

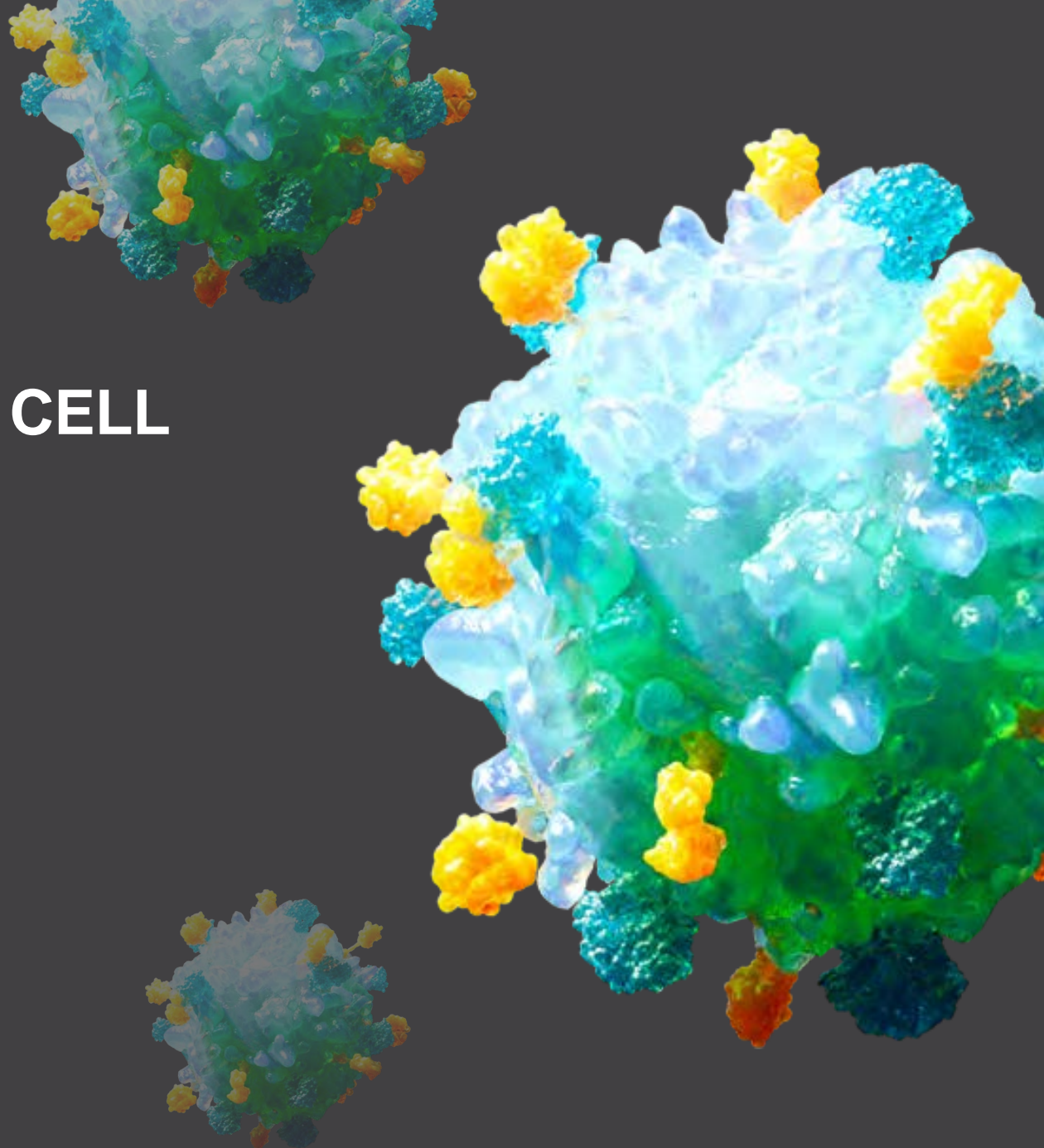


# UNLEASHING THE PROMISE OF CELL THERAPY FOR CANCER AND AUTOIMMUNE DISEASES

释放细胞疗法治疗癌症和  
自身免疫性疾病的潜能

JUNE 20, 2024  
2024年6月20日

Nasdaq: ATRA



# Forward-Looking Statements / 前瞻性声明

This presentation and the accompanying oral presentation contain forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, future transactions, business strategy, commercial partners, **product**, **product** candidates, correspondence and discussions with regulatory authorities, regulatory submissions, regulatory approvals, the initiation, timing, progress and results of preclinical studies and clinical trials and our research and development programs, ability to sell, manufacture or otherwise commercialize our product and product candidates, research and development costs, timing and likelihood of success, plans and objectives of management for future operations, any milestone and/or royalty payments, our ability to obtain and maintain intellectual property protection for our product and product candidates, and the sufficiency of Atara's cash, cash equivalents, short-term investments to fund its planned operations are forward-looking statements of Atara Biotherapeutics, Inc. ("Atara" or the "Company"). These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. In some cases you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "predict," "plan," "expect" or the negative or plural of these words or similar expressions. These forward-looking statements are subject to risks and uncertainties, including those discussed in Atara's filings with the Securities and Exchange Commission (SEC), including in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of the Company's most recently filed periodic reports on Form 10-K and Form 10-Q and subsequent filings and in the documents incorporated by reference therein. These risks and uncertainties include, without limitation, risks and uncertainties associated with the costly and time-consuming pharmaceutical product development process and the uncertainty of clinical success; the COVID-19 pandemic, and the wars in Ukraine and the Middle East, which may significantly impact (i) our business, research, clinical development plans and operations, including our operations in Southern California, Denver and at our clinical trial sites, as well as the business or operations of our third-party manufacturer, contract research organizations or other third parties with whom we conduct business, (ii) our ability to access capital, and (iii) the value of our common stock; the impact of future and pending legislation and regulations; the use of our information technology and communication systems and cybersecurity attacks; the sufficiency of our cash resources and need for additional capital, and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Certain information contained in this presentation and statements made orally during this presentation relate to or are based on studies, publications, surveys and other data obtained from third-party sources and Atara's own internal estimates and research. While Atara believes these third-party studies, publications, surveys and other data to be reliable as of the date of this presentation, it has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, no independent source has evaluated the reasonableness or accuracy of Atara's internal estimates or research and no reliance should be made on any information or statements made in this presentation relating to or based on such internal estimates and research.

The content of this presentation is subject to copyright, which will be asserted by Atara and no part of this presentation may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without prior permission in writing from Atara.

# Leveraging T-Cell Biology to Develop Differentiated, Off-the-Shelf CAR T Programs / 利用T细胞生物学开发差异化、现成的CAR T项目

## Atara Overview / Atara概况

- Unique allogeneic cell therapy platform leveraging EBV T cells biology and next gen CAR T construct / 利用EBV T细胞生物学和下一代 CAR T构建的独特同种异体细胞疗法平台
- First company to obtain regulatory approval for an allogeneic T-cell immunotherapy with tabellecleucel (tab-cel<sup>®</sup> or Ebvallo<sup>™</sup>) EMA approval / 首家获得关于同种异体T细胞免疫疗法tabellecleucel (tab-cel<sup>®</sup> 或Ebvallo<sup>™</sup>) 欧洲药品管理局批准的公司
- U.S. tab-cel BLA submitted in Q2 2024 / 2024年第二季度提交了美国的tab-cel生物相容性评价
- Pierre Fabre global tab-cel partnership: \$640M potential consideration + significant royalties / Pierre Fabre全球tab-cel合作伙伴关系: \$6.4亿的潜在报酬和可观的特许权使用费
- Cash runway into 2027 enables key pipeline readouts / 现金储备一直维持至2027年, 这将有助于重要的产品线数据披露

## Allogeneic CAR T Programs / 同种异体CAR T项目

### Hematological Malignancies / 血液系统恶性肿瘤

#### ATA3219

CD19 CAR:

Initial NHL Ph1 Data Expected Q4 2024  
预计在2024年第四季度公布初步非霍奇金淋巴瘤 (NHL) 的一期临床试验数据

#### ATA3431

CD19/20 CAR:

IND Targeted for H2 2025  
预计2025年下半年进行IND申请

### B-cell Driven Autoimmune Diseases B细胞驱动的自身免疫性疾病

#### ATA3219

Initial LN Ph1 Data Expected H1 2025  
预计在2025年上半年公布初步淋巴瘤 (LN) 一期临床试验数据

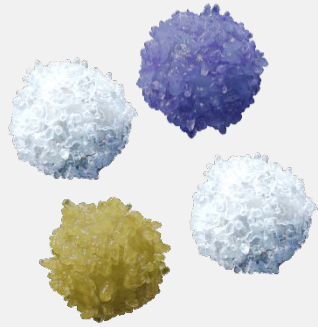
Initial SLE Without LD Data Expected H2 2025  
预计在2025年下半年公布初步SLE (红斑狼疮) 无肝病数据

# Innovating Next-Gen CAR T Leveraging the Only Allogeneic T-cell Platform With an Approved Product

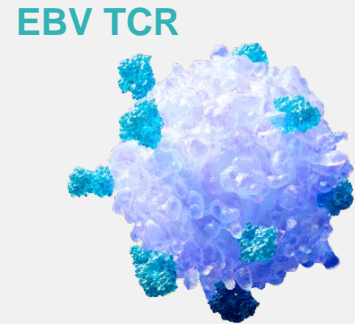
利用唯一获批产品的同种异体T细胞平台创新下一代CAR T疗法

**Allogeneic EBV T-Cell (EBVALLO™)**  
同种异体EBV T细胞 (EBVALLO™)

**Next-gen Allogeneic CAR T**  
下一代同种异体CAR T



**Healthy Donor Cells**  
健康的供体细胞



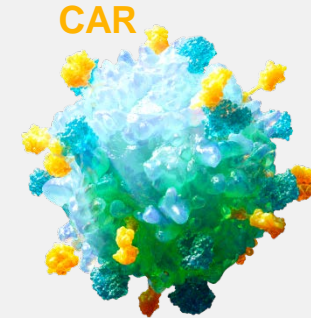
**EBV TCR**

**EBV T Cell / EBV T细胞**

Chimeric Antigen Receptor  
嵌合抗原受体



**Viral Vector**  
病毒载体



**CAR**

**EBV TCR**

**EBV CAR T Cell**  
EBV CAR T细胞

- ✓ No gene editing of the TCR or MHC / 不对TCR或MHC进行基因编辑
- ✓ Minimal HLA matching (only 2 of 10 alleles) / 最低限度HLA配型 (仅需匹配10种等位基因中的2种)
- ✓ No lymphodepletion / 无需淋巴细胞清除治疗
- ✓ Favorable safety profile in 600+ patients with outpatient experience / 在600多名接受门诊治疗的患者中表现出良好的安全性
- ✓ Robust manufacturing with biologic-like COGM / 制造成本具有类生物制剂的强大制造工艺

- ✓ Retain features of EBV T cells / 保留EBV T细胞的特征
- ✓ Does not require complex gene edits / 不需要复杂的基因编辑
- ✓ Leverages novel CD3ζ signaling domain (1XX) / 利用新型CD3ζ信号结构域 (1XX)
- ✓ CAR-targeted activity – can be modified to express single or dual targets / CAR靶向活性 - 可以修改以表达单一或双重靶点

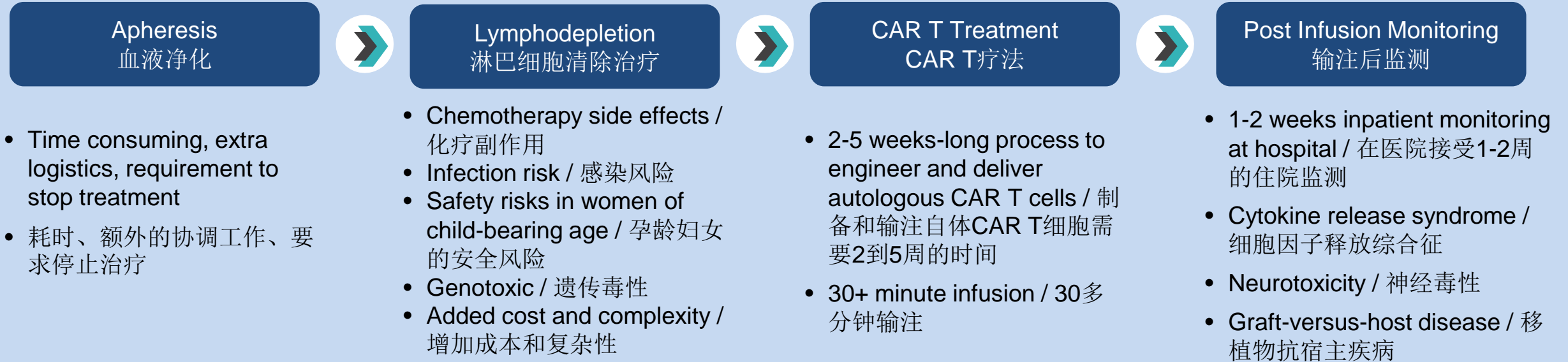
EBV = Epstein-Barr Virus; HLA = Human Leukocyte Antigen; CAR = Chimeric Antigen Receptor; TCR = T-cell Receptor; MHC = major histocompatibility complex / EBV = Epstein-Barr 病毒; HLA = 人类白细胞抗原; CAR = 嵌合抗原受体; TCR = T细胞受体; MHC = 主要组织相容性复合体

Tab-cel® (Ebvallo™) is approved in the European Union / Tab-cel® (Ebvallo™) 获得欧盟批准

# Atara's Allogeneic CAR T Platform Designed to Improve Patient Journey and Expand Access Versus Autologous Approaches

与自体疗法相比，Atara的异体CAR T平台旨在改善患者的就医过程并扩大就医范围

## Current Autologous CAR T Patient Journey / 目前自体CAR T患者的治疗过程



## Atara T Cells Offer Unique Potential Advantages in the Allogeneic Field (as evaluated in tab-cel & ATA188 clinical development studies)

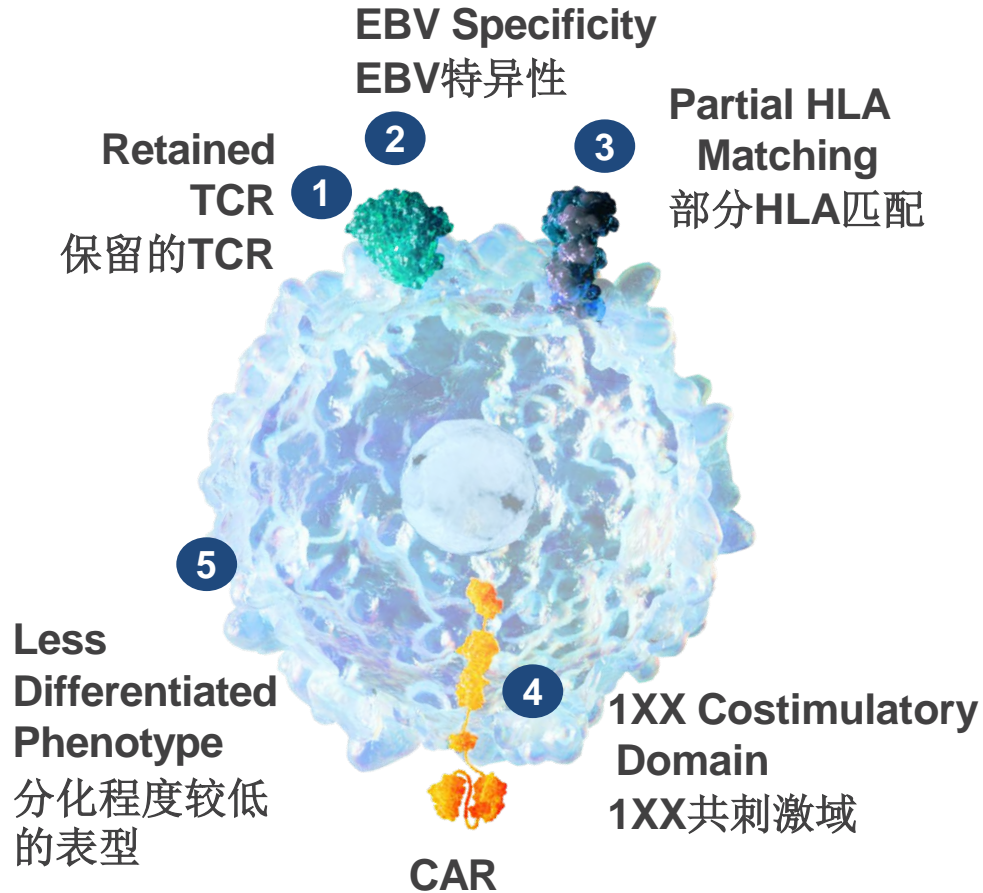
Atara T细胞在同种异体领域具有独特的潜在优势（根据tab-cel和ATA188临床开发研究的评估结果）



# Atara's CAR T Platform Closely Retains Autologous T-Cell Biology While Offering the Benefits of an Allogeneic Approach

## Atara的CAR T平台在保留自体T细胞生物学特性的同时，提供了同种异体方法的优势

### Atara's Allogeneic CAR T Platform Atara的同种异体CAR T平台



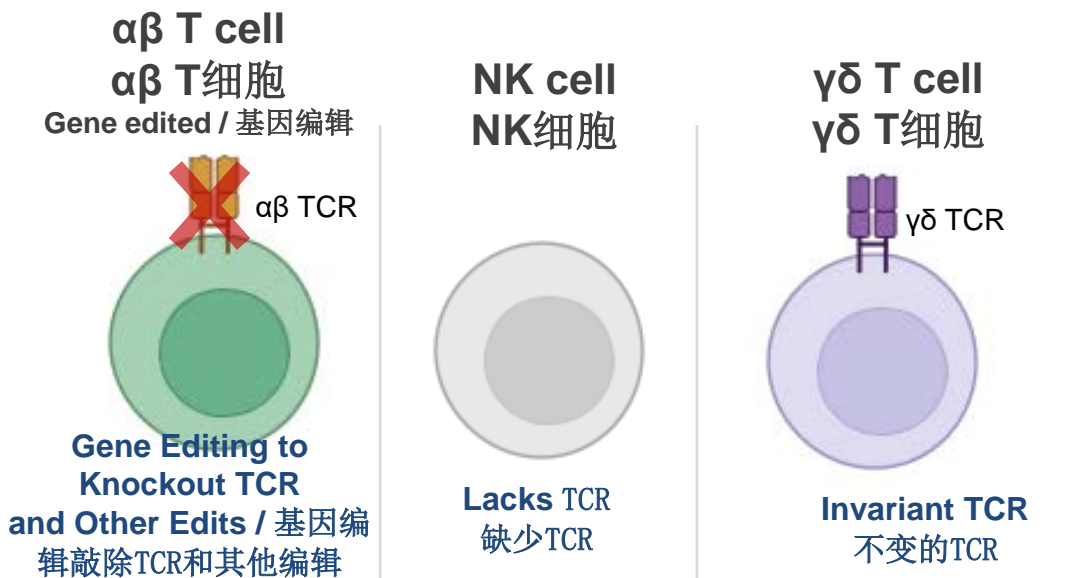
### Key Features / 关键特征

- 1 Retained TCR:** Unedited TCR serves as a key T cell survival signal<sup>1,2,3</sup> contributing to functional persistence / **保留的 TCR:** 未编辑的 TCR 是关键 T 细胞存活信号<sup>1,2,3</sup>，有助于功能性持续<sup>3</sup>
- 2 EBV Specificity:** Low GvHD risk due to TCR recognition of viral antigens / **EBV特异性:** 由于TCR可识别病毒抗原，因此GvHD风险较低
- 3 Partial HLA Matching:** Enables allogeneic approach that avoids host versus graft rejection<sup>4,5</sup> / **部分HLA匹配:** 实现避免宿主抗体排斥的同种异体方法<sup>4,5</sup>
- 4 1XX Costimulatory Domain:** Novel CD3 $\zeta$  signaling domain<sup>6</sup> optimizes potency, expansion and mitigates T-cell exhaustion / **1XX共刺激结构域:** 新型CD3 $\zeta$ 信号结构域优化了效力、扩张并缓解T细胞衰竭
- 5 Less Differentiated Phenotype:**  $\alpha\beta$  T cell manufactured with less differentiated phenotype contributes to potency and durability of clinical response / **较少分化表型:** 具有较少分化表型的 $\alpha\beta$ T细胞有助于提高临床治疗反应的效力和持久性

1. Tanchot et al, Science 1997. 2. Myers et al, Trends Immunology 2017. 3. Polic et al, PNAS 2001. 4. Curran ASTCT 2020, ASH 2023; 5. Atara clinical experience; Prockop et al, JCI 2020. 6. Feucht et al, Nature Medicine, 2018 / 1. Tanchot等人，《科学》杂志，1997年。2. Myers等人，Trends Immunology，2017年。3. Polic等人，PNAS期刊，2001年。4. Curran, ASTCT 2020, ASH 2023年。5. Atara临床经验；Prockop等人，JCI，2020年。6. Feucht等人，Nature Medicine，2018年。

# Atara's CAR T Platform Offers Unique Advantages Versus Other Allogeneic Approaches in the Field

## Atara的CAR T平台在该领域与其他同种异体方法相比具有独特优势



- Aggressive lymphodepletion often required / 通常需要进行积极的淋巴细胞清除治疗
- Gene editing and/or stealth approaches to limit alloreactivity impact expansion and persistence<sup>1</sup> / 基因编辑和/或隐匿方法用于限制同种异体反应影响扩增和持久性<sup>1</sup>
- Minimal expansion drives need for high cell dose / 有限的扩增驱使需要大量细胞剂量
- Non-physiologic stimulation leads to T cell exhaustion<sup>2</sup> / 非生理刺激会导致T细胞耗竭<sup>2</sup>

	Atara EBV CAR T Cell (αβ unedited) Atara EBV CAR T 细胞 (αβ未经编辑)	αβ T Cell Gene edited αβ T细胞经过基因编辑	NK Cell NK细胞	γδ T Cell γδ T 细胞
<b>Safety</b> 安全性	600+ patients safely treated <sup>3</sup> (EBV Platform) 600多名患者得到安全治疗 <sup>3</sup> (EBV平台)	Lower CRS/ICANS risk than auto CAR T 比自体CAR T更低的CRS/ICANS风险		
<b>Expansion</b> 扩增	Robust (CAR preclinical) 稳健 (CAR临床前)	Moderate 中度	Minimal 最低	Minimal-to-Moderate 最低至中度
<b>Persistence</b> 持续时间	Several Months <sup>3</sup> (EBV Platform) 几个月 <sup>3</sup> (EBV平台)	~3-4 weeks ~3-4周	Suboptimal 不理想	Suboptimal 不理想
<b>Durability</b> 持久性	Robust (CAR preclinical) 稳健 (CAR临床前)	Moderate 中度	Suboptimal 不理想	Suboptimal 不理想

1. Wang et al, Nature CMI 2021. 2. Zhang et al, Nature Comm 2023. 3. Clinical experience with allo EBV T-cells including tab-cel and ATA188; Prockop et al, JCI, 2020; Bhat et al, ISNI 2023 / 1. Wang等人, Nature CMI 2021年。2. 张等人, 自然通讯, 2023年。3. 关于包括tab-cel和ATA188在内的同种异体EBV T细胞的临床经验, Prockop等人, JCI, 2020年; Bhat等人, ISNI, 2023年。 7  
αβ = alpha beta; NK = natural killer; γδ = gamma delta / αβ=αβ; NK=自然杀伤NK细胞; γδ=γδ。

# Clinical CAR T Data From Industry Leaders and Academia Reinforce Key Features of Atara's CAR T Platform in Oncology and Autoimmune Diseases

## 来自行业领袖和学术界的临床CAR T数据加强了Atara在肿瘤学和自体免疫疾病领域CAR T平台的关键特征

**EBV Specific TCR & Retained MHC with Partial HLA Matching / EBV特异性TCR和保留MHC与部分HLA匹配**  
*Safety and persistence*  
安全与坚持

### Memorial Sloan Kettering 纪念斯隆-凯特琳癌症中心 Allogeneic EBV CD19 CAR T 同种异体 EBV CD19 CAR T

Overall survival up to 3 years in post-transplant B-cell malignancy patients with favorable safety profile  
(0.7 x 10<sup>6</sup>/kg per dose, n=12)<sup>1</sup>  
/ 移植后B细胞恶性肿瘤患者的总生存期可达3年, 安全性良好 (每剂量0.7 x 10<sup>6</sup>/kg, n=12)<sup>1</sup>

**Less Differentiated Phenotype**  
分化程度较低的表型  
*Durability and potency*  
持久性和效力

### YTB-323

#### Stem-enriched auto CD19 CAR T 干细胞富集的自体 CD19 CAR T

73% CRs, 62% durable CRs at 6 months (12.5M DL2, n=30) / 完全缓解率73%, 6个月时持久完全缓解率为62% (12.5M DL2, n=30)<sup>3</sup>

Preliminary safety and efficacy in 3 SLE patients<sup>4</sup>

/ 对3名系统性红斑狼疮 (SLE) 患者的初步安全性和疗效<sup>4</sup>

**1XX Costimulatory Domain**  
1XX共刺激结构域  
*Expansion, persistence and potency*  
扩增、持续时间和效力

### TAK-940

#### CD19 auto CAR T with 1XX 带1XX的CD19自体 CAR T

ORR 87%, CR 75%  
(25M DL1, n=16)<sup>2</sup> / 总缓解率为87%, 完全缓解率为75% (25M DL1, n=16)<sup>2</sup>

1. Shahid S, Curran K et al., ASH, 2023; 2. Park, JH et al, ASH 2023; 3. Barba, P et al. Poster 439. ASH 2022 Novartis program. 4. Hernandez JC et al, ACR 2023

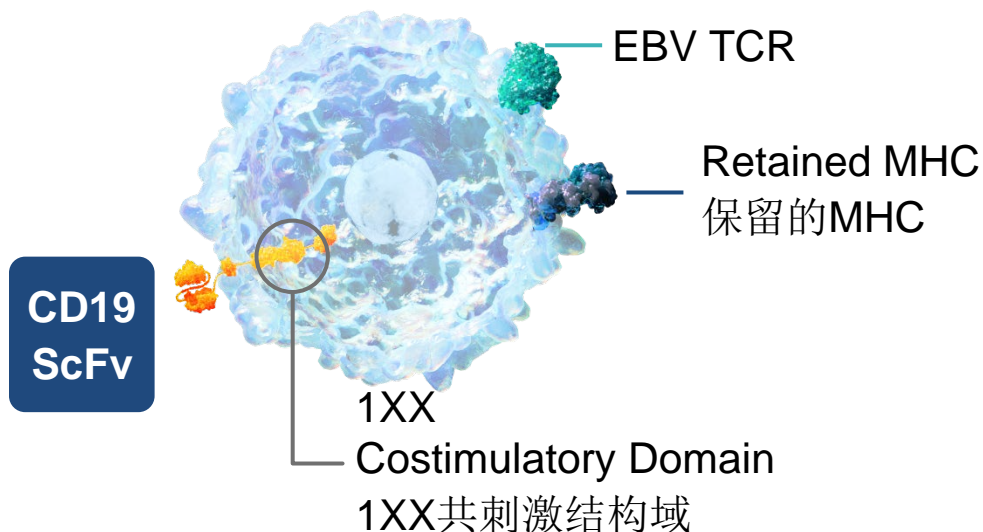
1. Shahid S, Curran K等人, ASH, 2023; 2. Park, JH 等人, ASH 2023; 3. Barba, P 等人, ASH 2023; 海报439, ASH 2022诺华计划。4. Hernandez JC 等人, ACR 2023。



# Atara's Allogeneic CAR T Cell Programs Incorporate Clinically Validated Technologies

## Atara的同种异体 CAR T细胞项目整合了经临床验证的技术

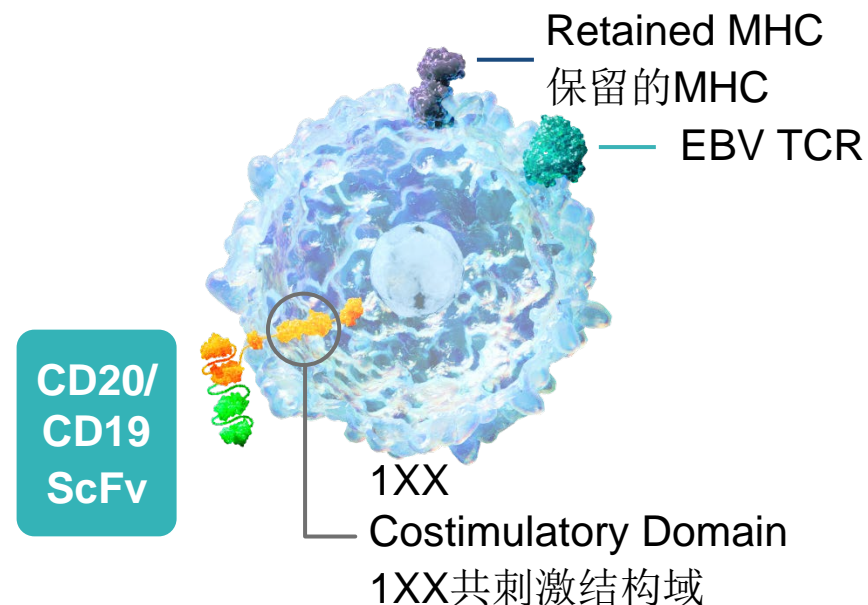
### ATA3219 (CD19 CAR)



**Target:**  
CD19+ B-cell malignancies,  
Autoimmune

靶点: CD19+B细胞恶性肿瘤, 自身免疫性疾病

### ATA3431 (CD19/20 CAR)



**Target:**  
CD19/CD20+ B-cell malignancies,  
Autoimmune / 靶点: CD19/CD20+B细胞恶性肿瘤,  
自身免疫性疾病

# ATA3219 in NHL: Opportunity To Compete With a Differentiated Profile Given Limitations With Other CD19-Targeted Therapies

## ATA3219在NHL中的应用：鉴于其他CD19靶向疗法的局限性，ATA3219有机会以差异化的特征参与竞争

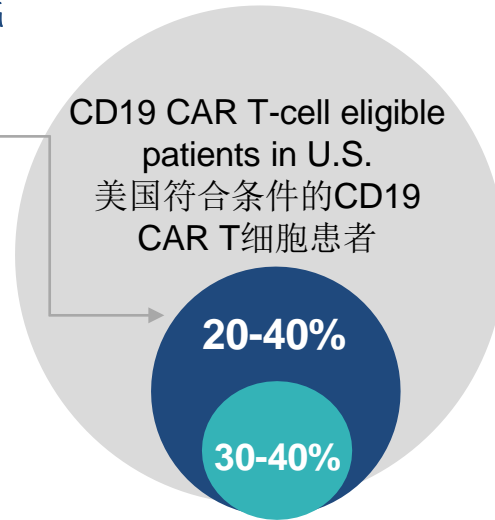
**Unmet Need Despite Approved Auto CAR T**  
尽管自体CAR T已获批准，但需求仍未得到满足

### Access challenges for auto CAR T / 自体CAR T的获取挑战

Only ~20-40% of eligible patients receive CAR T therapy<sup>1,2</sup> / 只有约20-40%符合条件的患者能够接受CAR T疗法<sup>1,2</sup>

### Durability challenges for auto CAR T / 自体CAR T的持久性挑战

Only ~30-40% of those who receive autologous CD19 CAR T therapy have durable response at 6 months<sup>3†</sup>  
在接受自体CD19 CAR T疗法的患者中，只有约30-40%的患者在6个月时获得持久性反应<sup>3†</sup>



**Bispecifics & Allo CAR Yet to Deliver**  
双特异性抗体和同种异体CAR尚未兑现

### Efficacy and safety challenges for bispecifics

双特异性抗体的疗效和安全性挑战

Risk/benefit profile still challenging (CRS/ICANS), limited tissue penetration, incomplete B cell depletion, shorter immune reset than autologous CAR T / 风险/收益概况仍具挑战性 (CRS/ICANS)，组织穿透有限，B细胞清除不完全，免疫复位时间比自体CAR T短

### Durability and persistence challenges for allogeneic CD19 CAR cell therapy / 同种异体CD19 CAR细胞治疗的持久性和持续性挑战

Limited durability of remission with no clinically superior platform

缓解的持久性有限，没有临床上更优越的平台

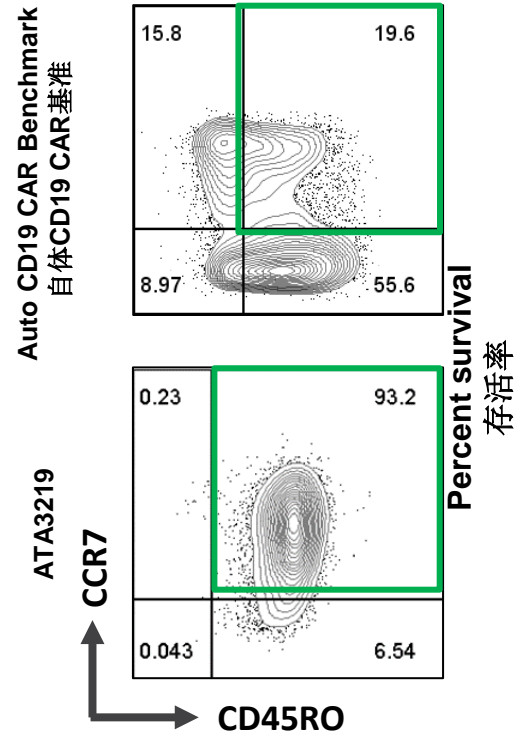
1. Geethakumari PR, et al. Curr Hematol Malig Rep. 2021;16(4):345-356. 2. Schuster SJ. The Lancet. Oncology. 2019; 20(1):2-3. 3. Atallah-Yunes SA, et al. Frontiers in Immunology. 2022; Volume 13. Note: Estimates for 2022 do not include full impact of ongoing 2nd Line CART utilization. †Estimate derived from PIs of approved auto-CAR T; includes reported and extrapolated information.

1. Geethakumari PR等人, Curr Hematol Malig Rep, 2021年出版16(4)第345-356页。2. Schuster SJ, 《柳叶刀》Oncology, 2019年出版20(1)第2-3页。3. Atallah-Yunes SA等人, Frontiers in Immunology, 2022年出版卷13。注：2022年的估计值不包括正在进行的二线CART使用的全部影响。†估计值来自获批的自体CART T的PI：包括报告和推断信息。

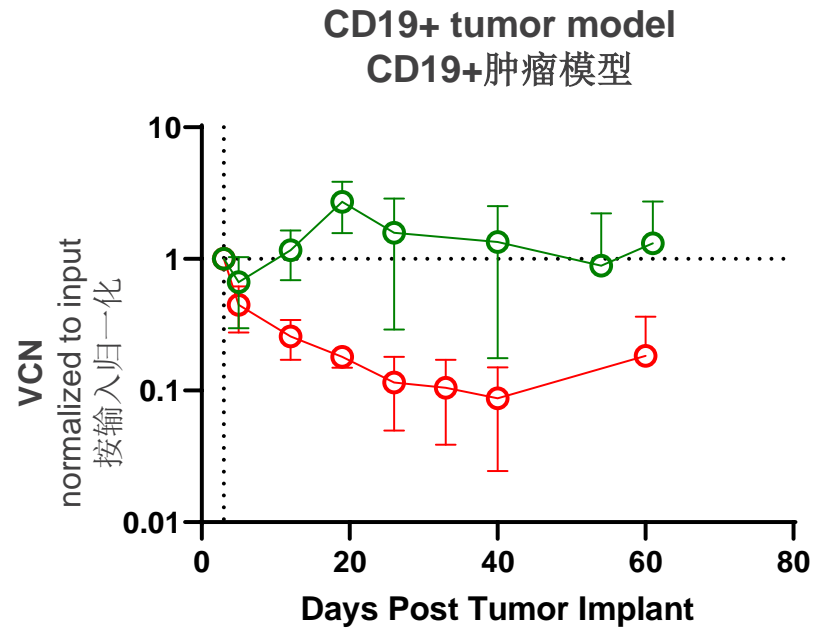
# ATA3219 in NHL: Superior *In Vivo* Persistence & Efficacy Versus Commercial Auto CD19 CAR T Benchmark

## ATA3219在NHL中与商业自体CD19 CAR T基准相比具有更优越的体内持久性和疗效

**Less Differentiated T Cells for ATA3219 / ATA3219针对分化程度较低的T细胞**

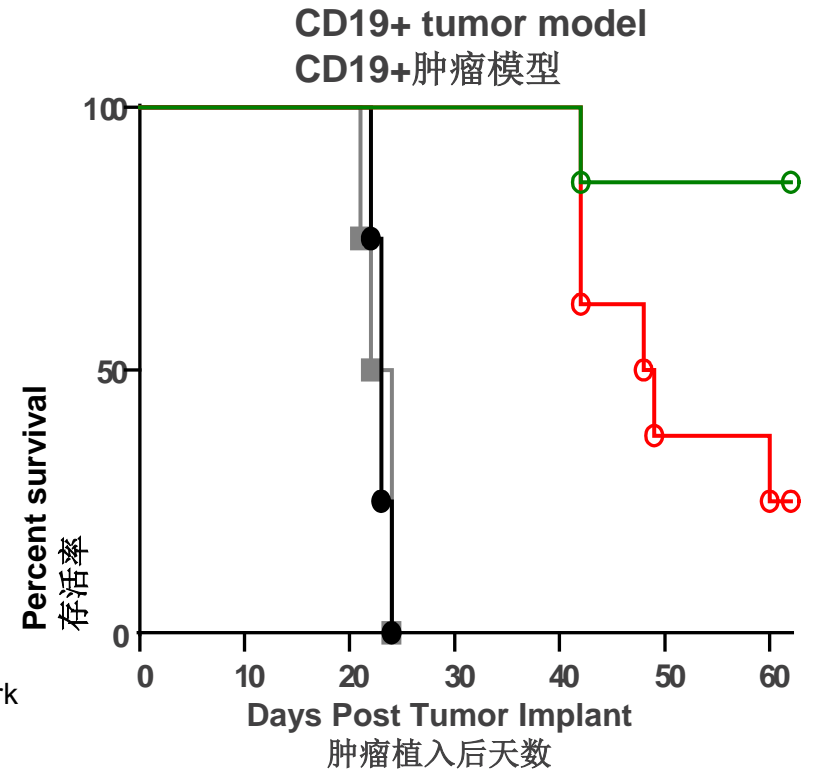


**ATA3219 Longer Persistence versus auto CD19 CAR benchmark<sup>1</sup> / ATA3219与自体CD19 CAR基准相比具有更长的持续性<sup>1</sup>**



ATA3219    ● Auto CD19 CAR T Benchmark  
自体CD19 CAR T基准  
● Auto benchmark

**ATA3219 Superior Efficacy versus auto CD19 CAR benchmark<sup>1</sup> / ATA3219与自体CD19 CAR基准相比疗效更佳<sup>1</sup>**



● ATA3219    ● Auto CD19 CAR T Benchmark  
自体CD19 CAR T基准    ● PBS    ● NTD

1. Pham, C, et al. Abstract presented at Transplantation & Cellular Therapy (TCT) Meetings; 2023. Auto CD19 CAR T benchmark with CD28 and CD3ζ signaling domains.

Note: T-cell infusion on day 3 day after tumor implantation (day 0); infusion timepoint represented as a vertical line on the center graph.

Pham, C等人, 在移植与细胞疗法(TCT)会议上的摘要; 2023年。带有CD28和CD3ζ信号域的自体CD19 CAR T基准。

注: 在肿瘤植入后第3天(第0天)输注T细胞; 输注时间点为中心图上用垂直线表示。

# Atara Allogeneic CAR T Programs Support Broad Opportunity for Cell Therapy in Autoimmune Disease

## Atara同种异体CAR T项目为自身免疫性疾病的细胞疗法提供了广阔的机会



### High Unmet Need / 大量未满足的需求量

- High unmet medical need in multiple indications; standard of care and approved products have limited efficacy; significant scalability limitations and logistical hurdles with autologous / 多种适应症存在巨大的未满足的医疗需求；标准疗法和已批准产品的疗效有限；自体细胞治疗在可扩展性和后勤方面存在重大限制
- Lymphodepletion free approaches needed to minimize toxicities, logistical complexities, hospitalization, costs, and enable increased CAR T approachability for autoimmune patients / 无需采用淋巴清除的方法，以最大限度地降低毒性、后勤复杂性、住院时间和成本，并提高自身免疫性患者的 CAR T 适应性



### Proof of Concept in Lupus / 在红斑狼疮中的概念验证

- Compelling validation from autologous CAR T academic study (8/8 patients with >1 year post CAR T cell infusion attaining drug-free remission in Lupus<sup>1</sup>) and emerging industry data / 自体CAR T学术研究以及新兴行业数据提供了令人信服的验证(8/8名红斑狼疮患者在接受CAR T细胞输注1年后达到无药物缓解状态)



### Allo CAR T Opportunity is Open / 同种异体CAR T治疗的机会放开

- No allogeneic CAR product with clinical data in autoimmune disease / 尚无同种异体CAR产品获得自身免疫性疾病的临床数据
- Atara proven safety with allo T cells in 600 patients, including 130 with autoimmune disease (PMS) / Atara已在600名患者，包括130名自身免疫疾病患者（PMS）中证实了异体T细胞的安全性

Designed to achieve deep B-cell depletion and immune system reset in autoimmune disease

旨在在自身免疫疾病中实现深度B细胞清除和免疫系统重置

1. Mueller et al, ASH 2023. / Mueller 等人, ASH 2023.  
PMS = progressive multiple sclerosis / PMS = 进行性多发性硬化症

# ATA3219 is Designed to Have a Best-in-Class CAR T Profile in Multiple Autoimmune Diseases

## ATA3219在多种自身免疫性疾病中具有同类最佳的 CAR T特征

### Allogeneic Approach / 同种异体疗法

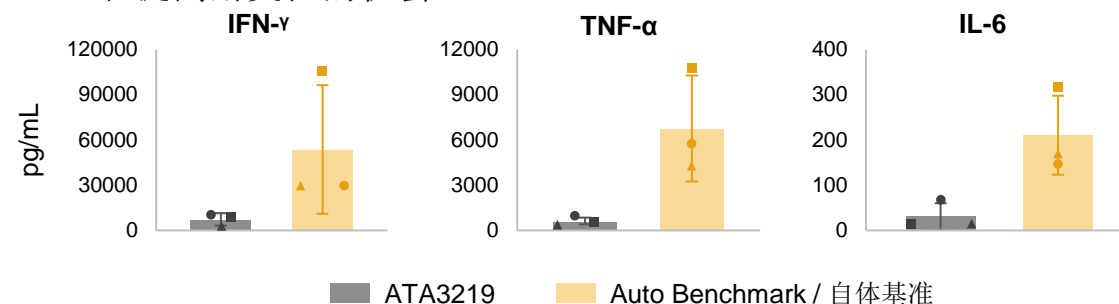
- Off-the-shelf availability simplifies treatment / 现成可用性简化了治疗过程
- Scaled-up manufacturing to address large populations / 扩大生产规模，满足大量人群的需求
- Lower COGS / 降低制造成本
- Healthy starting cells / 健康的起始细胞

### Differentiated EBV T-Cell Platform 差异化的EBV T细胞平台

Partial HLA Matching & EBV-Specific TCR / 部分HLA配型和EBV特异性TCR	➔	Improves safety and engraftment 提高安全性和移植效果
Memory Phenotype 记忆表型	➔	Durability & potency 持久性和功效
1XX Costim Domain 1XX共刺激结构域	➔	Expansion, persistence, & potency 扩增能力、持续性和功效
$\alpha\beta$ T Cells / $\alpha\beta$ T细胞	➔	600+ patients safely treated 600多名患者得到安全治疗

### Less Inflammatory Profile / 炎症较少的特征

- Opportunity to reduce toxicity and improve tolerability / 降低毒性和提高耐受性的机会



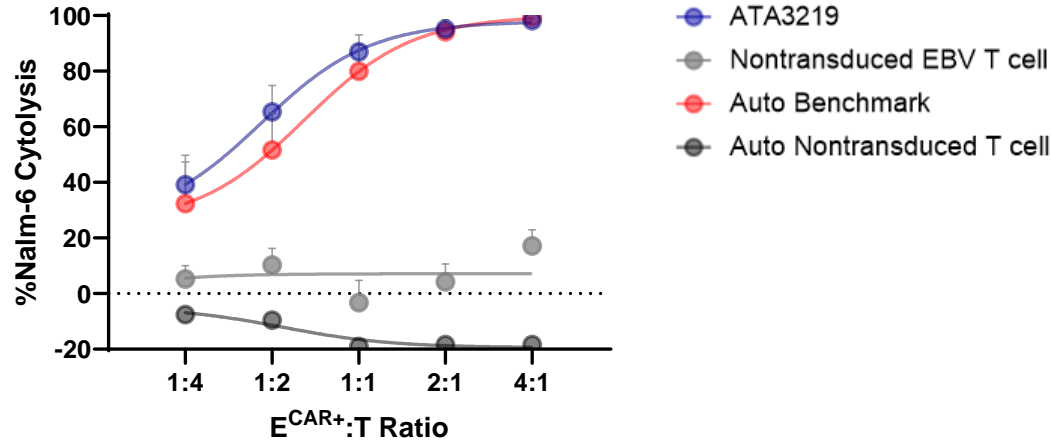
### Potential for No Lymphodepletion (LD) 无需进行淋巴细胞清除的可能性

- Other than Atara experience with tab-cel, limited clinical data exists that demonstrates efficacy in cell therapy treatment with reduced or no LD
- 除了Atara在tab-cel方面的经验外，目前鲜有临床数据证明在减少或无需淋巴细胞清除的情况下，细胞治疗仍能达到疗效

# ATA3219 Maintains Comparable Cytotoxic Function With Reduced Inflammatory Cytokine Release Compared to Auto CD19 CAR T Benchmark / ATA3219与自体CD19 CAR T基准相比，能够维持相当的细胞毒性功能，但释放的炎症性细胞因子较少

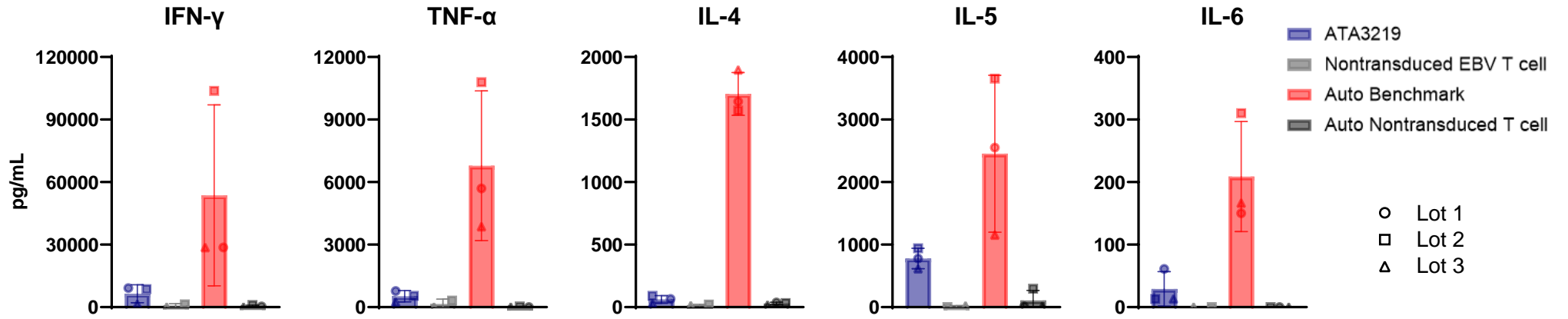
## % Cytolysis 细胞溶解率

CD19-specific cytotoxic activity  
CD19特异性细胞毒性活性



## Cytokine Release 细胞因子释放

Reduced inflammatory cytokine release  
减少炎症细胞因子的释放



ATA3219 and auto benchmark CAR T cells generated from the same three donors were co-cultured with Nalm-6 cells at a 3:1 E:T ratio for 24 hours. Supernatants were harvested and cytokine release was measured / ATA3219和自体基准CAR T细胞均来自同3名供体，分别与Nalm-6细胞以3:1的E:T比例共培养24小时。收集上清液并测量细胞因子释放。

Brito, A, et al. Poster presented at ISCT. 2024 / Brito, A等人在ISCT上的发表，2024年

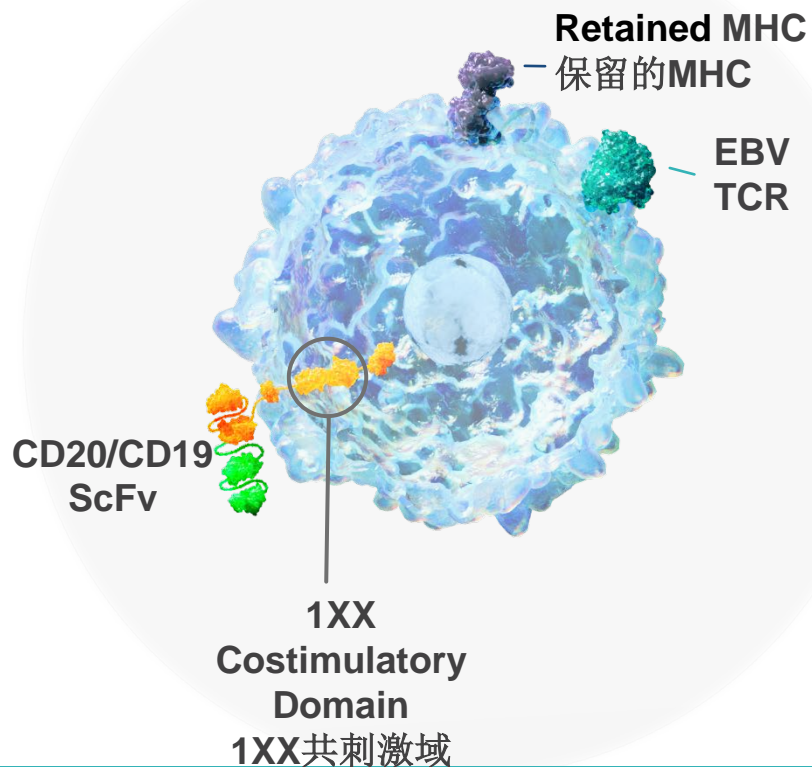
14

Data represents mean and standard error of mean (SEM) across 3 different ATA3219 lots and non-transduced controls / 数据表示3批不同的ATA3219样品和未转染对照组的平均值和标准误差(SEM)

# ATA3431: Off-the-Shelf Allogeneic CD19/CD20 CAR T Program

## Progressing Toward IND Submission in 2025

### ATA3431: 现成的同种异体CD19/CD20 CAR T项目正在推进, 计划于2025年提交IND申请



Targeting CD19 and CD20 **reduces probability of relapse** due to CD19 antigen loss, hypothesized to be a major cause of treatment resistance or disease relapse after CD19 CAR T treatment / 针对CD19和CD20的双靶点设计, 可降低由于CD19抗原丢失导致的复发概率。这种抗原丢失被认为是CD19 CAR T治疗后出现耐药或疾病复发的主要原因之一



Targeting CD19 and CD20 provides **potential incremental efficacy benefit** and 1XX co-stimulation for **enhanced persistence** / 针对CD19和CD20的双靶点设计, 可能带来额外的疗效优势。同时采用1XX型共刺激域可增强CAR-T细胞的持续性



Autologous CD19/CD20 dual CAR Ts have shown **promising efficacy and safety** in clinical trials (IMPT-314; C-CAR039<sup>1</sup>) / 自体CD19/CD20双特异性CAR T细胞在临床试验中已显示出良好的疗效和安全性(IMPT-314; C-CAR039<sup>1</sup>)



ATA3431 preclinical data demonstrates a competitive profile based on **potent antitumor activity, long-term persistence, and superior tumor growth inhibition** / ATA3431的临床前数据表明其具有强大的抗肿瘤活性、长期持久性和出色的肿瘤生长抑制能力, 展现出有竞争力的产品特征

Positive preclinical data presented at American Society of Hematology meeting in December 2023<sup>2</sup>

在2023年12月的美国血液学会会议上展示了积极的临床前数据<sup>2</sup>

1. Li, P, et al. C-CAR039, a Novel Anti-CD20/CD19 Bi-Specific CAR T-Cell Therapy Shows Deep and Durable Clinical Benefits in Patients with Relapsed or Refractory (r/r) B-Cell Non-Hodgkin Lymphoma (B-NHL) in Long Term Follow up. ASH 2023. 2. Cha, S et al. Poster 4800. ATA3431: Allogeneic CD19/CD20 Bispecific CAR EBV T Cells for the Treatment of B-Cell Malignancies. ASH 2023./ 1. Li, P等人的研究显示, C-CAR039是一种新颖的针对CD20/CD19的双特异性CAR-T细胞疗法, 在复发或难治性B细胞非霍奇金淋巴瘤患者中显示出深度和持久的临床获益, 结果来自长期随访。ASH, 2023年。2. Cha, S等人的研究海报4800展示了ATA3431作用于同种异体基因CD19/CD20双特异性CAR-EBV T细胞, 用于治疗B细胞恶性肿瘤。ASH, 2023年。

# ATA3431: Compelling Proof-of-Concept and Competitive Profile

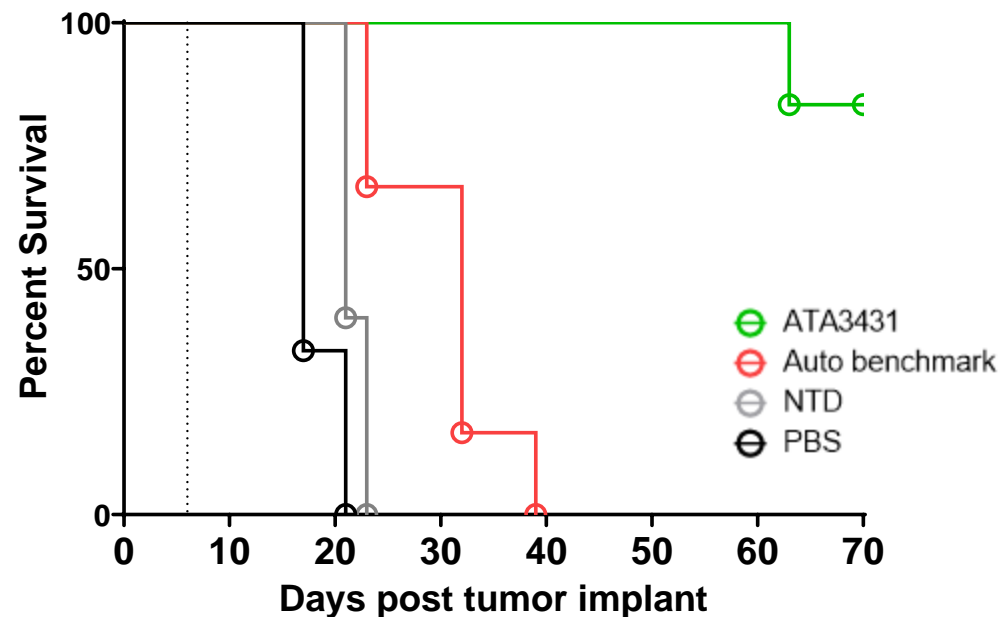
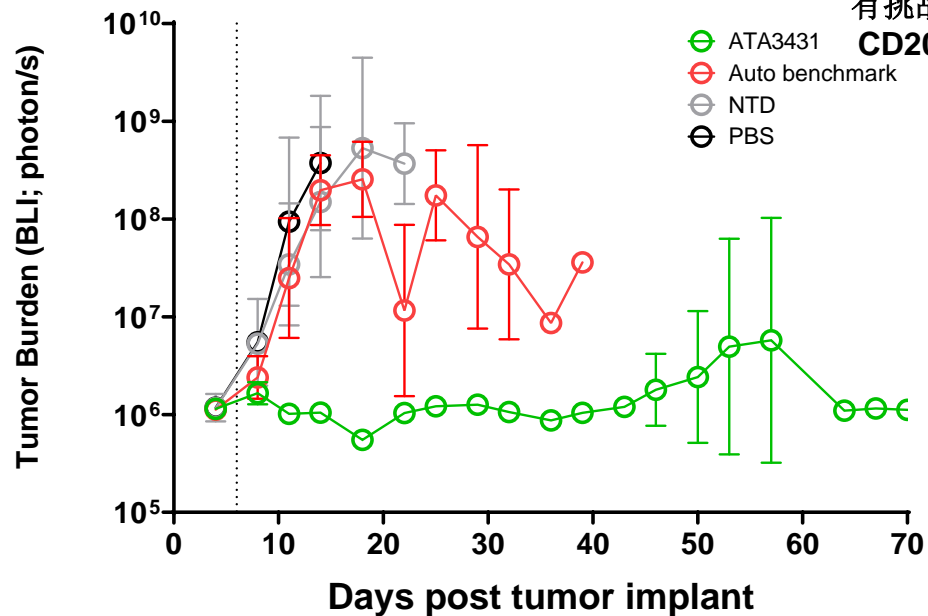
## ATA3431: 令人信服的概念验证和有竞争力的产品特征

**Greater Anti-Tumor Efficacy vs CD19/CD20 Autologous Benchmark**  
**与CD19/CD20自体基准相比具有更强的抗肿瘤疗效**

**Challenging CD19<sup>low</sup> / CD20<sup>+</sup>**

**Raji model**

有挑战的CD19低表达/  
CD20高表达Raji模型



**ATA3431 progressing toward IND submission in H2 2025**  
**ATA3431正朝着2025年下半年提交IND申请的方向发展**



# Differentiated Allogeneic T-Cell Immunotherapy Pipeline

## 差异化的同种异体T细胞免疫疗法产品线

Program / 项目	Indication / 适应症	Target / 治疗靶点	Preclinical 临床前	Phase 1 1期	Phase 2 2期	Phase 3 3期	Registration 注册审批	Next Milestone 下一个里程碑
ATA3219 (Oncology / 肿瘤学)	Non-Hodgkin's Lymphoma (NHL) 非霍奇金淋巴瘤	CD19						Q4 2024: Initial NHL Ph 1 clinical data expected / 2024年第四季度: 预计将获得NHL一期初期临床数据
ATA3219 (Autoimmune / 自体免疫)	Lupus Nephritis (LN) / 狼疮性肾炎	CD19						H1 2025: Initial LN Ph 1 clinical data expected / 2025年上半年: 预计将获得在狼疮肾炎I期临床试验的初步数据
	Systemic Lupus Erythematosus (SLE) without lymphodepletion 无需淋巴细胞清除的全身性红斑狼疮							H2 2025: Initial SLE Ph 1 clinical data expected / 2025年下半年: 预计将获得在系统性红斑狼疮I期临床试验的初步数据
ATA3431	B-cell malignancies / B细胞恶性肿瘤	CD19/CD20						IND targeted for H2 2025 计划于2025年下半年提交IND申请
	Autoimmune disease / 自体免疫疾病							
Tab-cel® or Ebvallo™ Tab-cel®或Ebvallo™ (tabelecleucel)	RR EBV+ PTLD following HCT and SOT / 继HCT和SOT后出现复发/难治性EBV+PTLD*	EBV		ALLELE Study / ALLELE研究			EU Approved 欧盟批准	Q2 2024: BLA submitted 2024年第二季度: BLA(生物制品许可申请)已提交
	Multi-Cohort (Label-Expansion): EBV+ cancers / 多队列(标签扩展): EBV+ 癌症 <sup>(1)</sup>	EBV		EBVision Study / EBVision研究				Ongoing enrollment 持续招募患者
ATA188	Progressive MS / 进行性多发性硬化症	EBV <sup>(2)</sup>		EMBOLD Study / EMBOLD研究				Evaluating strategic options following completion of the study 在研究完成后评估战略备选方案

Excluding Ebvallo™ in EU, these investigational agents are not approved by any regulatory agencies and efficacy and safety have not been established / 除了在欧盟已获批的Ebvallo™外, 这些研究中的药物尚未获得任何监管机构的批准, 其疗效和安全性尚未确定

EBV+ PTLD: EBV-Associated Post-Transplant Lymphoproliferative Disease; RR: rituximab relapsed/refractory; HCT: allogeneic hematopoietic cell transplant; SOT: solid organ transplant; NHL: non-Hodgkin's lymphoma / EBV+ PTLD: 与Epstein-Barr病毒相关的移植后淋巴增殖性疾病; RR: 对利妥昔单抗治疗无反应/复发; HCT: 异体造血干细胞移植; SOT: 实体器官移植; NHL: 非霍奇金淋巴瘤

Atara has entered into an agreement with Pierre Fabre to commercialize tab-cel® for EBV+ cancers worldwide / Atara已与Pierre Fabre达成协议, 将tab-cel®用于全球EBV+癌症的商业化治疗

\*Indication pursued as monotherapy for treatment of adult and pediatric patients two years of age and older with Epstein-Barr virus positive post-transplant lymphoproliferative disease (EBV+ PTLD) who have received at least one prior therapy. For solid organ transplant patients, prior therapy includes chemotherapy unless chemotherapy is inappropriate / 适应症: 作为单一疗法, 用于治疗两岁及以上、EB病毒阳性、既往接受过至少一种治疗的成人和儿童移植后淋巴组织增生性疾病 (EBV+ PTLD) 患者。对于实体器官移植患者, 既往治疗包括化疗, 除非不适合化疗。

Other programs: EBV vaccine and other hematological malignancies and solid tumor AlloCAR T programs / 其他项目: EBV疫苗以及其他血液恶性肿瘤和实体瘤的异体CAR-T细胞疗法

(1) Phase 2 multi-cohort initiated in Q3 2020, with possible indications including EBV+ PTLD with CNS involvement, front-line treatment in EBV+ PTLD including front line with CNS involvement, EBV+ PID/AID LPD, and other potential EBV-associated diseases / 2020年第三季度启动二期多队列研究, 可能的适应症包括中枢神经系统受累的EBV+ PTLD、EBV+PTLD的一线治疗、EBV+ PID/AID LPD以及其他潜在的EBV相关疾病。

(2) Targeted antigen recognition technology; Phase 2 Randomized Controlled Trial / 靶向抗原识别技术; 2期随机对照试验



THANK YOU

感谢参阅

*Nasdaq: ATRA*

 ATARA BIO®