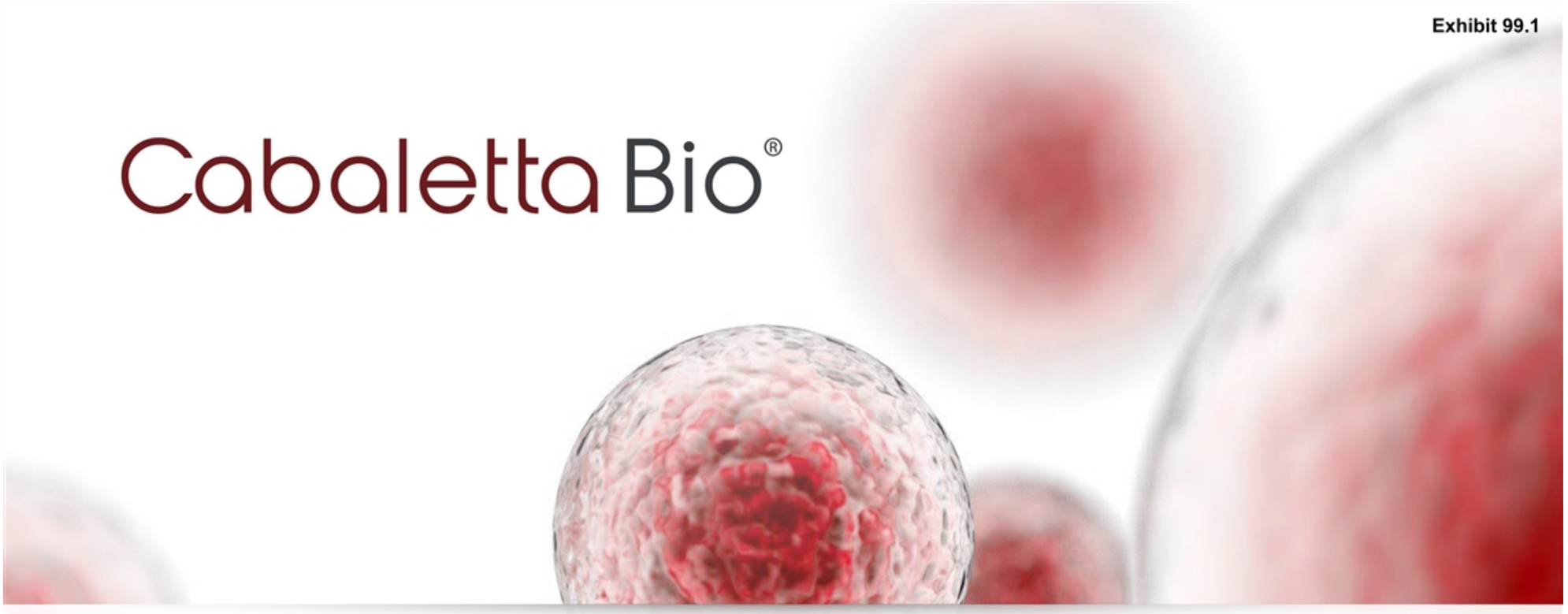
Exhibit 99.1

Cabaletta Bio®



CABA-201 Clinical and Translational Data from the RESET™ Phase 1/2 Trials

NOVEMBER 2024

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Words such as, but not limited to, "look forward to," "believe," "expect," "anticipate," "estimate," "intend," "plan," "would," "should" and "could," and similar expressions or words, identify forward-looking statements.

Various risks, uncertainties and assumptions could cause actual results to differ materially from those anticipated or implied in our forward-looking statements. Such risks and uncertainties include, but are not limited to, risks related to the success, cost, and timing of our product candidate development activities and preclinical studies and clinical trials, risks related to our ability to demonstrate sufficient evidence of safety, efficacy and tolerability in our preclinical studies and clinical trials of CABA-201, DSG3-CAART and MuSK-CAART, the risk that the results observed with the similarly-designed construct, including, but not limited to, due to dosing regimen, are not indicative of the results we seek to achieve with CABA-201, ethe risk that signs of biologic activity or persistence may not inform long-term results, the risk that interim results do not always inform later results, the risk that piersistence observed with effective CD19-CAR T oncology studies in combination with lymphodepletion is not indicative of, or applicable to, clinical responses in patients with mPV, risks related to clinical trial site activation or enrollment rates that are lower than expected, our ability to protect and maintain our intellectual property position, risks related to our relationships with third parties, uncertainties related to regulatory agencies' evaluation of regulatory filings and other information related to our product candidates, our ability to retain and recognize the intended incentives conferred by any Orphan Drug Designations and Fast Track Designations, risks related to regulatory filings and potential clearance, the risk that any one or more of our product candidates will not be successfully developed and commercialized, the risk that the results of preclinical studies or clinical studies will not be predictive of future results in connection with future studies, and risks related to volatile market and economic conditions and public health crises. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. 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. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. Accordingly, you are cautioned not to place undue reliance on these forward-looking statements. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause our actual results to differ materially from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our most recent annual report on Form 10-K, as well as discussions of potential risks, uncertainties, and other important factors in our other and subsequent filings with the Securities and Exchange Commission. Certain information contained in this Presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and the Company's own internal estimates and research. While the Company believes these third-party sources 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. The Company is the owner of various trademarks, trade names and service marks. Certain other trademarks, trade names and service marks appearing in this Presentation are the property of third parties. Solely for convenience, the trademarks and trade names in this Presentation are referred to without the ® and TM symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Today's Agenda

AGENDA TOPIC	SPEAKER
CABA-201 Overview	Steven Nichtberger, MD *Chief Executive Officer*
Lessons from Oncology: Expanding CAR T Cell Therapies into Autoimmunity	Carl H. June, MD *Director of the Center for Cellular Immunotherapies, Penn Medicine*
CABA-201 Clinical and Translational Data from the RESET™ Clinical Program	David Chang, MD, MPH, FACR *Chief Medical Officer*
Conclusions	Steven Nichtberger, MD *Chief Executive Officer*
Q&A	

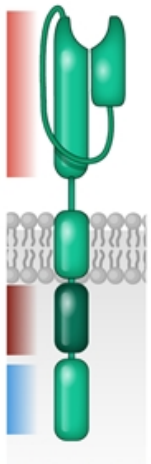
CABA-201: CD19-CAR T specifically designed for autoimmunity

Cabaletta's CD19 binder with similar *in vitro* & *in vivo* activity to construct used in academic studies[1,3]

Fully human anti-CD19 binder
Similar binding affinity & biologic activity to FMC63, with binding to the same epitopes[1,2]

4-1BB costimulatory domain
Same co-stim. domain as used in academic studies

CD3-ζ signaling domain



CABA-201[5]

Clinical data reported by IASO using licensed CD19 binder in oncology[4]

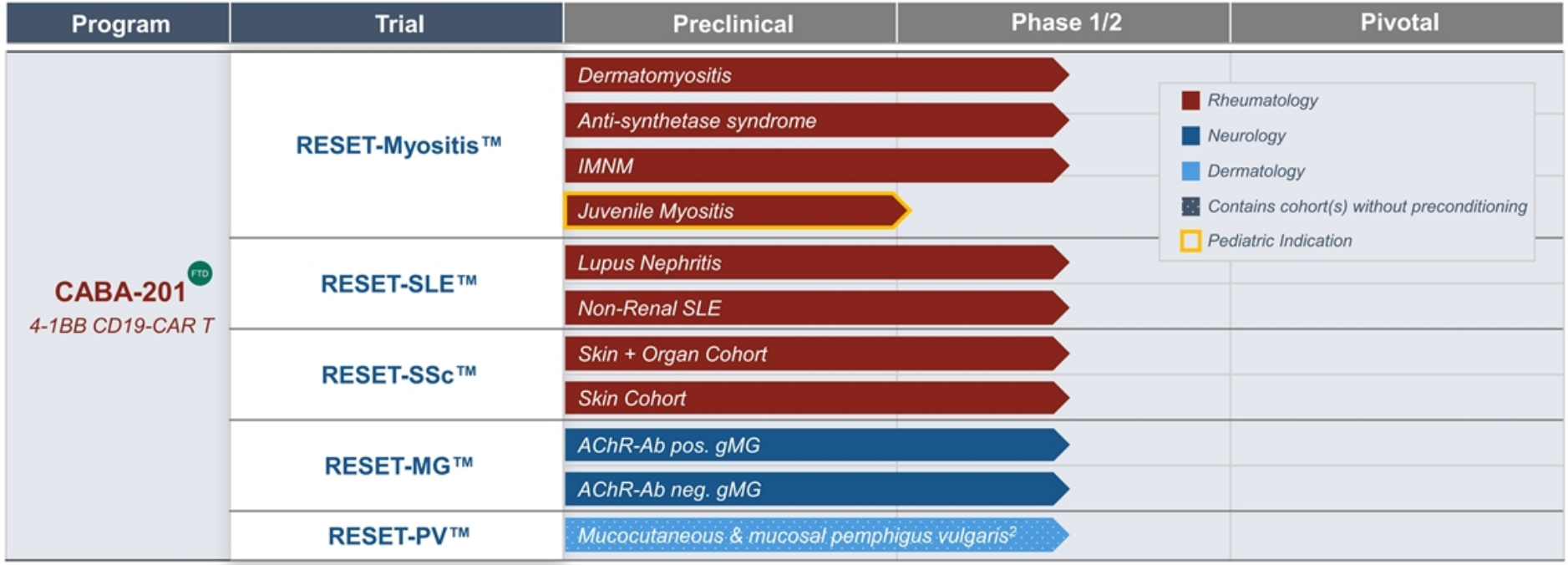
- **Fully human binder**
  Evaluated as dual-CAR combined with CD22 binder with standard Flu/Cy preconditioning
- **Data reported in ~20 patients to date**
  B cell leukemia and lymphoma in IIT in China
- **Safety data supports autoimmune development**

IIT – Investigator-initiated trial; Flu/Cy – Fludarabine/Cyclophosphamide

1. Peng, Binghao J, et al. "Preclinical specificity and activity of CABA-201, a fully human 4-1BB containing CD19 CAR T therapy for treatment-resistant autoimmune disease." Poster presented at: American Society Gene and Cell Therapy 26th Annual Meeting; 2023 May 19; Los Angeles, CA.
2. Dai, Zhenyu, et al. "Development and functional characterization of novel fully human anti-CD19 chimeric antigen receptors for T-cell therapy." Journal of Cellular Physiology 236.8 (2021): 5832-5847.
3. Müller, Fabian, et al. "CD19 CAR T-Cell Therapy in Autoimmune Disease—A Case Series with Follow-up." New England Journal of Medicine 390.8 (2024): 687-700.
4. Evaluated as part of CT120, a dual-CD19xCD22 CAR T product candidate under development by Nanjing IASO Biotherapeutics, Co., Ltd. (IASO Bio).
5. Transmembrane domain in CABA-201 is CD8α vs. TNFRSF19 (Troy) utilized in the academic construct. The two transmembrane domains have not been shown to have a significant difference in function or IFN-γ production in preclinical studies. The CD8α transmembrane domain is employed in tisagenlecleucel.

RESET™ clinical program for CABA-201, a CD19-directed CAR T

Multiple autoimmune diseases evaluated in distinct disease cohorts across five clinical trials



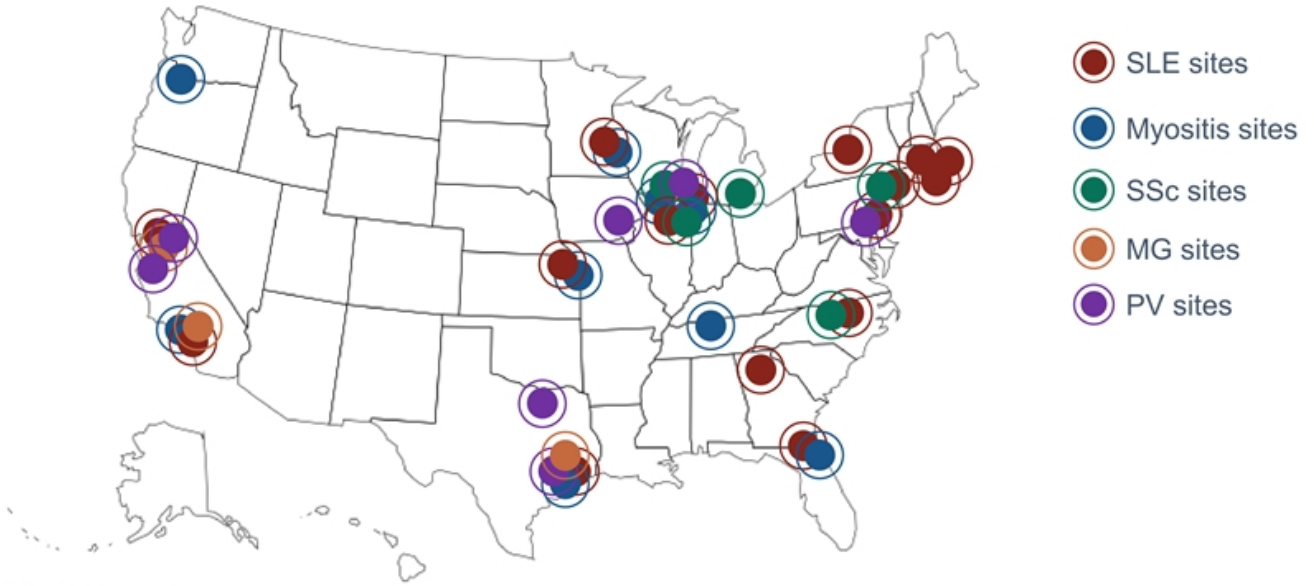
RESET™ – **RE**storing **SE**lf-**T**olerance; IMNM – Immune-mediated necrotizing myopathy; SLE – Systemic lupus erythematosus; Ab – Antibody; AChR – Acetylcholine receptor; gMG – Generalized myasthenia gravis

● FDA Fast Track Designation received in dermatomyositis, SLE and lupus nephritis, systemic sclerosis, mucosal pemphigus vulgaris, and MuSK-Ab positive MG.

Expanding clinical site footprint across RESET™ program[1]

16 patients enrolled and 10 patients dosed across RESET™ studies, with 40 actively recruiting U.S. sites

- Clinical development expanding to Europe in 2025 with EMA CTA authorization for CABA-201 received for RESET-SLE™
- Gerwin Winter appointed as SVP and Head of International at Cabaletta Bio



RESET™ Program Upcoming Milestone:

- ❑ **2025:** Data permitting, anticipate meeting with FDA regarding potential registrational trial designs for CABA-201

1. Data per clinicaltrials.gov as of November 12, 2024, as compared to companies with actively recruiting U.S. clinical sites for autoimmune cell therapy trials under company-sponsored INDs.

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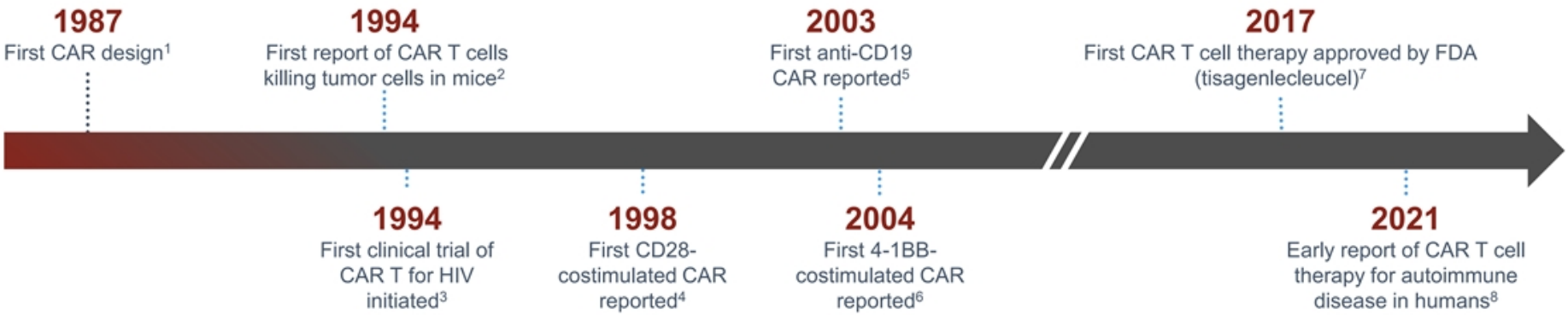
Success of CAR T in oncology established over decades

B cell cancer experience with CAR T informs use in autoimmune patients



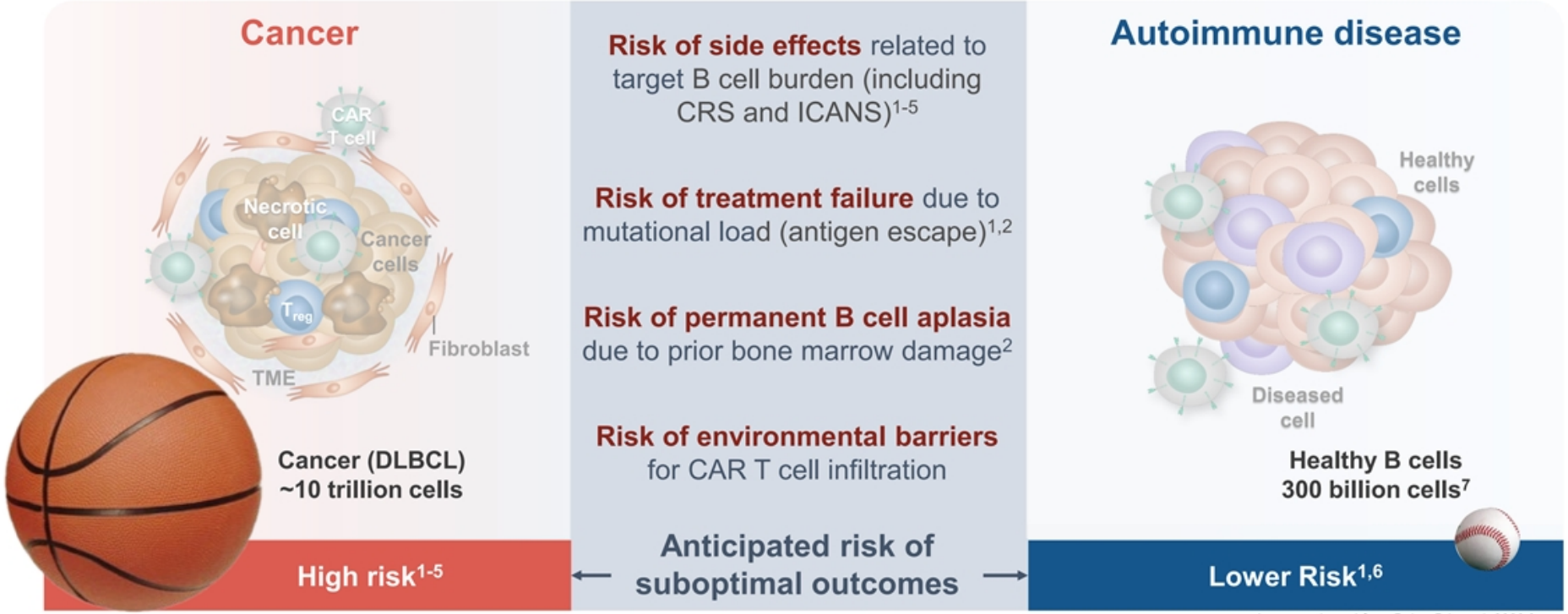
- Multiple types of cell therapies are in Phase 1/2 studies, with the majority being autologous CAR T cell therapy[9]
- ~800 ongoing CAR T trials, with the majority in the US and China[10]

Experience in oncology has established foundation for application in autoimmune disease

1. Kuwana Y, et al. Biochem Biophys Res Commun. 1987;149(3):960-968. 2. Moritz D, et al. Proc Natl Acad Sci USA. 1994;91:4318-4322. 3. Roberts MR, et al. Blood. 1994;84(9):2878-2889. 4. Krause A, et al. J Exp Med. 1998;188:619-626. 5. Brentjens RJ, et al. Nat Med. 2003;101(4):1637-1644. 6. Imai C, et al. Leukemia. 2004;18:676-684. 7. O'Leary MC, et al. Clin Cancer Res. 2019;25(4):1142-146. 8. Mougiakakos D, et al. N Engl J Med. 2021;385(6):567-569. 9. Krishnamurthy A, et al. Wells Fargo, November 2017. 10. Clinicaltrials.gov. Accessed November 14, 2024. https://clinicaltrials.gov/search?intr=chimeric%20antigen%20receptor.

Considerations for CAR T therapy in cancer and autoimmunity

Factors that predict adverse events and relapse differ in patients with autoimmune diseases[1]



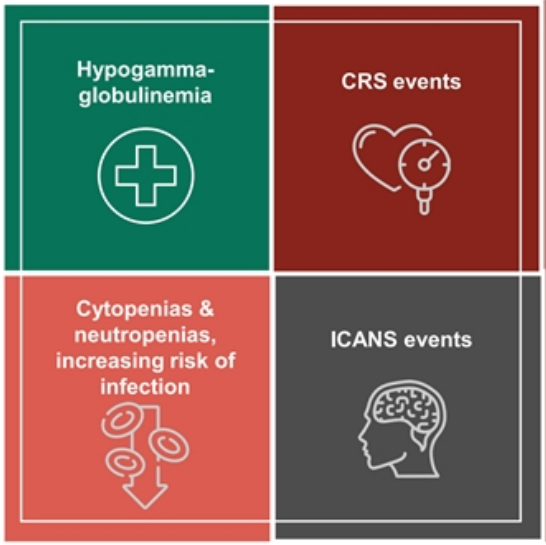
Images adapted from Baker DJ, et al. 2023.[1]

TME, tumor microenvironment.

1. Baker DJ, et al. *Nature.* 2023;619(7971):707-715. 2. Sterner RC, Sterner RM. *Blood Cancer J.* 2021;11(4):69. 3. Breyanzi. Prescribing information; 2024. 4. Yescarta. Prescribing information; 2024. 5. Kymriah. Prescribing information; 2022. 6. Müller F, et al. *N Engl J Med.* 2024;390(8):687-700. 7. Sender, R et al. *PNAS* 2023 e2308511120.

Potential adverse events after CAR T cell therapy in cancer

Physician experience in oncology has established algorithms for routine management of common AEs



CRS/ICANS assessment parameters[1]

CRS

Graded 1–4 depending on severity & manifestations

Fever

with

Hypotension

and/or

Hypoxia

ICANS

Graded 1–4 depending on severity & manifestations

- ICE score — *Measures alterations in speech, orientation, handwriting, attention, & receptive aphasia[2]*
- Consciousness
- Seizure
- Motor findings
- ICP/cerebral edema

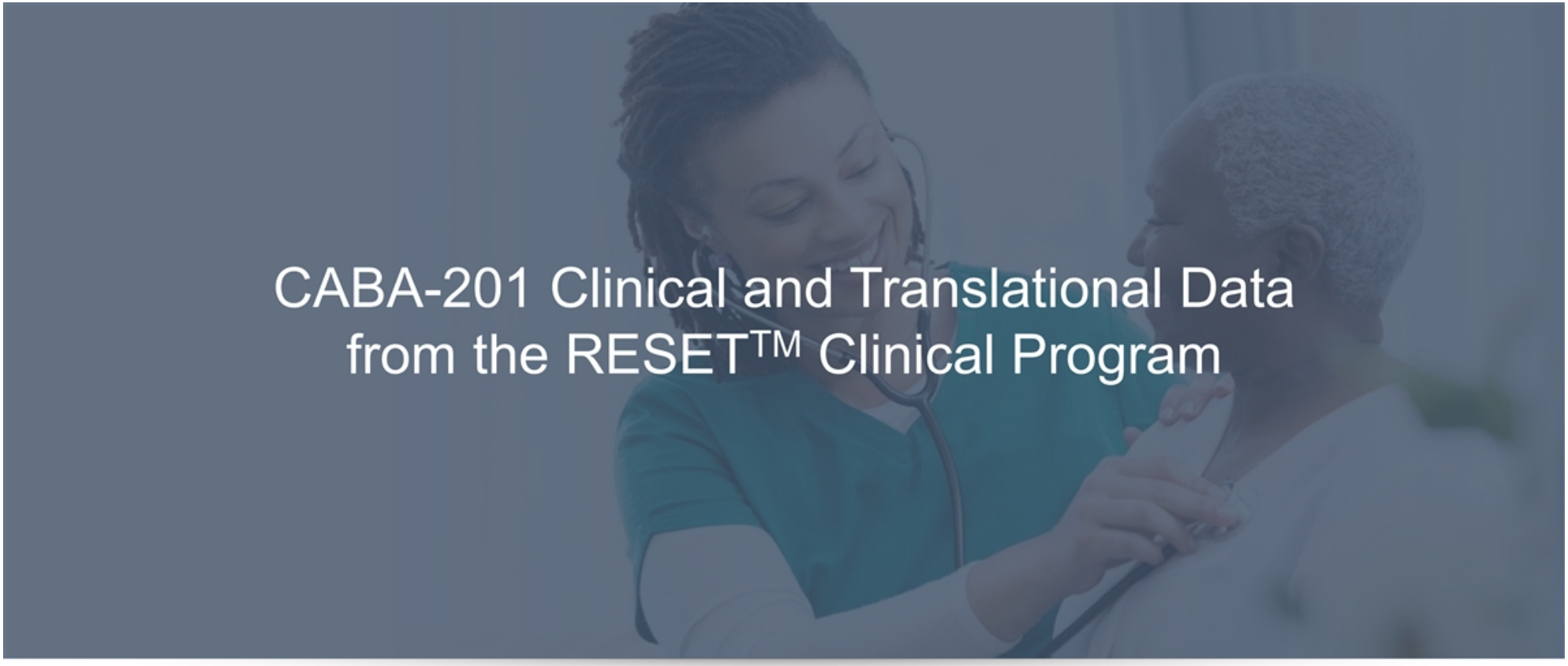
Managing CRS & ICANS events

- CRS: Tocilizumab +/- steroids & supportive care[3]
- ICANS: Steroids, supportive care and anti-seizure medications when appropriate[4]
- Seizure prophylaxis is a routine part of some CAR T therapy administration protocols [5-8]

Image adapted from Bonifant CL, et al. 2016,[9] Verdun N and Marks P. 2024,[10] Adkins S, et al. 2019.[11]

AE, adverse event; CAR, chimeric antigen receptor; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; ICE, immune effector cell encephalopathy; ICP, intracranial pressure

1. Lee DW, et al. *Biol Blood Marrow Transplant*. 2019;25(4):625–638. 2. Herr MM, et al. *Biol Blood Marrow Transplant*. 2020;26(11):e271–e2744. 3. Zhang Y, et al. *J Clin Med*. 2023;12(19):6124. 4. Jain MD, et al. *Blood*. 2023;141(20):2430–2442. 5. The EBMT/EHA CAR-T Cell Handbook. Available at: www.ebmt.org/sites/default/files/2022-02/2022_Book_TheEBMTEHACAR-TCellHandbook.pdf (accessed October 2022). 6. Pensato U, et al. *J Neurol*. 2023;270(5):2659–2673. 7. Pensato U, et al. *Neurol Sci*. 2024;45(8):4007–4014. 8. Mackensen A, et al. *Nat Med*. 2022;28(10):2124–2132. 9. Bonifant CL, et al. *Mol Ther Oncolytics*. 2016;3:16011. 10. Verdun N, Marks P. *N Eng J Med*. 2024;390(7):584-586. 11. Adkins S. *J Adv Pract Oncol*. 2019;10(suppl 3):21-28.



CABA-201 Clinical and Translational Data from the RESET™ Clinical Program

Cabaletta Bio®

Autoimmune disease patients face substantial unmet medical needs

Despite therapies with chronic broad immunosuppression, mortality is increased, and quality of life is reduced*[1-4]

Myositis

- Chronic inflammation often leads to permanent tissue damage[1]
- Progressive weakness, pain, dysphagia, and extramuscular manifestations are also common[5]

Systemic lupus erythematosus

- Progressive, multi-organ damage[6]
- ~40% develop lupus nephritis with 25% risk of death or ESKD within 10 years[7,8]

Systemic sclerosis

- Progressive skin and organ fibrosis, which often leads to irreversible lung, cardiac and kidney damage[2]
- Average survival from diagnosis is ~12 years[9]

Patients are seeking a drug-free, symptom-free life; physicians also prioritize prevention of end-organ damage[10]

*Compared with the general population
ESKD, end-stage kidney disease

1. Lundberg IE, et al. Nat Rev Dis Primers. 2021;7(1):86. 2. Allanore Y, et al. Nat Rev Dis Primers. 2015;1:15002. 3. Zen M, et al. Eur J Intern Med. 2023;112:45–51. 4. Refai RH, et al. Sci Rep. 2024;14(1):5234. 5. Suh J, Amato AA. Muscle Nerve. 2024;70(2):166–172. 6. Murimi-Worstell IB, et al. BMJ Open. 2020;10(5):e031850. 7. Anders HJ, et al. Nat Rev Dis Primers. 2020;6(1):7. 8. Hoover PJ, Costenbader KH. Kidney Int. 2016;90(3):487–492. 9. Mayes MD. Rheum Dis Clin North Am. 2003;29(2):239-254. 10. Golder, et al. Lupus. 2018;27(3): 501-506

Key inclusion and exclusion criteria in RESET™ clinical program

Designed to evaluate the safety and tolerability of CABA-201 in subjects with active, refractory disease

Key inclusion criteria[1–3]

Evidence of active disease despite prior or current treatment with standard of care

RESET-Myositis™

- Age ≥18 and ≤75 with a diagnosis of IIM (ASyS, DM, or IMNM)
- Presence of at least one MSA
- **JIIM**: Age ≥6 and ≤17 with presence of at least one MSA or MAA

RESET-SLE™

- Age ≥18 and ≤65 with an SLE diagnosis
- Positive ANA or anti-dsDNA at screening
- **SLE (non-renal)**: active, moderate to severe SLE, SLEDAI-2K ≥8; pure class V LN patients eligible for this cohort
- **LN**: active, biopsy-proven LN class III or IV (± class V)

RESET-SSc™

- Age ≥18 and ≤70 with a limited or diffuse SSc diagnosis
- Evidence of significant skin, pulmonary, renal, or cardiac involvement

Key exclusion criteria[1–3]

B cell-depleting agent within prior 3-6 months; Previous CAR T therapy and/or HSCT

- Cancer-associated myositis
- Significant lung or cardiac impairment

- Presence of kidney disease other than LN
- Current symptoms of severe, progressive, or uncontrolled pulmonary or cardiac disease

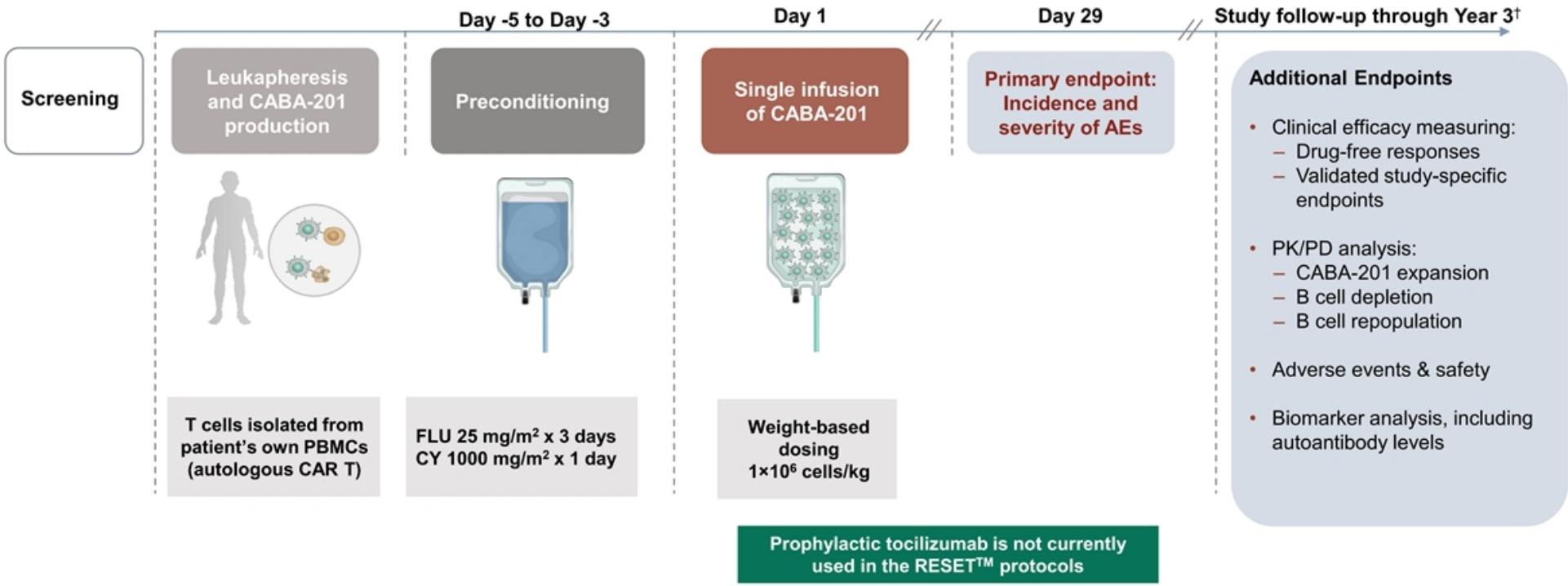
- Severe lung or cardiac impairment

ASyS, antisynthetase syndrome; CAR, chimeric antigen receptor; DM, dermatomyositis; HSCT, hematopoietic stem cell transplantation; IIM, idiopathic inflammatory myopathy; JIIM, juvenile idiopathic inflammatory myopathy; LN, lupus nephritis; MAA, myositis-associated antibody; MSA, myositis-specific antibodies; SLEDAI-2k, SLE disease activity index 2000; SSc, systemic sclerosis.

1. ClinicalTrials.gov. Available at: www.clinicaltrials.gov/study/NCT06121297 (accessed October 2024).
2. ClinicalTrials.gov. Available at: www.clinicaltrials.gov/study/NCT06328777 (accessed October 2024).
3. ClinicalTrials.gov. Available at: www.clinicaltrials.gov/study/NCT06154252 (accessed October 2024).

RESET™ clinical trials have consistent design principles[1]

Individual trials in myositis, SLE, and SSc share common elements of preconditioning, dose, and study design



†Follow up period encompasses 15 years in total, aligned to regulatory guidance for CAR T cell therapies

AE, adverse event; CABA, Cabaletta Approach to B cell Ablation; FLU, fludarabine; CY, cyclophosphamide; PBMC, peripheral blood mononuclear cell; PD, pharmacodynamics; PK, pharmacokinetics

Cabaletta Bio: Data on file; 1. Peng BJ, et al. Mol Ther Methods Clin Dev. 2024;32(2):101267.

Baseline characteristics of first 8 patients in the RESET™ program

All patients had active, refractory disease and most had failed B cell-targeting therapies

	RESET-Myositis™			RESET-SLE™				RESET-SSc™
Patient / Cohort	**IMNM-1**	**IMNM-2**	**DM-1**	**SLE-1†** Class V LN	**SLE-2**	**SLE-3**	**LN-1**	**SSc-Skin-1** (severe skin cohort)
Age, sex	33 M	60 M	57 M	26 M	36 F	44 F	24 F	66 F
Disease duration	~2 years	~4 years	~4 years	~6 years	~17 years	~9 years	~2 years	~2 years
Autoantibodies	SRP	HMGCR	SAE	dsDNA	dsDNA	dsDNA	dsDNA	RNA P III
Baseline Disease activity*	**MMT-8**			**SLEDAI-2K**				**mRSS**
	130	126	131	26	10	8	22	42
	CK (U/L)			**UPCR (mg/mg)**				
	617	4725	94	1.08†	n/a	n/a	7.22	
Therapies at Screening	GC, MTX	GC, IVIG	GC, MMF, HCQ	GC, MMF, HCQ	GC, AZA, HCQ	HCQ, MMF, BEL	GC, ANI, VOC, MMF, HCQ	MMF
Other prior therapies	RTX, IVIG	RTX, MMF, MTX	IVIG	CYC, BEL, VOC, TAC	MSC, RTX, ANI, BEL, ADA, MTX	GC, MTX	BEL, LEF	HCQ
GC dose at Screening (mg/day)	5	5	20	10	7	n/a	20	n/a

*Baseline disease activity = activity before pre-conditioning. † SLE-1 had class V LN; inclusion criteria for LN cohort requires class III/IV LN.
ADA, adalimumab; ANI, anifrolumab; AZA, azathioprine; BEL, belimumab; CK, creatinine kinase; dsDNA, double-stranded DNA; GC, glucocorticoid; HCQ, hydroxychloroquine; HMGCR, 3-hydroxy-3-methylglutaryl-coenzyme A reductase; IVIG, intravenous immunoglobulin; LEF, leflunomide; MMF, mycophenolate mofetil; MMT-8, manual muscle testing 8; mRSS, modified Rodnan skin score; MSC, mesenchymal stem cell; MTX, methotrexate; RNA P III, RNA polymerase III; RTX, rituximab; SAE, small ubiquitin-like modifier activating enzyme; SRP, signal recognition particle; TAC, tacrolimus; U/L, units per liter; UPCR, urinary protein-to-creatinine ratio; VOC, voclosporin.
Cabaletta Bio: Data on file.

Incidence and severity of adverse events in the first 8 patients*

	RESET-Myositis™			RESET-SLE™				RESET-SSc™
Cohort	**IMNM**		**DM**	**Non-renal SLE**			**LN**	**SSc – Severe Skin**
Patient	**IMNM-1**	**IMNM-2**	**DM-1**	**SLE-1**	**SLE-2**	**SLE-3**	**LN-1**	**SSc-Skin-1**
CRS†	None	None	None	None	Grade 1	None	Grade 1	Grade 2
ICANS†	None	None	None	None	None	None	Grade 4	None
Serious infections‡	None	None	None	None	None	None	None	None
Hypogammaglobulinemia	None	None	None	None	None	None	Grade 2	None
Related SAEs (Grade)§ (excluding CRS and ICANS)	None	None	None	None	None	None	Fever (1) Pancytopenia¶ (4)	None
Unrelated SAEs (Grade)§	None	Back Pain (3) PE# (4)	None	None	None	None	None	Neutropenia (4) (FLU/CY related)

*As of Nov 1, 2024; Primary endpoint is incidence and severity of Adverse Events through Day 29. †Graded per ASTCT Consensus Grading Criteria. Of these patients, only DM-1, SLE-2, SLE-3, and SSc-Skin-1 **received** medication for seizure prophylaxis. Tocilizumab was **not** administered for any cases of CRS. ‡Coded in System Organ Class of Infections and Infestations and meets seriousness criteria. §As assessed per FDA guidelines.

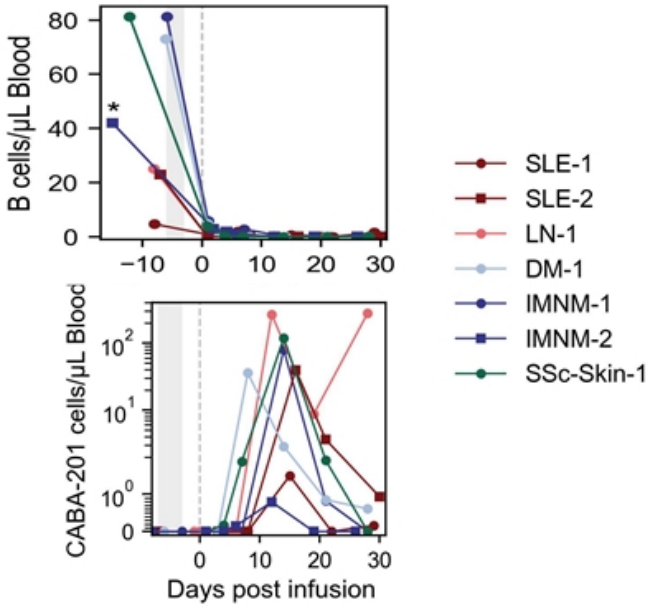
#Patient with Factor V Leiden heterozygosity (increased risk for thrombosis), recent intravenous immunoglobulin treatment, history of myocardial infarction, recent hospitalization for back pain & fatigue with decreased mobility. Undetectable CABA-201 levels since Day 22. Event occurred at Day 38 and was reported as PE leading to cardiac arrest, followed by successful pulmonary artery thrombectomy.
¶Consistent with "Prolonged Cytopenias," which is a labeled warning and precaution for approved oncology CAR T products.

CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; PE, pulmonary embolism; SAE, serious adverse event
Cabaletta Bio: Data on file.

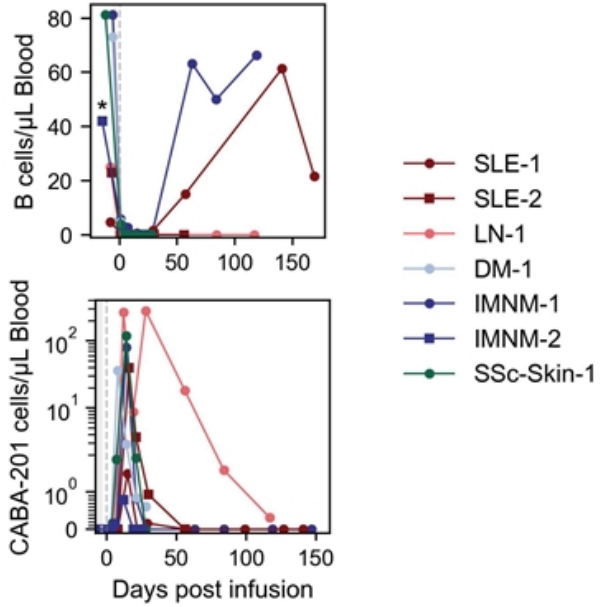
Consistent and complete B cell depletion by Day 22[1]

In patients with >3-month follow-up, B cell repopulation with naïve cells started as early as 8 weeks

B cell depletion & CABA-201 expansion through Day 30



B cell depletion/repopulation & CABA-201 expansion through Day 150



CABA-201 exhibited a PK/PD profile with peak expansion between Day 8 and 15 as expected, with a later 2nd peak for the first LN patient

PK, pharmacokinetic; PD, pharmacodynamic

* Pre-infusion B-cell levels were measured at pre-preconditioning for all subjects other than IMNM-2 where apheresis was used

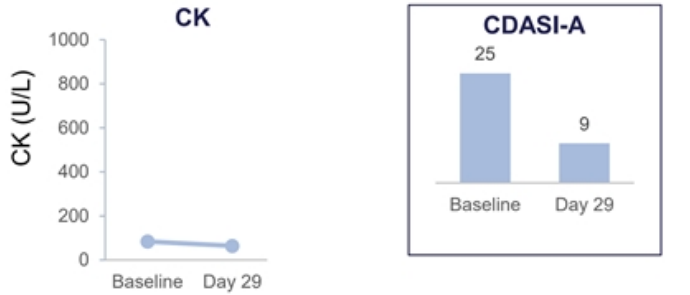
1. Nunez et al. Correlative Studies of CABA-201 from the RESET-Myositis™ and RESET-SLE™ Clinical Trials. Presented at ACR Convergence 2024. Abstract 0324

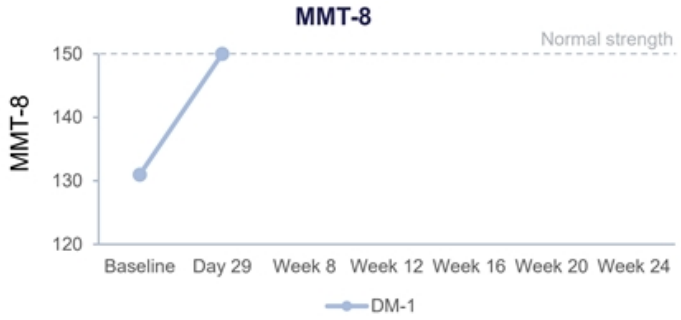
Cabaletta Bio®

RESET-Myositis™: Early efficacy data following CABA-201 infusion

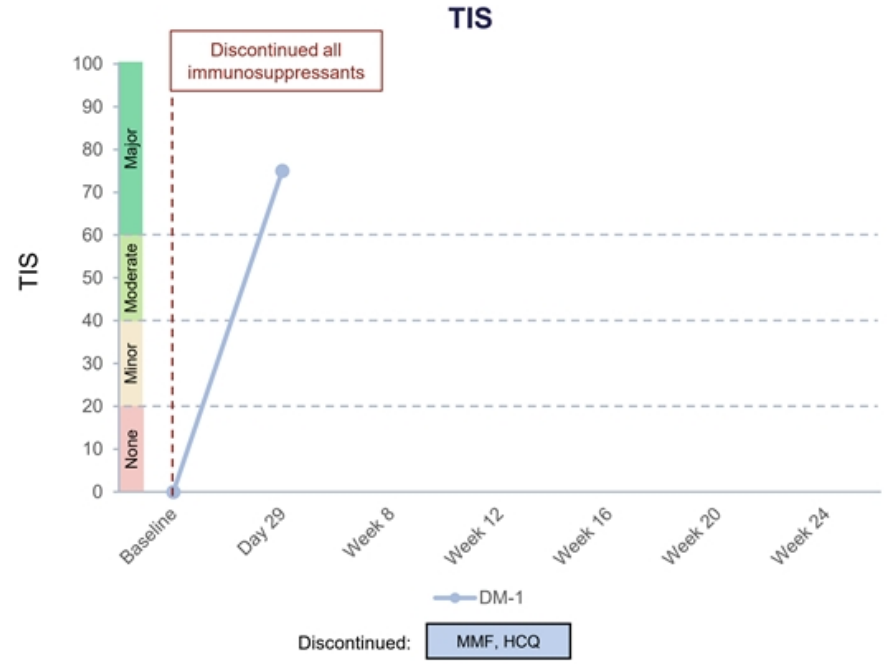
1st known adult DM patient dosed with CAR T demonstrated compelling early response off immunosuppressants‡

Disease activity & improvement measures





DM patient demonstrated a major TIS response at Day 29

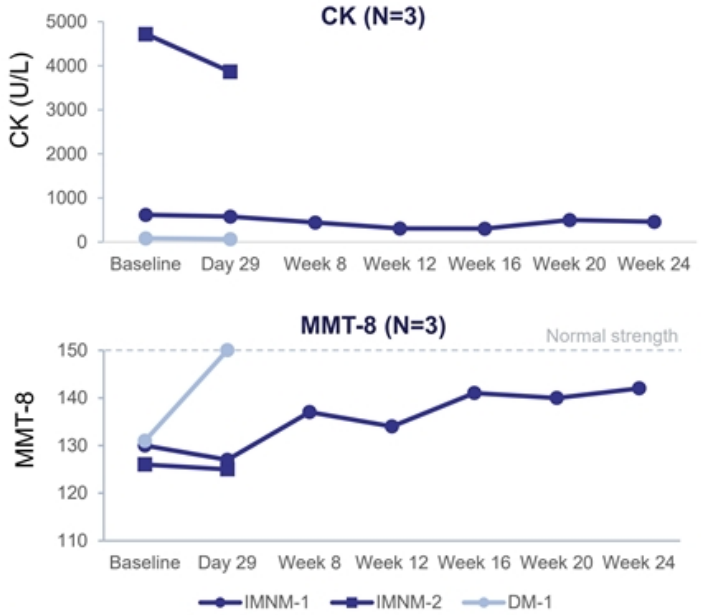


‡ As of Nov 1, 2024
CDASI-A, Cutaneous Dermatomyositis Disease Area and Severity Index – Activity; TIS, total improvement score; U/L, units per liter.
Cabaletta Bio: Data on file.

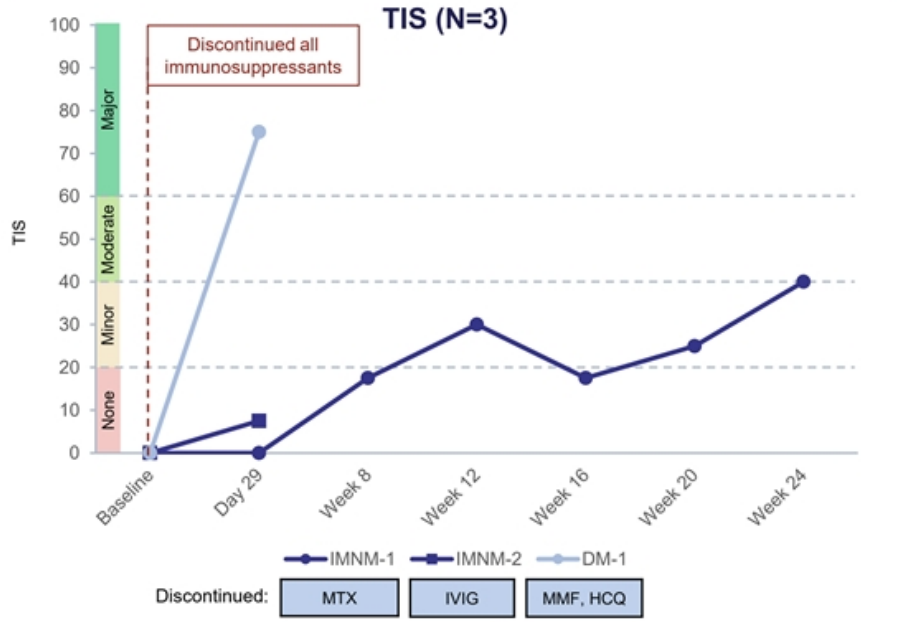
RESET-Myositis™: Efficacy data following CABA-201 infusion

1st IMNM patient with longer follow up demonstrated continuing response off immunosuppressants without flares‡

Disease activity & improvement measures



1st IMNM patient showed a moderate TIS response at Week 24



Initial clinical responses in IMNM are consistent with published data[1]; response kinetics may differ among myositis subtypes

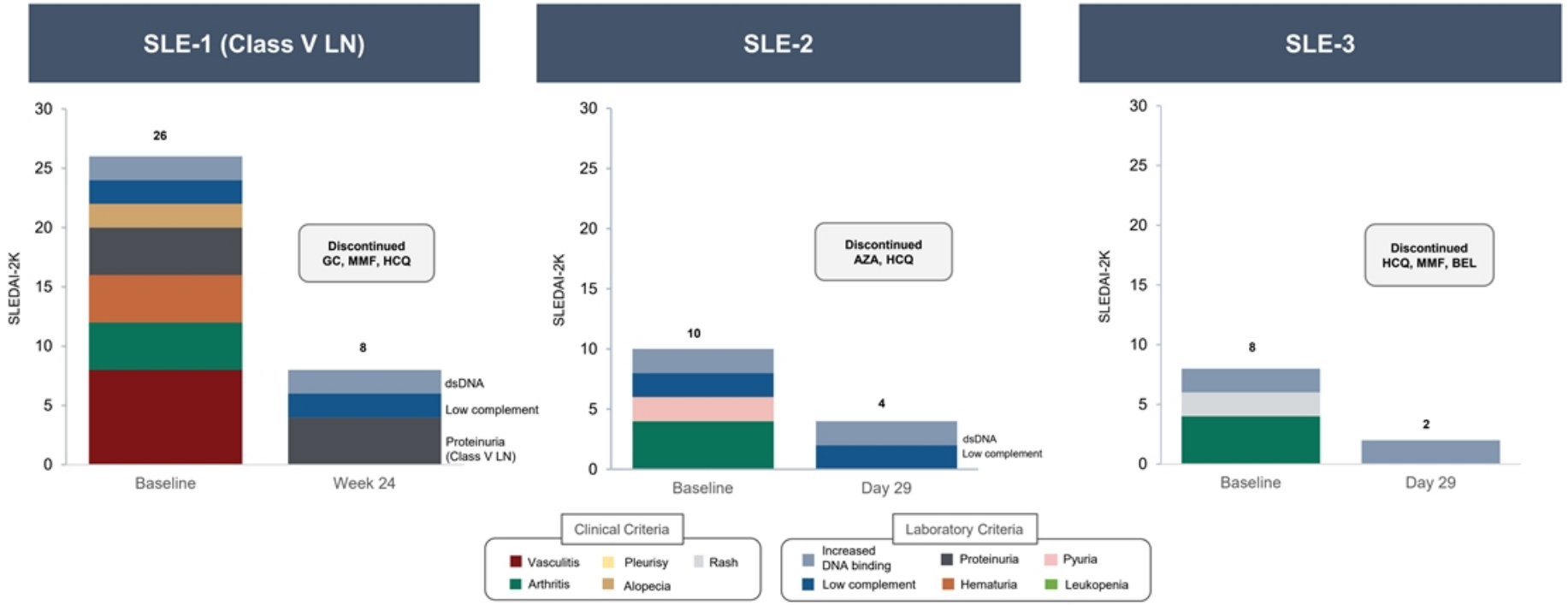
‡ As of Nov 1, 2024

Cabaletta Bio: Data on file. 1. Schett, G. 'CAR-T Cell Therapy: "The Future is Now."' 5th Global Conference on Myositis. iMyoS. Pittsburgh, PA.

Cabaletta Bio®

RESET-SLE™: Efficacy data in SLE following CABA-201 infusion

All 3 SLE patients demonstrated clinical responses off immunosuppressants; first patient completed steroid taper‡



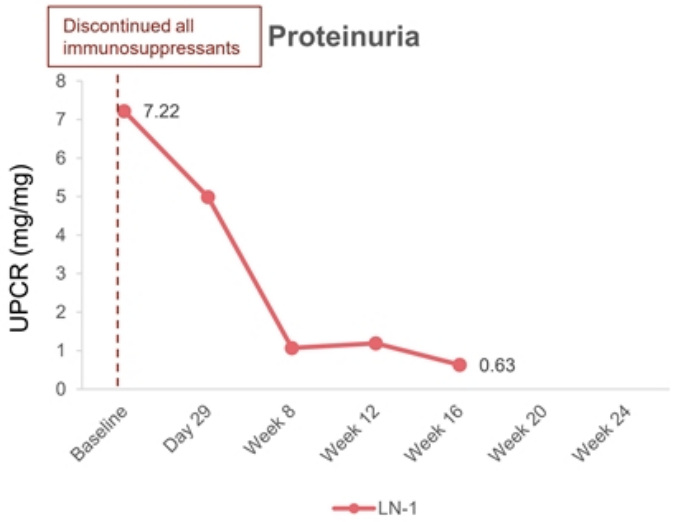
No clinical symptoms on SLEDAI-2K through latest follow up, including SLE-1 with isolated Class V LN (non-renal cohort) with persistent proteinuria as expected

‡ As of Nov 1, 2024
SLEDAI-2k, SLE disease activity index 2000.
Cabaletta Bio: Data on file.

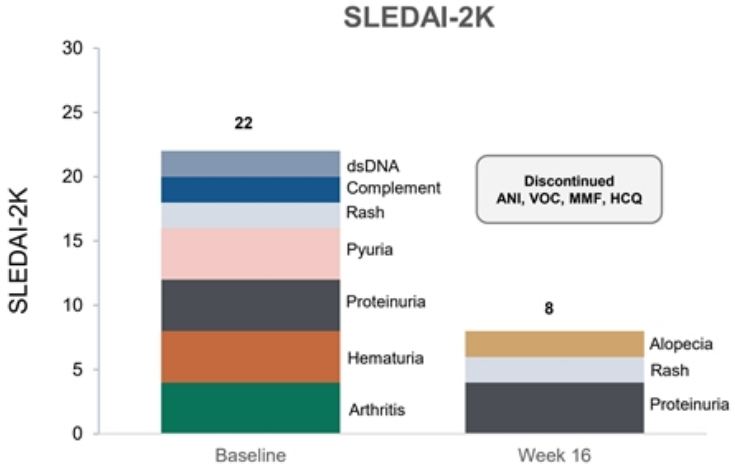
RESET-SLE™: Efficacy data in LN following CABA-201 infusion

LN-1 demonstrated marked improvement of proteinuria off all immunosuppressants, continuing steroid taper‡

UPCR decreased from 7.22 to 0.63 mg/mg at Week 16



1st LN patient SLEDAI reduced by 14 points at Week 16



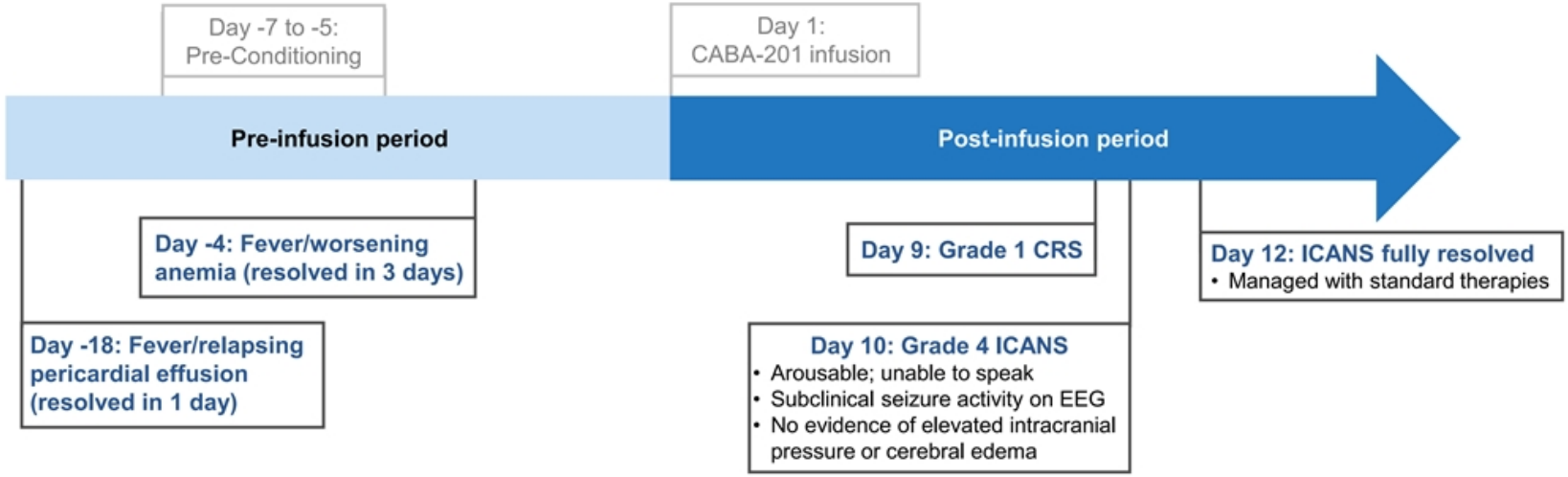
LN-1 proteinuria markedly improved by Week 8 with alopecia/rash as the remaining clinical manifestations at Week 16 after discontinuing all immunosuppressants & continuing prednisone taper

‡ As of Nov 1, 2024
SLEDAI-2k, SLE disease activity index 2000; UPCR, urinary protein-to-creatinine ratio.
Cabaletta Bio: Data on file.

ICANS event timeline in first LN patient

Patient with recent fever in setting of acute and severe inflammation

- 24-year-old female with SLE for ~2 years and with active class III LN
- Active, severe (SLEDAI-2K = 22; UPCR = 7.22 mg/mg) refractory disease despite 5 systemic treatments* for SLE at screening



Patient had acute, febrile inflammatory events & highly elevated pro-inflammatory cytokines‡ pre-infusion that continued after treatment, suggesting a possible occult infection; supportive data from TCR clonal sequencing[1]

*Therapies at Screening: glucocorticoids, anifrolumab, voclosporin, mycophenolate mofetil, hydroxychloroquine
‡MIP-1β, IL-27
Cabaletta Bio: Data on file. 1. Nunez et al. Correlative Studies of CABA-201 from the RESET-Myositis™ and RESET-SLE™ Clinical Trials. Presented at ACR Convergence 2024. Abstract 0324

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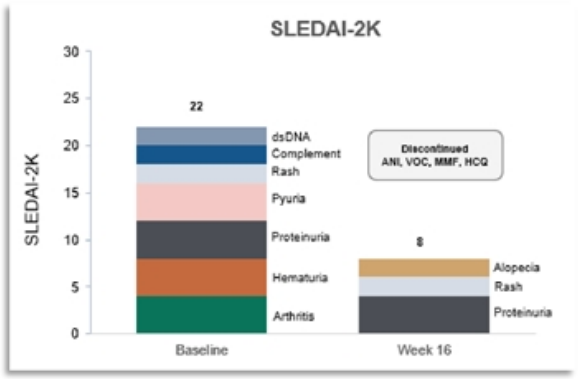
Outcomes in first LN patient 4 months post-treatment

Compelling clinical response since discontinuation of all immunosuppressants, continuing steroid taper

Patient Month 4 Follow-up*

- Off all immunosuppressants‡
- Prednisone 8mg/day; taper ongoing
- SLEDAI-2K: 22 → 8
- UPCR (mg/mg): 7.22 → 0.63



"Overall, I feel much better than I felt before CABA-201 therapy. I have much more energy, I have significantly less joint pain and inflammation, my proteinuria has improved, I no longer have any mouth sores, and I am getting back to my normal self!

At 25 years old, my kidneys were not functioning properly and continued to get worse despite all of the strong medications I was on. I had multiple occurrences of fluid around my heart. CABA-201 has put a stop to that and has allowed my body to heal. Although I faced complications afterwards, I believe the improvement that I have seen in both my numbers and how I feel, was far worth it.

If I had the choice, I would choose to receive CABA-201 again…. "

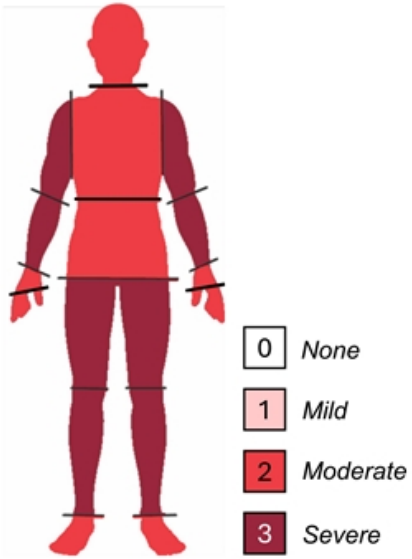
- LN-1 patient at 4 months post-therapy

*As of Nov 1, 2024
‡Therapies at Screening: glucocorticoids, anifrolumab, voclosporin, mycophenolate mofetil, hydroxychloroquine
Cabaletta Bio: Data on file.

Emerging efficacy data 42 days post infusion in first SSc patient

Early disease improvements in face and hands after discontinuation of disease-specific medication

Baseline mRSS score by body area[1]

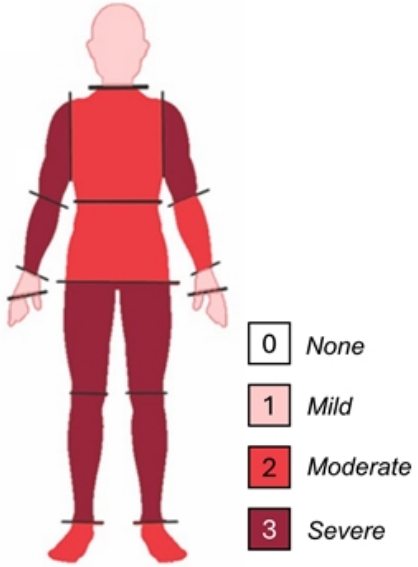


Overall mRSS score[1]

	Baseline	Day 22	Day 42
mRSS	42	38	36

- Modified Rodnan Skin Score (mRSS): a measure of skin thickness in SSc across 17 body areas, with a maximum score of 51[1]
- Used as an outcome measure in SSc clinical trials as a surrogate for disease activity, severity and mortality[1]

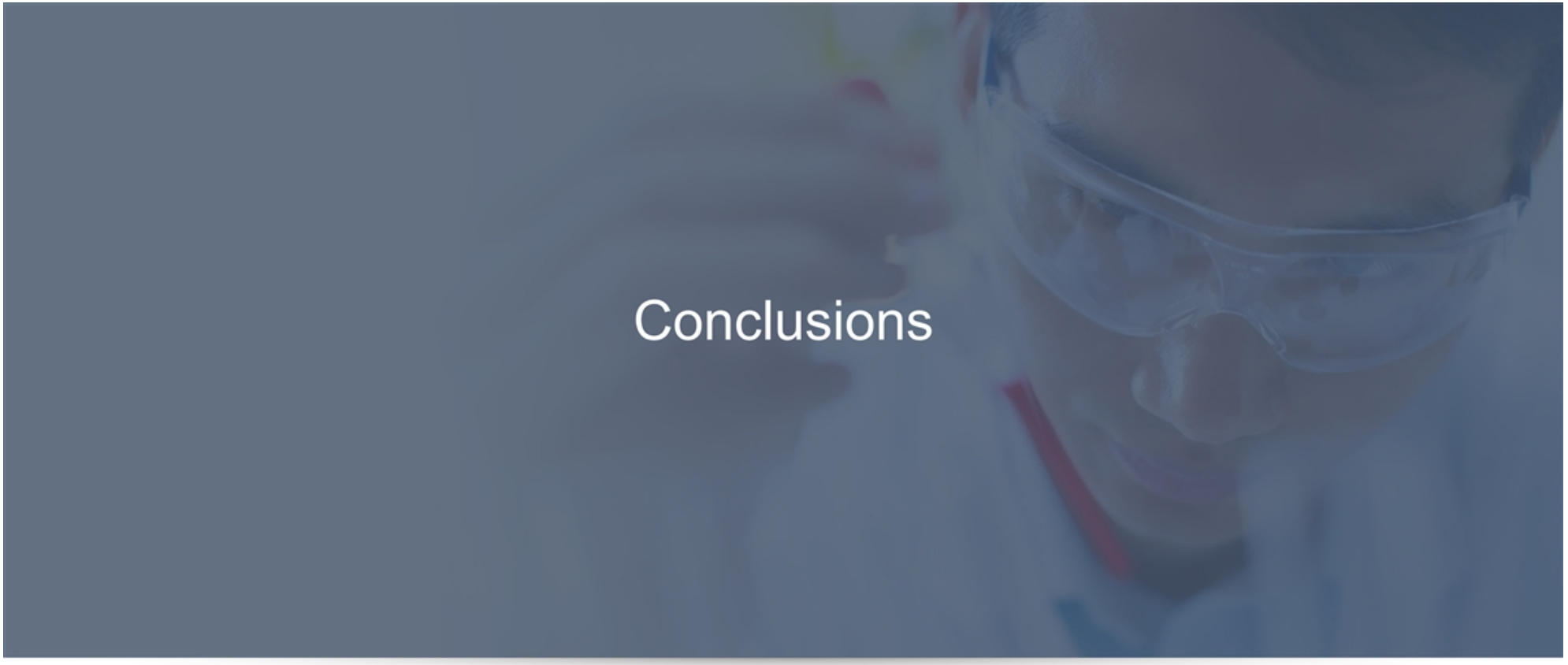
Day 42 mRSS score by body area[1]



Early clinical data in SSc-Skin-1 indicate potential emergence of a drug-free clinical response‡

‡ As of Nov 1, 2024 patient is not taking immunosuppressants or steroids

Cabaletta Bio: Data on file. 1. Khanna D, et al. J Scleroderma Relat Disord. 2017;2(1):11–18.



Conclusions

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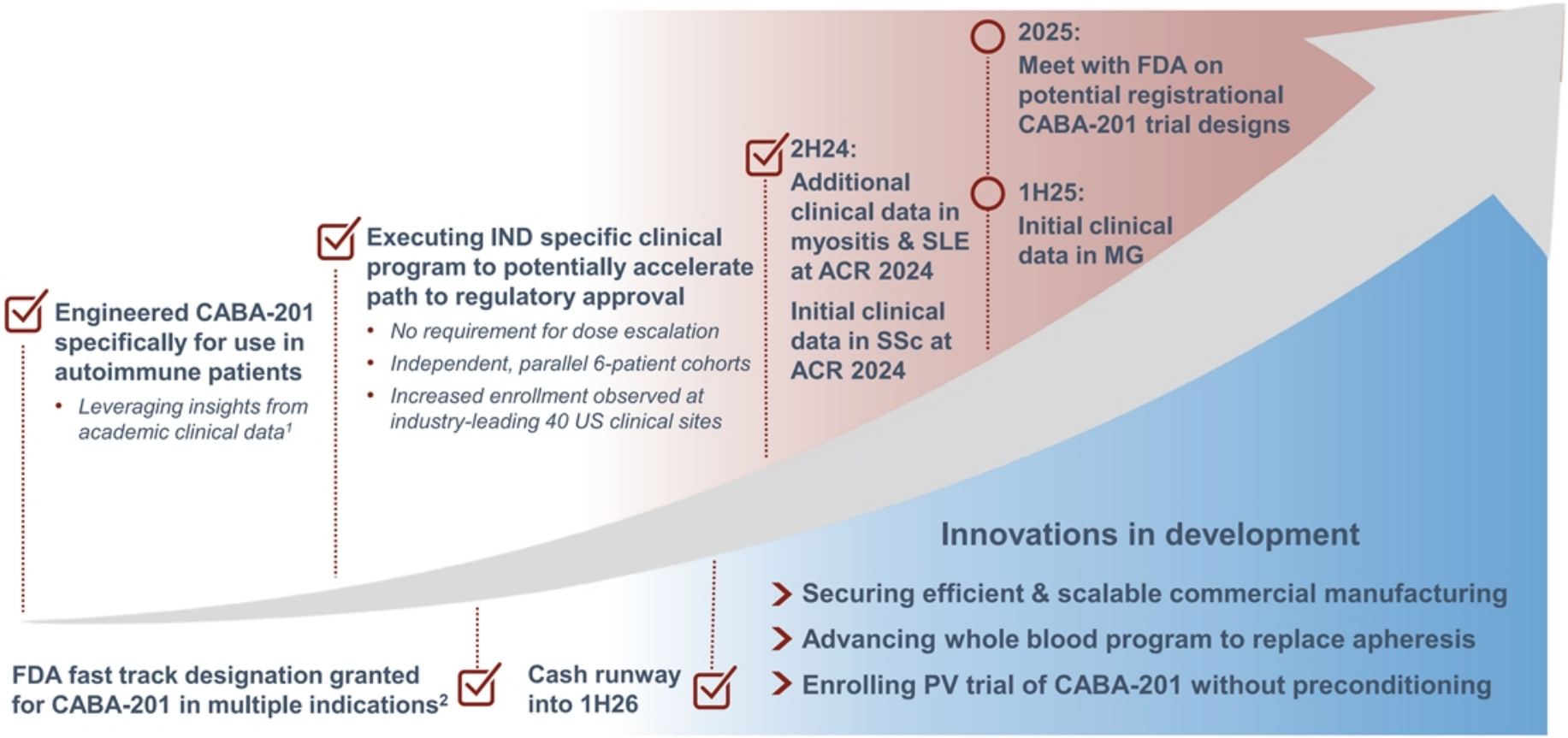
Summary from clinical & translational data on the first 8 patients

- CABA-201 appears to have a favorable risk-benefit profile
  - In patients with recent fever or infections, delaying CAR T infusion should be considered
- CABA-201 provided compelling efficacy in highly active and refractory autoimmune patients through the follow-up period
- Initial data support the potential for drug-free clinical responses
  - All patients discontinued all immunosuppressants
  - SLE patients with longer follow-up: steroid taper completed or ongoing (prednisone 8mg/day)
- The PK/PD data support the current dose of CABA-201[1]

1. Nunez et al. Correlative Studies of CABA-201 from the RESET-Myositis™ and RESET-SLE™ Clinical Trials. Presented at ACR Convergence 2024. Abstract 0324

Realizing the vision to transform autoimmune disease treatment



SLE – Systemic lupus erythematosus; SSc – Systemic sclerosis; PV – Pemphigus vulgaris; ACR 2024 – American College of Rheumatology 2024 annual meeting from November 14-19, 2024.

1. Müller, Fabian, et al. "CD19 CAR T-Cell Therapy in Autoimmune Disease—A Case Series with Follow-up." New England Journal of Medicine 390.8 (2024): 687-700. The construct utilized in these studies has a similar design to CABA-201, sharing the 4-1BB costimulatory domain, but is a different construct.
2. FDA Fast Track Designation received in dermatomyositis, SLE, lupus nephritis and systemic sclerosis.

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