Salarius Pharmaceuticals Expands Oncology Pipeline Through Strategic Acquisition of Targeted Protein Degradation Portfolio from DeuteRx, LLC

Conference call and live audio webcast scheduled for today at 8:30 a.m. EST

- Transformative acquisition significantly expands Salarius' oncology pipeline into the targeted degradation space with ability to go after undruggable cancer-promoting targets, a rapidly growing area of cancer drug development with multi-billion-dollar market potential.
- Acquisition includes a lead candidate, SP-3164 (formerly DRX-164), additional protein degrader programs, and the related intellectual property portfolio that includes issued composition of matter patents.
- SP-3164 is expected to enter the clinic in 2023.

HOUSTON, January 13, 2022 (GLOBE NEWSWIRE) – Salarius Pharmaceuticals, Inc. (Nasdaq: SLRX), a clinical-stage biopharmaceutical company developing potential new medicines for patients with sarcomas, pediatric cancers, and other cancers, today announced a definitive agreement with DeuteRx, LLC to acquire an oral, small molecule targeted protein degradation portfolio. The acquisition includes a lead drug candidate that Salarius has renamed SP-3164 (formerly DRX-164), the related patent family, including issued composition of matter patents, and the opportunity to develop additional undisclosed cancer-fighting assets in the targeted protein degradation space. Targeted protein degradation takes advantage of the body's own degradation system to promote the selective elimination of disease-causing proteins.

"This strategic acquisition is a transformative event for Salarius that significantly expands our development pipeline while building upon the momentum of our lead clinical-stage candidate, seclidemstat, our existing infrastructure and our scientific expertise," stated David Arthur, Chief Executive of Salarius Pharmaceuticals. "SP-3164 provides entry into the exciting field of protein degradation, a fast-growing area of cancer drug research that is attracting substantial interest from some of the world's largest pharmaceutical companies because of the potential advantages of protein degraders, including the ability to go after previously undruggable cancer-promoting targets."

SP-3164 is a next-generation cereblon-binding molecular glue. Molecular glues are small molecules that commandeer the body's normal protein-degradation processes and induce selective elimination of cancer-causing proteins. Derived from avadomide, SP-3164 was developed by using deuterium-enabled chiral switching (DECS), a unique strategy that utilizes deuterium to stabilize the preferred, active (S*)*-enantiomer from the first-generation compound, avadomide. This creates a new molecular entity with the potential for increased efficacy and

improved safety. Salarius plans to develop SP-3164 as a potential treatment for hematological cancers and solid tumors and plans to begin the first clinical trial in 2023.

Mr. Arthur continued, “In addition to advancing seclidemstat, our goal at Salarius is to develop a multiprong internal pipeline and advance cancer therapies that address the unmet needs of patients and, by doing so, generate value for patients and shareholders. With SP-3164, Salarius plans to enter the protein degradation space which generated global sales of over $15 billion in 2020. Funded with existing financial resources, this acquisition capitalizes on our strong cash position and our seclidemstat momentum.”

As part of the agreement, Salarius and DeuteRx will collaborate to complete SP-3164 development activities and collaborate on the research and development of future products.

Under the terms of the agreement, DeuteRx will receive from Salarius an upfront payment consisting of $1.5 million in cash and 1 million shares of restricted stock. Based upon the success of SP-3164, DeuteRx is also entitled to receive up to $53 million in future clinical and regulatory event-driven milestone payments and sales achievement milestone payments of up to $135 million, as well as escalating royalties on net sales. Additionally, DeuteRx is eligible to receive event-driven clinical, regulatory and sales achievement milestone payments of up to $84 million, as well as escalating royalties on net sales, for each of two future products.

“DeuteRx is excited to collaborate with the team at Salarius to advance SP-3164 and additional programs for the benefit of patients in need of better treatment options,” said Sheila DeWitt, Ph.D., President and CEO of DeuteRx. “Our agreement with Salarius aligns with our goal to partner with innovative companies to unlock the value of our DECS technology platform and our differentiated drug candidates. I look forward to seeing this exciting new therapy advance through the clinic.”

Conference Call Information:

Salarius Pharmaceuticals will host a conference call and live audio webcast on Thursday, January 13, 2022, at 8:30 a.m. EST, to discuss the asset acquisition agreement with DeuteRx. Interested participants and investors may access the conference call by dialing:

(833) 423-0481 (U.S.) or (918) 922-2375 (international)

Conference ID: 6528776

Investors may submit questions to Salarius prior to the conference call by e-mail to lsher@tiberend.com. Please use the e-mail subject heading “Salarius/DeuteRx Acquisition” to ensure that the information is received. Salarius’ management will respond to select questions during the conference call.

An audio webcast will be accessible via the Investors Events and Presentations section of the Company's website http://investors.salariuspharma.com/. An archive of the webcast will remain available for 90 days beginning at approximately 9:30 a.m. EST, on January 13, 2022.

About SP-3164

SP-3164, formerly DRX-164, is the next-generation, deuterium-stabilized (S)-enantiomer of avadomide. DRX-164 was developed by DeuteRx LLC. Avadomide is one of the most extensively studied molecular glues, a class of targeted protein degraders. It has been studied in more than 400 subjects across 10 clinical trials for patients with hematological cancers and solid tumors and has demonstrated efficacy when used as a single agent and when used in combination therapy. SP-3164 is a patent-protected new molecular entity with the potential for increased efficacy and improved safety compared to avadomide.

Avadomide is a 1:1 mixture of two mirror-image compounds ((*R*)- and (*S*)-enantiomers) that interconvert *in vitro* and *in vivo*. Using deuterium, DeuteRx stabilized each enantiomer and characterized their dramatically different pharmacological properties. In *in vitro* studies, SP-3164, the deuterium-stabilized *(S)*-enantiomer, has been shown to be the active enantiomer as it is primarily responsible for the cereblon-binding and the anti-inflammatory activity of avadomide[1]. As a result, in a preclinical efficacy model, SP3164 exhibited the anti-tumorigenic activity while the (*R*)-enantiomer appears to promote tumor growth[2]. Based upon preclinical results to date, SP-3164 has the potential to exhibit a better therapeutic profile than avadomide and will be the first stabilized, single enantiomer cereblon-binding protein degradation agent to enter the clinic.

About DeuteRx, LLC

DeuteRx has pioneered deuterium-enabled chiral switching (DECS), a revolutionary platform approach to improve racemic (a 1:1 mixture of two mirror-image compounds, i.e., enantiomers) small molecule marketed drugs and drug candidates intended for patients across multiple therapeutic indications. DECS builds upon the development of the single, preferred enantiomer from the parent racemic drug, also known as a chiral switch, which often leads to drugs with superior therapeutic properties. However, numerous drugs are still developed and marketed as racemic mixtures because their enantiomers chemically interconvert *in vivo*. Since 2010, the team has demonstrated the use of DECS to stabilize and characterize the enantiomers of such racemic active ingredients[3], which resulted in the formation of three companies (Deuteria Pharmaceuticals, Inc., DeuteRx, LLC, and Neuromity Therapeutics, Inc.) and asset sales to Celgene, Poxel SA, and Salarius Pharmaceuticals, Inc.

About Salarius Pharmaceuticals

Salarius Pharmaceuticals, Inc. is a clinical-stage biopharmaceutical company developing cancer therapies for patients in need of new treatment options. Salarius' product portfolio includes seclidemstat, the company's lead candidate, which is being studied as a potential treatment for pediatric cancers, sarcomas, and other cancers with limited treatment options, and SP-3164, an oral small molecule protein degrader. Seclidemstat is currently in a Phase 1/2 clinical trial for relapsed/refractory Ewing sarcoma and select additional sarcomas that share a similar biology to Ewing sarcoma, also referred to as Ewing-related or FET-rearranged sarcomas. Seclidemstat has received Fast Track Designation, Orphan Drug Designation, and Rare Pediatric Disease Designation for Ewing sarcoma from the U.S. Food and Drug Administration. Salarius is also exploring seclidemstat's potential in several cancers with high unmet medical need, with a second Phase 1/2 clinical study in hematologic cancers, initiated by MD Anderson Cancer Center. Salarius has received financial support from the National Pediatric Cancer Foundation to advance the Ewing sarcoma clinical program and was also a recipient of a Product Development Award from the Cancer Prevention and Research Institute of Texas (CPRIT). For more information, please visit salariuspharma.com or follow Salarius on Twitter and LinkedIn.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this press release are forward-looking statements. These forward-looking statements may be identified by terms such as "aim," "believe," "can," "continue," "developing," "estimate," "expect," "look forward to," "opportunity," "potential," "progress," "could prove," "plan," "position," "potential," "suggest," "will," and similar terms or expressions or the negative thereof. Examples of such statements include, but are not limited to, statements relating to the following: the company's growth strategy; the timing of clinical trials for SP-3164; the advantages of protein degraders including the value of SP-3164 as a cancer treatment; whether the company will develop additional undisclosed cancer-fighting assets in the targeted protein degradation space; collaborations between the company and its DeuteRx colleagues to complete SP-3164 development activities and development of future products; the value of seclidemstat as a treatment for Ewing sarcoma, Ewing-related sarcomas, and other cancers; expanding the scope of the Company's research and focus to high unmet need patient populations; milestones of the company's current and future clinical trials, including the timing of data readouts; and the expectation that Salarius' cash runway extending through 2022. Salarius may not actually achieve the plans, carry out the intentions or meet the expectations or objectives disclosed in the forward-looking statements. You should not place undue reliance on these forward-looking

statements. These statements are subject to risks and uncertainties which could cause actual results and performance to differ materially from those discussed in the forward-looking statements. These risks and uncertainties include, but are not limited to, the following: the sufficiency of the company's capital resources; the ability of, and need for, the company to raise additional capital to meet the company's business operational needs and to achieve its business objectives and strategy; the company's ability to project future capital needs and cash utilization and timing and accuracy thereof; the ability of the company to access the remaining funding available under the CPRIT grant; future clinical trial results and impact of results on the company; that the results of studies and clinical trials may not be predictive of future clinical trial results; the sufficiency of Salarius' intellectual property protection; risks related to the drug development and the regulatory approval process; the competitive landscape and other industry-related risks; market conditions and regulatory or contractual restrictions which may impact the ability of Salarius to raise additional capital; the possibility of unexpected expenses or other uses of Salarius' cash resources; risks related to the COVID-19 outbreak; and other risks described in Salarius' filings with the Securities and Exchange Commission, including those discussed in the company's quarterly report on Form 10-Q for the quarter ended June 30, 2021 and in the company's annual report on Form 10-K for the year ended December 31, 2020. The forward-looking statements contained in this press release speak only as of the date of this press release and are based on management's assumptions and estimates as of such date. Salarius disclaims any intent or obligation to update these forward-looking statements to reflect events or circumstances that exist after the date on which they were made.

1. Jacques, et al., Proc Natl Acad Sci. 2015, 112(12), E1471-9.
2. DeWitt, et al., Poster presented at Hematologic Malignancies, FASEB Science Research Conference (SRC); 2017 Jul 23-28; Saxtons River, VT
3. DeWitt, et al., ACS Med Chem Lett. 2020, 11, 1789-1792.

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