OVERVIEW

We are a clinical-stage biotechnology company dedicated to the discovery, development, manufacture and commercialization of novel oncolytic immunotherapies and engineered exosome therapies, by harnessing our proprietary biological engineering technology. We have strategically designed, self-discovered, and built a risk-balanced product portfolio that comprised two oncolytic immunotherapy candidates for solid tumors and five engineered exosome assets poised for clinical application or direct commercialization, as of the Latest Practicable Date. Driven by our vision to become a global leader in the full spectrum of bladder cancer treatment development and unlock the therapeutical potential of oncolytic immunotherapy in head and neck squamous cell carcinoma (HNSCC), we have adopted a rationalized, adaptive approach to advance oncolytic immunotherapy candidates with high clinical potential globally. In parallel, leveraging our deep expertise in biological engineering, we have pioneered development of engineered exosome candidates targeting chronic, hard-to-treat diseases as well as age-related conditions. The following chart illustrates our clinical pipeline and summarizes the development status of each candidate as of the Latest Practicable Date:

Abbreviations: oHSV = oncolytic herpes simplex virus; BCG = Bacillus Calmette-Guérin; NMIBC = non-muscle-invasive bladder cancer; MIBC = muscle-invasive bladder cancer; CIS = carcinoma in situ; HNSCC = head and neck squamous cell carcinoma

Notes:

(1) In May 2020, we received an umbrella IND approval for MVR-T3011 from the FDA, which covers multiple phases/stages of clinical trials across different indications and routes of administration. Based on this IND approval, we, as the sponsor, subsequently initiated two Phase I/IIa clinical trials in the U.S., namely the Phase I/IIa clinical trial of MVR-T3011 via intratumoral administration as a single agent and/or in combination with intravenous pembrolizumab in patients with advanced or metastatic solid tumors (including bladder cancer and HNSCC) in the U.S. (NCT04370587) and the Phase I/IIa clinical trial of MVR-T3011 monotherapy in patients with advanced solid tumors (including bladder cancer and HNSCC) via intravenous administration in the U.S. (NCT04780217). We completed the Phase I portions of these two Phase I/IIa clinical trials in May 2021 and November 2023, respectively.

In September 2024, we had a Type C meeting with the FDA for early consultation on the clinical development pathway of MVR-T3011 in high-risk BCG-unresponsive NMIBC from a scientific perspective, where we submitted a comprehensive background information package including, among others, cumulative clinical data supporting safety and tolerability profile of MVR-T3011 and its established RP2D from the foregoing two Phase I/IIa clinical trials via intratumoral and intravenous administration in all advanced solid tumors (including bladder cancer and HNSCC) independently conducted by us. Following the meeting, we submitted a formal protocol amendment to the FDA in November 2024 to add the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC or BCG-exposed, chemotherapy-unresponsive intermediate/high-risk NMIBC in the U.S. (NCT06971614) under the umbrella IND from the FDA. Based on FDA's tacit approval for the protocol amendment, we subsequently initiated this Phase II clinical trial in June 2025. For details, see "Business — Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Material Communication with Competent Authority."

(2) The anti-PD-1 antibody used in this trial is pembrolizumab, developed and manufactured by MSD. As of July 2025, pembrolizumab has received approvals for over 40 indications globally. Under the relevant agreements with the participating research centers, the drug is used as a standard-of-care (SOC) treatment in the study, and the associated costs are covered by public medical insurance.

(3) The intratumoral MVR-T3011 was granted the Fast Track Designation by the FDA in March 2024 for the treatment of recurrent or metastatic HNSCC patients who failed platinum-containing chemotherapy and anti-PD-(L)1 therapy.

(4) MVR-C5252 was granted the Orphan Drug Designation (ODD) by the FDA for the treatment of malignant glioma in August 2022.

(5) On August 6, 2020, we entered into a license and collaboration agreement with Shanghai Pharmaceuticals Holding Co., Ltd. ("**SPH**"), as amended, pursuant to which we granted SPH an exclusive license to develop, manufacture and commercialize MVR-T3011 for intratumoral injection in Greater China. For details, see "Business — Collaboration Agreements — License and Collaboration Agreement with SPH."

(6) On May 9, 2023, we entered into a collaborative research agreement with Duke University acting for and on behalf of its School of Medicine ("**Duke**") for a Phase I trial sponsored by Duke in respect of MVR-C5252 monotherapy in patients with recurrent high-grade glioma in the U.S. For details, see "Business — Collaboration Agreements — Collaborative Research Agreement with Duke."

(7) We completed the Phase I part of this combined Phase I/IIa clinical trial (NCT04370587) in May 2021, advanced into the Phase IIa part in June 2021, and then temporarily paused the Phase IIa part on September 1, 2023 after several patients enrolled to explore efficacy of MVR-T3011 in indications such as HNSCC and melanoma. This temporary pause was not due to adverse safety or efficacy signals observed in the trial, but was driven by a strategic portfolio prioritization decision made by the management to concentrate the Group's financial, operational, and clinical resources on advancing the bladder cancer indication. Thereafter, we adjusted our portfolio management strategies and decided to reallocate resources and resume development of this clinical program. In October 2025, we officially informed the Central Institutional Review Board (IRB) to reopen this Phase IIa trial and received approval therefrom to continue this study. As such, we had formally reactivated the Phase IIa portion of PI/IIa IT Solid Tumors US (NCT04370587). For details, see "Business — Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Clinical Development Plan."

(8) We completed the Phase I part of this combined Phase I/IIa clinical trial (NCT04780217) in November 2023 and had not advanced into the Phase II part as of the Latest Practicable Date. Likewise, this discontinuation was not due to adverse safety or efficacy signals observed in the trial, but was driven by a strategic portfolio prioritization decision made by the management to concentrate the Group's financial, operational, and clinical resources on advancing the bladder cancer indication.

(9) Since the IND approval we obtained from the FDA for MVR-T3011 is an umbrella IND in advanced solid tumors irrespective of phases of clinical trials, we are not required to obtain additional approval or confirmation to commence potential Phase II trials in BCG-naïve NMIBC. Based on the safety and tolerability profiles of MVR-T3011 evidenced in completed Phase I clinical trials across broad solid tumor indications, we plan to update competent regulatory authorities on the trial protocol for Phase II clinical trials of intravesical MVR-T3011 in BCG-naïve NMIBC. Further, we have accumulated preclinical research and clinical experience in bladder cancer independently, which would enable us to further explore the therapeutic potential of MVR-T3011 towards BCG-naïve NMIBC, a sub-type of indication under bladder cancer with similar medical and scientific attributes to BCG-unresponsive NMIBC. Subject to the regulatory authorities' clearance of the protocol amendment under the existing approved IND, we intend to initiate the global Phase II MRCT as early as the fourth quarter of 2026.

(10) Since the IND approval we obtained from the FDA for MVR-T3011 is an umbrella IND in advanced solid tumors irrespective of phases of clinical trials, we are not required to obtain additional approval or confirmation to commence potential Phase II trials in MIBC. Based on the safety and tolerability profiles of MVR-T3011 evidenced in completed Phase I clinical trials across broad solid tumor indications, we plan to update competent regulatory authorities on the trial protocol for Phase II clinical trials of intravesical MVR-T3011 in combination with anti-PD-1 antibody for the treatment of MIBC. Further, we have accumulated preclinical research and clinical experience in bladder cancer independently, which would enable us to further explore the therapeutic potential of MVR-T3011 towards MIBC, a sub-type of indication under bladder cancer with similar medical and scientific attributes to BCG-unresponsive NMIBC. Subject to the regulatory authorities' clearance of the protocol amendment under the existing approved IND, we intend to initiate the global Phase II MRCT in the second half of 2027.

Building on our proprietary technology in engineering of active biological vectors, we have established our OVPENS (Open Vector, Potent, Enabling, Novel, Safety) development platform. This proprietary platform has enabled us to successfully develop novel oncolytic immunotherapy featuring novel backbones, including our self-discovered Core Product MVR-T3011. Oncolytic immunotherapies employ engineered viruses to selectively infect and destroy cancer cells while stimulating antitumor immune responses, offering a novel and targeted approach to cancer treatment. As with many virus-based therapies, inherent risks, such as immune reactions or off-target effects, exist, necessitating careful design and monitoring. Our oncolytic immunotherapy candidates developed through the OVPENS platform are capable of achieving replication competence exceeding T-VEC by 3 logs (over 1,000-fold) in cell culture systems, which in turn extends dosing beyond conventional intratumoral injection to include intravenous and intravesical administration. Meanwhile, by incorporating anti-PD-1 antibody and IL-12 as modernized payloads that express selectively during the replication of the virus within tumor cells, our oncolytic immunotherapy candidates promote localized immune responses within the tumor microenvironment and achieving synergistic anti-tumor effects, meanwhile maintaining a favorable safety profile.

The uniquely engineered backbone of MVR-T3011 enables expansion into a broad range of solid-tumor indications, supporting clinical evaluation across diverse disease settings and facilitating synergistic combination with multiple classes of anti-tumor agents. Notably, MVR-T3011 demonstrates tremendous potential to target bladder cancer across multiple subtypes of non-muscle invasive bladder cancer (NMIBC) and muscle-invasive bladder cancer (MIBC). According to Frost & Sullivan, bladder cancer ranks among the top ten solid tumors by global incidence, with 637.4 thousand new cases reported in 2024. NMIBC, in particular, accounts for approximately 75% of all diagnosed bladder cancer cases. This disease indication typically exhibits high rates of recurrence, progression, or treatment unresponsiveness despite decades of intravesical BCG and few alternative therapies, underscoring a substantial unmet clinical need. Specifically, the high-risk cases accounted for approximately 40% of all NMIBC patients. Of these high-risk NMIBC patients, about 40% are BCG-naïve who have never received BCG treatment, while approximately 60% of those who do receive BCG therapy ultimately become BCG-unresponsive. Notably, in an independent investigator initiated trial (IIT) in high-risk, Bacillus Calmette-Guérin (BCG)-failure papillary NMIBC at a dose of 2×10^9 PFU, MVR-T3011 achieved 3-month, 6-month, 9-month and 12-month Kaplan-Meier-estimated recurrence-free survival (RFS) rates of 87.1%, 80.4%, 80.4% and 71.4%, respectively, as of September 19, 2025. This study also explored a higher dose of 1×10^{10} PFU of MVR-T3011, at which preliminary signals of improved efficacy were observed. 6 out of the 10 patients with papillary who received MVR-T3011 at a dose of 1×10^{10} PFU had been followed for more than three months. All six patients remained recurrence-free at both the 3-month and 6-month assessments, resulting in 3-month and 6-month RFS rates of 100%. This sustained efficacy compares favorably to Ferring's ADSTILADRIN®, the

first and only FDA-approved intravesical gene therapy for treating high-risk, BCG-unresponsive NMIBC, which reported 3-month, 6-month, 9-month and 12-month RFS rates of 73%, 62%, 58% and 44%, respectively, in BCG-unresponsive papillary NMIBC.

In addition, our MVR-T3011 has demonstrated high prospect for the treatment of head and neck squamous cell carcinoma (HNSCC). In recognition of the therapeutic and commercial potential of MVR-T3011, the FDA granted Fast Track Designation in March 2024 for intratumoral administration in recurrent or metastatic HNSCC following platinum-based chemotherapy and anti-PD-(L)1 therapy. We completed a Phase I/IIa clinical trial of MVR-T3011 via intratumoral administration for the treatment of advanced solid tumors in China in in January 2024. In August 2020, SPH entered into a license and collaboration agreement with us, pursuant to which we granted SPH an exclusive license to develop, manufacture and commercialize MVR-T3011 for intratumoral injection in Greater China. The completed Phase I clinical trial has demonstrated MVR-T3011's favorable safety profile and suitability for a repeat-dosing regimen. Moreover, our platform technology has also enabled the successful development of other novel oncolytic immunotherapy candidates, including our self-discovered MVR-C5252 that targets malignant glioma, which received the Orphan Drug Designation (ODD) from the FDA in August 2022.

Our accumulated expertise and continuous advancement in biological engineering technology as well as biological vector insights have facilitated the refinement and extension of our OVPENS platform, particularly in engineered exosomes. We harness exosome membrane scaffold protein for simultaneous multiple proteins loading with higher abundance, achieving multi-target, multi-functional delivery that produces synergistic, rapid and sustained efficacy through improved tissue penetration and increased payload stability. Leveraging these distinct advantages, we focus on developing therapeutics for chronic and hard-to-treat diseases as well as intrinsic age-related conditions. Our engineered exosome candidates are able to deliver multiple distinct active proteins or nucleic acids, enabling diverse therapeutic effects. Additionally, we are able to achieve cGMP-compliant scalable production of exosome products with cost-effective manufacturing and thermostable formulations, enabling superior transportation and storage conditions.

Our engineered exosome portfolio spans both functional aesthetics products for direct commercialization and therapeutic candidates via conventional clinical regulatory pathway. We are actively advancing engineered exosome candidates designed to become widely accessible functional topical treatments. We have self-discovered and developed MVR-EX103, which delivers four active functional proteins to treat skin-related conditions, particularly those associated with intrinsic aging, achieving multi-dimensional skin repair from within. Our self-discovered MVR-EX104 delivers three active functional proteins targeting hair follicle stem cells, follicles, and hair to activate the comprehensive hair growth process. Our self-discovered MVR-EX105 delivers three active functional proteins to promote white-to-brown fat conversion while stimulating muscle growth without entering systemic circulation. Importantly, topical exosome

products currently have flexible registration and commercialization pathways, which can directly enter overseas retail markets upon the assignment of an INCI name. Our MVR-EX103 was assigned an INCI name in April 2025, positioning it as the world's first engineered exosome to receive such recognition. MVR-EX104 and MVR-EX105 were also assigned INCI names as functional aesthetics ingredients in July 2025. Concurrently, on the clinical therapeutic front, we have self-discovered and developed MVR-EX101 for wound healing, delivering four active functional proteins to promote multi-level repair of nerves, blood vessels, and tissues under an antibacterial and anti-inflammatory environment, currently in preclinical stage in both the U.S. and China. We are also evaluating our self-discovered MVR-EX107 for the treatment of pulmonary fibrosis in preclinical studies, with expected IND application to be submitted to the FDA as early as 2028.

We have established CMC and manufacturing capabilities spanning both oncolytic immunotherapy candidates and engineered exosome assets. We have made advancements in lyophilization technologies that can be applied to both our therapeutic modalities, offering us a competitive edge over peer companies. Whereas conventional oncolytic immunotherapy products require -80°C storage and complex cold-chain logistics, our proprietary lyophilized oncolytic immunotherapy and engineered exosome candidates remain stable at -20°C and 4°C, respectively, streamlining handling, storage, and transportation. We've also developed ambient-temperature freeze-dried formulations for both modalities, greatly enhancing clinical and consumer accessibility and ease of use.

Since our founding, we have assembled a seasoned management team with years of valuable international experience and proven track record in drug discovery, research and development. Looking forward, we intend to further solidify our leadership in bladder cancer treatment by continuing to rapidly advance our Core Product via intravesical administration in both the U.S. and China, driving practice-changing, differentiated outcomes. We will also continue expanding its indications into a broader range of solid tumors across diverse treatment settings through multiple administration routes and combination therapies to maximize its clinical potential. Additionally, we will expedite the development and commercialization of engineered exosomes through both clinical regulatory pathways and a flexible direct-to-market strategy under INCI system.

OUR COMPETITIVE STRENGTHS

Potential practice-changing and differentiated oncolytic immunotherapy for bladder cancer and HNSCC

Oncolytic Immunotherapy for Bladder Cancer

Our Core Product MVR-T3011 represents a self-developed, novel, bladder-preserving oncolytic immunotherapy poised to transform bladder cancer treatment by combining precise viral engineering with localized delivery of potent immunomodulators. Engineered from HSV-1 with a proprietary backbone design, MVR-T3011 can replicate at least one thousand times more efficiently in tumor cells than T-VEC and other HSV-1 virus adopting similar backbone strategy, meanwhile remaining strictly attenuated in normal tissues. This strengthened replication competence enables multiple routes of administration, including intratumoral, intravenous and intravesical delivery. For bladder cancer, in particular, this candidate is administered intravesically to exploit HSV-1's glycosaminoglycan (GAG)-mediated entry into urothelial cells to achieve direct bladder penetration without pre-wash procedure. MVR-T3011 also selectively incorporates anti-PD-1 antibody and IL-12 to achieve synergistic anti-tumor effects. Notably, this candidate effectively mitigates the systemic toxicity typically associated with IL-12 therapy by confining IL-12 expression to virus replication within tumor cells. Once the virus replicates within the tumor cells, it functions as an *in situ* "factory" by generating anti-PD-1 antibody and IL-12, providing continuous, localized release of these immunomodulators rather than the transient systemic exposure seen with conventional biologics. Additionally, by triggering tumor cell lysis and releasing tumor-associated antigens and inflammatory signals, MVR-T3011 holds the potential to convert immunologically "cold" tumors into "hot" ones, thereby priming both innate and adaptive immune responses in patients.

We are committed to delivering comprehensive clinical solutions covering the full spectrum of bladder cancer, including all subtypes of both BCG-unresponsive and BCG-naïve NMIBC (including both papillary and CIS), as well as MIBC, to capture a sizeable market with long treatment duration. Bladder cancer management typically requires years of cystoscopic surveillance and repeated intravesical our self-discovered therapy, giving it a far longer treatment horizon than indications such as lung cancer, where systemic regimens often conclude after a few treatment cycles. This extended timeline, combined with high rates of recurrence, progression, or treatment unresponsiveness, creates sustained clinical demand and amplifies the commercial potential of an off-the-shelf, bladder-preserving product like MVR-T3011.

According to Frost & Sullivan, bladder cancer ranks among the top ten solid tumors by global incidence, with 637.4 thousand new cases reported in 2024. NMIBC, in particular, accounts for approximately 75% of all newly diagnosed bladder cancer cases yet continues to exhibit high

rates of recurrence, progression, or treatment unresponsiveness despite decades of intravesical BCG use and limited alternative therapies, highlighting the substantial unmet clinical needs. In particular, high-risk NMIBC represents roughly 40% of all NMIBC cases. Of these high-risk NMIBC patients, about 40% are BCG-naïve who have never received BCG treatment, while approximately 60% of those who do receive BCG therapy ultimately become BCG-unresponsive. We have strategically devised a sequential clinical development plan covering all high-risk NMIBC subtypes and in both BCG-unresponsive and BCG-naïve settings.

Specifically, for high-risk, BCG-unresponsive patients, radical cystectomy remains the standard of care, yet only about 6% patients opt for surgery due to up to 64% perioperative complication rate and approximately 5% 90-day mortality risk in elderly populations. By contrast, MVR-T3011 delivers a potentially superior, bladder-preserving therapeutic option, featuring not only a lyophilized, -20°C-stable formulation that significantly simplifies storage and distribution, but also direct binding to natural GAG targets, eliminating the need for bladder pre-wash. This streamlined intravesical administration reduces chair time and procedural complexity, enhances patient comfort and tolerability, optimizes clinic workflow, and ultimately improves physician convenience and treatment adherence. Based on an umbrella IND approval obtained from the FDA in May 2020, we initiated two Phase I/IIa clinical trials of MVR-T3011 for the treatment of solid tumors (including bladder cancer and HNSCC) through respective intratumoral and intravenous administration in the U.S. and subsequently completed the Phase I portions in May 2021 and November 2023, respectively. Building on the sufficient data and evidence on the safety/tolerability profile of MVR-T3011 and its RP2D collected from these two Phase I/IIa trials, we strategically prioritized bladder cancer as one of its lead indications. Following the protocol amendment clearance from the FDA, we initiated a Phase II clinical trial of MVR-T3011 administered intravesically for the treatment of high-risk BCG-unresponsive NMIBC papillary and carcinoma *in situ* (CIS) cohorts in the U.S., with the first patient dosed in June 2025. We also plan to expand this trial into a global MRCT targeting the same in 2026.

In particular, for papillary NMIBC, MVR-T3011 is emerging as a potential treatment option, distinguished by its precise targeting of this patient population and supported by a promising and evolving body of clinical evidence. Papillary NMIBC represents nearly 90% of all NMIBC cases, yet current treatment options remains limited to intravesical chemotherapies that produce only moderate initial responses and are hindered by high recurrence rates, underscoring the urgent need for more durable and effective alternatives. Our MVR-T3011 strategically prioritizes broader therapeutic regimen coverage for papillary NMIBC subtype, directly addressing this predominant patient population's underserved needs. In an independent IIT in high-risk, BCG-failure (including BCG-unresponsive and BCG-intolerant) papillary NMIBC at a dose of 2×10^9 PFU, MVR-T3011 achieved 3-month, 6-month, 9-month and 12-month Kaplan-Meier-estimated RFS rates of 87.1%, 80.4%, 80.4% and 71.4%, respectively, as of September 19, 2025. 6 out of the 10 patients with papillary who received MVR-T3011 at a dose of 1×10^{10} PFU had been followed for more than

three months. All six patients remained recurrence-free at both the 3-month and 6-month assessments, resulting in 3-month and 6-month RFS rates of 100%. Among the 16 evaluable patients, 6 have remained on treatment for over 12 months, 5 have remained on treatment for over 15 months, while the remaining patients have not yet reached these follow-up milestones and continue to be monitored as the data mature. This study also explored a higher dose of 1×10^{10} PFU of MVR-T3011, at which preliminary signals of improved efficacy were observed. This sustained efficacy compares favorably to Ferring's ADSTILADRIN®, the first and only FDA-approved intravesical gene therapy for treating high-risk, BCG-unresponsive NMIBC, which reported 3-month, 6-month, 9-month and 12-month RFS rates of 73%, 62%, 58% and 44%, respectively, in BCG-unresponsive papillary NMIBC. Although the foregoing clinical trial data were generated in independent studies and do not come from head-to-head analysis, and there is no assurance that the data of MVR-T3011 in later clinical trials will be as favorable as that of that IIT, we believe meaningful insight may be drawn that MVR-T3011 could potentially offer a compelling treatment option for BCG-failure papillary NMIBC.

We also observed promising anti-tumor effects of MVR-T3011 in CIS cohort. By encompassing both papillary and CIS patient populations in development plans, MVR-T3011 is well-positioned to deliver a comprehensive intravesical treatment solution covering the full spectrum of high-risk NMIBC subtypes — a critical advantage in a market where competing programs focus primarily on CIS subgroups.

Following the clinical development targeting BCG-unresponsive NMIBC, we plan to investigate MVR-T3011's therapeutic potential in BCG-naïve NMIBC. Against the backdrop that intravesical BCG faces a global supply shortage driven by complex and costly manufacturing and limited suppliers, and remains scarce in the U.S. and outside top-tier Chinese cities, our MVR-T3011 offers a scalable, off-the-shelf oncolytic immunotherapy. As a potential alternative to BCG, MVR-T3011 is expected to require fewer catheter instillations, reducing procedure-related discomfort and improving patient compliance. Moreover, its oncolytic immunotherapy-based manufacturing bypasses the global BCG shortfall, offering a more reliable and widely accessible bladder-sparing therapy. We intend to initiate a Phase II clinical trial targeting BCG-naïve NMIBC, including both papillary and CIS, in the U.S. and China as early as the fourth quarter of 2026.

Beyond NMIBC, we plan to further expand into the indication of MIBC, which accounts for approximately 25% of all newly diagnosed bladder cancer cases and currently lacks effective frontline treatment options before cystectomy. We plan to investigate the combination therapy integrating MVR-T3011 and anti-PD-(L)1 antibody for the treatment of MIBC in China through a Phase II trial as early as the second half of 2027.

Overall, MVR-T3011 holds the potential to reshape the treatment landscape for bladder cancer by overcoming the key limitations of existing therapies. Its integration of an optimized oncolytic HSV-1 backbone with *in situ* production of checkpoint blockade and cytokine therapy positions this candidate as a practice-changing, differentiated therapy for bladder cancer management, by expanding treatment reach, improving durability, and enhancing the patient experience.

Oncolytic Immunotherapy for HNSCC

HNSCC is characterized by a highly immunosuppressive tumor microenvironment and frequent resistance to conventional therapies. Current standard-of-care options, including surgery, radiotherapy, chemotherapy, and immune checkpoint inhibitors, often provide limited benefit in recurrent or metastatic settings, with modest response rates and short durability. Oncolytic immunotherapy offers a differentiated advantage by combining direct tumor lysis with robust immune activation. This dual mechanism can convert immunologically "cold" tumors into "hot" tumors, enhancing T-cell infiltration and addressing the limitations of existing therapies. Furthermore, it creates synergistic potential when combined with checkpoint inhibitors, providing a promising strategy to overcome resistance and improve long-term outcomes in HNSCC.

In the combined Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in patients with advanced or metastatic solid tumors in the U.S., as of September 1, 2023 (the data cut-off date), among 11 evaluable patients with advanced melanoma who had failed prior PD-1 or PD-1/CTLA-4 combination treatments, 3 achieved partial response (PR), indicating an ORR of 27.3% (3/11), thereby demonstrating local tumor-shrinkage potential of MVR-T3011 in superficial injectable solid tumors. The anti-tumor potential of MVR-T3011 in solid tumors was further supported by a completed Phase I/IIa clinical trial in China. In the completed Phase I/IIa clinical trial of intratumorally administered MVR-T3011 monotherapy in patients with advanced solid tumors in China, MVR-T3011 demonstrated encouraging anti-tumor activity in the 20 evaluable subjects with HNSCC, achieving an ORR of 20% and a DCR of 65% as of the November 14, 2023 (the data cut-off date). Moreover, both the completed Phase I portion of the U.S. Phase I/II trial and completed Phase I/IIa trial in China demonstrated a favorable safety profile for MVR-T3011, where no DLT, SAEs, or TEAEs/TRAEs leading to treatment discontinuation, subject withdrawal, or death were observed.

In light of the significant unmet clinical need and to leverage the Fast Track Designation granted to MVR-T3011, our Phase IIa portion of the Phase I/IIa trial of intratumorally administered MVR-T3011 in solid tumors in the U.S. is currently ongoing, with HNSCC selected as one of the lead indications. We are currently enrolling patients with HNSCC for monotherapy cohort, with enrollment expected to be completed by the first half of 2027. We also expect to initiate patient enrollment for the combination therapy cohort in 2027.

In recognition of the therapeutic and commercial potential of MVR-T3011, the FDA granted Fast Track Designation in March 2024 for intratumoral administration in recurrent or metastatic HNSCC following platinum-based chemotherapy and anti-PD-(L)1 therapy.

Potential backbone oncolytic immunotherapy targeting broader market opportunities

MVR-T3011, our Core Product, represents a breakthrough in HSV-1-based oncolytic immunotherapy. Its proprietary "3-in-1" design unites a replication-competent, tumor-lytic HSV-1 backbone with anti-PD-1 antibody and IL-12, enabling it simultaneously to lyse tumor cells and stimulate innate and adaptive immunity. MVR-T3011 has demonstrated its adaptability and feasibility across multiple tumor types via indication-specific routes of administration. Initially optimized for superficial injectable solid tumors through direct intratumoral injection, the backbone design of this candidate, which combines stability, tumor-selective replication, and immune-stimulating payloads, has readily translated to systemic intravenous administration, thereby extending its reach to metastatic and hard-to-access lesions. More importantly, MVR-T3011 is particularly well suited for the treatment of bladder cancer, as its HSV-1-based backbone enables efficient interaction with the bladder's glycosaminoglycan (GAG) layer and its oncolytic immunotherapy mechanism offers a local immune activation profile that is potentially highly analogous to, or improves upon, current BCG-based intravesical immunotherapy. By delivering the agent directly into the bladder, this drug candidate effectively maximizes local tumor contact and immune activation while minimizing systemic exposure. Furthermore, MVR-T3011 offers exceptional flexibility for combination use with virtually any anti-tumor agents including, without limitation, immune checkpoint inhibitors, targeted small molecules, radiation therapies, antibody-drug conjugates (ADCs), CAR-T cells, and T-cell engagers (TCEs), by reshaping the tumor microenvironment without compromising the potency of combination agents. Clinically, MVR-T3011 targets hard-to-treat tumors such as head and neck squamous cell carcinoma (HNSCC) and other solid malignancies. Notably, the intratumoral MVR-T3011 was granted the Fast Track Designation by the FDA in March 2024 for the treatment of recurrent or metastatic HNSCC patients who failed platinum-containing chemotherapy and anti-PD-(L)1 therapy.

Building on this success, we have also self-developed another oncolytic immunotherapy candidate, i.e., MVR-C5252, as an advanced treatment for malignant glioma, a disease with dire unmet needs. Compared to MVR-T3011, this further-edited vector preserves an anti-PD-1 antibody and IL-12 while deleting key latency and neurovirulence genes, thereby enhancing safety for intracranial delivery and enabling stronger immune activation within the highly immunosuppressive glioma microenvironment. According to Frost & Sullivan, MVR-C5252 is potentially the world's first oncolytic immunotherapy to integrate an HSV-1 vector with an anti-PD-1 antibody for the treatment of glioma. We have obtained IND approvals from both the FDA and the NMPA for MVR-C5252 in August 2021 and March 2023, respectively. In December

2025, we obtained the ethics committee approval for the initiation of a Phase I/IIa clinical trial for the treatment of glioma in China, and expect to commence this trial in the first half of 2026. Additionally, we have collaborated with Duke for the clinical exploration of MVR-C5252 in conjunction with intracranial delivery device evaluation for the treatment of high-grade glioma in the U.S. For details, see "— Collaboration Agreements — Collaborative Research Agreement with Duke." MVR-C5252 was granted ODD by the FDA for the treatment of malignant glioma in August 2022. Additionally, MVR-C5252 has exhibited potential in preclinical studies to be expanded into broader cancer indications, such as other high-grade central nervous system tumors and, in combination with emerging therapies, to establish a new treatment paradigm for brain cancers.

Overall, anchored by MVR-T3011 and MVR-C5252, our differentiated oncolytic immunotherapy portfolio features proprietary HSV-1 backbones to kill tumor cells via direct oncolysis while delivering potent and immune-activating payloads into tumor microenvironment. These candidates exemplify our platform strategy of combining tumor-cell lysis with localized cytokine expression and immune checkpoint blockade, thereby igniting robust anti-tumor immunity across multiple solid tumor indications. By advancing both systemic and site-specific administration approaches, we aim to transform the clinical deployment of oncolytic immunotherapies.

Fully-integrated OVPENS development platform to deliver sustainable product candidates

By harnessing our expertise in biological engineering and vector delivery technologies, we have built an end-to-end in-house R&D engine called the OVPENS platform, which unites oncolytic immunotherapy and engineered exosome development from target validation to IND-enabling studies and GMP-compliant manufacturing. As the platform to consolidate both oncolytic immunotherapy and engineered exosome candidates under one discovery-to-commercialization framework, OVPENS accelerates vector construction, payload optimization, and preclinical evaluation, enabling rapid iteration and streamlined advancement across diverse therapeutic modalities and disease settings.

At the core of OVPENS lie five defining goals. "Open Vectors" refers to our dual vector strategy which integrates both HSV-1 and exosomes to address oncology and non-oncology applications, respectively, while maintaining a unified discovery pipeline. "Potent" captures our commitment to engineering novel vectors with exceptional efficacy, which are precisely edited for on-target activity and capable of co-delivering multiple therapeutic agents to optimize tumor lysis, immune activation, or tissue regeneration. "Enabling" reflects the platform's capability to drive synergistic combination therapies by seamlessly pairing our oncolytic immunotherapy candidates with immune checkpoint inhibitors, CAR-T cells, ADCs and other modalities, while being underpinned by robust and scalable CMC and manufacturing capabilities that adapts to evolving

clinical requirements and support commercial-scale manufacturing. In particular, our proprietary platform technology enables us to develop innovative assets with modified viral backbone to carry antigen-coding sequence such as CD19, BCMA, Trop-2, HER-2 and other customized biomarkers, thereby labeling solid tumors for coordinated attacks by CAR-T cell, ADC and TCE and overcoming long-standing challenges in solid tumor identification and targeting. Preclinical studies have shown that these assets when used in combination with CAR-T cells elicit potent anti-tumor responses in solid-tumor models, without compromising the potency of CAR-T cells. "Novel" underscores our approach to parallel oncolytic immunotherapy and engineered exosome development, from multi-protein arming to novel payload combinations, thereby unlocking new applications across cancer and beyond. Finally, "Safe" embodies rigorous safety optimizations that ensure bio-derived vectors to exhibit favorable tolerability profiles.

Differentiated HSV-1 engineering forms the backbone of our oncolytic immunotherapy efforts. HSV-1's 84-protein genome (including 37 replication essentials and 47 accessory factors) provides an expansive toolkit for precision editing. Leveraging our proprietary bacterial artificial chromosome (BAC)-based recombination system, we introduce targeted modifications that preserve viral fitness while enabling precise temporal control of gene expression. Early promoters drive therapeutic payloads, such as anti-PD-1 antibody or IL-12, to kickstart immune activation, whereas late promoters coordinate viral assembly and egress for maximal tumor cell lysis. This finely tuned balance of oncolysis and immunomodulation delivers potent, tumor-selective activity with minimal off-target impact.

In parallel, the OVPENS platform fuels our discovery in engineered exosomes for the treatment of hard-to-treat diseases. Leveraging a one-step multi-protein loading process, we co-arm extracellular vesicles with nucleic acids or proteins that mimic natural intercellular communication. These exosomes enter recipient cells by binding to cell receptors to activate signaling pathway and exert long-lasting and deep biological activities. Built on streamlined cell-line engineering and serum-free, GMP-ready bioprocesses, our exosome platform rapidly advances candidates into IND-enabling stage and on to commercial-scale manufacturing, positioning us to tackle indications with significant unmet clinical needs through an novel engineered exosome approach.

The dual-vector engineering capability of oncolytic immunotherapy and engineered exosome on our OPVENS platform is attributed to our fundamental gene recombinant technology. Our robust R&D capabilities in gene recombination enable precise, on-target integration of therapeutic genes, preserving vector stability and functionality. By streamlining engineering workflows and rapid construct screening, we dramatically shorten development timelines — from initial design through candidate nomination — allowing us to advance new therapies at an accelerated pace. We

further optimize promoter elements to fine-tune when and where each payload is activated, ensuring that therapeutic proteins are produced at the right time and in the right cells for maximum efficacy and safety.

Our proprietary product candidates and platform technologies are safeguarded by a well-structured global patent portfolio, which comprises five issued patents in China, four issued patents in the U.S., 44 issued patents in other jurisdictions, as well as 82 pending patent applications, including eight in China, six in the U.S., 62 in other jurisdictions and six under Patent Cooperation Treaty (PCT) that may enter various countries in the future, as of the Latest Practicable Date.

Innovative engineered exosome portfolio to address imminent and huge market potential

We have developed a novel engineered exosome portfolio by harnessing our proprietary OVPENS platform, the world's leading synergistic multi-protein exosome engineering platform, which enables the rapid creation of multifunctional therapeutic candidates. By combining streamlined drug discovery workflows with precision payload design, this platform transforms exosomes into customizable "nano-carriers" that deliver multiple proteins simultaneously, each satisfying functional aesthetic needs and addressing distinct diseases. This multi-arming approach delivers prompt and durable efficacy through synchronized, targeted release in affected tissues, while avoiding the batch-to-batch variability, limited payload capacity, and off-target effects associated with naturally derived exosomes or conventional injectables. Moreover, our engineered exosomes provide uniform composition, programmable multi-protein loading, and enhanced stability.

Our engineered exosomes also strike a balance between novel delivery solutions and well-characterized payloads to fine-tune biological activity and achieve precise, stable therapeutic functions. Multi-level gene regulation and two-way pathway modulation ensure that each exosome candidate not only delivers active proteins or nucleic acids but also orchestrates endogenous signaling networks for enhanced efficacy. A thermostable formulation compatible with room temperature and 4°C storage further extends their shelf life and obviates cold-chain constraints, and the entire process is built on scalable, cost-efficient GMP-compliant manufacturing. Moreover, the designation of certain exosome assets as functional aesthetics ingredients under INCI list allows us to pursue fast-to-market commercialization strategy in age-related applications, significantly reducing regulatory hurdles and accelerating time to revenue.

To maximize both commercial viability and clinical impact of our engineered exosomes, we have scientifically designed our pipeline and selected indications that capitalize on the innate biology of exosomes, namely, their rapid, targeted cell-to-cell transport and excellent penetration of skin and mucosal membranes. In dermatological and mucosal disorders, exosomes inherently

home to and fuse with local cell membranes, enabling precise topical or minimally invasive delivery of anti-inflammatory and regenerative payloads. This approach is being applied to conditions such as dermatitis, vitiligo, and dry eye disease, where topical or minimally invasive administration ensures high local drug concentrations with minimal systemic exposure. Similarly, pulmonary fibrosis therapies leverage exosomes' mucosal affinity and capacity to traverse the airway surface liquid, facilitating localized delivery of anti-fibrotic proteins directly to fibrotic lung tissue, exhibiting prompt effects on recipient cells.

Beyond surface tissues, we are expanding our exosome candidates into chronic, hard-to-treat disease indications, by exploiting their ability to cross biological barriers. Exosomes have demonstrated the ability to penetrate the blood-brain barrier and deliver cargo to recipient cells, making them ideal vehicles for neurodegenerative indications. By focusing on these challenging targets where drug delivery has historically been limited, we aim to address huge underserved medical needs and establish engineered exosomes as versatile, precision-driven alternatives in chronic disease management. Specifically, we are currently exploring the therapeutic potential of MVR-EX101 for the treatment would healing, pressure ulcer, and diabetic foot ulcer. We expect to file an IND application for this exosome candidate with the FDA in the first quarter of 2027, with corresponding approval anticipated in the second quarter of 2027. Additionally, we are evaluating MVR-EX107 for the treatment of pulmonary fibrosis in preclinical studies. We expect to file an IND application for MVR-EX107 with the FDA as early as 2028.

We are also actively advancing our age-related engineered exosome products, including MVR-EX103, MVR-EX104 and MVR-EX105, leveraging the INCI registration pathway. Notably, MVR-EX103 is the world's first engineered exosome to be assigned an INCI name, a milestone that underscores our leadership in exosome engineering technology and marks a significant leap forward in the development of next-generation functional aesthetics ingredients. Targeting exosome-based functional skincare product market projected at US$31.7 billion by 2033, this exosome candidate leverages precise multi-protein engineering to remodel the extracellular matrix and promote tissue repair with favorable safety and stability.

MVR-EX104 embodies a proprietary "3-in-1" multi-target approach to alopecia, combining hair follicle stem cell activation, follicle microenvironment modulation, and shaft growth enhancement. In a three-month pilot study, treated subjects saw a 9.44% increase in hair density, a 30.90% reduction in hair loss, and a 19.29% improvement in overall hair coverage, highlighting its promising efficacy as a hair-regrowth product in this underserved market. MVR-EX104 was assigned its INCI name as a functional aesthetics ingredient in July 2025.

Further, MVR-EX105 offers a topical solution designed for localized fat reduction. This exosome candidate harnesses multi-protein synergy to induce white fat browning, promote fat loss and muscle preservation without systemic exposure, delivering a safer, more tolerable profile than injectable metabolic therapies. MVR-EX105 was assigned its INCI name as a functional aesthetics ingredient in July 2025.

Leading in-house CMC and manufacturing capabilities to support R&D and commercialization

We have established CMC and manufacturing capabilities spanning both oncolytic immunotherapy candidates and engineered exosome assets, according to Frost & Sullivan, both of which are complex and challenging modalities in biopharmaceutical production.

With a strong foundation built through early leadership and continuous exploration, we have developed validated and reliable CMC processes for oncolytic immunotherapy candidates. The fundamental biological and structural similarities between oncolytic immunotherapy and engineered exosome candidates, including their membrane-bound nature, intrinsic biological activity, and comparable particle size, underpin several similar manufacturing steps and shared CMC techniques. Building on these insights, we have strategically established a proprietary unified production platform for oncolytic immunotherapy and engineered exosome candidates that enables a cost-efficient, scalable and highly versatile manufacturing approach.

We believe we are positioned at the forefront of innovation in the CMC and manufacturing of oncolytic immunotherapy products and engineered exosomes. Leveraging our strong innovation capabilities, we have proactively addressed key technical challenges across critical CMC steps, including maximizing cell expansion yield, ensuring efficient and consistent purification, and developing stable, user-friendly formulations. These differentiated solutions provide us with a clear competitive advantage, setting us apart from industry peers.

- To overcome the low yield and limited scalability often associated with traditional adherent cell culture systems, we have developed and optimized a fixed-bed bioreactor process. Compared to the traditional two-dimensional cell factories, seeding cells onto fixed carriers within a three-dimensional controlled bioreactor environment significantly improves production yield and reduces impurities, enabling scalable manufacturing with enhanced product consistency. Leveraging our established CMC capabilities, our engineered exosome yield has reached up to 10^{10} particles per ml as of the Latest Practicable Date, approximately 200 times higher than that of naturally derived exosomes, demonstrating the robustness and scalability of our manufacturing platform. The advanced fixed-bed bioreactor process also offers operational advantages, including a compact footprint and simplified handling, further supporting its suitability for clinical

and commercial-scale production. Furthermore, we are developing a suspension process tailored for the CMC and manufacturing of our engineered exosome products. In this system, cells grow in a fully suspended state under serum-free conditions, supporting high-density culture and consistent, high-purity exosome output.

- To address the critical bottleneck regarding purification in the CMC and manufacturing two inherently host cell-derived bioactive vectors, we have established tailored strategies for both product types. For our oncolytic immunotherapy programs, we utilize a proprietary buffer system that enables efficient viral extraction without disrupting host cells, which not only improves viral yield but also significantly reduces host cell-derived impurities. For engineered exosomes, we rely on process experience and rigorous control of the harvesting window to ensure optimal product quality. In addition, our engineered exosomes undergo a specific selection process based on clearly defined criteria such as functional protein expression profiles, thereby improving purification precision and streamlining quality control process. Together, these strategies support high-purity, scalable manufacturing while ensuring product consistency and regulatory compliance.

- To ensure stable and efficient formulation supply, we have made advancement in lyophilization technologies successfully applied to both our oncolytic immunotherapy and engineered exosome candidates. Conventional oncolytic immunotherapy products typically require storage at -80°C, posing logistical challenges related to cold chain transportation and on-site thawing prior to use. In contrast, through our proprietary formulation innovation, we have developed lyophilized oncolytic immunotherapy and engineered exosome candidates that are stable at -20°C and 4°C, respectively, offering enhanced flexibility in product handling, storage and transportation. Furthermore, we have developed a freeze-dried formulation for both oncolytic immunotherapy and engineered exosome candidates that is stable at ambient temperature, significantly improving their clinical accessibility and ease of use.

Our proprietary end-to-end CMC capabilities and well-established technical transfer expertise have been robustly validated through several successful technology transfer across clinical and commercial settings. For the manufacturing of our oncolytic immunotherapy candidates, we have built up a long collaboration history of six years with OBiO Technology (Shanghai) Corp. Ltd. ("**OBiO**") as our CDMO partner to support both ongoing clinical supply and future commercial-scale production. We have authorized OBiO to utilize our proprietary CMC technology for the production of our oncolytic product candidates in China, and we are currently one of its largest customers by revenue, underscoring the scale and maturity of our manufacturing program. Furthermore, in connection with the out-licensing of our intratumoral MVR-T3011 to SPH in Greater China, its manufacturing process remains based entirely on our internally developed

manufacturing technology, ensuring consistent product quality and performance. These successful technology transfers not only demonstrate the scalability and reproducibility of our CMC capabilities but also highlight our ability to maintain quality and regulatory consistency across global partners and diverse geographical markets.

In light of cost-efficiency considerations and our long-standing and reliable collaboration with OBiO for the production of our oncolytic immunotherapy candidates, we expect to continue leveraging OBiO as our manufacturing partner for ongoing and future production needs of oncolytic immunotherapy products. With the goal of driving continuous innovation and advancement in CMC processes of engineered exosomes, we intend to independently conduct end-to-end CMC activities and undertake commercial-scale production of our engineered exosome products at our GMP-compliant manufacturing facility in Suzhou. Our current Suzhou facility spans approximately 4,800 square meters and includes both a pilot-scale suite and a dedicated GMP-compliant production suite. The pilot-scale suite is equipped with a 30-square-meter fixed-bed bioreactor system capable of supporting up to 24 production batches per year. The GMP-compliant suite is designed to accommodate a 1,000 L suspension bioreactor process, which is also expected to support 24 production batches annually. We believe this facility will be sufficient to meet the projected production requirements and needs, including anticipated demands for overseas markets, for our engineered exosome product candidates.

Seasoned leadership team led by a visionary founder and supported by quality shareholders

We have assembled a highly skilled, multidisciplinary team, which is led by a world-class management team with proven track records. Members of our management team, with an average of 20 years of experience in the biopharmaceutical industry, have extensive complementary expertise across R&D, regulatory affairs and commercialization of innovative therapeutics.

Dr. Grace Guoying Zhou, our founder, chairperson of our Board and chief executive officer of our Group, is a well-respected scientist in academic research and biopharmaceutical industry. With over 30 years of distinguished experience in the fields of virology and immunology, Dr. Zhou is widely recognized as the inventor of the T-VEC backbone, which has become the gold-standard platform for the development of oHSV and other oncolytic immunotherapies. Dr. Zhou has been the co-author on over 55 peer-reviewed publications and 55 patents, and obtained industry-wide recognition for her discovery of HSV-1's cancer-selective targeting mechanism. Since 1987, Dr. Zhou has held diverse academic roles across several distinguished institutions, including research associate at the Shanghai Institute of Biochemistry, Chinese Academy of Science (中國科學院上海生物化學研究所) from July 1987 to April 2000, research assistant, instructor, assistant professor and associate professor at the University of Chicago from December 1998 to October 2013, and professor at the Guangzhou Medical University (廣州醫科大學) from October 2013 to October 2018. In addition to the distinguished success in discovery, research and clinical development, Dr.

Zhou possesses comprehensive business development experience in the biopharmaceutical industry. Dr. Zhou has received numerous honors, including the State Council Special Allowance (國務院特殊津貼) in 1998, the Women in Science Award selected by International Society for Antiviral Research in May 2019, China's Top Ten Outstanding Women Entrepreneurs (中國十大傑出女企業家) in December 2021, China's Leading Innovators (中國創新領軍人物) in January 2024 and China's Top Ten Outstanding Innovative Women (中國十大傑出創新女性) in December 2024.

Dr. Xiaoqing Chen, our chief science officer, has over ten years of experience in the scientific research and drug development field. Dr. Chen has garnered extensive practical research expertise in biological vectors, spanning from the utilization and engineering of HSV-1 vectors to the development of engineered exosome vectors. Dr. Chen has published 23 SCI articles in the fields of virology, oncology, and drug development and has 34 patent applications. As a project leader and key technical expert, she has hosted and participated in multiple national and municipal scientific research projects, including the National Major Scientific and Technological Special Project for Significant New Drugs Development (國家科技重大專項課題) during the Thirteenth Five-year Plan Period ("十三五"規劃), the National Natural Science Foundation (國家自然科學基金項目), and Guangdong Nature Science Foundation Major Provincial Scientific Research Project (Natural Sciences) for Higher Education Institutions in Guangdong Province" (廣東省高等學校省級重大科研項目(自然科學)). Dr. Chen obtained her bachelor's degree in biotechnology from Anhui University (安徽大學) in July 2009 and her doctor degree of science in biology from Nanjing University (南京大學) in June 2014. Dr. Chen has been a post-doctoral fellow in Guangzhou Medical University (廣州醫科大學) from November 2014 to October 2016.

Mr. Carl Yeung, our chief financial officer, has over 20 years of experience in the capital markets, finance and the management of publicly listed companies. Mr. Yeung served as chief financial officer for four venture-backed technology companies from 2006 to 2020, during which he successfully led the initial public offerings of all four companies on NASDAQ, NYSE, and the Hong Kong Stock Exchange. Prior to that, he worked in the investment banking division of Merrill Lynch till 2006. Mr. Yeung holds bachelor's degrees in applied science, and economics from the University of Pennsylvania.

Since our inception, we have been supported by top-notch biotechnology-focused specialist funds and strategic pharmaceutical platforms, such as Hillhouse, Huagai Investment, Yonghua Capital, and Shanghai Healthcare Capital. This strong backing enhances our financial stability, enables strategic partnerships, and reinforces our ability to drive innovation and achieve long-term success, thereby providing us with a solid foundation for growth and a competitive edge in the industry.

OUR STRATEGIES

Rapidly advance MVR-T3011 through clinical development in bladder cancer, HNSCC and broader opportunities

For our Core Product, MVR-T3011, we will continue to drive its global development and accelerate market entry by leveraging our strong clinical execution capabilities and deep regulatory expertise. To fully unlock the therapeutic potential of MVR-T3011 and maximize the global competitiveness of our oncolytic immunotherapy pipeline, we have strategically prioritized bladder cancer and HNSCC as lead indications, given its significant unmet clinical need and substantial commercial potential. Specifically:

- *NMIBC.* Our clinical development of MVR-T3011 initially targets NMIBC as it accounted for approximately 75% of all newly diagnosed bladder cancer cases. We plan to advance our clinical exploration to cover the various types of NMIBC, including BCG-unresponsive NMIBC and BCG-naïve NMIBC.

  - *BCG-unresponsive NMIBC.* Approximately 50% of NMIBC patients fail to respond or relapse following the BCG treatment, which is the standard current first-line intravesical therapy for NMIBC. In light of the encouraging potential of oncolytic immunotherapy to overcome BCG resistance and the huge unmet clinical needs, we strategically selected BCG-unresponsive NMIBC as our entry point. MVR-T3011 delivers a potentially superior, bladder-preserving therapeutic option. In November 2024, we submitted a protocol amendment to the FDA to add a Phase II trial of MVR-T3011 in high-risk BCG-unresponsive NMIBC in the U.S. under the umbrella IND from the FDA. Based on FDA's tacit approval for the protocol amendment, we initiated this Phase II trial in the U.S. with the first patient dosed in June 2025 and expect to expand it into a global MRCT to evaluate MVR-T3011 for the treatment of BCG-unresponsive NMIBC in 2026. We plan to advance the evaluation of MVR-T3011 for BCG-unresponsive NMIBC into a Phase III trial in the U.S. and China as early as 2027.

  - *BCG-naïve NMIBC.* In light of the global shortage of BCG, we also intend to explore MVR-T3011 in treating BCG-naïve NMIBC, including both papillary and CIS. We expect to initiate a Phase II trial of MVR-T3011 as a monotherapy for BCG-naïve NMIBC in the U.S. and China in the fourth quarter of 2026 and complete by 2028.

- *MIBC.* With the aim of covering the full spectrum of the clinical matrix targeting bladder cancer, we plan to initiate clinical studies evaluating the therapeutic potential of MVR-T3011 for the treatment of MIBC. These studies will explore MVR-T3011 in combination with anti-PD-(L)1 antibody, to assess its ability to improve pathological response rates, reduce recurrence risk, and enhance overall survival outcomes in patients with MIBC. We expect to initiate a Phase II trial of MVR-T3011 in combination with anti-PD-(L)1 antibody for the treatment of MIBC in the second half of 2027.

In addition to its therapeutic potential in bladder cancer, we are actively exploring the opportunities for MVR-T3011 across a broader range of indications. Leveraging its versatility in routes of administration, MVR-T3011 has demonstrated strong potential for the treatment of a variety of tumor types. In particular, we began early exploration of intratumoral oncolytic virus administration and prioritized HNSCC as the lead indication for the intratumoral development of MVR-T3011, considering the immunologically responsive nature of HNSCC, the high prevalence of superficially accessible lesions amenable to local injection, and the substantial unmet need in patients who progress after platinum-based chemotherapy and anti-PD-(L)1 therapy. To further advance the therapeutic potential for HNSCC, we reactivated the Phase IIa portion of the Phase I/IIa trial evaluating MVR-T3011 in solid tumors (including bladder cancer and HNSCC) in the U.S. in October 2025. We are currently enrolling patients with HNSCC for monotherapy cohort, with enrollment expected to be completed by the first half of 2027. We also expect to initiate patient enrollment for the combination therapy cohort in 2027. In recognition of this early clinical promise, the FDA granted MVR-T3011 the Fast Track Designation in March 2024 for intratumoral treatment of recurrent or metastatic HNSCC that has progressed after platinum-based chemotherapy and at least one prior line of anti-PD-(L)1 therapy.

Building on the encouraging efficacy signals and favorable safety profile supported by these trials, we will continue to explore the broader clinical potential of MVR-T3011 across various tumor types. We plan to continue advancing MVR-T3011 as both a monotherapy and in combination regimens via intratumoral administration. In addition, we intend to progress MVR-T3011 to explore the potential of intravenous MVR-T3011 in combination with an anti-PD-(L)1 antibody.

Continue developing other differentiated pipeline candidates

We will continue to stay focused on the development of other oncolytic immunotherapy product candidates to comprehensively address significant disease burdens and clinical needs. We aim to continuously leverage our proprietary, evolved oHSV backbone structure to optimize its therapeutic potential, providing a flexible and robust foundation for the ongoing development of oncolytic immunotherapy candidates across broader indications. In the development of MVR-C5252, we have strategically deleted both copies of γ34.5 genes, which encodes the

neurovirulence protein and 15-kb internal repeat region encoding one copy of latency-associated transcript (LAT), ICP4, ICP0 to further prevent viral latency and reactivation within the neuron cells, thereby significantly improving the safety profile of MVR-C5252 in addressing the clinical complexity and risks associated with malignant glioma. We have obtained IND approvals from both the FDA and the NMPA for MVR-C5252 in August 2021 and March 2023, respectively. In December 2025, we obtained the ethics committee approval for the initiation of a Phase I/IIa clinical trial for the treatment of glioma in China, and expect to commence this trial in the first half of 2026. Additionally, we have collaborated with Duke for the clinical exploration of MVR-C5252 in conjunction with intracranial delivery device evaluation for the treatment of high-grade glioma in the U.S.

As part of our strategic vision, we plan to further strengthen and expand our existing oncolytic immunotherapy platforms to optimize every stage of the drug development process. By enhancing the efficiency of the transition from preclinical research to clinical trials, we aim to improve the overall efficiency and cost-effectiveness of our clinical development efforts. This approach not only enables us to expand and diversify our pipeline with new drug candidates but also ensures the continuous innovation and refinement of our existing assets. By fostering ongoing improvements and iterative development, we maintain a competitive, far-reaching portfolio that maximizes the long-term value of our oncolytic immunotherapy franchise.

Expediate development of our engineered exosome in both chronic and hard-to-treat diseases, and age-related diseases

We are actively expanding our engineered exosome platform to age-related conditions for direct commercialization through INCI regulatory pathway. Following the assignment of INCI names, we plan to advance commercialization efforts by collaborating with established global brands to bring our exosome-based functional aesthetics ingredients to market and expand our international presence. Specifically:

- *MVR-EX103 (for skin-related conditions).* We received the INCI designation for MVR-EX103 in April 2025. We intend to explore commercialization opportunities in global markets through both collaboration with industry leaders and regional distributor engagement.

- *MVR-EX104 (for alopecia).* We have completed *in vitro*, *in vivo* and clinical validation for MVR-EX104 as of the Latest Practicable Date. We received the INCI designation for MVR-EX104 in July 2025, with anticipated commercialization in the overseas markets in 2026.

- *MVR-EX105 (for localized fat accumulation).* We have completed *in vitro*, *in vivo* and clinical validation for MVR-EX105 as of the Latest Practicable Date. We received the INCI designation for MVR-EX105 in July 2025, with anticipated commercialization in the overseas markets in 2026.

In addition to functional aesthetic programs, we have established a diversified pipeline of engineered exosome therapeutic candidates in chronic and hard-to-treat diseases, for which we will continue to advance into later clinical stages and regulatory approval. We have completed early-stage product development of MVR-EX101 for the treatment of wound healing, and we expect to obtain IND clearance from the FDA in 2027 and initiate Phase I clinical trial in the same year. For MVR-EX107, which is designed for the treatment of pulmonary fibrosis, we are currently conducting its preclinical study. We expect the IND submission to the FDA and the commencement of Phase I clinical trial as early as 2028.

Continue exploring strategic partnerships and collaborations to maximize the value of our pipeline and platform

Our proven track record of successful global R&D partnerships underscores the effectiveness of our approach to maximizing value through strategic collaborations. With our aim to becoming a global enterprise, we will continue to actively seek and evaluate different modes of external partnerships to accelerate the delivery of our innovative products to patients and consumers across various markets worldwide. By leveraging the strengths and expertise of our partners, we aim to expand and deepen our global reach, optimize resource allocation, and ultimately, determine the right development strategy for the asset program towards approval and commercialization.

We will focus on establishing partnerships with leading global and domestic companies for the development and commercialization of our differentiated product portfolio to accelerate their development and maximize commercial value. In addition to partnerships on an asset level, we will also actively evaluate collaborative R&D opportunities to enhance and supplement our in-house drug discovery and research efforts. We will focus on identifying and engaging with partners who possess complementary expertise and technologies that synergize with our own capabilities.

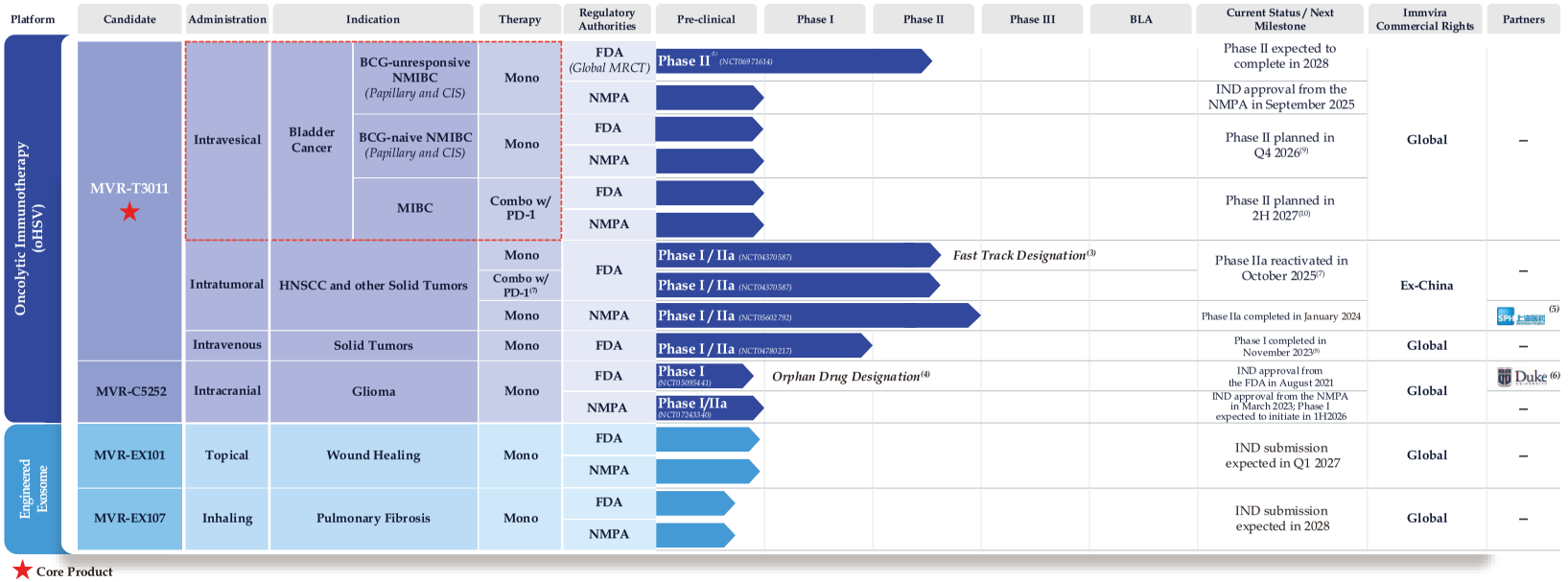
Continue focusing on hiring and retaining top talent to further expand our capabilities

Building an aspirational and globally competitive team is essential to the successful execution of our strategies. We remain committed to attracting and retaining talent with a global perspective to support the sustained growth worldwide. Specifically, to strengthen our competitive edge, we plan to recruit and retain specialized professionals across key areas such as research and development, global clinical development, regulatory affairs, and business development. Additionally, we will continue to offer systematic training and development programs to enhance our employees' technical expertise and keep them informed of the latest industry advancements.

OUR PRODUCT PORTFOLIO

We have strategically curated a differentiated, risk-balanced pipeline integrating both oncolytic immunotherapy with best-in-class potential and engineered exosomes poised as novel clinical therapeutics or for direct commercialization. As of the Latest Practicable Date, our product pipeline consisted of two clinical-stage oncolytic immunotherapy candidates, two preclinical-stage engineered exosome candidates, as well as three engineered exosome products poised for direct commercialization, all of which were developed in-house.

The following chart illustrates our clinical pipeline and summarizes the development status of each candidate as of the Latest Practicable Date:



Abbreviations: oHSV = oncolytic herpes simplex virus; BCG = Bacillus Calmette-Guérin; NMIBC = non-muscle-invasive bladder cancer; MIBC = muscle-invasive bladder cancer; CIS = carcinoma in situ; HNSCC = head and neck squamous cell carcinoma

Notes:

(1) In May 2020, we received an umbrella IND approval for MVR-T3011 from the FDA, which covers multiple phases/stages of clinical trials across different indications and routes of administration. Based on this IND approval, we, as the sponsor, subsequently initiated two Phase I/IIa clinical trials in the U.S., namely the Phase I/IIa clinical trial of MVR-T3011 via intratumoral administration as a single agent and/or in combination with intravenous pembrolizumab in patients with advanced or metastatic solid tumors (including bladder cancer and HNSCC) in the U.S. (NCT04370587) and the Phase I/IIa clinical trial of MVR-T3011 monotherapy in patients with advanced solid tumors (including bladder cancer and HNSCC) via intravenous administration in the U.S. (NCT04780217). We completed the Phase I portions of these two Phase I/IIa clinical trials in May 2021 and November 2023, respectively.

In September 2024, we had a Type C meeting with the FDA for early consultation on the clinical development pathway of MVR-T3011 in high-risk BCG-unresponsive NMIBC from a scientific perspective, where we submitted a comprehensive background information package including, among others, cumulative clinical data supporting safety and tolerability profile of MVR-T3011 and its established RP2D from the foregoing two Phase I/IIa clinical trials via intratumoral and intravenous administration in all advanced solid tumors (including bladder cancer and HNSCC) independently conducted by us. Following the meeting, we submitted a formal protocol amendment to the FDA in November 2024 to add the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC or BCG-exposed, chemotherapy-unresponsive intermediate/high-risk NMIBC in the U.S. (NCT06971614) under the umbrella IND from the FDA. Based on FDA's tacit approval for the protocol amendment, we subsequently initiated this Phase II clinical trial in June 2025. For details, see "Business — Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Material Communication with Competent Authority."

(2) The anti-PD-1 antibody used in this trial is pembrolizumab, developed and manufactured by MSD. As of July 2025, pembrolizumab has received approvals for over 40 indications globally. Under the relevant agreements with the participating research centers, the drug is used as a standard-of-care (SOC) treatment in the study, and the associated costs are covered by public medical insurance.

(3) The intratumoral MVR-T3011 was granted the Fast Track Designation by the FDA in March 2024 for the treatment of recurrent or metastatic HNSCC patients who failed platinum-containing chemotherapy and anti-PD-(L)1 therapy.

(4) MVR-C5252 was granted the Orphan Drug Designation (ODD) by the FDA for the treatment of malignant glioma in August 2022.

(5) On August 6, 2020, we entered into a license and collaboration agreement with Shanghai Pharmaceuticals Holding Co., Ltd. ("**SPH**"), as amended, pursuant to which we granted SPH an exclusive license to develop, manufacture and commercialize MVR-T3011 for intratumoral injection in Greater China. For details, see "Business — Collaboration Agreements — License and Collaboration Agreement with SPH."

(6) On May 9, 2023, we entered into a collaborative research agreement with Duke University acting for and on behalf of its School of Medicine ("**Duke**") for a Phase I trial sponsored by Duke in respect of MVR-C5252 monotherapy in patients with recurrent high-grade glioma in the U.S. For details, see "Business — Collaboration Agreements — Collaborative Research Agreement with Duke."

(7) We completed the Phase I part of this combined Phase I/IIa clinical trial (NCT04370587) in May 2021, advanced into the Phase IIa part in June 2021, and then temporarily paused the Phase IIa part on September 1, 2023 after several patients enrolled to explore efficacy of MVR-T3011 in indications such as HNSCC and melanoma. This temporary pause was not due to adverse safety or efficacy signals observed in the trial, but was driven by a strategic portfolio prioritization decision made by the management to concentrate the Group's financial, operational, and clinical resources on advancing the bladder cancer indication. Thereafter, we adjusted our portfolio management strategies and decided to reallocate resources and resume development of this clinical program. In October 2025, we officially informed the Central Institutional Review Board (IRB) to reopen this Phase IIa trial and received approval therefrom to continue this study. As such, we had formally reactivated the Phase IIa portion of PI/IIa IT Solid Tumors US (NCT04370587). For details, see "Business — Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Clinical Development Plan."

(8) We completed the Phase I part of this combined Phase I/IIa clinical trial (NCT04780217) in November 2023 and had not advanced into the Phase II part as of the Latest Practicable Date. Likewise, this discontinuation was not due to adverse safety or efficacy signals observed in the trial, but was driven by a strategic portfolio prioritization decision made by the management to concentrate the Group's financial, operational, and clinical resources on advancing the bladder cancer indication.

(9) Since the IND approval we obtained from the FDA for MVR-T3011 is an umbrella IND in advanced solid tumors irrespective of phases of clinical trials, we are not required to obtain additional approval or confirmation to commence potential Phase II trials in BCG-naïve NMIBC. Based on the safety and tolerability profiles of MVR-T3011 evidenced in completed Phase I clinical trials across broad solid tumor indications, we plan to update competent regulatory authorities on the trial protocol for Phase II clinical trials of intravesical MVR-T3011 in BCG-naïve NMIBC. Further, we have accumulated preclinical research and clinical experience in bladder cancer independently, which would enable us to further explore the therapeutic potential of MVR-T3011 towards BCG-naïve NMIBC, a sub-type of indication under bladder cancer with similar medical and scientific attributes to BCG-unresponsive NMIBC. Subject to the regulatory authorities' clearance of the protocol amendment under the existing approved IND, we intend to initiate the global Phase II MRCT as early as the fourth quarter of 2026.

(10) Since the IND approval we obtained from the FDA for MVR-T3011 is an umbrella IND in advanced solid tumors irrespective of phases of clinical trials, we are not required to obtain additional approval or confirmation to commence potential Phase II trials in MIBC. Based on the safety and tolerability profiles of MVR-T3011 evidenced in completed Phase I clinical trials across broad solid tumor indications, we plan to update competent regulatory authorities on the trial protocol for Phase II clinical trials of intravesical MVR-T3011 in combination with anti-PD-1 antibody for the treatment of MIBC. Further, we have accumulated preclinical research and clinical experience in bladder cancer independently, which would enable us to further explore the therapeutic potential of MVR-T3011 towards MIBC, a sub-type of indication under bladder cancer with similar medical and scientific attributes to BCG-unresponsive NMIBC. Subject to the regulatory authorities' clearance of the protocol amendment under the existing approved IND, we intend to initiate the global Phase II MRCT in the second half of 2027.

Oncolytic Immunotherapy Candidates

MVR-T3011, our Core Product

Overview

MVR-T3011, our Core Product, is our self-discovered novel HSV-1-based oncolytic immunotherapy with a mechanism of action that pairs potent tumor lysis with expression of both anti-PD-1 antibody and IL-12, designed for solid tumor treatments including, without limitation, bladder cancer and HNSCC. Its proprietary evolved HSV-1 backbone confers one thousand times higher replicative potency and supports multiple routes of administration, including intratumoral, intravesical and intravenous delivery, enabling broader clinical applicability across different solid tumor types. By co-delivering anti-PD-1 antibody and IL-12, MVR-T3011 elicits a synergistic effect that further enhances immune responses within the tumor microenvironment. This drug candidate effectively combines direct oncolysis with localized cytokine expression and immune checkpoint blockade, offering an oncolytic immunotherapy capable of inducing durable systemic anti-tumor immunity.

MVR-T3011 has demonstrated significant local tumor response and favorable systemic safety, with significant potential to expand into various indications. Building on these encouraging results, MVR-T3011 has been further evaluated via intravesical administration. The promising outcomes observed highlight its huge potential to reshape the treatment landscape for bladder cancer, as intravesical instillation remains the standard and the common route of administration for bladder cancer.

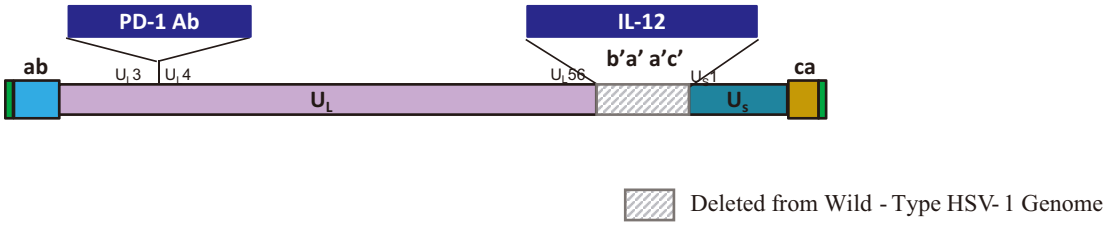
In May 2020, we received an umbrella IND approval for MVR-T3011 from the FDA, which covers multiple phases/stages of clinical trials across different indications and routes of administration. Based on this IND approval, we subsequently initiated two Phase I/IIa clinical trials in the U.S., namely the Phase I/IIa clinical trial of MVR-T3011 via intratumoral administration as a single agent and/or in combination with intravenous pembrolizumab in patients with advanced or metastatic solid tumors (including bladder cancer and HNSCC) in the U.S. (NCT04370587) and the Phase I/IIa clinical trial of MVR-T3011 monotherapy in patients with advanced solid tumors (including bladder cancer and HNSCC) via intravenous administration in the U.S. (NCT04780217). We completed the Phase I portions of these two Phase I/IIa clinical trials in May 2021 and November 2023, respectively.

We also initiated a Phase II clinical trial of MVR-T3011 monotherapy in patients with high-risk, BCG-unresponsive NMIBC in the U.S. (NCT06971614) with the first patient dosed in June 2025. We have strategically devised a sequential clinical development plan covering the full spectrum of bladder cancer, including all subtypes of NMIBC (including both papillary and CIS) in both BCG-unresponsive and BCG-naïve settings. Beyond BCG-unresponsive NMIBC, we are actively investigating the therapeutic potential of MVR-T3011 in BCG-naïve NMIBC and MIBC. We plan to initiate a Phase II clinical trial of MVR-T3011 for the treatment BCG-naïve NMIBC in the U.S. and China as early as the fourth quarter of 2026. Additionally, we intend to evaluate the combination therapy integrating MVR-T3011 and anti-PD-(L)1 antibody for the treatment of MIBC in the U.S. and China through a Phase II trial as early as the second half of 2027.

MVR-T3011 has also demonstrated high prospects for the treatment of HNSCC. We are currently conducting the Phase IIa portion of a Phase I/IIa clinical trial of MVR-T3011 via intratumoral administration as a single agent and/or in combination with intravenous pembrolizumab in patients with advanced or metastatic solid tumors (including bladder cancer and HNSCC) in the U.S. Since we obtained an umbrella IND approval from the FDA for MVR-T3011, we are not required to obtain additional approval or confirmation from the FDA to commence the Phase IIa portion of this combined Phase I/IIa clinical trial. We advanced into the Phase IIa portion with all primary endpoints of Phase I portion reached and the RP2D identified, which is in line with industry practice and pursuant to the trial protocol, and we are currently enrolling patients with HNSCC for monotherapy cohort, with enrollment expected to be completed by the first half of 2027. We also expect to initiate patient enrollment for the combination therapy cohort in 2027. Notably, MVR-T3011 was granted the Fast Track Designation by the FDA in March 2024 for the intratumoral treatment of recurrent or metastatic HNSCC with disease progression after platinum-based chemotherapy and at least one prior line of anti-PD-(L)1 therapy. We also completed a Phase I/IIa trial of MVR-T3011 for the treatment of advanced solid tumors in China in January 2024. These studies demonstrated the promising efficacy and favorable safety profiles of MVR-T3011 administered locally. In August 2020, SPH entered into a license and collaboration agreement with us, pursuant to which we granted SPH an exclusive license to develop,

manufacture and commercialize MVR-T3011 for intratumoral injection in Greater China. For current plan details, see "— Collaboration Agreements — License and Collaboration Agreement with SPH."

The following diagram illustrates the backbone structure of MVR-T3011.



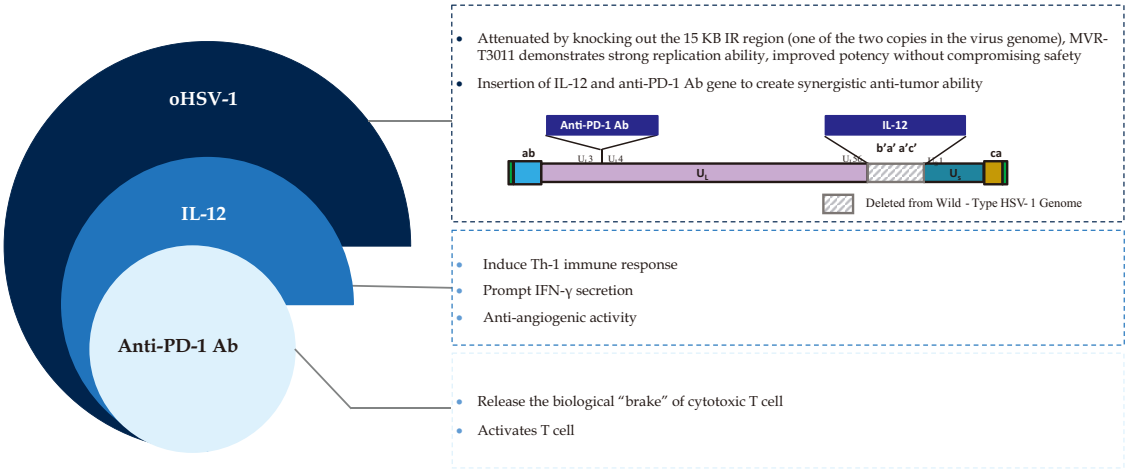
Mechanism of Action

MVR-T3011 exerts anti-tumor effects through its potent and selective replication within tumor cells. By replicating specifically in tumor cells, MVR-T3011 induces direct tumor lysis while minimizing damage to normal tissues. We have innovatively engineered the proprietary HSV-1 backbone, where the virulence of MVR-T3011 is attenuated by deleting the entire Inverted Repeat region, which contains a single copy of dual-copy genes from the wild-type HSV-1 vector. The 15-kb deleted removes one copy of ICP0 and ICP4 (essential immediate-early virus replication genes), ICP34.5 (proven key mediator for neurovirulence), LAT (latency-associated transcript) and OriS (origins of viral DNA replication). This attenuation strategy significantly enhances payload capacity while retaining all functional wild-type proteins. Additionally, deleting one LAT copy inhibits latency establishment, thereby reducing the long-term persistence of the virus. Collectively, these modifications enhance the oncolytic potency of MVR-T3011 while maintaining its strong safety profile. As a result, MVR-T3011 can replicate over 1,000-fold (≥3-log) more efficiently in tumor cells than T-VEC and similar HSV-1 based oncolytic immunotherapy products which adopt the T-VEC backbone strategy. This superior replication profile supports its use across multiple administration routes, including intratumoral, intravesical, and intravenous delivery.

Beyond direct oncolysis, the lytic process of MVR-T3011 simultaneously leads to the release of tumor-associated antigens (TAA) and pro-inflammatory cytokines. These TAAs are captured and presented by antigen-presenting cells, initiating the activation of tumor-specific cytotoxic T lymphocytes and stimulating both innate and adaptive immune responses. In addition, the accompanying cytokine release helps transform immunologically "cold" tumors, which are characterized by poor responses to immune checkpoint inhibitors, into "hot" tumors by promoting immune cell infiltration and enhancing antigen presentation. This immunomodulatory effect broadens the therapeutic potential of MVR-T3011 to cover patient population who do not respond to or have progressed from previous immune checkpoint inhibitors treatment, including PD-(L)1.

In addition, the proprietary "3-in-1" vector of MVR-T3011 is genetically engineered to encode an anti-PD-1 antibody and IL-12, both of which enhance local and systemic immune activation. The anti-PD-1 antibody effectively blocks immune suppression, enabling sustained T cell-mediated anti-tumor responses. IL-12 activates and helps develop T cells and natural killer cells, boosts a Th1 immune response with more interferon-gamma (IFN-γ), and slows blood vessel growth in tumors. Together, anti-PD-1 antibody and IL-12 work better than alone. Anti-PD-1 antibody depends on dendritic cells (DCs) to produce IL-12 for lasting tumor defense, while IL-12 production is increased by IFN-γ from activated CD8+ T cells. In turn, IL-12 from DCs strengthens T cell attacks on tumors. This teamwork leads to a significant shrinking of tumors. Importantly, these exogenous genes are expressed only when the virus selectively replicates in tumor cells, ensuring that anti-PD-1 antibody and IL-12 are locally released at the tumor site without entering into systemic circulation. Once replication is initiated in the tumor cells, MVR-T3011 functions as an *in situ* "factory," continuously producing anti-PD-1 antibody and IL-12, thereby overcoming challenges of limited half-life of payloads and providing sustained local immunomodulation in contrast to the transient systemic exposure associated with traditional biologic therapies.

The engineering of MVR-T3011's proprietary "3-in-1" vector is illustrated below.



Source: Company data

Market Opportunity and Competition

According to Frost & Sullivan, the oncolytic immunotherapy drug market is expected to experience rapid expansion in the coming years, underscoring the substantial market potential of oncolytic immunotherapy. The global oncolytic immunotherapy drug market is projected to grow from US$87.1 million in 2024 to US$1,559.7 million by 2028, representing a CAGR of 105.7%, and further expand to US$17,144.5 million by 2033, reflecting a CAGR of 61.5% from 2028 to

2033. Meanwhile, the U.S. oncolytic immunotherapy drug market is expected to grow to US$975.2 million by 2028, with a CAGR of 102.3% from 2024 to 2028, and further reach US$9,640.0 million by 2033, representing a CAGR of 58.1% from 2028 to 2033. China's oncolytic immunotherapy drug market is expected to grow from US$6.3 million in 2024 to US$222.8 million by 2028, representing a CAGR of 143.9% from 2024 to 2028, and further reach US$3,271.3 million by 2033, with a CAGR of 71.1% from 2028 to 2033.

The global oncolytic immunotherapy development pipeline is robust and rapidly evolving. As of the Latest Practicable Date, there were four approved oncolytic immunotherapy drugs, one oncolytic immunotherapy drug candidates at the NDA stage, four in Phase III clinical trials, one in Phase II/III and 12 in Phase II. The diversity of viral vectors is increasing, encompassing HSV-1, HSV-2, adenovirus serotype 5 (Ad5), and other adenoviruses. In parallel, administration routes are becoming more versatile, with oncolytic immunotherapy drug candidates delivered via intratumoral, intravenous, intravesical and other routes, thereby broadening the applicability of oncolytic immunotherapy to a wider range of solid tumors such as bladder cancer and glioma. For details, see "Industry Overview — Overview of Oncolytic Immunotherapy — Oncolytic Immunotherapy Drug Market."

The major indications of our MVR-T3011, include the following:

- *Bladder cancer*. Bladder cancer ranks among the top ten solid tumors by global incidence. The incidences of bladder cancer reached 637.4 thousand, 83.2 thousand, and 98.8 thousand globally, in the U.S., and China in 2024, respectively, which are expected to increase to 797.7 thousand, 102.8 thousand, and 123.4 thousand in 2033, respectively.

  Bladder cancer is classified into NMIBC and MIBC, with NMIBC accounting for approximately 75% of newly diagnosed bladder cancer cases at diagnosis. The incidence of NMIBC in 2024 reached 446.2 thousand globally, 58.0 thousand in the U.S., and 68.2 thousand in China, and is expected to increase to 558.4 thousand, 71.7 thousand, and 85.1 thousand by 2033, respectively. Within NMIBC, papillary NMIBC accounts for approximately 90% of cases and presents as tumor-like growths, while CIS NMIBC accounts for approximately 10% and appears as flat, high-grade lesions with a higher risk of progression. Treatment of NMIBC generally involves transurethral resection of bladder tumor (TURBT), a surgical procedure that allows visual inspection, biopsy, and removal of visible lesions while preserving bladder function. Approximately 40% of patients are classified as high-risk after TURBT treatment, and typically are recommended to receive BCG therapy, which includes an induction phase followed by maintenance therapy to improve long-term outcomes.

Nevertheless, around 50% of patients eventually become unresponsive to BCG, and treatment options for BCG-unresponsive NMIBC remain limited. Therapies such as intravesical chemotherapy or conventional immunotherapies such as immune checkpoint inhibitors have shown limited efficacy, and disease progression may ultimately necessitate radical cystectomy, representing a highly invasive procedure that significantly impairs patient quality of life, prognosis, and overall survival. Additionally, although BCG remains the standard of care for high-risk NMIBC, there is a global shortage of BCG, which increases the risk of tumor recurrence and progression. In the U.S., the supply of BCG meets less than 30% of the total demand.

High-risk NMIBC represents roughly 40% of all NMIBC cases. Of these high-risk NMIBC patients, about 40% are BCG-naïve who have never received BCG treatment, while approximately 60% of those who do receive BCG therapy ultimately become BCG-unresponsive. As such, there is a critical unmet need for alternative therapies to replace or supplement BCG. Oncolytic immunotherapy offers a novel and promising treatment modality for NMIBC, especially in BCG-unresponsive settings, and may serve as a valuable alternative in BCG-naïve settings in light of the BCG shortage.

As of the Latest Practicable Date, no oncolytic immunotherapy had been approved for the treatment of bladder cancer. Globally, one oncolytic immunotherapy candidate targeting bladder cancer was in a Phase III clinical trial, two in Phase II, and three in Phase I. CG0070, an Ad5-based oncolytic immunotherapy drug candidate with GM-CSF and E2F-1 gene payload developed by CG Oncology, is currently the only oncolytic immunotherapy candidate in a Phase III clinical trial targeting NMIBC. Thus, the market of oncolytic immunotherapy in bladder cancer, especially for the BCG-unresponsive and BCG-naïve patients, remains largely untapped and offers substantial growth potential. For details, see "Industry Overview — Overview of Oncolytic Immunotherapy — Major Indications for Oncolytic Immunotherapy — Bladder Cancer."

- *HNSCC*. HNSCC is the most common histological subtype of HNC, accounting for approximately 90% of all HNC cases. In 2024, the incidence of HNSCC reached 892.0 thousand globally, 64.0 thousand in the U.S., and 136.0 thousand in China, and is projected to increase to 1.1 million, 72.1 thousand, and 152.7 thousand by 2033, respectively. For patients with recurrent, non-metastatic HNSCC, the standard of care includes surgical resection or re-irradiation when feasible, often followed by systemic therapy such as platinum-based chemotherapy combined with cetuximab or immune checkpoint inhibitors, depending on prior treatments, tumor characteristics, and patient performance status.

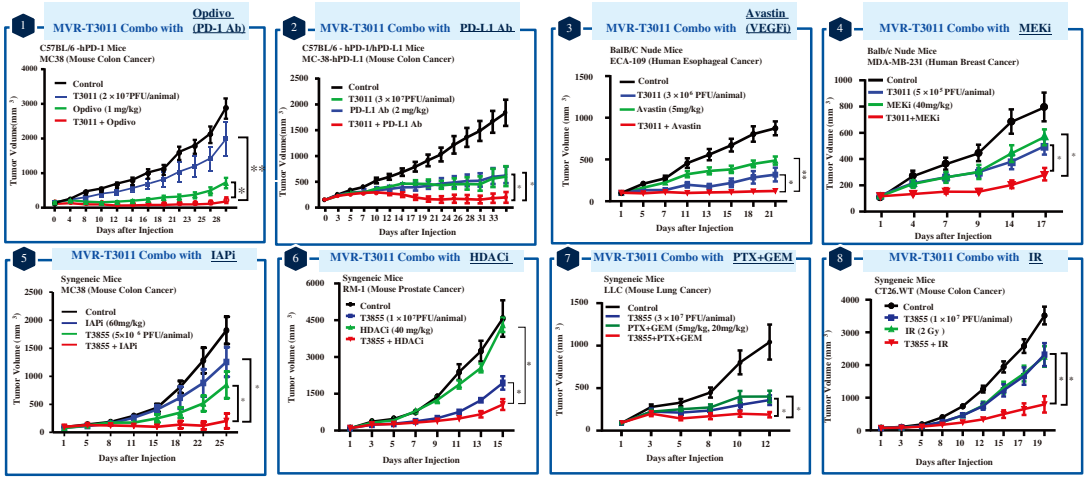
As of the Latest Practicable Date, no oncolytic immunotherapy drug has been approved for the treatment of HNSCC. Globally, two oncolytic immunotherapy candidates targeting HNSCC was in a Phase II clinical trial, and eight in Phase I, highlighting an active pipeline but also substantial room for innovation and clinical breakthroughs. For details, see "Industry Overview — Overview of Oncolytic Immunotherapy — Major Indications for Oncolytic Immunotherapy — Head and Neck Squamous Cell Carcinoma."

Competitive Advantages

- *Broad applicability and combination potential enabled by proprietary HSV-1 backbone and multiple administration routes.* Leveraging HSV-1's natural properties, as well as a wealth of clinical data accumulated since the approval of T-VEC, the first approved HSV-1-based oncolytic immunotherapy drug globally, we engineered MVR-T3011 by deleting the Inverted Repeat region but retained all viral protein genes, resulting in enhanced potency while maintaining tumor selectivity. As a result, MVR-T3011 replicates over one thousand times more efficiently in cell culture compared to T-VEC and similar HSV-1 based oncolytic immunotherapies, while maintaining strict attenuation in normal tissues. This superior replication profile supports versatile administration routes, including intratumoral, intravesical and intravenous delivery, significantly expanding its clinical applicability across a broad range of tumor types and disease stages.

  Beyond its potent anti-tumor activity as a standalone agent, MVR-T3011 serves as a versatile backbone for combination therapies. Oncolytic immunotherapies like MVR-T3011 will not affect traditional drug-drug interactions (DDIs) but can also reverse acquired resistance to prior therapies, such as immune checkpoint inhibitors like anti-PD-(L)1 antibody. In such cases, patients who had previously developed resistance may regain responsiveness when re-exposed to immunotherapies in combination with MVR-T3011. MVR-T3011 exhibits strong synergistic effects in combination with a range of treatment modalities, which include immunotherapy agents such as anti-PD-(L)1 antibodies, targeted therapies like VEGF inhibitors, MEK inhibitors, IAP inhibitors, HDAC inhibitors, and chemotherapies including paclitaxel and gemcitabine, as well as radiotherapy. The charts below illustrate the compelling anti-tumor effects observed across these combinations, underscoring MVR-T3011's potential as a versatile and foundational oncolytic immunotherapy platform. Clinical data indicate that MVR-T3011 has the potential to modify the tumor microenvironment and overcome immune resistance. Tumor biopsies and pharmacokinetic/pharmacodynamic (PK/PD) analyses have demonstrated significant immune cell infiltration following intratumoral

administration as monotherapy. Additionally, preliminary efficacy has been observed when MVR-T3011 is administered intratumorally in combination with pembrolizumab administered intravenously.



Source: Company data

- *Promising oncolytic immunotherapy for the treatment of solid tumors, including bladder cancer and HNSCC*. MVR-T3011 has demonstrated high prospect for the treatment of a broad range of solid-tumor. Notably, MVR-T3011 offers a comprehensive clinical solution covering the full spectrum of bladder cancer, including all subtypes of NMIBC (including papillary and CIS) and MIBC. When administered intravesically, MVR-T3011 has demonstrated strong potential against all subtypes of high-risk NMIBC. As of Spetember 19, 2025, in an independent IIT for patients with high-risk, BCG-failure papillary NMIBC at a dose of 2×10^9 PFU, MVR-T3011 achieved 3-month, 6-month, 9-month and 12-month Kaplan-Meier-estimated RFS rates of 87.1%, 80.4%, 80.4% and 71.4%, respectively. This study also explored a higher dose of 1×10^{10} PFU of MVR-T3011, at which preliminary signals of improved efficacy were observed. 6 out of the 10 patients with papillary who received MVR-T3011 at a dose of 1×10^{10} PFU had been followed for more than three months. All six patients remained recurrence-free at both the 3-month and 6-month assessments, resulting in 3-month and 6-month RFS rates of 100%. This sustained efficacy compares favorably to Ferring's ADSTILADRIN®, the first and only FDA-approved intravesical gene therapy for treating high-risk, BCG-unresponsive NMIBC, which reported 3-month, 6-month, 9-month and 12-month RFS rates of 73%, 62%, 58% and 44%, respectively, in BCG-unresponsive papillary NMIBC. Additionally, we initiated a Phase II clinical trial of MVR-T3011 administered intravesically for the treatment of BCG-unresponsive high-risk NMIBC papillary and carcinoma *in situ* (CIS) cohorts in the U.S., with the first patient dosed in June 2025. To

expand into the full coverage of bladder cancer treatment, we plan to explore the clinical potential of MVR-T3011 for the treatment of BCG-naïve NMIBC in the U.S. and China as early as the fourth quarter of 2026. Our clinical plan includes the evaluation of MVR-T3011 in a Phase II trial for the treatment of MIBC as early as the second half of 2027, where we expect to employ intravesical delivery of MVR-T3011 in combination with a systemic intravenous anti-PD-(L)1 antibody.

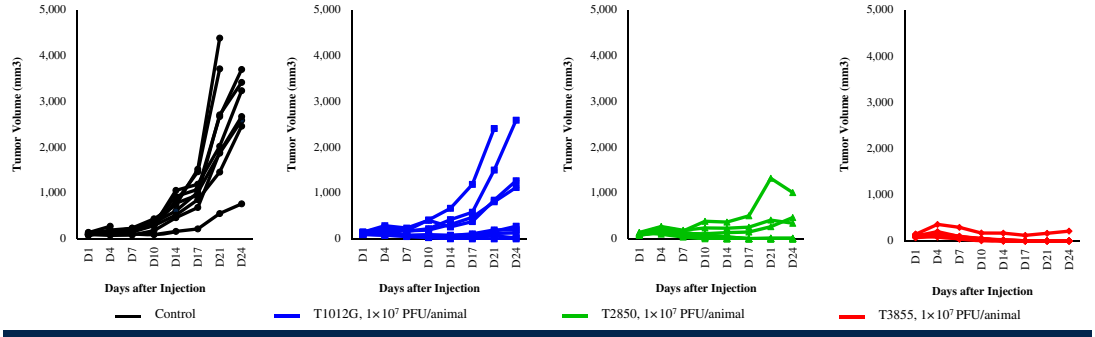
Further, by obviating bladder prewashing, intravesical administration of MVR-T3011 delivers a streamlined, patient-centric therapeutic approach. Adenovirus-based therapies, such as the Ad5-based CG0070, require bladder instillation of dodecyl β-D-maltoside (DDM) to remove the GAG layer for effective viral penetration, a process often associated with patient discomfort and reduced compliance. In contrast, the HSV-1 vector used in our MVR-T3011 naturally binds to GAGs as its receptor, eliminating the need for prewash procedures and enabling a more patient-friendly administration. This advantage is particularly valuable in high-burden settings such as BCG-unresponsive NMIBC, where treatment tolerability plays a critical role in therapeutic outcomes. Moreover, preserving the GAG layer may further potentiate MVR-T3011's oncolytic activity. Together, these features offer a more convenient and tolerable treatment regimen, potentially improving patient adherence and overall clinical outcomes.

The anti-tumor potential of MVR-T3011 in solid tumors was further supported by a Phase I/IIa clinical trial in the U.S. In the combined Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in patients with advanced or metastatic solid tumors in the U.S., as of September 1, 2023 (the data cut-off date), among 11 evaluable patients with advanced melanoma who had failed prior PD-1 or PD-1/CTLA-4 combination treatments, 3 achieved partial response (PR), indicating an ORR of 27.3% (3/11), thereby demonstrating local tumor-shrinkage potential of MVR-T3011 in superficial injectable solid tumors. Additionally, in the completed Phase I/IIa clinical trial of intratumorally administered MVR-T3011 monotherapy in patients with advanced solid tumors in China, MVR-T3011 demonstrated encouraging anti-tumor activity in the 20 evaluable subjects with HNSCC, achieving an ORR of 20% and a DCR of 65% as of the November 14, 2023 (the data cut-off date). Moreover, both the completed Phase I portion of the U.S. Phase I/II trial and completed Phase I/IIa trial in China demonstrated a favorable safety profile for MVR-T3011, where no DLT, SAEs, or TEAEs/TRAEs leading to treatment discontinuation, subject withdrawal, or death were observed.

In light of the significant unmet clinical need and to leverage the Fast Track Designation granted to MVR-T3011, our Phase IIa portion of the Phase I/IIa trial of intratumorally administered MVR-T3011 in solid tumors in the U.S. is currently ongoing, with HNSCC selected as one of the lead indications. We are currently enrolling patients with the HNSCC for monotherapy cohort, with enrollment expected to be completed by the first half of 2027. We also expect to initiate patient enrollment for the combination therapy cohort in 2027.

- *Encouraging efficacy driven by the synergistic effects of anti-PD-1 antibody and IL-12.* MVR-T3011 incorporates both an anti-PD-1 antibody and IL-12 to induce a coordinated innate and adaptive immune response. The anti-PD-1 antibody lifts immune suppression, enabling cytotoxic T cells to recognize and attack tumor cells, while IL-12 promotes the activation and differentiation of T cells and natural killer cells, and inhibits angiogenesis by modulating pro-angiogenic factors. In addition to their respective anti-tumor effects, the combination of anti-PD-1 antibody and IL-12 has demonstrated a synergistic anti-tumor response, as evidenced by the pharmacological activity observed in immune-competent animal models in our preclinical studies, as shown in the following chart and table.

B16 Mouse Melanoma Model



	Survival	CR (Complete Response)	PR (Partial Response)
Saline	4/10	0	0
MVR-T1012G	8/10	1/8	1/8
MVR-T2850	9/10	6/9	1/9
MVR-T3855	10/10	9/10	0

n=6		D0	D3	D7	D10	D14
Average tumor volume (mm^3)	Control	101±6.0	336±68	725±137	1025±212	2248±557
	Anti-PD-1 Ab (1mg/kg)	109±8.1	307±53	585±87	1027±126	1836±200
	IL-12 (0.1ug/animal)	103±6.3	321±90	794±273	1228±398	2269±715
	Anti-PD-1 Ab + IL-12	105±7.4	131±42	241±106	400±179	1092±532
	MVR-T1012G	100±5.7	231±79	466±212	556±240	1393±736
	MVR-T3855	110±6.8	165±32	187±85	207±138	443±351
	MVR-T1012G + Anti-PD-1 Ab + IL-12	109±6.4	242±44	295±107	386±184	1050±624

Note: MVR-T1012G is GFP payload backbone; MVR-T2850 is the murine IL-12 gene inserted with the same backbone as MVR-T3011; MVR-T3855 is the murine surrogate of MVR-T3011.

Source: Company data

- *Favorable safety profile addressing a common limitation of oncolytic immunotherapy drugs and exogenous payloads.* MVR-T3011 is strategically developed based on the proprietary HSV-1 backbone, for which humans are the natural host, resulting in inherent biological compatibility that minimizes systemic toxicity. Even under intravenous administration, where most oncolytic immunotherapy candidates are subject to rapid neutralization by circulating antibodies, systemic clearance, and the risk of cytokine storms, MVR-T3011 demonstrates a favorable safety profile while maintaining efficient tumor targeting. This is largely attributed to its proprietary HSV-1 backbone, which supports robust replication within tumor tissue. As a result, even a small amount of virus reaching the tumor site via circulation can amplify locally and exert potent anti-tumor effects. Moreover, the backbone design preserves the full structural protein profile of wild-type HSV-1, maintaining its natural ability to evade neutralizing antibodies. This feature supports repeated dosing and sustained therapeutic exposure, a key advantage over conventional viral vectors. Unlike many small molecule, antibody or cytokine candidates restricted by systemic toxicity, MVR-T3011's exogenous genes encoding anti-PD-1 antibody and IL-12 are expressed exclusively after the virus selectively replicates within tumor cells. This tumor-specific expression ensures that anti-PD-1 antibody and IL-12 are released locally at the tumor site without leaking into the bloodstream or normal tissues, thereby significantly reducing systemic exposure and associated adverse effects. The completed Phase I portion of a Phase I/IIa clinical trial of MVR-T3011 in patients with advanced solid tumors via intravenous administration has demonstrated exceptional safety profile and preliminary efficacy of this candidate for the treatment of liver, lung, pancreatic, colorectal and other solid tumors, addressing a critical bottleneck in oncolytic immunotherapy development.

Summary of Clinical Trial Data

Ongoing Phase II Clinical Trial of MVR-T3011 Monotherapy Administered Intravesically in Patients with high-risk BCG-unresponsive NMIBC or intermediate/high-risk BCG-exposed, chemotherapy-unresponsive NMIBC in the U.S. (NCT06971614)

This is a single-arm, open-label, global multicenter, Phase II clinical trial to evaluate the tolerability, safety, and preliminary efficacy of intravesical administration of MVR-T3011 administered intravesically in patients with high-risk BCG-unresponsive NMIBC or intermediate/high-risk BCG-exposed, chemotherapy-unresponsive NMIBC in the U.S. Primary endpoints include CR, RFS, and TRAEs. Secondary endpoints include CR, DOR, event free survival (EFS), RFS and radical cystectomy.

Trial design. Patients enrolled in the Phase II clinical trial must have pathologically confirmed high-risk BCG-unresponsive NMIBC or intermediate/high-risk BCG-exposed, chemotherapy-unresponsive NMIBC, characterized by Ta or T1 papillary and/or CIS. All visible Ta/T1 lesions were required to be completely resected prior to enrollment to accurately assess treatment efficacy. All toxicities caused by prior radiotherapy, chemotherapy or other treatments have recovered to Grade ≤1. In addition, protocol-mandated biopsies must have been conducted at 12 months ±10 days to evaluate the presence or absence of residual or recurrent disease. Subjects with concurrent or prior history of muscle-invasive or metastatic bladder cancer, or history or evidence of high-risk cardiovascular diseases must be excluded.

A total of approximately 160 subjects are planned to be enrolled to receive MVR-T3011 via intravesical instillation in total volume of 50ml per each administration. A safety run-in group (2×10^9 PFU, n=3~6 participants) will be established for dose-limiting toxicity (DLT) assessment and safety verification across multi-ethnic populations. If a single DLT event is observed in the initial 3 participants, the safety run-in group will be expanded to 6 participants. Enrollment in the 1×10^{10} PFU dose level may proceed only after completion of DLT assessment for ≥3 participants in the 2×10^9 PFU dose level. The 1×10^{10} PFU dose level will initially enroll 3~6 participants for DLT assessment before proceeding to dose expansion. If < 1/3 and < 2/6 participants experience a DLT at the higher dose, it shall be considered safe for further evaluation.

Taking into account that (i) we have received an umbrella IND approval from the FDA in May 2020, and then initiated two Phase I/IIa clinical trials of MVR-T3011 for the treatment of solid tumors (including bladder cancer and HNSCC) including this trial using intravenous administration in the U.S. and subsequently completed the Phase I portions in May 2021 and November 2023, respectively; (ii) we have collected sufficient data and evidence on the safety/tolerability profile of MVR-T3011 and its RP2D from these two Phase I/IIa trials including this trial; (iii) intravenous injection is a route of administration with the highest drug exposure, the

broadest systemic injection, the highest risk for dosing patients among others. As such, the safety and tolerability results and RP2D from clinical trials using intravenous injection can be leveraged for all other routes of administration, including intravesical administration for bladder cancer treatment, which presents a lower drug exposure risk, limited dosing to a single organ compared to systemic dosing, and a closed bladder compartment. The RP2D from the Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in patients with advanced solid tumors in the U.S. (NCT04780217) was determined as 1×10^9 PFU/mL (comparable to 3×10^8 to 3×10^9 PFU/mL from therapeutic window perspective, or the maximum tolerable dose); and (iv) a GLP-compliant toxicology study in an orthotopic bladder tumor mouse model demonstrated no drug-related toxicity following ITV instillation at a dose of 2.2×10^9 PFU/kg (equivalent to a human dose of 1.22×10^{10} PFU/mL), providing a significant safety margin, we have reasonably selected a higher dose of 1×10^{10} PFU/mL, in response to the FDA's dose-finding recommendation, as the recommended dose for the dose expansion cohort of this study, based on our integrated assessment of the clinical dose-efficacy relationship analysis and non-clinical toxicology study results.

Trial status. We have initiated and successfully dosed one subject for this trial in June 2025, and expect to complete the enrollment in the fourth quarter of 2026. We expect to complete this trial by 2028.

Ongoing Phase I/IIa Clinical Trial of MVR-T3011 Administered Intratumorally as a Single Agent and in Combination with Intravenous Pembrolizumab in Patients with Advanced or Metastatic Solid Tumors in the U.S. (NCT04370587)

Trial	Participants Enrolled	Endpoints	Key Efficacy Results	Key Safety Results
Phase I/IIa Clinical Trial of MVR-T3011 Administered Intratumorally as a Single Agent and in Combination with Pembrolizumab in Patients with Advanced or Metastatic Solid Tumors in the U.S. (NCT04370587) *Phase I portion completed: 2020/09–2021/05* *Phase II portion ongoing (2025/10 reactivated)*	• All subjects having disease progression after SOC therapy or in the opinion of the Investigator unlikely to benefit from SOC therapy • Phase I portion: 12 subjects • Phase II portion: 16 subjects	Primary endpoints: • Phase I: TEAE, DLT • Phase IIa: TEAE Secondary endpoints: ORR, DCR, DOR, PFS, OS and PK/PD, development of ADAs and Nabs of anti-PD-(L)1 antibody, development or change of anti-HSV-1 antibody, changes of serum cytokine panel, anti-PD-(L)1 antibody and IL-12	Melanoma cohorts (N=11): ORR of 27.3%	• TRAE: 24/28 (85.7%) • ≥ Grade 3 TRAE: 11/28 (39.3%) • No treatment-related SAE • No DLT • No TEAEs/TRAEs leading to discontinuation of study drug, subject withdrawal, death

We conducted a Phase I/IIa and open-label study in the U.S. of MVR-T3011 given as a single agent via intratumoral administration and/or in combination with pembrolizumab to establish first-in-human safety, determine biologically active dose ranges and obtain proof-of-concept (PoC) efficacy in, among other solid tumor indications, melanoma which is widely recognized as a benchmark indication for oncolytic immunotherapies. The primary endpoints of the Phase I portion of this combined trial include TEAE and DLT, and the primary endpoints of this Phase IIa portion of this combined trial is TEAE. The secondary endpoints include ORR, DCR, DOR, PFS, OS and PK/PD, development of ADAs and Nabs of anti-PD-(L)1 antibody, development or change of anti-HSV-1 antibody, changes of serum cytokine panel, anti-PD-(L)1 antibody and IL-12.

Trial design. Eligible subjects in this study must have disease progression after the stand-of-care (SOC) therapy or in the opinion of the Investigator unlikely to benefit from SOC therapy. Patients with injectable tumors impinging upon major airways or blood vessels must be excluded. The study for each participant will consist of a screening period (up to 28 days, except for participant in Rollover Arm), a treatment period, and a follow-up period (2 years from the last dose of MVR-T3011 or until the end of study, what comes first).

The Phase I single agent dose escalation study uses a 3+3 design, enrolling cohorts of three participants at each dose level, with potential expansion to up to six participants to assess toxicity and/or activity. There are a minimum of 7 days between the first and second participant Week1/Day1(W1D1) for the first 2 cohorts; for subsequent cohorts, the interval is determined by the study's Safety Review Committee (SRC). Based on the trial protocol, the SRC has the full capacity and are in the position to review all accumulated safety and efficacy data during dose escalation, recommend all dose escalation decisions and/or any changes to the dosing paradigm, as well as declare the RP2D. The starting dose is 1.0×10^6 PFU/mL, and three additional doses will be tested (1.0×10^7 PFU/mL, 5.0×10^7 PFU/mL, 1×10^8 PFU/mL (the maximum injection volume is 4 mL per treatment visit)).

The Phase IIa study comprised two parts and one rollover arm: (i) a single agent dose expansion phase (Part 1), (ii) a combination with pembrolizumab in disease specific cohorts (Part 2), and (iii) rollover arm using combination with pembrolizumab following disease progression on single agent therapy (Rollover Arm).

- **Phase IIa Part 1**: Phase IIa Part 1 is designed to evaluate the safety, tolerability and preliminary efficacy of intratumoral MVR-T3011 as monotherapy administered every two weeks at the RP2D identified from the Phase I. The primary endpoint of this phase is the incidence of TEAEs. Secondary endpoints include ORR, DCR, DOR, PFS at 12 weeks (sarcoma cohort only), PFS, OS, pharmacokinetics/pharmacodynamics,

development of ADAs and NAbs against anti-PD-(L)1 antibodies, development or changes in anti-HSV-1 antibodies, and changes in serum cytokine profiles, anti-PD-(L)1 antibodies and IL-12.

We expect to enroll approximately 83 to 153 participants in Phase IIa Part 1, allocated across the following four treatment arms:

- **Arm A (Melanoma)**: Arm A includes approximately 10 participants with histologically or pathologically confirmed locally recurrent or metastatic melanoma. Eligible participants must have received no more than three prior lines of therapy for advanced or metastatic disease.

- **Arm B (HNSCC)**: Arm B includes approximately 23 to 53 participants with histologically or pathologically confirmed locally recurrent or metastatic HNSCC originating from the oral cavity, oropharynx, hypopharynx or larynx, who are ineligible for curative surgery or radiotherapy. Participants must have experienced disease progression following platinum-containing chemotherapy and failure of anti-PD-1/PD-L1 therapy after receiving at least two doses, either as monotherapy or in combination. Participants will initially receive two doses of MVR-T3011 at 1 $\times 10^6$ PFU/mL, with dose adjustments to be made based on safety assessments.

- **Arm C (Sarcoma)**: Arm C includes approximately 40 to 80 participants with sarcoma, including chordoma (approximately 10 participants), Ewing sarcoma, undifferentiated pleomorphic sarcoma, leiomyosarcoma, chondrosarcoma, liposarcoma and fibrosarcoma. The pathological subtype must be specified, and participants must be willing to provide archival or fresh tumor tissue for central pathology confirmation. Participants must have received no more than three prior lines of anti-cancer therapy.

- **Arm D (cSCC)**: Arm D includes approximately 10 participants with histologically or pathologically confirmed locally recurrent or metastatic cutaneous squamous cell carcinoma (cSCC). Eligible participants must have received no more than three prior lines of therapy for advanced or metastatic disease.

- **Phase IIa Part 2**: Phase IIa Part 2 is designed to evaluate the safety, tolerability and preliminary efficacy of intratumoral MVR-T3011 administered at the RP2D in combination with intravenous pembrolizumab. The primary endpoint is the incidence of TEAEs. Secondary endpoints include ORR, DCR, DOR, PFR, PFS, OS, PK/PD,

development of ADAs and NAbs against anti-PD-(L)1 antibodies, development or changes in anti-HSV-1 antibodies, and changes in serum cytokine profiles, anti-PD-(L)1 antibodies and IL-12.

Eligible participants must have received at least one but no more than three prior lines of anti-cancer therapy. Participants with histologically or pathologically confirmed NSCLC without epidermal growth factor receptor (EGFR) mutations or ALK rearrangements (unless disease progression occurred following prior tyrosine kinase inhibitor therapy) will receive intratumoral MVR-T3011 at the RP2D on Week 1 Day 1, Week 3 Day 1, Week 5 Day 1, and Q3W thereafter. Pembrolizumab will be administered intravenously starting on Week 5 Day 1 and every three weeks thereafter, at least 30 minutes following completion of MVR-T3011 dosing. Pembrolizumab will be administered at a fixed dose of 200 mg via a 30-minute intravenous infusion in accordance with the approved Keytruda® (pembrolizumab) prescribing information. Approximately 15 participants are expected to be enrolled in Phase IIa Part 2.

- **Phase IIa Rollover Arm**: The Phase IIa rollover arm will commence upon identification of the RP2D from Phase I. In this arm, the safety, tolerability and preliminary efficacy of intratumoral MVR-T3011 administered at the RP2D in combination with intravenous pembrolizumab will be further evaluated. The primary endpoint is incidence and characteristics of TEAEs, and the secondary endpoints are ORR, DCR, DOR, PFS and OS.

  Participants who have documented progression on MVR-T3011 as a single agent may be able to rollover to receive MVR-T3011 in combination with pembrolizumab in this arm if the investigator deems it is in the best interest of the participant, with approval from the medical monitor. In this arm, MVR-T3011 will be given at W1D1 and every three weeks thereafter. Pembrolizumab will be administered intravenously at a fixed dose of 200 mg starting at W1D1 and Q3W thereafter, at least 30 minutes after the completion of MVR-T3011 dosing.

Trial status. We initiated the Phase I portion of this trial in the U.S. in September 2020 and complete it in May 2021, with a total of 12 participants enrolled. We achieved all primary endpoints in this Phase I portion of the study, and the RP2D identified by the SRC for this clinical trial was 5×10^7 PFU/mL.

We initiated the Phase IIa portion of this trial in the U.S. in June 2021 and temporarily paused it in September 2023 to prioritize indications with stronger single-agent therapeutic potential and to focus our limited resources on advancing the bladder cancer program before further development on HNSCC. At the time of pause, we had enrolled several subjects in the

Phase IIa portion of this study, including: (i) 13 participants in Part 1, including 8 with melanoma and 5 with other indications (including HNSCC, skin squamous cell carcinoma and malignant pleural mesothelioma); (ii) 2 participants in Part 2 with histologically or pathologically confirmed metastatic NSCLC lacking EGFR mutations or ALK rearrangements (unless they had progressed on prior tyrosine kinase inhibitor therapy); and (iii) 7 participants in the rollover arm (6 from Part 1 and 1 from Phase I) who had documented progression on intratumoral MVR-T3011 monotherapy, with continuous treatment as per protocol if deemed in the participant's best interest by the investigator and approved by the medical monitor.

Despite this temporary pause, we continued to review our clinical development priorities from time to time, with a consistent strategic focus on broadening the therapeutic applicability of MVR-T3011 across multiple tumor types by leveraging its versatility in administration routes. Following the advancement of MVR-T3011 into a Phase II trial in NMIBC via intravesical administration in the U.S., where we gained valuable clinical insights supporting its antitumor activity and single-agent therapeutic potential, we adjusted our portfolio management strategies and officially informed the Central Institutional Review Board (IRB) to reactivate this Phase IIa trial and, in October 2025, received approval from IRB to continue this study. In accordance with applicable FDA regulations, an IRB has the authority to approve or disapprove research. As advised by Frost & Sullivan, securing such IRB approval under an existing and active IND constitutes the formal reactivation of the clinical trial in line with industry norm and regulatory practice. Besides, the FDA does not provide a restricted timeframe for us to complete the clinical study under the umbrella IND. As such, we had formally reactivated the Phase IIa portion of this Phase I/IIa clinical trial (NCT04370587) in the U.S.

As of the Latest Practicable Date, we based on clinical experience with oncolytic immunotherapy, indication characteristics, patient availability, and PI suitability, we had identified and shortlisted potential sites and PIs, and engaged a CRO to conduct further screening eligible clinical sites for this trial. We expect to complete the Phase IIa portion in 2029.

Efficacy results. Clinical data from melanoma subjects enrolled in both the Phase I and Phase IIa portions established the clinical PoC of MVR-T3011. As of September 1, 2023 (data cut-off date), among 11 evaluable patients out of 12 with advanced melanoma and refractory to prior PD-1 or PD-1/CTLA-4 combination therapy who received MVR-T3011 at the 5×10^7 PFU/mL dose level, 3 achieved partial responses, resulting in an ORR of 27.3% (3/11). Clinical data from other solid tumor cohorts were limited by small sample sizes and, as of the data cut-off date, did not allow for meaningful statistical interpretation.

Safety results. As of September 1, 2023 (the data cut-off date), there were a total of 28 patents enrolled in the MAD and dose expansion cohort of MVR-T3011 monotherapy in the study in the U.S. As of September 1, 2023, no DLT events were reported in this study, and MTD was not

reached, with the highest dose at and 1×10^8 PFU/ml (up to 4ml). 11 cases with Grade 3 or above TEAEs were reported. The most frequent TRAEs (≥10%) include pyrexia (32.1%), fatigue (21.4%), injection site pain (17.9%), nausea (14.3%), chills (14.3%), headache (14.3%), arthralgia (10.7%) and rash (10.7%). No TEAEs leading to death were reported, while there was one case with TEAE resulting in study treatment discontinuation. No competent authority has expressed any safety concerns regarding this trial, nor has any concern about the safety data impacted the progress or registration of this trial.

The table below sets forth a summary of the safety result of this Phase I/IIa trial of MVR-T3011 monotherapy via intratumoral administration in advanced or metastatic solid tumors in the U.S.

Category	Total (N = 28)
Number of TEAEs (Total)	264
Subjects with any TEAEs	28 (100.0%)
Subjects with any serious TEAEs	8 (28.6%)
Subjects with any grade >= 3 TEAEs	11 (39.3%)
Subjects with any treatment-related TEAEs	24 (85.7%)
Subjects with any treatment-related TEAEs-T3011	24 (85.7%)
Subjects with any TEAEs resulting in study treatment discontinuation	1 (3.6%)
Subjects with any TEAEs resulting in treatment dose modification	5 (17.9%)
Subjects with any TEAEs resulting in death	0
Subjects with any treatment-emergent irAEs	6 (21.4%)
Subjects with any grade >= 3 treatment-emergent irAEs	0
Subjects with any treatment-emergent irAEs resulting in study treatment discontinuation	0
Subjects with any treatment-emergent irAEs resulting in study treatment dose modification	1 (3.6%)
Subjects with any treatment-emergent irAEs resulting in death	0

Conclusion. Clinical data from melanoma subjects enrolled in both the Phase I and Phase IIa portions established the clinical PoC of MVR-T3011. MVR-T3011 showed great safety profile as monotherapy via intratumoral administration this Phase I/IIa clinical trial.

Completed Phase I/IIa Clinical Trial of MVR-T3011 Monotherapy Administered Intratumorally in Patients with Advanced Solid Tumors in China (NCT05602792)

Trial	Participants Enrolled	Endpoints	Key Efficacy Results	Key Safety Results
Phase I/IIa Clinical Trial of MVR-T3011 Monotherapy Administered Intratumorally in Patients with Advanced Solid Tumors in China (NCT05602792) *Phase I portion completed: 2020/04 - 2021/05* *Phase IIa portion completed: 2021/05 - 2024/011*	• All subjects having histologically or cytologically confirmed advanced solid tumors, who have disease progression after the SOC therapy or in the opinion unlikely to benefit from SOC therapy • Phase I portion: 16 subjects • Phase IIa portion: 87 subjects	Primary endpoints: safety and tolerability of MTD or maximum administered dose, DLT, AE, SAE, ORR Secondary endpoints: PK/PD, concentration of anti-PD-(L)1 antibody and IL-12 in blood, serum cytokine panel, development of ADAs and Nabs of anti-PD-(L)1 antibody, development or change of anti-HSV-1 antibody, ORR, DCR, PFS, DOR, and OS	HNSCC cohort (N=20): ORR of 20%, DCR of 65%, median PFS of 3.88 months, median OS of 10.38 months	• TRAE: 61/95 (64.2%) • ≥ Grade 3 TRAEs: 2/95 (2.1%) • No treatment-related series TEAEs: 2/95 (2.1%) • No DLT • MTD not reached with the highest dose at and 1×10^8 PFU/ml (up to 4ml) • No TEAEs/TRAEs leading to discontinuation of study drug, subject withdrawal, death

This is a Phase I/IIa, open-label, first-in-human trial designed to evaluate MVR-T3011 administered intratumorally as monotherapy in patients with advanced solid tumors. The primary endpoints include safety and tolerability of MTD or maximum administered dose, DLT, AE, SAE for Part I/II and efficacy endpoints of tumor response assessed per RECIST v1.1 and confirmed ORR for Part III. The secondary endpoints include PK/PD, concentration of anti-PD-(L)1 antibody and IL-12 in blood, serum cytokine panel (IFN-γ, IL-1β, IL2, IL4, IL6, IL8, IL10, IL13, TNF-α), development of ADAs and Nabs of anti-PD-(L)1 antibody, development or change of anti-HSV-1 antibody, ORR, DCR, PFS, DOR, and OS.

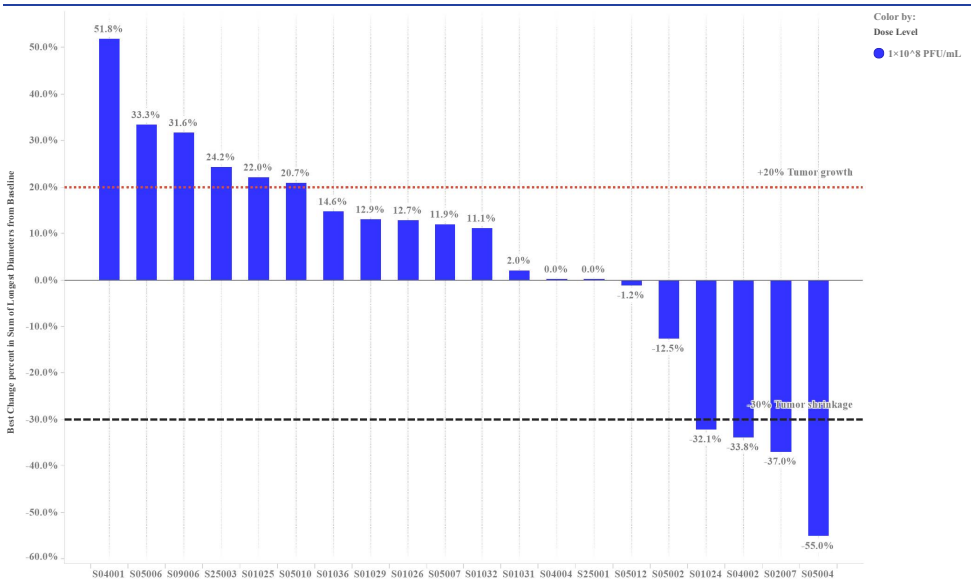
Trial design. Eligible subjects of this trial must have histologically or cytologically confirmed advanced solid tumors, who have disease progression after the SOC therapy or in the opinion unlikely to benefit from SOC therapy. Three parts are designed in this trial. The Phase I portion of this trial comprises of two parts, which follows a 3+3 dose-escalation design to evaluate dose escalation of MVR-T3011, with the maximum injection volume per treatment visit at 4ml. MVR-T3011 is administered at 2.5×10^5, 2.5×10^6, 2.5×10^7, and 1×10^8 PFU/ml to explore the RP2D. Total enrollment of the Phase I portion will depend on the toxicities and/or activity observed, with approximately 8–48 evaluable participants enrolled. Upon the establishment of RP2D, the Part III of this trial will include approximately 83 to 153 patients with sarcoma, breast cancer, HNSCC and other solid tumors.

Trial status. We initiated this study in China in April 2020 and completed it in January 2024. We have achieved all primary endpoints and secondary endpoints of this Phase I/IIa trial. For the latest research and development progress of MVT-T3011 via intratumoral administration regulated by the NMPA in China, see "— Collaboration Agreements — License and Collaboration Agreement with SPH." Among these, secondary endpoints provide supplementary information on safety, tolerability and exploratory efficacy and are not determinative of the trial outcome; accordingly, the results are primarily exploratory and do not, on a standalone basis, constitute materially relevant information for investors' assessment of the program.

Efficacy results. Clinical results demonstrate the promising efficacy of MVR-T3011 in treatment of HNSCC, the lead indication of MVR-T3011 administered intratumorally in China. As of November 14, 2023, in 20 evaluable patients with HNSCC administered MVR-T3011 at the established RP2D, 1×10^8 PFU/ml (up to 4ml), who had failed platinum-containing chemotherapy and anti-PD-(L)1 therapy, the ORR was 20% and the DCR was 65%.

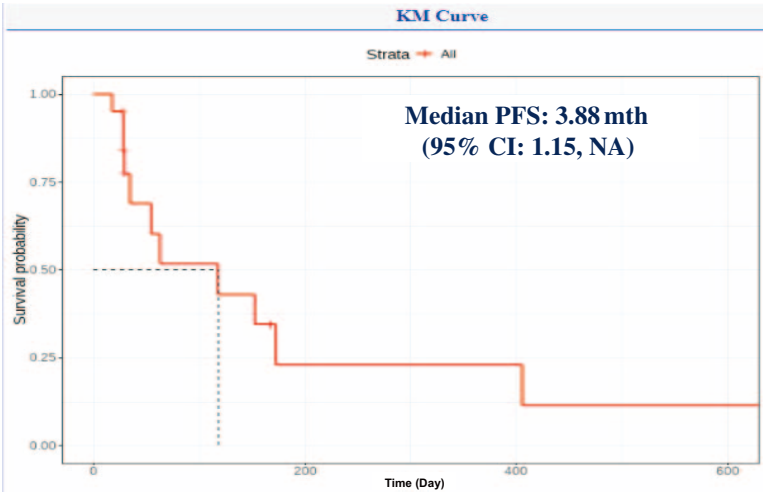
The waterfall plot below sets forth the best tumor response for HNSCC patients as of November 14, 2023.

Best Change Percent in Sum of Longest Diameters from Baseline in HNSCC Patients

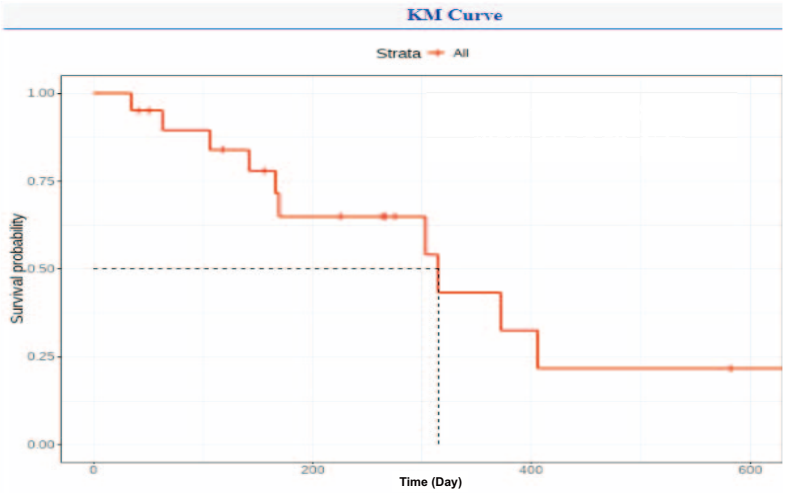


In addition, clinical data demonstrated a median PFS of 3.88 months and a median OS of 10.38 months in patients with HNSCC. The Kaplan-Meier curves below illustrate the PFS and OS outcomes in this patient population.

PFS KM Plot for HNSCC Patients



OS KM Plot for HNSCC Patients



Safety results. As of November 14, 2023, there were a total of 95 patients enrolled in the MAD and dose expansion of MVR-T3011 monotherapy in the study in China. In this study, as of November 14, 2023, no DLT events were reported, and MTD was not reached, with the highest dose at and 1×10^8 PFU/ml (up to 4ml). The most frequent TRAEs (≥5%) include pyrexia (17.9%), influenza like illness (9.5%), proteinuria (7.4%), increased aspartate aminotransferase (6.3%), increased blood thyroid stimulating hormone (6.3%), face oedema (6.3%), anaemia (6.3%), and pain (5.3%), with Grade 3 or above TRAEs reported in 2.1% (2/95) of patients. No competent authority has expressed any safety concerns regarding this trial, nor has any concern about the safety data impacted the progress or registration of this trial.

The table below sets forth a summary of the safety result of MVR-T3011 monotherapy via intratumoral administration in advanced solid tumors in China.

Category	Total (N = 95)
Treatment-Emergent Adverse Events (TEAEs)	83 (87.4%)
Treatment-related TEAEs	61 (64.2%)
CTCAE Grade >=3 TEAEs	15 (15.8%)
CTCAE Grade >=3 Treatment-related TEAEs	2 (2.1%)
Immune-related TEAEs	3 (3.2%)
CTCAE Grade >=3 Immune-related TEAEs	0
Serious TEAEs	13 (13.7%)
Treatment-related Serious TEAEs	2 (2.1%)
TEAEs Leading to Treatment Discontinuation	4 (4.2%)
Treatment-related TEAEs Leading to Treatment Discontinuation	2 (2.1%)
TEAEs Leading to Discontinuation from the Study	6 (6.3%)
Treatment-related TEAEs Leading to Discontinuation from the Study	2 (2.1%)
TEAEs Leading to Death	5 (5.3%)
Treatment-related TEAEs Leading to Death	1 (1.1%)
TEAEs Leading to Suspension of Dosing	9 (9.5%)
Treatment-related TEAEs Leading to Suspension of Dosing	3 (3.2%)

Conclusion. MVR-T3011 administered via intratumoral injection demonstrated promising monotherapy efficacy and favorable safety profile. Notably, improved ORR and prolonged OS were observed in HNSCC patients. Based on these encouraging results, MVR-T3011 was granted the Fast Track Designation by the FDA in March 2024 for the intratumoral injection of recurrent or metastatic HNSCC with disease progression following platinum-based chemotherapy and at least one prior line of anti-PD-(L)1 antibody therapy.

Clinical Development Plan. We submitted an IND application for MVR-T3011 via intratumoral administration in advanced solid tumors to the NMPA in April 2019 and received the corresponding IND approval in July 2019. We subsequently initiated a Phase I/IIa clinical trial targeting the same in China in April 2020 and completed it in January 2024.

Phase I/IIa Clinical Trial of MVR-T3011 Monotherapy Administered Intravenously in Patients with Advanced Solid Tumors in the U.S. (NCT04780217)

To evaluate the safety of MVR-T3011 administered intravenously in patients with advanced solid tumors, we conducted an open-label Phase I/IIa trial of MVR-T3011 monotherapy in the U.S. The primary endpoints of this study include TEAEs, SAEs, DLTs, and secondary endpoints include PK/PD, development of ADAs and Nabs of anti-PD-(L)1 antibody, development or change of anti-HSV-1 antibody, ORR, DCR, DOR, PFS, or OS.

Trial design. Eligible subjects must have pathologically confirmed, locally recurrent or metastatic solid tumors, including, but not limited to NSCLC, hepatocellular carcinoma, colorectal cancer, ovarian cancer and endometrial cancer. Subjects must also have disease progression on or unlikely to respond to SOC therapy at the discretion of the Investigator.

MVR-T3011 is administered intravenously as monotherapy in patients with pathologically confirmed, locally recurrent or metastatic solid tumors who have failed or declined SOC treatment. Phase I follows a standard 3+3 dose-escalation design to evaluate increasing doses of MVR-T3011. In this study, seven dose cohorts are included, including 1×10^6, 1×10^7, 1×10^8, 5×10^8, 1×10^9, 2×10^9, and 4×10^9 PFU per dose. Participants receive MVR-T3011 intravenously on Days 1, 4, 8, 11, 15, and 18 of each 28-day cycle. Total enrollment of the Phase I portion will depend on the toxicities observed, with approximately 36–42 evaluable subjects enrolled in phase I. Phase IIa is a dose-expansion study that will be conducted based on Phase I results.

Trial status. We initiated the Phase I portion of this trial in the U.S. in August 2021 and completed it in November 2023, with primary endpoints and secondary endpoints achieved. As of November 10, 2023, there were 18 patients enrolled in this study. Among these, secondary endpoints provide supplementary information on safety, tolerability and exploratory efficacy and are not determinative of the trial outcome; accordingly, the results are primarily exploratory and do not, on a standalone basis, constitute materially relevant information for investors' assessment of the program. We had not advanced into the Phase IIa portion of this trial as of the Latest Practicable Date due to internal reassessment of portfolio priorities.

Safety results. As of November 10, 2023, 18 subjects were enrolled in the multiple ascending dose (MAD) cohorts of the Phase I/IIa study in the U.S. In this study, TRAEs were reported in 17 patients (94.4%), with no TRAEs of Grade 3 or higher. The highest dose level explored was 1×10^9 PFU. No DLT was observed, and the MTD was not reached. No competent authority has expressed any safety concerns regarding this trial, nor has any concern about the safety data impacted the progress or registration of this trial.

The tables below summarize the most common TRAEs (≥5%) and overall safety profile of intravenous MVR-T3011 monotherapy in patients with advanced solid tumors as of November 10, 2023.

Most common TRAEs (≥5%)	(N = 18)
Nausea	5 (27.8%)
Fatigue	4 (22.2%)
Infusion related reaction	4 (22.2%)
Chills	3 (16.7%)
Influenza like illness	3 (16.7%)
Pyrexia	2 (11.1%)
Diarrhoea	2 (11.1%)
Headache	2 (11.1%)
Lethargy	2 (11.1%)
Hypotension	2 (11.1%)
Sinus tachycardia	2 (11.1%)
Pain	1 (5.6%)
Constipation	1 (5.6%)
Vomiting	1 (5.6%)
Alopecia	1 (5.6%)
Dermatitis	1 (5.6%)
Dermatitis eczemiform	1 (5.6%)
Hyperhidrosis	1 (5.6%)
Rash maculo-papular	1 (5.6%)
Heart rate decreased	1 (5.6%)
Heart rate increased	1 (5.6%)
Lipase increased	1 (5.6%)
Weight decreased	1 (5.6%)
Flushing	1 (5.6%)
Hot flush	1 (5.6%)
Candida infection	1 (5.6%)
Fungal infection	1 (5.6%)
Hypokalaemia	1 (5.6%)
Hypomagnesaemia	1 (5.6%)
Upper-airway cough syndrome	1 (5.6%)

Category	Grand total (N = 18)
Subjects with any TEAEs	18 (100%)
Subjects with any TEAEs related to T3011	17 (94.4%)
Subjects with any serious TEAEs	7 (38.9%)
Subjects with any serious TEAEs related to T3011	1 (5.6%)
Subjects with any Grade >=3 TEAEs	8 (44.4%)
Subjects with any Grade >=3 TEAEs related to T3011	0
Subjects with any TEAEs leading to dose discontinuation of T3011	2 (11.1%)
Subjects with any immune-related AE (irAE)	4 (22.2%)
Subjects with any TEAEs of special interest	0
Subjects with any TEAEs leading to dose limiting toxicity	0
Subjects with any TEAEs leading to death	0

Conclusion. MVR-T3011 showed great safety profile as monotherapy with intravenous administration at Phase I clinical trial.

Ongoing Independent IIT of MVR-T3011 as Monotherapy in Intravesical Instillation in Patients with High-Risk, BCG-Failure NMIBC in China (NCT06427291)

Trial	Participants Enrolled	Endpoints	Key Efficacy Results	Key Safety Results
Independent IIT of MVR-T3011 as Monotherapy in Intravesical Instillation in Patients with High-Risk, BCG-Failure NMIBC in China (NCT06427291) *Ongoing (2023/09 initiated)*	• All subjects with high-risk, BCG-failure NMIBC • 23 subjects (including 16 with papillary and 7 with CIS) receiving $2x10^9$ PFU MVR-T3011, • 15 subjects (including 10 with papillary and 5 with CIS) receiving $1x10^{10}$ PFU MVR-T3011	AE, SAE, DLT, CRR, RFS, PFS, radical cystectomy rate, 2-years survival rate	Subjects with papillary: • $2x10^9$ PFU group: o 3-month, 6-month, 9-month and 12-month RFS rates: 87.1%, 80.4%, 80.4%, 71.4% o median RFS was 22.01 months (95% CI) • $1x10^{10}$ PFU group: o 3-month, 6-month RFS rates: 100% and 100% Subjects with CIS: • $2x10^9$ PFU group: o CRR at any time, 3-month and 6-month CRR: 71.4%, 71.4%, 71.4% • $1x10^{10}$ PFU group: o CRR at any time, 3-month and 6-month CRR: 100%, 100% and 100%	• TRAE: 11/38 (28.9%) • ≥ Grade 3 TRAE: 2/38 (5.3%) • No treatment-related SAE • No DLT • No TEAEs/TRAEs leading to discontinuation of study drug, subject withdrawal, death

Overview: distinctions between the IIT and the Company-sponsored clinical trials. This IIT of MVR-T3011 (NCT06427291) is fundamentally distinct from our Company-sponsored clinical trials, including the Phase I/IIa trials NCT04370587 and NCT04780217, and the Phase II trial NCT06971614, in terms of trial sponsor, and more importantly, purpose of the trials in the context of regulatory approval. This IIT (NCT06427291) is sponsored and conducted by Fudan University Shanghai Cancer Center, which retains independent and complete regulatory responsibility as the study's sponsor.

The key distinction lies in purposes and objectives. Our Company-sponsored clinical trials are registration-directed, designed to obtain regulatory approval for a specific drug candidate. By contrast, this IIT (NCT06427291) is investigator-led scientific research on the compound itself, aimed at exploring scientific horizons for academic and research purposes rather than securing regulatory approval. From the investigator's perspective, this IIT (NCT06427291) serves as research of novel therapeutic treatments on specific indications or a therapeutic area to advance scientific frontiers. This IIT (NCT06427291) serves solely for advisory and reference purposes under regulation by a competent authority, providing supplemental information on the compound while collaborating with leading investigators with profound expertise in the targeted therapeutic area to explore the Core Product's therapeutic potential, address unmet clinical needs across different patient populations, generate supplementary insights, and explore collaboration potential with large pharmaceutical and bio-pharmaceutical companies. Accordingly, data generated from this IIT (NCT06427291) were submitted to the FDA alongside data generated from our Company-sponsored clinical trials, serving solely as supplementary compound information.

Except for this specific IIT (NCT06427291), the investigator has not been involved in any other development stage of our Core Product. The development of a drug candidate typically proceeds through several primary stages prior to regulatory approval, including drug discovery, preclinical studies, CMC development, and registration-directed clinical trials. For MVR-T3011, we have independently completed all of these critical stages, and have therefore independently discovered and developed the Core Product towards completion of several Phase I clinical studies and conducting two ongoing Phase II clinical studies as regulated by competent authority, i.e., the FDA. The investigator's involvement is limited solely to this IIT (NCT06427291) in the specific indication sponsored by the investigator itself. The investigator of this IIT (NCT06427291) discussed the clinical protocol with our Company, conducted the IIT in accordance with the protocol, and accumulated experience for potentially acting as a principal investigator in Company-sponsored clinical trials. Thus, this IIT (NCT06427291) generally does not generate new compound-specific patents or technologies but rather provide real-world evidence in a specific patient group. We retain all patent rights and commercial rights to the Core Product, and the investigator does not hold any patents related to it.

IIT not serving as basis for Phase II initiation. Based on the foregoing, this IIT does not serve as the basis to initiate our Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614). Instead, our Phase II trial is grounded in our own clinical development through Company-sponsored clinical trials.

Specifically, in May 2020, we obtained an umbrella IND approval from the FDA, which covers multiple phases/stages of clinical trials across different indications and routes of administration. Under this IND, we initiated two Phase I/IIa clinical trials: the Phase I/IIa trial of MVR-T3011 via intratumoral administration as a single agent and/or in combination with intravenous pembrolizumab in patients with advanced or metastatic solid tumors in the U.S. (NCT04370587), and the Phase I/IIa trial of MVR-T3011 monotherapy via intravenous administration in patients with advanced solid tumors in the U.S. (NCT04780217). We completed the Phase I portions of each trial in May 2021 and November 2023, respectively.

These Company-sponsored clinical trials established a sufficient safety and tolerability profile and determined the RP2D. Among all routes of administration, intravenous injection presents the highest drug exposure, the broadest systemic distribution, and the highest dosing risk. Therefore, safety and tolerability results and RP2D established from intravenous trials can be directly used as RP2D for all other routes of administration with lower exposure profiles. Intravesical administration for bladder cancer treatment presents lower drug exposure risk, limits dosing to a single organ (or a closed bladder compartment) rather than systemic distribution. The RP2D from our intravenous Phase I/IIa trial (NCT04780217) was established at 1×10^9 PFU/mL. In the pre-IND meeting for MVR-T3011, FDA recommended that product titer variability for MVR-T3011 as an oncolytic immunotherapy candidate should be controlled within approximately half a log (or approximately a 3-fold range, since 1 log is a 10-fold change). For oncolytic immunotherapies, it is also scientific consensus that dose differences of about 3-fold higher or lower do not materially alter the overall safety risk profile, which supports the use of a practical dose range rather than a single fixed value. Based on the foregoing, FDA agrees that 1×10^9 PFU/mL is comparable to 3×10^8–3×10^9 PFU/mL from a therapeutic window perspective (i.e., the maximum tolerable dose) for MVR-T3011.

In September 2024, we had a Type C meeting with the FDA to seek guidance on the clinical development pathway of MVR-T3011 in high-risk BCG-unresponsive NMIBC, where we submitted a comprehensive background information package including, among others, cumulative clinical data supporting safety and tolerability profile of MVR-T3011 and its established RP2D from the

foregoing two Phase I/IIa clinical trials via intratumoral and intravenous administration in all advanced solid tumors (including bladder cancer and HNSCC) independently conducted by us. The IIT data were submitted only for supplemental reference of the compound itself. Following the meeting, we submitted a formal protocol amendment to the FDA in November 2024 to add the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC or BCG-exposed, chemotherapy-unresponsive intermediate/high-risk NMIBC in the U.S. (NCT06971614) under the umbrella IND from the FDA. Based on FDA's tacit approval for the protocol amendment, we subsequently initiated the Phase II clinical trial (NCT06971614) in June 2025. Since the initiation of this Phase II clinical trial, we have not received any objection from the FDA to the commencement or progress of this trial.

Based on the foregoing, our Directors are of the view that the FDA's tacit approval for the protocol of this Phase II intravesical program in high-risk BCG-unresponsive NMIBC (NCT06971614) is based on the completed Phase I portions of the two Phase I/IIa intratumoral and intravenous programs (NCT04370587 and NCT04780217) under the same umbrella IND from the FDA, rather than any IIT data, and that we shall be able to obtain FDA tacit approval for the Phase II intravesical program in high-risk BCG-unresponsive NMIBC without the IIT data. Having (i) reviewed the Company's correspondences with the FDA and (ii) discussed with the management and Frost & Sullivan on the basis of the Directors' views, nothing has come to the attention of the Joint Sponsors to them to cast doubt on the Directors' views expressed above.

Background, objectives and trial design. IITs conducted for a specific compound are intended to align with the growing interest and participation within the academic community in promising innovative treatments for one or few therapeutic areas or indications. This has emerged as a new industry trend, particularly with a notable increase in the number of IITs in China and globally, according to Frost & Sullivan.

The objectives and benefits of the IITs are mainly to enhance the exploration of novel treatment modalities or therapeutics with a focus on the compound research for academic and non-commercial purposes (such as publications and applications for academic awards), rather than serving as a primary vehicle for obtaining a specific drug candidate's regulatory approval, which is the most essential difference against the Company-sponsored clinical trials. Specifically, from the investigator's perspective, an IIT represents investigator-led scientific research on a compound, aimed at exploring scientific frontiers for academic purposes. The investigator conducts the study to advance scientific understanding and contribute to the medical literature, not to support a specific drug candidate's path to regulatory approval. From the Company's perspective, IITs serve solely for advisory and reference purposes within the regulatory pathway, providing supplemental information related to the compound itself. The IITs allow us to collaborate with leading investigators with profound expertise in the targeted therapeutic area to explore the therapeutic potential, address unmet clinical needs across different patient populations, generate supplementary knowledge on the compound, and explore collaboration potential with large pharmaceutical and bio-pharmaceutical companies. Data from IITs, when submitted to the FDA together with the data from Company-sponsored clinical trials, serve solely as supplementary compound information alongside.

Overall, the results from this IIT (NCT06427291) are merely used as supplementary context for the compound's information, solely to facilitate preliminary consultation with the FDA through Type C meeting relating to future Phase III pivotal registrational clinical trial from a scientific perspective. As specified above, our initiation of Phase II trial is based on (i) the umbrella IND approval obtained from the FDA in May 2020; (ii) the completion of the Phase I portions of two Company-sponsored Phase I/IIa clinical trials (NCT04370587 and NCT04780217); (iii) the sufficient safety and tolerability profile established by these completed Phase I portions of two Company-sponsored Phase I/IIa clinical trials, based on which the RP2D was determined; (iv) the FDA's tacit approval of the protocol amendment under the existing approved IND in December 2024, which includes the new trial design of the Phase II clinical trial (NCT06971614); and (v) no objection from the FDA since the initiation of this Phase II clinical trial (NCT06971614).

In this IIT (NCT06427291), the investigator shall conduct the clinical research in accordance with applicable regulations and standards by the competent authority, i.e., the NMPA. We will provide funding for necessary project costs at fair market rates, including drug administration fees, patient transportation subsidies, and other allowances. We will provide the required investigational compound free of charge and handle its delivery, and provide relevant support including necessary data or information. For details of the investigator's and our rights and responsibilities, please refer to the "material agreement terms with the investigators" below in this section. During the Track Record Period, the R&D expenses attributable to this IIT in patients with high-risk, BCG-failure NMIBC as measured by the number of enrolled patients among all patients were approximately RMB42.3 million. We expect to incur an additional approximately RMB8.0 million for continued patient enrolment and trial close-out fees relating to this IIT in the future. The funding was and will be sourced primarily from our own cash reserves, and no proceeds from the **[REDACTED]** are expected to be used to fund this IIT.

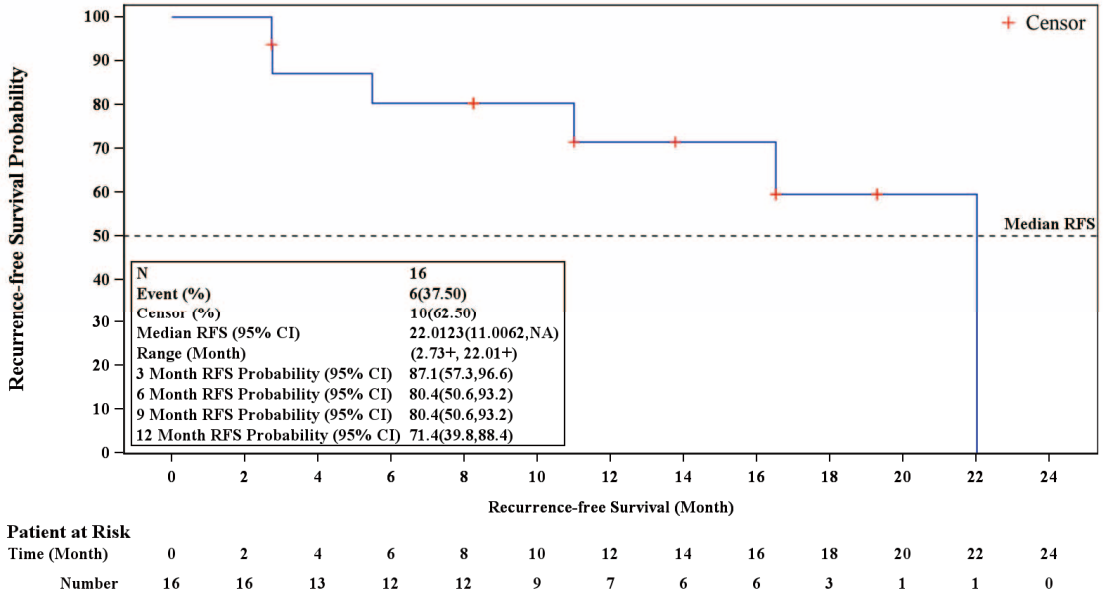
This open-label IIT plans to enroll 46 to 106 patients. Eligible subjects in this study must have histologically confirmed diagnosis of NMIBC, including Ta, T1 and/or CIS. Their NMIBC must be high-risk, diagnosed by cystoscopy, urine cytology, and histopathology within 8 weeks prior to the first dose administration and have failed or intolerant to BCG treatment after TURBT surgery, and are not suitable or willing to undergo radical cystectomy. Eligible subjects must demonstrate BCG-failure, and all tumors should be non-visible after TURBT. Subjects with confirmed diagnosis of MIBC (T2-T4), concurrent upper and lower urinary tract epithelial carcinoma, lymph node metastasis, or distant metastasis, must be excluded.

Subjects receive MVR-T3011 via intravesical instillation in total volume of 50ml at three selected dose levels: 5×10^7 PFU, 5×10^8 PFU and 2×10^9 PFU. During the dose expansion phase, the 2×10^9 PFU dose is designated as the initial expansion dose, while the 1×10^{10} PFU dose is to be introduced as a second expansion dose, contingent on the absence of safety concerns following DLT assessment. Endpoints of this study include AE, SAE, DLT, CRR, RFS, PFS, radical cystectomy rate, and 2-years survival rate.

Trial status. This IIT was initiated in September 2023. As of September 19, 2025, a total of 23 patients were enrolled in this trial administered with MVR-T3011 at the dosage level of 2×10^9 PFU (including 16 with papillary and 7 with CIS), and a total of 15 patients were enrolled in this trial administered with MVR-T3011 at the dosage level of 1×10^{10} PFU (including 10 with papillary and 5 with CIS). The overall progress and completion timeline of an IIT is subject to the investigator's discretion. To the best of our knowledge, this IIT is currently ongoing, and no specific expected completion date has been determined at this time.

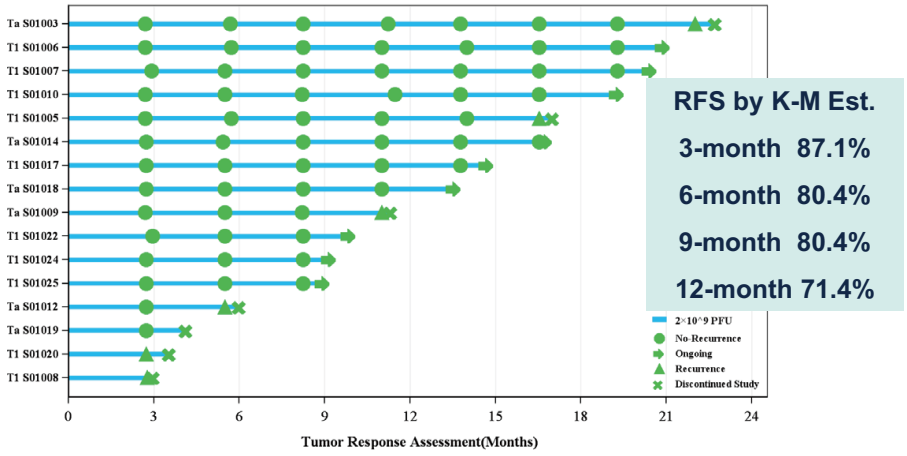
Efficacy results. As of September 19, 2025 (the data cut-off date), among 16 evaluable patients with BCG-failure papillary who received MVR-T3011 at a dose of 2×10^9 PFU, the 3-month, 6-month, 9-month and 12-month recurrence-free survival (RFS) rates were 87.1%, 80.4%, 80.4% and 71.4%, respectively, and the median RFS was 22.01 months (95% CI). As of the same date, the Kaplan-Meier curve below illustrates the RFS of patients in this cohort treated at 2×10^9 PFU.

RFS KM Plot for BCG-Failure Papillary Patients



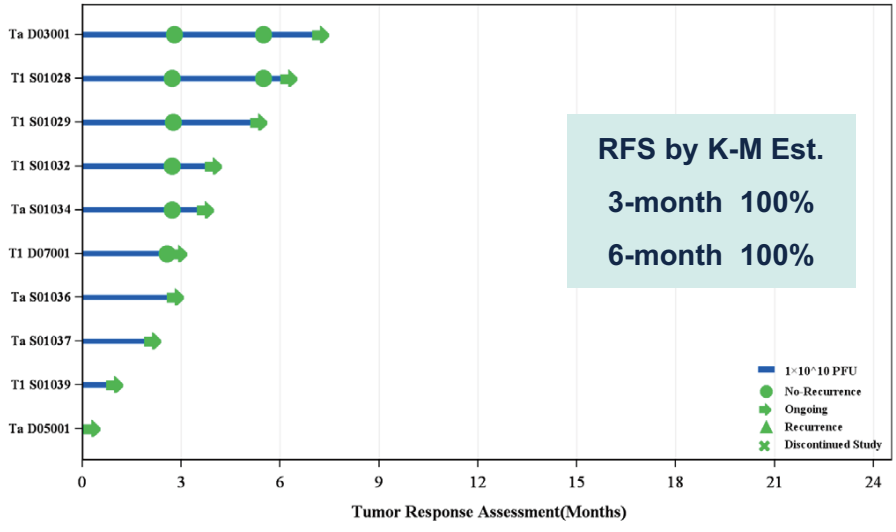
The swimmer plot below shows the tumor responses assessment results for BCG-failure papillary at 2×10^9 PFU as of September 19, 2025.

Swimmer Plot for BCG-Failure Papillary Patients (2×10^9 PFU)



As of September 19, 2025, 6 out of the 10 patients with papillary who received MVR-T3011 at a dose of 1×10^{10} PFU had been followed for more than three months. All six patients remained recurrence-free at both the 3-month and 6-month assessments, resulting in 3-month and 6-month RFS rates of 100%. The swimmer plot below shows the tumor responses assessment results for BCG-failure papillary at 1×10^{10} PFU as of September 19, 2025.

Swimmer Plot for BCG-Failure Papillary Patients (1×10^{10} PFU)



As of September 19, 2025, among 7 evaluable patients with BCG-failure CIS (with or without Ta/T1) who received MVR-T3011 at doses of 2×10^9 PFU, the CRR at any time, 3-month and 6-month CRR was 71.4% (5/7). Among 5 evaluable patients with BCG-failure CIS (with or without Ta/T1) who received MVR-T3011 at doses of 1×10^{10} PFU, the CRR at any time, 3-month and 6-month CRR was 100% (5/5).

Safety results. As of August 31, 2025, in the cohort receiving MVR-T3011 at a dose of 2×10^9 PFU and 1×10^{10} PFU, the most of treatment-emergent adverse events (TEAEs) were at Grades 1 or 2, with five Grade 3 or above TEAEs reported. The most treatment-related adverse events (TRAEs) were reversible and generally consistent with those commonly associated with catheterization procedures. Most of TRAEs were at Grades 1 or 2 level, and commonly reported TRAEs include hematuria (17.9%) and urinary tract infection (10.3%). No treatment-related SAE and no DLT occurred. No TEAEs/TRAEs leading to discontinuation of study drug, subject withdrawal, death were reported. No competent authority has expressed any safety concerns regarding this trial, nor has any concern about the safety data impacted the progress or registration of this trial. The following table provides an overview of AEs in this study as of the data cut-off date.

Category	Total (N=38)
Treatment-Emergent Adverse Events (TEAEs)	25 (65.8%)
Treatment-related TEAEs	11 (28.9%)
CTCAE Grade >=3 TEAEs	5 (13.2%)
CTCAE Grade >=3 Treatment-related TEAEs (TRAE)	2 (5.3%)*
Serious TEAEs	3 (7.9%)
Treatment-related Serious TEAEs	0
TEAEs Leading to Treatment Discontinuation	0
TEAEs Leading to Discontinuation from the Study	0
TEAEs Leading to Death	0
TEAEs Leading to Suspension of Dosing	8 (21.1%)
Treatment-related TEAEs Leading to Suspension of Dosing	3 (7.9%)

* No grade 4 or 5 TRAEs were reported. The reported grade 3 TRAE was urinary tract infection.

Conclusion. MVR-T3011 demonstrates a promising anti-tumor efficacy and a favorable safety profile in patients with high-risk BCG-failure NMIBC.

Material agreement terms with the investigators. Fudan University Shanghai Cancer Center shall conduct the clinical research in China in accordance with national or local laws and regulations, as well as GCP, professional standards, and standard operating procedures. It retains independent and complete regulatory responsibility as the study's sponsor. We provide funding for

necessary project costs at fair market rates, including drug administration fees, patient transportation subsidies, and other allowances. The total research funding amounts are to be paid in three installments based on different development milestones. We will support the principal investigator in conducting the clinical trial and, upon request, provide relevant data on the investigational drug or other necessary information. We will provide the required investigational drug MVR-T3011 free of charge and handle its delivery. We should produce and control the drug in accordance with GMP.

The intellectual property generated from this research belongs to Fudan University Shanghai Cancer Center, which has the right to use the results to apply for various scientific research achievements and to publish articles, but this does not include drug patents which were discovered and developed independently by us before this IIT. We have the right to use, free of charge and on a global basis, all intellectual property arising from the agreement. This agreement will remain in effect until receipt of the final research report. We may terminate the agreement in the event of a serious breach by the investigator or a substantial change in the research plan, upon providing prior written notice. Prior to the completion of the study, the principal investigator also has the right to terminate the study for any reason, provided that the investigator notifies us and specifies the reason for termination. In the event of a dispute, the parties shall first attempt to resolve it through negotiation. If no agreement can be reached, the dispute shall be submitted to the court with jurisdiction in the plaintiff's location. The agreement does not include a special governance mechanism such as a joint steering committee or related deadlock resolution mechanism. According to Frost & Sullivan, it is common industry practice for the investigator to retain ultimate decision-making authority over study-related matters.

Clinical Development Plan

With the strategic priority of becoming a global leader in bladder cancer treatment, we are committed to advancing the clinical development of MVR-T3011 covering the full spectrum of bladder cancer treatment in both the U.S. and China, and exploring its therapeutical potential in HNSCC. Concurrently, leveraging its versatility in routes of administration, we are actively exploring the opportunities for MVR-T3011 as monotherapy and in combination with broader anti-tumor agents across a broader range of indications.

Clinical Development Advancements Across the Full Spectrum of Bladder Cancer Treatment. We initially focus on NMIBC, as it accounts for approximately 75% of newly diagnosed bladder cancer cases. Given the high prevalence of BCG-unresponsive disease, we have selected high-risk BCG-unresponsive NMIBC (including both papillary and CIS) as the lead indication. An IIT of MVR-T3011 via intravesical administration (NCT06427291) in patients with high-risk BCG-failure (including BCG-unresponsive and BCG-intolerant) NMIBC was initiated in September 2023 in China. Pursuant to the protocol amendment clearance from the FDA, we initiated a Phase II study

of MVR-T3011 in high-risk BCG-unresponsive papillary tumors and CIS NMIBC in the U.S. in June 2025. We also plan to expand this Phase II clinical trial into a global MRCT for high-risk BCG-unresponsive NMIBC in 2026.

In line with industry norms and regulatory practice, drug developers often take reference from IITs for the scientific exploration of a specific compound or a category of compounds, rather than as a primary vehicle for advancing a specific drug candidate through the company-sponsored clinical and regulatory pathway. The objectives and benefits of IITs are mainly to enhance the exploration of novel treatment modalities or therapeutics with a focus on compound research, rather than to serve as a mechanism for obtaining regulatory approval or as a prerequisite for the FDA's tacit approval for the protocol amendment of the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614), which is the most essential distinction from Company-sponsored clinical trials. From the investigator's perspective, an IIT represents investigator-led scientific research on a compound, aimed at exploring scientific frontiers for academic purposes. From our perspective, IITs serve solely for advisory and reference purposes within the regulatory pathway, providing supplemental information related to the compound itself.

Likewise, the results from this IIT (NCT06427291) are merely used as supplementary context for the compound's information, solely to facilitate preliminary consultation with the FDA through Type C meeting relating to future Phase III pivotal registrational clinical trial of MVR-T3011 from a scientific perspective. Our initiation of the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614) is grounded in our own clinical development through Company-sponsored clinical trials, specifically: (i) the umbrella IND approval obtained from the FDA in May 2020; (ii) the completion of the Phase I portions of two Company-sponsored Phase I/IIa clinical trials (NCT04370587 and NCT04780217); (iii) the sufficient safety and tolerability profile established by these completed Phase I portions of two Company-sponsored Phase I/IIa clinical trials, based on which the RP2D was determined; (iv) the FDA's tacit approval of the protocol amendment under the existing approved IND in December 2024 which includes the new trial design of the Phase II clinical trial (NCT06971614); and (v) no objection from the FDA since the initiation of this Phase II clinical trial (NCT06971614).

Specifically, in May 2020, we obtained an umbrella IND approval from the FDA, under which we initiated the two Company-sponsored Phase I/IIa clinical trials (NCT04370587 and NCT04780217). We completed the Phase I portions of each trial in May 2021 and November 2023, respectively. These Company-sponsored clinical trials established a sufficient safety and tolerability profile and determined the recommended Phase 2 dose (RP2D). Among all routes of administration, intravenous injection presents the highest drug exposure, the broadest systemic distribution, and the highest dosing risk. Therefore, safety and tolerability results and RP2D established from intravenous trials can be directly used as RP2D for other routes of administration with lower exposure profiles. The RP2D from our intravenous Phase I/IIa trial (NCT04780217) was established at 1×10^9 PFU/mL. In the pre-IND meeting for MVR-T3011, FDA recommended that product titer variability for MVR-T3011 as an oncolytic immunotherapy candidate should be controlled within approximately half a log (or approximately a 3-fold range, since 1 log is a

10-fold change). For oncolytic immunotherapies, it is also scientific consensus that dose differences of about 3-fold higher or lower do not materially alter the overall safety risk profile, which supports the use of a practical dose range rather than a single fixed value. Based on the foregoing, FDA agrees that 1×10^9 PFU/mL is comparable to 3×10^8–3×10^9 PFU/mL from a therapeutic window perspective (i.e., the maximum tolerable dose) for MVR-T3011. During the Type-C meeting with the FDA in September 2024, we submitted a comprehensive background information package including, among others, cumulative clinical data supporting the safety and tolerability profile of MVR-T3011 and its established RP2D from the completed Phase I portions of the foregoing two Company-sponsored Phase I/IIa clinical trials. The IIT data from NCT06427291 were submitted together only for supplemental reference of the compound itself. Following the meeting, we submitted a formal protocol amendment to the FDA in November 2024 to add the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC or BCG-exposed, chemotherapy-unresponsive intermediate/high-risk NMIBC in the U.S. (NCT06971614) under the umbrella IND from the FDA. Based on FDA's tacit approval for the protocol amendment, we subsequently initiated this Phase II clinical trial (NCT06971614) in June 2025.

In light of the global shortage of BCG, we also intend to explore MVR-T3011 in treating BCG-naïve NMIBC. To further broaden our clinical coverage across the full spectrum of bladder cancer treatment, we plan to investigate MVR-T3011 for the treatment of MIBC in combination with anti-PD-(L)1 therapy, leveraging its combination potential with immune checkpoint inhibitors.

Indication	Mono/Combo-therapy	Trial status	Region	(Planned) trial start date	Planned trial completion date
BCG-unresponsive NMIBC (including both papillary and CIS)	Mono	Ongoing Phase II[2]	U.S. (expected to expand into a global MRCT)	June 2025	2028[1]
		Planned Phase III	U.S. and China (expected to expand into a global MRCT)	2027[1]	2029
BCG-naïve NMIBC (including both papillary and CIS)	Mono	Planned Phase II[3]	U.S. and China	Q4 2026	2028
MIBC	Combo with anti-PD-1 antibody	Planned Phase II[4]	U.S. and China	2H 2027	2030

Notes:

(1) The projected completion year of 2028 for the Phase II clinical trial reflects the full two-year treatment duration for all enrolled patients. We expect to obtain the 12-month RFS data in 2027, which we anticipate will be sufficient to support discussions with the FDA for the initiation of the Phase III clinical trial.

(2) In September 2024, we had a Type C meeting with the FDA for early consultation on the clinical development pathway of MVR-T3011 as monotherapy via intravesical administration in high-risk BCG-unresponsive NMIBC from a scientific perspective. Following the meeting, we submitted a formal protocol amendment to the FDA in November 2024 to add the Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC or BCG-exposed, chemotherapy-unresponsive intermediate/high-risk NMIBC in the U.S. (NCT06971614) under the umbrella IND from the FDA. Based on FDA's tacit approval for the protocol amendment with a comprehensive assessment of all material submitted, we subsequently initiated this Phase II clinical trial in June 2025.

(3) Since the IND approval we obtained from the FDA for MVR-T3011 is an umbrella IND in advanced solid tumors irrespective of phases of clinical trials, we are not required to obtain additional approval or confirmation to commence potential Phase II trials in BCG-naïve NMIBC. Based on the safety and tolerability profiles of MVR-T3011 evidenced in completed Phase I clinical trials across broad solid tumor indications, we plan to update competent regulatory authorities on the trial protocol for Phase II clinical trials of intravesical MVR-T3011 in BCG-naïve NMIBC. Subject to the regulatory authorities' clearance of the protocol amendment under the existing approved IND, we intend to initiate the global Phase II MRCT as early as the fourth quarter of 2026.

(4) Since the IND approval we obtained from the FDA for MVR-T3011 is an umbrella IND in advanced solid tumors irrespective of phases of clinical trials, we are not required to obtain additional approval or confirmation to commence potential Phase II trials in MIBC. Based on the safety and tolerability profiles of MVR-T3011 evidenced in completed Phase I clinical trials across broad solid tumor indications, we plan to update competent regulatory authorities on the trial protocol for Phase II clinical trials of intravesical MVR-T3011 in combination with anti-PD-1 antibody for the treatment of MIBC. Subject to the regulatory authorities' clearance of the protocol amendment under the existing approved IND, we intend to initiate the global Phase II MRCT in the second half of 2027.

Another Planned IIT. We have entered into two IIT agreements with two research institutions for MVR-T3011 in relation to bladder cancer. One agreement is with Fudan University Shanghai Cancer Center for the ongoing IIT of MVR-T3011 in patients with high-risk, BCG-failure NMIBC in China (NCT06427291). The other agreement is with The Second Hospital of Lanzhou University, under which an IIT in patients with BCG-naïve NMIBC is currently ongoing. This IIT was initiated in 2025, with 17 patients having been enrolled in multiple sites as of September 30, 2025 and additional three patients planned to be enrolled in the future. Other than these two IITs, there are currently no any other planned independent IITs. The overall progress and completion timeline of both IITs are subject to the investigator's discretion, and to the best of our knowledge, no specific expected completion date has been determined at this time.

The background, purposes and objectives for the IIT with The Second Hospital of Lanzhou University is the same as the IIT in patients with high-risk, BCG-failure NMIBC (NCT06427291) with Fudan University Shanghai Cancer Center. For details of background, purposes and objectives related to NCT06427291, see "— Oncolytic Immunotherapy Candidates — MVR-T3011, our Core

Product — Clinical Trial Data — Ongoing Independent IIT of MVR-T3011 as Monotherapy in Intravesical Instillation in Patients with High-Risk, BCG-Failure NMIBC in China (NCT06427291)." Both IITs are in line with the growing interest and participation within the academic community in promising innovative treatments. The objectives and benefits of both IITs are mainly to enhance the exploration of novel treatment modalities or therapeutics with a focus on compound research, rather than to serve as a mechanism for obtaining regulatory approval or as a prerequisite for the FDA's tacit approval, which is the most essential distinction from Company-sponsored clinical trials. From the investigator's perspective, these IITs represent investigator-led scientific research on the compound, aimed at exploring scientific frontiers for academic purposes. From our perspective, the results from both IITs are merely for advisory and reference purposes within the regulatory pathway, providing supplemental information related to the compound itself.

During the Track Record Period, the R&D expenses attributable to this IIT in patients with BCG-naïve NMIBC, as measured by the number of enrolled patients among all patients, were approximately RMB17.1 million. We expect to incur an additional approximately RMB4.0 million for continued patient enrolment and trial close-out fees relating to this IIT in BCG-naïve NMIBC in the future. The funding was and will be sourced primarily from our own cash reserves, and no proceeds from the **[REDACTED]** are expected to be used to fund this IIT. For details of the expenses related to the NCT06427291, see "— Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Clinical Trial Data — Ongoing Independent IIT of MVR-T3011 as Monotherapy in Intravesical Instillation in Patients with High-Risk, BCG-Failure NMIBC in China (NCT06427291)."

For details of the material agreement terms related to the NCT06427291, see "— Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Clinical Trial Data — Ongoing Independent IIT of MVR-T3011 as Monotherapy in Intravesical Instillation in Patients with High-Risk, BCG-Failure NMIBC in China (NCT06427291)." As to the IIT agreement with The Second Hospital of Lanzhou University, according to this agreement, the investigator conducts the clinical research in accordance with national or local laws and regulations, as well as GCP, professional standards, and standard operating procedures. It retains independent and complete regulatory responsibility as the study's sponsor. We provide funding for necessary project costs at fair market rates, including drug administration fees, patient transportation subsidies, and other allowances. The total research funding amounts are to be paid in three installments based on different development milestones. We will support the principal investigator in conducting the clinical trial and, upon request, provide relevant data on the investigational drug or other necessary information. We will provide the required investigational drug MVR-T3011 free of charge and handle its delivery. We should produce and control the drug in accordance with GMP.

The intellectual property generated from this research belongs to The Second Hospital of Lanzhou University, which has the right to use the results to apply for various scientific research achievements and to publish articles, but this does not include drug patents which were discovered and developed independently by us before this IIT. We have rights to use the intellectual property generated from the IIT research. The Second Hospital of Lanzhou University must obtain our consent before publicly publishing any related results. We have the right to use, free of charge and on a global basis, all intellectual property arising from the agreement. This agreement will remain in effect until receipt of the final research report. We may terminate the agreement in the event of a serious breach by the investigator or a substantial change in the research plan, upon providing prior written notice. Prior to the completion of the study, the principal investigator also has the right to terminate the study for any reason, provided that the investigator notifies us and specifies the reason for termination. In the event of any disputes, the parties shall first attempt to resolve it through negotiation. If no agreement can be reached, the dispute shall be submitted to the court with jurisdiction in our location. The agreement does not include a special governance mechanism such as a joint steering committee or related deadlock resolution mechanism. According to Frost & Sullivan, it is common industry practice for the investigator to retain ultimate decision-making authority over study-related matters.

Through the IITs, we are able to expand the scope of our own research and development efforts on the compound itself, and to align with market trends by responding to growing academic interest in our candidates, thereby jointly enhancing the investigation of novel treatment modalities or therapeutics. Although we are obligated to provide funding to the investigators, the funding required for IITs is substantially lower than that for clinical trials we initiated and sponsored. This is primarily because IITs have more flexible research objectives, focusing on exploring potential applications from scientific perspective. Consequently, they require smaller sample sizes, employ study designs that involve more streamlined approval processes.

Compared to conventional clinical trials conducted by drug developers, IITs conducted by universities and research institutions differ in many aspects, including that: (i) the IIT is initiated by the independent investigators as the sponsor; (ii) the regulatory approval process is generally more streamlined, but for modalities such as oncolytic immunotherapies the particular requirements for administration, PK/PD and biodistribution often necessitate in-depth and ongoing technical support and modality-specific input from the drug developer, in close collaboration with the investigators (iii) the objectives are more from scientific research perspective and not aimed at drug NDA/BLA/label approval; (iv) the clinical data serves different purposes, primarily for scientific research and exploration; and (v) operational management is primarily handled internally by the investigators and their institutions, rather than by CROs or similar organizations.

Unlocking Therapeutic Potential in HNSCC through Intratumoral Administration. Based on an umbrella IND approved by the FDA in May 2020, we initially explored intratumoral administration in accessible solid tumors such as melanoma and other superficial malignancies under a Phase I

clinical trial of MVR-T3011 monotherapy administered intratumorally in advanced solid tumors in the U.S. (NCT04370587). We initiated this Phase I trial in September 2020 and completed it in May 2021. This trial was designed to establish first-in-human safety, determine biologically active dose ranges and obtain proof-of-concept (PoC) efficacy in, among other solid tumor types, melanoma which is widely recognized as a benchmark indication for oncolytic immunotherapies. In line with industry and regulatory practice and pursuant to the trial protocol, this trial utilized a Safety Review Committee (SRC), which has the full capacity and are in the position to review all accumulated safety and efficacy data during dose escalation, recommend all dose escalation decisions and/or any changes to the dosing paradigm, as well as declare the RP2D. The R2PD identified by the SRC for this clinical trial is 5×10^7 PFU/mL.

Based on the umbrella IND approval by the FDA, which covers multiple phases/stages of clinical trials across different indications and routes of administration, we are not required to obtain additional approval from the FDA to initiate the Phase II clinical trials. As of February 2021, the Phase I trial had progressed to the 5×10^7 PFU/mL cohort with two patients dosed. In anticipation of the imminent completion of Phase I trial and to further investigate the therapeutic potential of MVR-T3011 in combination with PD-1, we submitted protocol amendments to the FDA to update Phase II trial design for intratumoral MVR-T3011 in the same month. With the tacit approval from the FDA in March 2021, the trial protocol was subsequently amended into a Phase I/IIa, open-label, dose-escalation and expansion study of the safety and tolerability of MVR-T3011 administered via intratumoral injection as a single agent and in combination with intravenous pembrolizumab in patients with advanced or metastatic solid tumors (NCT04370587). With the completion of Phase I in May 2021, we subsequently initiated the Phase IIa portion of this combined Phase I/IIa trial in June 2021. For more details on this combined Phase I/IIa trial of MVR-T3011 via intratumoral administration in the U.S. (NCT04370587), see "— Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Material communication with Competent Authority."

While melanoma cohort in this combined Phase I/IIa trial confirmed the clinical PoC of MVR-T3011, including an observed objective response rate (ORR) of 27.3% (3/11) in evaluable patients, we determined that pursuing late-stage development in melanoma would offer limited clinical value in light of an increasingly intensive competitive landscape. In particular, the presence of an already approved HSV-1-based oncolytic virus for melanoma and a late-stage competitor in Phase III clinical trial in the same indication led us, after these early-stage studies in 2023, to pause clinical development focused on melanoma and to redirect resources towards indications with higher unmet medical needs and more favorable competitive positioning. As such, we temporarily paused the Phase IIa portion of this combined Phase I/IIa trial in September 2023, which was a fully discretionary decision that did not require approval from any competent authority, as per the protocol. This temporary pause was not due to any adverse safety or efficacy signals observed in the trial, nor related to any adverse feedback from the FDA and/or other

regulatory bodies. Instead, this represent a strategic portfolio prioritization decision made by the management to prioritize indications with stronger single-agent therapeutic potential and to optimize our resources on advancing the bladder cancer program.

Despite this temporary pause, we continued to review our clinical development priorities from time to time, with a consistent strategic focus on broadening the therapeutic applicability of MVR-T3011 across multiple tumor types by leveraging its versatility in administration routes. Given the immunologically responsive nature of HNSCC, the high prevalence of superficially accessible lesions amenable to local injection, and the substantial unmet need in patients who progress after platinum-based chemotherapy and anti-PD-(L)1 therapy, we began exploration and prioritized HNSCC as one of the lead indication for MVR-T3011. The intratumoral MVR-T3011 was granted the Fast Track Designation by the FDA in recurrent or metastatic HNSCC in March 2024, emphasizing the potential of the drug candidate in this setting.

In consideration of the foregoing, we adjusted our portfolio strategy and proceeded to formally reactivate the Phase IIa portion of the combined Phase I/IIa trial to investigate the therapeutic potential of MVR-T3011 in HNSCC. We officially informed the Central Institutional Review Board (IRB) and obtained approval therefrom to reopen the Phase IIa portion in October 2025. An IRB is an independent ethics review body required under U.S. human subject protection regulations. In FDA-regulated clinical investigations conducted under an IND, FDA oversight (governed by the *Code of Federal Regulations*, or CFR, which is a codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the U.S. federal government, including the IND framework under FDA regulations in 21 CFR Part 312)) and IRB oversight (including IRB review under FDA regulations in 21 CFR Part 56) are complementary: FDA regulates investigational drugs/biologics and may intervene (e.g., by placing a study on clinical hold), while the IRB's primary mandate is to protect the rights and welfare of research subjects through ethical review and ongoing oversight (which includes continuing review of research at intervals appropriate to the degree of risk). Under FDA regulations in 21 CFR § 56.109, an IRB has the express regulatory authority to approve, require modifications to secure approval, or disapprove research activities, and to provide written determinations (including required modifications). As a result, before a clinical trial (or a site within a trial) may initiate or resume subject-facing research activities, such as re-opening/reactivating enrollment after a period of closure, IRB approval must be in place for the applicable protocol/materials, and any IRB-requested modifications (including to informed consent documents) must be addressed as part of the approval process.

As advised by Frost & Sullivan, securing such IRB approval under an existing and active IND constitutes the formal reactivation of the clinical trial in line with industry and regulatory practice. As such, we had formally reactivated the Phase IIa portion of the combined Phase I/IIa

trial in the U.S. We are currently enrolling patients with HNSCC for monotherapy cohort, with enrollment expected to be completed by the first half of 2027. We also expect to initiate patient enrollment for the combination therapy cohort in 2027.

Expansion to a Broader Range of Indications. In addition to intravesical administration for bladder cancer and intratumoral administration for HNSCC, intravenous delivery has also demonstrated therapeutic potential, as systemic administration enables MVR-T3011 to reach metastatic and anatomically inaccessible or difficult-to-inject lesions. We initiated a Phase I/IIa clinical trial of MVR-T3011 administered intravenously in patients with advanced solid tumors (including bladder cancer and HNSCC) in the U.S. in August 2021, and successfully completed its Phase I portion in November 2023, where MVR-T3011 demonstrated an exceptional safety profile in selected indications.

Looking ahead, we remain committed to further exploring the potential of MVR-T3011 in combination with immune checkpoint inhibitors, targeted therapies, and chemotherapy, to expand its applicability across broader tumor types and clinical settings.

License, Rights and Obligations

On August 6, 2020, we entered into a license and collaboration agreement with SPH, as amended, pursuant to which we granted SPH an exclusive license to develop, manufacture and commercialize MVR-T3011 for intratumoral injection in Greater China. For details, see "— Collaboration Agreements — License and Collaboration Agreement with SPH." We retain control over MVR-T3011 in all material aspects, and the IIT collaborations with research institutions do not affect such control. Specifically: (i) the drug discovery of MVR-T3011 was independently completed by us, and we hold all patent rights and commercial rights except for those subject to out-licensing collaborations; (ii) preclinical and registration-directed clinical development are led by us, with only two ongoing exploratory IITs led by collaborating research institutions, which serve primarily in a supplementary capacity and do not affect our control over overall clinical development; and (iii) IITs generally do not generate new drug-related patents or technologies but rather provide clinical validation, and we retain the right to use the relevant data.

Following the out-licensing of MVR-T3011 for intratumoral administration in China to SPH, the clinical development of MVR-T3011 for intratumoral administration in China has been sponsored by SPH, where we primarily act as a collaboration partner. Since then and up to the Latest Practicable Date, a Phase II trial of MVR-T3011 in combination with PD-1/PD-L1 inhibitors for the treatment of advanced solid tumors and a Phase II trial of MVR-T3011 for the treatment of melanoma have been ongoing, both of which have completed patient enrollment and have entered the data analysis stage.

Material Communication with Competent Authority

We submitted an IND application for MVR-T3011 with the FDA in April 2020 and subsequently received the IND approval in May 2020, which is an umbrella IND covering multiple phases/stages of clinical trials across different indications and routes of administration. Based on this IND approval, we subsequently initiated two Phase I/IIa clinical trials in the U.S., i.e. the Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587) and the Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217) (collectively, the "**Two Company-Sponsored Phase I/IIa Clinical Trials**"). The Two Company-Sponsored Phase I/IIa Clinical Trials are both designed as basket trials to explore the safety and efficacy of MVR-T3011 in broad solid tumor indications, including bladder cancer and HNSCC, in its early-stage clinical development.

Specifically, the Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587) consisted of two standalone studies, i.e., the Phase I single agent dose escalation study and the Phase IIa single agent dose expansion and/or in combination with pembrolizumab study, based on the trial protocol approved by the FDA. The primary objectives of the Phase I study are to evaluate the safety and tolerability of escalating doses of MVR-T3011 and to determine the dose(s) to be examined in Phase IIa, with primary endpoints including the incidence and characteristics of TEAEs and the incidence of DLTs; whereas the primary objectives of the Phase IIa study are to evaluate the safety and tolerability of MVR-T3011 at the RP2D as a single agent (Part 1) and/or in combination with pembrolizumab (Part 2) in disease specific cohorts, with primary endpoints including the incidence and characteristics of TEAEs. For more details on the protocol amendments for this Phase I/IIa clinical trial, see "— Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Clinical Development Plan."

We commenced the Phase I study of the Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587) in September 2020, and completed the Phase I study in May 2021 with all primary objectives and endpoints met and the RP2D identified by the Safety Review Committee (SRC). In line with regulatory and industry practice and pursuant to the trial protocol approved by the FDA, this trial adopted a SRC, which has the full capacity and are in the position to review all accumulated safety and efficacy data during dose escalation recommend all dose escalation decisions and/or any changes to the dosing paradigm, declare the RP2D, as well as determine the completion of Phase I and progression into Phase IIa. The SRC was comprised of all principal investigators (PIs), the sponsor and the medical monitor(s) as voting members, and other

relevant study staff and site staff as nonvoting representatives. Pursuant to the protocol of this combined Phase I/IIa clinical trial, the Phase I study shall be completed with the successful identification of the RP2D, upon which the combined clinical trial may advance into Phase IIa stage. According to the corresponding clinical study report, based on the favorable safety profile observed in this Phase I study and the conclusive decision obtained from the SRC held on May 13, 2021, 5×10^7 PFU/mL has been definitively established as the RP2D, and the Phase I study has successfully achieved its primary endpoints. As such, this combined Phase I/IIa clinical trial has completed its Phase I portion and progressed into Phase IIa portion, with the first patient dosed in Phase IIa in June 2021.

Based on the trial protocol and taking into account the industry norm as advised by Frost & Sullivan, the Phase I single agent dose escalation study of this combined Phase I/IIa clinical trial of MVR-T3011 administered intratumorally constituted a completed clinical trial with its primary objectives aligning with the overall goals and objectives of a conventional Phase I clinical trial, which is typically to evaluate the drug candidate's safety and tolerability profile and to determine the recommended dose for its Phase II trials. Further, according to Frost & Sullivan, under both FDA and NMPA regulatory pathways, the Phase I portion of a Phase I/IIa trial fulfils the same regulatory objectives, review criteria, and data requirements as a standalone Phase I trial, particularly with respect to safety assessment and dose determination. In light of recent regulatory practice at the FDA and NMPA, integrated Phase I/IIa trials have been approved more frequently than standalone Phase I trials, particularly in oncology and other innovative therapy areas, reflecting an evolution in IND/CTA strategies toward more seamless and efficient early-stage clinical development. On the basis of the foregoing, the completion of the Phase I single agent dose escalation study of this combined Phase I/IIa clinical trial is equivalent to the completion of a conventional Phase I clinical trial.

Similarly, the Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217) consisted of two standalone studies, i.e., the Phase I single agent dose escalation study and the Phase IIa dose expansion study. The primary objectives of the Phase I study are to evaluate the safety and tolerability of escalating doses of intravenous MVR-T3011 as a single agent and to identify the MTD and/or the RP2D of intravenous MVR-T3011 as a single agent, with primary endpoints including the incidence and characteristics of TEAEs and the incidence of DLTs; whereas the primary objectives of the Phase IIa study are to further characterize the safety and tolerability of intravenous MVR-T3011 at RP2D in disease specific cohorts.

We commenced the Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217) in August 2021, and completed the Phase I study in November 2023 with all primary endpoints met and the RP2D identified by the SRC. This trial also utilized a SRC, which shares the same role and capacity as that in the

Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587). Pursuant to the protocol of this combined Phase I/IIa clinical trial, the Phase I study was completed with the successful identification of the RP2D of intravenous MVR-T3011, upon which the combined clinical trial may advance into Phase IIa stage. In November 2023, the SRC was in agreement in declaring 1×10^9 PFU/mL as the RP2D, and accordingly, the Phase I study of this combined clinical trial was completed.

For details of the above Two Company-Sponsored Phase I/IIa Clinical Trials, see "— Our Product Portfolio — Oncolytic Immunotherapy Candidates — MVR-T3011, our Core Product — Summary of Clinical Trial Data."

In respect of the Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217), in particular, the adopted route of administration is intravenous injection, which typically involves the highest drug exposure, the broadest systemic injection, the highest risk for dosing patients among others, and is generally regarded as the most conservative route for assessing safety risk. Accordingly, when a dose is shown to be tolerable via intravenous administration in patients with comparable eligibility criteria, it provides supportive evidence that the same dose level, or a closely related dose range, can also be tolerated when the drug is administered through less systemic routes that usually result in lower overall exposure, including intravesical administration. This development strategy was discussed at the pre-IND meeting for MVR-T3011, during which the FDA indicated that this approach was reasonable and recommended that product titer variability be controlled within approximately half a log (or approximately a 3-fold range (i.e., 3x (+/-)), since 1 log is a 10-fold change (i.e., 10x (+/-))), taking into account that MVR-T3011 is an oncolytic immunotherapy candidate. For oncolytic immunotherapies, it is scientific consensus that dose differences of about 3-fold higher or lower (3x (+/-)) do not materially alter the overall safety risk profile, which supports the use of a practical dose range rather than a single fixed value. On this basis, the RP2D established in this combined Phase I/IIa clinical trial, i.e., 1×10^9 PFU/mL, provides a reasonable scientific foundation to support dose selection for other routes of administration of MVR-T3011 within an approximate range of 3×10^8 to 3×10^9 PFU/mL (i.e., the 3-fold range of 1×10^9 PFU/mL, consistent with the FDA guidance and scientific consensus), with appropriate route-specific clinical monitoring and protocol-defined safety measures in place.

Based on these two Company-Sponsored Phase I/IIa Clinical Trials, we collected sufficient data and evidence on the safety/tolerability profile of MVR-T3011 and its RP2D, which served as basis for this drug candidate to progress into the next phase at a later stage. As advised by Frost & Sullivan, in line with industry practice, (i) the reach of primary objectives and endpoints regarding safety/tolerability profile of named drug candidate and establishment of RP2D are, in substance, equivalent to the completion of a conventional Phase I clinical trial; and (ii) it is a common

practice for post-IND and non-pivotal/registrational clinical trials to proceed if the FDA does not place the trial on clinical hold within the designated review period (i.e., FDA tacit approval). As such, we have independently completed standalone Phase I clinical trial(s) for MVR-T3011.

Building on the exploratory Two Company-Sponsored Phase I/IIa Clinical Trials of MVR-T3011 across broad solid tumors, we strategically prioritized bladder cancer as one of its lead indications. In September 2024, we engaged in a Type C meeting with the FDA for early consultation on the planned Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614) from a scientific perspective. Given that (i) the RP2D of 1×10^9 PFU/mL for intravenous MVR-T3011 corresponds to a systemic exposure equivalent to 3×10^8 to 3×10^9 PFU/mL; and (ii) the bladder, as a confined organ, allows for a higher safety margin compared to systemic intravenous delivery, we initially proposed a dose of 2×10^9 PFU/mL for this Phase II clinical trial. The FDA concurred with the overall trial design of this Phase II clinical trial but recommended incorporating a dose-finding component with higher dosage levels, prior to initiating registrational trials for MVR-T3011 according to the *FDA Guidance for Industry Optimizing the Dosage of Human Prescription Drugs and Biological Products for the Treatment of Oncologic Diseases*. Taking into account that (i) intravenous injection is a route of administration with the highest drug exposure, the broadest systemic injection, and the highest risk for dosing patients among others, and the RP2D from the Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217) is 1×10^9 PFU/mL; and (ii) a GLP-compliant toxicology study in an orthotopic bladder tumor mouse model showed no drug-related toxicity following intravesical instillation at a dose of 2.2×10^9 PFU/kg (equivalent to a human dose of 1.22×10^{10} PFU/mL), providing a significant safety margin, we reasonably selected a higher dose of 1×10^{10} PFU/mL for the dose expansion cohort of this clinical trial.

In November 2024, we subsequently submitted to the FDA a protocol amendment for this Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614) under the existing approved IND. This proposed protocol specified two dose cohorts, namely 2×10^9 PFU/mL and 1×10^{10} PFU/mL. Following the FDA's tacit approval of the trial protocol, we formally initiated this Phase II clinical trial with the first patient dosed in June 2025. Since the initiation of this Phase II clinical trial, we has not received any objection from the FDA to the commencement or progress of this trial.

Additionally, we submitted an IND application for MVR-T3011 via intratumoral administration in advanced solid tumors to the NMPA in April 2019 and received the corresponding IND approval in July 2019. We subsequently initiated a Phase I/IIa clinical trial targeting the same in China in April 2020 and completed it in January 2024.

The following table sets forth a summary of material communications with regulatory authorities regarding MVR-T3011 since respective IND submission and up to the Latest Practicable Date.

Milestone/Stage	Timeline
Submission of IND application to the NMPA for intratumoral administration in locally advanced, recurrent or metastatic solid tumors (irrespective of phases of clinical trials)	April 2019
IND approval from the NMPA for intratumoral administration in locally advanced, recurrent or metastatic solid tumors (irrespective of phases of clinical trials)	July 2019
Submission of IND application to the FDA (irrespective of route of administration, indication, or phases of clinical trials)	April 2020
An umbrella IND approval from the FDA (irrespective of route of administration, indication, or phases of clinical trials)[(1)] and tacit approval of protocol for Phase I clinical trial of MVR-T3011 monotherapy administered intratumorally in advanced solid tumors in the U.S. (NCT04370587)	May 2020
Submission of protocol amendment to the FDA for Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217)	January 2021
Tacit approval of protocol amendment from the FDA for Phase I/IIa clinical trial of MVR-T3011 monotherapy administered intravenously in advanced solid tumors in the U.S. (NCT04780217)	February 2021
Submission of protocol amendment to the FDA to expand the Phase I clinical trial of MVR-T3011 monotherapy administered intratumorally in advanced solid tumors in the U.S. (NCT04370587) into a Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587)	February 2021

Milestone/Stage	Timeline
Tacit approval of protocol amendment from the FDA to expand the Phase I clinical trial of MVR-T3011 monotherapy administered intratumorally in advanced solid tumors in the U.S. (NCT04370587) into a Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587)	March 2021
Submission of IND application to the NMPA for intravenous administration in advanced solid tumors or lymphomas (irrespective of phases of clinical trials)	June 2021
IND approval from the NMPA for intravenous administration in advanced solid tumors or lymphomas (irrespective of phases of clinical trials)	August 2021
Submission of protocol amendment to the FDA to add a separate HNSCC arm under Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587)	August 2022
Tacit approval of protocol amendment from the FDA to add a separate HNSCC arm under Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587)	September 2022
Fast Track Designation granted by FDA for intratumoral administration in recurrent or metastatic HNSCC patients who failed platinum-containing chemotherapy and anti-PD-(L) therapy	March 2024
Submission of Type C meeting background information package to the FDA	July 2024
Type C meeting with the FDA for early consultation on the proposed trial design of Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. from a scientific perspective	September 2024

Milestone/Stage	Timeline
Submission of protocol amendment to the FDA for Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614)	November 2024
Tacit approval of protocol amendment from the FDA for Phase II clinical trial of MVR-T3011 monotherapy administered intravesically in high-risk BCG-unresponsive NMIBC in the U.S. (NCT06971614)	December 2024
Submission of IND application to the NMPA for Phase II clinical trial of MVR-T3011 administered intravesically in high-risk BCG-unresponsive NMIBC (as part of a global MRCT)[(2)]	June 2025
IND approval from the NMPA for Phase I/II clinical trial of MVR-T3011 administered intravesically in high-risk BCG-unresponsive NMIBC (as part of a global MRCT)	September 2025
Submission of email informing IRB that the Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587) would be reopened[(3)]	October 2025
Receipt of a certificate of action from IRB approving the continuation of the Phase I/IIa clinical trial (NCT04370587)[(3)]	October 2025

Notes:

(1) Under the FDA regulatory framework, once an umbrella IND for a named drug candidate is approved by the FDA, any modifications to the original clinical protocol or initiation of new clinical trials are submitted as protocol amendments under this same IND.

(2) For this IND application, we submitted a comprehensive dossier to the NMPA for review, including administrative and product information relating to MVR-T3011 (particularly, the product information, Investigator's Brochure, clinical trial plan and protocol, prior material communications with regulatory authorities, and safety and pharmacovigilance materials), common technical document (CTD) summaries (particularly, nonclinical and clinical overviews and summaries), quality data (particularly, stability and compatibility analyses), and nonclinical study reports (particularly those pertaining to the pharmacology, PK, and toxicology profiles of MVR-T3011).

(3) In connection with the reactivation of the Phase IIa portion of Phase I/IIa clinical trial of MVR-T3011 administered intratumorally as a single agent and in combination with pembrolizumab in advanced or metastatic solid tumors in the U.S. (NCT04370587, the "Study"), we, through a CRO, had communications with the IRB regarding the process for reactivating the Phase IIa portion and obtaining IRB approval.

On September 26, 2025, we, through a CRO, submitted an email inquiry to the IRB in respect of re-opening/renewing the prior IRB approval for the Study, including questions on how to retrieve the closed study record and what materials would be required for submission for IRB review in connection with reactivation of the Phase IIa portion. On September 30, 2025, the IRB responded that, as the Study was paused, a reactivation request should be made by email, and that updated clinical study documents (including, among others, consent forms, advertisements and the investigator's brochure) should be submitted for IRB review and approval after re-opening.

On October 7, 2025, we officially submitted an email request and informed the IRB that the Phase IIa portion would be reactivated. On October 20, 2025, we received from the IRB's conditional approval outcome documents. As part of the conditional approval process, the IRB provided redlined revisions to the informed consent form(s) and requested confirmation from the CRO/sponsor for such revisions. We confirmed all such revisions and submitted our responses to the IRB, thereby fulfilling all conditions proposed by the IRB. We subsequently received the final IRB approval documents for the reactivation of the Phase IIa portion on October 25, 2025.

Under the FDA regulatory framework, all clinical trials of MVR-T3011 undertaken by us are subject to the same umbrella IND approved by FDA. MVR-T3011 is considered as one regulated product by FDA from both scientific and regulatory perspectives, notwithstanding the diverse clinical programs across multiple indications and routes of administration, on the basis that (i) as advised by Frost & Sullivan, in accordance with relevant guidance documents and classification policies, the FDA typically defines a regulated product based on its active substance or biologic composition, manufacturing consistency, and molecular identity. MVR-T3011 is an engineered oncolytic HSV-1, modified to express two immunomodulatory agents including IL-12 and an anti-PD-1 antibody. Regardless of the route of administration — be it intratumoral injection, intravenous infusion, or intravesical instillation — this candidate's core biologic composition remains unified. The molecular makeup, viral vector structure, and expressed immunostimulatory payloads do not differ across clinical programs. Additionally, MVR-T3011's mechanism of action centers on selective infection and lysis of tumor cells combined with local immune activation via IL-12 and PD-1 blockade. This mechanism is consistent irrespective of indication or administration route, albeit resulting in different pharmacokinetics or tissue distribution profiles. As such, MVR-T3011 batches used across studies maintain consistent biologic composition, mechanism of action, manufacturing controls, and product characterization, and its different clinical programs merely represent an integrated clinical development portfolio for one regulated product; and (ii) as advised by Frost & Sullivan, in practice, the FDA allows a single umbrella IND to cover multiple clinical studies of one product (across varying doses, routes of administration, or indications) so long as the product's identity is unchanged. Our IND approval obtained from the FDA acts as an umbrella IND covering multiple phases/stages of clinical trials for MVR-T3011 across different indications and routes of administration. Introduction of new indications or administration routes for MVR-T3011 is incorporated as protocol amendments under the same umbrella IND framework, reflecting regulatory acceptance of these clinical programs as a singular product development effort.

All IND approvals obtained by our Company for MVR-T3011 in China, irrespective of route of administration, uniformly identify the same product name and relate to the same formulation in liquid form, indicating that such IND approvals have been granted by the NMPA with reference to one regulated product. On the basis of the foregoing, our Directors reasonably believe that MVR-T3011, when administered through multiple routes of administration, is considered as one regulated product by the NMPA.

We had not received any regulatory agency's concerns or objections to our clinical development plans as of the Latest Practicable Date.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET MVR-T3011 SUCCESSFULLY.

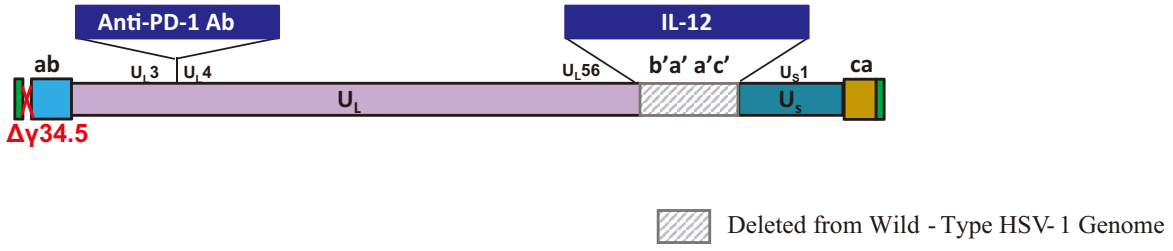
MVR-C5252

Overview

MVR-C5252 is our self-discovered novel HSV-1-based oncolytic immunotherapy engineered to express anti-PD-1 antibody and IL-12, specifically developed for the treatment of malignant glioma. MVR-C5252 is potentially the world's first oncolytic immunotherapy to integrate an HSV-1 vector with an anti-PD-1 antibody for the treatment of glioma. Leveraging the specifically engineered proprietary HSV-1 backbone, which features the deletion of both copies of the γ34.5 gene and a 15-kb internal repeat region, MVR-C5252 is strategically designed to prevent viral latency and reactivation in neuron cells, thereby significantly enhancing the safety in addressing the clinical challenges and risks associated with glioma. By encoding an anti-PD-1 antibody and IL-12, MVR-C5252 is designed for intracranial administration and to overcome the highly immunosuppressive tumor microenvironment characteristic of glioma.

We have obtained IND approvals from both the FDA and the NMPA for MVR-C5252 in August 2021 and March 2023, respectively. In December 2025, we obtained the ethics committee approval for the initiation of a Phase I/IIa clinical trial for the treatment of glioma in China, and we expect to commence this trial in the first half of 2026. In addition, MVR-C5252 was granted the orphan drug designation by the FDA for the treatment of malignant glioma in August 2022. We have entered into a collaborative research agreement with Duke to jointly investigate MVR-C5252 in conjunction with intracranial delivery device through clinical exploration for the treatment of recurrent high-grade glioma in the U.S., which was initiated in May 2023. For details, see "— Collaboration Agreements — Collaborative Research Agreement with Duke."

The following diagram illustrates the backbone structure of MVR-C5252.

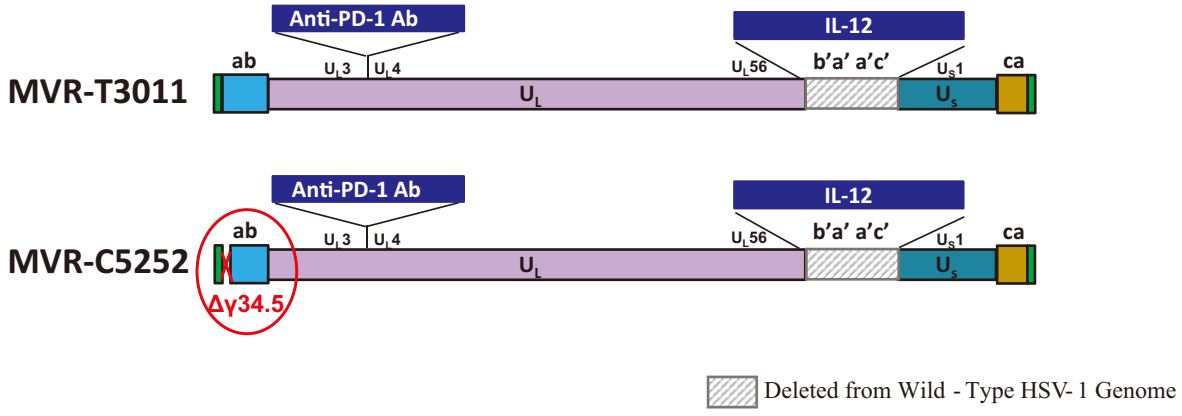


Source: Company data

Mechanism of Action

MVR-C5252 employs a genetically engineered oHSV-1 vector specifically designed to improve safety and efficacy in the treatment of malignant glioma. The vector has been modified through the deletion of a 15-kilobase internal repeat region encoding one copy each of LAT, ICP4, and ICP0, as well as both copies of the γ34.5 genes encoding the neurovirulence protein. These deletions serve to prevent viral latency and reactivation within the neuron cells, thereby significantly enhancing the safety profile of MVR-C5252 for intracranial administration. Mirroring the design of MVR-T3011, MVR-C5252 also incorporates the exogenous expression of an anti-PD-1 antibody and IL-12, both of which are validated immunomodulatory agents. These components further stimulate immune activation within the tumor microenvironment, resulting in a synergistic anti-tumor effect that supports both direct oncolysis and sustained immune-mediated tumor clearance.

The engineering of MVR-C5252 is illustrated below.



Source: Company data

MVR-C5252 selectively replicates within glioma cells, leading to direct tumor cell lysis. Newly released viral particles then infect to neighboring tumor cells, amplifying the oncolytic effect. Simultaneously, tumor-associated antigens released during viral-mediated lysis activate the host immune system, triggering a tumor-specific systemic immune response and cytotoxic T-lymphocyte (CTL) activation. This immune activation extends the therapeutic effect to surrounding non-infected glioma cells and helps convert the immunosuppressive ("cold") tumor microenvironment into an immunologically active ("hot") one, which is an essential yet difficult objective in glioblastoma treatment.

Market Opportunity and Competition

Glioma represents approximately 40% to 60% of all primary brain tumors, with glioblastoma being the most aggressive and common malignant variant. The incidence of glioma has shown a steady growth in recent years globally, the U.S., and in China, and this trend is expected to continue in the near future. The incidences of glioma reached 531.5 thousand, 23.9 thousand, and 75.1 thousand globally, the U.S. and in China in 2024, which are expected to increase to 632.5 thousand, 27.6 thousand and 91.4 thousand in 2033, respectively.

Glioma treatment in the U.S. follows a multidisciplinary approach based on tumor type and stage. Localized low-grade gliomas are typically managed with surgery and, if needed, radiotherapy or chemotherapy. High-grade or diffuse gliomas often require surgery followed by chemoradiotherapy with temozolomide. Recurrent or aggressive cases like glioblastoma may involve reoperation, re-irradiation, or second-line therapies including bevacizumab, tumor-treating fields, clinical trials, or immunotherapy. In China, surgery remains central for low-grade gliomas, with growing use of advanced imaging. High-grade gliomas are treated with radiotherapy and temozolomide, while recurrent cases rely on reoperation and chemotherapy, though access to newer therapies is more limited.

As of the Latest Practicable Date, there was only one oncolytic immunotherapy drug, Teserpaturev/G47Δ, conditionally approved for the treatment of malignant glioma in Japan. Globally, eight oncolytic immunotherapy candidates were in Phase I/II and above development stages (including MVR-C5252) and two in Phase I clinical trials. For details, see "Industry Overview — Overview of Oncolytic Immunotherapy — Major Indications for Oncolytic Immunotherapy — Glioma."

Competitive Advantages

- *Potent anti-tumor activity with high replication attenuation.* Both *in vitro* and *in vivo* studies support the findings that MVR-C5252 shows superior anti-tumor activity and immune activation. *In vitro* studies have demonstrated that MVR-C5252 exhibits

significantly attenuated replication while maintaining superior cytolytic activity against glioblastoma multiforme cells than vectors attenuated solely by deletion of both γ34.5 copies. As evidenced by the mechanistic investigations, MVR-C5252 enhances apoptotic cell death in glioma cells by downregulating CNTFRα expression, thereby leading to increased tumor cell death.

In vivo, both subcutaneous and orthotopic xenograft mouse models demonstrated that MVR-C5252 treatment resulted in enhanced anti-tumor activity and extended survival compared to HSV-1 vectors with both γ34.5 copies deleted. Furthermore, in syngeneic mouse models, MVR-C5252 not only exhibited superior anti-tumor efficacy but also promoted robust immune activation, surpassing the effects observed with the conventional backbone.

- *Remarkable safety profile with relatively low efficiency of viral propagation in GBM cells.* Intracranial injection of MVR-C5252 demonstrated a favorable safety profile, showing over an 800-fold reduction in virulence compared to wild-type HSV-1. In addition, data from a mouse trigeminal ganglion (TG) infection model in our preclinical studies indicated that MVR-C5252 did not establish latency or undergo reactivation in the TG. These results highlight MVR-C5252's markedly lower neurotoxicity and reduced risk of viral persistence or reactivation in the brain, supporting its potential as a safe and well-tolerated therapeutic candidate for the treatment of glioblastoma.

  Moreover, preliminary clinical data from its Phase I study showed that MVR-C5252 delivered via convection-enhanced delivery (CED) is safe and well-tolerated in recurrent high-grade glioma. The attenuated properties of MVR-C5252 are critical for addressing the unique safety challenges associated with intracranial administration.

- *CED supporting sustained multiple dosing and on-target effects.* Compared to intrathecal administration through an Ommaya reservoir, which primarily delivers therapeutics into the cerebrospinal fluid for diffuse leptomeningeal disease, CED enables the direct and targeted infusion of therapeutics into the tumor parenchyma, allowing for higher local drug concentrations while minimizing systemic exposure. Additionally, CED overcomes the limitations of passive diffusion by using positive pressure to distribute agents more uniformly and deeply within the tumor and surrounding infiltrative regions. Leveraging CED, our MVR-C5252 is administered intracranially to bypass the blood-brain barrier and enabling precise delivery to glioblastoma tissue, further enhancing on-target effects.

Clinical Development Plan

We have obtained IND approvals from both the FDA and the NMPA for MVR-C5252 in August 2021 and March 2023, respectively. In December 2025, we obtained the ethics committee approval for the initiation of a Phase I/IIa clinical trial of MVR-C5252 in China. Subject to the communications with the ethics committee and other competent authorities, we expect to initiate this Phase I/IIa clinical trial for the treatment of glioma in the first half of 2026.

License, Rights and Obligations

On May 9, 2023, we entered into a collaborative research agreement with Duke for a Phase I trial sponsored by Duke in respect of MVR-C5252 monotherapy in patients with recurrent high-grade glioma in the U.S. Particularly, in this trial, MVR-C5252 is delivered intracranially via convection-enhanced delivery. Compared to commonly used Ommaya reservoir, this approach can provide slow and sustained positive pressure to the target brain area via an implanted catheter to ensure even drug distribution, enabling multiple dosing while bypassing the blood-brain barrier. For details, see "— Collaboration Agreements — Collaborative Research Agreement with Duke." We retain control over MVR-C5252 in all material aspects, and the collaboration with Duke University do not affect such control. Specifically: (i) the drug discovery of MVR-C5252 was independently completed by us, and we hold all patent rights and commercial rights except for those subject to out-licensing collaborations; (ii) preclinical studies are led by us, with only one independent IIT led by Duke University, which serve primarily in a supplementary capacity and do not affect our control over overall clinical development; and (iii) IITs generally do not generate new drug-related patents or technologies but rather provide clinical validation, and we retain the right to use the relevant data.

Material Communication with Competent Authority

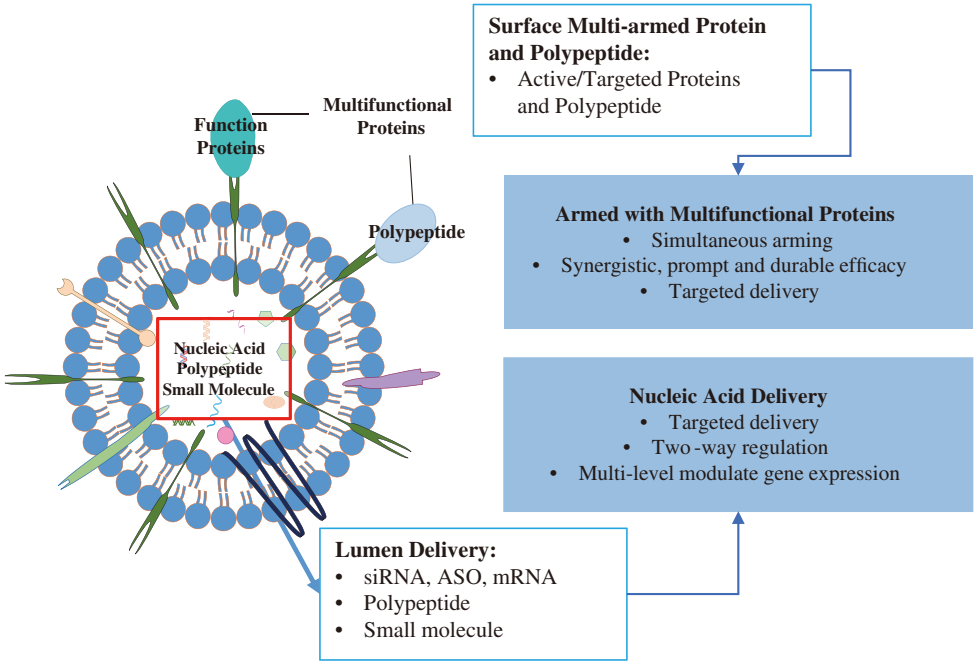
We received the IND approval from the FDA for MVR-C5252 in glioma in August 2021. In August 2022, MVR-C5252 was granted the ODD by the FDA for the treatment of malignant glioma. We also received the IND approval from the NMPA for the treatment of glioma in March 2023 and obtained the ethics committee approval in December 2025.

We had not received any regulatory agency's concerns or objections to our clinical development plans as of the Latest Practicable Date.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET MVR-C5252 SUCCESSFULLY.

Engineered Exosome Candidates

Engineered exosomes are extracellular vesicles that have been selectively modified through biotechnological methods to achieve targeted delivery. By applying gene editing technologies, source cells are programmed to secrete exosomes carrying specific functional molecules, such as therapeutic RNAs encapsulated inside the vesicle and one or more targeting proteins displayed on its surface, allowing for precise delivery to designated tissues and exerting deep biological effects. Compared with conventional delivery systems, engineered exosomes combine the low immunogenicity and high biocompatibility of natural carriers with the engineered controllability and programmability of synthetic systems. The diagram below illustrates the structural features of engineered exosomes.

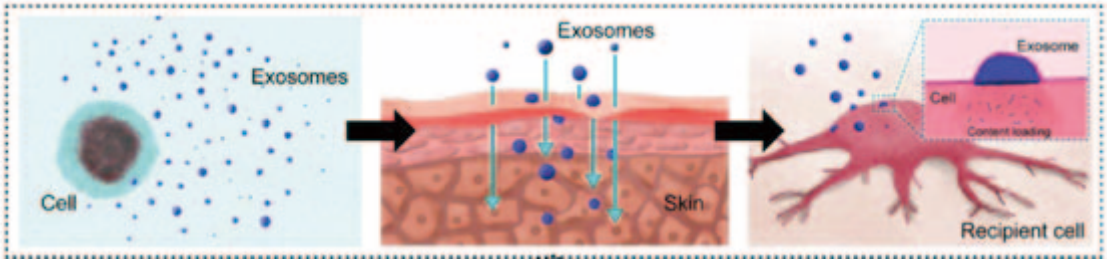


Source: Company data

We have established a robust engineered exosome portfolio by leveraging our deep expertise in gene editing, as well as our integrated capabilities in CMC processes and manufacturing technologies developed through our proprietary OVPENS platform. We strategically leverage HEK293 cells, one of the most promising cell sources for engineered exosomes, as the foundational cellular architecture for all our engineered exosome assets. This deliberate selection empowers us to endow our therapeutic candidates with inherent low immunogenicity, robust stability, and highly efficient drug-loading capabilities, thereby facilitating precise and targeted drug delivery. While our oncolytic immunotherapy pipeline focuses on cancer treatment, the engineered exosome platform is strategically designed to address non-oncology indications. We

select indications for engineered exosomes based on their significant commercial potential, underserved medical and aesthetics demands, and the biological pathways through which exosomes naturally enter the body — via the skin, mucosa, scalp, conjunctiva, and wounds, offering a strong foundation for translational application and market potential. We believe this strategic approach enables us to sustain ongoing innovation and exploration to unlock the full potential of engineered exosomes.

The diagram below illustrates the skin permeability of engineered exosomes.



Source: Company data

Our diverse portfolio of engineered exosomes spans both functional aesthetics products for direct commercialization and clinical therapeutic candidates, targeting intrinsic age-related conditions as well as complex, intractable diseases. Our functional aesthetics arm capitalizes on flexible registration pathways to achieve rapid global market entry, with a focus on indications such as skin-related conditions, alopecia, and localized fat accumulation. Concurrently, on the clinical therapeutic front, our exosome candidates deliver a novel treatment option for those chronic, hard-to-treat disease indications, such as wound healing and pulmonary fibrosis, by coordinating multi-protein payloads to achieve sustained and synergistic therapeutic effects. By advancing functional aesthetic products through premium topical treatment solutions and innovative clinical therapeutics, we anticipate this dual-track strategy would enhance our market position and broaden our commercial footprint.

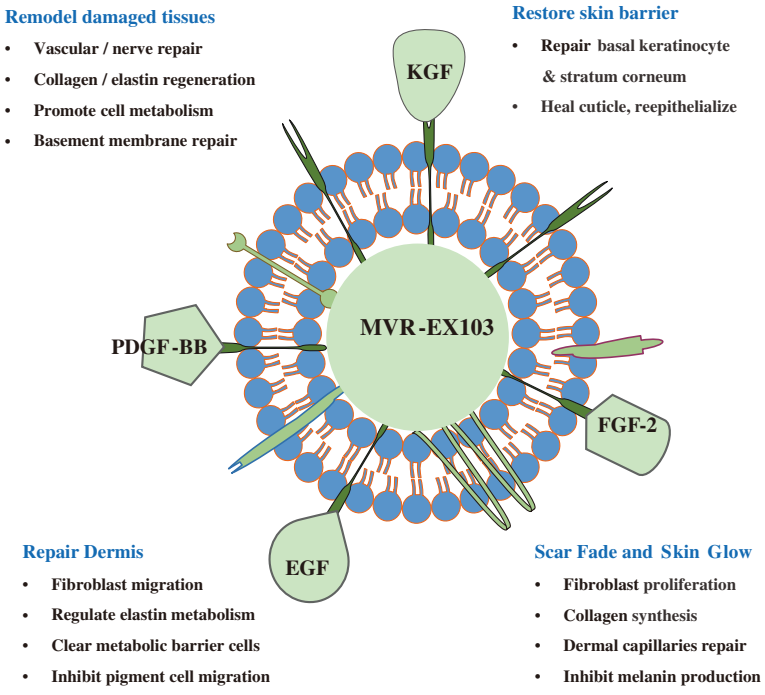
Engineered Exosomes for Direct Commercialization

MVR-EX103 (for skin-related conditions)

MVR-EX103 is our self-discovered engineered exosome product designed for the treatment of skin-related conditions. It is the world's first engineered exosome to be assigned an INCI name, underscoring its quality, consistency, and regulatory compliance for functional aesthetics and dermatological applications.

MVR-EX103 acts by binding to cell receptors and activating signaling pathways that drive long-lasting biological improvements in the skin. It helps boost the growth of skin cells like keratinocytes and fibroblasts, supports wound healing, and strengthens the skin's natural barrier. MVR-EX103 also promotes the production of important structural proteins such as collagen and fibronectin, while reducing enzymes that break down these proteins, thereby helping maintain healthy skin structure and preventing damage. Additionally, MVR-EX103 upregulates AQP3, a protein essential for skin hydration and barrier function. It also lowers melanin production, which can help reduce dark spots and uneven skin tone. Through this multi-protein delivery and modulation, MVR-EX103 accelerates comprehensive skin repair from the dermis to the outermost stratum corneum, facilitating endogenous skin regeneration and visible improvement.

The following diagram illustrates the mechanism of action of MVR-EX103.



Source: Company data

Market Opportunity and Competition

Skin-related conditions, particularly those associated with intrinsic aging, are receiving increasing attention due to their widespread impact on appearance and skin health. Common concerns include stretch marks, wrinkles, hyperpigmentation, inflammation, redness, acne, fine lines, nasolabial folds, and compromised skin barrier function. As the skin's regenerative capacity and repair mechanisms naturally decline with age, individuals over 35 have become a key

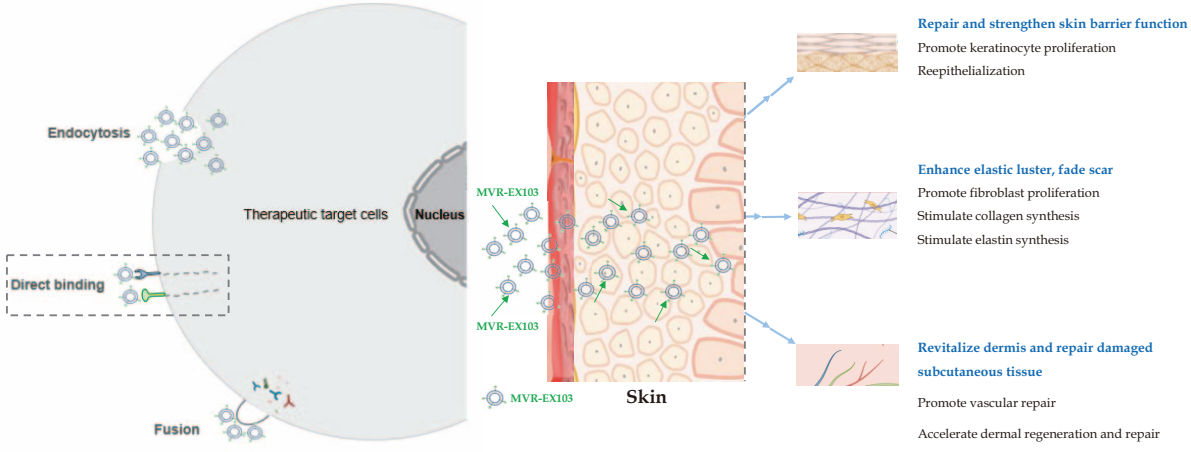
demographic for skin treatments and products. This group represents a substantial and growing population, amounting to 3.7 billion globally in 2024, is projected to reach 3.9 billion by 2028 and 4.2 billion by 2033.

Skin aging and anti-aging concerns are primarily addressed through preventive and skin management, including topical agents, aesthetic procedures, and lifestyle modifications. However, these approaches face challenges from ongoing environmental exposure and the irreversible biological processes of aging. Functional skincare products have emerged as a cornerstone in this space, driven by active ingredients targeting a wide range of skin issues. Among recent innovations, exosomes have gained significant attention for their regenerative and signaling properties, offering new potential in skin rejuvenation and repair. This convergence of rising demand, expanding demographics, and technological innovation underscores a vast and dynamic market opportunity in skin aging and anti-aging solutions.

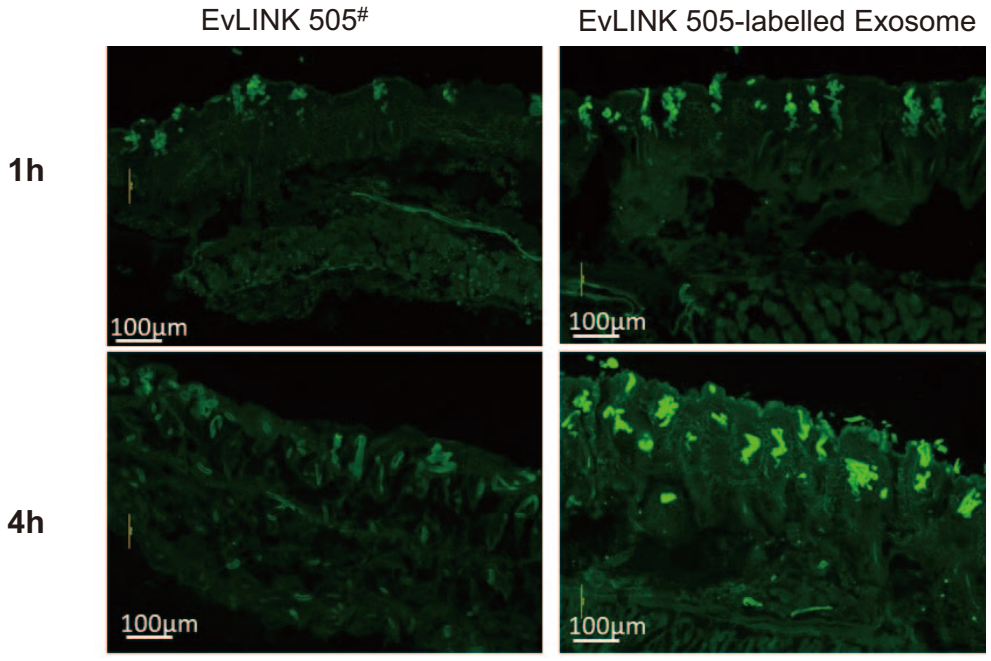
For details, see "Industry Overview — Overview of Engineered Exosomes — Major Indications for Engineered Exosome Products — Skin-Related Conditions."

Competitive Advantages

MVR-EX103 differentiates itself through non-invasive, tissue-sparing repair that promotes overall skin health and rejuvenation. By leveraging exosome-mediated natural tissue penetration capability to achieve transdermal delivery of multi-modal mechanism that combines extracellular matrix remodeling, barrier restoration, and melanogenesis inhibition, MVR-EX103 achieves a range of benefits, including painless removal of stretch marks and wrinkles, reduction of hyperpigmentation, inflammation, redness and acne control. Unlike traditional methods such as exogenous collagen or peptides, MVR-EX103 induces endogenous skin recovery and rejuvenation. The following diagram illustrates the mechanism of action of MVR-EX103 on the skin.

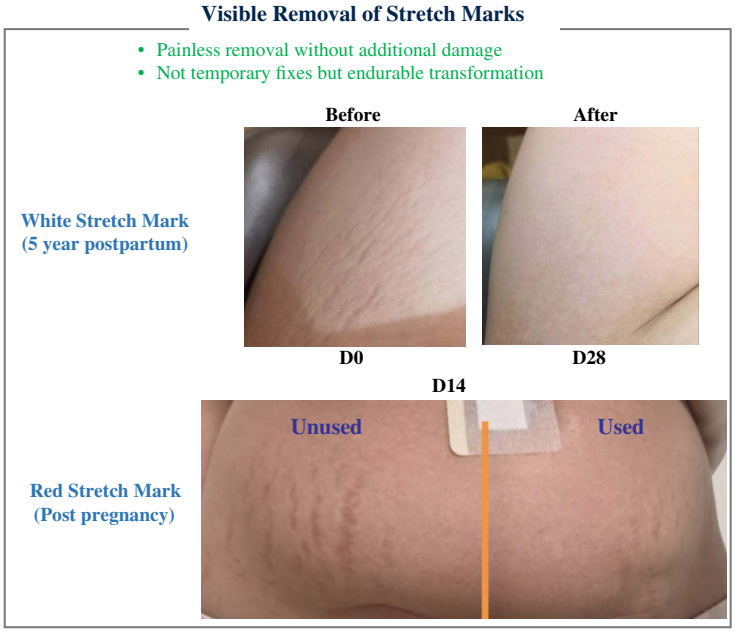


Public data has demonstrated that exosomes possess strong skin penetration capabilities and can be effectively delivered through simple topical application, even without auxiliary tools such as electrical massage or dermarollers. Our in-house preclinical findings corroborate these observations, demonstrating that fluorescently labeled exosomes, when applied to murine skin, achieve penetration of the epithelial layer within one hour and are subsequently detected in the dermis by four hour.



Source: Company data

Notably, MVR-EX103 offers durable transformation, effectively addressing both white and red stretch marks. Study results showed painless removal of stretch marks without causing additional damage, with notable improvements observed from day 14 to day 28. The below pictures illustrate the efficacy of MVR-EX103 in addressing stretch marks.



Source: Company data

Beyond removal of stretch marks, the application of MVR-EX103 can be easily expanded into the broader skincare field. According to Frost & Sullivan, the functional skincare product market exhibits substantial market opportunity, which is expected to be valued at US$208.7 billion globally by 2033. A pilot study assessing the consumer-grade skincare efficacy of MVR-EX103 demonstrated its multifunctional benefits, including enhanced hydration, diminished fine lines and nasolabial folds, brightening effects, and improved skin barrier function. Besides, MVR-EX103 can also significantly reduce numbers of blackhead and whitehead by 80% and 50%, respectively, after 14-day use. The below charts illustrate the efficacy of MVR-EX103 in the anti-wrinkle, spot removal and skin smoothing contexts.

Anti-Wrinkle — Summary of Human Efficacy Test Results

Subject = 34
Overall Satisfaction rate = 100%

Skin effect	1	2	3	4	5	Satisfaction
More Hydrated	0	0	0	5	25	100%
Increase firmness	0	0	0	7	23	100%
Reduce nasolabial folds	0	1	0	14	15	96.7%
Reduce eye fine lines	0	1	0	13	16	96.7%

Spot Removal — Summary of Human Efficacy Test Results

Subject = 34
Overall Satisfaction rate = 100%

Skin effect	1	2	3	4	5	Satisfaction
Skin barrier repair	0	0	0	10	20	100%
Whitening effect	0	0	0	15	15	100%
Mild and non-irritating	0	0	0	3	27	100%
Absorption rate	0	0	0	7	23	100%

Skin Soothing — Summary of Human Efficacy Test Results

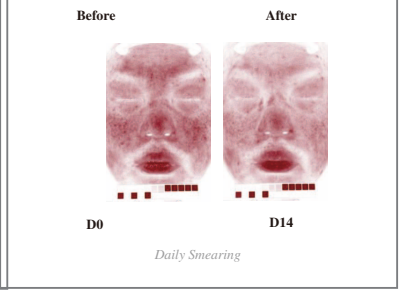
Subject = 31

Duration of use	Average number of		Reduction rate	
	Blackhead	Whitehead	Blackhead	Whitehead
Before use	1.8+/-1.1	11+/-6.9	/	/
Used for 7 days	1.4+/-0.8	8.5+/-6.2	20%	23%
Used for 14 days	0.4+/-0.6	5.5+/-4.6	80%	50%

Anti Regular Wrinkle Treatment Effects

Facial Spot Removal Treatment Effects

Skin Soothing, Reduce Inflammation and Redness



Source: Company data

Preclinical data demonstrated MVR-EX103's transdermal delivery system ensures localized cargo release and promotes deep penetration of exogenous proteins, allowing non-invasive procedure and enabling at-home use. By integrating multiple proteins with precise functions for skin repair and rejuvenation, MVR-EX103 redefines superficial skin depression treatment paradigms and offers a disruptive skin improvement solution.

We have completed the product development for MVR-EX103, including structural design, target cell-level validation, process development, animal and human efficacy trials, and toxicology studies. We have successfully registered the INCI name for MVR-EX103 in April 2025, marking it as the world's first engineered exosome to be assigned an INCI name, a milestone that accelerates its entry into global functional aesthetics markets.

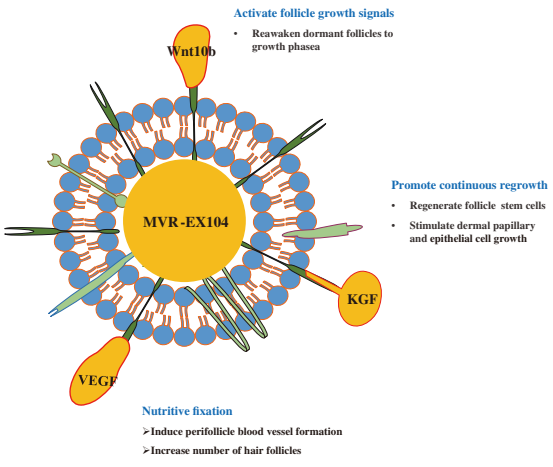
WE MAY NOT BE ABLE TO ULTIMATELY MARKET MVR-EX103 SUCCESSFULLY.

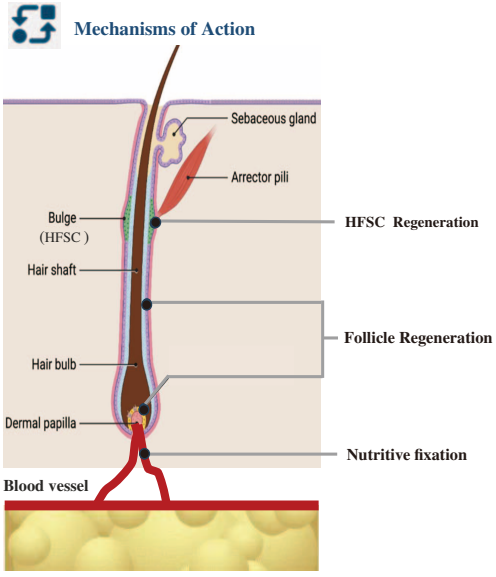
MVR-EX104 (for alopecia)

MVR-EX104 is our self-discovered an engineered exosome therapy armed with three functional proteins designed to achieve a full-cycle hair regeneration across three levels, namely follicular mesenchymal stem cells, hair follicles, and hairs. MVR-EX104 replenishes growth factors at distinct stages of the hair growth cycle, delivering effector proteins to directly activate the Wnt/β-catenin pathway, which is the main signaling axis for rapid hair follicle growth initiation. Additionally, it delivers growth factors to promote mesenchymal stem cell proliferation and differentiation and capillary formation, ensuring nutrient supply to follicles. MVR-EX104 was assigned an INCI name as functional aesthetics ingredients in July 2025.

MVR-EX104 delivers a 3-in-1 multi-target alopecia solution, leveraging three engineered proteins, including Wnt10b, VEGF and KGF. Wnt10b activates hair follicle growth by stabilizing β-catenin, which awakens dormant follicles to re-enter the anagen (growth) phase. Through Wnt10b-mediated activation, MVR-EX104 induces hair follicle stem cell regeneration and amplifies follicle numbers. VEGF enhances nutritive support by stimulating perifollicular blood vessel formation, thereby improving oxygen and nutrient delivery to increase follicle density and sustain root nourishment. Additionally, KGF drives continuous hair regrowth and expansion by promoting the proliferation of hair follicle mesenchymal stem cells, dermal papilla cells, and epithelial cells, facilitating follicular expansion.

The engineering of MVR-EX104 is illustrated below.





Source: Company data

Market Opportunity and Competition

Alopecia, a major hair-related condition, is broadly classified into congenital and acquired types, with a growing burden globally. The number of cases worldwide is projected to rise from 1.6 billion in 2024 to 1.8 billion by 2033.

Treatment typically follows a personalized, long-term approach, starting with general products like shampoos and serums containing ingredients such as caffeine, biotin, or keratin. These are widely accessible and help maintain scalp health, though their effects are mostly mild and preventive. Exosomes have recently drawn attention for their regenerative and signaling properties, showing promise in enhancing follicle regeneration and promoting hair growth. In addition to topical products, home-use devices such as scalp massagers offer non-invasive options, though their efficacy is limited and requires consistent use. For more severe cases, drug therapies such as minoxidil and finasteride are commonly used, while advanced interventions like microneedle hair transplantation, PRP, and low-level laser therapy provide more targeted and lasting results.

For details, see "Industry Overview — Overview of Engineered Exosomes — Major Indications for Engineered Exosome Products — Alopecia."

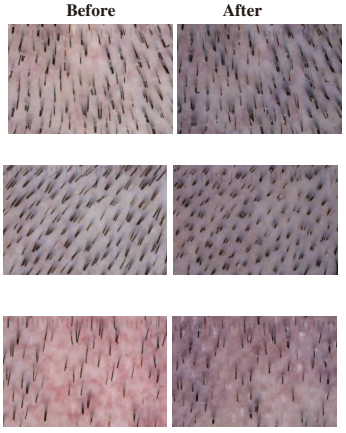
Competitive Advantages

- *Strong Hair Generation Efficacy in Pilot Study.* In the 3-month pilot study, MVR-EX104 demonstrated a 9.44% increase in hair density(n/cm^2) and a 30.90% reduction in hair loss, along with a 19.29% improvement in global hair density. Leveraging its multi-target mechanisms, MVR-EX104 showed efficacy across a broader spectrum of alopecia, extending beyond androgenetic alopecia.

Summary of 3 -month Human Efficacy Test Results

	Changes in Hair Number (n)	Changes in Hair Density (n/cm ^{2})	Hair Loss Reduction Rate	Changes in Global Hair Density
Topical Application (Q3D), N=15	4.40	9.44%	30.90%	19.29%
Control	1.91	3.68%	11.44%	0.00%

Local Hair Density Improvement



Every Three Day, Direct Smearing

Global Hair Density Improvement

Once a Day, Direct Smearing

Source: Company data

- *Turn on Hair Growth "Switch" and Anti-inflammation.* β-catenin is important for hair follicle growth, in dorsal skin. MVR-EX104 can increase β-catenin expression, which may promote the shift from the resting phase (telogen) to the growth phase (anagen) of hair follicles. MVR-EX104 also demonstrates anti-inflammatory effects that improve scalp health and restore hair follicle microcirculation, creating a conducive environment for sustained hair regeneration.

- *Histologic Analysis of Hair Follicle.* The pilot study of MVR-EX104 demonstrated that MVR-EX104 significantly increased the number of hair follicles compared to control groups, which indicates enhanced follicular proliferation. MVR-EX104 also markedly enhanced hair follicle length, indicating promotion of hair follicle elongation and normalization. In addition, MVR-EX104 notably elevated the anagen-to-telogen phase ratio, suggesting it effectively promotes the transition of hair follicles from the telogen (resting) stage to the anagen (growth) stage.

We have completed product development for MVR-EX104, including structural design, target cell-level validation, process development, animal and human efficacy trials, and toxicology studies. MVR-EX104 was assigned an INCI name as functional aesthetics ingredients in July 2025, and we plan to commercialize MVR-EX104 in overseas markets by 2026.

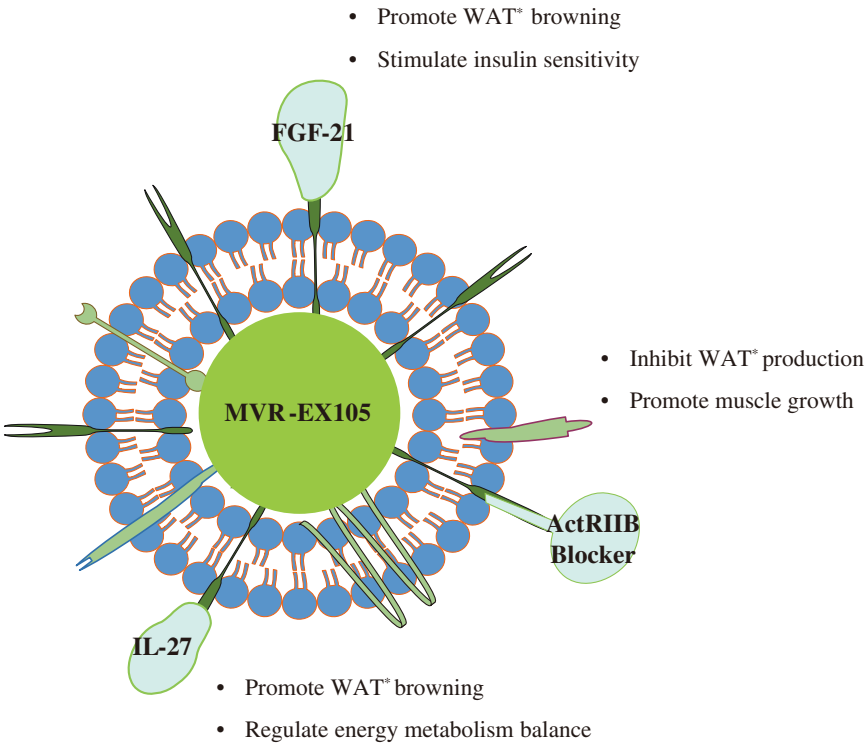
WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET MVR-EX104 SUCCESSFULLY.

MVR-EX105 (for localized fat accumulation)

MVR-EX105 is an engineered exosome designed to promote localized fat reduction and muscle preservation through topical application, without entering systemic circulation. By combining robust fat-burning effects, metabolic enhancement, and an exceptional safety profile, MVR-EX105 is positioned as a topical solution for localized fat accumulation.

MVR-EX105 promotes fat reduction and muscle preservation through the synergistic effects of three engineered proteins, including FGF-21, IL-27, and extracellular domain of Activin receptor IIB (ActRIIB). A key mechanism for effective fat reduction lies in shifting the body's energy balance by reducing energy-storing white adipose tissue (WAT) and increasing energy-burning brown adipose tissue (BAT). FGF-21 and IL-27 drive this shift by promoting the browning of WAT. Additionally, FGF-21 enhances lipolysis and glucose metabolism, while IL-27 improves insulin sensitivity and glucose homeostasis, further accelerating fat burning. In addition, the ActRIIB extracellular domain complements these effects by inhibiting WAT formation and stimulating muscle growth. The extracellular domain of ActRIIB functions as a soluble decoy receptor. By competitively binding to circulating ligands of the TGF-β superfamily — such as myostatin, activins, and GDF11 — it prevents their association with the native, cell surface-bound ActRIIB receptors. This blocking effect prevents the formation of ligand-receptor complexes that would otherwise activate the Smad2/3 signaling pathway, a cellular signaling pathway known to suppress muscle growth and protein synthesis. By shutting down this inhibitory pathway, MVR-EX105 promotes muscle cell activity, leading to increased skeletal muscle mass and reduced formation of white adipose tissue. Together, these proteins create a coordinated metabolic loop, driving dual benefits in fat reduction and muscle preservation, further underscoring the potential of MVR-EX105 in non-invasive local fat reduction.

The following diagram illustrates the mechanism of action of MVR-EX105.



Market Opportunity and Competition

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. The global population affected by overweight and obesity is both vast and steadily increasing, reaching 1,624.7 million and 988.1 million in 2024, respectively. These numbers are projected to grow to 1,702.8 million and 1,178.6 million by 2028, and further to 1,762.1 million and 1,448.5 million by 2033. Given this sustained growth, along with rising societal emphasis on body wellness and aesthetic appearance, the fat reduction market is poised for significant expansion.

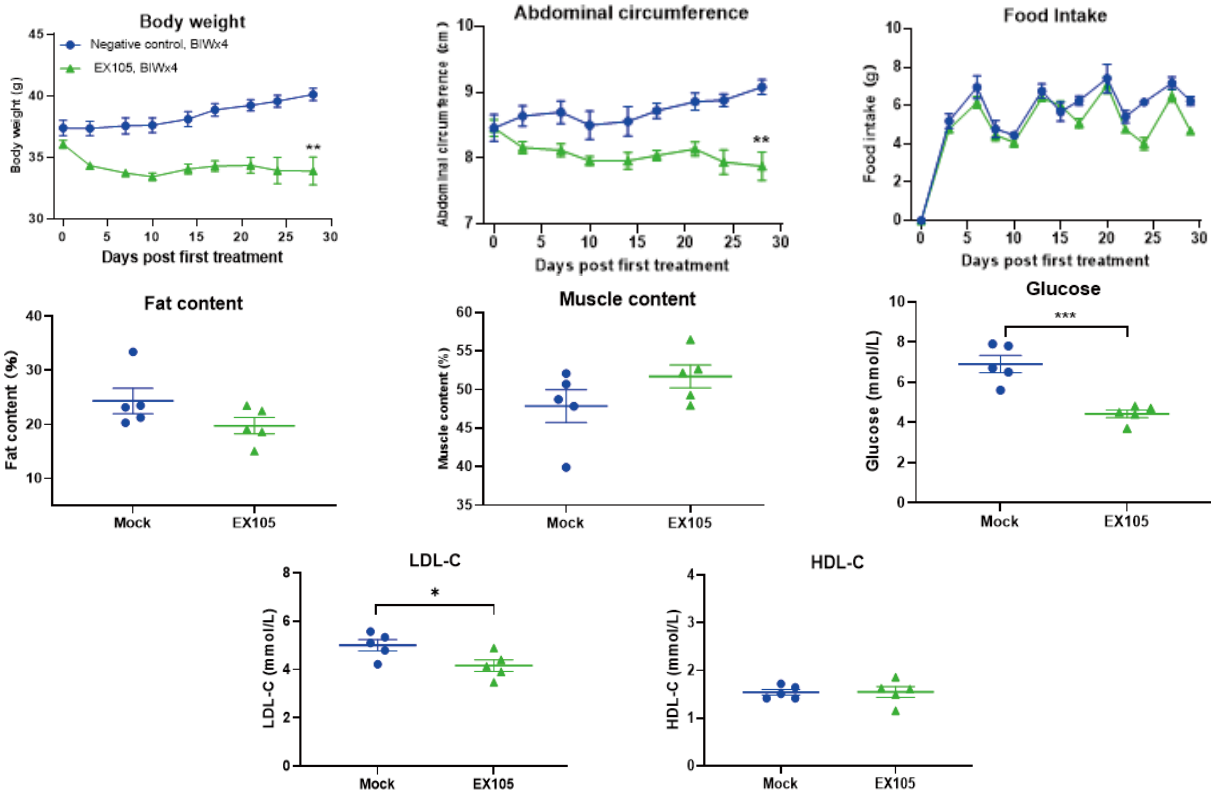
Localized fat accumulation treatments, particularly non-invasive options, are gaining traction due to increasing demand for personalized, low-risk solutions. While traditional liposuction remains the gold standard for surgical fat removal, non-surgical alternatives such as deoxycholic acid injections, cryolipolysis, laser-based therapies, ultrasound-based devices, and red light therapy offer targeted fat reduction with minimal downtime. These innovations are reshaping the landscape of body contouring, though long-term results often depend on sustained lifestyle changes.

For details, see "Industry Overview — Overview of Engineered Exosomes — Major Indications for Engineered Exosome Products — Localized Fat Accumulation."

Competitive Advantages

- *Potent Fat Reduction in Preclinical Models.* Preclinical functional efficacy studies have demonstrated the fat-reducing potential of MVR-EX105. As confirmed in an *in vivo* mouse model shown in the diagrams below, the topical application of MVR-EX105 contributes to a significant reduction in adipocyte volume, indicating a robust fat-burning effect. Notably, MVR-EX105 led to a significant reduction in body weight without affecting food intake, while simultaneously preserving muscle mass. In addition, findings show that MVR-EX105 can significantly downregulate glucose and low-density lipoprotein, highlighting its broader metabolic benefits.

In Vivo Efficacy Validation Through Mouse Model (Topical Application)



Source: Company data

- *Significant Reduction of Waist Circumference in Pilot Study.* In a 28-day pilot study of MVR-EX105, MVR-EX105 was applied topically every three days to the abdominal area of 36 healthy participants (18 males and 18 females). The results showed an average reduction of 183.9 cm^3 in abdominal volume and an average decrease of 3.4 cm

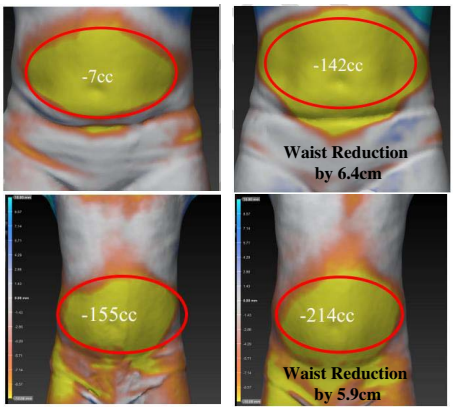
in waist circumference. These findings highlight the potential efficacy of MVR-EX105 in reducing localized fat and improving body contour.

Summary of 28 -day Human Efficacy Test Results, N=36*

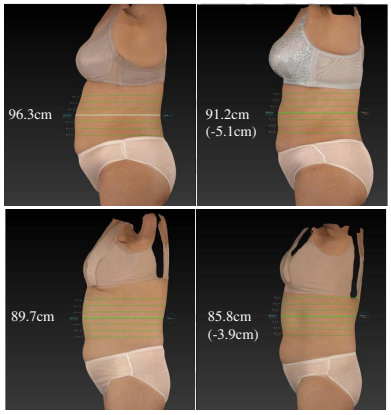
	Average Reduction in Abdominal Volume (cm ^{3}/cc)	Abdominal Volume Reduction Rate	Average Reduction in Waist Circumference # (cm)	Waist Reduction >4cm %	Waist Reduction >3cm %	Waist Reduction >2cm %
Smearing (Q3D) -28 days	183.9	15.27%	3.4	36%	47%	69%
Before	0	0	0	0	0	0

*Note: *Age range: 25 to 54 years; 18 males and 18 females.; #Reduction in Waist Circumference: Ranging from 0.2 to 8.7 cm.*

Abdominal Volume Reduction (v.s. D0)



Body Contour Improvement



Images captured and analyzed by VECTRA H2 3D stereo camera. 360°presentation of body contour, visual analysis of muscle conditions, assessment of volume loss/gain, measurement of body contours/girth and etc.

Source: Company data

- *Superior Safety Profile.* MVR-EX105's engineered exosome formulation leverages endogenous cellular communication mechanisms, ensuring low immunogenicity and eliminating toxicity risks associated with synthetic carriers. The localized action further reduces off-target risks, making MVR-EX105 suitable for chronic use in metabolic disorders. Moreover, unlike systemic therapies, MVR-EX105's non-invasive topical delivery minimizes systemic exposure while still achieving both localized and systemic metabolic benefits. This approach circumvents complications often associated with oral or injectable anti-obesity treatments, such as gastrointestinal side effects or injection-site reactions.

- *Mechanistic Synergy in Metabolic Remodeling.* MVR-EX105 uniquely integrates fat reduction and metabolic reprogramming through browning of white adipocyte tissues to provide metabolism regulation. This dual action validated by improved glucose homeostasis and lipid profiles in preclinical models positions MVR-EX105 a unique solution that integrates localized shaping and fat reduction with enhanced metabolism through adipose tissue remodeling.

Our MVR-EX105 has advanced through product development with preclinical validation in animal models and preliminary pilot studies. MVR-EX105 was assigned an INCI name as functional aesthetics ingredients in July 2025, and we plan to commercialize MVR-EX105 in overseas markets by 2026.

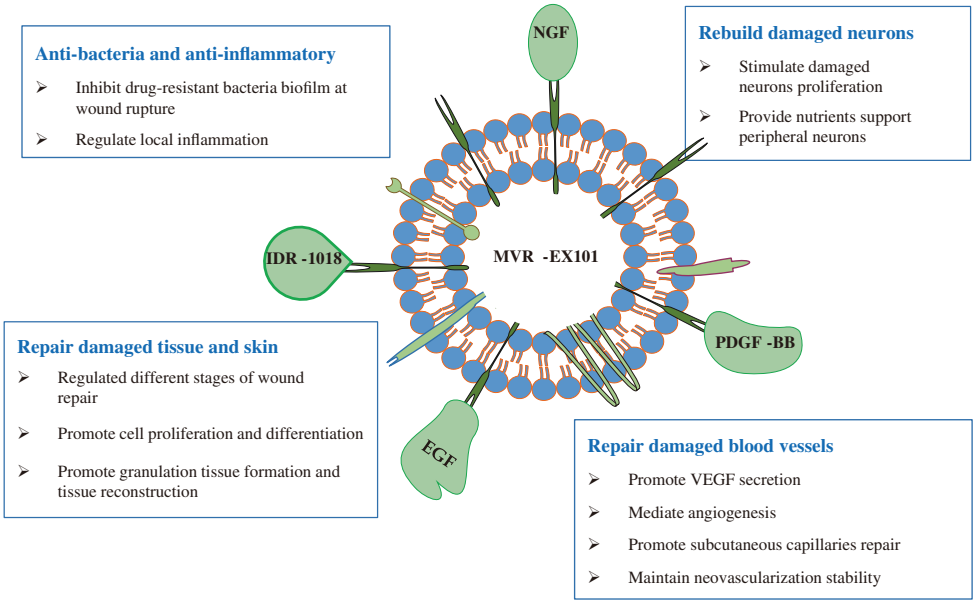
WE MAY NOT BE ABLE TO ULTIMATELY MARKET MVR-EX105 SUCCESSFULLY.

Engineered Exosomes for Clinical Applications

MVR-EX101

MVR-EX101 is our self-developed engineered exosome therapeutic designed to accelerate multi-level wound healing through coordinated delivery of four active proteins.

Armed with four multifunctional proteins, including NGF, IDR-1018, EGF and PDGF-BB, this exosome candidate delivers coordinated nerve, vascular, and tissue repair along with anti-bacterial and anti-inflammatory effects. Upon local administration, NGF stimulates peripheral neuron proliferation and restores nerve function for improved early pain perception. IDR-1018 disrupts drug-resistant bacterial biofilms and modulates local inflammation, creating a pro-healing microenvironment. EGF drives keratinocyte proliferation and re-epithelialization to accelerate surface wound closure. PDGF-BB recruits fibroblasts and endothelial cells, promoting angiogenesis and extracellular matrix deposition to reestablish blood supply and tissue integrity. Together, these synergistic actions enable rapid, sustained healing of acute and chronic ulcers while minimizing systemic exposure. The following diagram illustrates the mechanism of action of MVR-EX101.



Market Opportunity and Competition

Wounds represent a significant and clinically important subset of skin-related conditions, with substantial impact on patient outcomes and healthcare systems. Broadly, wounds are categorized into two main types, i.e., post-surgical and traumatic wounds and chronic wounds. Post-surgical and traumatic wounds are typically acute, resulting from surgical procedures or external injuries, and generally follow a predictable healing process. In contrast, chronic wounds, such as diabetic foot ulcers, pressure injuries, and venous leg ulcers, are characterized by delayed or impaired healing, often associated with underlying conditions like diabetes or vascular disease. Given the widespread occurrence of wounds in everyday life and the vast, often unquantifiable affected population, the wound care market presents substantial opportunities for innovation and growth.

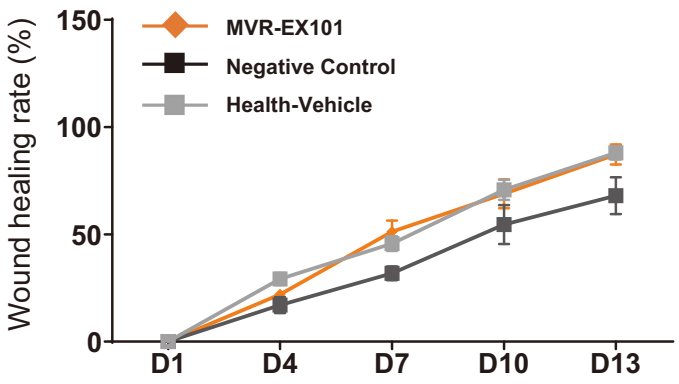
Post-surgical and traumatic wounds typically follow a more structured healing process, emphasizing aseptic technique, timely closure, and ongoing monitoring, though complications like dehiscence and scarring remain common. In contrast, chronic wounds often demand a long-term, multidisciplinary care focused on infection control, pressure relief, and optimization of the wound environment, yet they are frequently complicated by poor circulation and comorbidities such as diabetes. Functional skincare products serve as valuable adjuncts in the management of both acute and chronic wounds, offering supportive benefits such as enhanced skin regeneration, barrier repair, and inflammation control. The global functional skincare market is driven by active ingredients targeting a wide range of skin conditions. Among recent innovations, exosomes have emerged as promising bioactive agents due to their regenerative and signaling capabilities, significantly expanding the scope and potential of advanced wound care solutions.

For details, see "Industry Overview — Overview of Engineered Exosomes — Major Indications for Engineered Exosome Products — Skin-Related Conditions."

Competitive Advantages

MVR-EX101 demonstrates strong healing efficacy in treating diabetic foot ulcer (DFU) through a multi-mechanistic repair strategy, validated by robust preclinical data. In diabetic rat models, MVR-EX101 achieved a wound healing rate comparable to the natural healing rate in healthy rats, highlighting its ability to overcome the impaired healing dynamics characteristic of diabetic conditions.

***In Vivo* Efficacy Validation (Diabetic Foot Ulcer Rat Model)**



Pathological analysis through regular wound animal model further demonstrated MVR-EX101's dual regenerative capacity:

- *Vascular and Neural Regeneration.* MVR-EX101 promotes new blood vessel formation (angiogenesis) and nerve regeneration in ulcerated tissues. This is critical for restoring blood supply and sensory function in wounds.

- *Accelerated Tissue Reconstruction.* Histological evaluations of wound models have shown that MVR-EX101-treated wounds exhibit increased epidermal cell proliferation and reduced inflammatory infiltrates, leading to faster re-epithelialization and reduced scar formation.

Preclinical studies have validated the therapeutic efficacy and multi-mechanistic repair of MVR-EX101. This positions MVR-EX101 as a versatile, mechanism-driven solution for both chronic and acute wound management, addressing unmet needs in, among others, diabetic foot ulcer, pressure ulcer, and perioperative wound.

Clinical Development Plan

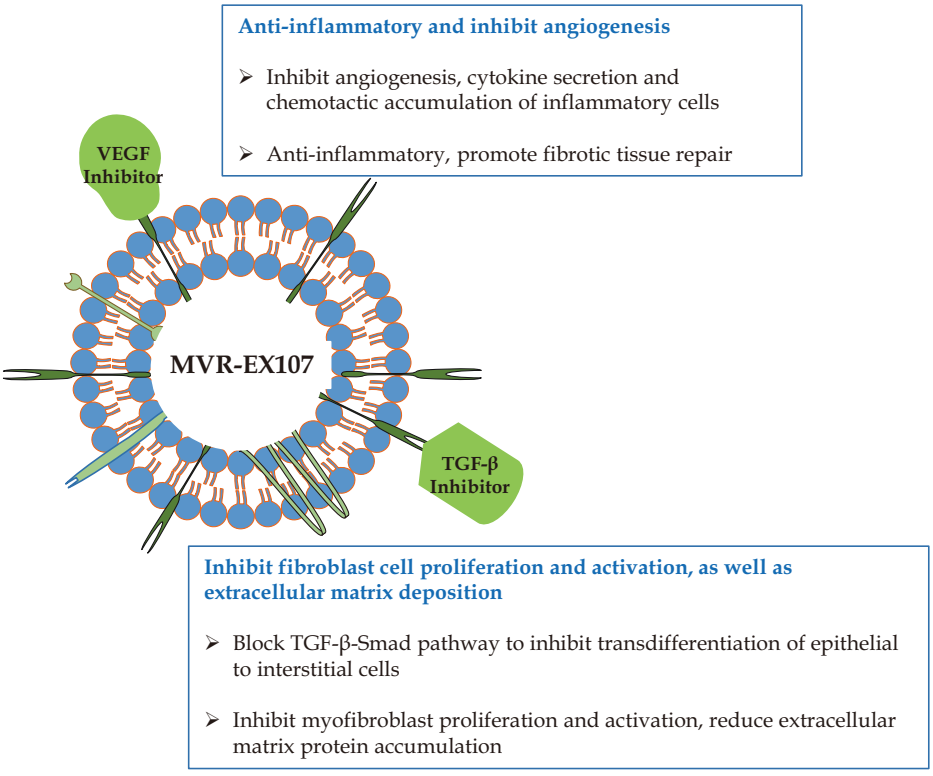
We plan to submit an IND application for MVR-EX101 to both the FDA and the NMPA in the first quarter of 2027. Following the receipt of corresponding IND approvals, we plan to initiate a Phase I clinical trial of MVR-EX101 for wound healing in the U.S. and China as early as 2027.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET MVR-EX101 SUCCESSFULLY.

MVR-EX107

MVR-EX107 is our self-developed engineered exosome therapeutic for pulmonary fibrosis, designed to deliver targeted anti-fibrotic and anti-inflammatory proteins directly to the lung microenvironment. Its exosomes are armed with two complementary payloads: one protein blocks the TGF-β–Smad signaling axis to inhibit fibroblast proliferation, myofibroblast activation, and excessive extracellular matrix deposition; the second exerts anti-inflammatory and anti-angiogenic effects by suppressing cytokine release, inflammatory cell recruitment, and pathological neovascularization.

The following diagram illustrates the mechanism of action of MVR-EX107.



Market Opportunity and Competition

Pulmonary fibrosis (PF) is a progressive and irreversible lung disease marked by chronic tissue damage and scarring, which gradually compromises respiratory function. Among over 200 interstitial lung diseases, idiopathic pulmonary fibrosis (IPF) is the most common and severe subtype. The incidence of IPF is rising sharply, particularly in China, where newly diagnosed IPF cases increased from 100.1 thousand in 2019 to 185.2 thousand in 2024, and are projected to reach 438.7 thousand by 2033. Globally, the newly diagnosed IPF cases are expected to grow from 652.2 thousand in 2024 to over 1 million by 2033.

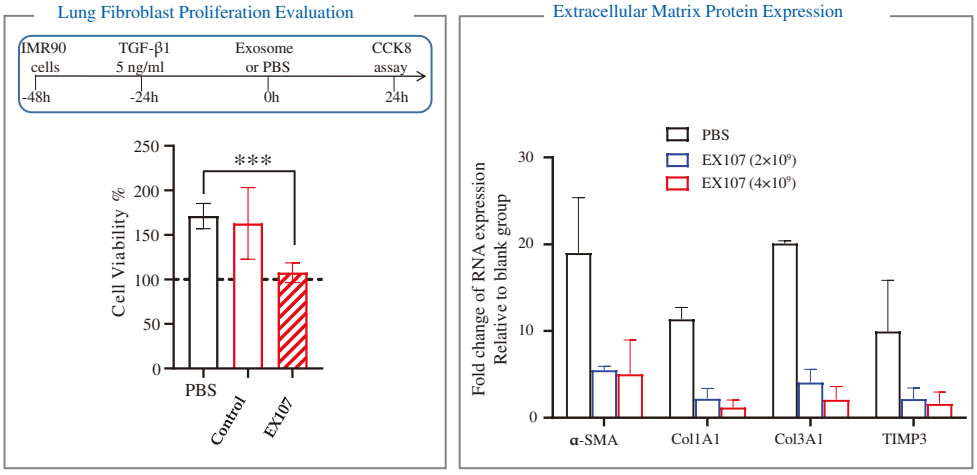
Current therapies can only slow disease progression, with no approved treatments capable of halting or reversing fibrosis. Despite this limitation, existing drugs can improve symptoms, extend survival, and enhance quality of life. The growing patient population and unmet clinical needs underscore a significant market opportunity for novel therapies. As of the Latest Practicable Date, no exosome-based drug for pulmonary fibrosis has been approved or is in clinical stage.

For details, see "Industry Overview — Overview of Engineered Exosomes — Major Indications for Engineered Exosome Products — Pulmonary Fibrosis."

Competitive Advantages

MVR-EX107's competitive edge lies in its dual-protein payload packaged within engineered exosomes, enabling concurrent blockade of TGF-β-Smad-driven fibroblast activation and inhibition of angiogenesis plus inflammatory cell recruitment. *In vitro* studies demonstrate that MVR-EX107 dose-dependently inhibits TGF-β–induced IMR90 lung fibroblast proliferation and downregulates fibrosis markers such as α-SMA, collagen I, and collagen III, highlighting its potential to arrest fibrosis progression and resolve pulmonary inflammation. Leveraging exosome-mediated dual mechanisms, MVR-EX107 precisely targets key pathogenic pathways. This approach boosts localized concentration and direct lung penetration with enhanced synergistic prompt efficacy, positioning MVR-EX107 as a promising candidate for pulmonary fibrosis.

In vitro Functional Efficacy Validation

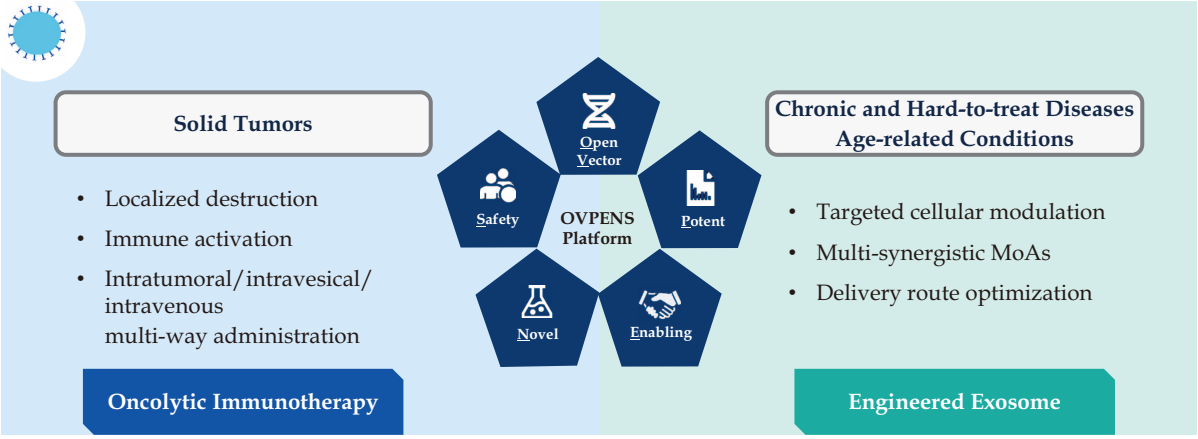


Clinical Development Plan

We plan to submit an IND application for MVR-EX107 to both the FDA and the NMPA in 2028. Following the receipt of corresponding IND approvals, we plan to initiate a Phase I study of MVR-EX107 in patients with pulmonary fibrosis in the U.S. and China as early as 2029.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET MVR-EX107 SUCCESSFULLY.

OUR PROPRIETARY DEVELOPMENT PLATFORM — OVPENS PLATFORM



Leveraging our strengths in genetic engineering and delivery technology, we have established an integrated in-house end-to-end R&D platform, namely, the OVPENS development platform, that spans through target selection and validation, drug discovery, high-throughput screening, molecule design, bioanalytical method development, preclinical studies, CMC and IND-enabling capabilities. As the platform that consolidates oncolytic immunotherapy and engineered exosome technologies, have the OVPENS platform unifies viral and non-viral delivery under a single, end-to-end framework and enables the development of multifunctional biologics across oncology and non-oncology indications. By applying advanced engineering strategies to active biological carriers, the platform enables multifunctional payload delivery with enhanced tissue selectivity, immune modulation, and therapeutic flexibility, while accelerating target discovery, vector construction, and iterative optimization.

The OVPENS platform serves as a powerful tool in our discovery, research, and development of oncolytic immunotherapy and engineered exosome, integrating oncolytic immunotherapy and engineered exosome dual-vector engineering capabilities.

- Oncolytic immunotherapy candidates engineered from a BAC-based HSV-1 genome library, which comprises 84 proteins, including 37 replication essentials and 47 accessory factors. Deploying BAC system, the OVPENS platform is able to perform high-throughput homologous recombinant HSV-1 viral under tight temperature and anti-biotic controls, generating knock-ins, knock-outs and point mutations at predefined site without disturbing genome integrity, which ensures the sustained and coordinated expression of therapeutic payloads. Temporal control of gene expression — via early, intermediate, and late promoters — synchronizes tumor lysis with payload release, maximizing oncolytic activity and immune activation.

- For engineered exosomes utilizing CD63-TM3 membrane scaffolds and Fc-based sorting modules to co-load proteins and nucleic acids, the OPVENS platform facilitates its development for non-oncology applications. A self-cleaving 2A peptide system allows tandem expression of multiple therapeutics from a single transcript, enabling cross-scale delivery for dermatologic, metabolic, and neurodegenerative diseases. The OPVENS platform's one-stop loading technology efficiently incorporates both nucleic acids and proteins, mimicking natural intercellular communication. This enables exosome vesicles to either fuse with target cell membranes and release their therapeutic cargo directly into the cytosol or bind to the cell surface through receptor-ligand interactions, initiating signaling cascades that activate endocytic biological activity. Additionally, the OPVENS platform uses rapid lentiviral transduction and CYTENA single-cell printing to create stable, high-secreting producer cell clone adapted to a serum-free culture environment, ensuring scalable and cost-effective manufacturing under strict quality controls.

The dual-vector integration framework underscores the OVPENS platform's versatility and potential in developing next-generation cancer therapies and treatments for chronic and complex diseases. By unifying oncolytic immunotherapy with engineered exosome, the OVPENS platform has translated its technical advantages into clinical breakthroughs, exemplified by the successful development of various products and product candidates.

Our Core Development Goals

OVPENS stands for open vector, potent, enabling, novel, safety, where lies the core goals of this proprietary platform as follows:

- *Open.* Oncolytic immunotherapy and engineered exosomes in non-oncology applications define the broad therapeutic scope of our pipeline, while the inherent mechanism of exosome-mediated delivery enables efficient vector customization — from target discovery and payload optimization to IND-enabling studies — ensuring robust adaptability across diverse therapeutic modalities and disease settings.

- *Potent.* At its core, the OVPENS platform employs a BAC-based HSV-1 genome library and replacement-plasmid collection to enable predictable, on-target edits that preserve viral fitness and replication competency. Temporal control of viral protein expression balances robust oncolysis and payload release such as anti-PD-1 antibody and IL-12. In parallel, exosome vectors leverage self-cleaving 2A peptides alongside dual scaffold and sorting proteins to co-load and co-deliver multiple therapeutic payloads, markedly enhancing efficacy in hard-to-treat indications.

- *Enabling.* Rather than functioning in isolation, the OVPENS platform is designed to amplify the effects of other therapeutic agents. It supports synergistic combinations with immune checkpoint inhibitors, cytokines, or gene therapies by providing targeted delivery, immune priming, or molecular co-factors. This integrative capability allows the platform to serve as a versatile backbone for combination therapies, improving therapeutic windows and enhancing response rates across multiple indications.

- *Novel.* OVPENS pioneers a dual-vector strategy by running oncolytic immunotherapy and exosome development in parallel under shared discovery, validation and CMC frameworks. Closed-loop design cycles, informed by in vitro and in vivo feedback, accelerate vector architecture optimization and facilitate rapid expansion into non-oncology fields. This unified approach drives cross-platform innovation, unlocking competitive novel applications and treatment paradigms.

- *Safe.* Safety is built into every stage of our platform. We leverage the naturally low immunogenicity of HSV-1 vector and exosomes, both of which inherently minimize immune activation. Additionally, we apply targeted engineering and process optimization to further enhance safety. Our recombinant oncolytic immunotherapy candidates undergo precise engineering for low immunogenicity and attenuated pathogenicity, while exosomes are produced in serum-free environment to eliminate contaminating vesicles.

Rigorous analysis *in vitro* and *in vivo* characterization, including neurotoxicity and biodistribution models, ensures each drug candidate meets strict regulatory and CMC standards, delivering predictable safety profiles without compromising therapeutic activity.

By bridging viral and non-viral technologies, the OVPENS platform redefines biologics development, offering precision, scalability, and therapeutic flexibility unmatched in the field.

RESEARCH AND DEVELOPMENT

We conduct R&D activities primarily through our in-house R&D team. We also engage contract research organizations ("**CROs**") from time to time to support our preclinical research and clinical trials. In addition, we have established an array of strategic partnerships to accelerate the development of our pipeline across key global markets, expand our global clinical development capabilities, and fuel our future innovation and long-term growth. See "— Collaboration Agreements" for details.

In 2023 and 2024 and the nine months ended September 30, 2024 and 2025, our research and development expenses were RMB136.2 million, RMB111.5 million, RMB74.8 million and RMB72.3 million, respectively. In particular, the research and development expenses attributable to our Core Product, MVR-T3011, were RMB107.8 million, RMB75.5 million, RMB49.3 million and RMB45.5 million during the same periods, respectively, accounting for 79.2%, 67.7%, 65.9% and 63.0% of our total research and development expenses for the corresponding periods.

Our In-house R&D Team

We place a strong emphasis on academic qualifications, industry experience and complementary expertise when building our R&D team. Our R&D team is spearheaded by Dr. Grace Guoying Zhou, our co-founder, chairperson of our Board and chief executive officer, who has over 30 years of distinguished experience in the immunology and virology field and obtained industry-wide recognition for her discovery of HSV-1's cancer-selective targeting mechanism.

Our in-house R&D team consists of industry veterans with extensive experience in oncolytic immunotherapy and engineered exosomes research and a demonstrated track record contributing to the advancement of these innovative modalities. As of the Latest Practicable Date, our in-house research and development team consisted of approximately 40 members. Over 70% of them held a master's or higher degree, mainly in medical science, pharmacology, biology and chemistry, and our key R&D staff had an average of ten years of relevant experience working in the

pharmaceutical industry. These core R&D team members bring with them extensive experience driving drug discovery and development programs at leading MNCs, including, among others, Abbvie, Bristol Myers Squibb, Memorial Sloan Kettering Cancer Center, and Abbott Bioresearch Center.

The following table sets forth the identities, positions and/or expertise of our key R&D personnel, as well as their respective employment period and involvement and contributions to the development of our Core Product and other drug candidates:

Identity	Position and/or Expertise	Involvement and Contributions	Employment Period
Dr. Xiaoqing Chen (陳曉慶)	Chief Scientific Officer	Provides overall scientific and technical oversight for product design and feasibility; advises on clinical and regulatory strategies	Since October 2016
Mr. Yan Runbin (嚴潤彬)	Chief Operating Officer	Responsible for designing and coordinating preclinical pharmacology and toxicology strategies; oversees resource allocation across preclinical teams and leads IND application	Since October 2016
Ms. Huang Qing (黃青)	Chief Technology Officer	Leads end-to-end CMC development, including process development, optimization, and scale-up production; oversees CRO/CDMO selection, technology transfer, and outsourcing management	Since February 2025
Dr. Liu Yonghong (劉永紅)	Head of Oncolytic Immunotherapy R&D and Translational Medicine	Responsible for translational medicine initiatives, bridging product science with preclinical and clinical PK/PD study design; leads biomarker discovery	Since December 2021
Dr. Zhao Jing (趙晶)	Head of Exosome R&D	Leads the research and development of our engineered exosome candidates; responsible for establishing and advancing proprietary exosome technology platform	Since July 2021
Dr. Zhou Xusha (周旭莎)	Head of Bioanalysis	Responsible for the development, preliminary validation, and transfer of bioanalytical methods used in preclinical and clinical studies	Since July 2020

Identity	Position and/or Expertise	Involvement and Contributions	Employment Period
Dr. Wang Lei (王蕾)	Head of Quality Control	Responsible for managing product release testing; leads stability studies, analytical method validation and maintenance of the quality system.	Since July 2021
Mr. Dongyao Ni. .	Former Chief Development Officer	Responsible for IND-enabling studies for MVR-T3011	January 2016 to May 2022(1)
Dr. Joy Zhu	Former Chief Medical Officer	Responsible for overseeing overall clinical development strategy and management	September 2020 to December 2021(2)
Dr. Liu Xianjie . .	Former CMC Vice President	Responsible for the development of CMC processes	July 2016 to December 2023(3)

Notes:

(1) Mr. Dongyao Ni resigned in May 2022 as Chief Development Officer and ceased to serve as the director of the Company in June 2025 due to his personal career development considerations, as he would like to dedicate more time to his other work commitments. Given that (i) Mr. Ni's roles and responsibilities was only related to operational management of transitional medicine in relation to MVR-T3011 and MVR-C5252 at preclinical stage prior to May 2022 and was not involved in drug discovery, research and development of the Company's Core Product during the Track Record Period; (ii) Mr. Ni was no longer involved in the Group's research and development or responsible for the Group's daily business operation and management ever since May 2022; (iii) Mr. Ni is not the inventor of the patents or patents application relating to the Company's product candidates; and (iv) the business operation, management and R&D of the Group, since its inception, have been led by Dr. Zhou, our Directors reasonably believed that his departure would not have any material adverse impact on our product development or R&D capabilities. The Company further confirms that, as of the Latest Practicable Date, Mr. Ni has no disputes or disagreements with the Group and its Directors and senior management.

(2) Dr. Joy Zhu resigned in December 2021 as Chief Medical Officer due to her personal family obligations including caregiving for her close family members. Given that (i) Dr. Zhu's roles and responsibilities was only related to overseeing the overall clinical development strategy and management of the Company's clinical studies of MVR-T3011 prior to December 2021, which the clinical development regarding bladder cancer has yet to commence, and did not involve drug discovery, research and development of the Company's Core Product; (ii) the actual execution of clinical studies was carried out by dedicated teams and there is a clear division of responsibilities to ensure continuity and stable progress in product development despite her resignation; (iii) Dr. Zhu is not the inventor of the patents or patents application relating to the Company's product candidate; and (v) the business and R&D of the Group, since its inception, have been led by our founder, Dr. Zhou our Directors reasonably believed that her departure would not have any material adverse impact on our product development or R&D capabilities. The Company further confirms that, as of the Latest Practicable Date, Dr. Zhu has no disputes or disagreements with the Group and its Directors and senior management.

(3) Dr. Liu Xianjie resigned in December 2023 as CMC Vice President due to his personal family obligations. Given that Dr. Liu was primarily responsible for the development of CMC processes and such process development tasks are typically supported by a dedicated, cross-functional team that ensures continuity regardless of individual changes, our Directors reasonably believed that his departure would not have any material adverse impact on our product development or R&D capabilities. The Company further confirms that, as of the Latest Practicable Date, Dr. Liu has no disputes or disagreements with the Group and its Directors and senior management.

(4) Our Directors confirm that there had been no disputes, disagreements or claims between our Company and each of Mr. Ni, Dr. Zhu and Dr. Liu arising from their respective resignations as of the Latest Practicable Date.

In addition, our four other co-founders are all renowned industry experts, bringing deep expertise across a broad range of biomedical fields, including biological sciences, oncology, molecular biology, microbiology, medicine, and neurosurgery. Leveraging their contributed years of expertise and insight, we are committed in advancing our pipeline R&D, clinical development, and global collaborations.

We have established a comprehensive and systematic framework for R&D project management that spans the entire development lifecycle from early-stage research and project initiation to proof of concept, process development, preclinical studies, and clinical trials. This framework is designed to optimize resource allocation, accelerate timelines, and enhance the probability of success across our pipeline product candidates. Our in-house R&D team is further divided into several centers based on the different types of R&D activities performed, including preclinical R&D, clinical development, clinical medicine, and registration and translational sciences.

R&D Process

We have established a comprehensive in-house R&D system that outlines standardized procedures for all key aspects of the drug development process. Our R&D and QC laboratories specifically designed for the R&D of oncolytic immunotherapy candidates are all at Biological Safety Level 2 (BSL-2), enabling compliant and efficient execution of product development plans. Each laboratory plays a critical role in executing specific procedures within the broader R&D framework, ensuring a seamless and integrated approach from early discovery through clinical development.

Drug Discovery and Preclinical Development

Our drug discovery process begins with identification and validation of our oncolytic immunotherapy and engineered exosome pipelines, primarily including cell line and viral strain construction, monoclonal screening, preliminary mechanism-of-action studies and efficacy validation. Promising candidates then undergo preclinical evaluation to assess pharmacology, safety, and PK/PD through *in vitro* and animal studies, enabling us to make informed decisions

about advancing candidates and setting key development milestones. Our translational science team bridges the gap between preclinical research and clinical application, playing a key role in improving the success rates, time-efficiency and cost-effectiveness of our clinical trials.

Chemistry, Manufacturing and Controls (CMC)

We have established CMC capabilities spanning both oncolytic immunotherapy and engineered exosome platforms, both of which are complex and challenging modalities in biopharmaceutical manufacturing. Leveraging our years of expertise in both oncolytic immunotherapy and engineered exosome technologies, especially the identifications of key shared biological and structural characteristics between these two modalities, we have strategically established a proprietary unified production platform to accommodate and streamline the CMC process.

Key CMC Process

For the CMC technologies of oncolytic immunotherapy and engineered exosome candidates, we primarily focus on manufacturing process development, impurity profiling, process validation, and stability study. The following sets forth the key CMC process for our oncolytic immunotherapy and engineered exosome candidates:

- *Manufacturing process development.*

  - Bank construction. Our oncolytic immunotherapy candidates are developed based on both a cell bank and a virus seed bank, while engineered exosome candidates are supported by a cell bank. Each bank is designed with a three-tiered structure, comprising original, master, and working cell or virus stocks.

  - Production process. The production process for oncolytic immunotherapy candidates primarily involves cell culture with real-time biochemical parameter monitoring, followed by viral infection and virus harvesting. For engineered exosome candidates, we employ our innovative fixed-bed production technology, which supports scalable and consistent production by cultivating host cells on immobilized carriers within a fixed-bed bioreactor. For details, please see "— CMC Technologies."

  - Purification process. Both oncolytic immunotherapy and engineered exosome manufacturing processes incorporate high-throughput, high-yield purification techniques to ensure optimal production efficiency and product quality.

- Formulation processes. We have developed both frozen liquid and lyophilized formulations for oncolytic immunotherapy and engineered exosome candidates, tailored to meet varying clinical application and logistical requirements.

- *Impurity profiling and process validation.* Building on the manufacturing process, we establish quality standards and testing methods for different oncolytic immunotherapy and engineered exosome candidates to ensure product consistency, safety, and compliance with regulatory requirements throughout development and production.

- *Stability study.* Our CMC process includes a comprehensive evaluation of the stability of oncolytic immunotherapy and engineered exosome candidates, primarily assessed across several dimensions, including e.g., temperature, freeze-thaw and long-term storage conditions.

This integrated production platform enables a cost-efficient manufacturing approach, which not only maximizes the utilization of our equipment and operational infrastructure but also supports seamless process scale-up and enables manufacturing flexibility across multiple product classes. As a result, we can significantly enhance manufacturing efficiency, accelerate technology transfer and process development, and enhance the speed to clinical and commercial supply readiness.

CMC Technologies

Our innovative fixed-bed adherent cell culture technology plays a critical role in the cell expansion stage and is applicable to the production of both oncolytic immunotherapy and engineered exosome product candidates. By seeding cells onto fixed carriers within a fixed-bed bioreactor, we can efficiently scale up host cell expansion and generate high-quality cell harvests to support the downstream processing of oncolytic viruses and exosomes. The fixed-bed bioreactor production process enables high-frequency, large-scale manufacturing, providing robust support for our ongoing R&D efforts and laying a strong foundation for future commercialization. For example, in exosome production, a single 30-square-meter fixed bed can consistently yield approximately 1,000 liters of exosome-rich harvest per run, with a high harvest frequency of once every two to three days. This fixed-bed bioreactor platform enables high-frequency, large-scale manufacturing, providing robust support for our ongoing R&D activities and laying a solid foundation for future commercialization.

We have also made advances in lyophilization technology, which we have successfully applied to both our oncolytic immunotherapy and engineered exosome programs, providing us with a significant competitive advantage over other industry players. Conventional oncolytic immunotherapy products typically require storage at -80°C, posing logistical challenges related to

cold chain transportation and on-site thawing prior to use. In contrast, through our proprietary formulation innovation, we have developed lyophilized oncolytic immunotherapy and engineered exosome products that are stable at -20°C and 4°C, respectively, offering enhanced flexibility in product handling and distribution. Furthermore, our freeze-dried formulation for both oncolytic immunotherapy and engineered exosome products enables their stability at ambient temperature without requiring a cold chain, significantly improving their accessibility and ease of clinical use.

In addition, we are developing other CMC techniques, including serum-free suspension culture process for exosome production. By eliminating the reliance on adherent culture and serum-derived components, we believe this technique not only enhances scalability and process consistency, but also significantly reduces the risk of contamination and batch variability. We have successfully completed the initial proof-of-concept validation, demonstrating the technical feasibility of this approach. We expect to finalize key process parameters by the end of 2025.

Clinical Development

Our clinical development capabilities encompass comprehensive trial management and execution, including medicine, clinical operations, data statistics, pharmacovigilance (PV), and translational medicine professionals.

Our clinical trial management follows a systematic approach governed by standardized procedures. Following the receipt of IND approval, we initiate our clinical trial process in alignment with regulatory and operational requirements. The first step involves the selection and engagement of qualified CROs, followed by the identification and selection of appropriate clinical sites. Upon site selection, we work closely with principal investigators (PIs) to initiate the ethics review process. Concurrently, we establish our statistical and data management infrastructure to ensure high-quality and regulatory-compliant clinical data collection and analysis. According to the clinical protocol confirmed at the time of IND approval, we will then proceed with patient enrollment. In the event of any changes to the clinical protocol, manufacturing sites, or production process during the trial, we promptly notify and seek approval from the FDA and the CDE as required. Throughout the clinical development process, our PV, statistical, and medical teams remain actively involved to ensure the real-time monitoring and assessment of safety data, and our translational medicine professionals are dedicated to identifying potential biomarkers and evaluating the efficacy of our product candidates. All clinical trials are conducted in strict compliance with site-specific requirements and applicable regulatory guidelines of the FDA and the CDE.

Collaboration with CROs

In addition to our in-house R&D activities, we also collaborate with reputable CROs to manage, conduct, and support our preclinical research and clinical trials. The services they provide under our oversight include site management, patient recruitment, and PV for our clinical trials, as well as preclinical and clinical laboratory testing and other specialized tasks aligned with our needs. In 2023, 2024 and the nine months ended September 30, 2025, we collaborated with 47, 31 and 23 CROs, respectively. During the same periods, the costs attributable to CROs amounted to RMB53.5 million, RMB24.7 million and RMB10.6 million, respectively. The number of CROs we collaborated with decreased from 47 in 2023 to 31 in 2024, with costs attributable to CROs decreasing from RMB53.5 million to RMB24.7 million, primarily due to the completion of our intratumoral Phase I/IIa and U.S. intravenous Phase I clinical studies, which reduced the number of CRO engagements. The number of CROs decreased further from 31 in 2024 to 23 in the nine months ended September 30, 2025, with costs attributable to CROs decreasing from RMB24.7 million to RMB10.6 million during the same periods, primarily because we completed the early multi-tumor exploratory stage and narrowed clinical development to bladder cancer, and because our exosomes transitioned beyond preclinical development, reducing the need for preclinical CROs.

When selecting CRO partners, we consider a range of factors such as their professional qualifications, relevant research experience, service quality and efficiency, industry reputation, and pricing competitiveness. Depending on the specific services required, we enter into project-based service agreements with our CROs that outline the detailed scope of work, sample size, procedures, deliverables, timelines, and payment terms. Many CROs we collaborate with are among the leading and well-recognized players in the industry.

We maintain close supervision of our CRO partners to ensure their performance fully complies with our protocols and all applicable regulations. We hold regular meetings with CROs to keep track of project progress and execution details and conduct periodic audits on them. This rigorous oversight helps protect the integrity and authenticity of the data generated from our trials and studies.

Key terms of our agreements that we typically enter into with our CROs are set forth below:

- ***Services.*** The CROs shall provide high-quality services to us, including the implementation and management of a preclinical or clinical research project as specified in the agreement.

- ***Term.*** The CROs are required to perform their services and complete the clinical research project within the prescribed time limit set out in each agreement or work order, usually on a project basis.

- ***Payments.*** We are required to make payments to the CROs in accordance with the payment schedule agreed by the parties.

- ***Intellectual property rights.*** We own all intellectual property rights arising from the clinical research projects conducted by the CROs within the stipulated work scope.

- ***Confidentiality.*** Our CROs are not allowed to disclose confidential information, including but not limited to, any technical materials, research reports or trial data related to the project specified in the agreement. Such obligations generally survive for up to seven years, typically commencing from the effective date of the specific agreement.

- ***Risk allocation.*** Each party should indemnify the other party for losses caused by its fault or gross negligence.

COLLABORATION AGREEMENTS

License and Collaboration Agreement with SPH

On August 6, 2020, we entered into a license and collaboration agreement with Shanghai Pharmaceuticals Holding Co., Ltd. (上海醫藥集團股份有限公司, HKSE: 2607, SSE: 601607) ("**SPH**"), as amended on March 12, 2021 (the **"SPH Agreement**"), concerning the development, manufacture and commercialization of MVR-T3011, a novel HSV-1-based oncolytic immunotherapy candidate, as an intratumoral injectable for use as monotherapy or in combination therapy (the "**Licensed Product**") in mainland China, Hong Kong, Macau and Taiwan (the "**Greater China**") for indications determined by the JSC (as defined below), including sarcoma, breast cancer, HNSCC and melanoma. Our decision to partner with SPH was the result of a strategic evaluation to identify the optimal partner for the development and commercialization of MVR-T3011 in Greater China. SPH, an Independent Third Party to us, is a major Chinese pharmaceutical company that develops, manufactures, distributes, and retails pharmaceuticals and healthcare products. SPH has a proven track record in our specific field, having successfully developed and launched the first oncolytic virus therapy approved in China. We believe that partnering with SPH, given its extensive market presence and proven track record in bringing novel therapies to market, will significantly enhance the development and commercialization of MVR-T3011 in Greater China. The intratumoral MVR-T3011 had advanced into Phase I clinical stage at the effective date of the SPH Agreement.

Pursuant to the SPH Agreement, we granted SPH an exclusive, royalty-bearing and sublicensable license, under certain patents and know-how controlled by us (each "**Licensed Patents**" and "**Licensed Know-How**", collectively, the "**Licensed IP**"), to research, develop, manufacture and commercialize ("**Exploit**") the Licensed Product for intratumoral injection in Greater China. We also granted SPH a right of first offer for a license to Exploit the Licensed Product outside Greater China, as well as a right of first refusal to Exploit any intravenous oncolytic virus product in Greater China. We granted SPH a right of first offer for a license to Exploit the Licensed Product outside Greater China to further incentivize SPH to pursue development and commercialization of MVR-T3011 outside Greater China. We also granted SPH a right of first refusal for a license to Exploit any intravenous oncolytic virus product in Greater China to align our long-term interests in the development of MVR-T3011. Intravenous administration is intended to enable MVR-T3011 to address a broader range of major solid tumor indications, including lung, liver, and colorectal cancers, which represent a substantially larger commercial opportunity than the intratumoral administration currently being pursued for MVR-T3011 under the SPH Agreement. However, clinical development via the intravenous route remains novel and significantly more challenging. In this context, the right of first refusal setting provides SPH with a clear pathway to participate in the larger market opportunity, encouraging its long–term commitment and continued investment and allowing additional time to apply experience gained from the current intratumoral program to a more complex intravenous program. At the same time, the right of first refusal setting preserves our transactional flexibility because we may proceed with other third parties on substantially the same terms if SPH does not exercise its right within the agreed period. We believe this structure appropriately balances incentive alignment with strategic flexibility and supports our objective of building a pipeline of high-value therapies for major cancer markets. We currently have no plans to undertake any activities that would trigger either of the rights granted to SPH.

We and SPH have established a joint steering committee (the "**JSC**") comprised of six members with equal representation from each party to coordinate and oversee activities under the agreement from preclinical research, clinical trials, and regulatory filings through to marketing approval for the Licensed Product in Greater China; for the avoidance of doubt, such activities shall exclude any matters relating to Phase III clinical trials or commercial-scale manufacture of the Licensed Product, which will be determined solely by SPH. All decisions of the JSC shall be made by a majority vote of members from each party, or, if either party has fewer than two members present, by consensus of all attending members. If the JSC cannot reach an agreement, the matter may be referred to an external expert agreed upon by both parties. Should the parties fail to agree on an expert, remain deadlocked after consultation with the expert, or be unable to convene a valid meeting for lack of quorum, then SPH shall have final decision-making authority over the disputed matter. As of the Latest Practicable Date, we had not had any material dispute or unresolved disagreement with SPH in connection with the performance of the SPH Agreement.

We are responsible for the design and conduct of Phase I and II clinical trials of the Licensed Product in accordance with protocols approved by the JSC. The third-party trial costs for such Phase I and II clinical trials will be shared equally between the parties, subject to specified conditions. SPH is responsible for the design and conduct of Phase III clinical trials of the Licensed Product and will lead all related work at its cost.

SPH or its designated affiliate will be the sole marketing authorization holder for the Licensed Product in Greater China. SPH is primarily responsible for all regulatory activities and shall use commercially reasonable efforts to apply for marketing approval for the Licensed Product within a specified timeframe. We shall provide requisite assistance in securing such marketing approval. Upon request by SPH, we shall transfer the manufacturing technology for the Licensed Product to SPH or its designated affiliate and provide technical support and services necessary for SPH to independently manufacture the Licensed Product at commercial scale. After obtaining the marketing approval, SPH shall use commercially reasonable efforts to manufacture and commercialize the Licensed Product in Greater China.

In partial consideration of the SPH Agreement, we are eligible to receive an upfront payment of RMB20.0 million and, upon grant of patent rights for the Licensed Patents in mainland China, a patent license grant payment of RMB30.0 million from SPH. As of the Latest Practicable Date, we have received both payments totaling RMB50.0 million. We are also entitled to future milestone payments up to RMB1.1 billion upon the achievement of specified development and commercialization milestones. As of the Latest Practicable Date, no milestone payments had become due under this agreement. Following the commercial sale of the Licensed Product, SPH will also be obligated to pay us tiered royalties on net sales of the Licensed Product in Greater China on a calendar year basis, calculated as follows: (i) high single-digit percentage on net sales not exceeding RMB500 million in any calendar year; (ii) low double-digit percentage on net sales exceeding RMB500 million but not exceeding RMB1.0 billion in any calendar year; and (iii) low double-digit percentage on net sales exceeding RMB1.0 billion in any calendar year.

All clinical trial data, records, and information generated during clinical trials of the Licensed Product in Greater China, including those generated prior to the effective date of the SPH Agreement, being August 6, 2020, shall be owned by SPH; all trial data generated during the discovery, early research, and preclinical development stages of the Licensed Product shall be deemed to form part of the Licensed IP. Further, SPH will solely own any intellectual property rights relating to the Licensed Product conceived, created or otherwise discovered during the performance of this agreement. Notwithstanding the above, we (i) shall have the right to use all Phase I and Phase II clinical trial data, records, and information generated from clinical trials of the Licensed Product within Greater China for the purpose of conducting clinical trials outside

Greater China; and (ii) retain the rights to use, or authorize non-profit academic research institutions to use, the Licensed IP in Greater China solely for academic research, education, or other non-commercial purposes.

Unless terminated earlier, the SPH Agreement will remain in effect and shall expire upon the full performance of all obligations of each party under the SPH Agreement. Either party may terminate the agreement for the other party's uncured material breach or insolvency, or for lack of commercial viability. SPH has the right to unilaterally terminate the agreement for convenience, upon our change of control, or in the event that the Licensed Patents fail to obtain patent license from the competent regulatory authorities in Mainland China before April 30, 2021 or, after grant, are declared invalid or prematurely lapse due to our violation of law, willful misconduct or gross negligence, and the parties fail to reach agreement. The JSC may also terminate the agreement if the proof-of-concept trial fails to validate the concept or meet expected endpoints, or if current technical difficulties cause preclinical and/or clinical studies of the Licensed Product to fall short of expected efficacy or safety. Any disputes arising out of or in connection with the SPH Agreement that cannot be resolved through negotiation may be submitted to the local court where the other party is domiciled.

While we will develop and commercialize MVR-T3011 for intravesical administration and SPH holds the exclusive rights to develop and commercialize MVR-T3011 for intratumoral administration in Greater China, potential competition may arise in certain indications such as bladder cancer. However, the risk of such competition is mitigated by our distinct advantages in scientific approach, development timeline, and strategic focus. For instance, our development of MVR-T3011 for NMIBC is based on intravesical administration and is supported by systemic pharmacology, toxicology, pharmacokinetic/pharmacodynamic, and biodistribution assessments generated in clinical studies through both intratumoral and intravenous administrations. Additionally, the safety, tolerability, and RP2D data from our intravenous administration studies can support all other routes of administration, including intravesical administration for bladder cancer, whereas SPH lacks intravenous data to support a similar development approach. In contrast, SPH does not have any rights to develop or commercialize MVR-T3011 for intravesical administration and its development experience with MVR-T3011 has been focused on intratumoral use in solid tumors such as melanoma, rather than on intravesical indications. We believe it therefore lacks the critical scientific and clinical foundation necessary to independently expand MVR-T3011 into an intravesical program. Building on this differentiated expertise, we have established a significant lead in MVR-T3011's development for bladder cancer and other tumors beyond superficial disease, having exploring and investigating MVR-T3011 monotherapy administered intravesically in patients with high-risk, BCG-unresponsive NMIBC to a Phase II clinical trial in the U.S. and received IND approval from the NMPA in China. We plan to complete the patient enrollment for this Phase II clinical trial by the end of 2026 and expect to initiate Phase III clinical trial in mid-2027. Furthermore, we plan to expand MVR-T3011 for NMIBC in global

markets, with our primary commercial drivers in the U.S. and European markets, whereas SPH's rights are contractually limited to the Greater China. Collectively, these factors provide us with distinct advantages in the development of MVR-T3011 via intravesical administration. As such, we believe the potential competition between SPH and us is remote and minimal.

Following the out-licensing of the in-licensed rights of MVR-T3011 for intratumoral administration in China to SPH, the clinical development of MVR-T3011 for intratumoral administration in China has been sponsored by SPH, where we primarily act as a collaboration partner. Since then and up to the Latest Practicable Date, a Phase II trial of MVR-T3011 in combination with PD-1/PD-L1 inhibitors for the treatment of advanced solid tumors and a Phase II trial of MVR-T3011 for the treatment of melanoma have been ongoing, both of which have completed patient enrollment and have entered the data analysis stage.

Collaborative Research Agreement with Duke

On May 9, 2023, we entered into a collaborative research agreement (the "**Duke Agreement**") with Duke University acting for and on behalf of its School of Medicine ("**Duke**") for a Phase I trial sponsored by Duke in respect of MVR-C5252 monotherapy in patients with recurrent high-grade glioma in the U.S. (the "**Study**"). Particularly, in this Study, MVR-C5252 is delivered intracranially via convection-enhanced delivery. Compared to commonly used Ommaya reservoir, this approach can provide slow and sustained positive pressure to the target brain area via an implanted catheter to ensure even drug distribution, enabling multiple dosing while bypassing the blood-brain barrier. Duke, an Independent Third Party to us, is one of the leading institutions for health professions and biomedical education, clinical care, biomedical research, and community partnership in the U.S. We identified Duke through our strategic search for a top-tier partner with a proven track record in brain tumor research, particularly in the fields of neuro-oncology and oncolytic virus therapies, where both the institution and the principal investigator, Dr. Mustafa Khasraw, have deep and extensive experience. The collaboration is designed to create significant synergies by pairing our novel product candidate, MVR-C5252, with Duke's world-renowned clinical expertise and translational research capabilities. This is underscored by Duke's pioneering work in the field, including the development of an oncolytic poliovirus therapy for brain tumors that has already received Breakthrough Therapy Designation from the FDA. Following scientific and strategic discussions, we concluded this partnership provides the optimal path to advance the clinical development of MVR-C5252 for patients with recurrent high-grade glioma.

Under the Duke Agreement, Duke will take the lead in the conduct of the Study pursuant to a detailed protocol set forth in the Duke Agreement. Duke is responsible for obtaining all necessary regulatory and ethical approvals, conducting the study, and managing all aspects of data collection and reporting. We will be responsible for the supply of MVR-C5252 in sufficient quantity for use

in the Study. In consideration of the performance of this Duke Agreement, we are obligated to provide funding for the Study in accordance with the specified budget and payment schedule under the Duke Agreement. The fees include a study startup fee, per-patient payments paid per invoices submitted in accordance with a payment schedule, and other fees related to the Study. Invoices will be submitted by Duke to us monthly for subject enrollment. We will make payment to Duke within 30 days upon receipt of the invoice. To date, payments of approximately US$0.6 million have been made under the Duke Agreement. Duke shall be the sole and exclusive owner of all Study records, results and data and will deliver to us a final Study report. We are entitled to use the information in such final Study report for research and development of MVR-C5252 and regulatory filings at no additional charge in a manner that will not prevent Duke from exercising its rights hereunder regarding publications or intellectual property. This arrangement allows us to benefit from Duke's clinical and translational research strengths while retaining the ability to utilize all relevant Study data for the further research and development of MVR-C5252.

Each party remains the sole owner of their respective background intellectual property rights, and for the avoidance of doubt, nothing in Duke Agreement shall affect our existing global, fully exclusive rights to MVR-C5252. Any new inventions resulting from the Study (the "**Inventions**") under the Duke Agreement will be solely owned by each party if created solely by such party, or jointly owned if created jointly by both parties. Under the Duke Agreement, Duke is required to promptly disclose in writing to us any Inventions resulting from the Study. We are granted an option to negotiate an exclusive, worldwide, royalty-bearing license to Duke's rights to any such Invention solely created by Duke within 180 days after our receipt of an Invention disclosure from Duke. Upon our exercise of the option, both parties are obligated to promptly negotiate a license agreement in good faith. As such, we believe the arrangement does not adversely affect our ability to access Inventions, or to pursue subsequent development and commercialization of MVR-C5252 as the expected market authorized holder for MVR-C5252.

The Study shall be conducted according to the protocol under the Duke Agreement, and no changes in the protocol shall be made unless agreed upon by Duke, the principal investigator as specified in the Duke Agreement, and us, or unless necessary to protect the safety, rights, or welfare of the Study subjects. Either party may terminate the Duke Agreement for the other party's uncured material breach or default. Duke may unilaterally terminate the Duke Agreement if it becomes unable to perform or complete the Study with prior written notice. We may also unilaterally terminate the Duke Agreement, with prior written notice, if the designated principal investigator is unable or unwilling to complete the Study and the parties cannot agree upon a successor. Unless terminated earlier, the Duke Agreement will continue in effect until completion of the Study protocol. We have not established a joint steering committee or deadlock mechanism in the collaboration with Duke as we retain control over MVR-C5252 in all material aspects, and the IIT collaboration with Duke do not affect such control. Specifically, (i) we independently discovered and developed MVR-C5252, led the overall clinical development strategy for

MVR-C5252, and hold all patent and commercial rights to MVR-C5252 globally except for those subject to out-licensing collaborations; (ii) we are entitled to use the information in the final Study report provided by Duke in the research and development of MVR-C5252, as well as the data and results in the final Study report for regulatory filings without any charge by Duke; and (iii) we retain sole decision-making authority over our use of such information in our research and development, and regulatory filings for MVR-C5252. For details, see "Business — Oncolytic Immunotherapy Candidates — MVR-C5252 — License, Rights and Obligations." As of the Latest Practicable Date, we had not had any material dispute or unresolved disagreement with Duke in connection with the performance of the Duke Agreement.

License, Option and Supply Agreement With Merz North America, Inc.

On January 8, 2025 (the "**Effective Date**"), we, through our affiliates, entered into a license, option and supply agreement with Merz North America, Inc. ("**Merz**") (as amended and restated, the "**Merz Agreement**"), with respect to the development, manufacture and commercialization of MVR-EX103 and any product using, containing, or comprising this engineered exosome (the "**Licensed Exosome**") for potential topical skincare and cosmetic use and/or topical medical aesthetic use but excluding any injectable, oral, or device-based application (the "**Field**") in the United States and Canada (the "**Territory**"). Merz, an Independent Third Party to us, is a company within Merz Aesthetics, which is the world's largest dedicated medical aesthetics business, with a diversified portfolio spanning injectables, devices, and skin care treatments. We have decided to partner with Merz, a recognized industry leader for aesthetics, to launch our first overseas pilot project for our exosome products. Merz was chosen as our partner for its established commercial capabilities, regulatory expertise and proven track record, which we believe are crucial for accelerating the development of our exosome products. MVR-EX103, an engineered exosome designed for the treatment of superficial skin depressions, completed its product development at the Effective Date and subsequently received the INCI designation in April 2025.

Pursuant to the Merz Agreement, we granted Merz an exclusive, royalty-bearing, sublicensable and transferrable license, under any and all know-how and patents controlled by us (the "**Licensed Technology**"), to develop, manufacture and commercialize the Licensed Exosome in the Field in the Territory during an initial license period of up to 18 months, commencing from the Effective Date. Merz was also granted an option right (the "**Option Right**"), upon the exercise of which, Merz shall retain this license on substantially identical terms for the remainder of the agreement term. As of the Latest Practicable Date, Merz had not exercised the Option Right under the Merz Agreement. We also granted Merz a 30-day right of first refusal, effective upon delivery or deemed delivery of the notice to exercise the Option Right, in the event that we receive a bona fide third-party offer to license or otherwise grant rights relating to the exploitation of MVR-EX103 in the Field outside the Territory and China. In addition, Merz has the right to grant

sublicenses to its affiliates and third-party contract manufacturers or R&D partners, provided that such sublicensees are bound by confidentiality and other obligations consistent with the Merz Agreement, and Merz remains responsible for their compliance.

We are obligated to exclusively supply Merz with MVR-EX103 and mock exosomes in accordance with the specifications and prices set forth in the agreement, and subject to binding purchase orders placed by Merz, for the development of the Licensed Exosome in the Field in the Territory from the Effective Date until the first commercial sale of any Licensed Exosome in the Territory (the "**First Commercial Sale**"), or such longer period as mutually agreed. Upon Merz's notice of intent to commercialize the Licensed Exosome in the Territory, the parties will negotiate in good faith to enter into a separate commercial supply agreement for the manufacture and commercialization of the Licensed Exosome.

Merz has the exclusive right and sole decision-making authority, at its own cost and expense, to conduct all development, manufacture and commercialization of the Licensed Exosome in the Field in the Territory. Upon the First Commercial Sale, Merz may, at its option, request manufacturing technology transfer from us to Merz or its designees, with the reasonable associated costs borne by Merz and on terms of a separate manufacturing technology transfer agreement to be negotiated in good faith between the parties. Merz also has the exclusive rights and the decision-making authority for all regulatory matters for the Licensed Exosome in the Field in the Territory. We shall provide necessary support in obtaining regulatory approvals for the Licensed Exosome in the Territory at the request of Merz.

In partial consideration of the Merz Agreement, we are eligible to receive a one-time, non-creditable, non-refundable upfront payment of US$111 thousand. Upon exercise of the Option Right, Merz is obligated to pay us an additional one-time, non-creditable, and non-refundable upfront payment of US$446 thousand. Thereafter, Merz is obligated to pay us non-refundable royalties on a quarterly basis at a mid-single-digit percentage of the net sales of any product formulated, manufactured and/or distributed by Merz and/or any of its affiliates that use, contain, or comprise the Licensed Exosome (the "**Product**") sold by Merz, its affiliates or sublicensees in the Territory. As of the Latest Practicable Date, we had received the initial upfront payment of US$111 thousand from Merz. All payments are subject to applicable withholding taxes, and Merz will apply reasonable efforts to secure reduced withholding tax rates under any relevant income tax treaty, and we will provide the necessary documentation.

As between the parties, each party remains the sole owner of its respective background intellectual property rights (the "**Background IP**"). Each party remains the sole owner of all know-how and patents that claim or disclose such know-how invented solely by or on behalf of such party during the performance of the Merz Agreement (the "**Foreground Know-How**" and "**Foreground Patents**," respectively, the "**Foreground Technology**" collectively); notwithstanding

the foregoing, Merz shall solely own all Foreground Technology relating to the formulation of any Product and such ownership shall exclude the Licensed Exosome itself and any modifications, derivatives or alterations in the structure, composition or function thereof invented solely by or on behalf of us.

The parties will jointly own all know-how and patents invented jointly by both parties under the Merz Agreement (the "**Joint Foreground Know-How**" and the "**Joint Foreground Patents**," respectively, the "**Joint Foreground Technology**" collectively). Subject to the terms and conditions of the Merz Agreement, each party will have the right to exploit or to grant non-exclusive licenses under such Joint Foreground Technology without an accounting or obligation to, or consent required from, the other party. For clarity, our interest in any Joint Foreground Technology shall automatically become part of the Licensed Technology and be included in the license granted to Merz under the Merz Agreement without any additional consideration. As between the parties, Merz shall have the right to decide, in good faith, whether to file and/or prosecute any Joint Foreground Patents claiming or disclosing any Joint Foreground Know-How, and to control the preparation, filing, prosecution (including any interferences, oppositions, *inter partes* review, post-grant reissue proceedings and re-examinations) and maintenance of any Joint Foreground Patents in any jurisdiction around the world at its own cost and expense.

The Merz Agreement remains in effect until the tenth anniversary of the later of the First Commercial Sale in the Territory or the exercise of the Option Right, terminable by either party for the other's uncured material breach or insolvency, or automatically if Merz fails to exercise the Option Right. Either party may terminate this agreement for the other party's uncured material breach or insolvency. Merz has the right to unilaterally terminate this agreement for safety issues related to the Licensed Exosome or regulatory reasons related to the Licensed Technology and/or the Licensed Exosome, upon written notice to us. Upon termination, all licenses terminate, and Merz must cease all related activities, though it may sell off existing inventory for 180 days. Each party's indemnification liabilities are capped at an amount agreed by both parties, and liability for indirect damages is excluded except in cases of fraud, willful misconduct, gross negligence, breach of confidentiality or intellectual property obligations, or third-party claims subject to indemnification.

As of the date of this submission, we have not had any material disputes with Merz in connection with the performance of the Merz Agreement.

MANUFACTURING

During the Track Record Period and up to the Latest Practicable Date, most of the manufacturing activities for our product candidates were carried out through CDMO partners. For different pipeline product candidates, we maintain a targeted and diversified manufacturing strategy.

Specifically, for the manufacturing of our oncolytic immunotherapy candidates, we have built up a long collaboration history with OBiO as our CDMO partner to support both ongoing clinical supply and future commercial-scale production, to which we have authorized to utilize our proprietary manufacturing technology for the production of our products. Furthermore, in connection with the out-licensing of our intratumoral MVR-T3011 to SPH in Greater China, its manufacturing process remains based entirely on our internally developed manufacturing technology, ensuring consistent product quality and performance.

For our engineered exosome product candidates, we manufacture all trial-use engineered exosomes at pilot-scale through our in-house manufacturing capabilities and plan to gradually commence commercial-scale manufacturing process in our GMP-compliant commercial-scale manufacturing facility in Suzhou. This approach enables us to maintain flexibility and focus resources on product development, while ensuring scalable, quality-controlled manufacturing.

Established Manufacturing Capabilities

We have established a GMP-compliant production facility in Suzhou, which spans approximately 4,800 square meters and includes both a pilot-scale suite and a dedicated GMP production suite. We intend to independently produce all of our engineered exosomes in this production facility.

The pilot-scale suite primarily serves for the production for IND samples and early-stage trial materials. Leveraging a 30-square-meter fixed-bed bioreactor system, the pilot-scale suite is capable of supporting up to 24 production batches per year, with a yield of $1*10^{16}$ particles per batch. The designed annual output of 24 production batches is projected to fulfill the requirements for an entire Phase II trial and Phase III trial of our engineered exosome candidates. With a focus on supporting the production for commercialization, the GMP suite is designed to accommodate a 1,000 L suspension bioreactor process. The GMP suite is also expected to support 24 production batches annually, with a yield of $6*10^{18}$ particles per batch. The annual output is projected to fulfill the requirements for future commercialization of our engineered exosome candidates.

We believe our manufacturing facility will be sufficient to meet the projected commercial-scale production requirements for our engineered exosome product candidates. We are committed to strictly carrying out maintenance and repair work in compliance with applicable requirements and replacing or upgrading our production equipment when necessary to enhance productivity. As of the Latest Practicable Date, we have finalized the equipment validation of our production facility. The design, construction and verification of our manufacturing facility and equipment all strictly comply with and meet relevant requirements of cGMP.

Collaboration with CDMOs

During the Track Record Period and up to the Latest Practicable Date, we had worked with multiple industry-leading CDMOs, including OBiO, to manufacture and test product candidates for clinical supply. We select CDMOs by taking into account a number of factors, such as their manufacturing capacity and qualifications, relevant expertise, reputation, GMP track record, product quality and production cost, applicable regulations and guidelines, as well as our R&D objectives. We have adopted, and will continue to implement, procedures to ensure that the production qualifications, facilities and processes of our CDMOs comply with the applicable regulatory requirements and our internal guidelines and quality standards. For more information, please see "— Quality Management" in this section.

In 2023, 2024 and the nine months ended September 30, 2025, we collaborated with two, four and three CDMOs, respectively. During the same periods, the costs attributable to CDMOs amounted to RMB28.4 million, RMB15.6 million and RMB4.1 million, respectively. The number of CDMOs increased from two in 2023 to four in 2024, with costs attributable to CDMOs decreasing from RMB28.4 million in 2023 to RMB15.6 million in 2024, mainly driven by the launch of a new exosome manufacturing process-development program and entered into additional CDMO engagements for its execution. The number of CDMOs we collaborated with decreased from four in 2024 to three in the nine months ended September 30, 2025, with costs attributable to CDMOs decreasing from RMB15.6 million to RMB4.1 million during the same periods, primarily because our exosome GMP facility came into operation, which enabled in-house manufacturing of exosomes, and accordingly, we ceased outsourcing exosome process development.

Key terms of the agreements that we typically enter into with our CDMOs are set forth below.

- ***Services.*** The CDMOs provide us with manufacturing services according to the types of deliverables, location, unit price, volume and requested delivery date specified in the agreement.

- ***Quality control.*** The CDMOs are obliged to ensure that the quality of products meet the quality standards set out in the agreement and requirements of cGMP and other regulations.

- ***Payments.*** We are required to make payments to the CDMOs in accordance with the payment schedule set forth in the agreement, which is typically linked to the stages of the manufacturing process and the deliverables we receive.

- ***Intellectual property rights.*** We own all product-related intellectual property rights arising from the outsourced manufacturing processes.

- ***Confidentiality.*** Our CDMOs are not allowed to disclose confidential information, including but not limited to, any commercial secrets, technical materials, or trial data related to the project as specified in the agreement, and such obligation generally survive for three to five years.

- ***Remedies for non-conforming products.*** If the CDMOs fail to deliver products or comply with substantial obligations due to their own reasons under the relevant agreement, we are entitled to terminate the agreement and request for liquidated damages and compensation for losses due to the failure according to the agreement.

We expect that the manufacturing capacity of our facility as well as our cooperation with qualified CDMOs can provide sufficient supply for our clinical trials and meet the future commercial sales demands of our product candidates.

We have built up a long collaboration history of six years with OBiO as our CDMO partner to support both ongoing clinical supply and future commercial-scale production. We have authorized OBiO to utilize our proprietary CMC technology for the production of our oncolytic product candidates in China, and we are currently one of its largest customers by revenue, underscoring the scale and maturity of our manufacturing program. During the Track Record Period, OBiO is our exclusive CDMO engaged for manufacturing our oncolytic immunotherapy candidates in China. Notwithstanding this exclusivity, we do not rely on OBiO for the manufacturing of our product candidates, including the Core Product, primarily because we retain ownership and control of the critical manufacturing inputs, namely our qualified virus seed and proprietary CMC know-how. OBiO's role is to manufacture in accordance with our technology. Since we can transfer the virus seed and the related CMC package to other qualified CDMOs, our production can be maintained without dependence on OBiO.

Key terms of our agreements that we entered into with OBiO are set forth below, which are in line with the industry norm, according to Frost & Sullivan:

- ***Services.*** OBiO provides process development services as specified in the agreement and applicable work orders, including process design and optimization, scale-up and validation runs, analytical and assay development and qualification, documentation and reporting, and related technical support.

- ***Term.*** OBiO performs the services within the project timelines set out in the agreement and/or work order, on a project-by-project basis, until completion or earlier termination in accordance with the agreement.

- ***Fees and Payments.*** We are required to make payments to OBiO according to the agreed payment schedule, such as milestones or time-and-materials, as stipulated in the agreement and/or work order.

- ***Intellectual Property.*** We own all intellectual property and results and data generated by OBiO within the agreed scope and for our projects.

- ***Confidentiality.*** OBiO must keep our confidential information, including technical materials, protocols, data, and reports, confidential and may use it only to perform the services. Confidentiality obligations survive for the period specified in the agreement.

- ***Indemnity and Liability.*** Each party is responsible for losses to the extent caused by its breach, fault, or gross negligence, subject to any agreed liability caps and exclusions in the agreement.

- ***Termination.*** Either party may terminate for material breach (after applicable cure period) or for convenience upon prior written notice, with payment due for services performed and non-cancellable costs incurred up to the effective date of termination.

QUALITY MANAGEMENT

We endeavor to ensure the quality of our operations through a comprehensive quality management system that spans all key stages of our R&D and manufacturing processes, which conform to applicable national regulations and industry guidelines, including the GMP standards adopted by the NMPA, the FDA, and related ICH guidelines. We closely monitor evolving cGMP standards and regulatory developments in these markets, continuously updating our internal procedures to adhere to the highest international standards in patient safety and regulatory compliance.

Our dedicated quality management team is committed to ensuring the quality systems cover all key stages of product development, from R&D and manufacturing to commercialization. All team members possess the work experience and knowledge background that match their positions, and the necessary qualifications that meet the requirements of our quality management activities.

We have established comprehensive quality control and assurance procedures to ensure compliance with relevant regulatory requirements and our internal quality standards. This covers management responsibilities, quality audits, documentation and records, laboratory control, supply chain quality, manufacturing and process control, product development and lifecycle management, validation and verification, among other things. In addition, we regularly assess our quality management system in accordance with the most stringent standards, in line with the evolving international and domestic regulatory framework. We are committed to continuously optimizing and improving our quality management system to ensure patient safety and regulatory compliance.

COMMERCIALIZATION

We currently have no drug products approved or commercialized under the clinical regulatory pathway. However, we have been strategically developing our commercial planning and portfolio management capabilities since our pipeline product candidates entered the later stages of clinical trials or received INCI name. For different pipeline product candidates, we maintain a targeted and diversified commercialization strategy.

- ***Oncolytic Immunotherapy Candidates***. We adhere to an asset-light model in devising our commercialization strategies, which we believe has afforded us significant advantages in terms of economic viability and operational efficiency. Specifically, instead of expending extensive resources on establishing a dedicated sales and marketing team, we will primarily focus on cultivating value-accretive partnerships with leading industry players, leveraging their established distribution channels, robust sales and marketing capabilities, capital resources and market intelligence and insights to achieve fast market access for our products across large indications and international markets in a cost-effective way. As we bring our oncolytic immunotherapy candidates into clinical stage and towards commercialization, we will continue to explore global and local collaboration and out-licensing opportunities with major players in the industry.

- ***Engineered Exosome Candidates.*** For our engineered exosome candidates developed as drug products, we plan to explore various collaborative commercialization pathways, including out-licensing, co-development, newco formation, and contract sales. These collaborations will be pursued at appropriate stages of clinical development, based on an assessment of the therapeutic area's priority, competitive landscape, efficacy results, commercial viability, and market potential. For our exosome candidates intended as functional aesthetics ingredients, our near-term commercialization strategy focuses on the upstream supply of raw materials through out-licensing or ingredient supply partnerships with international brand owners and distribution channels. We will also implement brand protection strategies and develop a proprietary ecosystem around our core ingredients, paving the way for building our own brand and directly entering the terminal market.

In determining the pricing strategy for our Core Product, we take into account multiple factors including clinical value, cost-effectiveness, market competition, patient accessibility, and the specific characteristics of each indication. We intend to adopt a value-based pricing model supported by combination therapy strategies and market access collaborations, aiming to balance commercial returns with our commitment to providing treatment options for patients.

SUPPLIERS AND PROCUREMENT

During the Track Record Period, our suppliers primarily included reputable CDMOs, CROs, research and medical institutions, as well as providers of raw materials, consumables and equipment. We have maintained stable business relationships with our major suppliers. During the Track Record Period and up to the Latest Practicable Date, we did not experience any material disputes with our suppliers, difficulties in the procurement of raw materials or services, disruptions to our operations due to a shortage of or delay in supply of raw materials or services, or significant fluctuations in raw material and/or service prices.

We typically settle payments with CDMO and CRO service providers, as well as clinical partners, through milestone-based payment terms, as defined in our contractual agreements. For CROs, milestones are generally tied to site activation, dosing progress, and subject enrollment. CDMO milestones are primarily associated with sample preparation, batch manufacturing, testing, and release. For clinical partners, milestone payments are linked to enrollment timelines, pathology report submissions, and Case Report Form delivery. On the contrary, suppliers of consumables and fixed assets generally offer us a standard credit terms, which typically ranges from 30 to 45 days.

For the years ended December 31, 2023 and 2024 and the nine months ended September 30, 2025, our purchases from our five largest suppliers in each year/period in aggregate accounted for 64.4%, 58.3% and 56.3% of our total purchases for the respective period. Our purchases from our largest supplier in each year/period accounted for 26.1%, 28.4% and 21.7% of our total purchases for the respective period. The following table summarizes information about our five largest suppliers and our purchases from them during each year/period of the Track Record Period:

For the nine months ended September 30, 2025

Supplier	Commencement of business relationship	Background	Major purchases	Purchase amount	Percentage of total purchase
				(RMB in thousands)	*(%)*
Supplier A	2025	A U.S.-based company, primarily focusing on providing clinical research services including clinical operation, regulatory affairs and quality assurance services	Clinical CRO services related to MVR-T3011	5,780	21.7
OBiO Technology (Shanghai) Corp. Ltd. (和元生物技術(上海)股份有限公司)	2019	A comprehensive CRO and CDMO service provider in China listed on the Shanghai Stock Exchange (688238.SH)	Clinical CDMO services related to MVR-T3011	4,164	15.7
Duke University	2023	A leading private research university in Durham, North Carolina, U.S.	Clinical partner related to MVR-C5252	1,879	7.1
Supplier B	2018	A limited liability company headquartered in Shenzhen, Guangdong, primarily focusing on providing raw materials and consumables for biologics	Consumables and fixed assets related to engineered exosome	1,651	6.2
Supplier C	2025	A limited liability company headquartered in Tianjin, primarily focusing on providing subject enrollment and data auditing services	Subject enrollment and data auditing services	1,500	5.6
Total				**14,974**	**56.3**

For the year ended December 31, 2024

Supplier	Commencement of business relationship	Background	Major purchases	Purchase amount	Percentage of total purchase
				(RMB in thousands)	*(%)*
Supplier D	2017	A limited liability company headquartered in Hangzhou, Zhejiang, which is listed on the Stock Exchange and the Shenzhen Stock Exchange, primarily focusing on providing comprehensive CRO services	Clinical CRO services related to MVR-T3011	20,594	28.4
OBiO Technology (Shanghai) Corp. Ltd. (和元生物技術(上海)股份有限公司)	2019	A comprehensive CRO and CDMO service provider in China listed on the Shanghai Stock Exchange (688238.SH)	Clinical CDMO services related to MVR-T3011	12,164	16.8
Supplier E	2020	A limited liability company headquartered in Shanghai, primarily focusing on providing technical services and distributing medical equipment and life sciences products	Consumables related to engineered exosome	3,668	5.1
Duke University	2023	A leading private research university in Durham, North Carolina, U.S.	Clinical partner related to MVR-C5252	2,947	4.1
Supplier F	2024	A limited liability company headquartered in Hangzhou, Zhejiang, primarily focusing on providing CDMO services	Clinical CDMO services related to engineered exosome and MVR-T3011	2,856	3.9
Total				**42,229**	**58.3**

For the year ended December 31, 2023

Supplier	Commencement of business relationship	Background	Major purchases	Purchase amount	Percentage of total purchase
				(RMB in thousands)	*(%)*
Supplier D.	2017	A limited liability company headquartered in Hangzhou, Zhejiang, which is listed on the Stock Exchange and the Shenzhen Stock Exchange, primarily focusing on providing comprehensive CRO services	Clinical CRO services related to MVR-T3011	29,204	26.1
OBiO Technology (Shanghai) Corp. Ltd. (和元生物技術(上海)股份有限公司). . .	2019	A comprehensive CRO and CDMO service provider in China listed on the Shanghai Stock Exchange (688238.SH)	Clinical CDMO services related to MVR-T3011	28,112	25.1
Supplier G.	2020	A limited liability company headquartered in Beijing, primarily focusing on providing CRO services	Clinical CRO services related to MVR-T3011	6,709	6.0
Supplier H.	2020	A U.S.-based company, primarily focusing on providing full-service clinical development and consulting services	Clinical CRO services related to MVR-T3011	4,677	4.2
Supplier I	2019	A limited liability company headquartered in Shenzhen, Guangdong, primarily focusing on providing pharmaceutical equipment and consumables	Consumables and fixed assets related to oncolytic immunotherapy and engineered exosome	3,295	3.0
Total.				**71,997**	**64.4**

To monitor the quality of supplies, we implement rigorous supplier qualification and selection standards. We verify the qualifications, licenses and permits of our suppliers each time before entering into procurement agreements. For suppliers of raw materials and key equipment, we also conduct rigorous audits prior to procurement. We maintain a list of qualified key suppliers, which is subject to regular review and update.

To the best of our knowledge, (i) all of our five largest suppliers for each period during the Track Record Period are Independent Third Parties, and (ii) none of our Directors, their respective associates or any shareholder who owned more than 5% of our issued share capital as of the Latest Practicable Date has any interest in any of our five largest suppliers for each period during the Track Record Period.

CUSTOMERS

During the Track Record Period, our revenue was derived from out-licensing and collaboration arrangements with respective partners. For further details, please refer to "Financial Information — Description of Selected Components of the Consolidated Statements of Profit or Loss and Other Comprehensive Income or Loss — Revenue." For the years ended December 31, 2023 and 2024 and the nine months ended September 30, 2025, we had one, one and two customers, respectively. The following table summarizes information about our customers and our revenue from them during each period of the Track Record Period:

For the nine months ended September 30, 2025

Customer	Commencement of business relationship	Background	Products/Services purchased	Payment terms	Revenue contribution	Percentage of total revenue
					(RMB in thousands)	*(%)*
Merz North America, Inc. .	2025	A global specialty healthcare company dedicated to the development and marketing of products for physicians and patients	Licenses of engineered exosome technology; supply of licensed exosome as ingredients	60 days	837	64.1

Customer	Commencement of business relationship	Background	Products/Services purchased	Payment terms	Revenue contribution	Percentage of total revenue
					(RMB in thousands)	*(%)*
Shanghai Pharmaceuticals Holding Co., Ltd. (上海醫藥集團股份有限公司).	2020	A vertically-integrated and diversified pharmaceutical group in China listed on the Stock Exchange and the Shanghai Stock Exchange (2067.HK; 601607.SH)	License and collaboration	30 days	468	35.9
Total					**1,305**	**100.0**

For the year ended December 31, 2024

Customer	Commencement of business relationship	Background	Products/Services purchased	Payment terms	Revenue contribution	Percentage of total revenue
					(RMB in thousands)	*(%)*
Shanghai Pharmaceuticals Holding Co., Ltd. (上海醫藥集團股份有限公司).	2020	A vertically-integrated and diversified pharmaceutical group in China listed on the Stock Exchange and the Shanghai Stock Exchange (2067.HK; 601607.SH)	License and collaboration	30 days	3,200	100.0
Total					**3,200**	**100.0**

For the year ended December 31, 2023

Customer	Commencement of business relationship	Background	Products/Services purchased	Payment terms	Revenue contribution	Percentage of total revenue
					(RMB in thousands)	*(%)*
Shanghai Pharmaceuticals Holding Co., Ltd. (上海醫藥集團股份有限公司).	2020	A vertically-integrated and diversified pharmaceutical group in China listed on the Stock Exchange and the Shanghai Stock Exchange (2067.HK; 601607.SH)	License and collaboration	30 days	6,772	100.0
Total					**6,772**	**100.0**

To the best of our knowledge, (i) all of our customers for each period during the Track Record Period are Independent Third Parties, and (ii) none of our Directors, their respective associates or any shareholder who owned more than 5% of our issued share capital as of the Latest Practicable Date has any interest in any of our customers for each period during the Track Record Period.

COMPETITION

The markets for oncolytic immunotherapy and engineered exosomes are evolving and highly competitive. While we are confident that our research and development capabilities allow us to establish a favorable position in the industry, we face competition from both international and domestic biopharmaceutical companies, as well as specialty pharmaceutical and biotechnology companies of varying sizes, along with academic and research institutions. For more detailed insights into the competitive landscape of our product candidates, please refer to the sections headed "Industry Overview" and "— Our Product Portfolio."

We believe that the primary competitive factors in our markets include efficacy and safety of product candidates, manufacturing efficiency, and commercialization development. We anticipate that competition will intensify in the future as additional players enter these segments. Any product candidate successfully developed and commercialized by us will compete with existing products or any new products that may emerge in the future. For insights into the potential impact of market competition, please see "Risk Factors — Risks Relating to the Research and

Development of Our Product Candidates — We face intense competition and our competitors may discover, develop or commercialize competing products faster or more successfully than we do, which may adversely affect our ability to successfully commercialize our product candidates."

INTELLECTUAL PROPERTY

Intellectual property rights are crucial to our business success. We rely on a combination of patent and other intellectual property rights, as well as confidentiality procedures, non-disclosure agreements, employee non-disclosure and invention assignment agreements, and other contractual restrictions to establish and protect our commercially important technologies, inventions and know-how related to our business.

We have a global portfolio of patents to protect our product candidates and technologies. As of the Latest Practicable Date, we owned (i) five issued patents in China, (ii) four issued patents in the U.S., (iii) 44 issued patents in other jurisdictions, primarily including Japan, Korea, Russia, Australia and New Zealand, and (iv) 82 pending patent applications, including eight in China, six in the U.S., six under the Patent Cooperation Treaty (PCT) which have not entered into national phases, and 62 in other jurisdictions. All patents granted to us as of the Latest Practicable Date will remain valid until at least 2036, without taking into account potential patent term extensions or challenges from third parties.

As of the Latest Practicable Date, with respect to our Core Product, MVR-T3011, we owned two issued patents in China, four issued patents in the U.S., 27 issued patents in other jurisdiction, and also had 14 patent applications, including two in China, one in the U.S., and 11 in other jurisdictions. These patents and patent applications owned by us cover material aspects of our Core Products.

The following table summarizes the details of the material granted patents and patent applications related to our Core Product and our technology platform.

Related Product/Platform	Patent/Patent Application	Application Number	Jurisdiction	Status	Patent holder/ Applicant	Patent Inventor(1)	Grant Date	Expiration Date*
MVR-T3011 . .	Construction of oncolytic herpes simplex viruses (oHSV) obligate vector and constructs for cancer therapy (用於癌症治療的溶瘤性單純疱疹病毒(oHSV)專性載體及其構建體的構建)	US16/077417	U.S.	Granted	Immvira Shenzhen	Grace Guoying ZHOU, Xiaoqing CHEN, Xianjie LIU*	2020/11/3	2036/4/22
		CN201680065759.5	China	Granted	Immvira Shenzhen	Grace Guoying ZHOU, Xiaoqing CHEN, Xianjie LIU*	2020/10/30	2036/4/22
		JP2018525591	Japan	Granted	Immvira Shenzhen	Grace Guoying ZHOU, Xiaoqing CHEN, Xianjie LIU*	2020/11/30	2036/4/22
		CA3021588	Canada	Pending	Immvira Shenzhen	Grace Guoying ZHOU, Xiaoqing CHEN, Xianjie LIU*	N/A	N/A
		EP16899007.5	Europe	Pending	Immvira Shenzhen	Grace Guoying ZHOU, Xiaoqing CHEN, Xianjie LIU*	N/A	N/A
MVR-T3011 . .	HSV-1 vector and recombinant oncolytic HSV-1 (I型單純疱疹病毒載體及重組溶瘤性I型單純疱疹病毒)	CN202011050904.7	China	Pending	Immvira Shenzhen	Grace Guoying ZHOU, Xiaoqing CHEN, Xianjie LIU*	N/A	N/A
MVR-T3011 and MVR-C5252 .	Antibodies binding PD-1 and uses thereof (結合PD-1的抗體及其用途)	US17/047,649	U.S.	Granted	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	2024/7/16	2041/11/6
		US18/631,672	U.S.	Granted	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	2025/5/20	2039/4/12
		CN201980021731.5	China	Granted	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	2023/11/14	2039/4/12
		CN202311305195.6	China	Pending	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	N/A	N/A
		JP2021-505624	Japan	Granted	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	2022/4/6	2039/4/12

Related Product/Platform	Patent/Patent Application	Application Number	Jurisdiction	Status	Patent holder/ Applicant	Patent Inventor(1)	Grant Date	Expiration Date*
		CA3,096,460	Canada	Pending	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	N/A	N/A
		EP19788029.7	Europe	Pending	Immvira Shenzhen	Mingjiu CHEN, Wei TAN	N/A	N/A
OVPENS . . .	Engineered exosomes with increased loading of protein cargo and methods thereof (具有增加的蛋白質貨物負載的工程化外泌體及其方法)	PCT/CN2025/074518	PCT	Pending	EonVeLab	Jing ZHAO, Yonghong LIU, Xiaoqing CHEN, Grace Guoying Zhou	N/A	N/A
		TW114103397	Taiwan	Pending	EonVeLab	Jing ZHAO, Yonghong LIU, Xiaoqing CHEN, Grace Guoying Zhou	N/A	N/A

Notes:

(1) Except for Mingjiu CHEN and Wei TAN, all inventors of our material patents and patent applications are our current or previous R&D team members and all the patents are granted to us under relevant agreements. Mingjiu CHEN and Wei TAN were the employees, at the time of the invention, of a third-party company ("**Transferor**"), with which we entered into a technology service agreement to commission the development of a monoclonal antibody targeting PD-1 in February 2017. Each of Mingjiu CHEN and Wei TAN confirmed that the ownership of the Patent belonged to the Transferor, and they waived any rights or claims related to the Patent. The Transferor, pursuant to the technology service agreement, subsequently transferred "Antibodies binding PD-1 and uses thereof" ("**Patent**") to us. Upon completion of such transfer, we became the sole owner of the Patent.

* our previous employees

The actual protection afforded by a patent varies on a claim-by-claim and jurisdiction-by-jurisdiction basis and depends on many factors, including the type of patent, the scope of its coverage, the availability of any patent term extensions or adjustments, the availability of legal remedies in a particular jurisdiction, and the validity and enforceability of the patent. We cannot provide any assurance that patents will issue with respect to any of our patent applications or any such patent applications that may be filed in the future, nor can we provide any assurance that any of our issued patents or any such patents that may be issued in the future will be commercially useful in protecting our product candidates and methods of manufacturing the same. See "Risk Factors — Risks Relating to Our Intellectual Property Rights" for a description of risks related to our intellectual property.

We conduct our business under the brand name "ImmVira" ("亦諾微醫藥"). As of the Latest Practicable Date, we had (i) 26 registered trademarks in China, (ii) 59 registered trademarks in other jurisdictions, (iii) 12 trademark applications in China, and (iv) five trademark applications in other jurisdictions. We are also the registered owner of seven domain names.

We enter into license and collaboration agreements and other relationships with biopharmaceutical companies and other industry participants, through which we may grant access to our own intellectual property, or gain access to the intellectual property of others. See "— Collaboration Agreements."

During the Track Record Period and up to the Latest Practicable Date, (i) we were not involved in any legal, arbitral or administrative proceedings in respect of, and we had not received notice of any material claims of infringement, misappropriation or other violations of third-party intellectual property; and (ii) we were not involved in any proceedings in respect of any intellectual property rights that may be threatened or pending and that may have an influence on the research and development for any of our product candidates in which we may be a claimant or a respondent.

A freedom-to-operate search and analysis ("**FTO Analysis**") has been conducted in the U.S. and China in relation to our Core Product. Based on the FTO Analysis, no valid and enforceable third-party patents in the United States or China have been identified that cover the amino acid sequences of the anti-PD-1 antibody fragment currently under development for the Core Product. As of the Latest Practicable Date, except for MVR-EX107, which remains at an early research and development stage with its patent strategy being advanced in an orderly manner, all of the Company's pipeline candidates (as illustrated in the pipeline charts) are protected by a portfolio of patents, including pending patent applications. Our Directors are of the view that there are no valid and enforceable patents of any third party in the U.S. or China covering the genome structure or amino acid sequences currently under development of our Core Product.

To address potential intellectual property risks and safeguard our pipeline assets, including the Core Product and other pipeline candidates, we have implemented a series of proactive measures. These include: (i) ongoing global patent surveillance through a continuous internal review process that monitors material patent developments worldwide, allowing us to remain informed of changes in the relevant intellectual property landscape; and (ii) early evaluation and mitigation of identified risks, whereby any potential intellectual property issues are promptly and thoroughly assessed and appropriate mitigation strategies are evaluated and implemented at an early stage to minimize the risk of escalation. Together with our extensive patent portfolio and the FTO Analysis, we believe there is sufficient protection for our research, development and commercialization activities, including those related to our Core Product.

DATA PRIVACY AND PROTECTION

We routinely receive, collect, and store desensitized and deidentified codes of subjects enrolled in our clinical trials, and process, transmit and maintain medical data treatment records and other personal details of the subjects, along with other personal or sensitive information. As

such, we are subject to the relevant local, state, national and international data protection and privacy laws, directives, regulations and standards that apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data in the various jurisdictions in which we operate and conduct our clinical trials, as well as contractual obligations.

We have designed strict data protection policies to ensure that the collection, use, storage, and processing of medical data comply with applicable laws and prevalent industry practices, including our detailed data management plan for each clinical project. We collect and process data only as permitted by law and as necessary for our clinical trials. Personal data of subjects enrolled in our clinical trials and the corresponding clinical data are collected and processed in accordance with the informed consent agreed upon by the subjects.

Furthermore, we require that all internal employees and external parties involved in our clinical trials adhere to strict confidentiality requirements. We also take measures to ensure compliance with these standards, thus reinforcing our dedication to maintaining the highest levels of data security and patient confidentiality. This comprehensive approach not only meets regulatory expectations but also fosters trust among participants and stakeholders involved in our clinical processes.

We have a number of ongoing or planned clinical studies in both the U.S. and China, with a significant portion of patient-related information collected in China. Any transfer of clinical trial data in connection with our product development efforts and regulatory communications is subject to the applicable local data and privacy protection laws, including those in the U.S. and China. Currently, we transfer personal information of research participants and staff collected from China to our overseas affiliate for the purposes of clinical trials and pharmacovigilance. We have implemented a series of control measures to ensure compliance, including implementing a Cross-border Data Transfer Management Policy.

In accordance with the *Provisions on Promoting and Regulating Cross-border Data Flows* and the *Measures on the Standard Contract for Export of Personal Information* (the "**SCC Measures**"), we have entered into a standard contract with the overseas recipient and completed the filing for such standard contract to the Cyberspace Administration of Jiangsu Province on August 7, 2025. Our PRC Legal Advisor is of the view that, based on the completion of the filing process, we have complied with the applicable PRC laws and regulations in respect of the cross-border transfer of personal information.

During the Track Record Period and up to the Latest Practicable Date, we had complied with laws and regulations related to data security and privacy with our operations in all material aspects. During the Track Record Period and up to the Latest Practicable Date, we were not

subject to any material claims, lawsuits, penalties or administrative actions which had a material and adverse effect on our business, financial condition or results of operations in accordance with applicable PRC laws and regulations with respect to data privacy and protection.

EMPLOYEES

As of the Latest Practicable Date, we had a total of 86 full-time employees, all of which were based in China. The following table sets forth the number of our employees by function as of the Latest Practicable Date:

Function	Number	Percentage
R&D	46	53.5%
Manufacturing	13	15.1%
Quality Control and Assurance	5	5.8%
General and Administrative	22	25.6%
Total	**86**	**100.0%**

Relationship with Employees

The success of our endeavors relies significantly on the efforts and expertise of all employees, who form an integral part of our business. We typically recruit employees through both external and internal channels, including campus recruitment, on-site job fairs, online recruitment and headhunter referrals, and internal referrals and promotions, considering factors including our needs and business plans, as well as the candidates' work ethics, professional experience and educational background. We are dedicated to expanding our talent pool to support future development, ensuring that the departure of any single key management or R&D staff member will not materially or adversely affect our operations.

In compliance with the PRC labor law, we enter into standard labor agreements with our employees, covering matters including salaries, employee benefits, and grounds for termination. We also enter into intellectual property ownership agreements with our employees, under which we own all the intellectual property rights derived during the course of their work. In addition, our key R&D personnel are required to sign a confidentiality undertaking on the date of commencement of employment. We also enter into non-compete agreements with our key R&D personnel, pursuant to which the non-compete restricted period expires 24 months after the termination of employment, and we agree to compensate the employees with a certain percentage of their pre-departure salary during the restricted period.

We strive to create an equitable, inclusive, and diverse workplace while fostering positive working relationships with our employees. We have not established a labor union. All labor disputes are handled in accordance with all applicable laws, rules and regulations. We believe that we have maintained good working relationships with our employees. During the Track Record Period and up to the Latest Practicable Date, we had not experienced any strikes or labor disputes that may have a material adverse effect on our business, financial condition or results of operations.

Training and Development

We provide our employees with a diverse array of professional development opportunities and foster a performance-driven environment. Our focus is on cultivating a culture that promotes retention and engagement. With our emphasis on our integrated in-house research and development capabilities, we place significant importance on the growth of internal talent. We consistently seek out advancement opportunities for our staff through various internal and external training and development programs, including pre-job training, on-the-job training and professional skills training for our employees.

Employee Benefits

We are committed to making sure that working conditions throughout our business network are safe and that employees are treated with care and respect. We believe in providing our employees with competitive compensation packages, reflecting our stakeholder-centric ethos, which we believe fosters sustainable and enduring growth. In accordance with PRC regulations, we participate in various government-mandated employee benefit plans, including social insurance such as pension insurance, medical insurance, unemployment insurance, work-related injury insurance, maternity insurance, and housing funds. During the Track Record Period and up to the Latest Practicable Date, we did not make full contributions to social insurance and housing provident funds for certain employees based on their actual salary levels, and we engaged third-party agencies to make contributions to social insurance and housing provident funds for certain employees, which did not fully comply with the provisions of the *Social Insurance Law of the PRC (《中華人民共和國社會保險法》)* and the *Regulations on the Administration Housing Provident Funds (《住房公積金管理條例》)*. During the Track Record Period, our shortfall of contribution to social insurance and housing provident fund amounted to approximately RMB2.7 million and RMB1.5 million, respectively. As advised by our PRC Legal Advisor, pursuant to relevant PRC laws and regulations, if we fail to pay the full amount of required social insurance contributions, we may be ordered to pay the outstanding social insurance premiums within a prescribed time limit and may be subject to an overdue fine of 0.05% of the delayed payment per day from the date on which the payment becomes payable. If such payment is not made within the stipulated period, the competent authority may impose a fine of one to three times the amount of

the overdue payment. However, according to the *Urgent Notice of the General Office of the Ministry of Human Resources and Social Security on Effectively Implementing the Essence of the Executive Meeting of the State Council and the Measures on the Stable Collection of Social Insurance Contributions (《人力資源社會保障部辦公廳關於貫徹落實國務院常務會議精神切實做好穩定社保費徵收工作的緊急通知》(人社廳函[2018]246號))* which was promulgated on September 21, 2018, local governmental authorities are prohibited from centralized collection of historical unpaid social insurance premiums.

In addition, the Supreme People's Court issued the Interpretation II of the Supreme People's Court of Issues Concerning the Application of Law in the Trial of Labor Dispute Cases (《最高人民法院關於審理勞動爭議案件適用法律若干問題的解釋(二)》) (the "**Interpretation II**"), which took effect on September 1, 2025. The Interpretation II stipulated that any agreement between an employer and an employee for the non-payment of social insurance or any employee undertaking to waive such payment shall be determined as void by the People's Court. Where an employer fails to pay social insurance contributions in accordance with the law, and the employee seeks to terminate the labor contract and claims economic compensation from the employer pursuant to Article 38(3) of the Labor Contract Law, the People Court shall support such claims. During the Track Record Period and up to the Latest Practicable Date, (i) we had not entered into any written agreements with any of our employees under which employees undertook not to participate in social insurance schemes; (ii) we were not aware of any material employee complaints, labor disputes or legal proceedings raised against us in relation to social insurance or housing provident fund contributions; and (iii) even if any relevant labor disputes were to arise, such disputes would only involve economic compensation, the amount of which would not adversely affect our business and financial condition in material respects. Based on the foregoing, our Directors are of the view, and our PRC Legal Advisors concur, that the implementation of the Interpretation II is not expected to have a material adverse impact on our business, results of operations, or financial condition.

As government authorities may take a different view in the future, there is no assurance that our historical and current practice with respect to the contribution of social insurance plans will at all times be deemed in full compliance with relevant laws and regulations in mainland China by government authorities. Based on the aggregate shortfall of social insurance contributions, whether directly or indirectly, we estimate that the maximum potential penalties for the shortfall of social insurance contributions during the Track Record Period and up to the Latest Practicable Date to be approximately RMB8.1 million. As advised by our PRC Legal Advisor, pursuant to relevant PRC laws and regulations, if we fail to pay the full amount of the housing provident fund as required, the government authorities may order us to make the outstanding payment within a prescribed time limit. If the payment is not made within such time limit, an application may be made to the PRC courts for compulsory enforcement. There are no express legal provisions or regulations that impose a penalty on the Group for shortfall contributions to the housing provident fund

contributions; however, we may be ordered to pay the shortfall amount. See "Risk Factors — Risks Relating to Our Operations — Any failure to comply with the PRC regulations regarding mandatory social insurance and housing provident fund contributions may subject us to fines and other legal or administrative sanctions."

PROPERTIES

We are headquartered in Suzhou, Jiangsu Province. We currently do not own any land use rights or properties. As of the Latest Practicable Date, we leased two properties with an aggregate GFA of approximately 14,969.7 sq.m. from Independent Third Parties, which were primarily used as our offices, R&D premise and manufacturing base in the PRC. The relevant lease agreements generally provide a duration of up to 36 months.

The following table sets forth the details of our leased properties as of the Latest Practicable Date:

Lessee	Location	Usage	GFA (sq.m)	Lease Term
Immvira Suzhou	Suzhou	Office, R&D premise and manufacturing base	14,709	January 1, 2024 – December 31, 2026
Immvira Shenzhen . . .	Shenzhen	Office	260.7	September 1, 2024 – August 31, 2025 and September 1, 2025 – August 31, 2026

INSURANCE

We maintain insurance policies that we consider to be in line with market practice and adequate for our business to safeguard against risks and unexpected events. Our insurance policies at corporate level primarily comprise life sciences general liability insurance and cyber enterprise risk management insurance. We maintain clinical trial liability insurance to ensure comprehensive protection against adverse effects. We also provide social insurance for our employees in accordance with relevant PRC laws and regulations. We believe that our insurance coverage is adequate to cover our key assets, facilities, and liabilities. See "Risk Factors — Risks Relating to Our Operations — We have limited insurance coverage, and any claims beyond our insurance coverage may result in our incurring substantial costs and a diversion of resources."

PERMITS, LICENSES AND OTHER APPROVALS

As of the Latest Practicable Date, we have obtained all requisite licenses, permits, approvals and certificates from the relevant government authorities that are material for our business operations in the PRC.

The following table sets forth details of selected material licenses and permits obtained by our Group as of the Latest Practicable Date:

License/Permit	Holder	Date of Grant	Expiry Date
Biological Safety Level 2 Laboratory	Immvira Suzhou	March 11, 2025	March 10, 2027
Filing Certificate of Entities Handling Explosive Chemicals	Immvira Suzhou	December 28, 2024	N/A[(1)]

Note: There is no expiry date for such license/certificate.

AWARDS AND RECOGNITION

The following table sets forth the major awards and recognition we received as of the Latest Practicable Date:

Year of Grant	Award/Recognition	Issuing Authority
2024	2024 China Top 500 Hidden Unicorn Enterprises (2024中國隱形獨角獸企業500強)	Qingdao Municipal Government (青島市人民政府), China Private Enterprise Research Center of Renmin University of China (中國人民大學中國民營企業研究中心)
2024	2023 China Biopharmaceutical Innovation Top 100 — Top 30 Innovative New Drug Enterprises (2023年度中國生物醫藥企業創新力百強系列榜單 — 中國新技術藥物企業創新力TOP30)	Menet (米內網)

Year of Grant	Award/Recognition	Issuing Authority
2024	2024 Top 100 Future Healthcare — China Innovative Pharmaceuticals and Biologics Ranking (2024未來醫療100強 — 中國創新醫藥與生物製品榜TOP100)	VB100, VBDATA.cn (動脈網), Eggshell Research Institute (蛋殼研究院)
2023	2023 Hurun Global Gazelle Companies List (2023胡潤全球獵豹企業榜)	Hurun Research Institute (胡潤研究院)
2023	2023 Top 100 High-Growth Enterprises in the Greater Bay Area (2023大灣區高成長企業100強)	Shenzhen Venture Capital Association (深圳市創業投資同業公會), Guangdong-Hong Kong-Macao Greater Bay Area Research Institute (廣東粵港澳大灣區研究院)
2023	2023 Top 100 Pharmaceutical Innovation Seed Enterprises in China (2023中國醫藥創新種子企業100強)	E Healthcare Manager (E藥經理人)
2023	2022 China Medical and Healthcare Investment and Financing Honor Roll — Top 50 Most Influential Enterprises (2022年度中國醫療大健康產業投融資榮耀榜 — 年度醫療健康最具影響力企業TOP50)	CHC Healthcare Consulting (CHC醫療諮詢), CITIC Securities (中信證券)
2022	3rd Top 50 Biotechnology Innovation Enterprises in the Greater Bay Area (第三屆粵港澳大灣區生物科技創新企業50強榜單)	KPMG China (畢馬威中國), Sino-Inno Research Institute (中創產業研究院)

ENVIRONMENT, SOCIAL AND CORPORATE GOVERNANCE

Governance and ESG Matters

We have built a series of policies and procedures to contribute to social, health, work safety and environmental matters. Going forward, it is our objective to proactively identify and assess the actual and potential ESG risks that may impact our business, strategy and financial performance, and integrate considerations of ESG issues into our business, strategic and financial planning, in compliance with the recommendations made by the Environmental, Social and Governance Reporting Guide in Appendix C2 to the Listing Rules.

Our Board is responsible for monitoring and enhancing compliance with ESG laws and regulations. Our management reports to the board on ESG matters, and the Board makes decisions regarding our policies and practices in alignment with ESG requirements. The Board will continue to monitor, evaluate, and address ESG issues, overseeing the implementation of policies that promote ESG practices.

Environmental Protection

We strive to conduct our business in a manner that safeguards the environment associated with our operations.

Wastes

We have established waste management procedures to ensure compliance with relevant waste disposal regulations and to minimize environmental impact. We are committed to minimizing the environmental impact of our operations through comprehensive waste management practices. Our waste gases are treated using a combination of neutralization and activated carbon adsorption, ensuring emissions remain well below regulatory limits. Our wastewater is processed through a three-stage treatment system, comprising pretreatment, biodegradation, and advanced purification, with discharged water consistently meeting stringent national standards. We continuously monitor and strive to reduce hazardous waste production. Our efforts have led to a stabilized wastewater discharge levels related to research and testing at approximately 300 tons in 2023 and 137 tons in 2024. Our wastewater discharge related to research and testing was around 15.35 tons in the nine months ended September 30, 2025. Noise from equipment such as air compressors is controlled through soundproof enclosures and vibration dampening, keeping boundary noise levels within daytime and nighttime thresholds. For hazardous biological waste and industrial solid waste, we partner with qualified third parties for safe incineration or recycling. In 2023, 2024 and the nine months ended September 30, 2025, we incurred costs of RMB32.1 thousand, RMB23.5 thousand and RMB10.9 thousand, respectively, for waste disposal. These third-party service providers

operate in accordance with relevant governmental laws and regulations. We also maintain rigorous management of hazardous chemicals by operating dedicated storage facilities under dual-lock supervision with qualified professionals, equipping them with spill containment and fire safety tools. Emergency drills specific to hazardous waste are conducted at least twice a year.

Greenhouse gas emissions

Our greenhouse gas emissions consist of Scope 1 and Scope 2 emissions. Scope 1 direct emissions include the greenhouse gas emissions from our manufacturing facilities and other stationary combustion sources. Scope 2 energy indirect emissions primarily include the greenhouse gas emissions from our usage of purchased electricity. In response to the national carbon neutrality target, we are committed to actively reducing the greenhouse gas emissions produced in our operations.

Management of environmental protection matters

We conduct environmental impact assessments to monitor emission levels. We use a range of metrics to evaluate the impact of environmental risks. Furthermore, we have set multiple objectives to reduce our environmental footprint and are actively pursuing significant measures to meet these targets. The following table sets forth the indicators related to our energy consumption and waste production during the Track Record Period.

	Year Ended December 31,		Nine Months Ended September 30,
	2023	2024	2025
Resource consumption			
Electricity *(MWh)*	1,691	2,299	2,704
Water *(tons)*	2,585	4,918	7,748
Emission			
Hazardous waste *(tons)*	0.60	0.78	18.74

The increase in resource consumption and emissions for the nine months ended September 30, 2025 was primarily attributable to the official launch of our Suzhou production facility and the commencement of engineered exosome production in July 2025. As our business grows and our candidates move closer to commercialization, we anticipate an increase in resource consumption and emissions. Nonetheless, we are dedicated to implementing a variety of measures to optimize resource use and reduce emissions. Simultaneously, we strive to cultivate a corporate culture that prioritizes environmental protection and work closely with our business partners to establish an eco-friendly ecosystem. Our commitment includes enhancing the environmental performance

across our entire value chain, which encompasses office operations, supplier selection, laboratory activities, manufacturing process, and waste management. We expect our energy consumption in 2025 to be approximately 163% of the level recorded in 2024, in line with our business growth. With the expansion of our business and commercialization of our product candidates in the future, we endeavor to curb the increase in our resource consumption and emissions and aim to keep them relatively stable. Our aim is to reduce per-employee electricity and water consumption by around 3.0% by 2027.

Climate Change

We believe that we are not susceptible to climate change. Moreover, we consider that potential changes to the regulations in the PRC regarding climate change will not adversely impact our business operations. We will continue to pay attention to risks regarding climate change and formulate emergency plans to safeguard us from climate change and extreme weather conditions, such as hurricane and rainstorms. As of the Latest Practicable Date, we had not experienced any material impact on our business operations or financial performance as a result of climate change or extreme weather conditions.

Preclinical Study and Clinical Trial

We have implemented a series of measures to bolster laboratory and clinical trial safety while ensuring compliance with relevant regulations. These measures include the establishment and enforcement of internal policies and procedures aimed at preclinical study and clinical trial safety, starting with: (a) formulating a comprehensive R&D project management policy to oversee the entire lifecycle process of drug development, encompassing preclinical studies and clinical trials; (b) implementing guidelines pertaining to employee health and safety, environmental protection, and operational safety within laboratory settings; (c) monitoring adverse events associated with drugs and drug candidates during clinical trials and maintaining accurate records of these events for each trial; (d) conducting analysis of collected adverse events and assessing associated safety risks; (e) reporting serious adverse events and potential safety risks; and (f) facilitating communication with relevant employees and CROs to ensure enforcement of clinical trial protocols.

Workplace Safety

We are dedicated to ensuring a safe working environment for our employees. We firmly believe that a safe and healthy workplace is not only crucial for the well-being of our employees but also indispensable for the sustainability of our business. We have implemented and upheld a comprehensive set of rules, standard operating procedures, and measures to ensure the health and safety of our employees. Our safety guidelines cover a range of areas including identifying

potential hazards, safe practices, accident prevention, and procedures for reporting accidents. We ensure that our employees continually acknowledge their understanding of safety protocols as needed. Specifically, we:

- conduct daily inspections to identify and rectify potential safety risks, and engage third party professionals retained by the industrial park we reside in to carry out monthly inspections focused on pressure vessels, electrical wiring, and other key risk areas;

- provide personal protective equipment such as N95 masks, standard masks, and earplugs to employees exposed to hazardous gases or noise, and ensure 100% coverage in annual occupational health examinations;

- optimize working conditions by equipping workshops with ventilation systems, maintaining ambient temperatures between 22–26°C, and ensuring lighting intensity of no less than 300 lux, in line with relevant national standards;

- define fire protection zones in accordance with relevant national fire safety design standards, and install a full suite of firefighting facilities, including 79 indoor fire hydrant sets, 240 portable fire extinguishers, automatic sprinkler systems, and smoke detection alarms, and organize annual fire drills to ensure employees are familiar with emergency response procedures.

Workplace Diversity

We are steadfast in our commitment to fostering an open and inclusive workplace that champions equality. We adhere to a corporate policy of hiring employees based solely on their merits, offering equal opportunities regardless of gender, age, race, religion, or any other social or personal characteristics. As of the Latest Practicable Date, approximately 56% of our total employees were female. Our employee management system operates on principles of fairness and transparency, and we actively work to enhance gender and age diversity within our workforce.

LEGAL PROCEEDINGS AND REGULATORY COMPLIANCE

As of the Latest Practicable Date, we had not been and were not a party to any material legal, arbitral or administrative proceedings, and we were not aware of any pending or threatened legal, arbitral or administrative proceedings against us or our Directors that could have a material and adverse effect on the research and development of our product candidates, our financial condition or results of operations. Potential future litigation or any other legal or administrative proceeding, regardless of the merit or outcome, is likely to result in substantial costs, diversion of our resources, and have a negative impact on our reputation and brand image, which in turn, would

have negative impact on our business, financial condition, and results of operations. For potential impact of legal or administrative proceedings on us, please refer to the paragraphs headed "Risk Factors — Risks Relating to Our Operations — We may become involved in lawsuits or other legal proceedings, which could adversely affect our business, financial conditions, results of operations and reputation." in this document.

During the Track Record Period and up to the Latest Practicable Date, we had complied, in all material respects, with all relevant laws and regulations in the jurisdictions we operate in. We had not been and were not involved in any non-compliance incidents that led to fines, enforcement actions or other penalties that could, individually or in the aggregate, have a material adverse effect on our Group's business operations. As advised by our PRC Legal Adviser, our business as currently conducted does not fall in the scope of restriction in the 2024 Negative List.

RISK MANAGEMENT AND INTERNAL CONTROL

We are committed to developing and maintaining risk management and internal control systems comprised of policies and procedures tailored to our business operations. Our dedication lies in the continual enhancement of these systems to ensure their effectiveness.

Risk Management

We recognize that risk management is critical to the success of our business operation. Key operational risks faced by us include changes in the general market conditions and the regulatory environment of the Chinese and global biologics markets, our ability to develop, manufacture and commercialize our product candidates, and our ability to compete with other peer companies. See "Risk Factors" for a discussion of various risks and uncertainties we face. We also face various market risks. In particular, we are exposed to credit and liquidity risks that arise in the normal course of our business. See "Financial Information — Market Risk Disclosure" for a discussion of these market risks.

We have implemented a comprehensive set of risk management policies that establish a framework for identifying, assessing, evaluating, and continuously monitoring key risks aligned with our strategic objectives. Risks identified by management will be analyzed on the basis of likelihood and impact, and will be properly followed up and mitigated and rectified by our Group and reported to our Directors. Our Directors supervise the implementation of our risk management policies.

The following key principles outline our Group's approach to risk management and internal control we plan to implement:

- Our audit committee will oversee, evaluate, and enhance the internal control system, which includes: (i) reviewing internal control and risk management policies and providing suggestions for improvement; (ii) engaging in discussions with management to evaluate the effectiveness of internal control and risk management policies, ensuring that management fulfills its duties in formulating effective policies; (iii) analyzing material findings related to internal control and assessing the measures taken by management; and (iv) supervising potential misconduct by employees regarding internal control and establishing procedures to investigate and address complaints related to internal control within the Company.

- Our Board will be responsible for (i) formulating our risk management policy and reviewing major risk management issues of our Company; (ii) providing guidance on our risk management approach to the relevant teams in our Company; (iii) reviewing the relevant teams' reporting on key risks and providing feedbacks; and (vi) supervising the implementation of our risk management measures by the relevant teams.

- The relevant departments within our Company bear the responsibility of implementing our risk management policy and executing day-to-day risk management practices. To standardize risk management procedures across our organization and ensure a consistent level of transparency and risk management performance, these teams will: (i) collect information regarding the risks associated with their respective operations or functions; (ii) conduct comprehensive risk assessments, encompassing the identification, prioritization, measurement, and categorization of all key risks that could impact their objectives; (iii) prepare an annual risk management report for review by our chief executive officer; (iv) continuously monitor key risks pertinent to their operations or functions; (v) implement appropriate risk responses when necessary; and (vi) develop and maintain a suitable mechanism to facilitate the application of our risk management framework.

We consider that our Directors and members of our senior management possess the necessary knowledge and experience in providing good corporate governance oversight in connection with risk management and internal control.

Internal Control

Our Board is responsible for establishing our internal control system and reviewing its effectiveness. We have engaged an internal control consultant (the "**Internal Control Consultant**") to perform certain agreed-upon procedures (the "**Internal Control Review**") in connection with the internal control during the period from April 1, 2024 to March 31, 2025 of our Company and our major operating subsidiaries in certain aspects, including entity-level controls, financial reporting and disclosure controls, human resources and payroll management, general controls of IT system and other procedures of our operations. The Internal Control Consultant performed the Internal Control Review in April 2025, identified internal control deficiencies and provided recommendation accordingly. We have adopted the corresponding remediation actions to improve the effectiveness of internal control system. The Internal Control Consultant performed a follow-up review with regard to those actions taken by us and there are no further material findings identified in the process of the follow up review.

During the Track Record Period, we regularly reviewed and enhanced our internal control system. Below is a summary of the internal control policies, measures and procedures we have implemented or plan to implement:

- We have adopted various measures and procedures regarding each aspect of our business operation, such as related party transaction, risk management, environmental protection and occupational health and safety. For more information, see "— Environment, Social and Corporate Governance" in this section. We provide periodic training about these measures and procedures to our employees as part of our employee training program.

- We have strengthened inventory control protocols with standardized documentation requirements and enhanced supplier evaluation mechanisms. Previously, our inventory management practices were not fully aligned with internal policies, including incomplete documentation for inbound and outbound stock movements and lack of quality checks for certain materials. We have since reinforced execution of our Finished Goods Inbound and Outbound Management Procedures, conducted staff training, and implemented mandatory use of inbound and outbound request forms and quality assurance review. We also updated our Stocktaking Management Procedure to require approval and traceable records for any inventory adjustments, and introduced segregation of duties for warehouse operations. Additionally, we adopted a Stock Impairment Management Policy to formalize aging analysis and impairment testing standards.

- We provide various training programs to keep our employees updated on relevant laws, regulations, and policies. Our compliance curriculum incorporates specialized modules for data security management and confidential information handling. Our new employees are required to attend compliance training programs soon after on-boarding and must pass tests which examine their understanding of the compliance issues

addressed by the training programs. We have formalized comprehensive operational rules across all management tiers, specifying procedural standards, nodal responsibilities, and timelines, such as our Anti-Misconduct Policy which defines prohibited conduct and disciplinary procedures. Previously, our HR performance management system lacked detailed approval and documentation requirements for bonus allocation. We have since updated the Employee Performance Management Policy to formalize scoring standards, approval workflows, and linkage to bonus distribution, and conducted training to ensure compliance.

- We have established dedicated committees, including Audit Committee, Nomination Committee and Remuneration Committee, to strengthen governance oversight. Our Directors (who are responsible for monitoring the corporate governance of our Group), with the help from our legal advisors, will also periodically review our compliance status with all relevant laws and regulations after the **[REDACTED]**.

- We have established an audit committee which (i) makes recommendations to our Directors on the appointment and removal of external auditors; and (ii) reviews the financial statements and renders advice in respect to financial reporting as well as oversees internal control procedures of our Group. The Audit Committee's charter empower it to monitor implementation of fundamental internal control policies through regular compliance assessments. Previously, our tax risk management framework lack a systematic approach for handling tax disputes and audits. We have since adopted a Tax Risk Assessment and Dispute Management Policy that specifies internal response mechanisms, documentation requirements, and escalation procedures, including administrative review and appeal processes.

- We maintain strict anti-corruption policies and we believe we will therefore be less affected by the increasingly stringent measures taken by the PRC government to correct corruptive practices in the biopharmaceutical industry. These policies are reinforced by mandatory annual compliance certifications for senior management.

- We have implemented comprehensive IT infrastructure safeguards, including business continuity planning and periodic data backups. Data and information security are further ensured through multi-layered protection protocols such as system access controls, firewall installations, and physical isolation of IT and OT server rooms. Previously, we had not established a formal mechanism for preventing, identifying, and responding to information leakage. We have since adopted a Data Confidentiality Management Policy that sets out standardized procedures for risk identification, reporting, investigation, and emergency response, and defines sensitive data classification and access control requirements.