the future of solid-state battery chemistry."

About Standard Lithium Ltd.

Standard Lithium is a leading near-commercial lithium development company focused on the sustainable development of a portfolio of large, high-grade lithium-brine properties in the United States. The Company prioritizes projects characterized by the highest quality resources, robust infrastructure, skilled labor, and streamlined permitting. Standard Lithium aims to achieve sustainable, commercial-scale lithium production via the application of a scalable and fully integrated Direct Lithium Extraction ("**DLE**") and purification process. The Company's flagship projects are located in the Smackover Formation, a world-class lithium brine asset, focused in Arkansas and Texas. In partnership with global energy leader Equinor ASA, Standard Lithium is advancing the South West Arkansas project, a greenfield project located in southern Arkansas, and actively exploring promising lithium brine prospects in East Texas. Additionally, the Company is advancing the Phase 1A project in partnership with LANXESS Corporation, a brownfield development project located in southern Arkansas. Standard Lithium also holds an interest in certain mineral leases in the Mojave Desert in San Bernardino County, California.

Standard Lithium is jointly listed on the TSX Venture Exchange and the NYSE American under the trading symbol "SLI". Please visit the Company's website at https://www.standardlithium.com.

About Telescope Innovations

Telescope Innovations is a chemical technology company developing scalable manufacturing processes and tools for the pharmaceutical and chemical industry. The Company builds and deploys new enabling technologies including flexible robotic platforms and artificial intelligence software that improves experimental throughput, efficiency, and data quality. Our aim is to bring modern chemical technology solutions to meet the most serious challenges in health and sustainability.

On behalf of the Board,

Telescope Innovations Corp.

Jeffrey Sherman, Chief Operating Officer

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Forward-Looking Information

Forward-looking information is based on a number of opinions, assumptions and estimates that, while

considered reasonable by the Company as of the date of this news release, are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking statements in this document include expectations surrounding lithium sulfide as a key material for the next generation of SSBs, the use of SSBs to power future electric vehicles and other high-tech devices, the greater efficiency and safety of SSBs compared to today's lithium-ion batteries, the use and viability of Telescope Innovations' low-temperature, high-purity process for producing lithium sulfide and associated advantages of reduced energy costs, improved product purity, simplified production, and environmental benefits, the potential of Telescope Innovations' solution to transform the solid-state battery industry, the establishment of a pivotal North American-based resource and infrastructure for next-generation battery materials, Telescope Innovations' ability to continue to develop innovative technologies, and all other statements that are not statements of historical fact.

Examples of such assumptions, risks and uncertainties include, without limitation, assumptions, risks and uncertainties associated with the global COVID-19 pandemic; general economic conditions; adverse industry events; the Company's ability to access sufficient capital from internal and external sources, and/or inability to access sufficient capital on favorable terms; the ability of the Company to implement its business strategies; competition; and other assumptions, risks and uncertainties.

The forward-looking statements contained in this news release are made as of the date of this news release, and the Company expressly disclaims any obligation to update or alter statements containing any forward-looking information, or the factors or assumptions underlying them, whether as a result of new information, future events or otherwise, except as required by law.

The CSE has neither approved nor disapproved the contents of this news release. Neither the CSE nor its Market Regulator (as that term is defined in the policies of the CSE) accepts responsibility for the adequacy or accuracy of this release.

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