



# 福可苏，给全球骨髓瘤 患者带来治愈的希望

FUCASO BRING HOPE TO GLOBAL MM PATIENTS

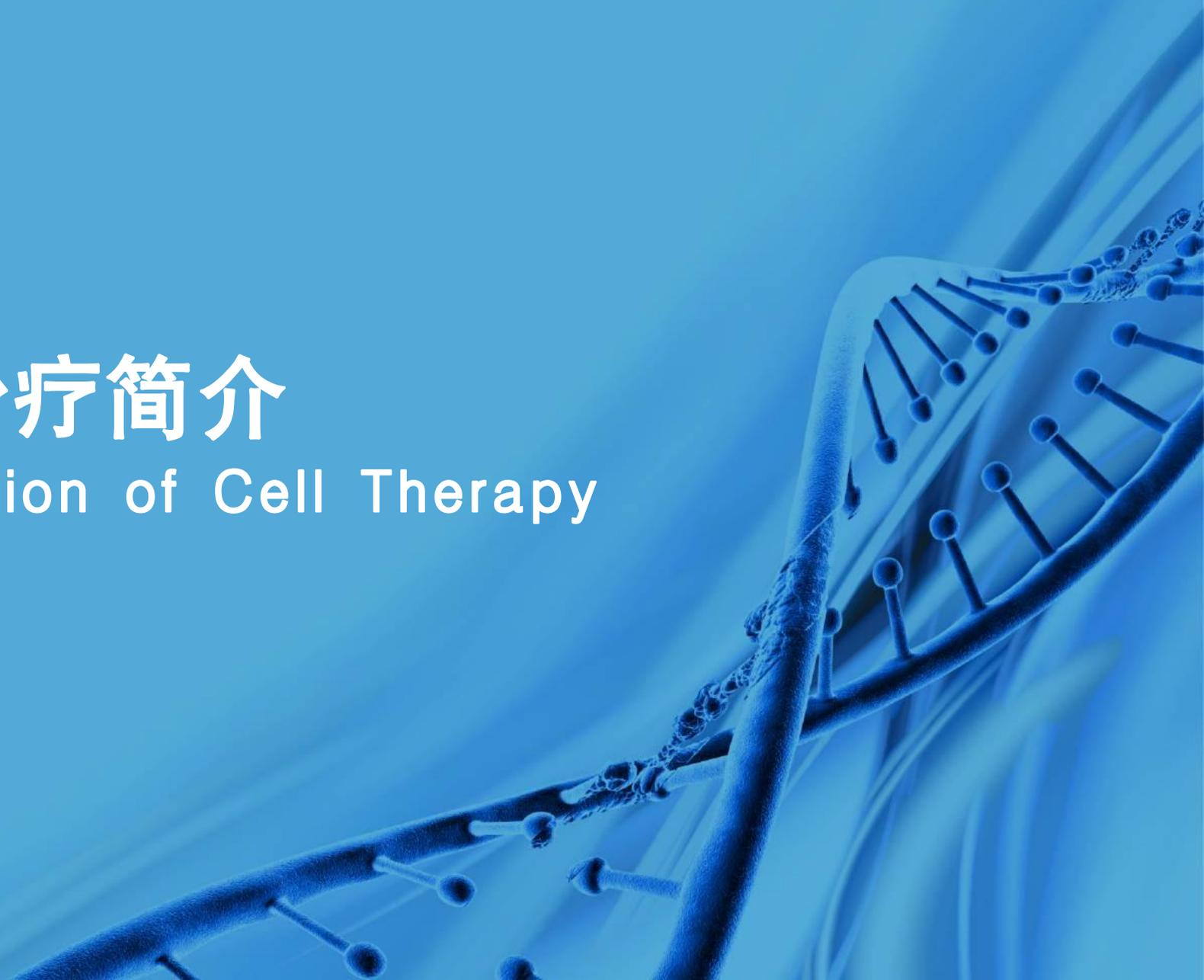
南京驯鹿生物技术股份有限公司

Nanjing IASO Biotechnology

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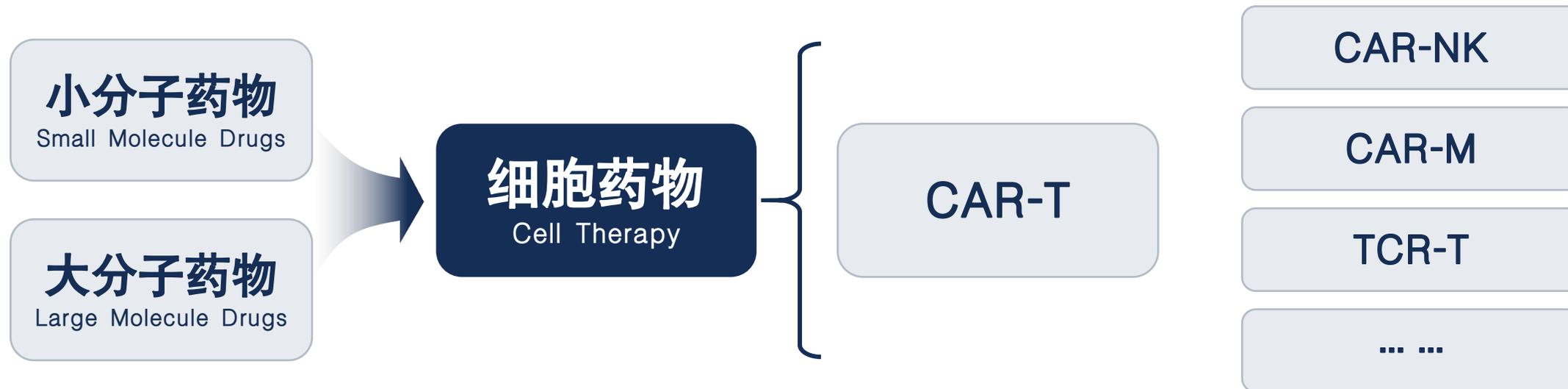
# 细胞治疗简介

Introduction of Cell Therapy



# 细胞治疗引领药物发展的第三次革命

The Third Revolution in Pharmaceutical Development Led by Cell Therapy

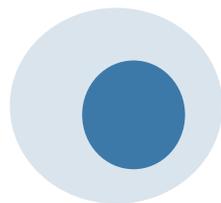


**CAR-T**是发展最为**成熟**的细胞药物  
*CAR-T therapy is the most mature cell therapy*

将成为**血液瘤领域**的**支柱性疗法**  
*Becoming the backbone therapy to cure hematologic malignancies*

# 什么是CAR-T细胞疗法?

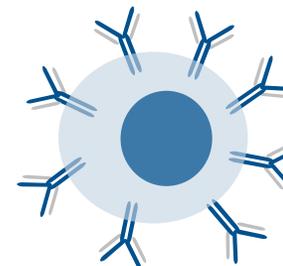
What is CAR-T Cell Therapy?



T细胞/T CELL

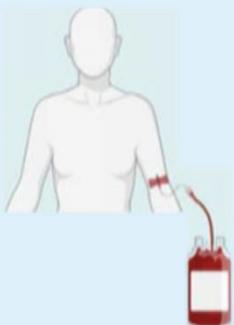


CAR

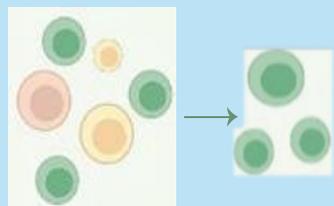


CAR-T细胞/CAR-T CELL

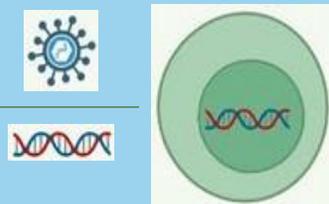
能识别并攻击肿瘤细胞  
Can recognize and attack tumor cells



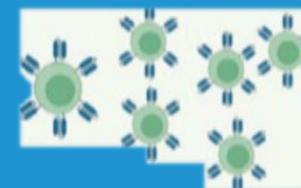
1. 白细胞分离术  
Leukapheresis



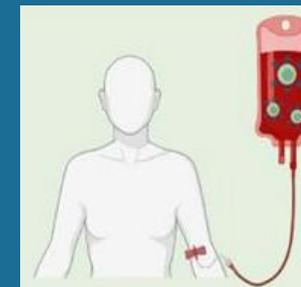
2. 分离及激活T细胞  
T cell Isolation and activation



3. 通过病毒载体转导CAR  
CAR transduction by lentivirus vector



4. CAR-T细胞扩增  
CAR-T cell expansion



5. CAR-T细胞输注  
CAR-T cell infusion

# “活的” 细胞药物，治愈的希望 – Emily 的故事

“Living Drug” Cell Therapy, Brings Hope to Cure Cancers - the Story of Emily



**单次**给药, **一次性**治疗 Single dose/One time treatment

长期缓解, 回归正常生活, 带来**治愈**的希望 Long term remission/Better life quality/Hope for cure



2012年5月, 使用CAR-T治疗白血病  
In May 2012, CAR-T was used to treat leukemia



2013年5月, 实现1年无癌生存  
In May 2013, Emily achieved 1-year cancer-free survival



2023年5月, 实现11年无癌生存  
In May 2023, Emily achieved 11-year cancer-free survival

# 全球CAR-T药物持续增长，需求势头强劲

Demands for Commercial CAR-T Products Continue to Increase. Requirement Grows Robustly



靶点:CD19  
Target: CD19

适应症: B细胞淋巴瘤  
Indication: B-cell lymphoma



销售额**9.16亿美元**  
Sales: \$916 million

**2456次输注**  
2456 Infusions

2023年预计超过  
2023 expected to exceed **20亿美元**  
\$2 billion



靶点:BCMA  
Target: BCMA

适应症: 多发性骨髓瘤  
Indication: Multiple Myeloma



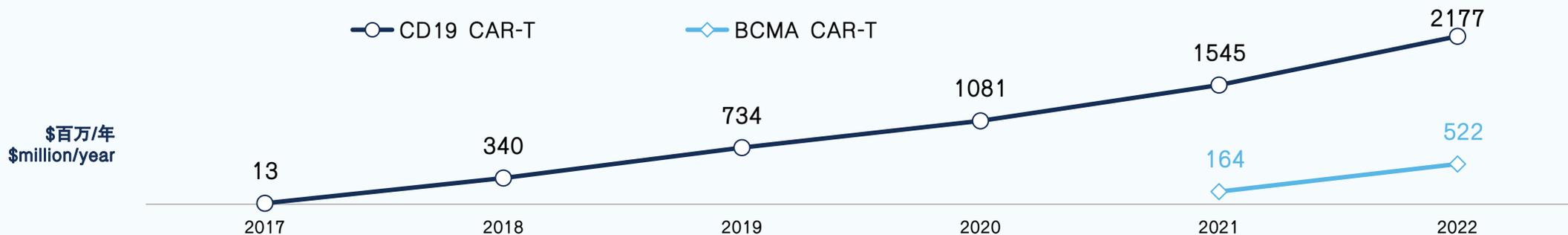
销售额**1.89亿美元**  
Sales: \$189 million

**406次输注**  
406 Infusions

2023年预计超过  
2023 expected to exceed **5亿美元**  
\$500 million

## CD19 CAR-T和BCMA CAR-T的销售

Sales of CD19 CAR-T and BCMA CAR-T

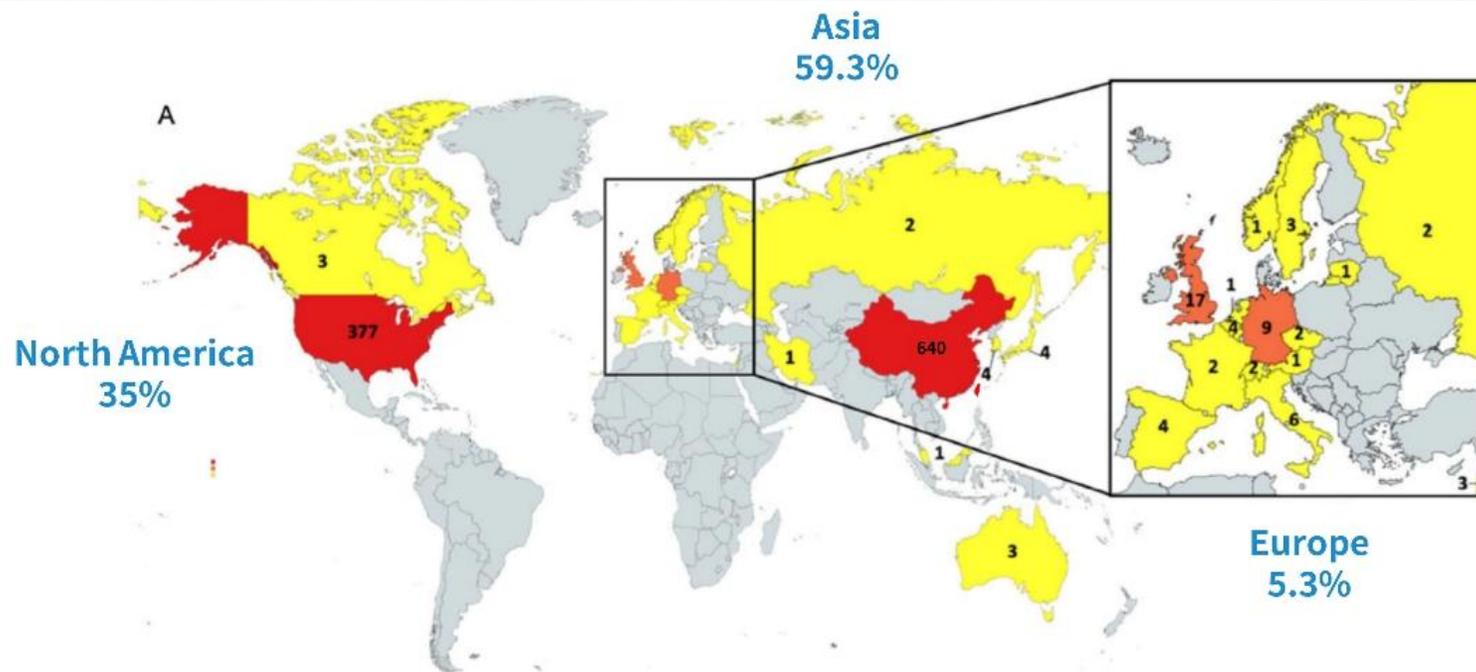


# 中国医院具有全球领先的CAR-T治疗管理水平

Chinese Clinical Centers Have Top Tier Clinical Experience of CAR-T Treatment



- **中国已经超过美国，成为全世界CAR-T临床试验注册最多的国家，2022年注册了636起临床试验**  
China has now moved far ahead into first place of CAR-T cell clinical trials, with 636 trials registered in 2022 while The United States has been in the second place with 377 trials registered.
- **中国的临床医生从临床试验中积累了丰富且领先的经验，减少CAR-T副作用，提升CAR-T治疗预后**  
The rich experience gained from clinical trails helps to leverage CAR-T management to reduce severe adverse events and to increase patient prognosis



2022年世界范围内CAR-T临床试验数量分布图  
Distribution of CAR-T cell clinical trials in the world in 2022

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# 关于驯鹿生物

About IASO BIO

# 双轮驱动，为全球患者带来治愈的希望

Dual-wheel Drive, IASO BIO Brings Hope for Cure to Global Patients



细胞治疗

Cell therapies

全人源抗体药物

Fully human antibodies



驯鹿生物

血液肿瘤疾病

Hematological malignancies

自身免疫性疾病

Autoimmune diseases

2017年成立

Established in 2017

在中国和美国有4个办公室

4 Sites in China and US

450+名员工

450+ personnel

1款产品获批

1 launched product

6个潜在First-in-class/ Best-in-class临床项目

6 clinical programs with first/best in class in potential

# 国内首个全流程自主生产的GMP生产线

The First In-house & Whole-process GMP Manufacturing Facility in China



## 质粒生产

Plasmid Production



STEP1

## 病毒载体生产

Vector production



STEP2

## 细胞生产

Cell manufacture



STEP3

## 质量检测

Quality Test



STEP4



GMP Platform



Cell Manufacturing Plants

# 驯鹿生物全球布局

Globalization of IASO BIO



## 美国研发中心,加州圣荷西 US R&D Center / San Jose

约2000平方英尺的研发中心，专注于细胞药物和抗体药物开发，建立诱导多能干细胞平台  
An ~2,000 square feet R&D Center, focusing on cell drugs and antibody drugs, with an induced pluripotent stem cell platform



## 研发和临床生产基地，南京 Research and Clinical Manufacturing Site, Nanjing, China

约7,000平方米的设施，已支持了超过10个临床项目研究  
~7,000 square meters of facilities have supported more than 10 clinical research projects



## 商业化GMP基地，南京 GMP Manufacturing Site, Nanjing, China

约10,000平方米的设施，已取得CART产品生产许可证  
~10,000 square meters of facilities, CART product production license has been obtained



## 国际研发和生产基地，上海 International Research and Manufacturing Site, Shanghai, China

约56,000平方米的研发中心和生产基地建设中，将于2025年第一季度投入使用  
~56,000 square meters of R&D and manufacturing site is under construction and will be put into use in the first quarter of 2025

# 驯鹿获得全球合作伙伴认可

IASO BIO Got Recognition from Global Partners



## 外部合作伙伴 / Global Partnerships

The logo for Cabaletta Bio, with "Cabaletta" in a dark red serif font and "Bio" in a grey sans-serif font, followed by a small trademark symbol.

Cabaletta Bio™

就CD19序列达成全球独家许可协议

Exclusive global license out agreement for CD19 binder to Cabaletta  
\$162 million milestone payment

The logo for Sana Biotechnology, featuring the word "Sana" in a large, blue, sans-serif font, with "Biotechnology" in a smaller, grey, sans-serif font below it. To the right is a blue circular icon containing a white stylized shape resembling a needle or a probe.

Sana  
Biotechnology

向Sana授权BCMA Binder

License out BCMA Binder to SANA  
\$204 million milestone payment

The logo for Umoja Biopharma, featuring a stylized "U" made of vertical lines in orange and yellow, followed by the word "Umoja" in a bold, black, sans-serif font, and "BIOPHARMA" in a smaller, orange, sans-serif font below it.

Umoja  
BIOPHARMA

合作开发即用型疗法治疗血液系统恶性肿瘤

Collaboration for Off-the-Shelf therapies to treat hematological malignancies

The logo for Innovent, with "Innovent" in a blue, sans-serif font where the "o" is a circle with a dot.

Innovent

信达生物制药

合作开发BCMA CAR-T福可苏细胞疗法

Collaboration for BCMA CAR-T Fucaso®

# 国际化资本推进创新细胞疗法全球开发

International Capitals Promotes the Globalization of Innovative Cell Therapies



2018.03

6000万人民币 A轮融资

60 Million RMB A Round

2020.03

6000万美元 B轮融资

60 Million USD B Round

2021.10

1.08亿美元 C轮融资

108 Million USD C Round

2023. 01

5亿元人民币 C1轮融资

500 Million RMB C1 Round

## HILLHOUSE



光大控股  
EVERBRIGHT LIMITED



建银国际  
CCB International



信银 (香港) 资本有限公司  
CNCB (Hong Kong) Capital Ltd.

PLAISANCE CAPITAL



国鑫投资  
GUOXIN INVESTMENT



倚锋资本  
EFUNG CAPITAL



外高桥集团

厚新健投  
HOSENCARE BROTHERS

UMC CAPITAL 宏诚投资

完成 4 轮融资

4 Rounds Financing

融资额 17亿 人民币

1.7 Billion RMB



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福可苏®

About FUCASO®

# 福可苏® 一次输注即可带来快速、持续、深度缓解

One Time Infusion of FUCASO Brings Fast, Deep and Durable Remission



全球首个全人源靶向BCMA CAR-T产品

Global first fully-human targeting BCMA CAR-T therapy

中国第一款自主研发和全流程生产的CAR-T

Chinese first self-developed and in-house manufactured CAR-T

中国首个靶向BCMA治疗复发难治性多发性骨髓瘤的细胞药物

Chinese first approved targeting BCMA CAR-T to treat r/rMM

2023年6月30日获NMPA批准上市

NDA approved by NMPA on 30 June 2023





Plasma  
Diseases

**拓展自免适应症** Expand to autoimmune diseases

**向前线推进** Move to front line MM

**拓展海外市场** Expand global market

**末线上市** 4L MM treatment approved in China

# 首个经福可苏®治疗的多发性骨髓瘤患者，已迎来五年无瘤生存

5-year Cancer Free Achieved in the First Myeloma Patient Treated with FUCASO



相比之下，标准疗法治疗4线多发性骨髓瘤患者中位无进展生存期仅为2.9个月

Compared to Fucaso, Standard of Care only got 2.9 month progression free survival for 4<sup>th</sup> line patients

# 福可苏®具有优异的临床效果

Excellent clinical efficacy and safety of Fucaso



## 有效性 Efficacy



IMS 20th Annual Meeting and Exposition

## 安全性 Safety

高 High

98.9%

ORR

深 Deep

82.4%

≥CR

长 Long

82.4%

持续性MRD  
SustainedMRD-

久

Sustained

85.5%

12m PFS

安 Safe

0%

≥ 3级 ICANS  
≥ grade3  
ICANS

1%

≥ 3级 CRS  
≥ grade3 CRS



福可苏® / FUCASO

伊基奥仑赛注射液 / Equecabtagene Autoleucel Injection

有潜力成为国际最优的靶向BCMA CAR-T

FUCASO has potential to be world Best-in-Class targeting BCMA CAR-T product

# 福可苏®临床效果具有国际竞争优势

Strong Clinical Competitiveness Advantages of FUCASO in Global Market



产品 Product	Eque-cel	Ide-cel	Cilta-cel
所属公司 Company			
获批时间 Approval Date	2023年6月30日 Jun 30 <sup>th</sup> 2023	2021年3月26日 Mar 26 <sup>th</sup> 2021	2022年2月28日 Feb 28 <sup>th</sup> 2022
疗效 Efficacy	ORR: <b>98.9%</b> CR: <b>82.4%</b> 1y PFS Rate: <b>85.5%</b>	ORR: 72% CR: 28% 1y PFS Rate: ~40%	ORR: 97.9% CR: 78.4% 1y PFS Rate: 76.6%
安全性 Safety	≥3 CRS <b>1%</b> ≥3 ICANS <b>0%</b>	≥3 CRS 9% ≥3 ICANS 4%	≥3 CRS 5% ≥3 ICANS 5% Six parkinsonism (One Related death)

# 福可苏®治疗在国际上具有价格优势

FUCASO Treatment in China provides Much Lower Cost



产品 Product	Eque-cel	Ide-cel	Cilta-cel
治疗地点 Treatment Location	China	US	
适应症 Indication	4线及以上多发性骨髓瘤 Relapsed or Refractory Multiple Myeloma after three or more prior lines of therapy	5线及以上多发性骨髓瘤 Relapsed or Refractory Multiple Myeloma after four or more prior lines of therapy	5线及以上多发性骨髓瘤 Relapsed or Refractory Multiple Myeloma after four or more prior lines of therapy
CAR-T价格 CAR-T price	约16万美金(116.6万人民币) \$159 thousand	41.95万美金 \$419.5 thousand	46.5万美金 \$465 thousand
医院花费 Average Cost in Hospitalization	< 5万美金(<35万人民币) < \$50 thousand	25万美金 \$250 thousand	
总治疗费用 Total Average Treatment Cost	< 21万美金 < \$210 thousand	67-71.5万美金 \$670-715 thousand	

**全球一针难求，来中国CAR-T治疗多发性骨髓瘤成为新选择!!!**

Targeting BCMA CAR-T's Long waitlist might lead to a new choice in the treatment of multiple myeloma with CAR-T product in China



# 获批3个多月，福可苏®已治疗多国多发性骨髓瘤患者

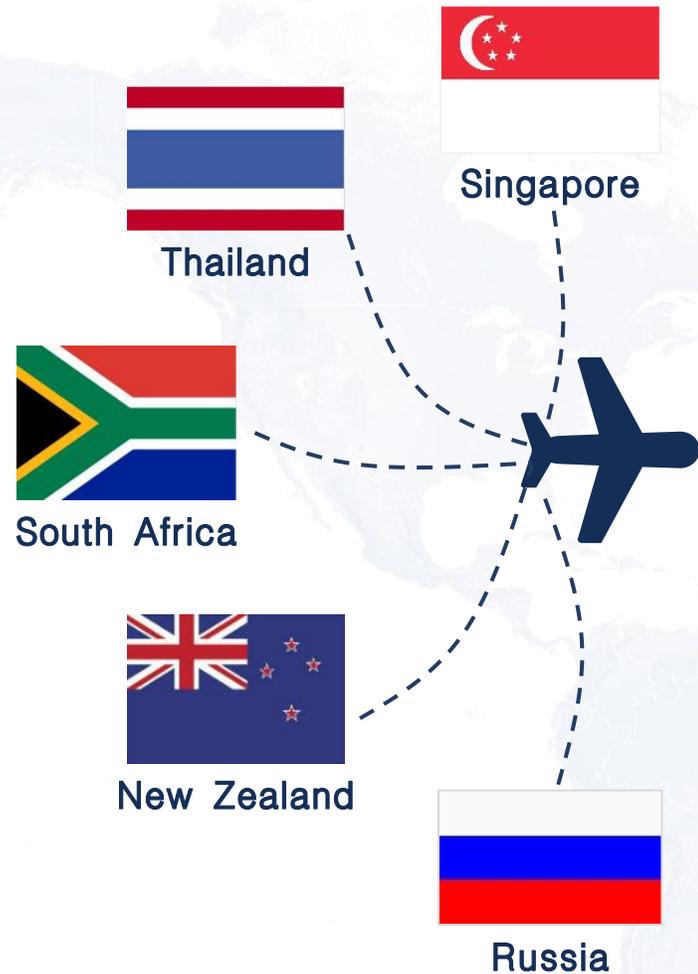
FUCASO Has Treated Multiple Myeloma Patients from Several Countries in 3 months



多国患者已启程中国，

在驯鹿/NMPA认证的福可苏®治疗中心进行福可苏®治疗

Global patients coming to China for FUCASO treatment at IASO BIO/CFDA-certified FUCASO treatment centers



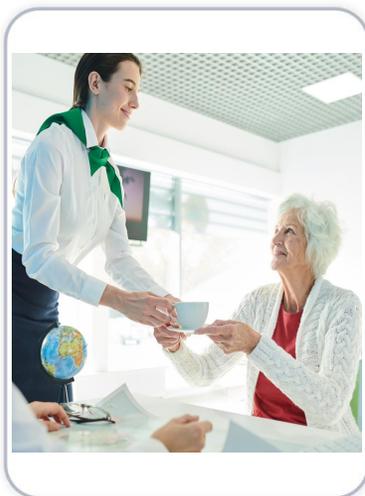
In-person consultation in Shanghai



Virtual consultation to confirm treatment plan before departure

# 国际患者福可苏®治疗一体化服务平台

End to End FUCASO Treatment Service Platform for Global Patients



**全程规划**

Whole Process Planning

**专家会诊评估**

Expert Consultation

**地接服务**

Local Guide Services

**就医服务**

Hospital Guide  
Service

**CAR-T治疗**

CAR-T Treatment

**家属食宿**

Family Accommodation

