STATUS REPORT

ELICERA THERAPEUTICS

ELICERA THERAPEUTICS – **PUSHING THE BOUNDARIES OF IMMUNO-ONCOLOGY**

INTRODUCTION

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Cancer is difficult to treat mainly because of its ability to take control of a patient's immune system rendering it obsolete. Elicera Therapeutics, a Swedish clinical stage cell and gene therapy company, is developing immuno-oncology solutions through the use of CAR T-cells and oncolytic viruses – two powerful immunotherapy platforms that have shown the promising ability of boosting a patient's immune system to help it fight cancer. The company's iTANK technology platform takes these therapies to a whole new level by enhancing a patient's immune system even further, giving rise to a multifaceted attack on tumours, something the competition is struggling to provide.

Cancer develops when mutations in our genetic code cause our cells to divide and grow uncontrollably. During this process, cancer cells find ways of hijacking our immune system to avoid its defences, thus making treatment extremely difficult. Common treatments like chemo- and radiotherapy act upon the immune system to keep cancer cells from taking it over, however this often leads to immunosuppression, leaving patients vulnerable to other diseases and a wide range of heavy side effects. Not only that, but in about half of all cases, cancer cells become resistant to such therapies.

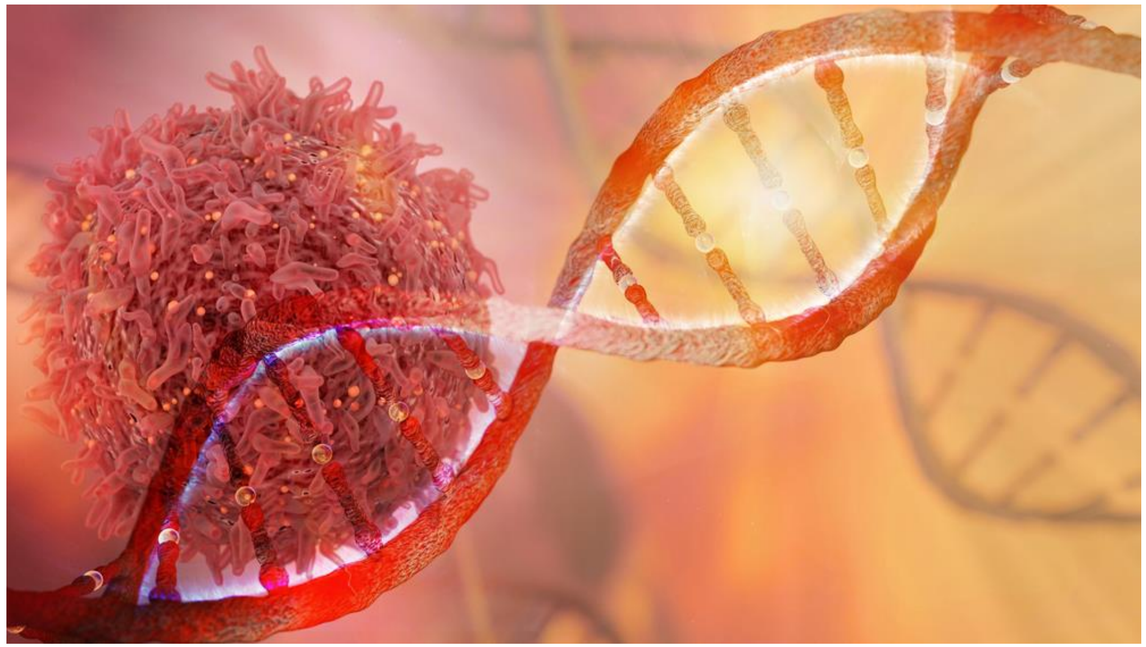
Immuno-oncology has changed cancer therapy

To try to overcome, or at least balance out, the drawbacks of chemo- and radiotherapy, drug development research has to a large extent placed its focus on immunotherapy – drugs capable of boosting the patient's own immune system to help it fight off certain deadly diseases, with cancer being a prime objective. Immunotherapy in the field of oncology is called immuno-oncology (IO), an area that has become increasingly in focus during the last ten years as it has, in many respects, revolutionised cancer therapy. Biopharma companies have great faith in IO's capacity to make a significant difference for cancer patients, and huge sums are being invested in developing new effective drugs and combination therapies in the field.

Despite some glowing success with IO, cancer still remains one of deadliest and most challenging diseases to treat, so new IO drugs are being sought out as potential treatments able to extend patient survival.

New IO solutions

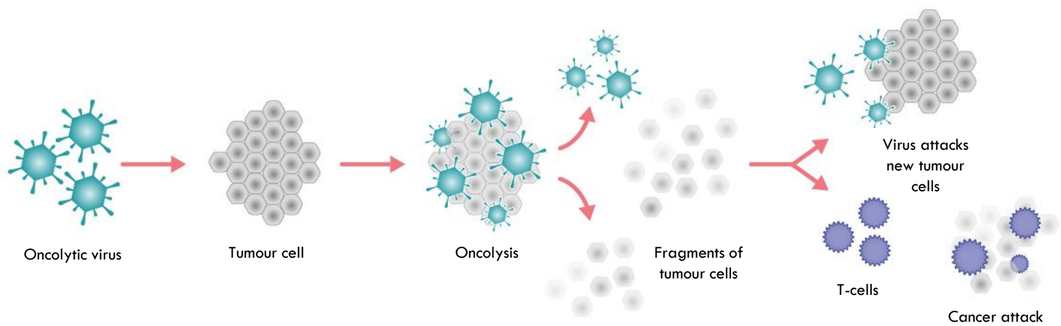
Two IO solutions that are not new but gaining in popularity are *oncolytic viruses* (OVs) and *CAR T-cells* (chimeric antigen receptor T-cells) – two technologies that are still in their starting blocks and that have generated great interest within the oncology field thanks to their promising therapeutic potential.



Oncolytic viruses (OVs)

OVs are viruses that preferentially replicate in cancer cells, thereby killing them. One of the advantages of OVs is that they not only to cause direct destruction of tumour cells, but they also stimulate the patient's anti-tumour immune system response with the potential to prevent the tumour from relapsing.

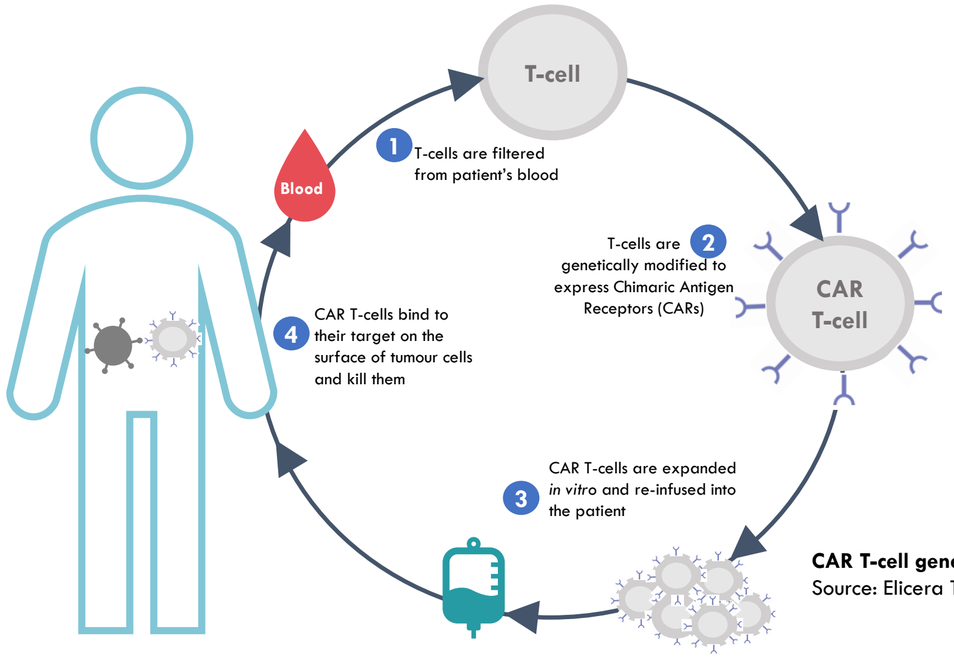
The idea of using OVs for treating cancer is not new. In fact, the medical community has been interested in harnessing the potential of such viruses for over a century. Despite the long-standing interest, the real benefits of this approach have only become visible in recent years. To date, only one OV has been approved by the FDA; however, research around the technology is intensifying.



OV mechanism of action
Source: Elicera Therapeutics

CAR T-cells

CAR T-cells are considered a revolutionary type of immunotherapy using the latest gene editing technology that offers the potential for better and more personalised cancer treatments. The therapy is based on the use of cells from the patient's immune system to fight specific kinds of cancer. The treatment process involves the removal of some T-cells (a type of immune cell that attacks foreign molecules in the body) from a patient and a genetic re-programming of these cells in a lab in order to make them identify a patient's cancer cells and destroy them once they are reintroduced inside the patient.



CAR T-cell generation
Source: Elicera Therapeutics

INTRODUCTION

Thanks to their strong potential, CAR T therapies have received a lot of attention in recent years. The **American Society of Clinical Oncology (ASCO)** announced CAR T-cell therapy as *2018's Advance of the Year*, and, according to **Roots Analysis**, the global market for CAR Ts is expected to reach 14 BUSD by 2030. However, the vast majority of companies developing CAR T technology are based in the USA and in China, and very few companies are developing CAR T-cells in Europe. In fact, the only company developing them in Sweden is a clinical stage cell and gene therapy company called **Elicera Therapeutics**.

Elicera Therapeutics brings new immuno-oncology solutions

Elicera is developing IO solutions based on both CAR Ts and OVs. Currently, the company has four projects in its pipeline, with OV *ELC-100* leading the way as the project currently in clinical development. Besides ELC-100, the company is also working on another OV project called *ELC-201*, which is still in the early stages of development. Nevertheless, ELC-201 has broad potential across most tumours with three modes of action combined, which can lead to a broader and more effective target profile.

Regarding CAR T-cells, Elicera is working with optimised versions of The Fourth Generation (the latest generation) of CAR T-cells and has two ongoing projects: *ELC-301*, developed for treatment of Non-Hodgkin's Lymphoma (NHL), and *ELC-401*, which has glioblastoma multiforme (GBM) as initial indication, but with potential across a selection of other solid tumours.

Top innovation with Elicera's iTANK platform

In 2016, Elicera also submitted a patent application for their *iTANK (ImmunoTherapies Activated with NAP for efficient Killing)*-platform, a technology platform based on gene modification designed for the optimisation of both OVs and CAR T-cells. The idea behind this technology is to give both of these therapies the ability to activate the patient's endogenous CD8+ T-cells against cancer, thus generating two modes of action, as opposed to the single mode of action currently available.

For now, Elicera's iTANK is patent protected for use with CAR Ts only; however, the company's OV-based ELC-201 project also includes the iTANK-platform as a patent application was recently filed to secure the application of the technology platform also in this OV-candidate. With regard to CAR Ts, the technology is in theory applicable to all CAR T-cells under development, thus circumventing some of the major obstacles that CAR T-cells run into in the treatment of solid tumours, such as antigen heterogenicity, local immunosuppression and CAR T-cell exhaustion.

INTRODUCTION

A focus shift from R&D to business

Overall, Elicera Therapeutics offers IO solutions based on a deep understanding of how cells and viruses can be genetically modified to trigger a powerful immune response against cancer. Thanks to such competence, the company has completed the development of a totally new technology platform called iTANK, which makes it possible to develop different types of immunoactivating treatments, each of which gives rise to a multifaceted attack on the tumours.

The iTANK platform, which the company also believes could be used to optimise all CAR T- cells under development by other companies as well, puts Elicera in a unique position among IO developers around the world as it offers a wider spectrum of immune boosting capabilities that very few others currently offer.

Entering Nasdaq First North Growth Market in June 2021

With the iTANK platform and its broad project pipeline, Elicera has now reached a point in its development where the company is ready for a more public environment and exposure to international and institutional investors. In fact, on June 11, the company will enter **Nasdaq First North Growth Market**, and Elicera has an ongoing subscription period for a connected share issue that ends June 8.

SAMMANFATTNING

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Elicera Therapeutics utvecklar immunonkologilösningar som i huvudsak baseras på två olika terapier: onkolytiska virus (OV) och CAR T-celler (chimeric antigen receptor T-cells). Kortfattat är OV ett virus som specifikt replikerar sig i och dödar cancerceller, men som inte påverkar friska celler. CAR T-celler å sin sida är genmodifierade T-celler som tagits fram för att förstöra cancerceller.

Tar sikte på neuroendokrina tumörer med ELC-100

OV-projektet ELC-100 är bolagets längst avancerade projekt. Det utvecklas för behandling av neuroendokrina tumörer (NET), och fick stor uppmärksamhet efter en artikel i brittiska The Telegraph, varpå en crowdfunding-kampanj startades för att få in medel till utvecklingen. En av de största donatorerna var oljemannen Vince Hamilton, som själv drabbats av NET. Som tack för hans donation gav man ELC-100 namnet AdVince efter honom. Elicera genomför just nu en klinisk fas I/II-studie i två steg med kandidaten där första steget väntas pågå fram till andra halvan av 2022.

Nästa generation onkolytiska virus under utveckling

Bolagets andra OV-projekt, ELC-201, baseras på en genetiskt modifierad adenovirusvektor som utvecklas för att trigga ett immunsvar baserat på totalt tre kombinerade verkningsmekanismer och som är tänkt att kunna användas vid behandling av de flesta olika cancerformer. Här befinner sig bolaget i preklinisk fas där man väntar sig kunna gå in i klinik tidigast 2023.

Tredje linjens behandling av DLBCL

Huvudprojekt nummer två är ELC-301, där en CAR T-cell utvecklas för behandling av diffust storcelligt B-cellslymfom (DLBCL). ELC-301 är förstärkt med en immunstimulerande faktor som har visat sig kunna inducera ett immunsvar som dödar även de cancerceller som inte uttrycker det målantigen som CAR T-cellen riktar sig mot. Just nu pågår prekliniska studier och planen är att starta kliniska studier under andra halvan av 2022.

Kandidat under utveckling som riktas mot solida tumörer

I Eliceras fjärde utvecklingsprojekt, ELC-401, riktar man in sig på glioblastoma multiforme (GBM) d.v.s. en solid tumör. ELC-401 har proteinet IL13Ra2 som målmolekyl, vilket innebär att behandlingen har potential att rikta in sig på ett brett urval av solida tumörer och att kandidaten därmed är mycket mångsidig. Även i det här fallet har CAR T-cellen förstärkts för att agera extra immunstimulerande.

iTANK-plattformen öppnar för samutveckling

Den ovan nämnda förstärkningen av ELC-301 och ELC-401 har gjorts möjlig av bolagets egenutvecklade teknikplattform iTANK. Plattformen optimerar CAR T-cellernas funktion ytterligare genom att utlösa en andra parallell immunattack genom CD8+ T-celler på hela spektrumet av måltavlor på tumörceller. Prekliniska data tyder på att iTANK-plattformen hjälper CAR T-celler att hämma tillväxten av solida tumörer och förlänga överlevnaden jämfört med konventionella CAR T-behandlingar.

Dels används plattformen vid utvecklingen av Eliceras egna läkemedelskandidater, och dels är den tänkt att användas i utomstående CAR T-cellprojekt genom utlicensiering eller samutveckling.

UPCOMING TRIGGERS

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Key milestones

- iTANK-publication (H2 2021)
- Preclinical studies: ELC-301 and ELC-401 (H1 2022)
- Recruit CRO and submit CTA: ELC-301 (Q2 2022)
- Completed GMP-production ELC-301 (Q2 2022)
- Complete clinical phase I/II-study (step 1) ELC-100/AdVince (OV NET) (H2 2022)
- Initiate clinical phase I/II-study ELC-301 (CAR T BCL) (H2 2022)
- Complete clinical phase I/II study ELC-301 (CAR T BCL) (H2 2023)
- Initiate clinical phase I/II-study ELC-401 (CAR T GBM) (earliest in 2023)
- Complete clinical phase I/II-study (step 2) H2 ELC-100/AdVince (OV NET) (H2 2024)

THE COMPANY IN BRIEF

THE COMPANY IN BRIEF

Elicera's journey began in 2007 with the establishment of a research group at **Uppsala University** led by **Professor Magnus Essand**. Professor Essand's work and credentials, which include several years working at the **National Cancer Institute** and contributing to close to 100 scientific publications, generated interest from both the media and the general public and resulted in a number of awards and major research grants. This gave the team at Elicera the opportunity to develop several of the company's current drug candidates and begin clinical studies. Moreover, it helped catapult the company out of the academic environment and into a commercial development phase.

On the back of that well-validated preclinical research, Elicera was formally founded as a company in 2014 under the name Virex AB as a spinoff. Then, in 2016, the company's first project, ELC-100, reached the clinical in a study testing the OV for treating neuroendocrine tumours (NET).

In 2020, as more patents gained approval and new paths opened up for in-patient studies, Virex saw the opportunity to grow even further from an R&D organisation into a more business-oriented company. Virex changed its name to Elicera Therapeutics AB and appointed co-founder **Jamal El-Mosleh** as CEO, thus bringing significant business development experience within the IO landscape to the company.

First day of listing is expected to be June 11 2021, with subscription price 8 SEK per share.

Market	Nasdaq First North Growth Market	**No. of existing shares pre IPO**	12 032 000
Ticker	ELIC	**Subscription price**	8.00 SEK
ISIN	SE0015382080	**No. of shares in the IPO**	6 500 000
		No. of share in the potential oversubscription issue	1 250 000

THE COMPANY IN BRIEF – MANAGEMENT

Jamal El-Mosleh

CEO and co-founder

Education :

M.Sc. Industrial Engineering and Management (Biotech-School of Entrepreneurship Chalmers).

Experience :

Over 13 years as CEO for different biotech companies. Among others, 10 years as CEO of immuno-oncology company Immunicum (Nasdaq Small Cap)

Shares : *2 664 000*

Magnus Essand

CSO and co-founder

Education :

Professor of Gene Therapy at Uppsala University

Experience :

Previously employed at National Cancer Institute. 95 publications and recipient of several awards and grants. Clinical experience from both CAR T-cells and oncolytic viruses.

Shares : *3 293 000*

Ingvar Karlsson

CFO

Education :

M.Sc. in Economics.

Experience :

20 years experience as CFO for both public and private companies, among others CFO at cell therapy company Idogen (First North).

Shares : *0*

Di Yu

Head of Translational Research and Technical Operations and co-founder

Education :

Senior lecturer in immuno-oncology at Uppsala University

Experience :

Co-inventor of Elicera's patents and has been selected for numerous awards and grants by, e.g., the Sjöberg Foundation, Vinnova and Uppsala University Innovation.

Shares : *3 293 000*

THE COMPANY IN BRIEF – BOARD OF DIRECTORS

Agneta Edberg

Chairman

Education :

Biomedicine

Profile and Experience :

Broad business strategy. +20 years in life science. Previous chairman of Immunicum AB. Several board positions in public companies

Shares : *100 000*

Christina Herder

Education :

PhD in Physical Chemistry and MBA

Profile and Experience :

Broad business strategy. +20 years in life science. Today EVP Strategic Business Development Medivir. Several board positions in public companies

Shares : *50 000*

Jan Zetterberg

Education :

Law

Profile and Experience :

Broad legal expertise. Many years experience from senior positions within AstraZeneca's legal department.

Shares : *50 000*

Margareth Jorvid

Education :

MSc Pharma

Profile and Experience :

Regulatory expertise. +30 years of experience in Regulatory Affairs. Today Head of Regulatory Affairs and QA at Immunicum (immuno-oncology).

Shares : *50 000*

Karin Hoogendoorn

Education :

MSc Biology, PharmD

Profile and Experience :

Broad Pharma expertise. +25 years of experience in Pharma industry . Currently sits on the International Advisory Board of the Swedish Centre for Advanced Medical Products (CAMP).

Shares : *0*

Magnus Essand

Education :

Professor of Gene Therapy

Profile and Experience :

Broad experience in gene and cell therapy research. Currently Professor of Gene Therapy and Associate Professor of Immunology at Uppsala University.

Shares : *3 293 000*

BUSINESS MODEL AND THERAPEUTIC PLATFORM

BUSINESS MODEL

Elicera Therapeutics' main goal is to be able to deliver next-generation immune-based treatments to cancer patients. To reach this goal, the company relies on taking two types of IO, CAR T-cells and OVs, to a whole new level with the company's own technology platform, iTANK.

Thanks to the research led by Professor Magnus Essand, who is co-founder of Elicera along with CEO Jamal El-Mosleh, Elicera's strengths as a company are based on a deep understanding of how cells and viruses can be genetically modified to trigger a powerful immune response against cancer.

Based on that competence, Elicera has completed the development of the iTANK platform, a technology platform that makes it possible to develop different types of immunoactivating treatments, each of which gives rise to a multifaceted attack on the tumours. This technology platform puts Elicera in a unique position in the IO space, as it has great potential to not only optimise Elicera's own CAR T and OV treatments, but also other such treatments under development by other companies.

Furthermore, Elicera's drug can be combined with other immunotherapies, such as checkpoint inhibitors (CPIs), in order to achieve a synergistic effect. This makes the company's CAR Ts and OVs potentially interesting as combination therapies for many other players in the IO field, not least those who develop treatments aimed at inhibiting the tumour's unwanted suppression of the immune system.

In summary, Elicera develops innovative immunotherapies with the aim of prolonging life and improving the quality of life for cancer patients. The company's business concept is based on generating revenue from commercial partnerships, and Elicera plans to do so by taking advantage of its world-leading expertise in cell and tumour immunology to develop drugs that address major unmet medical needs.

The company will continue to build on the strong patent portfolio and build up valuable know-how by conducting well-designed preclinical and clinical studies for projects that can then be included in commercial partnerships with major pharmaceutical and/or biotech companies.

Finally, as preclinical data suggests that the iTANK platform helps CAR T-cells inhibit tumour growth and prolong survival compared to conventional CAR Ts, Elicera plans to license the iTANK platform to other companies that develop CAR T-cells.

ELC-100

From 2007 through 2011, Essand's team saw the successful preclinical development of what would become Elicera's first candidate, ELC-100, an OV that selectively infects and then kills cancer cells, not healthy cells.

After submitting a patent application for ELC-100, the project entered a clinical phase I/II trial for the treatment of neuroendocrine tumours (NET) in large part thanks to a crowdfunding campaign called **iCANCER** that raised close to 25MSEK. That trial is still ongoing and is being carried out in collaboration with Uppsala University, which sponsors the study through funding from the **VictoryNET Foundation**.

The foundation was set up by the now deceased financier **Vince Hamilton**, who was affected by NET himself, and the drug candidate *AdVince* has been named after him. This happened in part thanks to the heavy media exposure given to the ELC-100 project for its highly promising preclinical results, and Hamilton was a major contributor to the iCANCER crowdfunding campaign. The study is a so-called dose escalation study where Elicera primarily examines the safety of the drug candidate.

Vince Hamilton;
Source: Elicera Therapeutics

ELC-100 is protected by an approved US patent, which was then sold to another IO company in Sweden, **Immunicum AB**. Elicera has an exclusive, global license from Immunicum to use the technology for the development of ELC-100.

ELC-201

In addition to ELC-100, Elicera is also developing the next generation of oncolytic virus, which has been genetically modified to achieve a total of three different important mechanisms of action and a parallel attack of cancer via the immune system through the company's own iTANK technology platform (more on the platform below). This new project, ELC-201, which is currently in preclinical phase of development, is also aimed for the treatment of most cancers.

Next-generation IO

While decades of research have gone into CAR T discovery, it is only recently that the technology has taken off in terms of market approvals, and, since 2017, five CAR T therapies have been approved. However, when looking at the approved therapies, one trend is clear: so far, they are all targeting liquid tumours, i.e., tumours of the blood, not solid tumours like breast, lung or pancreatic cancer. This is no coincidence as almost all approved CAR T treatments are limited to one specific target – CD19, an antigen typically found on the surface of B-cells, a type of white blood cell, and thus only found in specific blood cancers and not solid tumours.

However, through Professor Essand's extensive work on CAR T technology, which includes the first ever CAR T clinical study in Europe, Elicera has been able to discover and develop new and better CAR T-cells able to trigger an immune response that target more than one antigen and resist the hostile microenvironment of solid tumours. This has been possible because the company is working with versions of the fourth and latest generation of CAR T-cells, which is designed to improve cell proliferation and survival within the body and boost the overall immune response. To put this into context, the currently approved CAR T-cell therapies are all second generation, a major reason why they target only liquid tumours.

iTANK technology

Herein lies Elicera's true innovation: the company's own technology platform called iTANK. iTANK is designed to enhance gene- and cell-based immunotherapies like OVs and CAR Ts through gene modification. Specifically, iTANK modifies these therapies to include a gene that codes for a protein called NAP (Neutrophil-Activating Protein). When NAP is activated, it leads to a process that generates an immune activation based on CD8+ T-cells, immune cells that specifically target tumours. This mechanism generates two modes of action instead of only one, thus giving Elicera's candidates a significant advantage over the competition.

The iTANK technology is in theory applicable to all OVs and CAR T-cells under development, but, for now, it is patent protected for use with CAR Ts only. However, the company's OV-based ELC-201 project is also expected to include iTANK once a patent application has been filed and secured for full protection.

Elicera has two ongoing projects with iTANK-enforced CAR T-cells: ELC-301 and ELC-401.

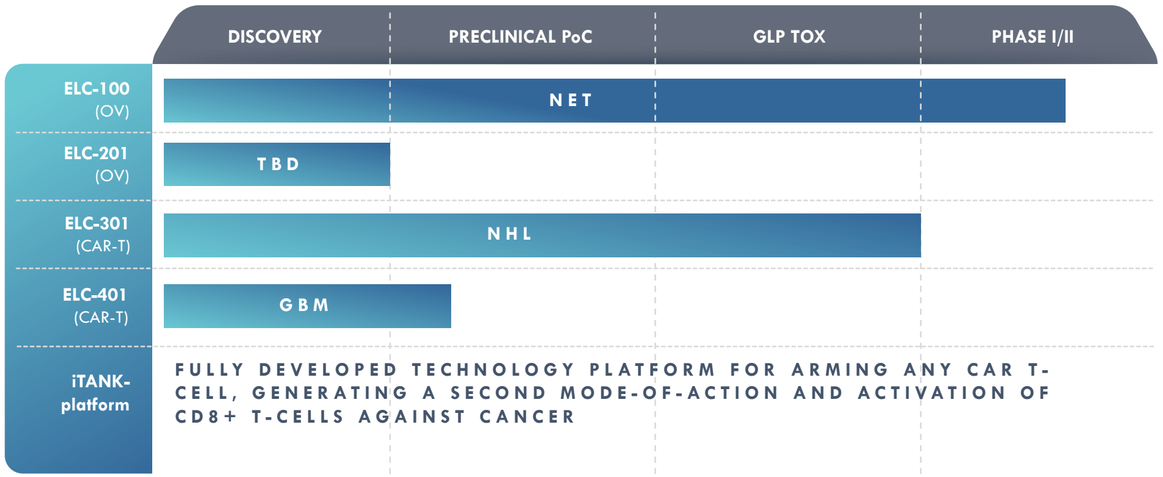
ELC-301

ELC-301 is a CAR T-cell therapy developed for the treatment of B-cell lymphoma, a cancer that originates in the lymphatic system. Compared to the approved CAR T drugs, ELC-301 targets CD20 instead of CD19. Unfortunately, currently available data suggests that more than 50 per cent of all patients with B-cell lymphoma treated with conventional CD19 CAR T-cells lack a sustained complete response, thus requiring additional treatments to compensate. By targeting CD20, which is over-expressed in B-cell lymphoma, and with the addition of the iTANK platform, Elicera's ELC-301 has the potential to be a gamechanger for B-cell lymphoma patients.

ELC-301 is patent protected for the iTANK platform and has completed GLP toxicology studies and a phase I/II clinical study is being planned.

ELC-401

Meanwhile, ELC-401 has glioblastoma multiforme (GBM) as its initial indication, so a solid tumour. Thanks to having the protein IL13Ra2 as a target, which is expressed on a wide range of solid tumours, ELC-401 has the potential to target several solid tumour indications, making it a very versatile candidate.



Project Portfolio
Source: Elicera Therapeutics

POSITIONING

POSITIONING

Oncoloytic Viruses

Every year, about 12 000 people are estimated to be diagnosed with NET in the US. Moreover, in 2017, according to **Research and Markets**, there were approximately 450 000 people with NET globally and the total global market was valued to 3.57 billion USD.

Elicera has recognised one competitor, **Seneca Therapeutics**, developing a therapy within NET based on OV technology. Seneca is currently in clinical phase I/II, and preliminary data has indicated an effective treatment. Another phase I/II trial is planned by the company in combination with a CPI. The total market for OV therapies is estimated to reach 750 billion USD by 2026, according to **KuicK Research**.

As of today, there is only one commercially available OV in the two most important pharmaceutical markets (USA and Europe): Amgen's *Imlygic* (talimogene laherparepvec), a modified herpes simplex virus used for the treatment of melanoma.

CAR T-cells

The FDA has so far approved five CAR T treatments. The first two approvals came in 2017 with **Novartis**' *Kymriah* and **Gilead Science**'s *Yescarta*, both for the treatment of diffuse large B-cell lymphoma, a type of non-Hodgkin's lymphoma and B-cell acute lymphocytic leukaemia. Since then, in the past year alone, the US has seen three more CAR T therapy approvals: Gilead Science's *Tecartus* for the treatment of mantle cell lymphoma, Bristol Myers Squibb's (BMS) *Breyanzi,* the third CAR T treatment for B-cell lymphoma, and, most recently - (March 26, 2021) - *BMS's Abecma*, the first CAR T-cell therapy for multiple myeloma.

The global market for CAR T therapies was estimated to 1.8 BUSD in 2018 and is expected to grow to 2.6 BUSD by 2024 according to American market research firm **BioInformant**. There are approximately 115 companies developing CAR T treatments worldwide, of which 14 are based in Europe – Elicera is the only one in Sweden.

MARKET AND REFERENCE DEALS

MARKET AND REFERENCE DEALS

Through Elicera's pipeline and proprietary technology platform, the company has created several opportunities to execute on their strategy to form partnerships and licensing deals for further development of their projects.

A strong IP position and well-designed preclinical and clinical studies, along with a profound understanding of the field, make a promising foundation for future discussions with potential partners.

High interest for new IOs

In the late 2010s several large pharmaceutical and biotech companies started to position themselves within the IO field through some notable acquisitions.

In 2017, Gilead Sciences acquired **Kite Pharma** in a deal worth 11.9 BUSD and **Cell Design Labs** for 567 MUSD. Celgene acquired **Juno Therapeutics** in 2018 for 9 BUSD and Celgene was later targeted a year later by BMS in a deal worth 74 BUSD.

Big pharmas **Merck** and **Bayer** have also been active in recent years in taking a position on the front lines of IO. Several licensing deals with regards to technological platforms and development programs have been struck, but also within manufacturing capabilities.

In recent years, German **Boehringer Ingelheim** has been active within OV therapeutics. In 2018, they acquired **ViraTherapeutics** for 244 MUSD, and, in 2020, they added German CDMO **Labor Dr Merk & Kollegen** in a deal of undisclosed value.

In the following tables, we have listed some of the most recent and relevant licensing deals in the area of CAR-T and OVs.

BENCHMARK LICENCING DEALS AND ACQUISITIONS - CAR T-cells

Date	Licensee/Acquirer	Licensor	Area	Candidate/drug	Phase	Territory	Total deal value (USD)	Upfront (USD)
10 Feb. 2021	AbbVie	Caribou	CAR T-cell	Platform			340 M	40 M
8 Jan. 2021	Chimerix	Oncoceutics	CAR T-cell	ONC-201	II		360 M	78 M
31 Jan. 2021	PerkinElmer	Oxford Immunotec	T-cell immunology				591 M	
28 Jan 2021	Merck	Artiva	CAR NK-cell				1.8 B	30 M
18 Dec 2020	Merck	Janux Therapeutics	T-cell engager	TRACTr	Preclinical		1.0 B	
7 Dec. 2020	Bayer	Atara Biotherapeutics	CAR T-cell		I		610 M	60 M
9 June 2020	Innovent Biologics	Roche	CAR T-cell				2.1 B	140 M

BENCHMARK LICENCING DEALS AND ACQUISITIONS - OVs

Date	Licensee/Acquirer	Licensor	Area	Candidate/drug	Phase	Territory	Total deal value (USD)	Upfront (USD)
7 Dec. 2020	Astellas	KaliVir	OV	Two OV projects	Preclinical	Worldwide	578 M	56 M
21 Feb 2018	Merck	Viralytics	OV	Cavatak	II		394 M	
2 May 2018	Johnson & Johnson	BeneVir Biopharm	OV	Platform			1 B	140 M
10 Oct 2017	AbbVie	Turnstone Biologics	OV	Ad-MG1-MAGEA3	I/II		Not disclosed	
13 Sep 2016	Boehringer Ingelheim	Vira Therapeutics	OV		Preclinical, platform		257 M	

IP-SITUATION

IP-SITUATION

Elicera has an ongoing process for protecting the intellectual property for its drug candidates and its platform technology. The company has a number of patent applications pending approval, and its first development project ELC-100 is patent approved in the US. To further build its IP portfolio, Elicera intends to apply for *orphan drug designation* (ODD) for drug candidates targeting rare diseases, possibly prolonging market exclusivity by ten years in Europe and by seven years in the US.

In 2014, the US patent for ELC-100 was sold to the Swedish biotech company Immunicum. In the agreement, Elicera received exclusive global rights to use the technology to develop OVs for the treatment of neuroendocrine tumours. Immunicum has a "right of first refusal," being first-in-line to negotiate a commercial license on any product developed targeting neuroendocrine tumours using the patent. The companies have also agreed to make low digit royalty payments and other fees to the counterpart if they generate their own revenue from the technology.

Elicera's patent portfolio is outlined in the adjacent table.

Drug Candidate	Title	Application Year	Approved	Valid through
ELC-100	Hexon TAT-PTD Modified Adenovirus and uses thereof	2013	US	2025
ELC-201	Adenovirus for treatment of cancer	2021	-	2041
ELC-301/iTANK	T-Cell Immunotherapy	2016	-	2036
ELC-401	CAR T IL-13Ra2	2020	-	2040

FINANCIAL STATUS

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By the end of the first quarter 2021, Elicera had assets totaling 9.3 MSEK, most of it consisting of a cash position of just over 8 MSEK. On the other side of the balance sheet, equity amounted to a total of 7.8 MSEK, and current liabilities at 1.4 MSEK, of which most consists of accounts payable. This corresponds to an equity-to-asset ratio of 84.8 per cent.

Historically, Elicera Therapeutics has been successful so far in attracting soft money to its development projects. Most notably, it has received almost 25 MSEK from iCANCER, a crowdfunding campaign connected to the ELC-100 project. In 2019, Professor Essand received 13.5 MSEK in grants from **The Swedish Cancer Society**, and, a year later, in 2020, a grant of 6 MSEK was awarded to Elicera by the **The Sjöberg Foundation**.

The IPO is a major milestone

Now, the company has advanced to a level where it is ready be exposed to investors and go public on the First North Growth Market. In connection with the IPO, the company will raise 52 MSEK before costs, issuing 6 500 000 new shares at 8 SEK per share with a greenshoe option of 10 MSEK corresponding to an additional 1 250 000 shares. The subscription price of 8 SEK per share implies a valuation of the total equity of 148 MSEK post IPO.

The offer includes a warrant with an exercise price set at 11.60 SEK per share, with subscription period running from 1-30 November 2022. Potentially, the warrant could add another 37.7 MSEK to the company.

The company expects the capital infusion, together with existing cash, to secure funding for operations at least into 2023.

Apart from these warrants, there have been no other warrants, convertibles or other securities issued by the company for the purpose of raising new capital.

Financial calendar	Date
Q2 results	21 August, 2021
Q3 results	18 November, 2021
Q4 results and 2021 year-end report	17 February, 2022

BIOSTOCK'S COMMENTS

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Elicera Therapeutics is a cell and gene therapy company focusing on IO, thus developing therapies that use the patient's own immune system to fight cancer. The company's work is based on several years of research by Professor Magnus Essand at Uppsala University. His research team has been able to successfully secure several research grants throughout the years, enabling Elicera to develop its therapeutic platforms to quite advanced stages without having to turn to investors until 2020, when the company conducted an oversubscribed share issue.

This background gives Elicera valuable and important experience that minimises the risk of the company not being able to conduct the planned clinical trials with its therapeutic candidates in an optimal way.

Elicera is now a clinical stage company with a diverse project portfolio that includes the development of the next generation of OV candidates combining three modes-of-action for multiple cancer indications.

Moreover, the IO company is developing 4th generation CAR T therapies for enhanced treatment of solid and non-solid tumours. This makes Elicera a first mover in a new space with the majority of CAR T companies still working on 2nd generation, which are only aimed at non-solid tumours.

OV and CAR T therapies in themselves are two technologies that have generated great interest within the oncology field thanks to their promising therapeutic potential. However, *Elicera's key strength as an innovator is the development of the company's own technology platform iTANK. iTANK has the potential to give rise to a multifaceted attack on tumours with both CAR T-cells and OVs to inhibit tumour growth and prolong survival – something that current marketed IO therapies are unable to do.*

The execution of these ambitious plans is dependent on the strong IP foundation, built on patents granted, licenced, or pending for all key assets, including the drug candidates and the iTANK platform.

It is further dependent on a strong organisation, and Elicera's management team and board have in-depth experience in the immunotherapy field and of managing fast-growing companies and building asset value through collaborations and licencing deals.

Overall, Elicera's strengths are based on a profound understanding of how cells and viruses can be genetically modified to trigger a robust immune response to cancer. This has led to the development of the iTANK platform, which gives the company the means to push the boundaries of IO, making Elicera an attractive potential partner for other drug developers in the IO space who can make the most of iTANK for their own drug development purposes.

Recent acquisitions and licensing deals in the field, validate the great interest shown by pharmaceutical and biotech companies in positioning themselves within IO. Therefore, the listing of the share will bring an opportunity to life science investors interested not only in next generation IOs, but also in the potential for compelling collaborations with other drug developers in the IO space, including big pharma.

APPENDIX

ABBREVIATIONS

ASCO	American Society of Clinical Oncology
BCL	B-cell Lymphoma
BMS	Bristol Myers Squibb
CAR T-cells	Chimeric Antigen Receptor T-cells
CDMO	Contract Development and Manufacturing Organisation
CPI	Checkpoint Inhibitor
CRO	Contract Reseearch Organisation
CTA	Clinical Trial Application
FDA	Food and Drug Administration
GBM	Glioblastoma Multiforme
GLP	Good Laboratory Practice
GMP	Good Manufacturing Practice
IO	Immuno-oncology
IP	Intellectual Property
IPO	Initial Public Offering
iTANK	ImmunoTherapies Activated with NAP for effective Killing
NAP	Neutrofil Activating Protein
NET	Neuroendocrine Tumours
NHL	Non-Hodgkins Lymphoma
ODD	Orphan Drug Designation
OV	Oncolytic Virus
PoC	Proof-of-Concept
SEK	Swedish Kronor
USD	US Dollars

REFERENCES

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