January 19, 2021

# Capricor Therapeutics Announces Publication Demonstrating Methods for Enhanced Potency of Cardiosphere-Derived Exosomes

*-Enhanced Signaling Pathways Show Increased Potency Through Expression of MicroRNAs-*

*-Publication Further Supports Capricor's Exosome Platform Advancement-*

LOS ANGELES, Jan. 19, 2021 (GLOBE NEWSWIRE) -- Capricor Therapeutics, Inc. (NASDAQ: CAPR), a clinical-stage biotechnology company focused on the discovery, development and commercialization of first-in-class cell- and exosome-based therapeutics for the treatment and prevention of a variety of diseases and disorders, announced today the publication, in collaboration with researchers at Cedars-Sinai Medical Center, which demonstrates the utility of pathway-enhancing culture conditions and small molecule inhibitors to retain markers of cell therapy potency. The publication titled, "Small molecule inhibitors and culture conditions enhance therapeutic cell and EV potency via activation of beta-catenin and suppression of THY1" was published in the international peer-reviewed journal, Nanomedicine: Nanotechnology, Biology and Medicine.

"This data from this publication is of significant importance to Capricor because it demonstrates our approach to enhance potency of cells by targeting select signaling pathways. The ability to manipulate cells provides read through to our exosome product candidates which are being engineered to treat specific diseases. We have dedicated the last few years at Capricor to understanding the molecular composition of our exosomes products in order to identify microRNA's of interest for therapeutic development," said Dr. Linda Marbán, Ph.D., CEO of Capricor. "This data was the foundation of our new platform, which has allowed us to expand our reach to engineering exosomes that contain RNAs for targeted therapeutic delivery. Further, this elucidation of the mechanisms that are driving potential potency of our cell therapy, CAP-1002 and the exosomes they secrete, correlate to some of the promising clinical data we have seen to date in Duchenne muscular dystrophy."

**Key findings include:**

- Manipulation of cell culture conditions with GSK3 inhibitors leads to upregulation of beta-catenin and downregulation of CD90, leading to a more consistent and potent cell line
- Activation of canonical Wnt signaling correlated with increased enrichment of therapeutically relevant miRs including miR-22 and miR-146a both implicated in cell potency

- This data links the potency of a cell therapy to the contents of the exosomes especially miR-22 and miR-146a

Dr. Marbán continued, “We know that the exosome is nature’s delivery system and can serve to carry a variety of biologic signals directly to the cell. Now, we have demonstrated that cells can make exosomes loaded with specific and powerful biologic signals. From these early studies, we have launched our platform which will include vaccines, treatment of monogenic diseases, as well as other targets. We plan to announce further pipeline expansion of our exosome-based product candidates by mid-2021.”

The work at Cedars-Sinai Medical Center was supported by NIH R01124074; work by Capricor was supported by the Office of the Assistant Secretary of Defense for Health Affairs, through the Peer Reviewed Medical Research Program under Award No. W81XWH-16-1-0712. Opinions, interpretations, conclusions and recommendations are those of the author and are not necessarily endorsed by the Department of Defense.

**About Capricor Therapeutics**

Capricor Therapeutics, Inc. (NASDAQ: CAPR) is a clinical-stage biotechnology company focused on the discovery, development and commercialization of first-in-class cell and exosome-based therapeutics for the treatment and prevention of diseases. Capricor's lead candidate, CAP-1002, is an allogeneic cell therapy that is currently in clinical development for the treatment of Duchenne muscular dystrophy and the cytokine storm associated with COVID-19. Capricor is also investigating the field of extracellular vesicles and exploring the potential of exosome-based candidates to treat or prevent a variety of disorders. We are now developing two potential vaccines for COVID-19 as part of our exosome platform. For more information, visit www.capricor.com and follow the Company on Facebook, Instagram and Twitter.

**Cautionary Note Regarding Forward-Looking Statements**

Statements in this press release regarding the efficacy, safety, and intended utilization of Capricor's product candidates; the initiation, conduct, size, timing and results of discovery efforts and clinical trials; the pace of enrollment of clinical trials; plans regarding regulatory filings, future research and clinical trials; regulatory developments involving products, including the ability to obtain regulatory approvals or otherwise bring products to market; plans regarding current and future collaborative activities and the ownership of commercial rights; scope, duration, validity and enforceability of intellectual property rights; future royalty streams, revenue projections; expectations with respect to the expected use of proceeds from the recently completed offerings and the anticipated effects of the offerings; and any other statements about Capricor's management team's future expectations, beliefs, goals, plans or prospects constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements that are not statements of historical fact (including statements containing the words "believes," "plans," "could," "anticipates," "expects," "estimates," "should," "target," "will," "would" and similar expressions) should also be considered to be forward-looking statements. There are a number of important factors that could cause actual results or events to differ materially from those indicated by such forward-looking statements. More information about these and other risks that may impact Capricor's business is set forth in Capricor's Annual Report on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on March 27,

2020 and in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 as filed with the Securities and Exchange Commission on November 13, 2020. All forward-looking statements in this press release are based on information available to Capricor as of the date hereof, and Capricor assumes no obligation to update these forward-looking statements.

*CAP-1002 is an Investigational New Drug and is not approved for any indications. None of Capricor's exosome-based candidates have been approved for clinical investigation.*

For more information, please contact:

**Media Contact:**
Caitlin Kasunich / Raquel Cona
KCSA Strategic Communications
ckasunich@kcsa.com / rcona@kcsa.com
212.896.1241 / 212.896.1204

**Investor Contact:**
Joyce Allaire
LifeSci Advisors, LLC
jallaire@lifesciadvisors.com
617.435.6602

**Company Contact:**
AJ Bergmann, Chief Financial Officer
abergmann@capricor.com
310.358.3200

Source: Capricor Therapeutics