

Sirnaomics (2257 HK)

A differentiated biotech company in RNAi therapeutics

■ **Two well-verified proprietary RNAi delivery platforms.** Sirnaomics is a clinical-stage RNA therapeutics company with a strong presence in both Asia and the US. Delivery platforms are critical to the intact delivery of RNA therapeutics to the cells where they are needed. Sirnaomics has developed two platforms of proprietary delivery technologies: (1) PNP delivery platform for local or systemic administration of RNAi therapeutics to target the activated endothelial cells, multiple liver cell types beyond liver hepatocyte, and (2) GalNAc-RNAi delivery platform GalAhead™ for subcutaneous administration of RNAi therapeutics to the liver hepatocyte. Based on the PNP platform, Sirnaomics is currently advancing RNAi therapeutics for oncology applications of two core products, STP705 and STP707. Additionally, STP122G represents the first drug candidate of GalAhead™ technology entering clinical development.

■ **Prioritized innovative product pipeline.** Based on the PNP delivery and GalAhead™ delivery platforms, Sirnaomics has developed a prioritized innovative product pipeline. Currently, the Company focuses specifically on the US and Asia markets with a strategy to conduct trials in the US first and then extending to Asian countries. The Company's lead drug candidate STP705, formulated for local administration for the treatment of Non-Melanoma Skin Cancer (NMSC), and STP707, formulated for systemic administration for the treatment of solid tumors respectively, have both achieved positive PhII clinical readouts. The Company's top priority is to bring STP705 for the treatment of isSCC toward commercialization. After completing an End-of-PhII meeting with the US FDA in 1H23, the Company is well-positioned to advance the PhIII confirmatory clinical development of STP705 for the treatment of isSCC with FDA's guidance. The PhII trial of STP705 in BCC is expected to have final data readout in 2H23. For medical aesthetics applications, with excellent safety and clear efficacy signals demonstrated in PhI study for fat reduction in adults undergoing abdominoplasty, the Company is preparing a communication package for consultation with FDA regarding the initiation of a PhII study, and is also in active discussion on potential collaborations. For STP707, with the positive interim data, the Company will explore collaboration of a PhII combination trial combining STP707 with novel approved cancer therapies such as immune checkpoint inhibitors as well as chemotherapy for solid tumors (i.e. CCA, HCC, melanoma or pancreatic cancer).

Earnings Summary

(YE 31 Dec) (US\$mn)	FY20A	FY21A	FY22A	1H22A	1H23A
Revenue	N/A	N/A	N/A	N/A	N/A
Admin expenses	(5.2)	(16.1)	(24.2)	(11.1)	(10.8)
R&D expenses	(14.9)	(40.7)	(67.6)	(32.1)	(30.7)
Net profit/loss	(46.4)	(215.9)	(97.4)	(46.1)	(41.1)

Source: Company data, Bloomberg

NOT RATED

Current Price **HK\$31.90**

China Healthcare

Jill Wu, CFA
 (852) 3900 0842
 jillwu@cmbi.com.hk

Andy Wang
 (852) 3657 6288
 andywang@cmbi.com.hk

Stock Data

MktCap(HK\$m)	2,796
Avg3mthst/o(HK\$m)	3.38
52wHigh/Low(HK\$)	62.50/30.00
TotalIssuedShares(mn)	88

Source: FactSet

Shareholding Structure

Lu Yang	12.38%
Dai Xiaochang	9.00%

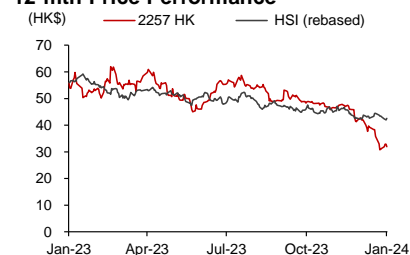
Source: Bloomberg

Share Performance

	Absolute	Relative
1-mth	-21.3%	-20.1%
3-mth	-31.9%	-25.3%
6-mth	-40.6%	-31.8%

Source: FactSet

12-mth Price Performance



Source: FactSet

Website: <https://sirnaomics.com>

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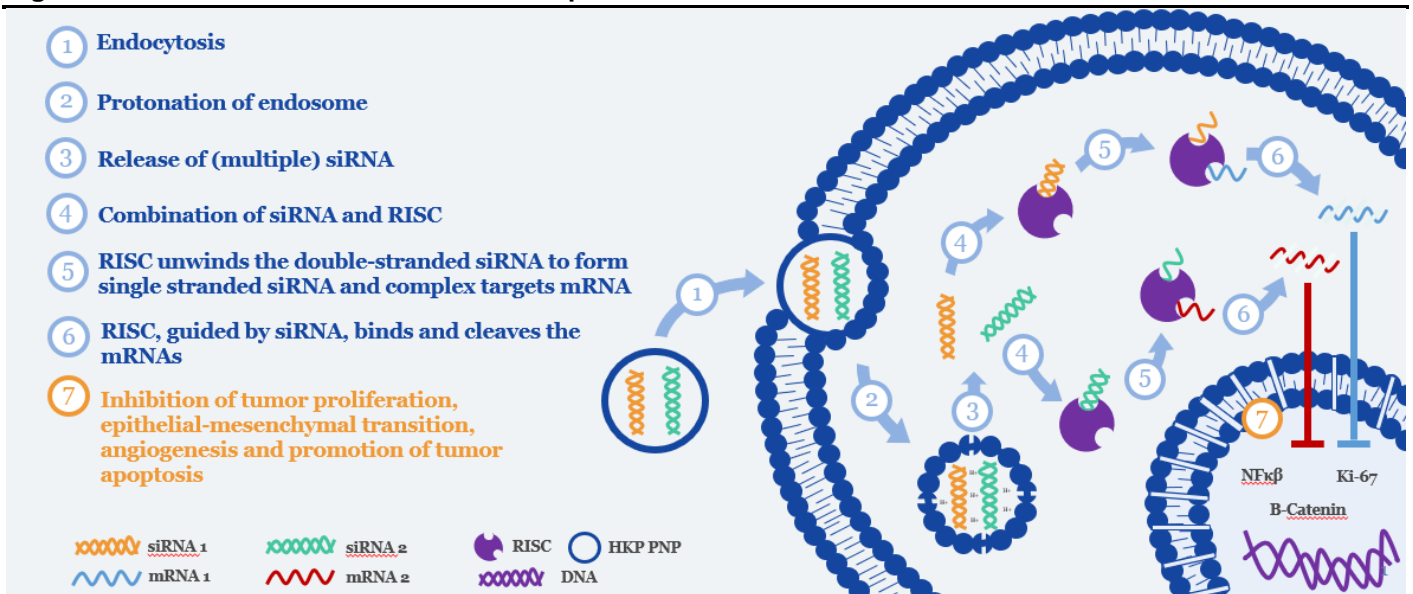
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A differentiated biotech company in RNAi therapeutics

Sirnaomics is a clinical-stage RNA therapeutics company with a strong presence in both Asia and the US. Since its establishment in the US in 2007, Sirnaomics has developed two platforms of proprietary delivery technologies: Polypeptide Nanoparticle (PNP) Formulation and the 2nd generation of GalNAc conjugation GalAhead™. Based on the PNP platform, Sirnaomics is currently advancing RNAi therapeutics for oncology applications of two core products, STP705 and STP707. Additionally, STP122G represents the first drug candidate of GalAhead™ technology entering clinical development. The Company was listed on the HKEX in Dec 2021.

RNA interference (RNAi) therapeutic leverages the biological response of degrading (mRNA) before it gets translated into a protein. RNAi therapies utilize two short segments of RNA, known as short interfering, or silencing RNA (siRNA), to defeat proteins involved in the progression of certain diseases. The siRNA segments are encapsulated within a histidine-lysine polypeptide (HKP) that ensures their intact delivery to target cells within the body. Once taken up at a cellular level, the siRNA strands are released to activate an enzymatic process driven by the RNA-Induced Silencing Complex (RISC). Through this process, the messenger RNA strands of the disease proteins are targeted and cleaved, ultimately preventing their function to express proteins within a cell. In addition to the synergistic effect of dual gene/protein targeting, RNAi therapeutics prevent the reproduction of harmful proteins, rather than neutralizing the existing disease. RNAi therapeutics offer speedier development timelines compared to traditional drug development methods, which involve the screening of small molecules or generating antibodies against a protein.

Figure 1: Mechanism of action of RNAi therapeutic



Source: Company data, CMBIGM

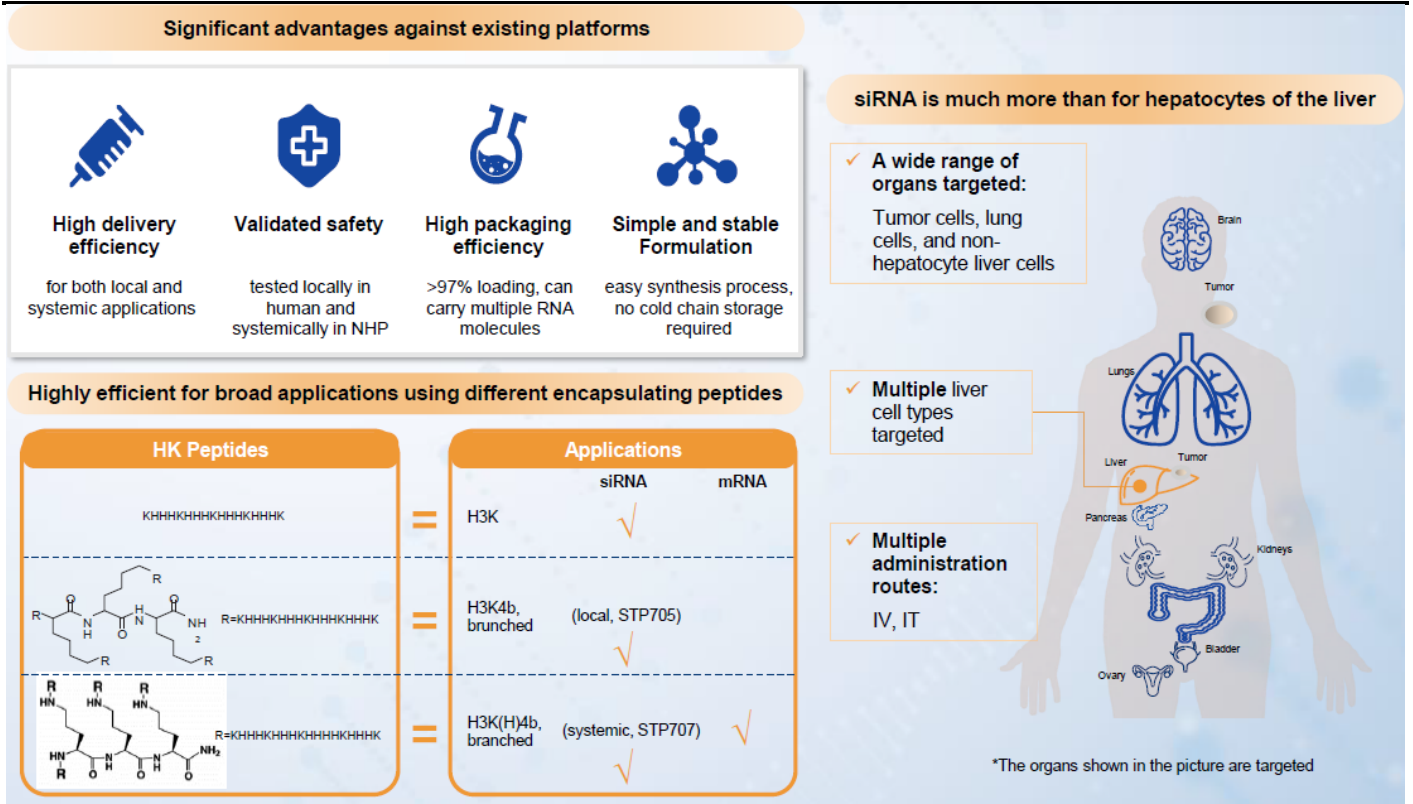
Two proprietary delivery platforms

Delivery platforms are critical to the intact delivery of RNA therapeutics to the cells where they are needed. The Company has developed two delivery platforms for RNA therapeutics, including (1) PNP delivery platform for local or systemic administration of RNAi therapeutics to target the activated endothelial cells, multiple liver cell types beyond liver hepatocyte, and (2) GalNAc-RNAi delivery platform GalAhead™ for subcutaneous administration of RNAi therapeutics to the liver hepatocyte.

The PNP delivery platform is based on a naturally biodegradable polypeptide molecule, a histidine-lysine (HK) polymer. The HK polymers vary in the pattern of repeating histidine and lysine moieties and may be branched. When admixed at the appropriate ratio with RNA, the HK polymers self-assemble into nanoparticles that encapsulate the RNA. The PNP delivery platform allows delivery of both siRNA and mRNA to diseased cells via local or systemic administration. Sirnaomics has obtained exclusive global rights for the PNP delivery technologies and have built a comprehensive IP portfolio covering PNP-based RNA medicine products for cancers, fibrosis diseases and medical aesthetics. Not only does the PNP delivery platform offer improved delivery efficiency based on effective cellular uptake and efficient endosomal release, it can also carry more than one siRNA to enable silencing of multiple targets simultaneously, leading

to better therapeutic capabilities through synergistic effects. The PNP delivery platform biodegrades within the cell and has a low toxicity. The success of PhIIa and PhIIb oncology studies with one of the Company’s core assets STP705 validates the effectiveness of this platform.

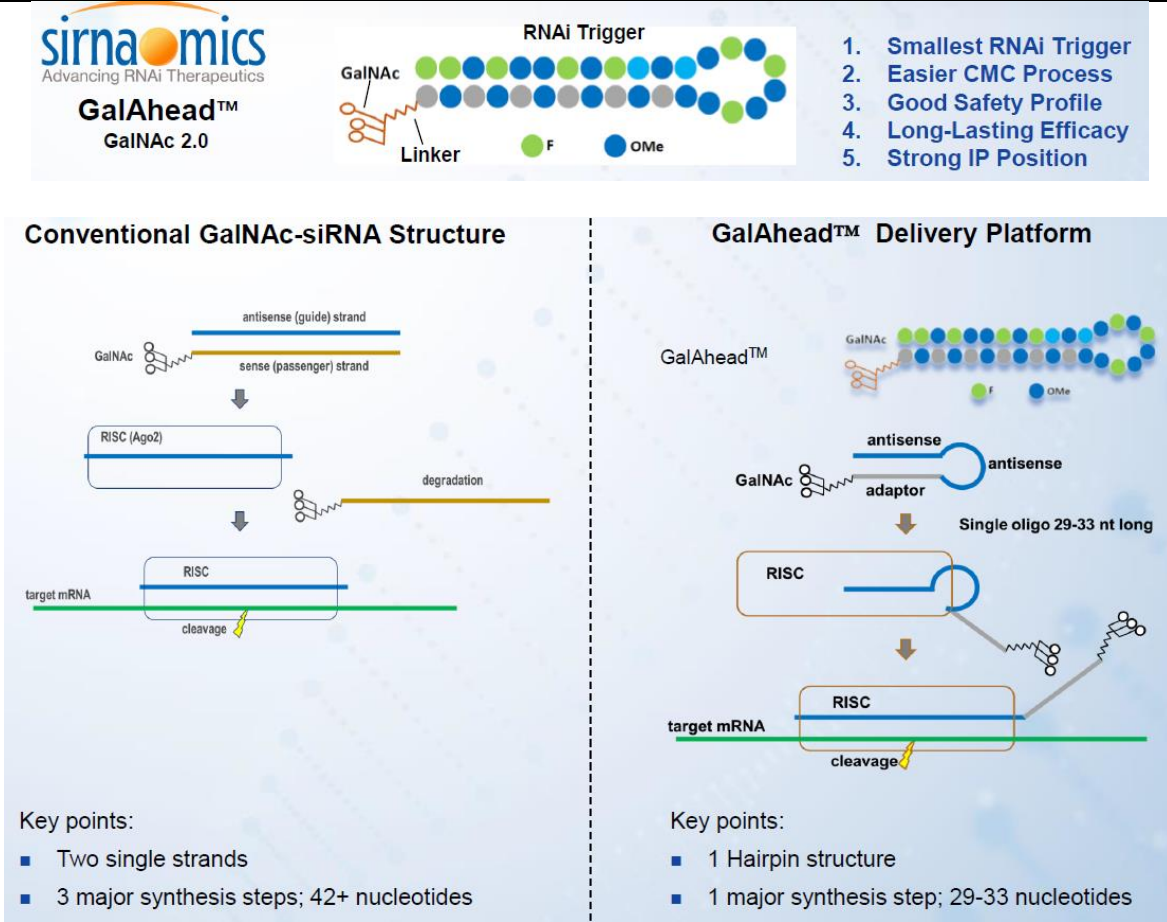
Figure 2: Polypeptide Nanoparticle (PNP) platform for RNA delivery



Source: Company data, CMBIGM

The Company’s GalNAc-RNAi delivery platform, GalAhead™, enables specific delivery to liver hepatocytes with enhanced endosome escape properties and dual siRNA target design. This platform relies on unique RNA structures that allow the knockdown of single or multiple distinct mRNA targets, specifically two key technological components: mxRNA™ and muRNA™. mxRNAs™ are comprised of single ~30 nt long oligonucleotides to downregulate individual genes, while muRNA™ molecules are comprised of multiple oligonucleotides to silence two or more targets simultaneously. The targeted delivery technology has demonstrated specific liver hepatocyte targeting via a cell surface receptor: ASGPR. The Company’s proprietary formulation improves cellular uptake, enables multiple gene targeting and offers higher potency compared to conventional GalNAc-RNAi platforms. Based upon this platform, the Company has developed a series of siRNA drug candidates, validated them with cell culture and animal models of disease, and conducted rodent safety and non-human primate efficacy and safety studies.

Figure 3: GalAhead™ platform for RNA delivery



Source: Company data, CMBIGM

Prioritized innovative product pipeline

Based on the PNP delivery and GalAhead™ delivery platform, the Company has developed an innovative product pipeline. The Company has prioritized resources allocation in programs that have the significant potential and has put on hold or slowed down the development of other programs. The Company’s lead drug candidate STP705, formulated for local administration for the treatment of Non-Melanoma Skin Cancer (NMSC), and STP707, formulated for systemic administration for the treatment of solid tumors respectively, have both achieved positive PhII clinical readouts. Currently, the Company is focused specifically on the US and Asia markets with a strategy to conduct trials in the US first and then extending to Asian countries.

Figure 4: Prioritized product pipeline

	Candidate	Gene Targets	Indications	Delivery Platform	Pre-clinical	IND Enabling	IND	Phase I	Phase II	Phase III	Rights	Status
Oncology	STP705	TGF-β1/COX-2	isSCC	PNP-IT	[Progress bar: Pre-clinical to Phase II]					Global	Obtained guidance from FDA for late-stage trial	
			BCC		[Progress bar: Pre-clinical to Phase II]					Global	Reached optimal dosage, ready to move to next phase	
	STP707	TGF-β1/COX-2	Multiple solid tumors	PNP-IV	[Progress bar: Pre-clinical to Phase I]					Global	50 patients dosed; Strong safety profile and efficacy signal	
Medical Aesthetics	STP705	TGF-β1/COX-2	Fat remodeling	PNP - subcutaneous	[Progress bar: Pre-clinical to Phase I]					Global	Trial to be completed in 2H 2023	
Antiviral	RV-1730 ¹	SARS-CoV-2	Covid-19 vaccine	LNP Intramuscular	[Progress bar: Pre-clinical to Phase I]					Global	IND approved by FDA	
GalAhead™	STP122G	Factor XI	Anticoagulation / Thrombosis	GalAhead™ subcutaneous	[Progress bar: Pre-clinical to Phase I]					Global	First cohort dosed	
	STP125G	ApoC3	Hypertriglyceridemia		[Progress bar: Pre-clinical to Phase I]					Global	IND in 2023	
	STP144G	Complement Factor B	Complement-mediated diseases		[Progress bar: Pre-clinical to Phase I]					Global	IND in 2024	
	Seven Other Early-Stage Assets				[Progress bar: Pre-clinical]					Global		

Abbreviations: isSCC: squamous cell carcinoma in situ; BCC: basal cell carcinoma; PNP: polypeptide nanoparticle (PNP) RNAi delivery platform; PNP-IT: PNP platform formulated for intratumoral administration; PNP-IV: PNP platform formulated for intravenous administration; GalAhead™: GalNAc RNAi delivery platform that conjugates GalNAc moieties to RNAi triggers, LNP: lipid nanoparticle (LNP) formulation for delivery of mRNA
Note: 1. Research and development conducted by our subsidiary RNAimmune.

Source: Company data, CMBIGM

Non-melanoma skin cancers (NMSC) is one of the most common cancers in the US with growing market potential. Basal-cell carcinoma (BCC) and Squamous cell carcinoma (SCC) account for the majority of NMSCs with more than 5 million newly diagnosed cases estimated to occur in the US every year. Squamous cell carcinoma in situ (isSCC), also known as Bowen disease, is the earliest form of SCC.

The Company's top priority is to bring STP705 toward commercialization for the treatment of isSCC. After completing an End-of-PhII meeting with the US FDA in 1H23, the Company is well-positioned to advance the PhIII confirmatory clinical development of STP705 for the treatment of isSCC with FDA's guidance. The PhII trial of STP705 in BCC was expected to have final data readout in 2H23. For medical aesthetics applications, with excellent safety and clear efficacy signals demonstrated in PhI study for fat reduction in adults undergoing abdominoplasty, the Company is preparing a communication package for consultation with FDA regarding the initiation of a PhII study, and is also in active discussion on potential collaborations.

For STP707, with the positive interim data, the Company will explore collaboration of a PhII combination trial combining STP707 with novel approved cancer therapies such as immune checkpoint inhibitors as well as chemotherapy for solid tumors (i.e. CCA, HCC, melanoma or pancreatic cancer).

Well-organized operation system

Promoting R&D by collaborations

As of Jun 2023, the Company had 180 employees, including 88 in the R&D team (49%). The Company spent US\$67.6mn in R&D in 2022, and in 1H23, the R&D expenses amounted to US\$30.7mn. As of Jun 2023, the Company had US\$77.3mn in cash and financial investment.

The Company has forged collaborations to promote the R&D activities of its pipeline products. In Apr 2021, Sirnaomics and Walvax entered into a co-development and license agreement to co-develop the anti-influenza RNAi therapeutics product (STP702) to combine the strength from Sirnaomics' RNAi R&D expertise and Walvax's largescale pharmaceutical product manufacturing and in marketing antiviral vaccines/drugs in China. Sirnaomics licenses out the greater China rights for STP702 for treatment of common influenza virus infection to Walvax.

Preclinical studies showed that STP705 combined with an anti-PD-L1 antibody demonstrated enhanced anti-tumor activities in the mouse xenograft tumor model of human cholangiocarcinoma and orthotopic mouse liver cancer model. To explore the potential of STP705 in combination with PD-1 antibody, the Company has forged collaborations with

leading biopharma companies. In Jan 2020, Sirnaomics entered into a collaboration agreement with Innovent to develop a combination therapy consisting of STP705 (TGF- β 1/COX-2) and sintilimab (PD-1) for use in advanced cancers, including NSCLC in the US. In Jan 2020, Sirnaomics also entered into a collaboration agreement with Shanghai Junshi to develop a combination therapy consisting of STP705 and toripalimab for use in advanced melanoma, squamous cell carcinoma and other agreed clinical applications in mainland China, Hong Kong, Macau, Taiwan and the US.

Sufficient manufacturing to support clinical trials

In 2021, the Company completed the construction of its pilot plant clinical manufacturing facility in Guangzhou with an annual production capacity of 50,000 vials of lyophilized doses for injection, which was sufficient to support all currently planned clinical trials. During 2022, eleven batches of drug products were produced at this facility to support the Company's preclinical and early stage of clinical studies.

Investment in subsidiaries to secure future synergies

Sirnaomics has two non-wholly owned subsidiaries, RNAimmune and EDIRNA, which we expect have synergetic value for the Company's R&D. RNAimmune is a non-wholly owned, controlled subsidiary of Sirnaomics (60% interest) specializing in mRNA-based vaccines and therapeutics. RNAimmune holds a global exclusive right to the proprietary Polypeptide Lipid Nanoparticle (PLNP) technology for mRNA delivery from Sirnaomics. RNAimmune's pipeline includes vaccines for infectious diseases (RSV, COVID-19, influenza, HSV, etc.) and cancer vaccines (RAS, NY-ESO-1), along with mRNA-encoded antibodies. EDIRNA, a non-wholly owned subsidiary (44% interest) set up in 2022, is an early-stage biotech company focused on RNA-Editing technology for the discovery and development of novel therapeutics. Sirnaomics has provided an initial funding and licensed exclusive proprietary delivery technologies to EDIRNA for advancing its proprietary "Edit-to-Cure Therapeutics™" platform, targeting diseases with high unmet clinical needs.

Core product: STP705 (TGF- β 1/COX-2 inhibitor, local administration)

Sirnaomics' leading product candidate, STP705, a dual TGF- β 1/COX-2 inhibitor, is a siRNA therapeutic that takes advantage of a dual-targeted inhibitory property and polypeptide nanoparticle (PNP)-enhanced delivery to directly knock down both TGF- β 1 and COX-2 gene expression. Knockdown of TGF- β 1 and COX-2 resulted in increased T-cell infiltration to tumors, enhancing killing of tumor cells by the immune system.

The drug candidate has received multiple IND approvals from both the US FDA and the NMPA, including treatments of cholangiocarcinoma, non-melanoma skin cancer and hypertrophic scar. There are currently three programs prioritized for STP705: a late-stage (PhIII) clinical development for Squamous Cell Carcinoma in situ (isSCC), completion of a PhII for Basal Cell Carcinoma (BCC) and a PhI for the fat remodeling. For other indications, STP705 has received Orphan Drug Designation for the treatment of cholangiocarcinoma (CCA) and primary sclerosing cholangitis (PSC).

STP705's positive PhIIa results in isSCC

The current cornerstone treatment of NMSC are surgery, curettage and electrodesiccation. However, these treatments have higher risk of infection, bleeding and will leave scars on skin. Non-surgical treatments (e.g. drug therapy, cryotherapy, photodynamic therapy, laser and radiotherapy) can be considered for low risk NMSC, but generally they are less effective. Appearance remains one of the key needs in NMSC treatment and has a significant impact on patient preference, especially for patients with lesions in the head or neck. STP705 is expected to provide patients with a preferred option due to its improved cosmetic appearance compared to other treatment options.

In a PhIIa study ([link](#)), a total of up to 25 isSCC subjects were enrolled and evenly divided into five different dosage cohorts. The subjects received intratumor injection of STP705 once a week for up to six weeks. The primary endpoint of the study was the proportion of subjects with complete histological clearance at week 7. As a result, 19/25 (76%) reached the primary endpoint and the 30 μ g and 60 μ g groups demonstrated the best results (9/10) with efficacy of 90%. Five subjects had seven adverse events. No SAEs and no TEAEs related to the study were observed. The dosages of 30 μ g and 60 μ g were selected for clinical PhIIb study.

STP705's positive PhIIb results in isSCC

The two-part, double-blind, randomized PhIIb study (NCT04844983) was conducted to evaluate the safety and efficacy of STP705 in isSCC. The part-one of the study investigated 32 isSCC patients with 30 μ g/ml, 60 μ g/ml and 90 μ g/ml of

STP705 and 12 patients with 0 µg/ml placebo weekly for six weeks repeated dosing. STP705 was administered as an intralesional injection. At the seventh week, overall, 78% of subjects across all groups (32 subjects) achieved histological clearance. The lowest dosage in the study, at Cohort A (30 µg/ml), achieved 89% histological clearance. No significant cutaneous skin reactions and no treatment related AE's or SAE's were observed. Skin Response Scores improved in 4/5 dosing cohorts and there were no dose limiting toxicities noted in the study population.

Figure 5: Efficacy of STP705 in Phllb part-one study for isSCC

	Histological Clearance
Cohort A: 30 µg/ml N = 9	89%
Cohort B: 60 µg/ml N = 12	75%
Cohort C: 90 µg/ml N = 11	73%
Cohort D: placebo group N = 12	58%
Overall Treatment Result	78%

Source: Company data, CMBIGM

The part-two of the study will include 60 additional subjects. The enrolled subjects will be randomly allocated to receive STP705 or placebo injection once a week for six weeks and the lesion will be excised in the seventh week.

STP705's positive Phll results in BCC

A Phll open label dose escalation study (NCT04669808) of STP705 in BCC patients was performed to evaluate the safety, tolerability and efficacy of various doses of STP705 administered as localized injection. A total of 25 subjects which are divided equally among five cohorts (30, 60, 90, 120 and 180 µg dose level) was enrolled.

As a result, in the 180µg dose cohort, the response rate reached 100%. The data showed improved or stable cosmetic result with an excellent safety profile (no adverse events) and no significant cutaneous skin reactions. The additional completed group 6 (240µg dose level) also showed positive (60% complete clearance) results. The promising Phll data demonstrated the potential of STP705 as an alternative to patients with BCC and other non-melanoma skin cancers who have an urgent need for new treatments.

Figure 6: Efficacy of STP705 in Phll study for BCC

	Cohort A: 30 µg (N=5)	Cohort B: 60 µg (N=5)	Cohort C: 90 µg (N=5)	Cohort D: 120 µg (N=5)	Cohort E: 180 µg (N=5)	Cohort F: 240 µg (N=5)
Histological Clearance	1/5 20%	3/5 60%	3/5 60%	2/5 40%	5/5 100%	3/5 60%
Average Skin Response Scores						
Pre-treatment	3.2	2.8	2.6	Scores not reported until final report		
Post-treatment	2.4	2.6	2.6	Scores not reported until final report		

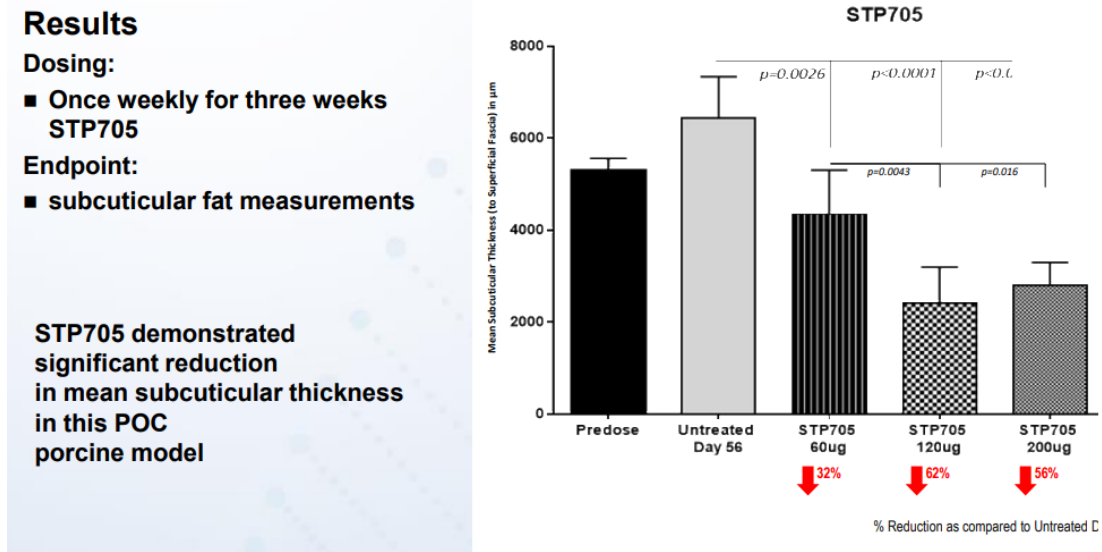
Source: Company data, CMBIGM

STP705's positive Phl interim results in focal fat reduction

The expression of TGF-β1 and COX-2 genes are related to obesity. Recent findings on the role of TGF-β1/Smad3 signalling in the pathogenesis of obesity and type 2 diabetes have underscored its importance in metabolism and adiposity, and elevated TGF-β1 has been previously reported in human adipose tissue during morbid obesity and diabetic neuropathy. The COX-2 gene and immunoreactive proteins have also been documented to be highly expressed and elevated in adipose tissue under morbid obesity conditions. Sirnaomics' lead product candidate STP705 is a topically applied TGF-β1 and COX-2 inhibitor, with potential for fat remodeling. In addition to the oncology and fibrosis indications, STP705 is also in early-stage studies as a focal fat reduction indication.

In preclinical studies, STP705 demonstrated promising signals in reducing the subcuticular thickness in a PoC minipig model. Additionally, compared with Kybella, STP705 demonstrated less side effect and was more effective given the same dosage based on the minipig model.

Figure 7: STP705's fat reduction in a minipig model experiment



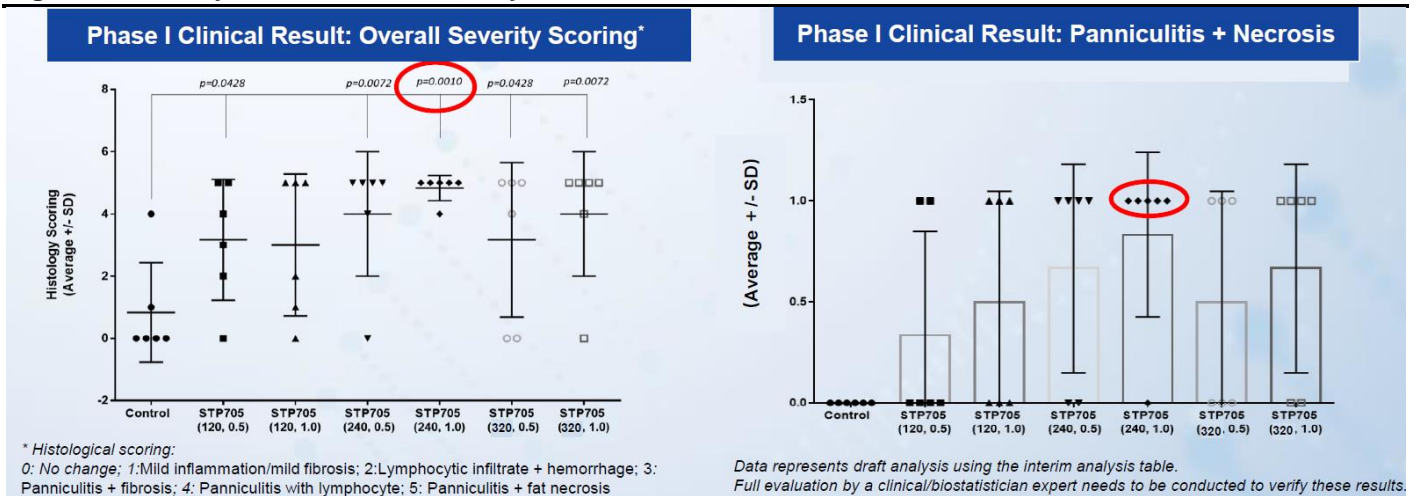
Source: Company data, CMBIGM

A PhI study was performed ([link](#)) to evaluate the safety and tolerability of STP705 for fat reduction, delivered via subcutaneous injection. STP705 was administered in three treatment cycles to six subjects on day 1, 28 and 56. Each subject will be treated with seven injection points. The dosing schedule is as follows: (i) placebo; (ii) 120ug (0.5mL injection), (iii) 120ug (1.0mL injection), (iv) 240ug (0.5mL injection), (v) 240ug (1.0mL injection), (vi) 320ug (0.5mL injection), and (vii) 320ug (1.0mL injection).

The study demonstrated that STP705 was well-tolerated at all doses, concentrations, and volumes, with an excellent safety with very few local skin reactions. There were very few observed treatment-associated adverse reactions and these resolved without intervention. Histologic analysis performed on excised tissue samples provided further evidence of STP705's activity in adipocyte destruction, which occurred in a suggested dose-response manner.

The histological evidence of fat changes that would be seen in fat tissue remodeling such as fat inflammation, panniculitis, fibrosis and fat necrosis were assessed. All tissue samples examined using variables doses of STP705 showed histological evidence suggestive of fat remodeling. Based on the histological scoring and panniculitis, and fat necrosis ranking, a dose-dependent effect was observed for all treatment groups comparing to the placebo group with statistical significance ($P < 0.05$). The 240µg at the volume of 1.0 ml treatment group has demonstrated the most potent activity.

Figure 8: Efficacy of STP705 in PhI study for focal fat reduction

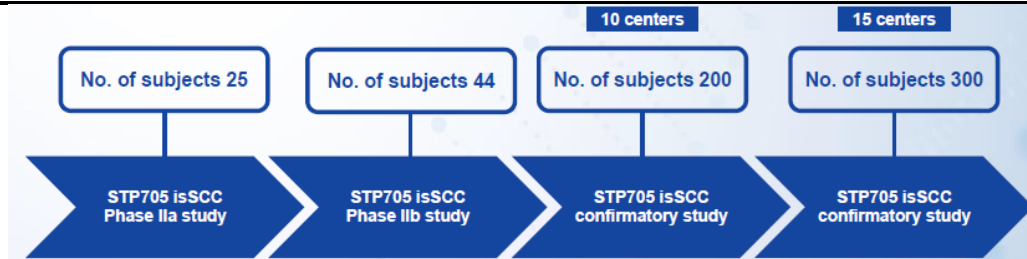


Source: Company data, CMBIGM

The safety and efficacy results of this PhI study support further investigation of STP705 as a potential alternative to other injectables for focal fat reduction. While the Company is preparing a communication package currently for consultation with the US FDA for advancing STP705 into PhII study for medical aesthetics applications, the Company is also in active discussions on potential collaborations for this aesthetics medicine product.

Next steps of STP705

Figure 9: Clinical trial strategy of STP705 for isSCC



Source: Company data, CMBIGM

For isSCC, based on the positive results from PhIIa and PhIIb studies, STP705 is well-positioned to advance into a confirmatory PhIII clinical study for treatment of isSCC. With the guidance from the type B meeting with the FDA, the PhIII study will have a single dosage study as a sub-group of subjects, with the positive results expected to provide the basis for completion of the large registration PhIII trial. For BCC, upon the readout of PhII studies, Sirnaomics expects to move STP705 into which late-stage development pending the FDA's review. Additionally, the preparation of IND application of STP705's PhII trial for total fat reduction is ongoing.

Lead product: STP707 (TGF- β 1/COX-2 inhibitor, systemic administration)

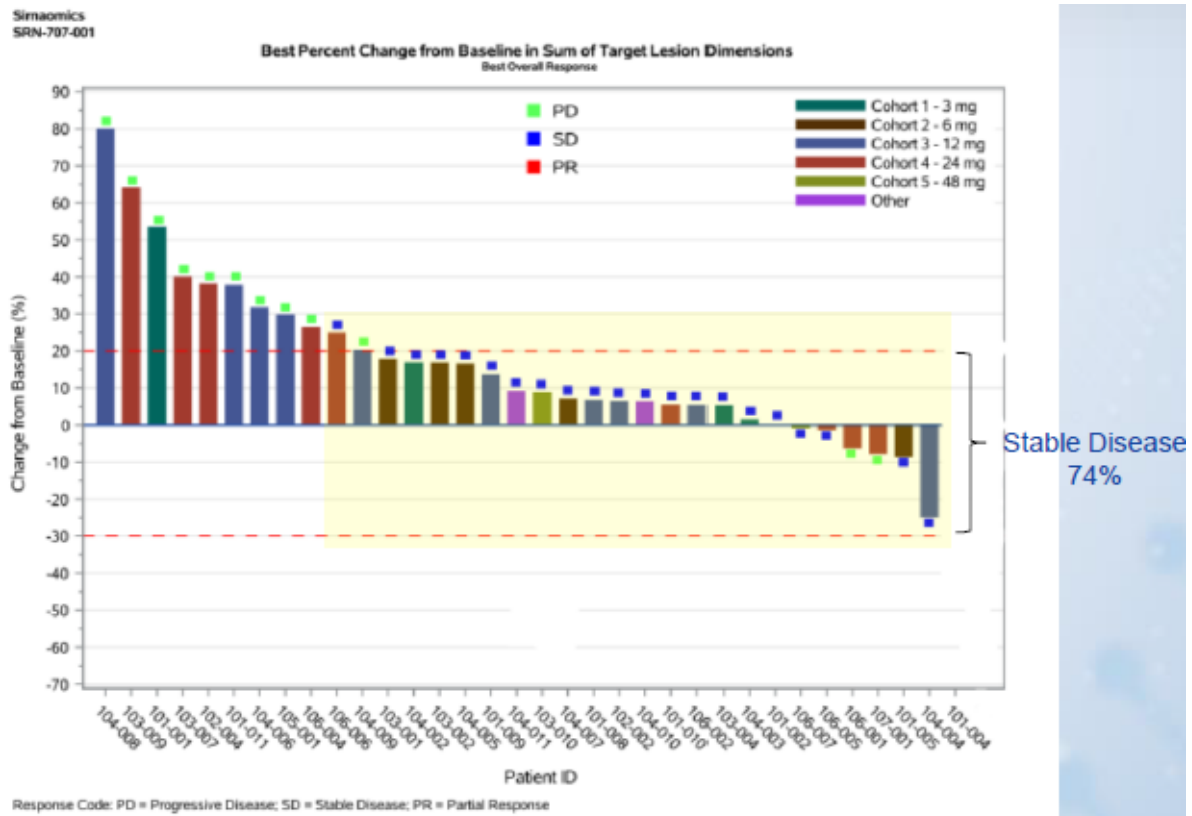
STP707, the Company's second key RNAi-based product based on the PNP delivery platform, is another TGF- β 1 and COX-2 inhibitor that is administered intravenously. A pre-clinical study has demonstrated that simultaneously knocking down TGF- β 1 and COX-2 gene expression in the tumor microenvironment increases active T cell infiltration. A further combination study demonstrated synergistic antitumor activity between STP707 and a PD-L1 antibody using a mouse orthotopic liver cancer model. STP707 is currently in early-stage development for the treatment of solid tumors.

In Nov 2021, a PhI study (NCT05037149) of STP707 was initiated in the US ([link](#)). The study enrolled 50 late-stage cancer patients with solid tumors including liver cancer, pancreatic cancer, colon cancer, melanoma, etc. The patients received intravenous systemic administration of STP707 four times within a 28-day cycle, administered on day 1, 8, 15, and 22, with six cohorts (3 mg, 6 mg, 12 mg, 24 mg, 36mg, and 48 mg).

In the study, the patients were previously treated with multiple rounds of other oncology treatments, including surgery, radiation, and tumor specific first- and second-line therapies. Encouraging efficacy signal was exhibited with 74% of evaluable participants achieving a best response of stable disease (SD) with a time on study of approximate 77 days. In the PhI study, all cohorts demonstrated a strong safety profile with no dose-limiting toxicity noted for any dosing cohort. No drug related AE and SAE were observed.

The results from this basket study support further exploration of STP707 in PhII studies as a potential single drug or a combination treatment with immune check point inhibitor drugs.

Figure 10: 74% of patients had SD in the PhI study of STP707 in late-stage patients with solid tumors



Source: Company data, CMBIGM

Lead Product: STP122G (subcutaneous Injection)

STP122G is a product candidate formulated using the Company’s GalAhead™ platform that targets Factor XI. This is the Company’s first candidate to move through clinical trials based on the GalAhead™ platform. STP122G is conjugated with the GalNAc ligand to facilitate targeted drug delivery when administered by subcutaneous injection.

STP122G is a third-generation Factor XI inhibitor in cases where prior treatments have not completely prevented bleeding for patients with anticoagulant disorders. Factor XI is an enzyme produced predominantly by hepatocytes in the liver and it plays an important role in the body’s blood clotting cascade. By inhibiting Factor XI, STP122G may have a better safety profile than current anticoagulant drugs. There are three types of Factor XI inhibitors currently on the market or in clinical trials: RNA-based, small molecule, and monoclonal antibody treatments. As an RNA-based treatment driven by Sirnaomics’ GalAhead™ delivery system, STP122G targets the hepatocyte to inhibit the production of Factor XI, which could offer long-term efficacy and less risk of bleeding.

The product is currently under PhI clinical study and the Company is developing STP122G as a potential anticoagulant therapy that has the potential to be utilized in a broad range of disease states as a form of therapeutic anticoagulation. The product has the potential to be used in several diseases that require anticoagulation such as atrial fibrillation, pulmonary embolism, deep vein thrombosis (DVT), and deep venous thrombosis prophylaxis for surgical procedures.

In an ongoing PhI study (NCT05844293) of STP122G in the US, Sirnaomics plans to enroll up to five escalating dosing cohorts (25 mg, 50 mg, 100 mg, 200 mg, 400 mg), with eight healthy participants for each of these cohorts. The Cohort 1 was completed in Dec 2023. In the Cohort 1, eight subjects completed dosing and were followed over a period of 140 days. Safety data showed there were no dose-limiting toxicities or serious adverse events. The study will proceed to the next dosing cohorts. The Company expects to have interim data of the study in 1H24.

Disclosures & Disclaimers

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BUY : Stock with potential return of over 15% over next 12 months
HOLD : Stock with potential return of +15% to -10% over next 12 months
SELL : Stock with potential loss of over 10% over next 12 months
NOT RATED : Stock is not rated by CMBIGM

OUTPERFORM : Industry expected to outperform the relevant broad market benchmark over next 12 months
MARKET-PERFORM : Industry expected to perform in-line with the relevant broad market benchmark over next 12 months
UNDERPERFORM : Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

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