



SQZ Biotech Presents Preclinical Data on its mRNA-based enhanced APCs and the Potential of the SQZ APC Platform in KRAS Driven Tumors

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SQZ enhanced APCs (eAPCs) demonstrated ability to meaningfully increase CD8 T cell response through incorporation of costimulatory molecules and cytokine signaling

mRNA cargo in eAPCs enabled presentation of broader antigen repertoire, potentially expanding addressable patient populations

SQZ-APC-KRAS showed preclinical proof-of-concept for potential applicability to multiple KRAS mutations, highlighting the opportunity for expansion into additional tumor types

WATERTOWN, Mass.--(BUSINESS WIRE)-- SQZ Biotechnologies (NYSE: SQZ), a cell therapy company developing novel treatments for multiple therapeutic areas, today shared preclinical data from its next generation SQZ™ APCs, enhanced APCs or eAPCs, and the potentially broader applicability of the platform at the American Association for Cancer Research (AACR) 2021 Annual Meeting.

“One of the advantages of the Cell Squeeze® technology is the ability to simultaneously engineer multiple functions in cells, the underpinning of our SQZ eAPC program. With this next generation program, we are aiming to achieve the benefits of combination therapies that can drive powerful immune responses within a single multiplexed cell therapy,” said Howard Bernstein, MD, PhD, chief scientific officer of SQZ. “Our vision is to incorporate additional functionality and new antigens to the foundation we are establishing with our lead SQZ APC program. The eAPC and KRAS data presented at AACR provide preclinical examples of how we could potentially extend our impact across indications and help more patients.”

SQZ eAPCs build on the power of the SQZ APC platform, which is focused on producing robust and specific CD8 T cell activation through efficient MHC-I antigen presentation. By delivering multiple mRNA into cells in a single squeeze, SQZ eAPCs are designed to further enhance T cell stimulation and boost immune-signaling that would otherwise require combinations with additional immune-oncology agents. In addition, the mRNA-based cargo facilitates presentation of a broader range of tumor epitopes, which could expand the addressable HPV+ patient

population. The eAPC platform offers the opportunity for application across oncology and infectious diseases.

Highlights from the SQZ eAPC preclinical data shared at AACR (Posters 1525 and 2626) include:

- Enhancement of the quality and quantity of CD8 T cell activation by SQZ eAPCs through incorporation of CD86, membrane bound IL-2 (mbIL-2), and membrane bound IL-12 (mbIL-12), leveraging multiplexed delivery of mRNAs encoding each component
 - mbIL-2 and mbIL-12 mRNA delivery via Cell Squeeze® led to surface expression of the cytokines in all measured human PBMC subsets (B cells, T cells, NK cells, and monocytes) and resulted in functional IL-2 and IL-12 signaling
 - CD86, mbIL-2, and mbIL-12 mRNA delivered alone or in combination increased antigen-specific CD8 T cell responses as much as ten-fold
 - Multiplexing CMVpp65 and influenza M1 mRNA antigens with signal 2/3 mRNAs enhanced the potency of SQZ APCs - inducing stronger antigen-specific CD8 T cell responses for infectious disease
- Co-squeezing E6 and E7 mRNAs drove antigen-specific CD8 T cell activation regardless of HLA haplotype, which could significantly broaden the addressable HPV+ patient population and potentially eliminate the need for HLA screening
- Cell Squeeze® mRNA delivery stimulated memory CD8 T cells across various antigens and HLA haplotypes

SQZ is leveraging the cargo flexibility of its Cell Squeeze® technology to pursue additional tumor targets. SQZ APCs have demonstrated the ability to elicit specific KRAS G12D and G12V CD8+ T cell responses in both animal models and in human cells.

Highlights from the SQZ-APC-KRAS preclinical data shared at AACR (Poster 1524) include:

- SQZ APCs engineered with KRas G12D and G12V peptides, both alone and multiplexed, generated specific and robust CD8 T cell responses against the target mutations
- KRAS G12D and G12V make up over half of all KRAS mutations, with approximately 100,000 patients per year having KRAS G12D or G12V mutated cancers in the United States

About SQZ Biotechnologies

SQZ Biotechnologies is a clinical-stage biotechnology company developing transformative cell therapies for patients with cancer, infectious diseases, and other serious conditions. Using its proprietary technology, SQZ Biotechnologies offers the unique ability to deliver multiple materials into many patient cell types to engineer what we believe can be an unprecedented range of potential therapeutics for a variety of diseases. SQZ Biotechnologies has the potential to create well-tolerated cell therapies that can provide therapeutic benefit for patients and to improve the patient experience over existing cell therapy approaches. With accelerated production timelines under 24 hours and the opportunity to eliminate preconditioning and lengthy hospital stays, our goal is to use the SQZ approach to establish a new paradigm for cell therapies. Our first therapeutic applications aim to leverage the

potential to generate target-specific immune responses, both in activation for the treatment of solid tumors and immune tolerance for the treatment of unwanted immune reactions and autoimmune diseases. For more information, please visit www.sqzbiotech.com.

Forward Looking Statement

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements relating to scientific events and presentations, our product candidates, preclinical activities, development plans, application across indications, clinical efficacy and therapeutic impact. These forward-looking statements are based on management's current expectations. Actual results could differ from those projected in any forward-looking statements due to several risk factors. Such factors include, among others, risks and uncertainties related to our limited operating history; our significant losses incurred since inception and expectation to incur significant additional losses for the foreseeable future; the development of our initial product candidates, upon which our business is highly dependent; the impact of the COVID-19 pandemic on our operations and clinical activities; our need for additional funding and our cash runway; the lengthy, expensive, and uncertain process of clinical drug development, including uncertain outcomes of clinical trials and potential delays in regulatory approval; our ability to maintain our relationships with our third party vendors; and protection of our proprietary technology, intellectual property portfolio and the confidentiality of our trade secrets. These and other important factors discussed under the caption "Risk Factors" in our Annual Report on Form 10-K and other filings with the U.S. Securities and Exchange Commission could cause actual results to differ materially from those indicated by the forward-looking statements. Any forward-looking statements represent management's estimates as of this date and SQZ undertakes no duty to update these forward-looking statements, whether as a result of new information, the occurrence of current events, or otherwise, unless required by law.

Certain information contained in this press release relates to or is based on studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this press release, we have not independently verified, and we make no representation as to the adequacy, fairness, accuracy or completeness of any information obtained from third-party sources.

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