CARsgen Therapeutics Holdings Limited
科濟藥業控股有限公司

(Incorporated in the Cayman Islands with limited liability)

(Stock Code: 2171)

ANNOUNCEMENT OF ANNUAL RESULTS FOR THE YEAR ENDED DECEMBER 31, 2022

The board (the "**Board**") of directors (the "**Directors**") of CARsgen Therapeutics Holdings Limited (the "**Company**", "**CARsgen Therapeutics**" or "**CARsgen**") is pleased to announce the audited consolidated results of the Company, its subsidiaries and consolidated affiliated entities (collectively, the "**Group**") for the year ended December 31, 2022 (the "**Reporting Period**"), together with the audited comparative figures for the year ended December 31, 2021.

FINANCIAL HIGHLIGHTS

	Year ended December 31	
	2022	2021
	RMB'000	*RMB'000*
Net loss	**(892,247)**	(4,744,423)
Net loss per share (RMB)	**(1.62)**	(12.26)
Non-IFRS Measures		
Adjusted net loss[(1)]	**(848,252)**	(548,767)
Adjusted net loss per share (RMB)[(1)]	**(1.54)**	(1.42)

	As at December 31	
	2022	2021
	RMB'000	*RMB'000*
Cash and cash equivalents	**2,268,036**	691,284
Term deposits with original maturity between three and twelve months	**–**	2,315,654
Total	**2,268,036**	3,006,938

Our net loss was RMB892 million for the year ended December 31, 2022, representing a decrease of RMB3,852 million from RMB4,744 million for the year ended December 31, 2021. The decrease was primarily due to (i) the decrease of fair value loss on financial instruments issued to investors (the "**Fair Value Loss**"), which totaled RMB4,156 million for the year ended December 31, 2021 and zero for the year ended December 31, 2022. The Fair Value Loss related financial instruments were converted to ordinary shares upon the completion of the Company's initial public offering on June 18, 2021 (the "**IPO**"), hence no loss would be recognized after the IPO; (ii) the decrease of listing fees of approximately RMB27 million (the "**Listing Fees**") for the year ended December 31, 2021, while no listing fee was incurred during the year ended December 31, 2022; partially offset by (iii) the increase in share-based compensation (together with the Fair Value Loss and the Listing Fees, collectively the "**Adjusted Items**"), which totaled RMB44 million for the year ended December 31, 2022, representing an increase of RMB30 million from RMB14 million for the year ended December 31, 2021; (iv) higher research and development expenses and higher administrative expenses; and (v) foreign exchange losses of RMB97 million for the year ended December 31, 2022, representing a net impact of RMB104 million from foreign exchange gains of RMB7 million for the year ended December 31, 2021.

Our adjusted net loss[(1)] was RMB848 million for the year ended December 31, 2022, representing an increase of RMB299 million from RMB549 million for the year ended December 31, 2021. The increase was primarily due to higher research and development expenses, higher general and administrative expenses and foreign exchange losses.

Cash and cash equivalents were RMB2,268 million as of December 31, 2022, representing a decrease of RMB739 million from RMB3,007 million (including term deposits with original maturity between three and twelve months) as of December 31, 2021. The decrease mostly resulted from payments of research and development expenses, administrative expenses, capital expenditure on long-term assets and repayments of bank borrowings.

(1) Adjusted net loss and adjusted net loss per share are non-IFRS measures. They exclude the impact of the Adjusted Items. For details of non-IFRS measures, please refer to "Non-IFRS Measures" subsection for details.

BUSINESS HIGHLIGHTS

During the Reporting Period and up to the date of this announcement, we have made significant progress in advancing our technology innovations, product pipeline and business operations in the United States of America (U.S.) and the People's Republic of China.

Zevorcabtagene Autoleucel (Zevor-cel, R&D code: CT053)

Zevor-cel is an autologous fully human CAR T-cell product candidate against B-cell maturation antigen (BCMA) for the treatment of relapsed/refractory multiple myeloma (R/R MM). In October 2022, China National Medical Products Administration (NMPA) accepted the New Drug Application (NDA) and has granted the priority review for zevor-cel. Enrollment in the Phase 2 clinical trial in the United States and Canada is underway.

Updates from the Phase 2 trial in the U.S. (NCT03915184) were presented orally at the 7th Annual CAR-TCR Summit and data updates on the pivotal Phase II trial in China (NCT03975907) were reported as a poster presentation at the 64th American Society of Hematology (ASH) Annual Meeting in December 2022. Previous results from the Phase I clinical trial in China were presented at the 63rd ASH Annual Meeting in December 2021. An update from the China investigator-initiated trials was published in *Haematologica* in August 2022.

CT041

CT041 is an autologous humanized CAR T-cell product candidate against claudin 18.2 (CLDN18.2), a membrane protein highly expressed in certain cancers. As of the date of this announcement, CT041, based on our information, is the world's first and only CAR T-cell candidate for the treatment of solid tumors that has entered a Phase II clinical trial. Active CT041 trials include a Phase 1b/2 clinical trial for advanced gastric cancer (GC) and pancreatic cancer (PC) in the United States and Canada (CT041-ST-02, NCT04404595), a Phase Ib clinical trial for advanced gastric cancer/gastroesophageal junction cancer (GC/GEJ) and PC, a confirmatory Phase II clinical trial for advanced GC/GEJ in China (CT041-ST-01, NCT04581473), and an investigator-initiated trial (NCT03874897). A Phase 2 clinical trial of CT041 in the U.S. is planned to initiate in the first half of 2023.

Updates from the Phase 1b study in the U.S. (NCT04404595) and the Phase Ib/II study in China (NCT04581473) were provided in poster presentations at the 2022 American Society of Clinical Oncology (ASCO) Annual Meeting in June 2022. An update from a China IIT (NCT03874897) was published in *Nature Medicine* in May 2022.

AB011

AB011 is a humanized monoclonal antibody product candidate against CLDN18.2 for the treatment of CLDN18.2-positive solid tumors. We have completed the Phase I monotherapy and combination with chemotherapy cohorts enrollment. Data updates from the Phase Ib study (AB011-ST-01, NCT04400383) were reported as a poster presentation at the 2023 ASCO Gastrointestinal (GI) Cancers Symposium in January 2023.

Manufacturing Capacity

We have established in-house, vertically integrated manufacturing capabilities for the three key stages of CAR T manufacturing, including the production of plasmids, lentiviral vectors, and CAR T cells.

We have been expanding our global manufacturing capacity in China and the U.S. to support both clinical trials and the subsequent commercialization of our pipeline products. With the clinical manufacturing facility in Xuhui, Shanghai and commercial GMP manufacturing facility in Jinshan, Shanghai ("**Jinshan Manufacturing Facility**"), we manufacture CAR T-cell products in-house to support clinical trials in China and manufacture the lentiviral vectors in-house to support clinical trials globally. Our Research Triangle Park (RTP) CGMP manufacturing facility in Durham, North Carolina ("**RTP Manufacturing Facility**") has commenced operations of GMP production of autologous CAR T cell products. The first batch from the RTP Manufacturing Facility was successfully released in September 2022. The RTP Manufacturing Facility will provide CARsgen additional manufacturing capacity of autologous CAR T-cell products for 700 patients annually to support clinical studies and early commercial launch in the United States, Canada, and Europe.

Commercialization and External Collaboration

In January 2023, CARsgen and Huadong Medicine (Hangzhou) Co., Ltd., a wholly-owned subsidiary of Huadong Medicine Co., Ltd. (SZ. 000963) ("**Huadong Medicine**") entered into a collaboration agreement for the commercialization of CARsgen's lead drug candidate, zevor-cel, in mainland China.

In January 2023, CARsgen executed a collaboration agreement with F. Hoffmann-La Roche Ltd ("**Roche**") to evaluate CARsgen's investigational drug AB011 in combination with atezolizumab, Roche's PD-L1 checkpoint inhibitor, along with standard-of-care chemotherapy in patients with GC/GEJ.

I. MANAGEMENT DISCUSSION AND ANALYSIS

1. OVERVIEW

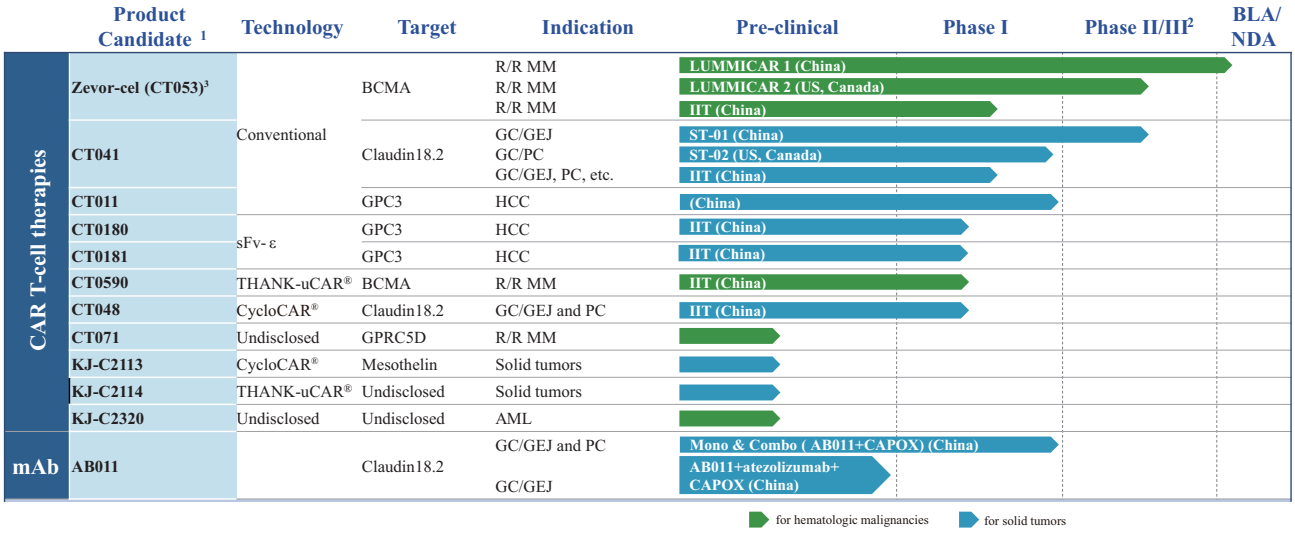
CARsgen is a biopharmaceutical company with operations in China and the U.S. focused on innovative CAR T-cell therapies for the treatment of hematologic malignancies and solid tumors. CARsgen has built an integrated platform to accelerate the cell therapy development life cycle with in-house capabilities including target discovery, antibody development, clinical development, and commercial-scale manufacturing. CARsgen has internally developed novel technologies and a product pipeline with global rights to overcome major challenges of CAR T-cell therapies, such as improving the safety profile, enhancing the efficacy in treating solid tumors, and reducing treatment associated costs. Our vision is to be a global biopharmaceutical leader that brings innovative and effective cell therapies to cancer patients worldwide and makes cancer curable.

As of the date of this announcement, despite the challenges such as the COVID-19 pandemic, we made significant advancements in 2022 in the clinical development of our pipeline products, technological innovations, manufacturing capacity expansion, and business development.

2. BUSINESS REVIEW

Our Products and Product Pipeline

Since CARsgen's inception, our strategic business model has comprised the in-house development of innovative and differentiated biopharmaceutical products with a focus on CAR T-cell therapies. Our Core Product Candidate, zevor-cel for the treatment of the hematologic malignancy R/R MM, is at the most advanced development stage among the product candidates in our pipeline. In addition, solid tumor product candidates are in confirmatory Phase II (CT041), Phase I (CT011), and Phase Ib (AB011) clinical trials. The following chart summarizes the development status of each product candidate in our pipeline as of the date of this announcement. Our product candidates are developed in-house and protected by the global rights owned by CARsgen.



R/R MM: relapsed/refractory multiple myeloma; GC: gastric cancer; GEJ: gastroesophageal junction cancer; PC: pancreatic cancer; HCC: hepatocellular carcinoma; AML: acute myeloid leukemia

Notes:

1. All product candidates are self-developed with global rights.

2. Phase II trials of some indications are pivotal studies.

3. Core Product Candidate. Commercial rights in mainland China have been granted to Huadong Medicine (SZ: 000963). Rights in the South Korean market have been licensed out to HK Inno.N Corporation (KOSDAQ: 195940).

Zevorcabtagene Autoleucel (Zevor-cel, R&D code: CT053) – Fully Human BCMA CAR T

Zevor-cel is an upgraded fully human, autologous BCMA CAR T-cell product candidate for the treatment of R/R MM. It incorporates a CAR construct with a fully human BCMA-specific single-chain variable fragment (scFv) with low immunogenicity and increased stability that overcomes T-cell exhaustion by reducing the self-activation of CAR T cells in the absence of tumor-associated targets.

CARsgen developed zevor-cel in-house with our integrated research and development platform. Zevor-cel received Regenerative Medicine Advanced Therapy (RMAT) for the treatment of R/R MM from the FDA in October 2019, PRIority MEdicines (PRIME) eligibility for the treatment of R/R MM from the EMA in September 2019, Breakthrough Therapy designation for the treatment of R/R MM from the NMPA in December 2020. Also, zevor-cel received Orphan Drug designation for the treatment of multiple myeloma from the U.S. FDA in 2019 and Orphan Medicinal Product designation for the treatment of multiple myeloma from the European Medicines Agency (EMA) in 2020 and received priority review from NMPA in October 2022.

The Phase 2 trial (LUMMICAR STUDY 2, NCT03915184) for R/R MM is being conducted by CARsgen in the United States and Canada. Updated data for a total of 17 patients who received zevor-cel infusion in the Phase 1b/2 trial in U.S. were presented orally at the 7th Annual CAR-TCR Summit in September 2022. CARsgen plans to submit a Biologics License Application (BLA) to the U.S. FDA in 2024.

CARsgen is conducting a pivotal Phase II study (LUMMICAR STUDY 1, NCT03975907) in China for R/R MM. NMPA has accepted the NDA for zevor-cel in October 2022. At the 64th ASH Annual Meeting in December 2022, CARsgen presented one poster, titled 'Phase II Study of Fully Human BCMA-Targeted CAR T Cells (Zevorcabtagene Autoleucel) in Patients with Relapsed/Refractory Multiple Myeloma', highlighting the updated study results for zevor-cel in the Phase I/II trial in China. A poster titled 'Sustainable Efficacy and Safety Results from LUMMICAR STUDY 1: A Phase 1/2 Study of Fully Human B-Cell Maturation Antigen-Specific CAR T Cells (CT053) in Chinese Subjects with Relapsed and/or Refractory Multiple Myeloma', which included the sustainable efficacy and safety results from the Phase I study of zevor-cel in China, was previously presented at the 63rd ASH Annual Meeting in December 2021.

Updated results for the investigator-initiated trials (NCT03302403, NCT03380039, NCT03716856) were published in *Haematologica* in August 2022 article titled 'A novel BCMA CAR-T-cell therapy with optimized human scFv for treatment of relapsed/refractory multiple myeloma: results from Phase I clinical trials'.

Additional data from these global clinical trials will be disclosed in academic journals or at scientific conferences. CARsgen plans to conduct additional clinical trials to develop zevor-cel as a treatment in earlier lines of multiple myeloma.

We may not be able to ultimately develop and market zevor-cel successfully.

CT041 – Humanized CLDN18.2 CAR T

CT041 is an autologous CAR T-cell product candidate against the protein CLDN18.2 and has the potential to be first-in-class globally. CT041 targets the treatment of CLDN18.2-positive solid tumors with a primary focus on GC/GEJ and PC. CLDN18.2 is expressed in a range of solid tumors, including GC/GEJ, PC, biliary tract cancer (BTC), colorectal, lung, and ovarian cancers. Leveraging our in-depth understanding of CAR T-cell therapy, as well as our integrated antibody platform, we were the first in the world to successfully identify, validate and report CLDN18.2 as a solid tumor-associated antigen and viable target for CAR T-cell therapy for solid tumors in which CLDN18.2 is prevalently or highly expressed. To further address the challenges of CAR T-cell therapies in treating solid tumors, we developed an innovative, patent-protected preconditioning regimen that is administered prior to infusion of CT041. This FNC regimen features the addition of low-dose nab-paclitaxel to the conventional lymphodepletion regimen comprising cyclophosphamide and fludarabine.

CT041 was granted RMAT Designation for the treatment of advanced GC/GEJ with CLDN18.2-positive tumors in January 2022 and was granted PRIME eligibility by the EMA for the treatment of advanced gastric cancer in November 2021. CT041 received Orphan Drug designation from the U.S. FDA in September 2020 for the treatment of GC/GEJ and Orphan Medicinal Product designation from the EMA in January 2021 for the treatment of advanced gastric cancer.

As of the date of this announcement, CT041, based on our information, is the world's first and only CAR T-cell candidate for the treatment of solid tumors that has entered a Phase II clinical trial.

The Phase 1b/2 clinical trial for advanced GC and PC (CT041-ST-02, NCT04404595) is currently active in the U.S. and Canada. At the 2022 ASCO Annual Meeting, CARsgen presented a poster entitled 'Multicenter Phase 1b Trial of Salvage CT041 CLDN18.2 – specific Chimeric Antigen Receptor T Cell Therapy for Patients with Advanced Gastric and Pancreatic Adenocarcinoma' with updated study results for CT041 in the Phase 1b trial in the U.S.. A Phase 2 clinical trial of CT041 in the U.S. is planned to initiate in the first half of 2023. CARsgen plans to submit the BLA to the U.S. FDA in 2025.

In China, CARsgen is conducting a confirmatory Phase II clinical trial for advanced GC/GEJ (CT041-ST-01, NCT04581473). The updated results from the Phase Ib/II CT041 study in China were presented at the 2022 ASCO Annual Meeting with the poster titled 'Safety, Tolerability and Preliminary Efficacy Results in Patients with Advanced Gastric/Gastroesophageal Junction Adenocarcinoma from a Phase Ib/II Study of CLDN18.2 CAR T-cell Therapy'. CARsgen plans to submit an NDA to the NMPA in China in the first half of 2024.

The results of the investigator-initiated trial of CT041 (NCT03874897) were reported in the *Nature Medicine* article titled "Claudin18.2-specific CAR T cells in gastrointestinal cancers: Phase I trial interim results" in May 2022.

Additional data from these global clinical trials will be disclosed in academic journals or at scientific conferences. CARsgen plans to conduct additional clinical trials to develop CT041 as an earlier line of treatment for GC/GEJ and PC.

We may not be able to ultimately develop and market CT041 successfully.

CT011 – Humanized GPC3 CAR T

CT011 is an autologous CAR T-cell product candidate with proof-of-concept clinical data for the treatment of hepatocellular carcinoma (HCC) and has the potential to be the first-in-class globally. Our co-founder, CEO and Chief Scientific Officer, Dr. Zonghai LI led the world's first successful effort in identifying, validating and reporting GPC3 as a tumor-associated target for the development of CAR T-cell therapies to treat HCC. We have completed enrollment of a Phase I trial in China.

A case report of long-term complete response of advanced hepatocellular carcinoma using CT011 titled 'Long term complete response of advanced hepatocellular carcinoma to glypican-3 specific chimeric antigen receptor T-Cells plus sorafenib, a case report' was published in Frontiers in Immunology in August 2022.

We may not be able to ultimately develop and market CT011 successfully.

AB011 – Anti-CLDN18.2 mAb

AB011 is a humanized monoclonal antibody product candidate that targets CLDN18.2, which is a stomach-specific isoform of Claudin 18 and is highly expressed in GC/GEJ and PC cells. AB011 displayed strong in vitro antitumor activities against CLDN18.2 positive tumor cells in antibody-dependent cellular cytotoxicity (ADCC) assays and complement-dependent cytotoxicity (CDC) assays and showed potent in vivo antitumor activities when combined with oxaliplatin and 5-fluorouracil in CLDN18.2 positive gastric cancer mouse models.

AB011 is the first monoclonal antibody against CLDN18.2 that received IND clearance in China. We are conducting a Phase I clinical trial of AB011 for the treatment of CLDN18.2 positive solid tumors in China to evaluate the safety, tolerability, pharmacokinetics and preliminary efficacy of AB011 infusion. We completed Phase I monotherapy and the combination with chemotherapy cohorts enrollment.

This multicenter, single-arm, open-label, two-stage, Phase I study (AB011-ST-01, NCT04400383) is conducted to evaluate the safety and preliminary efficacy in patients with advanced solid tumors as monotherapy (Part 1) and AB011 plus chemotherapy (Part 2). The updated results were presented in a poster titled 'A Multicenter, Phase 1 Study of AB011, a Recombinant Humanized Anti-CLDN18.2 Monoclonal Antibody, as Monotherapy and Combined with Capecitabine and Oxaliplatin (CAPOX) in Patients with Advanced Solid Tumors' at ASCO GI in January 2023.

We may not be able to ultimately develop and market AB011 successfully.

IND-Enabling or Preclinical Stage Product Candidates

In addition to the above clinical-stage product candidates currently in clinical phase, we have internally developed eight IND-enabling or preclinical product candidates as described below. Four of these products, CT0180, CT0181, CT0590 and CT048, are already in the IIT clinical stage.

CT0180 is an autologous T-cell product engineered to express a fusion protein of GPC3-targeted antibody and T-cell receptor. An IIT trial has been initiated in China to evaluate the efficacy and safety of CT0180 in the treatment of hepatocellular carcinoma.

CT0181 is an autologous T-cell product engineered to express a fusion protein of GPC3-targeted antibody and T-cell receptor and co-express the interleukin (IL)-7 cytokine. An IIT trial has been initiated in China to evaluate the efficacy and safety of CT0181 in the treatment of hepatocellular carcinoma.

CT0590 is an allogeneic CAR T-cell product candidate deploying our THANK-uCAR® technology that targets BCMA for the treatment of R/R MM. We have initiated an IIT trial to evaluate the efficacy and safety of CT0590 for the treatment of R/R MM.

CT048 is a next-generation autologous CAR T-cell product candidate developed with our CycloCAR® technology to treat patients with CLDN18.2-positive GC/GEJ and PC. We anticipate that by co-expressing cytokine IL-7 and chemokine CCL21, CT048 potentially has a greater clinical efficacy and reduced requirement for lymphodepletion conditioning. CARsgen has initiated an IIT trial to evaluate the efficacy and safety of CT048 for the treatment of GC/GEJ and PC.

CT071 is a CAR T-cell product candidate developed with an undisclosed proprietary technology of CARsgen targeting G protein – coupled receptor, class C, group 5, member D (GPRC5D) for the treatment of R/R MM.

KJ-C2113 is a next-generation autologous CAR T-cell product candidate developed with our CycloCAR® technology that targets mesothelin, a tumor differentiation antigen normally restricted to the body's mesothelial surfaces, that is significantly overexpressed in a broad range of solid tumors. We are developing KJ-C2113 for the treatment of various types of solid tumors.

KJ-C2114 is an allogeneic CAR T-cell product candidate deploying our THANK-uCAR® technology with an undisclosed target for the treatment of certain solid tumors.

KJ-C2320 is a CAR T-cell product candidate deploying an undisclosed proprietary technology of CARsgen with an undisclosed target for the treatment of acute myeloid leukemia.

Continuous Discovery and Technology Development

Despite the approval of some CAR T-cell products for the last-line treatment of hematologic malignancies, significant challenges remain, such as limited efficacies against solid tumors, undesirable safety concerns, and high manufacturing and treatment costs. We strive to explore and develop innovative technology platforms to address these challenges to generate better cell therapy products to global cancer patients.

We have established an integrated research and development platform covering the full CAR T development cycle including target discovery, antibody development, vector design, manufacturing, quality assurance, and quality control. Our integrated cell therapy platform is composed of target discovery, hybridoma and antibody humanization platform, fully human phage display antibody library platform, antibody identification platform, immune cell function evaluation platform, plasmid and lentiviral vector preparation platforms, cell therapy process development platform, analytical platforms with molecular, flow cytometry, biochemical, physical-chemical, and cell-based analytical capabilities, biological samples tests platform, clinical-scale and commercial-scale CAR T manufacturing platform, and platform for clinical studies. This platform enables us to develop a product candidate efficiently and effectively from early discovery to clinical trials and potentially to commercialization.

We continue to dedicate ourselves to advancing innovative CAR T technologies to address the major challenges of the industry. Our four strategic pillars include:

(1) **Efficacy**: To enhance efficacy against solid tumors, we continue to develop next-generation CAR T technologies, such as CycloCAR®. CycloCAR® features the co-expression of cytokine IL-7 and chemokine CCL21 in CAR T cells to potentially improve clinical efficacy and reduce the requirement of lymphodepletion conditioning. Our preclinical studies showed that IL-7 enhanced the proliferation and survival of CAR T cells and inhibited the apoptosis of CAR T cells, and CCL21 could drive infiltration of T cells and dendritic cells into tumor sites. The preclinical CycloCAR T cells improved the therapeutic effects against solid tumors in mice when compared with conventional CAR T cells. Moreover, even without preconditioning chemotherapy, the CycloCAR T cells could potently suppress the tumor growth with a significantly better efficacy than CAR T cells co-expressing IL-7 and CCL19 (7×19 CAR T, a previously reported design by other researchers). Our studies demonstrated that, independent of lymphodepletion chemotherapy, CycloCAR T cells exerted potent antitumor effects that were facilitated by infiltration of T cells and dendritic cells into tumor tissues, CycloCAR T cells experienced increased survival, and a potential anti-angiogenesis effect. We are using CycloCAR® to develop CAR T-cell therapies against several targets including CLDN18.2, GPC3, and mesothelin. We continue to explore potential combination approaches to boost the therapeutic effects of single agents and identify new targets and approaches to tackle new indications.

(2) **Safety**: To minimize safety concerns, we continue to develop innovative technologies that can help reduce the risk of CRS, neurotoxicity and on-target off-tumor toxicities and to improve applicability of adoptive cell therapies. We leverage our in-house antibody platform, powered by a fully human phage display library and improved hybridoma technology, to identify and optimize antibody fragments with higher specificity for tumor targets and increased stability, which lead to reduced auto-activation of CAR T cells in the absence of tumor targets and controlled levels of cytokine release. As evidence of our antibody engineering capabilities, we have developed zevor-cel, which did not induce Grade 3 or higher CRS in the IITs or in the Phase I clinical trials and reduced the need for anti-IL-6 medication and other immunosuppressant mediation (data as of the respective data cutoff dates for the ongoing IITs and clinical trials).

To improve the applicability of adoptive cell therapies, we developed the sFv-ε-based T-cell therapy powered by a full T-cell receptor (TCR) complex comprising a GPC3-targeted scFv and a CD3ε subunit, which can form a functional TCR complex with other TCR subunits (TCRα, TCRβ, CD3γ, CD3δ and CD3ζ) and redirect T cells to kill tumor cells in an MHC-independent manner. Our preclinical studies showed that sFv-ε-based T-cell therapies could effectively recognize and kill carcinoma cells and significantly inhibit tumor growth in mouse xenograft models with reduced cytokine release in vitro and in vivo, which could improve the safety and applicability of adoptive cell therapies. In addition, the co-expressed IL-7 is a cytokine that could enhance the proliferation and survival of T cells. Our preclinical studies showed that sFv-ε-based T-cell therapies displayed superior antitumor efficacy, T-cell persistence, and immunological memory in solid tumors xenografts with low cytokine release.

(3) **Patient accessibility**: To reduce the cost and increase the accessibility of CAR T-cell therapies, we continue to develop our market-differentiating allogeneic THANK-uCAR® technology. THANK-uCAR® is our proprietary technology to generate allogeneic CAR T cells with improved expansion and persistence by modifying donor-derived T cells. To minimize graft versus host disease (GvHD) and host versus graft response (HvGR) from allogeneic T cells, we disrupt the genomic loci encoding TCR and β2 microglobulin (B2M) to eliminate surface expression of the TCR or the human leukocyte antigen (HLA), an approach that has been validated by previous research. However, natural killer (NK) cells attack T cells without HLA expression, which then limits the expansion and persistence of the allogeneic CAR T cells. To protect the allogeneic CAR T cells from the patient's NK cells, we arm these TCR-/HLA – CAR T cells with a CAR that recognizes NKG2A to hinder the NKG2A-positive NK cell rejection of the CAR T cells and therefore allow the THANK-uCAR T cells to resist the attack by NK cells. Our in vitro and in vivo studies demonstrated that the armoring the TCR-/HLA – CAR T cells with the anti-NKG2A CAR resulted in improved expansion in the presence of NK cells. We are developing allogeneic CAR T-cell product candidates using THANK-uCAR® technology, which we believe could potentially increase CAR T cell expansion, persistence and efficacy. We believe the successful application of THANK-uCAR® technology would significantly lower the cost of CAR T-cell therapy and increase patient accessibility.

(4) **Target availability**: In the development of cancer therapies, the expression of tumor-associated antigens in normal tissues poses a significant challenge, as this expression pattern leads to on-target off-tumor toxicities. To resolve the challenge with target availability, we continue to explore innovative technologies to enhance drug target availability and therefore turn undruggable antigens into promising targets. We developed LADAR® technology (local action driven by artificial receptor), in which an artificial receptor is triggered by a LADAR Ligand to induce the transcription of the gene(s) of interest (e.g., the tumor antigen-targeted CAR, plus any cytokines or other therapeutic mediators). Through the LADAR® artificial receptor, the antitumor CAR transcription is only triggered when the LADAR binds to a LADAR Ligand, making it possible to precisely control when and where immune cells act against cancer cells.

The LADAR-CAR signaling circuits require both antigens for LADAR® and CAR recognition to kill target cells, thus reducing on-target off-tumor effects when these two antigens are not simultaneously expressed in the same normal tissues. In our in vitro studies, the LADAR® system induced strong therapeutic gene expression in response to antigen engagement and, importantly, negligible leakage expression in resting cells. LADAR-CAR T cells executed killing function only if both antigens were present.

We are also working on other applications of LADAR® system, such as LADAR-cytokine circuits. We believe that the establishment of LADAR® system is the key step to developing CAR T cells with powerful and precise killing of cancer.

To develop effective CAR T-cell products for more cancer types and further enhance the antitumor effect, we have been expanding our research to more promising oncology targets for cell therapies. In addition, leveraging our proprietary antibody platforms, we have successfully developed humanized or fully human antibodies against these targets, such as GPRC5D, B7-H3, etc. These antibodies, together with our CAR T-cell technology platforms, will help further enhance the product pipeline.

These technologies are currently being developed in-house with global rights and can be used alone or in combination to upgrade our existing product candidates and to generate future pipeline product candidates.

Utilizing these technologies, we strive to further enrich our product pipeline and subsequently progress to these pipeline product candidates clinical and commercial stage.

As of December 31, 2022, we had more than 300 patents of which 83 patents had been issued globally including China, the United States, Europe and Japan. This status is an increase of 25 issued patents and 51 patent applications from the end of 2021. Our R&D activities would continue to generate substantial intellectual property in our areas of expertise.

Manufacturing

We have established in-house GMP-compliant manufacturing capabilities to support vertically integrated CAR T manufacturing, including plasmids, lentiviral vectors, and CAR T-cell production. The vertically integrated production contributes to increased efficiency and enhanced control, resulting in improved drug product consistency and faster turnaround times for patients, especially for patients with rapidly progressing solid tumors. The integrated manufacturing will also significantly reduce costs and improve margins for more advantageous commercialization.

We have been expanding our manufacturing capacity in China and the U.S. to support both the clinical trials and the subsequent commercialization of our pipeline products.

Our clinical manufacturing facility in Xuhui, Shanghai with a total gross floor area (GFA) of approximately 3,000 sq.m. and an annual CAR T production capacity to support the CAR T-cell treatment of 200 patients has been used for clinical manufacturing of CAR T-cell products in supporting multiple clinical studies of our leading assets. Since establishment, our Xuhui facility has achieved over 95% manufacturing success rate for all product candidates.

We have also completed the construction of our commercial-scale manufacturing facility located in Jinshan, Shanghai with a total GFA of approximately 7,600 sq.m. and an estimated manufacturing capacity to support CAR T-cell treatment of up to 2,000 patients annually. The Jinshan Manufacturing Facility passed the on-site inspection conducted by the Shanghai Medical Products Administration (SHMPA) and obtained the first Manufacture License for Pharmaceutical Products ("**Manufacturing License**") issued in China for CAR T-cell therapy.

With the clinical manufacturing facility in Xuhui, Shanghai, and the commercial manufacturing facility in Jinshan, Shanghai, we can produce the lentiviral vectors and CAR T cells in-house to support clinical trials and CAR T-cell commercialization in China. We also provide the lentiviral vectors to clinical trials outside of China.

We have made significant progress in expanding CARsgen's manufacturing capacity outside China by launching a state-of-the-art GMP Manufacturing Facility in Research Triangle Park, Durham, North Carolina. We successfully passed the official inspections and received the Certificate of Compliance from the City-County Inspections Department of Durham. We have commenced commissioning and qualification of RTP Manufacturing Facility through the RMAT consultation with the FDA. The RTP Manufacturing Facility has started GMP production of autologous CAR T cell products and successfully released the first GMP batch for the clinical trials in September 2022.

The RTP Manufacturing Facility, with a total GFA of approximately 3,300 sq.m, will provide CARsgen with additional manufacturing capacity of autologous CAR T-cell products for 700 patients annually. The RTP Manufacturing Facility will support CARsgen's ongoing clinical studies and early commercial launch in the United States, Canada and Europe. CARsgen has started building a world-class Chemistry, Manufacturing and Controls (CMC) team for the RTP Manufacturing Facility operations. The RTP Manufacturing Facility project adopted an integrated project delivery approach that greatly shortens construction turnaround time and improves cost effectiveness. This project has received the Job Development Investment Grant award and other investment incentives from North Carolina state, Durham County and Durham City.

By building vertically integrated manufacturing capabilities in-house, we expect to significantly increase manufacturing sustainability, reduce manufacturing costs, and shorten the vein-to-vein time. In addition, we have an in-house GMP-compliant manufacturing facility capable of high yield production of lentiviral vectors. To accelerate the clinical production at the RTP Manufacturing Facility, CARsgen Jinshan Manufacturing Facility will provide the lentiviral vector to support CAR T-cell production for zevor-cel and CT041 clinical studies in the United States and Canada. With large scale lentiviral vectors production, we could greatly reduce the CAR T manufacturing costs.

Commercialization and External Collaboration

In formulating our strategies for the commercialization of our innovative CAR T-cell products, we have been carefully evaluating the different available options while considering the company's strategic development goals at different stages, the resources, the capabilities, and the financial implications. For the commercilization of zevor-cel in China, we have conducted thorough analysis for the two options of commercialization by ourselves or partnering with a company with established commercial network and capabilities.

Collaboration for zevor-cel commercialization in mainland China with Huadong Medicine

In January 2023, CARsgen and Huadong Medicine (Hangzhou) Co., Ltd., a wholly-owned subsidiary of Huadong Medicine Co., Ltd. (SZ. 000963) ("**Huadong Medicine**") entered into a collaboration agreement for the commercialization of zevor-cel in mainland China. Under the terms of the Agreement, CARsgen will receive an upfront payment of RMB200 million and is eligible to receive regulatory and commercial milestone payments up to RMB1,025 million. CARsgen will continue to be responsible for the development, regulatory approval, and manufacturing of zevor-cel in mainland China.

Huadong Medicine's extensive commercialization experience in mainland China along with their strategic goal of being a leader in the oncology therapeutic area created the opportunity for a strong, strategic and mutually beneficial partnership between our two companies. We believe that the partnership with Huadong Medicine, through lever-aging the respective strengths of the two companies, can significantly maximize the commercial successes of zevor-cel in the market while reduce the risk and associated cost.

Collaboration for the evaluation of AB011 with Roche

In January 2023, we announced a collaboration agreement with F. Hoffmann-La Roche Ltd ("**Roche**") to evaluate CARsgen's investigational drug AB011 in combination with atezolizumab, Roche's PD-L1 checkpoint inhibitor, along with standard-of-care chemotherapy in patients with GC/GEJ. Under the terms of the agreement, Roche will be responsible for operation and conduct of the trial while both companies co-share the costs of the AB011 treatment arms in the study. As part of the clinical collaboration, CARsgen's proprietary CLDN18.2 IHC test kit, which has showed excellent specificity and sensitivity profiles, will be applied to evaluate CLDN18.2 expression in the gastric cancer patients.

The co-funded study of AB011 in combination with atezolizumab will be conducted as part of Roche's Morpheus Platform. The Morpheus Platform is a collection of Phase Ib/II clinical trials in multiple cancers with high unmet clinical needs including gastrointestinal cancer, designed to assess the safety and early efficacy to enable more rapid and efficient development of novel cancer treatment combinations.

AB011 is an important asset in the CLDN18.2 franchise of CARsgen and is the first monoclonal antibody against CLDN18.2 that received IND clearance in China. Through this collaboration, we hope that the combination of AB011 and atezolizumab can bring greater clinical benefits to gastric cancer patients.

License Agreement for zevor-cel in the Republic of Korea with HK Inno.N Corporation

CARsgen has entered into a licensing agreement with HK Inno.N Corporation (KOSDAQ: 195940), a fully-integrated pharmaceutical company, to develop and commercialize CT032 and zevor-cel, targeting CD19 and BCMA respectively, for the potential treatment of various cancers in the Republic of Korea. Under the terms of the agreement, CARsgen will receive upfront and additional milestone payments totaling up to USD50 million as well as up to double digit royalties on net sales in the Republic of Korea.

Expansion and Retention of Talent

As of December 31, 2022, we had a total of 539 employees. We have also strengthened the leadership team: we hired Dr. Raffaele BAFFA as the Chief Medical Officer of the Company and Dr. Sylvie PELTIER as the Senior Vice President of Global Regulatory Affairs of the Company. Biographical details of the senior management team are provided on the Company's website at www.carsgen.com.

Impact of COVID-19

Clinical trials continued during the pandemic. COVID-19 had a manageable impact on our patient enrollment, patient visits and monitor's hospital visits. To minimize the impact of COVID-19, we conducted clinical trials at multiple institutions located in different areas, cities, and countries. Although some delays have occurred due to lack of hospital staff and slight administrative delays, there was no significant impact on the progress of clinical trials and interactions with health authorities. We do not expect the COVID-19 pandemic to have any material long-term impact on our clinical trials or our overall clinical development plans. Moreover, we continuously monitor and assess the impact of pandemic on the Group's U.S. operations and business activities outside China. We have noticed manageable impacts of the COVID-19 pandemic on the operations of the U.S. medical sites and the external vendors, which are involved in our clinical studies outside China. We may virtually monitor and audit some medical sites, contract development manufacturing organizations and contract research organizations due to the temporary suspension of onsite visits by our partners. The procurement and delivery of materials, reagents and equipment that are used in clinical manufacturing may be delayed or cancelled due to global supply chain constraints. Those uncertainties described above may slow down the progress of our clinical programs in the future. We have also noticed a potential impact of the COVID-19 pandemic on the construction, commissioning, qualification and validation of our U.S. CGMP manufacturing facility in Durham, North Carolina.

In 2022, the Group implemented a set of COVID-19 prevention and control measures, and there was no significant impact on our daily work. The measures undertaken included daily monitoring of the pandemic, tracking workforce health and travelling information, ensuring vaccination of the workforce, distributing personal protective equipment, frequent disinfection and good ventilation at workplace, and implementing strict visitor policies.

Although the pandemic remains ongoing, we believe the pandemic will not significantly impact our ability to continue our operations, though we cannot predict exactly how our operations may be affected.

Industry Overview

As a novel treatment modality, CAR T-cell therapy offers breakthrough efficacy and curative potential for cancer patients. The global CAR T-cell therapy market has been experiencing strong growth since the approval of the first CAR T-cell therapy in 2017. The global CAR T-cell therapy market is further driven by the increases in global cancer incidence, the approval of more CAR T-cell therapies in more cancer types and indications, the improvements in manufacturing technology and capacities, and the availability of CAR T-cell products in more markets. As of the date of this announcement, there are six CAR T-cell products approved by U.S. FDA and two CAR T-cell products approved by NMPA in China. However, there are still significant unmet medical needs for the cancer patients worldwide, calling for more and better innovative CAR T-cell products, particularly for the treatment of solid tumors. With our pipeline products, including zevor-cel and CT041, and innovative technology platforms, including CycloCAR®, THANK-uCAR® and LADAR®, we are committed to developing the innovative therapies to fulfill these unmet medical needs.

Future and Outlook

With the mission of "making cancer curable", we will continue to develop innovative product candidates for the treatment of cancer patients worldwide. Building on the milestones we have achieved, we will focus on rapid clinical development of zevor-cel and CT041 in both China and overseas. We will advance the clinical development to earlier line of treatment and continue to develop other product candidates in clinical and preclinical stages and to develop innovative CAR T technologies to further optimize the efficacy, safety and affordability of the CAR T-cell products. We will continue to expand our manufacturing capacity in China and the United States to support the clinical trials and future commercialization of our product candidates and to make CAR T-cell treatments more accessible and affordable. We will continue to establish additional external partnerships with leading research institutes and pharmaceutical companies on technology and product licenses as means to maximize the application of our technology platform and the value of our product pipeline, bringing more innovative cell therapy products to cancer patients worldwide and ultimately creating more value for our investors and the society.

3. FINANCIAL REVIEW

Overview

We have no products approved for commercial sale and have not generated any revenue from product sales. We have never been profitable and have incurred operating losses in every year since inception, with operating losses of RMB881 million and RMB574 million for the years ended December 31, 2022 and 2021, respectively. Substantially all of our operating losses resulted from research and development expenses and administrative expenses.

Loss for the years

Our net loss was RMB892 million for the year ended December 31, 2022, representing a decrease of RMB3,852 million from RMB4,744 million for the year ended December 31, 2021. The decrease was primarily due to (i) the decrease of fair value loss on financial instruments issued to investors (the "**Fair Value Loss**"), which totaled RMB4,156 million for the year ended December 31, 2021 and zero for the year ended December 31, 2022. The Fair Value Loss related financial instruments were converted to ordinary shares upon the completion of the Company's initial public offering on June 18, 2021 (the "**IPO**"), hence no loss would be recognized after the IPO; (ii) the decrease of listing fees of approximately RMB27 million (the "**Listing Fees**") for the year ended December 31, 2021, while no listing fee was incurred during the year ended December 31, 2022; partially offset by (iii) the increase in share-based compensation (together with the Fair Value Loss and the Listing Fees, collectively the "**Adjusted Items**"), which totaled RMB44 million for the year ended December 31, 2022, representing an increase of RMB30 million from RMB14 million for the year ended December 31, 2021; (iv) higher research and development expenses and higher administrative expenses; and (v) foreign exchange losses of RMB97 million for the year ended December 31, 2022, representing a net impact of RMB104 million from foreign exchange gains of RMB7 million for the year ended December 31, 2021.

Non-IFRS Measures

To supplement the Group's consolidated net loss and net loss per share which are presented in accordance with the IFRS, the Company has provided adjusted net loss and adjusted net loss per share as additional financial measures, which are not required by, or presented in accordance with, the IFRS.

Adjusted net loss for the periods and adjusted net loss per share for the periods represent the net loss and net loss per share respectively excluding the effect of certain non-cash items and/or one-time events, namely the fair value loss of the financial instrument issued to investors, the listing fee and share-based compensation. The terms adjusted net loss and adjusted net loss per share are not defined under the IFRS.

The table below sets forth a reconciliation of the loss to adjusted loss during the years indicated:

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
	(Audited)	(Audited)
Loss for the years	**(892,247)**	(4,744,423)
Add:		
Fair value loss of financial instrument issued to investors	**–**	4,155,572
Listing fee	**–**	26,580
Share-based compensation	**43,995**	13,504
Adjusted net loss	**(848,252)**	(548,767)

	Year ended December 31,	
	2022	2021
	RMB	*RMB*
	(Audited)	(Audited)
Loss per share for the years	**(1.62)**	(12.26)
Add:		
Fair value loss of financial instrument issued to investors per share	**–**	10.74
Listing fee per share	**–**	0.07
Share-based compensation per share	**0.08**	0.03
Adjusted net loss per share	**(1.54)**	(1.42)

The Company believes that the adjusted non-IFRS measures are useful for understanding and assessing the underlying business performance and operating trends, and that the Company's management and investors may benefit from referring to these adjusted financial measures in assessing the Group's financial performance by eliminating the impact of certain unusual, non-recurring, non-cash and/or non-operating items that the Group does not consider indicative of the performance of the Group's core business. These non-IFRS measures, as the management of the Group believes, is widely accepted and adopted in the industry in which the Group is operating. However, the presentation of these non-IFRS measures is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with the IFRS. Shareholders of the Company and potential investors should not view the adjusted results on a stand-alone basis or as a substitute for results under IFRS. These non-IFRS measures may not be comparable to similarly-titled measures represented by other companies.

Research and Development Expenses

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
	(Audited)	(Audited)
Employee benefit expenses	**273,297**	178,297
Testing and clinical expenses	**252,470**	204,309
Research and development consumables	**51,494**	53,456
Depreciation of property, plant and equipment	**47,208**	28,155
Depreciation of right-of-use assets	**20,160**	16,193
Utilities	**19,070**	10,875
Amortization of intangible assets	**5,846**	5,321
Travelling and transportation expenses	**4,952**	2,982
Office expenses	**2,392**	776
Professional service fees	**1,191**	240
Short term lease and low value lease expenses	**814**	691
Other expenses	**1,407**	426
Total	**680,301**	501,721

Research and development expenses increased to RMB680 million for the year ended December 31, 2022, representing an increase of RMB178 million from RMB502 million for the year ended December 31, 2021, primarily due to higher expenses for testing and productions in support of our clinical trials, and the additional costs incurred at the newly operational manufactory facility in North Carolina.

Administrative Expenses

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
	(Audited)	(Audited)
Employee benefit expenses	**79,931**	57,138
Listing expenses	**–**	26,580
Professional service fees	**23,216**	23,260
Office expenses	**13,041**	10,013
Depreciation of property, plant and equipment	**4,411**	1,492
Auditors' remuneration	**3,445**	3,793
– audit service	**3,260**	3,585
– non-audit service	**185**	208
Depreciation of right-of-use assets	**2,837**	606
Travelling and transportation expenses	**2,036**	799
Amortization of intangible assets	**1,071**	679
Utilities	**991**	308
Short term lease and low value lease expenses	**723**	100
Other expenses	**4,093**	1,063
Total	**135,795**	125,831

Administrative expenses increased to RMB136 million for the year ended December 31, 2022, representing an increase of RMB10 million from RMB126 million for the year ended December 31, 2021, primarily due to increase in employee benefit expenses resulting from higher headcount in the US and additional share-based compensation, offset by reduction in listing expenses.

Details of employee benefit expenses and share-based compensation included in the above administrative expenses and research and development expenses are as below:

Employee benefit expenses

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
	(Audited)	(Audited)
Wages and salaries	**250,072**	178,613
Pension costs	**21,472**	13,020
Share-based compensation	**43,995**	13,504
Other employee benefits	**37,689**	30,298
Total	**353,228**	235,435
Amount included in Research and Development Expenses	**273,297**	178,297
Amount included in Administrative Expenses	**79,931**	57,138

The increase of employee benefit expenses is mainly due to higher headcount in the US and the related increase in staff salary and benefit costs.

Share-based payments

Expenses for the share-based compensation have been charged to the consolidated statements of comprehensive loss as follows:

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
	(Audited)	(Audited)
Administrative expenses	**7,685**	1,890
Research and development expenses	**36,310**	11,614
Total	**43,995**	13,504

The increase of share-based compensation expenses is mainly due to additional shares granted.

Fair Value Loss of Financial Instruments Issued to Investors

The fair value loss of financial instruments issued to investors decrease to zero for the year ended December 31, 2022, representing a decrease of RMB4,156 million from RMB4,156 million for the year ended December 31, 2021, primarily due to the fair value loss related financial instruments were converted to ordinary shares upon the completion of the Company's IPO, hence no loss would be recognized after the IPO.

4. LIQUIDITY AND CAPITAL RESOURCES

Management monitors and maintains a level of cash and cash equivalents deemed adequate to finance our operations and mitigate the effects of fluctuations. In addition, management monitors our borrowings and, from time to time, evaluates operations to renew our borrowings upon expiry based on our actual business requirements. We rely on equity financing and debt financing as our major sources of liquidity.

The following table sets forth our cash flows for the periods indicated:

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
	(Audited)	(Audited)
Net cash used in operating activities	**(643,048)**	(512,322)
Net cash generated from/(used in) investing activities	**2,386,990**	(2,471,321)
Net cash (used in)/generated from financing activities	**(236,514)**	2,674,032
Net increase/(decrease) in cash and cash equivalents	**1,507,428**	(309,611)
Cash and cash equivalents at beginning of the period	**691,284**	1,042,969
Exchange gains/(losses) on cash and cash equivalents	**69,324**	(42,074)
Cash and cash equivalents at end of the period	**2,268,036**	691,284

Net Cash Used in Operating Activities

During the Reporting Period, we incurred negative cash flows from operations, and substantially all of our operating cash outflows resulted from our research and development expenses and administrative expenses.

Our operating activities used RMB643 million and RMB512 million for the year ended December 31, 2022 and 2021, respectively. We are currently a pre-income company. We believe our pipeline products have promising global market potential in the future. We intend to continue investing in our research and development efforts and aim to obtain marketing approvals for our product candidates as soon as feasible. As we launch and commercialize our product candidates, we expect to generate operating income and improve our net operating cash outflow position.

Net Cash Generated from Investing Activities

Our cash generated from investing activities mainly reflects our cash generated from short term deposits and used in our purchase of property, plant and equipment. For the year ended December 31, 2022, our net cash generated from investing activities was RMB2,387 million, which was primarily redemption of investment of term deposit partially offset by purchase of property, plant and equipment. For the year ended December 31, 2021, our net cash used in investing activities was RMB2,471 million, which was primarily attributable to investment of term deposit and purchase of equipment.

Net Cash Used in Financing Activities

During the Reporting Period, our cash outflow from financing activities primarily due to repayments of bank borrowings.

For the year ended December 31, 2022, our net cash used in financing activities was RMB237 million, primarily attributable to net repayments of bank borrowings of RMB219 million and payment of interest expenses of RMB10 million. For the year ended December 31, 2021, our net cash generated from financing activities was RMB2,674 million, which was primarily attributable to proceeds from our IPO and bank borrowings.

Cash and Cash Equivalents and Term Deposits with Original Maturity over Three Months

	As at December 31, 2022 ***RMB'000*** **(Audited)**	As at December 31, 2021 *RMB'000* (Audited)
Cash at banks		
– RMB	**906,855**	33,773
– USD	**1,357,360**	657,511
– HKD	**3,821**	–
Subtotal	**2,268,036**	691,284
Term deposits with original maturity between three and twelve months – USD	**–**	2,315,654
Total	**2,268,036**	3,006,938

The Group's total balance of cash and cash equivalents plus term deposits as at December 31, 2022 were RMB2,268 million, representing a decrease of RMB739 million compared to RMB3,007 million as at December 31, 2021. The decrease was primarily attributable to payments of research and development expenses, administrative expenses, investment of capex and repayments of bank borrowings.

Borrowing and Gearing Ratio

The Group's total borrowings, including interest-bearing borrowings, as at December 31, 2022 were RMB7 million, representing a decrease of RMB220 million compared to RMB227 million as at December 31, 2021.

As at December 31, 2022 and December 31, 2021, the Group's bank borrowings of approximately RMB7 million and RMB12 million respectively are pledged by property, plant and equipment and right-of-use assets of the Group.

The fair values of the borrowings approximate their carrying amounts as the discounting impact is not significant.

As at December 31, 2022, the Group's secured borrowings is mature within three years with the interest rate of 5.2250% (2021: 5.2250%). The gearing ratio (calculated by dividing the sum of borrowings and lease liabilities by total equity) of the Group as at December 31, 2022 and 2021 were 4.83% and 11.28%, respectively.

Lease Liabilities

The Group leases land use right and properties. Lease on land use right has been fully paid and lease on properties were measured at net present value of the lease payments to be paid during the lease terms.

Lease liabilities were discounted at incremental borrowings rates of the Group.

Our lease liabilities increased slightly to RMB112 million as at December 31, 2022 from RMB111 million as at December 31, 2021.

5. OTHER FINANCIAL INFORMATION

Significant Investments, Material Acquisitions and Disposals

As at December 31, 2022, we did not hold any significant investments. During the year ended December 31, 2022, we did not have any material acquisitions or disposals of subsidiaries, associates and joint ventures.

Foreign Exchange Risk

The Group has entities operating in the United States of America and in the People's Republic of China and there are certain cash and cash equivalents, other receivables, accruals and other payables denominated in a currency that is not the functional currency of the relevant group entity. As at December 31, 2022, the Group had no foreign exchange hedging instruments. The Group constantly reviews the economic situation and its foreign exchange risk profile, and will consider appropriate hedging measures, as may be necessary.

As at December 31, 2022 and 2021, if the USD strengthened/weakened by 5% against the RMB with all other variables held constant, net loss for the years would have increased/decreased approximately RMB78 million and RMB44 million respectively.

Capital Expenditure

For the year ended December 31, 2022, the Group's total capital expenditure amounted to approximately RMB139 million, which was mostly used in purchase of property, plant and equipment and software.

Charge on Assets

As at December 31, 2022 and 2021, the Group's building with carrying values of RMB31 million and RMB33 million respectively were pledged for certain of the Group's borrowings.

As at December 31, 2022 and 2021, the Group's land use right with carrying values of RMB6.6 million and RMB6.8 million respectively were pledged as collateral for the Group's borrowings.

Contingent Liability

As at December 31, 2022, the Group did not have any material contingent liabilities.

Employees and Remuneration Policies

During the Reporting Period, we have scaled down our team from about 573 employees as at December 31, 2021 to 539 employees as at December 31, 2022. As at December 31, 2022, we had a total of 539 employees, with 64.38% of them are female.

In compliance with the applicable labor laws, we enter into standard confidentiality and employment agreements with our key management and research staff. The contracts with our key personnel typically include a standard non-compete agreement that prohibits the employee from competing with us, directly or indirectly, during his or her employment and for up to two years after the termination of his or her employment. The agreements also typically include undertakings regarding assignment of inventions and discoveries made during the course of his or her employment.

During the Reporting Period, we did not experience any strikes, labor disputes or industrial action which had a material effect on our business. We believe we have not experienced any significant difficulty in recruiting staff for our operations. We have established a labor union that represents employees with respect to the promulgation of bylaws and internal protocols in China.

Our employees' remuneration consists of salaries, bonuses, share-based incentive plans, social insurance contributions and other welfare payments. In accordance with applicable laws, we have made contributions to social insurance funds (including pension plan, unemployment insurance, work-related injury insurance, medical insurance and maternity insurance, as applicable) and housing funds for our employees. During the Reporting Period, we had complied with all statutory social insurance fund obligations applicable to us under PRC & US laws in all material aspects, and housing fund obligations applicable to us under PRC laws.

To remain competitive in the labor market, we provide various incentives and benefits to our employees. We invest in continuing education and training programs, including internal and external training, for our management staff and other employees to upgrade their skills and knowledge. We also provide competitive salaries, project and stock incentive plans to our employees, especially key employees.

Future Investment Plans and Expected Funding

The Group will continue to expand its markets in the PRC and globally in order to tap its internal potential and maximize shareholders' interest. The Group will continue to grow through self-development, mergers and acquisitions, and other means. We will employ a combination of financing channels to finance capital expenditures, including but not limited to internal funds, capital markets and bank loans. Currently, the bank credit lines available to the Group are adequate.

II. ANNUAL RESULTS

CONSOLIDATED STATEMENT OF COMPREHENSIVE LOSS
FOR THE YEAR ENDED DECEMBER 31, 2022

	Note	Year ended December 31, 2022 RMB'000	2021 RMB'000
Revenue	3	**–**	25,813
Cost of sales		**–**	–
Gross profit		**–**	25,813
Administrative expenses	6	**(135,795)**	(125,831)
Research and development expenses	6	**(680,301)**	(501,721)
Other income	4	**35,595**	21,793
Other (losses)/gains – net	5	**(100,796)**	6,041
Operating loss		**(881,297)**	(573,905)
Finance income		**5,866**	3,568
Finance costs		**(15,521)**	(10,869)
Finance costs – net	7	**(9,655)**	(7,301)
Fair value changes in financial instruments issued to investors		**–**	(4,155,572)
Loss before income tax		**(890,952)**	(4,736,778)
Income tax expense	8	**(1,295)**	(7,645)
Loss for the year and attributable to the equity holders of the Company		**(892,247)**	(4,744,423)
Other comprehensive income/(loss) for the year:			
Items that may be reclassified to profit or loss			
Exchange differences on translation of subsidiaries		**(63,456)**	20,312
Items that will not be reclassified to profit or loss			
Exchange differences on translation of the Company		**377,717**	(11,328)
Fair value changes relating to financial instruments issued to investors due to the Company's own credit risk		**–**	(25,093)
Other comprehensive income/(loss) for the year, net of tax		**314,261**	(16,109)
Total comprehensive loss for the year and attributable to the equity holders of the Company		**(577,986)**	(4,760,532)
Loss per share for the loss attributable to owners of the Company			
Basic and diluted loss per share (in RMB)	9	**(1.62)**	(12.26)

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

AS AT DECEMBER 31, 2022

	Note	**As at December 31, 2022** ***RMB'000***	As at December 31, 2021 *RMB'000*
ASSETS			
Non-current assets			
Property, plant and equipment		**363,850**	300,898
Right-of-use assets		**77,533**	85,291
Intangible assets		**14,476**	20,133
Other non-current assets and prepayments		**6,321**	28,460
		462,180	434,782
Current assets			
Other receivables	*10*	**11,834**	41,885
Other current assets and prepayments		**20,769**	22,030
Term deposits with original maturity between three and twelve months		**–**	2,315,654
Cash and cash equivalents		**2,268,036**	691,284
		2,300,639	3,070,853
Total assets		**2,762,819**	3,505,635
EQUITY AND LIABILITIES			
Equity attributable to the equity holders of the Company			
Share capital	*11*	**1**	1
Reserves		**2,473,173**	2,996,659
Total equity		**2,473,174**	2,996,660

	Note	As at December 31, 2022 RMB'000	As at December 31, 2021 RMB'000
LIABILITIES			
Non-current liabilities			
Borrowings	*14*	**2,523**	7,375
Lease liabilities		**94,938**	97,312
Deferred income		**21,180**	15,116
		118,641	119,803
Current liabilities			
Lease liabilities		**17,134**	14,027
Accruals and other payables	*13*	**141,114**	138,025
Current income tax payable		**1,341**	7,645
Deferred income		**6,565**	10,144
Borrowings	*14*	**4,850**	219,331
		171,004	389,172
Total liabilities		**289,645**	508,975
Total equity and liabilities		**2,762,819**	3,505,635

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. GENERAL INFORMATION

CARsgen Therapeutics Holdings Limited (hereinafter the "Company") was incorporated under the law of Cayman Islands as a limited liability company on February 9, 2018. The address of the Company's registered office is P.O. Box 31119 Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, KY1 – 1205 Cayman Islands.

The Company is an investment holding company. The Company and its subsidiaries (hereinafter collectively referred to as the "Group") are a global clinical-stage biopharmaceutical company discovering, researching and developing cell therapies in the People's Republic of China (the "PRC") and United States of America (the "US").

The Company's shares began to list on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange") on June 18, 2021 (the "Listing").

The consolidated financial statements are presented in thousands of Renminbi ("RMB"), unless otherwise stated, and were approved and authorized for issue by the Board of Directors of the Company on March 21, 2023.

2. BASIS OF PREPARATION

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("IFRSs") issued by International Accounting Standards Board ("IASB") and disclosure requirements of the Hong Kong Companies Ordinance Cap. 622 ("HKCO"). The consolidated financial statements have been prepared under the historical cost convention, as modified by the revaluation of financial assets and liabilities at fair value through profit or loss, which are carried at fair value.

(i) New and amended standards adopted by the Group

The Group has applied the following amendments for the first time for their annual reporting period commencing January 1, 2022:

- Property, Plant and Equipment: Proceeds before intended use – Amendments to IAS 16
- Reference to the Conceptual Framework – Amendments to IFRS 3
- Annual Improvements to IFRSs 2018 – 2020
- Onerous Contracts – Cost of Fulfilling a Contract – Amendments to IAS 37

The amendments listed above did not have any impact on the amounts recognized in prior periods and are not expected to significantly affect the current or future periods.

The following new standards and amendments to existing standards have been issued but are not yet effective for the annual period after January 1, 2023 and which the Group has not early adopted.

(ii) New standards and interpretation not yet adopted

Standards	Key requirements	Effective for annual periods beginning on or after
IFRS 17	Insurance contracts	January 1, 2023
Amendments to IAS 1	Classification of Liabilities as Current or Non-current	January 1, 2023
Amendments to IFRS 10 and IAS 28	Sale or contribution of assets between an investor and its associate or joint venture	To be determined
Amendments to IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting Policies	January 1, 2023
Amendments to IAS 8	Definition of Accounting Estimates	January 1, 2023
Amendments to IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	January 1, 2023

The Group has already commenced an assessment of the impact of these new or revised standards and amendments, certain of which are relevant to the Group's operations. According to the preliminary assessment made by the directors, these standards and amendments are not expected to have a significant impact on the Group's financial performance and position.

3. REVENUE

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
Revenue from customers recognized at a point in time		
License fee	**–**	25,813

4. OTHER INCOME

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
Government grants	**13,815**	14,513
Interest income on term deposits with original maturity between three and twelve months	**21,700**	6,043
Others	**80**	1,237
Total	**35,595**	21,793

5. OTHER (LOSSES)/GAINS – NET

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
Net foreign exchange (losses)/gains – net	**(97,351)**	7,451
Others	**(3,445)**	(1,410)
Total	**(100,796)**	6,041

6. EXPENSE BY NATURE

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
Employee benefit expenses	**353,228**	235,435
Testing and clinical expenses	**252,470**	204,309
Depreciation of property, plant and equipment	**51,619**	29,647
Research and development consumables	**51,494**	53,456
Professional service expenses	**24,407**	23,500
Depreciation of right-of-use assets	**22,997**	16,799
Utilities	**20,061**	11,183
Office expenses	**15,433**	10,789
Travelling and transportation expenses	**6,988**	3,781
Amortization of intangible assets	**6,917**	6,000
Auditors' remuneration	**3,445**	3,793
– Audit service	**3,260**	3,585
– Non-audit service	**185**	208
Short term lease and low value lease expenses	**1,537**	791
Listing expenses through statement of profit and loss	**–**	26,580
Other expenses	**5,500**	1,489
Total	**816,096**	627,552

7. FINANCE COSTS – NET

	Year ended December 31,	
	2022	2021
	RMB'000	*RMB'000*
Finance Income		
Interest income	**5,866**	3,568
Finance costs		
Interest expense on lease liabilities	**(4,980)**	(2,846)
Interest expense on bank borrowings	**(10,541)**	(8,023)
Total finance cost	**(15,521)**	(10,869)
Total finance costs – net	**(9,655)**	(7,301)

8. INCOME TAX EXPENSE

	Year ended December 31	
	2022	2021
	RMB'000	*RMB'000*
Current income tax		
– PRC Corporate Tax	**–**	–
– Ireland Capital Gains Tax	**1,295**	7,645
Deferred income tax	**–**	–
	1,295	7,645

Current income tax

The Group is subject to income tax on an entity basis on profits arising in or derived from the jurisdictions in which members of the Group are domiciled and operated.

(a) Cayman Islands income tax

The Company was incorporated in the Cayman Islands as an exempted company with limited liability under the Companies Law of the Cayman Islands and accordingly, is exempted from Cayman Islands income tax.

(b) Hong Kong income tax

No provision for Hong Kong profits tax has been provided for at the rate of 16.5% as the Company has no estimated assessable profit.

(c) PRC corporate income tax

Subsidiaries in Mainland China are subject to income tax at a rate of 25% pursuant to the Corporate Income Tax Law of the PRC and the respective regulations (the "CIT Law"), with the exception of CARsgen Therapeutics obtained its High and New Technology Enterprises status in year 2020 and hence is entitled to a preferential tax rate of 15% for a three-year period commencing 2020.

No provision for Mainland China corporate income tax was provided for, as there's no assessable profit.

(d) The US corporate income tax

CARsgen USA, which was incorporated in Delaware, the United States on May 4, 2016, was subject to statutory U.S. Federal corporate income tax at a rate of 21% for the years ended December 31, 2022 and 2021. CARsgen USA was also subject to the state income tax during for the years ended December 31, 2022 and 2021.

No provision for US corporate income tax was provided for as there's no assessable profit.

(e) British Virgin Islands income tax

Under the current laws of BVI, the subsidiary incorporated in BVI is not subject to tax on income or capital gains. In addition, upon payments of dividends by our BVI subsidiaries to us, no BVI withholding tax is imposed.

(f) Ireland corporation income tax and Ireland capital gains tax

Subsidiary in Ireland is subject to income tax at a rate of 12.5% on the estimated assessable profit and 33% on the capital gains. Provision for Ireland capital gain tax has been provided as the subsidiary has realized capital gain for the years ended December 31, 2022 and 2021.

9. LOSS PER SHARE

(a) Basic loss per share

Basic loss per share is calculated by dividing the loss of the Group attributable to the equity holders of the Company by weighted average number of ordinary shares outstanding during the periods.

	Year ended December 31,	
	2022	2021
Loss attributable to the ordinary equity holders of the Company *(RMB'000)*	**(892,247)**	(4,744,423)
Weighted average number of ordinary shares in issue (in thousand)	**551,626**	386,835
Basic loss per share *(RMB)*	**(1.62)**	(12.26)

(b) Diluted loss per share

Diluted loss per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. For the years ended December 31, 2022 and 2021, the Company had outstanding potential ordinary shares in relation to share-based payments. As the Group incurred losses for the years ended December 31, 2022 and 2021, the potential ordinary shares were not included in the calculation of diluted loss per share as their inclusion would be anti-dilutive. Accordingly, diluted loss per share for the years ended December 31, 2022 and 2021 are the same as basic loss per share of the respective periods.

10. OTHER RECEIVABLES

	As at December 31, 2022 *RMB'000*	As at December 31, 2021 *RMB'000*
Lease incentive receivables	**–**	32,660
Deposits – current	**6,309**	5,298
Others	**5,525**	3,927
Total	**11,834**	41,885

None of the above assets is past due. The financial assets included in the above balances related to deposits and others for which there was no history of default and the expected credit losses are considered minimal.

The maximum exposure to credit risk at the reporting date is the carrying value of receivables mentioned above.

The carrying amounts of the Group's other receivables approximate their fair values.

11. SHARE CAPITAL

Authorized:

	Number of shares *In thousands*	Nominal value of shares *USD*	RMB equivalent value *RMB'000*
As at January 1, 2021 and December 31, 2021	200,000,000	50,000	349
As at January 1, 2022 and December 31, 2022	200,000,000	50,000	349

Issued and fully paid:

	Number of ordinary shares at USD0.00000025 par value *In thousands*	RMB equivalent value *RMB'000*
As at January 1, 2021	**198,140**	–*
Issue of shares held in trust *(Note(a))*	**19,623**	–*
Conversion of Preferred Shares to Ordinary Shares upon Global Offering *(Note(b))*	**254,837**	1
Issue of shares by Global Offering *(Note(c))*	**94,747**	–*
Issue of shares to employees under Employee Incentive Schemes *(Note(d))*	**190**	–*
As at December 31, 2021	**567,537**	1

	Number of ordinary shares at USD0.00000025 par value *In thousands*	RMB equivalent value *RMB'000*
As at January 1, 2022	**567,537**	1
Issue of shares held in trust *(Note(e))*	**2,187**	–*
Issue of shares to employees under Employee Incentive Schemes *(Note(f))*	**2,901**	–*
As at December 31, 2022	**572,625**	1

* The amounts are less than RMB1,000.

Note(a): On May 11, 2021, the Company allotted and issued 12,497,947 Shares to Carfa Unity Limited and 7,125,575 Shares to Carfe Unity Limited, both of which were wholly-owned by the 2019 Equity Incentive Plan Trustee. Such Shares are to be held in trust by the 2019 Equity Incentive Plan Trustee to facilitate the transfer of Shares to the grantees upon vesting of the relevant Share Options and Share Awards. The Shares of the Company held in Carfa Unity Limited and Carfe Unity Limited were accounted as" Reserve-Treasury shares held in trust".

Note(b): All 254,836,638 preferred shares were automatically converted into ordinary shares at HK$32.8 per share upon the completion of Global Offering. The difference between HK$32.8 and the par value of each share were capitalized as "Reserve-Share premium". In addition, the cumulative fair value changes due to credit risk related to the preferred shares were transferred from other reserve to accumulated losses on the same date.

Note(c): In connection with the Company's listing, 94,747,000 ordinary shares of the Company at US$0.00000025 par value each were issued at HK$32.8 per share for a total cash consideration of HK$3,107,701,000 (equivalent to RMB2,576,082,000) on June 18, 2021. Netting off underwriting commissions and other issuance costs through equity with the amount of RMB88,349,000, the Group received RMB2,487,733,000. Excluding the par value, the amount was recorded as "Reserve-Share premium".

Note(d): During the year ended December 31, 2021, the Company issued 190,390 shares at the cost of HKD1,278,699 (equivalent to RMB1,118,000 approximately) to employees under Employee Incentive Schemes.

Note(e): On April 28, 2022, the Company allotted and issued 2,187,299 shares to Carfe Unity Limited, which was wholly owned by the 2019 Equity Incentive Plan Trustee. Such Shares are to be held in trust by the 2019 Equity Incentive Plan Trustee to facilitate the transfer of Shares to the grantees upon vesting of the relevant Share Options and Share Awards. The Shares of the Company held in Carfe Unity Limited were accounted as "Reserve-Treasury shares held in trust".

Note(f): During the year ended December 31, 2022, the Company issued 2,900,886 ordinary shares at the cost of HKD8,993,907 (equivalent to RMB8,033,987 approximately) in total at the prices ranging from nil to HKD10.92 per share to employees under Employee Incentive Schemes.

12. DIVIDEND

No dividend was declared or paid by the Company or the companies now comprising the Group during the years ended December 31, 2022 and 2021.

13. ACCRUALS AND OTHER PAYABLES

	As at December 31, 2022 ***RMB'000***	As at December 31, 2021 *RMB'000*
Accrued expenses	**81,536**	45,520
Payables for acquisition of property, plant and equipment	**1,529**	37,969
Payables for research and development consumables	**503**	340
Staff salaries and welfare payables	**51,017**	45,837
Other taxes payable	**4,094**	2,620
Interest payables	**49**	393
Others	**2,386**	5,346
Total	**141,114**	138,025

14. BORROWINGS

	As at December 31, 2022 ***RMB'000***	As at December 31, 2021 *RMB'000*
Non-current		
Secured bank borrowings	**2,523**	7,375
Current		
Unsecured borrowings	**–**	214,727
Secured bank borrowings	**4,850**	4,604
	4,850	219,331
Total	**7,373**	226,706

15. SUBSEQUENT EVENTS

As at January 16, 2023, CARsgen Life Sciences, a wholly-owned subsidiary of the Company and Huadong Medicine (Hangzhou) Co., Ltd., a wholly-owned subsidiary of Huadong Medicine Co., Ltd. entered into a collaboration agreement (the "**Agreement**") for the commercialization of CARsgen's drug candidate, zevorcabtagene autoleucel (CT053) in mainland China. Pursuant to the Agreement, Huadong Medicine Co., Ltd. is granted the exclusive right to commercialize zevor-cel in mainland China. Under the terms of the Agreement, CARsgen Life Sciences will receive an upfront payment of RMB200 million and is eligible to receive regulatory and commercial milestone payments up to RMB1,025 million. CARsgen Life Sciences will continue to be responsible for the development, regulatory approval, and manufacturing of CT053 in mainland China.

III. CORPORATE GOVERNANCE RELATED INFORMATION

Purchase, Sale or Redemption of the Company's Listed Securities

During the Reporting Period, neither the Company nor any of its subsidiaries had purchased, sold or redeemed the Company's listed securities.

Model Code for Securities Transactions

The Company has adopted the Insider Dealing Policy (the "**Policy**"), with terms no less exacting than the Model Code as set out in Appendix 10 to the Listing Rules as its own securities dealing policy to regulate all dealings by Directors and employees who, because of his/her office or employment, is likely to possess inside information in relation to the Group or the Company's securities.

Specific enquiries have been made to all Directors and the Directors have confirmed that they have complied with the Policy throughout the Reporting Period.

No incident of non-compliance of the Policy by the employees was noted by the Company for the Reporting Period.

Compliance with the Corporate Governance Code

The Company recognizes the importance of good corporate governance for enhancing the management of the Company as well as preserving the interests of the shareholders as a whole. The Company has adopted corporate governance practices based on the principles and code provisions as set out in Part 2 of the CG Code as contained in Appendix 14 to the Listing Rules as its own code of corporate governance practices.

During the Reporting Period, the Company has complied with all the applicable code provisions as set out in the CG Code, except for code provision C.2.1 described in the paragraph headed "C. Directors' Responsibilities, Delegation and Board Proceedings – C.2 Chairman and Chief Executive". The Board will continue to review and monitor the code of corporate governance practices of the Company with an aim to maintaining a high standard of corporate governance.

Pursuant to code provision C.2.1 of the Corporate Governance Code, companies listed on the Stock Exchange are expected to comply with, but may choose to deviate from the requirement that the roles of chairman and chief executive should be separate and should not be performed by the same individual. We do not have separate chairman of the Board and CEO and Dr. Zonghai LI ("**Dr. Li**"), the chairman of our Board and CEO, currently performs these two roles. Our Board believes that, in view of his experience, personal profile and his roles in our Company as mentioned above, Dr. Li is the Director best suited to identify strategic opportunities and focus of the Board due to his extensive understanding of our business as our CEO. Our Board also believes that the combined role of chairman of the Board and CEO can promote the effective execution of strategic initiatives and facilitate the flow of information between management and the Board. Our Board will continue to review and consider splitting the roles of chairman of the Board and the CEO at a time when it is appropriate by taking into account the circumstances of our Group as a whole.

Subsequent Events

As at January 16, 2023, CARsgen Life Sciences, a wholly-owned subsidiary of the Company and Huadong Medicine (Hangzhou) Co., Ltd., a wholly-owned subsidiary of Huadong Medicine entered into a collaboration agreement (the "**Agreement**") for the commercialization of CARsgen's drug candidate, zevorcabtagene autoleucel (CT053) in mainland China. Pursuant to the Agreement, Huadong Medicine is granted the exclusive right to commercialize zevor-cel in mainland China. Under the terms of the Agreement, CARsgen Life Sciences will receive an upfront payment of RMB200 million and is eligible to receive regulatory and commercial milestone payments up to RMB1,025 million. CARsgen Life Sciences will continue to be responsible for the development, regulatory approval, and manufacturing of CT053 in mainland China.

Legal Proceedings

As of December 31, 2022, as far as the Company is aware, the Company and its subsidiaries were not involved in any material litigation or arbitration and no material litigation or claim of material importance was pending or threatened against or by the Company.

Use of Proceeds from the Global Offering

The Company's Shares were listed on the Stock Exchange on June 18, 2021 with a total of 94,747,000 offer shares issued and the net proceeds raised from the Global Offering were approximately HK$3,008 million. The net proceeds from the Listing (adjusted on a pro rata basis based on the actual net proceeds) have been and will be utilized in accordance with the purposes set out in the Prospectus. There was no change in the intended use of net proceeds as previously disclosed in the Prospectus as follows:

- approximately HK$902.4 million (US$115.7 million) (or approximately 30% of the net proceeds) to fund further development of our Core Product Candidate, BCMA CAR-T (CT053)

- approximately HK$932.5 million (US$119.6 million) (or approximately 31% of the net proceeds) to fund ongoing and planned research and development of our other pipeline product candidates

- approximately HK$601.6 million (US$77.2 million) (or approximately 20% of the net proceeds) for developing full-scale manufacturing and commercialization capabilities

- approximately HK$300.8 million (US$38.6 million) (or approximately 10% of the net proceeds) for continued upgrading of CAR-T technologies and early-stage research and development activities

- approximately HK$270.7 million (US$34.7 million) (or approximately 9% of the net proceeds) will be used for our working capital and other general corporate purposes.

The net proceeds from the Global Offering have been utilized in accordance with the purposes set out in the Prospectus. The table below sets out the applications of the net proceeds and actual usage up to December 31, 2022:

Use of proceeds	Planned allocation of Net Proceeds *(HKD million)*	Planned allocation of Net Proceeds *(RMB million)*	Utilized amount (as at December 31, 2021) *(RMB million)*	Utilized for the twelve months ended December 31, 2022 *(RMB million)*	Utilized amount (as at December 31, 2022) *(RMB million)*	Remaining amount (as at December 31, 2022) *(RMB million)*
Further development of our Core Product Candidate, BCMA CAR-T (CT053)	902.4	806.1	90.8	211.5	302.3	503.8
Ongoing and planned research and development of our other pipeline product candidates	932.5	833.0	150.0	174.6	324.6	508.4
Developing full-scale manufacturing and commercialization capabilities	601.6	537.4	144.9	133.6	278.5	258.9
Upgrading of CAR-T technologies and early – stage research and development activities	300.8	268.7	19.9	48.1	68.0	200.7
Working capital and other general corporate purposes	270.7	241.8	–	93.9	93.9	147.9
Total	3,008.0	2,687.0	405.6	661.7	1,067.3	1,619.7

The unutilized amount of net proceeds is expected to be fully utilized by 2025, which is later than originally planned, due to cost savings achieved via improved operational efficiency and moving outsourced services internally.

Audit Committee

The Audit Committee has three members comprising Mr. Tak Young SO (chairman), Mr. Huaqing GUO and Dr. Huabing LI, with terms of reference in compliance with the Listing Rules.

The Audit Committee has considered and reviewed the accounting principles and practices adopted by the Group and has discussed matters in relation to internal controls and financial reporting with the management, including the review of the audited consolidated financial statements of the Group for the year ended December 31, 2022. The Audit Committee considers that the financial results for the year ended December 31, 2022 are in compliance with the relevant accounting standards, rules and regulations and appropriate disclosures have been duly made.

Auditor

The figures in respect of the Group's consolidated statement of comprehensive loss, consolidated statement of financial position and the related notes thereto for the year ended December 31, 2022 as set out above in this announcement have been agreed by the Group's auditor, PricewaterhouseCoopers, to the amounts set out in the Group's consolidated financial statements for the year. The work performed by PricewaterhouseCoopers in this respect did not constitute an audit, review or other assurance engagement and consequently no assurance has been expressed by PricewaterhouseCoopers on this announcement.

FINAL DIVIDEND

The Board has resolved not to recommend the payment of a final dividend for the year ended December 31, 2022 (2021: Nil).

ANNUAL GENERAL MEETING

The annual general meeting is scheduled to be held on Thursday, May 25, 2023 (the "**AGM**"). A notice convening the AGM will be published and dispatched to the shareholders of the Company in the manner required by the Listing Rules in due course.

CLOSURE OF REGISTER OF MEMBERS AND RECORD DATE

The register of members of the Company will be closed from Monday, May 22, 2023 to Thursday, May 25, 2023, both days inclusive, in order to determine the identity of Shareholders who are entitled to attend and vote at the AGM to be held on Thursday, May 25, 2023. Shareholders whose name appear on the register of members of the Company on Thursday, May 25, 2023 will be entitled to attend and vote at the AGM. In order to be eligible to attend and vote at the AGM, all transfer accompanied by relevant share certificates and transfer forms must be lodged with the Company's branch share registrar in Hong Kong, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong before 4:30 p.m. on Friday, May 19, 2023.

PUBLICATION OF ANNUAL RESULTS ANNOUNCEMENT AND ANNUAL REPORT

This announcement is published on the websites of the Stock Exchange (www.hkexnews.hk) and the Company (www.carsgen.com).

The annual report of the Company for the year ended December 31, 2022 containing all the information required by the Listing Rules will be despatched to the Company's shareholders and published on the websites of the Stock Exchange and the Company in due course.

APPRECIATION

The Board would like to express its sincere gratitude to the shareholders, management team, employees, business partners and customers of the Group for their support and contribution to the Group.

"2019 Equity Incentive Plan"	the equity incentive plan of our Company as adopted by way of written resolutions of the Board on January 22, 2019, the principal terms of which are set out in the section headed "Statutory and General Information — D. 2019 Equity Incentive Plan" in the Prospectus
"2019 Equity Incentive Plan Trustee"	KASTLE LIMITED (嘉士圖有限公司), which was appointed as the trustee of the 2019 Equity Incentive Plan on December 31, 2020
"Audit Committee"	the audit committee of the Company
"Board of Directors", "Board" or "our Board"	our board of Directors
"BVI"	the British Virgin Islands
"CARsgen Life Sciences"	CARsgen Life Sciences Co., Ltd (愷興生命科技(上海)有限公司), a wholly foreign-owned enterprise incorporated in the PRC on March 22, 2018 and an indirectly wholly-owned subsidiary of our Company
"China" or "PRC"	the People's Republic of China, which for the purpose of the Prospectus and for geographical reference only, excludes Hong Kong, Macao and Taiwan
"Company", "our Company", "the Company", "CARsgen Therapeutics" or "CARsgen"	CARsgen Therapeutics Holdings Limited (科濟藥業控股有限公司), an exempted company incorporated in the Cayman Islands with limited liability on February 9, 2018
"Companies Ordinance"	the Companies Ordinance (Cap. 622), as amended, supplemented or otherwise modified from time to time
"Core Product Candidate"	has the meaning ascribed to it in Chapter 18A of the Listing Rules and in this context, refers to CT053
"Corporate Governance Code" or "CG Code"	the Corporate Governance Code set out in Appendix 14 to the Listing Rules
"Director(s)"	the director(s) of the Company

"Group", "our Group", "we", "us" or "our"	our Company, its subsidiaries and consolidated affiliated entities from time to time or, where the context so requires, in respect of the period prior to our Company becoming the holding company of its present subsidiaries and consolidated affiliated entities, such subsidiaries and consolidated affiliated entities as if they were subsidiaries and consolidated affiliated entities of our Company at the relevant time
"HK$" or "Hong Kong dollars"	Hong Kong dollars, the lawful currency of Hong Kong
"Hong Kong" or "HK"	the Hong Kong Special Administrative Region of the People's Republic of China
"Listing Rules"	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended, supplemented or otherwise modified from time to time
"Model Code"	Model Code for Securities Transactions by Directors of Listed Issuers
"Prospectus"	the prospectus issued by the Company on June 7, 2021 in connection with the IPO
"Reporting Period"	the period from January 1, 2022 to December 31, 2022
"RMB" or "Renminbi"	Renminbi, the lawful currency of China
"Share(s)"	ordinary share(s) in the share capital of our Company with a par value of US$0.00000025 each
"United States" or "U.S." or "US"	the United States of America, its territories, its possessions and all areas subject to its jurisdiction
"US$" or "U.S. dollars" or "USD"	United States dollars, the lawful currency of the United States

In this announcement, the terms "associate", "connected person", "controlling shareholder" and "subsidiary" shall have the meanings given to such terms in the Listing Rules, unless the context otherwise requires.

GLOSSARY

"ADCC"	antibody-dependent cellular cytotoxicity is an immune mechanism through which Fc receptor-bearing effector cells recognize and kill antibody-coated target cells expressing tumor- or pathogen-derived antigens on their surface
"antigen"	the substance that is capable of stimulating an immune response, specifically activating lymphocytes, which are the body's infection-fighting white blood cells
"BCMA"	B-cell maturation antigen, a protein that is highly expressed in multiple myeloma with limited expression on normal tissues other than plasma cells
"BLA"	biologics license application
"B2M"	beta 2 microglobulin
"CAR(s)"	chimeric antigen receptor(s)
"CAR-T" or "CAR T"	chimeric antigen receptor T cell
"CD19"	a cell surface protein expressed on the surface of almost all B cell leukemia and lymphoma
"CDC"	complement-dependent cytotoxicity, an effector function of IgG and IgM antibodies
"CDE"	Center for Drug Evaluation, an institution under the NMPA
"CGMP"	current good manufacturing practices
"chemotherapy"	a category of cancer treatment that uses one or more anti-cancer chemotherapeutic agents as part of its standardized regimen
"CLDN18.2"	Claudin18.2, a target in the treatment of certain solid tumors such as gastric cancer, esophageal cancer and pancreatic cancer
"CMC"	chemistry, manufacturing, and controls processes in the development, licensure, manufacturing, and ongoing marketing of pharmaceutical products
"cohort"	a group of patients as part of a clinical study who share a common characteristic or experience within a defined period and who are monitored over time

"combination therapy"	treatment in which a patient is given two or more therapeutic agents for the treatment of a single disease
"CRS"	cytokine release syndrome, a form of systemic inflammatory response syndrome that arises as a complication of some diseases or infections, and is also an adverse effect of some monoclonal antibody drugs, as well as adoptive T cell therapies
"CycloCAR®"	a next-generation CAR-T technology under development by the Company, which features co-expression of cytokines IL-7 and chemokine CCL21 in the CAR T-cells to potentially improve clinical efficacy and reduced requirement for lymphodepletion conditioning
"cytokine"	a broad and loose category of small proteins that are important in cell signaling. Their release affects the growth of all blood cells and other cells that help the body's immune and inflammation responses
"EGFR"	epidermal growth factor receptor
"EGFRvIII"	variant III of epidermal growth factor receptor
"EMA"	European Medicines Agency
"FDA" or "U.S. FDA"	U.S. Food and Drug Administration
"GMP"	Good Manufacturing Practice
"GPC3"	Glypican-3, an oncofetal antigen expressed in a variety of tumors including certain liver and lung cancers
"Grade"	term used to refer to the severity of adverse events
"GvHD"	graft versus host disease
"HCC"	hepatocellular carcinoma, a type of cancer arising from hepatocytes in predominantly cirrhotic liver
"HLA"	human leukocyte antigen
"HvGR"	host versus graft response
"IHC"	immunohistochemistry, which is the identification of antigens in tissues using antibodies that are linked to enzymes, fluorescent dyes, or radioactive labels. IHC is used to diagnose and track specific cellular anomalies, such as cancers

"IIT" or "investigator-initiated trial"	clinical trial sponsored and conducted by independent investigators
"IND"	investigational new drug or investigational new drug application, also known as clinical trial application in China
"LADAR®"	Local Action Driven by Artificial Receptor technology, with similar mechanism of synNotch system, in which the intracellular transcription of the gene of interest is controlled by a chimeric regulatory antigen receptor
"mAb" or "monoclonal antibody"	antibodies that are made by identical immune cells which are all clones belonging to a unique parent cell
"mesothelin"	cell-surface protein whose expression is mostly restricted to mesothelial cell layers lining the pleura, pericardium and peritoneum
"MM" or "R/R MM"	multiple myeloma, a type of cancer that forms in the white blood cells; cancer that relapses or does not respond to treatment is called relapsed and/or refractory multiple myeloma
"NDA"	new drug application
"NK cell"	natural killer cell, the human body's first line of defense due to their innate ability to rapidly seek and destroy abnormal cells
"NKG2A"	also named KLRC1, killer cell lectin-like receptor subfamily C, member 1
"NMPA"	National Medical Products Administration (國家藥品監督管理局), the successor of the China Food and Drug Administration (國家食品藥品監督管理總局), or the CFDA, the State Food and Drug Administration (國家食品藥品監督管理局), or the SFDA and the State Drug Administration (國家藥品監督管理局), or the SDA
"neurotoxicity"	possible adverse side effect of T cell therapies that leads to a state of confusion, aphasia, encephalopathy, tremor, muscular weakness, and somnolence
"PD-L1"	PD-1 ligand 1, which is a protein on the surface of a normal cell or a cancer cell that attaches to PD-1 on the surface of the T cell that causes the T cell to turn off its ability to kill the cancer cell
"Phase I"	a study in which a drug is introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage, tolerance, absorption, metabolism, distribution, excretion, and if possible, to gain an early indication of its effectiveness

"Phase Ib"	a phase of clinical trials that primarily assesses safety, tolerability and pharmacokinetics/pharmacodynamics at multiple ascending dose levels prior to commencement of a Phase II or Phase III clinical trial
"Phase II"	a study in which a drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the drug for specific targeted disease, and to determine dosage tolerance and optimal dosage
"confirmatory trial" or "pivotal trial"	the trial or study intended to demonstrate the required clinical efficacy and safety evidence before submission for drug marketing approval
"PRIME"	PRIority MEdicine. A scheme launched by the EMA to offer early and proactive support to medicine developers to optimize the generation of robust data on medicine's benefits and risks, and accelerate assessment of medicines applications, for medicines that target an unmet medical need with advantages over existing treatments
"regenerative medicine advanced therapy" or "RMAT"	a special status granted by the FDA to regenerative medicine therapies, including cell therapies, intended to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug has the potential to address unmet medical needs for such disease or condition
"solid tumor"	an abnormal mass of tissue that usually does not contain cysts or liquid areas
"TCR"	T cell receptor
"THANK-uCAR®"	the Company's proprietary technology to generate CAR T cells with improved expansion and persistence from T cells that are sourced from third-party donors

CAUTIONARY LANGUAGE REGARDING FORWARD-LOOKING STATEMENTS

All statements in this announcement that are not historical facts or that do not relate to present facts or current conditions are forward-looking statements. Such forward-looking statements express the Company's current views, projections, beliefs and expectations with respect to future events as of the date of this announcement. Such forward-looking statements are based on a number of assumptions and factors beyond the Company's control. As a result, they are subject to significant risks and uncertainties, and actual events or results may differ materially from these forward-looking statements and the forward-looking events discussed in this announcement might not occur. Such risks and uncertainties include, but are not limited to, those detailed under the heading "Principal Risks and Uncertainties" in our most recent annual report and interim report and other announcements and reports made available on our corporate website, https://www.carsgen.com. No representation or warranty is given as to the achievement or reasonableness of, and no reliance should be placed on, any projections, targets, estimates or forecasts contained in this announcement.

By Order of the Board
CARsgen Therapeutics Holdings Limited
Dr. Zonghai LI
Chairman

Hong Kong, March 21, 2023

As at the date of this announcement, the board of directors of the Company comprises Dr. Zonghai LI, Dr. Huamao WANG and Dr. Hua JIANG as executive Directors; Mr. Bingsen GUO, Mr. Huaqing GUO and Mr. Ronggang XIE as non-executive Directors; Dr. Guangmei YAN, Mr. Tak Young SO and Dr. Huabing LI as the independent non-executive Directors.

In the case of inconsistency, the English text of this announcement shall prevail over the Chinese text.