CHIMERIC THERAPEUTICS

Newsletter
June 2022

Blood cancer patient remains cancer free 15 months after treatment with Chimeric's CORE-NK platform cell

PAGE 04

Jennifer's update

JENNIFER CHOW
CHIEF EXECUTIVE OFFICER
AND MANAGING DIRECTOR

First and foremost, I want to take this opportunity to thank you all for your continued support of Chimeric.

2022 has been a very challenging year for the biotech industry and for you as biotech investors. I truly appreciate the confidence that you have shown in our mission and our team with your continued support.

I am pleased to be able to report though, that during these difficult times we have been able to achieve major milestones and significant successes that are worthy of reflection and celebration.

The first is the positive phase 1 data from our CORE-NK platform that was published in March. I've provided details in this newsletter of why we see the complete data set as incredibly encouraging but really want to draw your attention to patient #8 in the trial.

Patient #8 is really an example of why we are doing what we do. Patient #8 is a young woman with an aggressive from of MDS or Myelodysplastic Syndromes. She had previously been treated with all standard of care regimens and unfortunately had either progressed on or simply not responded to all of them. Without any other options left the young woman entered the phase 1 CORE-NK trial and in just 60 days had a complete response to the CORE-NK cells – meaning that she was completely cancer free. Even more exciting and definitely worth taking a moment to celebrate is the fact that now, 15 months after her CORE-NK treatment, patient #8 remains cancer free. The experience that patient #8 had – becoming cancer free because of one of our therapies – is what motivates us every day and is what we are focused on achieving for so many more. Her story also gives us great confidence in our CORE-NK platform and the promise it offers patients. I invite you to read more about the trial and patient #8 on pages 4 and 5.

Our second success to highlight is the ongoing positive phase 1 data from the CHM 1101 trial in Glioblastoma. The early data from our second cohort of patients showed continued safety at the higher dose level as well as an ongoing and deepening efficacy signal. We are now dosing patients in the 3rd dose level and are excited to see the impact that higher doses will have on patient outcomes.

Also worth celebrating is the publication of our CHM 2101 preclinical data in Nature Cancer. Although this may not sound all that exciting to everyone – the publication of preclinical data – let me tell you why it is a reason for all of us to celebrate.

The work on CHM 2101, our CDH17 CAR T cell therapy was not only published by arguably the most prestigious journal in cancer development, but it was chosen as the cover story because of two very important things – the innovation of the work and the incredible potential of the results.

CHM 2101 is the first CDH17 CAR T to be developed– meaning that we are leading the industry with our development. That leadership combined with the incredible preclinical results that showed the complete eradication of 8 different types of tumors in preclinical models make us so incredibly excited to bring this asset to clinic – just think about what this could mean for patients if we can translate these preclinical results to the clinic!

Beyond celebrating our successes, I think it is important to share with you that I, along with our entire team are 100% focused every day on what we can control. With 7 novel assets in development, we have an innovative and broad pipeline – and a LOT to get done. Knowing that we can't always affect the challenges of the broader biotech market we have been laser-focused on driving the development of our assets forward to be able to move closer to bringing our vision of providing curative therapies to patients with cancer to life.

With CHM 1101, our CLTX CAR T cell therapy, we have been focusing on getting ready to open new sites for the Glioblastoma trial. Although much of this work is behind the scenes work – getting partnerships, agreements and contracts in place – I can assure you this is an ongoing priority for us every day.

With CHM 2101 we are busy preparing our IND submission documents to be able to move forward into a phase 1 clinical trial. We were very pleased to announce just this week that we had taken the important first step in this pathway by requesting a pre-IND meeting with the FDA.

And now with the incredible data from our CORE-NK platform we are working to accelerate the multiple development paths we have laid out for this promising platform. I hope to be able to share some exciting news with you on our progress here soon!

Finally, I want to give you my commitment that we are doing everything we can to drive Chimeric forward and through these difficult times. I truly believe that our efforts to focus on what we can control now, will allow us to leapfrog forward as the biotech market begins to correct. I do want you to know though, that I do not take your support lightly, nor the confidence and faith you put in us and I truly thank you for continuing to support our mission.

Positive Phase 1 clinical data Chimeric's CORE-NK platform

Last December we announced that Chimeric had acquired the exclusive option to the CORE-NK platform, from Case Western Reserve University in Ohio.

CORE-NK platform broken down:

Clinically validated
Off-the-shelf
Robust
Enhanced
Natural
Killer

We were pleased to have acquired this exclusive option as off-the-shelf therapies that utilise Natural Killer cells are very sought after in cell therapy discovery.

In March, we were very excited to announce the publication of the positive phase 1 clinical data for Chimeric's CORE-NK platform. The data demonstrated positive outcomes across all key endpoints of the clinical trial, including a remarkable case study of one patient who achieved a complete response to the CORE-NK cells and has now been cancer free for more than 15 months.

A Phase I Study to Determine the Maximum Tolerated Dose of ex Vivo Expanded Natural Killer Cells Derived from Unrelated, HLA-Disparate Adult Donors.

Chimeric's CORE-NK Phase 1 Clinical Trial

The trial was a small phase 1 study designed to study 9 patients with solid tumours and blood cancers across 3 dose levels of the CORE-NK platform cells. The data demonstrated promising results across all key endpoints including efficacy, safety, expansion and persistence.

Patient Eligibility

The Phase 1 clinical trial was open to and included patients with both blood cancers and solid tumours:

Blood Cancers

Acute Myeloid Leukemia, Plasma Cell Myeloma, Myelodysplastic Syndromes, Acute Lymphoblastic Leukemia, Chronic Myeloid Leukemia, Chronic Lymphoma Leukemia, Myeloproliferative Syndromes, Non-Hodgkin Lymphoma, and Hodgkin Lymphoma.

Solid Tumours

Adenocarcinoma of the Rectum, Rhabdomyosarcoma, Soft Tissue Sarcoma, Ewing's Sarcoma, and Colon Cancer.

Phase 1 Dose Escalation

The trial was designed as a dose escalation from $10x10^6$ NK cells/ KG through to $50x10^6$ NK cells/ KG.

3. **50×10^6** NK Cells/KG
2. **25×10^6** NK Cells/KG
1. **10×10^6** NK Cells/KG

CHM 0201 Phase 1 study results

Promising results were shown across all key endpoints:

Safety
Established safety and no GVHD with universal donor cells.

Efficacy in Blood Cancers
100% Disease control rate in blood cancers with 15+ month complete response.

Efficacy in Solid Tumours
33% Disease control rate in solid tumours with 66% durability of response past day 100.

Persistence
28 Day persistence of cells demonstrated with optimised Lymphodepletion.

Expansion
Large scale manufacturing success from a single donor with 21 day manufacturing.

Although we were very pleased with all of the results, we were incredibly excited to learn about patient #8 – a blood cancer patient that achieved a Complete Response to the CORE-NK platform cells.

Case Study: Patient ID #8
Complete response with 15+ months ongoing remission

Diagnosis	High risk MDS with circulating blasts and high tumour burden.
History	Progressive disease with prior allogeneic transplant.
Response	Stable Disease at day 28, **Complete Response by day 60.**
Durability of Response	**Sustained Complete Response** at day 100 – Remains in remission **15+ months** after receiving consolidation transplant.
Safety	High risk MDS with circulating blasts and high tumour burden.

This patient was treated at only the 2nd dose level in the trial. The patient had not responded to any of the standard of care treatments for her disease, relapsing after an allogeneic transplant and not responding to a hypomethylating agent therapy.

28 days after receiving the CORE-NK platform cells the patient had achieved stable disease and by day 60 the patient had achieved a Complete Remission of her disease – meaning that there was no longer evidence of any cancer cells.

This patient then went on to have a consolidation transplant designed to support long term maintenance of her complete response.

Now, over 15 months later this patient remains in complete response or cancer free.

This outcome is incredible – first and foremost for the patient that is now free of their cancer due to our CORE-NK cells- but also for us as it shows the true potential of our CORE-NK platform for patients with blood cancers.

What's next then?

With this very strong data now published, we are focusing our efforts on accelerating the development of our CORE-NK Platform. For us that means focusing on 3 development paths.

1. CORE-NK Combination Therapy

First, we will be developing our CORE-NK platform cells as a combination therapy. Think of this like us taking a classic car that has proven its value (like the original 1967 Camaro) and pairing it with the ideal driver or putting it on track where we know it will perform well. We aren't messing with the classic, just giving it the best environment to be successful in.

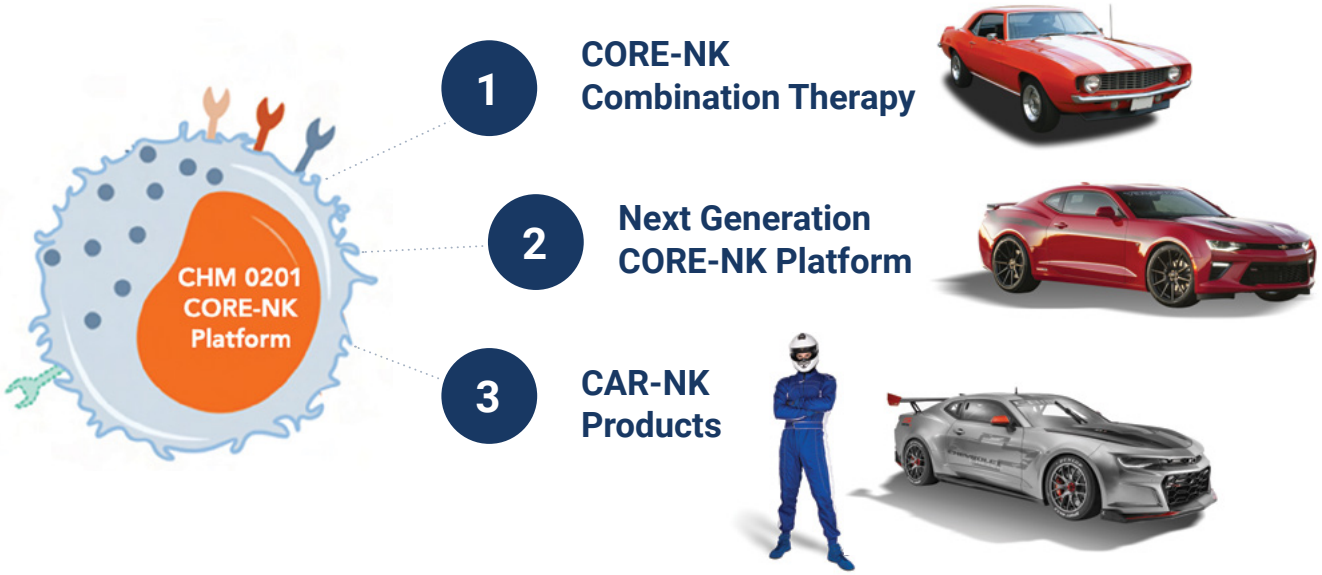
2. Next Generation CORE-NK Platform

Next, we will be building a next generation CORE-NK platform to optimise its efficacy against hard-to-treat tumours. Think of this like us taking that original 1967 camera and upgrading it to give it more power and navigation (like the 2020 Camaro SS).

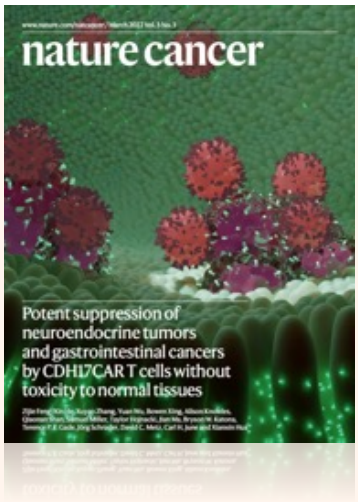
3. CAR-NK Products

Then, we will engineer our next generation CORE-NK platform cells with Chimeric Antigen Receptors. Think of this like us adding a world class race car driver and further enhancing our Camaro so it is Super-car Series Ready.

Through this development plan we will have 5 unique assets in development across blood cancers and solid tumours!



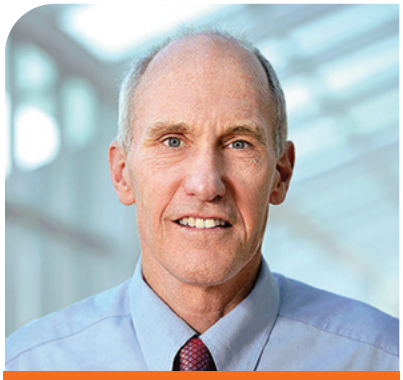
CHM 2101 featured in Nature Cancer



Following on the exciting release of the CORE-NK clinical data was the much-anticipated publication of the preclinical data for CHM 2101 (our CDH17 CAR T).

The groundbreaking data – the first data to test CDH17 as a tumour targeting antigen – was highlighted as a cover story in the highly prestigious Nature Cancer journal.

The article highlighted work completed by the team at the University of Pennsylvania, including Dr Carl June and Dr Xianxin Hua.



DR CARL JUNE, MD

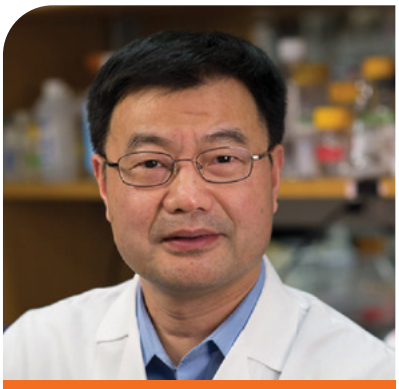
Dr June is arguably the best known clinician in cell therapy, being credited with the invention and development of the first CAR T cell therapy to be approved in the United States. Among many other notable honours and awards, Dr June was named one of Time magazine's people of the year in 2018 based upon the incredible impact that his CAR T cell therapy had on cancer patients' survival.

Penn Medicine's Carl June, MD, to Receive ASCO's Highest Scientific Honor

Cell Therapy pioneer will give lecture at American Society of Clinical Oncology Annual Meeting

Penn Medicine's Carl June, MD, Named One of Time Magazine's Most Influential People in the World

20 April 2018



DR HUA XIANXIN
MD, PHD

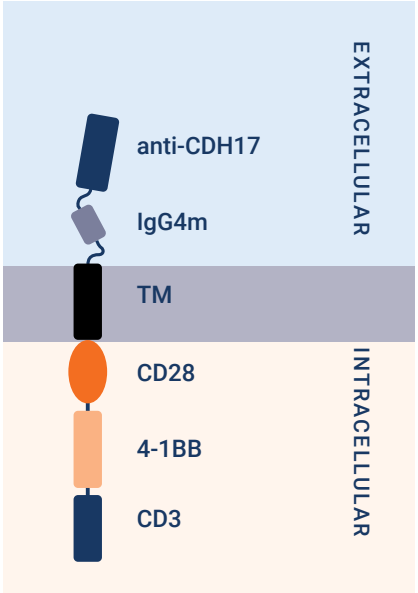
Our work demonstrates that CDH17CAR T cells can eliminate solid tumours..., but do not damage healthy, normal tissues that also express CDH17, because CDH17 is sequestered and hidden between the normal cells.

Dr Hua has worked in collaboration with Dr June and the University of Pennsylvania cell therapy team for over a decade to develop CHM 2101. Dr Hua is a Professor of Cancer Biology at the University of Pennsylvania's Perelman School of Medicine, an investigator at the Abramson Family Cancer Research Institute and a Harrington Scholar Innovator. He leads the Hua laboratory at U Penn, Abramson Family Cancer Research Institute (AFCRI) focused on discovering novel therapeutic targets and generating effective antibodies and CAR Ts, and is the recipient of multiple awards and grants.

The data highlighted in the Nature Cancer publication highlighted 3 key aspects to CHM 2101:

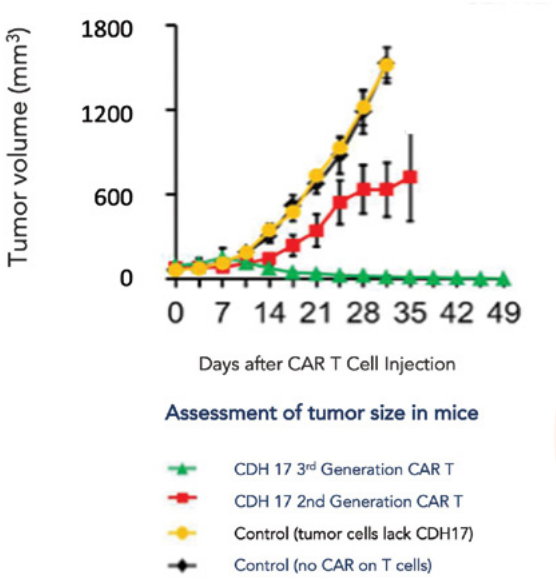
1 CHM 2101 is an Optimal CAR T Construct Design

Over ten years of optimisation work went into developing CHM 2101 with many different constructs being tested and discarded prior to the team landing on the current CHM 2101 construct.



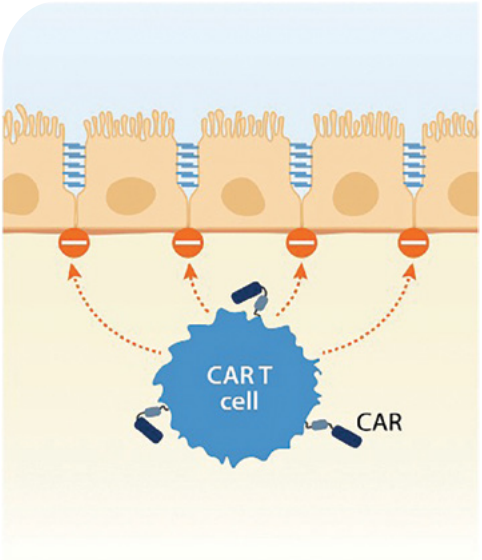
2 CHM 2101 Shows Strong Preclinical Efficacy in 8 Tumour Types

In preclinical in vivo models CHM 2101 was shown to completely eradicate 8 different types of tumours with no relapse.



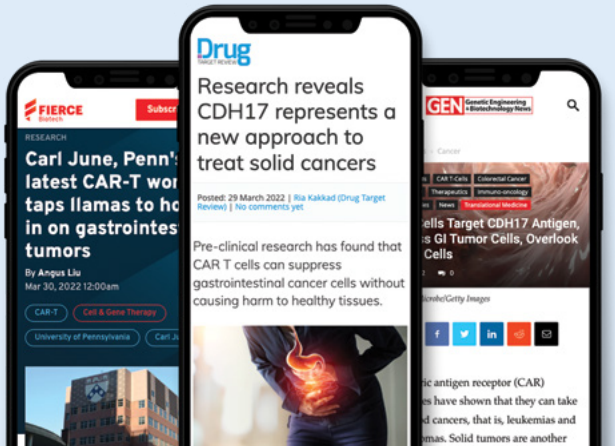
3 CHM 2101 Showed Preclinical Safety

In the preclinical work the CHM 2101 CAR T cells eradicated tumours but did not affect normal, healthy tissues.



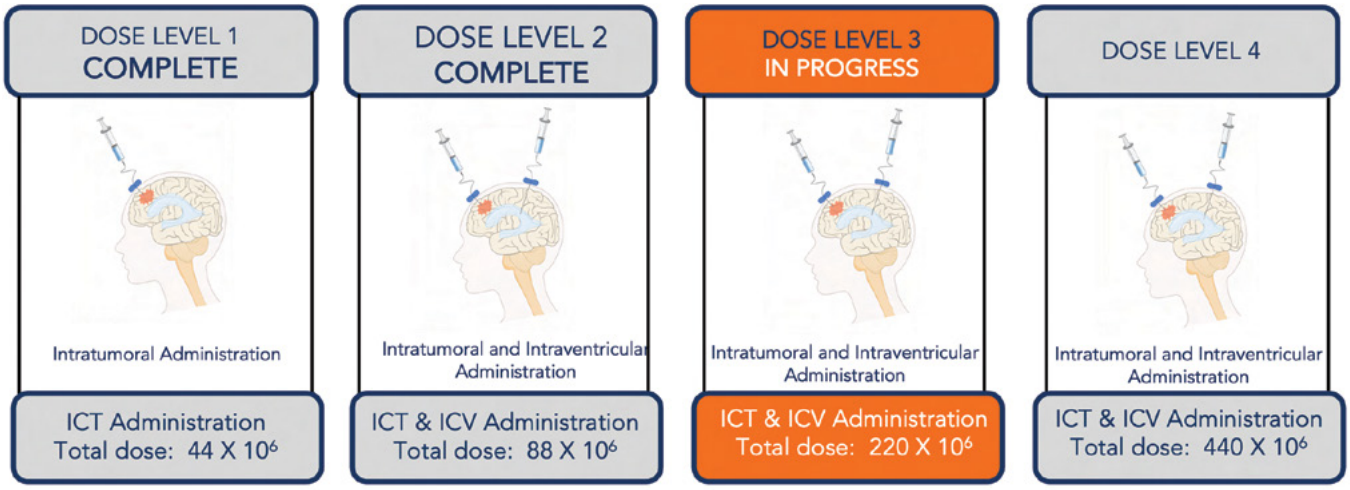
This data rapidly caught the interest and excitement of the scientific community as it represents a new approach to treating solid tumours.

With this strong preclinical data, we are now focused on our close collaboration with the team at the University of Pennsylvania to complete all the necessary work to submit an IND to the FDA.



CHM 1101
Phase 1 Clinical Development

In February we announced the top line data from dose level 2 in our CHM 1101 study, followed by an announcement in March that we had identified our 1st patient for treatment in dose level 3.



The data from dose level 2 was highly encouraging as it further demonstrated an efficacy signal with manageable safety with dual routes of CHM 1101 administration.

In the 2nd dose cohort, dual routes of intratumoral and intraventricular CHM 1101 cell administration were introduced at a total dose of 88 X 106 CHM 1101 cells.

Positive initial safety was seen as patients generally well tolerated the dual routes (intratumoral and intraventricular) of CHM 1101 administration introduced in this dose cohort. As previously announced, all patients advanced past the 28-day follow-up without experiencing dose limiting toxicities. Additionally, an encouraging activity signal was demonstrated with 2/3 evaluable patients treated achieving local stability of disease.

To date, data from the first two cohorts of treated patients has been extremely promising with disease stability being shown in ~70% of patients at very low doses of CHM 1101.

Initial data from patients treated in dose level 1 and dose level 2

- **Safety** – No dose limiting toxicities, generally well tolerated by all patients.
- **Efficacy** – Local disease stability in over 70% (5/7) of the evaluable patients.
- **Bioactivity** – Persistence of cells throughout treatment with no signs of immunogenicity.

This preliminary data is encouraging as it demonstrates safety with dual routes of administration. We now look forward to advancing the trial to higher dose levels which may provide more therapeutic benefit to patients.

Benham Badie, M.D., Professor and Chief, Division of Neurosurgery; Director, Brain Tumour Program, Department of Surgery, City of Hope.

Expanding the CHM 1101 Trial

The Challenge

As this trial continues to recruit patients, our focus is now on expanding the trial to multiple sites in the United States to drive recruitment in the trial. Although this may sound simple, with autologous cell therapies, expanding trials to multiple sites requires a great deal of preparation.

Logistics with a Single Site Trial

Just imagine – with the trial at one hospital or site, patients come into the hospital to have their blood taken. That blood is then walked down a hallway to the manufacturing facility where it is engineered. Once the engineering and expansion has been completed, the CHM 1101 cells are frozen and put in a freezer at the hospital. When the patient is ready for their CHM 1101 therapy, the hospital simply retrieves it from the freezer, thaws it, and walks it back across to the hospital for infusion.

But now, think about how you do that if you have one location manufacturing CHM 1101 cells, and 3 hospitals participating in the trial and treating patients. Suddenly, the relatively simple logistics of the trial become incredibly complex.

Logistics with a Multi-Site Trial

Cells from patients at different hospitals need to be shipped (planes, trains or automobiles) to the central manufacturing site within 24 hours to ensure the cells are still alive and able to be used. A strict process needs to be put into place to ensure that there are no mix ups with the cells, as a mix up could be fatal for a patient. After the cells have been engineered they need to be frozen and sent back to the hospital that they came from in a safe, secure freezer (more planes, trains and automobiles).

Expanding the CHM 1101 Trial (cont.)

The Solution

Key partnerships for short and long term growth

With the complexity of multi-site clinical expansion, we were very pleased to recently announce two key partnerships for Chimeric that are expressly designed to enable us to move forward through phase 1 to phase 2 and commercialisation.

The first partnership we announced was with WuXi Advanced Therapeutics. WuXi is Chimeric's manufacturing partner. With their cutting edge, 400,000 square foot cell therapy manufacturing facility in the Philadelphia, WuXi has the capabilities and capacity to grow with this. Not only can they support manufacturing CHM 1101 for multiple clinical trial sites but they can also support manufacturing in a registration trial and upon commercialisation of CHM 1101.

The second key partnership we announced was with Be The Match Biotherapies (BTMB). Be the Match Biotherapies is Chimeric's logistics partner responsible for organising all the logistics and shipments of CHM 1101. Be the Match is a very well-known and well-regarded group in the United States having managed cell and blood logistics for the US National Marrow Donor Program for over 30 years. BTMB has supported over 100,000 bone marrow transplants and over 36,000 cell and blood shipments. Like WuXi, BTMB has capabilities to support the development of CHM 1101 through our planned multi-site trial, a registration trial, and on to commercialisation.

Q&A

We believe that one of our key success factors is our people. That's why we were so excited to have Kelly Thornburg join us earlier this year as our Vice President, Head of Quality.

Kelly joined us from Kite, one of the leading cell therapy companies in the world. At Kite, Kelly was the Quality Site Head for Kite's US commercial manufacturing facility. In his role at Kite, Kelly was responsible for the release of over 3000 commercial CAR T cell therapies. Prior to Kite, Kelly also served in senior quality roles at Amgen, XBiotech, and AGC Biologics.

We asked Kelly our "get to know you" questions...

Q. What was the last movie you watched?

A. The last movie I watched was Moonstruck. My wife and I watch it at least once per year.

Q. Where is your favorite vacation spot?

A. Sedona, Arizona – lots of nice hikes!

Q. If you could play an instrument, what would it be?

A. I've played piano, saxophone, and guitar in my past. None well! I always thought it would be cool to play trumpet. I'm not sure why.

Q. What is your favourite food?

A. My favourite food is steak and potatoes. My Midwest upbringing!

Q. When you were a kid, what did you want to be when you grew up?

A. I alternated between wanting to be a fireman and a marine biologist as a kid. I've always loved science, even at a very young age. Yes, I had a chemistry set while I was still in elementary school.

A word from our Chairman and Founder

As I write, capital markets around the world continue to be precarious with no clear sign that the carnage is coming to an end.

Almost all sectors have suffered dramatic falls in their share prices, and biotech is no exception where falls of ~60% are common across world stock markets.

Chimeric has felt the impact – having spent most of 2021 trading at a 50% + premium to our IPO price of 20 cents, the bearish sentiment has now driven our shares to 10 cents. Notwithstanding the disappointment we all feel regarding the share price, your company remains in good shape.

Here are three key things you need to know:

- We have promising technologies that are already in human trials, or about to go into trials – this is critical, since in biotech the "rubber hits the road" once you are in humans with your drug;
- The leadership team under our CEO Jenn Chow, is first class, and we have selectively built out a management team of cell therapy specialists to expertly guide the development of our drugs;
- We have cash in the bank following our Rights Issue early this year, and more recently we provided a further buffer against the capital markets, by entering into a funding proposal with L1 Capital.

As a Company, we remain focused on staying the course, there is a high degree of enthusiasm among us and an optimism that we have the right assets and the right people to take us forward.

At some point this will be recognised by the market.

Thank you for your continued support.

PAUL HOPPER
CHAIRMAN AND FOUNDER

T +61 3 9824 5254
E info@chimerictherapeutics.com
W chimerictherapeutics.com

ASX: CHM