China Biotech Services Holdings Limited Stock Code:8037.HK





China Biotech Services Holdings Limited 中國生物科技服務控股有限公司

A constituent stock of MSCI Hong Kong Micro Cap Index



Disclaimer

Forward-Looking Statement

This presentation may contain certain "forward-looking statements" which are not historical facts, but instead are predictions about future events based on our beliefs as well as assumptions made by and information currently available to our management. Although we believe that our predictions are reasonable, future events are inherently uncertain and our forward-looking statements may turn out to be incorrect. Our forward-looking statements are subject to risks relating to, among other things, the ability of our service offerings to compete effectively, our ability to meet timelines for the expansion of our service offerings, and our ability to protect our clients' intellectual property. Our forward-looking statements in this presentation speak only as of the date on which they are made, and we assume no obligation to update any forward-looking statements except as required by applicable law or listing rules. Accordingly, you are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. All forward-looking statements contained herein are qualified by reference to the cautionary statements set forth in this section.

Use of Adjusted Financial Measures (Non-IFRS Measures)

We have provided adjusted net profit, which excludes the share-based compensation expenses are not required by, or presented in accordance with, IFRS. We believe that the adjusted financial measures used in this presentation are useful for understanding and assessing underlying business performance and operating trends, and we believe that management and investors may benefit from referring to these adjusted financial measures in assessing our financial performance by eliminating the impact of certain unusual and non-recurring items that we do not consider indicative of the performance of our business. However, the presentation of these non-IFRS financial measures is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with IFRS. You should not view adjusted results on a stand-alone basis or as a substitute for results under IFRS, or as being comparable to results reported or forecasted by other companies.



Highlights

BNCT

CAR-T

Precision Diagnostics

Corporate

Outlook



Strategic Layout



Our Vision

Committed to building an advanced biotech platform that integrates cancer diagnosis and treatment.

The outline of "Healthy China 2030" indicates that the 5-year survival rate of cancer in China needs to be increased by 15% in 2030

The United States' "Cancer Moonshot" Program: committed to reduce the cancer mortality rate by 50% over the next 25 years.



Highlights



Diagnosis Hong Kong

Since 1968

- Long history;
- Largest scale;
- Latest technology.

BNCT Hainan

Globally Unique

- Approved BNCT equipment for marketing,
- Incorporated into Japan's national health insurance;
- Technological advantages: equipment miniaturization + low time cost + low maintenance cost;
- Known as the "crown pearl" in the field of radiotherapy;
- Will be the second country in the world to offer BNCT for patients upon completion of construction.

CAR-T Shanghai

IND CD20

- The first and only domestically declared and approved for IND CD20 targeted CAR-T in China;
- Has two international patents for CAR-T platform technology;
- Internationally renowned team of scientists.

Group Structure





*China Biotech Services Holdings Limited and a concerted party holds 40% and 20% equity interest in Sunrise Diagnostic Centre Limited, respectively. Therefore, China Biotech Services Holdings Limited is deemed to have a controlling interest of 60% in Sunrise Diagnostic Centre Limited.

Management Team: Professional Background, International States Perspective

Board Members



- Chairman
- Vice Chairman of the Board at Nanjing Medical University
- Executive Director at Sunrise **Diagnostic Centre Limited**

Executive Team



- He has served as Chief financial Officer of Aseng Pharmaceutical. Deputy Chief Financial Officer and IR of Shanghai Fosun Pharmaceutical. Deputy General Manager and Financial Director of Shenzhen BGI, Business Director of Investment Banking Department of Citibank Securities in the East, and senior auditor of Ernst & Young Global Chartered Management Accountant and Senior Member of the Royal Institute of Chartered Management Accountants He holds a Bachelor's degree in food Science and Engineering from Shanghai Jiao Tong University
 China Europe Business School MBA



- Ex-president of Harbin Pharmaceutical Group Co., Ltd
- Ex- President of Novartis China
- Ex-Managing Director of SDICFUND
- Ex-Operations Director of China Merchant Group's Health Industry Division
- Ex-General Manager of China Merchant Group's Health Industry Investment Company

Edison Bina

CIO

■ In charge of alternative investment

He has participated in the listing and acquisition of a number of groups

Bachelor of Economics and Political

Science, University of London, MBA, Guanghua School of Management,

many years

Peking University

business of CCB International Asset

Management Company, industry group of Haitong International Investment Banking Department, and Singapore Dahua Securities, he has worked for



- Bachelor in Chemical Engineering & Master in Biochemistry, Tsinghua University
- EMBA at National University of Singapore
- Founding chairman of Shenzhen Life Science and Biotechnology Association
- General manager of Guangdong Innovation Center for Small Molecule Drug Discovery



- Deputy Director of National Institute of Biological Sciences (NIBS), Beijing
- Director of Synthetic Biology, NIBS
- PhD in Biochemistry from University of Texas
- Bachelor of Biology from Peking University



Prof. Yang Xuanming Chief Scientist

- Special Researcher, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University
- Chief Scientist of Shanghai Longyao Biotech
- Post Doc in pathology, University of Chicago
- PhD at Center for Infection and Immunity, Chinese Academy of Sciences



Dr. Rubie Lo **Executive President** (New Drugs)

- Internationally certified for pharmaceutical and medical device regulatory affairs
- Master's degree in Pharmacy and Doctorate in Medical and Health Sciences
- Over 11 years of experience in large pharmaceutical groups in Hong Kong and completed over 700 registration projects. Specialized in the field of pharmaceuticals and medical devices.



Science & Technology Advisory Committee: Professional **Background, International Perspective**





Prof. Yangxin Fu Chief Scientific Advisor

- Current Chair Professor of Oncology, Tsinghua University School of Medicine
- Professor of Pathology & Chief Physician at UT Southwestern Medical Center
- Articles published on *Science*, *Nature* etc., cited over 30,000 times and had induced the discoveries of several clinical concept-directed drugs

Prof. Paul Waring Chairman of Committee

- World renowned molecular pathologist
- Former Chairman of Pathology at Melbourne University
- Former Senior Director of Pathology and Diagnostics & vice President of Medical Innovation at Roche Diagnostics, USA
- Former Pathology Director at Peter MacCallum Cancer Centre, Melbourne



Dr. Shengli Bi **Project Leader of Vaccine Development**

- Scientific Advisor of CBSH
- Researcher at Chinese Centre for Disease Control and Prevention, expert in coronavirus and hepatitis research
- Took part in the development of SARS vaccine in 2003
- Postdoc at US CDC and PhD at Chinese Academcy of Preventive Medicine



Prof. Gang Song Senior Scientific Advisor

- Founder and Chairman of Board of Pillar Biosciences, USA
- Postdoc at Harvard Medical School
- PhD from Shanghai Medical College of Fudan University, China

Senior Consultants



Mr. Anthony Wu **Chief Consultant**

- Standing member of Chinese People's Political Consultative Conference
- Served as the Chairman of the Hong Kong Hospital Authority for 10 years
- Member of the Deepening Medical Reform Expert Group of State Council
- Public Policy Expert of the National Health & Family Planning Commission
- Chief Advisor of National Administration of TCM



- Over 15 years' work experience in direct investment arm of Chinese conglomerate; completed a number of PE & strategic investment cases; focused on healthcare & wellness investments for more than 5 years
- Worked for major foreign investment bank and took part in IPOs, M&As and debt issuance
- MBA at University of Toronto, BBA at CUHK



- **Senior Consultant**
- President of the Japan Branch of Shanghai University of Chinese Medicine
- Former Senior Scientist at P&G USA
- Former Project Leader at Otsuka Pharmaceutical
- Former director of Total Kenko Care, Tokyo
- PhD in molecular pathology at Kobe University, Japan



Highlights **BNCT** CAR-T **Precision Diagnostics** Corporate Outlook



Boron Neutron Capture Therapy (BNCT)



♦ BNCT

- B—Boron, boron is the fifth chemical element
- N——Neutron, a neutron is a part of the nucleus

C——Capture

T——Therapy

Alpha particle 163keV/µr (4He) "第5种癌症疗法"的原理 Thermal neutron 9-10µm Boron atom ①注射药剂 ② 药剂集中在癌细胞上 (10B) 210keV/µm Recoiled lithium nucleus (7Li) ③照射放射线或光 ④仅攻击癌细胞 Accelerator Beam transportation system **Neutron irradiation** system Laser pointer (Patient positioning system) Radiation shield (Radiation protection) Beryllium target (Production of neutrons) limation of irrad Magnet (Beam transport system) Scanner magnet (Broadening of the irradiated area) Patient couch herma (Patient positioning syster Cyclotron

Boron Neutron capture therapy (BNCT), with its biological targeting and heavy ion effect, can selectively and accurately "kill" tumor cells at the cell scale.

Advantages of our BNCT technology (The fifthgeneration advanced radiotherapy technology)



1.	In 2020, became the first boron neutron capture therapy in
	the world that has been approved for as a cancer treatment
	for routine clinical use.

- 2. Adopted neutron cyclotron equipment, high safety.
- **3. Precise targeting of cells to kill cancer cells** with minimal damage to normal tissues.
- 4. The used boron compound has high tumor tissue uptake and long retention time; Low intake of normal tissues and quick clearance. No toxic or side effects.
- 5. Compared with other particle therapy, the course of treatment is short, only one irradiation treatment is needed to kill tumor cells and tissues.
- 6. Observing the process through multimodal images such as PETCT can evaluate and guide the formulation of treatment plan in advance.

Conditional characteristics		Photon line	Proton	Heavy ion	BNCT
		photon (gamma ray, x ray, etc.)	Particle	Particle	Particle
Equivalent dose of attacking tumor cells	Туре		ΙH	12C	2He、3Li
	RBE/CBE	1	1.1	3	3
Fractment plan and avala	Head and neck	28 ~ 40 times	26 ~ 40 times	$15 \sim 25$ times	1
reatment plan and cycle	tumor	6-8 weeks	5-8 weeks	3~5 weeks	1
Beam control and patient position control		Required	Required	Required	Required
Treating tiny tumors		N/A	N/A	N/A	Possible
Dose to surrounding tissu	High	Medium	Medium	Low	

BNCT obtained approval for clinical use in Japan and included in national health insurance (Japan)



◆ March 2020 -

Japan's BNCT equipment and boron medicine have obtained approval documents and are approved for marketing as a combination of medicine and equipment

*** :: :::::::::::::::::::::::::::::::	全相主年2月18日 取付月前 法生局 取付援前 法生局	マック・1月21日(1日) ロック・フック・フック・ ロック・フック・ ロック・フック・ ロック・フック・ ロッの・ ロッのの・ ロッのの・ ロッのの・ ロッのの・ ロッののの・ ロッののの・ ロッののの・ ロッののの・ ロッのののの ロッのののの ・ ロッのののの ・ ロッのののの ・ ロッのののの ・ ロッのののの ・ ロッのののの ・ ロッのののの ・		◆ 住友重機械工業 転品・ソリューション 技術指标 企業指編 株主・投資家の登録へ サステナビリティ	went such
R144 (***********************************	单数增展能合并	2. 書 条 有料2、単売時に十分のに下をも原稿気気において、 からなりまたようの使用を加速したから利用した。 当時でしたで、生物の自分の増加したものです。	1. 005-008012. 1. 005-0080 #2009-0120-01-01-01-01-01-01-01-01-01-01-01-01-01	三 お暇らせ	
-2760 INCI 0804744420 INCI 040742074240000000000000000000000000000		CONCEMENTATION BUILDER	A STOCHELSTINGTING		2020年06月01日
And Andread Strategy and And	 (美 前 和城政各 * 30年 × 北政各市政府 × 北政各市 × 北政名 × 北政名 × 北政名 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 ×	<section-header><section-header><section-header></section-header></section-header></section-header>	<text><text><text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text></text></text>	は友重時に工業特式会社(社長:下村買町、以下 当社)は、加速期を用いたBNCT(ホウ素中住子機な事点) ゼ:大阪府大阪市、社長:支援部会)と共同で構築部がんを対象とする国际財動を実施しました。この福美客) たがにて油等シスキムNeuCare ¹⁰ 、ならびにBNCT建業計算プログラムNeuCare ¹⁰ ドーズエンジンについて、2021 旅遊を取得し、5月1日付で得険収載されましたのでお知らせいたします。また、ステラファーマ特式会社のBNC た。これにより、当社の場合が世界で同かでお知らてきいたします。また、ステラファーマ特式会社のBNC た。これにより、当社の場合が世界で同かでお知らてきいたします。また、ステラファーマ特式会社のBNC た。これにより、当社の場合が世界で同かでお知らてきいたす。 国際週間の概要 中ク素中住子情報課業に用や住子情報課業 中ク素中住子情報課業に用や住子情報課業 中ク素中住子情報課業に用地等計算プログラム 【DNCT理業計算プログラム 【DNCT理業計算プログラム 【DNCT理業計算プログラム 【DNCT理業計算プログラム(NeuCore ¹⁰ ビーズエンジン】 医学協議書通販売券部番号 : 3020082X0084000 令和2年3月11日付 [DNCT理業計算プログラム(NeuCore ¹⁰ ビーズエンジン】 医学協議通販売券部番号 : 3020082X0084000 令和2年3月11日付 [DNCT理業計算プログラム(NeuCore ¹⁰ ビーズエンジン】 医療協議通販売券部番号 : 3020082X0084000 令和2年3月11日付 [DNCT理業計算プログラム(NeuCore ¹⁰ ビーズエンジン】 医療協議通販売券部番号 : 3020082X0084000 令和2年3月11日付 [DNCT理量計算プログラム(NeuCore ¹⁰ ビーズエンジン】 医療協議通販売券部番号 : 3020082X0084000 令和2年3月11日付 [DNCT要素」、2000日に変化の第一次の2001日 年間に第一次の10日に変化の第一次の2001日 印度第一次の2001日 [DNCT要素」、2001日 [DNCT要素」、2002日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT要素」、2001日 [DNCT=2001日 [DNCT=2001日 [DNCT=2001日 [DNCT=2001日 [DNCT=2001日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=20011日 [DNCT=200111日 [DNCT=200111日 [DNCT=200111日 [DNCT=20011111日 [DNCT=20011111111111111111111111111111111111	● 22723 2171-2 薄やステムに関して、ステクファーマ状式会社(キ に、2019年10月11日に反應強急器は低売な犯罪機能 年3月11日付けて、厚生力者違より所送審判整としての 運动ステポロニン*が當任収載され免死緊張されまし、 不能な気所進行されは気が消失の確認知らいの能たな
【BNCT 線量計算プログラム NeuCu	ire [™] ドーズエンジン】		874291	通応度想 切除不能な局所進行または最所用発の環境部落 の時度用目 かかかくちつい。	
医療機器製造販売承認番号 :	30200BZX00083000 令和2年3月11日付			146例通用日 2020年6月1日	
処力 運送 薬品 注意-医師等 より 使用する	ポロファラン (ⁿ B) の処方箋に ステボロニン*点滴静注バッグ 9 こと STEBORONINE* 9000 pg/300 al for in	0000 mg/300 mL	承認番号 30200AbXx00438000 販売開始 2020年5月		

◆ June 2020 -

Japan's Ministry of Health, Labor and Welfare approves

inclusion of BNCT in Japan's national health insurance



Clinical indications and curative effects

- At present, the indications approved for marketing treatment are patients with locally advanced or recurrent head and neck cancer which cannot be surgically removed.
- Since 2001, nearly 2,000 cases have been completed in the world, including phase 1 and 2 clinical trials of head and neck tumors, glioma, melanoma and liver cancer.
- Up to now, almost of 500 patients have been treated in Japan . (after approved)
- The treatment has a significant therapeutic effect, high safety, and no major adverse reactions.

414					DYMOVA ET AL.
TABLE 1	Boron neutron capture	therapy in cancer treatment	Cases of BNC	CT treatme	nt as of
Type of car	ncer	Number of patients	Country	Year	Reference
Recurrent'			2020 .		·~7]
Recurrent	Common head an	nd neck tumors: thyr	oid cancer, nasopha	ryngeal carcin	ioma, _{D]}
multifor	laryngeal cance	er, nasal sinus cance	r, parotid gland can	cer, tongue ca	incer,
Hea <mark>d</mark> and	gingival cancer,	secondary malignant	tumors of the neck,	etc.	3]

	gland carcinomas, and 3 sarcomas)			
Recurrent malignant meningioma	19	Japan	2005-2011	[121]
Recurrent malignant meningioma	30	Finland	2003-2010	[122]
Recurrent late stage head and neck cancer	10	China	2003-2004	[123]
Recurrent head and neck malignancies	6	Japan	2004	[124]
Recurrent malignant gliomas	7	Japan	2013-2014	[125]
Glioblastoma	21	Japan	2002-2007	[126]
Glioblastoma multiforme	9	Czech Republic	2000-2002	[127]
Glioblastoma multiforme	53	USA	1994-1999	[28]
Brain tumors	22	USA	1996-1999	[128]
Glioblastoma multiforme	6	USA	2002-2003	[129]
Extensive squamous cell carcinoma	1	Japan	2007	[130]
Glioblastoma multiforme	17	Sweden	2002	[131]
Recurrent hepatic cancer	1	Japan	2011	[132]
Recurrent lung cancer	1	Japan	2012	[133]
Recurrent laryngeal cancer	9	Finland	2006-2012	[112]
Extramammary Paget's disease	2	Japan	2012	[134]
Vulvar melanoma and genital extramammary Paget's disease	7	Japan	2005-2014	[93]



BNCT Clinical Effect (Phase Two Data)

BNCT shows high efficacy in head and neck cancer patients with no other treatment options

	Response Evaluation	Effective Quantity (%) (n=21)
Complete Response 23.8%	CR ^{*2}	5 (23.8)
	PR	10 (47.6)
	SD	5 (23.8)
	PD	0 (0.0)
Response 71.4%	NE	1 (4.8)
Response: After cancer patients receive cancer	Response *1 (CR + PR) (%)	71.4

K. Hirose et.al., Radiotherapy and Oncology 155 (2021) 182-187

*1 Response: After cancer patients receive cancer treatment, the tumor shrinks by more than 30% or disappears, and lasts for at least 4 weeks

*2 Complete Response: the tumor disappears completely and lasts for at least 4 weeks



Progress of clinical trials for each indication

Tumor Type	Indication	Preclinical	Phase I	Phase II	Phase III	Approval	
Head & Neck	Locally advanced or locally recurrent unresectable head and neck tumors	Phase II (July 20 2018) * _{Phase III 1})16- May 10t required	Obta regul approval 2020)	ined atory I (March	Marketing (May 2020)	
Glioma	Recurrent malignant glioma	Phase II (Februa June 2019	ary 2016-)		* Applica	ation submitted to P	MDA
Meningioma	Recurrent malignant meningioma	Clinical Trial Application (July 2019)	Phase II in progress	*Inv	estigator-ini	itiated trial, followin	ig-up

Clinical efficacy of indications for glioma that have been submitted to PMDA for marketing

- In May 2021, a study report of 24 patients with recurrent malignant glioma treated by BNCT showed that the median survival time of malignant glioma with high RPA increased from 4.4 months to 18.9 months after BNCT treatment. The one-year survival rate increased from 4-5% to 79%.
- No serious adverse reactions were observed.
- The indication has completed the clinical phase II trial and is expected to be approved for marketing in 2023.

Neuro-Oncology Advances

3(1), 1-9, 2021 | doi:10.1093/noajnl/vdab067 | Advance Access date 20 May 2021

Accelerator-based BNCT for patients with recurrent glioblastoma: a multicenter phase II study

Shinji Kawabata[®], Minoru Suzuki, Katsumi Hirose[®], Hiroki Tanaka[®], Takahiro Kato, Hiromi Goto Yoshitaka Narita[®], and Shin-Ichi Miyatake[®]

Glioma

Department of Neurosurgery, Osaka Medical and Pharmaceutical University, Takatsuki, Osaka, Japan (S.K., S.I.-M.); Institute for Integrated Radiation and Nuclear Science, Kyoto University, Kumatori, Osaka, Japan (M.S., H.T.); Southern Tohoku BNCT Research Center, Koriyama, Fukushima, Japan (K.H.;T.K.); Department of Neurosurgery, Southern Tohoku Research Institute for Neuroscience, Koriyama, Fukushima, Japan (H.G.); Department of Neurosurgery and Neuro-Oncology, National Cancer Center Hospital, Chuo-ku, Tokyo, Japan (Y.N.)

Corresponding Author: Shin-Ichi Miyatake, MD, PhD, Department of Neurosurgery, Osaka Medical and Pharmaceutical University, 2–7 Daigaku-machi, Takatsuki City, Osaka 569-8686, Japan; Kansai BNCT Medical Center, Osaka Medical and Pharmaceutical University, 2–7 Daigaku-machi, Takatsuki City, Osaka 569-8686, Japan (current) (shinichi.miyatake@ompu.ac.jp).

Abstract

Background. Boron neutron capture therapy (BNCT) utilizes tumor-selective particle radiation. This study aimed to assess the safety and efficacy of accelerator-based BNCT (AB-BNCT) using a cyclotron-based neutron generator (BNCT 30) and ¹⁰R-horonon-based lagrange (SPM-011) in patients with recurrent malignant glioma (MG) (primarily CONFIDENTIAL AND PROPRIET ARY

Pre-BNCT







Project progress





2023# (ANSA) 2

Media editorial

中国生物科技服务引进日本先进 癌症治疗技术 国内首个"硼中子 俘获疗法"商业应用落地

2022-06-24 09:19:16 来源:经济参考网	浏览量: 101.8万
🧱 经济参考报	查看详情〉

香港上市公司中国生物科技服务 (8037.hk) (中生科服)引进日本最先进 癌症治疗技术硼中子俘获疗法(BNCT)治 疗设备及服务签约仪式6月23日在日本举 行,这是继癌症传统治疗手段"外科手术、 放射疗法和化学药物疗法"后国际先进的治 疗技术。依据该技术手段创建的鹏博海南硼 中子癌症治疗中心,将于今年8月在海南博 鳌乐成国际医疗旅游先行区开工建设,预计 2024年接待患者。BNCT项目的引进,不仅 **the Xinhua News Agency**: CBSH introduces Japan's advanced cancer treatment technology and the first commercial application of "boron neutron capture therapy" in China has landed



ました他2-

2023.2 Nikon Keizai Shimbun

Japanese BNCT system has been confirmed to be introduced into China



Sumitomo Heavy Industries & STELLA PHARMA

STELLA PHARMA,

Founded on June 1, 2007, the company is headquartered on the 8th floor of ORIX Koryobashi Building, No. 7, 3 Bum 2, Chuo-ku, Osaka City, Osaka Prefecture. The main business scope is the development, manufacture and marketing of boron drugs necessary for use in BNCT (boron neutron capture therapy). In 2015, it launched the world's first boron drug that can be used for BNCT, and was listed on the Tokyo Stock Exchange in April 2021. It is the pioneer of BNCT boron drug research and development in the world and the only boron drug manufacturer approved for listing in the world.

STELLA PHARMA ◆ 住友重机械

Sumitomo Heavy Machinery Industry Co., LTD. (hereinafter referred to as "Sumitomo"), a subsidiary of Sumitomo Group, was founded on November 1, 1934, with its headquarters located at No. 1-1-1-2-butum-mu Osaki, Shinagawa Ward, Tokyo, Japan. As of March 31, 2022, the registered capital is 30,871.65 million yen, the total number of employees is 24,584 people, and the total annual profit of the 2021 fiscal year is 943,979 million yen. We have branches all over the world. Its product line spans multiple fields, and its cyclotron is the world's only approved medical device for BNCT.



Exclusive Right



2022/6, CBSH (8037.hk) signed cooperation agreements with Sumitomo Heavy Industries LTD., the world's only approved device manufacturer, and Stella Pharma. Obtained the exclusive agency rights in Greater China (excluding Taiwan).





Development Plans



Will then be:

- Hainan's first BNCT center to treat patients;
- The **second country** in the world to provide BNCT treatment;
- Able to offer advanced tumor treatment services to patients in China, Southeast Asia and even the world.

Business model



1. Cooperate with Japan	General agent of Greater China				
2. Patient sources/Partners	Signed cooperation institutions include: Shanghai Huashan Hospital, Peking University Shenzhen Hospital,Ping An Health, Foshan Chancheng Hospital, China General, CUHK, etc				
	Asset-light model: self-built Hainan Center +BNCT multi-center operation management; And product sales;				
3. business model	Profit point: direct + join hospital management, regional agent authorization, equipment sales, drug supply, consumables supply, maintenance, center construction design, agent construction, equipment installation and commissioning, professional training, etc				
4. Additional indication	At present, the indications in Japan are skin cancer, liver cancer, breast cancer, melanoma, brain tumor, liver tumor, bladder cancer, local recurrent breast cancer, lung cancer, colon cancer, malignant mesothelioma, angiosarcoma.				
سیستین المالی سیستین الله سیستین الله					

-

国装密体验预约<u>术后保护,以及</u>定副新算服务



item Conventional radiation therapy		Proton radiation	Heavy ion radiation therapy	BNCT
Equipment costs	10 to 30 million	500 million	1 billion	About 300 million
Facility size	small	big	Max	Middle
Cost of treatment time	About 30 times	About 30 times	About 15 times	1 or 2 times
Number of treatments/units/year	~1600	~1600	~1400	>2500
Patient cost (ten thousand yuan)	2~15	30	≥30	45 ~ 60

According to the data in the "National Health Education Reader on Prevention of Major Diseases" released by the Chinese Association of Actuaries at the end of December 2020, the average treatment cost of cancer in China is between 220,000 and 800,000 yuan, ranking at the forefront of the treatment cost of major diseases.



BNCT Project Team

Professional Operations Team

Prof. Wang Enmin

Ph.D, Chief Physician, Doctoral Supervisor



Director of Cyberknife Treatment Center of Huashan Hospital affiliated to Fudan University, the first doctor of gamma knife in China, and one of the pioneers of radiation neurosurgery.

Member of International Stereotactic Radiosurgery Association, International Cyberknife Association, American Radiotherapy Association (ASTRO), Standing Committee of Neuroradiology Group Expert Committee of China Association of Neurosurgeons, Standing Committee of Precision Radiotherapy Technology Branch of China Biomedical Engineering Society, Standing Committee of Skull Base Surgery Branch of China Medical and Health Care International Exchange Promotion Association, and Member of Chinese Medical Association.

Advisory Expert Team

Prof. Yang Jun, Changjiang Scholar, Doctor, Doctoral Supervisor.



- Visiting Professor of Huashan Hospital affiliated to Fudan University; Changjiang scholars; Doctor of Biomedical Engineering, Medical Image Processing and Medical Physics, University of Miami, USA
- Member of North American Radiosurgery Standards Setting, Executive Director of American Radiosurgery Association, Executive Director of Global Cyberknife Users Association, and Chairman of American Radiosurgery Physicist Committee.

In 2006, he participated in the establishment of the famous CyberKnife Center in Philadelphia, USA. From 2013 to 2019, he served as the chief physicist of Delaware County Hospital and Alliance Oncology (the third largest professional radiotherapy and the largest chain of precision radiotherapy in North America), responsible for and managing the technical, clinical and scientific research work of Alliance Oncology in 34 radiotherapy centers in the United States.

Prof. Wang Yang, Doctor, Chief Physician, Graduate Tutor Chief Physician, CyberKnife Center, East Hospital of Huashan Hospital, Fudan University

In 2003, he studied in the Department of Radiotherapy, B.I.D Hospital, Harvard Medical School, USA. In 2006, he won the first prize for scientific and technological progress of the Ministry of Education. In 2007, he participated in American CyberKnife Training. In 2016, he won the first prize of Shanghai Science and Technology Progress Award. In 2017, he became a tutor of master's degree in oncology at Fudan University. In 2009, he won "Excellent Huashan People" and "Excellent party member of Huashan Hospital" in 2017.

Liu Junyang Associate Researcher, M.D, Ph.D

Southern Medical University, Bachelor of Medical Imaging

National Niigata University, Japan, Ph.D. in molecular cell medicine and tumor radiotherapy.

Postdoctoral workstation of China People's Liberation Army Air Force General Hospital, postdoctoral fellow in tumor radiotherapy. Member of Beijing Society of Precision Radiology, member of Japan Society of Radiation Oncology (JASTRO)

He worked in the radiotherapy department of the affiliated tumor hospital of Harbin Medical University and the radiotherapy department of the general hospital of China PLA Air Force.

Prof. Chen Xianzhao Chief Physician



Director and chief expert of radiotherapy department of Hainan Cancer Hospital

He has served as an external professor of Hainan Medical College, an expert in the expert database of Hainan Provincial Health Bureau, director of radiotherapy department of Hainan Provincial People's Hospital for 12 years, and director of Cyberknife Center of 187 Hospital

of People's Liberation Army for 4 years. Academic status: He served as the 3rd, 4th, 5th and 6th member of Radiation Oncology Branch of Chinese Medical Association. Chairman of the 1st, 2nd and 3rd sessions of Hainan Radiation Oncology Committee. Editors of the 4th, 5th and 6th Chinese Journal of Radiation Oncology.

Prof. Duan Yuan



Director of Gamma Knife Center, Hainan Provincial People's Hospital

Academic status: Member of Standing Committee of Neurosurgery Committee of Hainan Medical Association, Member of Radiosurgery Committee of World Chinese Neurosurgery, and Member of Glioma Committee of Chinese Medical Association.

Prof. Xie Fang, Doctor, Chief Physician, Graduate Tutor



The earliest pharmaceutical expert engaged in research of radiopharmaceuticals and boron drugs in China.

Associate Research Fellow, PET Center, Huashan Hospital, Fudan University. The key laboratory of radiopharmaceuticals, Ministry of Education, Beijing Normal University, and Rosendorf Research Center (Helmholtz-Zentrum Dresden-Rossendorf, HZDR) jointly trained doctors. Postdoctoral fellow at UT Southwestern Medical Center at Dallas (UTSW). Engaged in imaging diagnosis of neurodegenerative diseases for more than ten years. Presided over many scientific research projects such as the National Natural Science Foundation of China.

Professor Sheng Xiaofang, Ph.D., Chief Physician, Graduate Tutor Director of Radiotherapy Center, Jing 'an Branch, Huashan Hospital, Fudan University

Mainly engaged in radiotherapy, chemotherapy and supportive treatment of nervous system tumors. Participated in the compilation of several guidelines and textbooks, such as China Glioma Diagnosis and Treatment Guide, China Multidisciplinary Glioma Diagnosis and Treatment (MDT) Expert Consensus, China Glioma Radiotherapy Expert Consensus, NCCN Neurological Tumor Treatment Guide (Chinese version), Practical Surgery, Modern Oncology, Neuronavigation Surgery, China Central Nervous System Glioma Immune and Targeted Therapy Expert Consensus.



Market demand of indications



Head and neck cancer is the seventh most common cancer in the world. The 5-year survival rate of metastatic stage IV head and neck cancer is less than 4%. The number of new cases and deaths in China in 2020: 220,000 thyroid cancers and about 10,000 deaths; 62,000 people with nasopharyngeal carcinoma, 40,000 deaths, 30,000 oral cancers (including lip cancers), 29,000 laryngeal cancers, 142,000 other head and neck cancers and 75,000 deaths; (Data source WHO2021 Global Cancer Report)

• There are about 90,000 new cases of glioma and 50,000 deaths in China every year.

- The 5-year survival rate of malignant glioma is less than 5%.
- Glioma ranks second in the incidence of childhood tumors, second only to leukemia, so it is very suitable for BNCT treatment.
- High incidence among those 40-55 years old. In the past 30 years, the incidence rate has increased and become younger.

High recurrence rate and high mortality rate.

Source: Diagnostic and therapeutic criteria for glioma /2018 edition.

- In China, there are more than 8,000 new cases of malignant melanoma every year,
- The 5-year survival rate of melanoma patients is only 65%.



資料未源:神州細胞招股书,民生证券研究院資料来源:神州細胞招股书



Market demand of BNCT

- According to the plan of the Ministry of Health and Welfare of Japan, Japan plans to equip every million people with 0.5 sets of BNCT equipment, with a total demand of about 70 sets;
- Corresponding to the population base of China and the needs of patients, the demand for equipment should be no less than 700 sets. By then, every big city needs a BNCT treatment center.

• Articles from the American Society of Radiotherapy Oncology show that: We estimate the opportunity for BNCT is **\$30 billion** per annum globally for both the neutron system and the target drugs.

"十四五"大型医用设备配置规划(单位:台)					
细分品类	"十四五"末规划总数	相比"十三五"末增幅	其中:"十四五"规划数	相比"十三五"增幅	
重离子质子放射治疗系统	60	216%	41	156%	
高端放射治疗类设备	125	155%	76	-60%	
PET/MR	210	204%	141	83%	
PET/CT	1667	107%	860	56%	
腹腔内窥镜手术系统	819	215%	559	148%	
常规放射治疗类设备	5333	58%	1968	20%	
伽马射线立体定向放射治疗系统	327	41%	95	-49%	

(数据来源:卫健委、国信证券)

2023.7 The National Health Commission issued the notice of the "14th Five-Year Plan" Large-scale Medical Equipment Configuration Plan, clarifying the number of large-scale medical equipment planned configuration and access standards during the "14th Five-Year Plan" period. According to this plan, during the "14th Five-Year Plan" period, the country plans to configure 3,645 large medical equipment, of which: 117 in class A and 3,528 in Class B. According to the analysis of a number of securities institutions, the configuration plan is expected to promote the expansion of the high-end medical equipment market. At the same time, stimulate the procurement demand of medical institutions, especially middle and grassroots medical institutions, and related equipment companies are expected to usher in accelerated performance.



Highlights BNCT CAR-T Precision Diagnostics

Corporate

Outlook



Cell therapy: Independent innovation of immune cell therapy technology 中國生物科技服務

Shanghai Longyao – The first echelon of immune cell drug research and development enterprise worldwide. Has two technology platforms with independent patents.

国家药品监督管理局

药物临床试验批准通知书

受理号: CXSL2000315 通知书编号: 2021LP00063 上海隆耀生物科技有限公司:

根据《中华人民共和国药品管理法》及有关规定,经审查,2020年11月04日受理的LY007细胞注射液符合药品注册的有关要求,同意开展复发/难治性CD20阳性B细胞非霍奇金淋巴瘤(B-NHL),包括弥漫大B细胞淋巴瘤(DLBCL)和转化型滤泡性淋巴瘤(TFL)的临床试验。

• On 20 January 2021, IND application was officially approved by China CDE;

• The first and currently the only CD20-targeted CAR-T product declared and approved for IND in China;

• With 10 authorized patents and 21 pending patents, the scope of protection covers China, Hong Kong, Macau, the United States, Europe, Japan, South Korea and other countries and regions.

Two Technology Platforms

OX40 Costimulatory Signaling Platform



Universal CAR-T Technology Platform

中國生物科技服務 **CAR-T-OX40** is expected to be a rising star in the treatment of solid tumors

In December, 2021, the team of Professor Carl June from the University of Pennsylvania found that T Cell failure could be reversed by inhibiting ID3 or SOX4, which is expected to make CAR-T cells fight solid tumors more efficiently. The related results were published in Cell, which coincided with the idea of Longyao CAR-T-OX40 platform.

Besides reversing T-cell depletion, Longyao's CAR-T-OX40 platform can also enhance the killing of CAR-T cells, reduce their apoptosis, promote their expansion and promote their secretion of more effective factors. It has more comprehensive functions and is more helpful for CAR-T to overcome solid tumors.

Ce Supports open access

ARTICLE | ONLINE NOW

An NK-like CAR T cell transition in CAR T cell dysfunction

Charly R. Good 11 • M. Angela Aznar 11 • Shunichiro Kuramitsu 11 • Regina M. Young 🙎 🖻 Shelley L. Berger & ⊡ + Carl H. June & 12 ⊡ + Show all authors + Show footnotes

Published: December 02, 2021 • DOI: https://doi.org/10.1016/j.cell.2021.11.016



野马生物CD20 CAR-T总缓解率达到96%

近日,生物制药公司Mustang Bio (野马生物)公布了其CD20靶向CAR-T疗法MB-106 用于治疗多种血液瘤的最新1/2 期临床试验,结果显示,在各种血液肿瘤中观察到的总缓 解率 (ORR) 达到96%, 完全缓解率 (CR) 为75%。



Mustang Bio Announces Phase 1/2 Clinical Trial Data of MB-106, a First-in-Class CD20-targeted, Autologous CAR T Cell Therapy, to be Presented at 11th International Workshop for Waldenstrom's Macroglobulinemia

打开新浪新闻 发现更多精测

首付款达2.45亿美元!	杨森引进西比曼生物两款CAR-
T产品	
市场资讯 + 米注	

转自: 医药观澜

5月2日,西比曼生物科技宣布与强生 (Johnson & Johnson) 旗下杨森 (Janss en) 公司达成一项全球独家合作,共同开发和商业化下一代新型CAR-T细胞治疗 产品C-CAR039(靶向CD19/CD20)和C-CAR066(靶向CD20),用于治疗非霍奇金 淋巴瘤 (NHL)。根据协议 2.45亿美元的首付款、潜在 ส์สือ THAPP 的里程碑付款和未来商业化后的销售分成。

Important academic achievements





Professor Fu Yangxin MD, PhD Chief Scientific Advisor

Prof. of SW Medical Center, UTexas Chair Prof. of School of Medicine, UChicago Physician, Affiliated Hospital of UChicago

> 200+ SCI Papers 40,000+ Academic citations

Fields of study focus on MOA of LIGHT and other TNF superfamily members in the tumor immunology

CHICAGO





Professor Yang Xuanming PhD Chief Scientist of Longyao

Special Researcher, School of Life Science and Technology, SJTU Post-doc, Department of Pathology, UChicago Prof., The Recruitment Program of Young Professionals

Fields of study focus on immunosuppression in TME, CAR-T and T cell adoptive cancer therapy



UTSouthwestern

Medical Center



CAR-T-OX40: highlights

Important Academic Achievements: By CSO Dr. Yang Xuanming. About CD20-CART-OX40 official publication at « Science Translational Medicine » on JAN, 17th, 2021



and antitumor noders and in patients with metastatic symphoma, these CAR-1 cells exhibited robust amplification and antitumor activity. Our findings provide an alternative option for CAR-T optimization with the potential to overcome the challenge of treating solid tumors.



PCT patent granted in China, US, Europe, Japan and Korea

国家药品监督管理局 药物临床试验批准通知书

受理号: CXSL2000315 通知书编号: 2021LP00063 上海隆耀生物科技有限公司:

根据《中华人民共和国药品管理法》及有关规定,经审查,2020年11月04日受理的LY007细胞注射液符合药品注册的有关要求,同意开展复发/难治性CD20阳性B细胞非霍奇金淋巴瘤(B-NHL),包括弥漫大B细胞淋巴瘤(DLBCL)和转化型滤泡性淋巴瘤(TFL)的临床试验。

LY007 and LY011:Excellent clinical efficacy, 100% ORR in lymphoma

Research findings and IPs

cance	rs		MDPI					(15) 世界如民7 三 第 1 (45) 国际公 2009年12月2日 (10) 国际社会主任 (11) 国际社会主任		の6.業務公布中 VO 2019/242339 AI	APRINT DOLET IN DEPENDENCE SE TOLE-MAN BOOM
Article Bcl-2 Enhan by Reducii Haiyong Wang ^{1,2} Xiaoqing Zhang ^{1,2}	ces Chimeric A science translatii cancer cGAS-STING-r- T cell stemnes	ntigen Receptor T ONAL MEDICINE RESEA Continues Resea In Immunology	Cell Persistence	Copyrgin to 2020 The Annual American American American Annual 1 American 2020 Annual 1 American 2020			-16 17	CREATED THE CREAT	ная и на	第日76、Nongabit: 学校上表の言葉 (1) そうやす 男さか、Shangabia 2000年3月 (2) 50 mg/s) 2000年4 (2) 50 mg/s) 2000 (2) 50 m	NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF ALLAPARE FOR INSTANCE AS A PAINTY. NO. AND/NO. 201 NO. AND/NO. 201 OF AND ALLAPARE FOR INSTANCE AS A PAINTY. NO. AND/NO. 201 NO. AND/NO. 201 OF MAIL STATUS NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201 OF MILL NO. AND/NO. 201 NO. AND/NO. 201 NO. AND/NO. 201
	Wenwen Li ¹⁺ , Lu Lu ¹⁺ , A Xiaochuan Hong ² , Fanli Xuanming Yang ^{8†} , Wen			0				n n Ananananananan	100	OR AND CRETHERDIN	in SUALL or MCHEL with whole outlance to far. Educet door, TRASSMITTAL complete section method 5 tilled
	Although cGAS-STING-mee Internarity, the role of Intrinsi blood CDI* T cells from pa cascade. We demonstrated antitumor immune respons STING promoted the mainti expression. Moreover, aut CDI* T cell differentiation p enriched in the cytosol of m formation of stem-like centr		Article T cell recepto antigen recep	SCIENCE TRANSLATIONAL MEDICINE RESEA	RCH ARTICLE	Copyright 19 2021 The Andreas Johns	111193820000599 发明。	专利证书	E W. 11252004 B	38-13-	er, and minim only, fees an 1/2 the smooth of small only
Check for updates	of CAB-T cell therapy in a s activation in T cells and provi pathway for cancer immune		malignancies	OX40 signaling mediates potent a Huihui Zhang ^{1,2,3} *, Fanlin Li ^{1,2,3} *, Jiang Cao ⁴ *, Xin Wang ⁵ , H	ntigen-independent ntitumor activity ai Cheng ⁴ , Kunming Qi ⁴ , Gang Wang ⁴ ,	rgens andreas reactions forcement francisco Association for the Advancement of Scheren, No claim	(12) 按照专利合作条约所公布的国际	ф.,	17年月秋, 現東東州平村 中村北部藩内二十年, 首	Ind'exile (VICD/new ARV, Kusamponev randoparchiae suggestative automaticative OTR, CDM, TML, MARIEDO, and ne recomprese transportant frame TLDD, and the program investors further periodics a research association further periodics of researching association for the transport.	
Li, Fi, Li, M., Hun, Lu, Zhang, Zhang, X. Yang, X. Ho, Zin, Xiao X. Ho, Zino, Channett, Andrea Royalin, P. Donaman by Reducing Architecture-descent of Apopto Camero 2001. J. 197. https://dx.org/ 10.1389/vanvers153200097 Restricted. 21 October 2000 Anorphild. 21 December 2000 Published: Showay 2021 Published: Showay 2021	INTRODUCTION Cyclic gamsaniae monophong (AMP) synthesis (GAS) is catalyzen the generation of H (GGAMP), which binds to si an adapter protein on the et STDKC, in ture, traffics to downstream TANK-binding factor 3 (1873) (z. 2). The 1 leads to the induction of typ STDKG pathway discusses to cytosolk DNA in the contrel and inflammatory discusses bridges antitizence interacting pradiotherary or op of pd (ad)	OPEN ACCESS Review Development Autorence Uneventy of Manual Onever 1 Antenno Uneventy of Bern, Nay Menternol, Uneventy of Bern, Nay Menternol, Uneventy of Antenno, Uneventy of Antenno, Uneventy of Antenno,	Received: 9 Ann 2021 Accepted: 15 Ady 2022 Published wire: 26 July 2022 Check for spelates	Kailin Xu ⁴ , Junnian Zheng ⁴ , Yang-Xin Fu ² , Xuanming Yang ¹ Although chimeric artigen receptor (CAR)-modified T cells have sh malignancies, this approch has limited efficacy in parisets with visio ture have been explored to improve this efficacy, including the in Because cottentiatory signals are transduced together with T cell engineered a type of CAR-T cells with a costinuizatory signal that is antigen to re-capitalize physiological simulations. We screened 12 co- mont effective CAR-T function enhancer. Our data indicated that these capability compared to common second-generation CAR T cells. Oxfor of the Vi-a Birchian Fahr will, MAR Intingon, a charated protein his to the kinase ACT pathways. Oxfor against mice the inclusion of the exhaustion markers, thereby munifarities the metastatic hymphema, the and antitranse calively. Cur Mong provide an alternative informa- tion and activity curve actively.	Life even great success in the treatment of B cell farmers. Various modifications in CAR struc- corporation of two costimulatory domains. receptor signals during T cell activations, we as activated independently from the turner stimulatory receptors to identify CAR as the new CAR T cells showed supprise proliferation gamlary reduced CAR T cell sports through dipoliteration through increased activation soci, and PRE-ACT physique showed activation soci, and PRE-ACT physique showed activation soci, and PRE-ACT physique showed activation soc CAR T optimized with the potential to the CART optimization with the potential to the CART optimization with the potential to	Subjective Property Department	Constant of the Hong Keeg Special Administratives Region	(0) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	P. 4.56, IP.4. R.2.44 L P.4. P.4. P.4. P.4. P.4. P.4. P.4.	opport of angle (System apport)	
ted with regard to justicities main published may and a red etilitations.	(PARP) inhibition (2–6), L phapesyste distance antitient ext-one ² signaling, CDR ² Ma ² Department of Obstitics and Gen Oncode, Non A Height and Sh Theorem, Say and an Height and Sh Theorem, Say and an Height and Shu Jabaston of Call Observation Shu Jabaston of Call Observation Shu Jabaston of Call Observation Shu Jabaston of Call Observation Shungha Jabaston of Height Shungha patosis Ofms, Dupartment of His Height School of Heidelons, Sha	heigen Chris (el. Hendriche, Guer Jahre And, Chrendy of Dergon, Brait Genergierung Feig Kanningergeligt-auto: Genergierung Feig Kanningergeligt-auto: Tod Beisge- Braite of Feigund Analise Of Beigund Analise Of Beigund	T coll multigrancies comprise a batamgan nach reflexing a cloud evolution of dysle devolupreased a stage by dialact mechanis include T coll symphotoa (CCCL and PTC mas AHL2, ANDang the requirement rest of mas AHL2, ANDang the requirement rest of	DIFFICULTION INTEGRATION In subjects are critical immune cells for antitaenor immuno- suppressive. Advising the activity of antitaenor i cells various strategies have been developed to reactivate endogenous antitaenor reachs but begeneration of large numbers of attigation- power in the strategies and the strategies of the sec- tivity of antitaenor is cells which are appressive. Advective to effectively control tunnor growth remains shallenging (1, 2). Alternative ways to migater turner- gies of large markets of large numbers of attigation developed, and adoptive transfer of large numbers of tunner exactive r cells have the nume contained the generation of a large number of sumo-trapping T cells (cf). A CAR consists of an orbitracellarge antiges -binding domain, a hinge, a transmensharase domain, and lattracefuliar domains with a continuation of domain form a continuelistive receptor, out to 4 = 188.	T cells to turner sites, and impaired function w suppressive turner microcenvisorement (4–6). The molecular design of CABs is likely to site caparation and periodiscos of the populations of control CAB-T cell functions in vitro. The rehans activity of CAB-T cells is a focus of intensive re- ferences of the transmission of the transmission of land pervisitence within turners and be counter envisorement are suggestly needed to develop C turner therapies (3, 6–9). Varians approaches to limitations (10–14). CAB-T cells engineered to ante maintenancy clukies interlocking CAB-T robast pervisitence within the turner therapolacies activate endogramous dealers the developed turner existence endogramous dealers in the turner therapolacies activate endogramous dealers in the loss of the loss of activate endogramous dealers in the loss of the developed turner enterpression dendring to loss and T cells to the	批子轉錄標準4 (率利錄預)(CERTIFICATE OF GRANT O BY RE-REGIS Patents Ordinance Aller Y (Mar Handwork) (本行編用) 第21 Parto verify that a standard yout of the recognition grandworks Part of the Proceed Ordinance ording The Regist Parent No: 1844042172 0	尊手(證明書 (密 514 意) DF STANDARD PATENT STRATION + (Chapter 514) 部在今月近天 an with the following particulars has here 副職業 Application No. 4201103221.1	ALL			
		P ^{er} Ganwater Chinast, Aslgar Rooptin Hauster (* Cals, Root Innunz (* 1538) dar 10.389/Heres, 2005 50800 Postars, in Technology (* ween forderen v	Schema are up or Yos was intensiving match 20 of these pations relapse?. Sa alignetic neer of transplantation can on patients? For CR1 and PFC2, patients, the rate remains at 20-305 ¹⁷ . The median over "Shang Tashou/Center of Cell Balang and Imma "Shang Tashou/Center of Cell Balang and Imma	domain from the T off reciptor (TCR) complex proteins (DS) (3). Despite the antiintense efficacy of CAR = CaBs in testing B cell- derived bulkenia, the efficacy of these cells for the treatment of hymphones or solid tunness in brained (6, 7). Numerous technical and hisiogical obstacles have limited the success of using CAR = Cells for the treatment of solid tensors, such as poor T cell periotnece, development of T cell exhaustion, insufficient homing of infused	sourceme instance suppression from tensor a CAB-T cells engineered to produce a single-chai fregment against the instance checkpoint inhib (xclv-arni-PD-11)(32) exhibit enhanced entities and in vivo. The secreted sclv-arni-PD-1 cheng environment and prometers endogeneous antitian in a paracriter manner (12). To robace on-target1 itses of CAR-T cells. T cells activated by a true	専利許有人姓名英名爾及龙社 Name and Address 上初時間上的時後有用立可 中間 上世界時代氏水和前 11年 42号塔 1503 光 - 20002	af Propriotor:	(4): ボド、次国50年年 いうステム建築金融価 34005、47036、4705、 47076、47096、75041、 1.2次後介568/支急の度 素単元為、本型等度通知 素単元為、本型等度通知			
			Ream Listoristy of Medicia E Devicem Linder, Elwydd YOCRO, Diw , Dynastreeni Petroleg, Uneenty of Trans South extern M Elwradi, caerengerryffelunelune	"Decay Turbus, Contra et Gall Basings and Internationals, School of UK Schools and Brackmong Schools, Jack Torong, Schools, School School, Schools, School, Sc	were designed by engineering the cells with a trio- that mixes, physiologis T cell signallog by simul- TCB activation, continuedation, and a third cytic Continualized in signaling pathways are impo- vation and problemation (35, 18). District contri- uined by different stags and aubypess of T cells attinualizery receptors biolog to the tunner nece (TNR) sympetments [TNRE, 2024 (2014), 4). virus entry mediator (HYEM), CD27, and deal (7). These receptors recent alogne predistion of	日本記載一日本 of increation 相当会本報告を受助用点も日本の意思を指用 CHMBRIC ANTIGEN ERCEPTOR COMPRISING APPLEATION TIMEROF 開始構成事業特別的的に在れた計算部的現在でうTorea (15(10):2015年3月)の日、 日本の3.019(2):2017年	CO-STINULATORY RECEPTOR AND				32

UNITED STATES PATENT AND TRADEMARK OFFICE

init in room Jonatan P. O'Brics, Ph.D. Honoran 119

NOTICE OF ALLOWANCE AND FEE(S) DUE



International first-class and experienced clinical PI team



Academician Saijuan Chen Director of National Translational Medical Research Centre (Shanghai)

Fellow of Chinese Academy of Engineering

Foreign Member of Académienationale de médecine de France

PhD Sc, Paris Diderot University

Vice President of China Association for Science and Technology

Director of Shanghai Institute of Hematology







Winner of the National Science Fund for Distinguished Young Scholars

PhD, Paris Diderot University

Vice Chair of the Lymphoma Alliance of CSCO

Led a number of programs of National High-Tech R&D Program (863 Program), National Natural Science Foundation and Provincial Level R&D Projects



International first-class and experienced clinical PI team



Prof. Jianyong Li MD, PhD Chief Physician Dept. of HematAology Jiangsu People's Hospital

Postdoc, Hosp. Ctr, University of Nantes

Deputy Chairperson, Integrative Hematology Professional Committee, CMDA

Led more than 30 major national research projects Published 600+ Papers

Acted as Investigator in certain CAR-T clinical trials for companies such as Legend Biotech.



Prof. Junnian ZhengMD, PhDChancellor of Xuzhou Medical University

Investigator initiating Longyao's solid tumor IIT project

Director of Cancer Biotherapy Institute of Jiangsu Leading Medical Talent of Jiangsu

Registered to initiate international clinical trials for 11 CAR-T therapies in NIH, domestic clinical trials in China for 24 CAR-T therapies, completed more than 300 cases humanized CAR-T immune cell treatment of blood tumors.







CONFIDENTIAL AND PROPRIETARY

Clear Development Path of Longyao





Rich Pipeline of Innovative CAR-T Products



 Longyao is working on multiple pipelines. Currently, CLDN18.2-CART-OX40 and CD19 UCAR-T are undergoing investigator initiated clinical trials. IND applications will be filed for these 2 products once applicable.

中國生物科技服務

Excellent Therapeutic Efficacy of CD20 CAR-T-OX40



🕑 中國生物科技服務



CAR-T-OX40: A Promising Solution for Solid Tumors

CAR-T-OX40 exhibited excellent anti-tumor activities in Lymphoma/Metastatic Lymphoma Model and Subcutaneous Solid Tumor Model



CD20 CAR-T-OX40 has Demonstrated Excellent Clinical Efficacy

- ✓ 5 relapsed/refractory B cell lymphoma patients have been treated with CD20 CAR-T-OX40
- ✓ 100% ORR, 2 CR, 3 PR
- ✓ No serious CAR-T-related neurotoxicity; No serious CRS
- ✓ Dosage low to 5X10⁵ cell/kg, far lower than similar product 10⁶-10⁸ cell/kg
- ✓ Two weeks after IND approved the CAR-T cells can reach 80% -90% of T cells, far higher than similar product
- CAR-T cells can also be detected after 100 days, about 2% of T-cells, validated the anti-exhaustion advantages of the OX40



🕑 中國生物科技服務



Financial Performance

Highlights

BNCT

CAR-T

Precision Diagnostics

Corporate

Outlook



Precision Diagnostics Team: Professional Background, International Perspective



Anthony Wu Chairman of the board of directors of Sunrise Diagnostic Centre 10 years as Chairman of the Hong Kong

Hospital Authority



Dr. Ning Li Director of Sunrise Diagnostic Centre Many years experience in molecular diagnosis



Dr. Christina TO Kar Wing Sunrise Diagnostic Centre Lab Director



KK Chan Hong Kong - Class I Registered Medical Laboratory Technician

Standing member of Chinese People's Political Consultative Conference Public Policy Expert of the National Health and Family Planning Commission Chief advisor of the National Administration of Traditional Chinese Medicine,

PhD of Bioinformatics at Chinese Academy of Sciences Vice President at BGI Expert in EU Commission for Innovation &Research

Registered Medical Laboratory Technologist in HK PhD in Pathology at University of Hong Kong Former Research Assistant at University of Hong Kong Former Laboratory Supervisor at Hong Kong Polytechnic University

MBA(HSM), MIBMS, AFCHSE, ACHSM (Australia), Registered Part1 (HKMLTB)

He used to be the chief chemist of the pathology Department of the hospital

He was the department manager of Pathology Department of Eastern Hospital



Dr. Gang Song Founder/CEO of Pillar Biosciences Postdoc at Harvard Univ. Program leader & Scientist at IQuum

🕑 中國生物科技服務



Jeffrey Lai, Ph.D. NRCC,MB,MLT I AMDL Lab Director 5+ years of CAP certification and director experience



Dr. Ken Kwok, Ph.D., MPhil,

AMDL R&D Director 15+ years of molecular diagnostics experience



Daniel Lau PHC Lab Director MLT I

Bachelor of Biological Sciences, Edinburgh Napier University MSc in Biomedicine, Edinburgh Napier University





🎯 中國生物科技服務

Sunrise – One of the largest and fastest COVID-19 testing service providers in Hong Kong

- The largest contractor of the first universal testing in HK;
- One of the largest COVID-19 testing lab in HK;
- Completed a total of 20 million test samples (31 December 2022);
- Up to 130,000 single tube test samples per day;
- Took the lead in launching rapid testing and settled in Hong Kong airport and ports;
- Post-Pandemic Era Growth Drivers: Signed service agreements with 9 district health centres covering 4 million+ people and has launched:
- Diabetes adiponectin detection
- HPV self-sampling;
- cPassTM neutralizing antibodies;
- COLOTECT (non-invasive highsensitivity detection of colorectal cancer and its precancerous lesions) etc















AMDL - Genetic testing technology from Harvard University

• Jointly established HKSP laboratory with Pillar Biosciences;

- Possess the world's first NGS multi-cancer companion diagnostic (CDx diagnostic test for lung and colon cancer) reagent with complete certificates in China, the United States and Europe, and exclusive commercialization rights in many countries and regions in Asia;
- The only institution in Hong Kong that can perform cancer companion testing locally;
- Tumor NGS testing services have been provided for Sanatorium Hospital, Gleneagles Hospital, Queen Mary Hospital, Chinese University Medical Center, ICON Cancer Center, HEAL Cancer Center, etc.

Pillar Biosciences is a clinical cancer diagnostics company based in Boston, USA and Shanghai, China.







•PHC Medical Diagnostic Center has a history of 55 years, est. since 1968. It has high brand awareness and is one of the largest third-party medical testing centers in HK.

•The general medical examination items covered are comprehensive: Pathology, blood biochemistry radiology, biological immunology, microbiology and cell analysis, specialties, etc.

 Launched the neutralizing antibody test corresponding to Omicron, which was approved by WHO, FDA and EUA;

180,000 samples are processed per year on average. **2.38 million customers** are accumulated.

CRO detection business has been carried out in cooperation with pharmaceutical companies such as AstraZeneca
 AZ, GlaxoSmithKline – GSK, Merck – MSD, etc.

•Managed by a professional MLT team of registered chemists, pathologists, radiologists, and chemists to ensure accurate and effective reports.

					Astrazeneca Z		
2 QCMD	EC:106.000 EC:106.000 Collaborative Strady to Evaluate the Proposed WHO Ath International Standard for Hepetitic B Virus (HBV) DHA (NBSC code: 10206) for	Inter the Accordination Execution of Accordination Electronic of the Electronic of t	market share :				
Institucianto Indi Departente di Verrango Intel Research Spaces Functional Hang Fung Hang Fung Hang Fung	GeneRiton Nucleis Acid Anaplification Technique (HAT) based essays (HAY)ISEA25) (CC., ISD	And Statics, Jonatomics Constants, Sta Barray, Statistics, Statist	International pharmaceutical factory	clinic	9,470		
	CENTER OF ANALYSICAL CENTERCOLLES MILLION CONTRACTOR PARTICIPATION MILLION CONTRACTOR Of A Main Analysic Central Laboratory - Pathology & Healthcare Circles & Halanage Lab	B 2012 for Normal State 1 (1) B 2012 for Normal State 1 (1) B 2012 for Normal State 1 (1) B 2012 for Normal State 2 (1) B 2012 for Normal State 2 (1) B 2012 for Normal State 2 (1) B 2012 B 201 B 2012 B 2012 B 201 B 2012 B 2012 B 201 B 201 B 201 B 2012 B 201	commercial insurance 71	Corporate client	1,134		
	Advances Extension Statement for pairs and and the state is the statement for the statement houses for pairs and a first and a first and a statement for the statement with the statement of the statement of the statement of the statement with the statement of the statement o	Bala	medical group 76	3 private client	2,380,000		



High-quality chain one-stop health management center

- Precision Health Care Services was set up in 1994, controlled by Henglong Family funds;
- 3 health management centers in Hong Kong, located in Causeway Bay, Jordan and Tsuen Wan;

Center Causeway Bay Tsuen Wan Jordan

Services Included:



Precision Health Care Services Ltd.





Vaccination

cooperative clinic







Government-designated

Customer groups come from enterprises and insurance customers:



S 中國生物科技服務

Enterprise Honor

2020

Gelonghui Anti-epidemic Outstanding Contribution Award

2021

Sunrise - HKB Technology **Excellence** Awards

2022

AMDL - Top Clinical Laboratory Sunrise - Hong Kong's Most Services Company in Asia Pacific Outstanding Business Awards by Life Sciences Review

2022







AWARDED BY

Asia Molecular agnostics Laboratory Life Sciences Review





Highlights BNCT CAR-T Precision Diagnostics Corporate

Outlook



Strong Collaboration Network

😂 中國生物科技服務



Market Capitalization : Undervalued, Huge Room For Growth



Note: Data as of 09/08/2023

🕑 中國生物科技服務

5-Years Roadmap Successfully built an integrated platform for diagnosis and treatment







BNCT officially entered the zone agreement, and signed a purchase

reinfused in 3 cases in Shanghai

agreement with SHI and SP. CAR-T products have been



Highlights BNCT **CAR-T Precision Diagnostics** Corporate

Outlook





Development prospects in the next three years



Precision Diagnostics	BNCT	CAR-T		
Committed to becoming the largest third- party laboratory with business coverage at home and abroad;	 Hainan Centre will be put into operation in 2024; Committed to becoming a multi-center 	• Strive for the first drug to enter the second phase of clinical trials as soon as possible, and achieve patent licensing		
Committed to becoming an advanced IVD enterprise covering R&D, production and sales of upstream reagents and equipment,	cancer diagnosis and treatment institution covering Greater China;	cooperation to generate income		
and downstream testing services;	• Strive to complete the multi-center construction layout within 3-5 years			
Continue to contribute cash flow and profits to support the overall development of listed companies in the next three years, and meet				

listing on the main board.

the financial indicator requirements for



Q & A