SIGNAL-AA Part B
36-Week Topline Results

July 2026

Forward Looking Statements

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Q32 Bio Management Joined by Renowned Alopecia Areata Key Opinion Leader

TODAY'S AGENDA

- Introduction
- Bempikibart Overview
- SIGNAL-AA Part B Results and Next Steps
- Alopecia Areata Unmet Need, Landscape and Commercial Opportunity
- Q&A

Q32 Bio Leadership

Jodie Morrison
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Key Opinion Leader

Arash Mostaghimi, MD, MPA, MPH

Associate Professor of Dermatology and Vice Chair of Clinical Trials and Innovation, Brigham and Women's Hospital, Harvard Medical School

Bempikibart SIGNAL-AA: Part B Builds on Prior Proof Of Concept in Alopecia Areata Demonstrating Robust Clinical Activity at 36 Weeks

Robust clinical activity
Week 36 Results

35.3% Mean SALT change (mITT analysis[1])

40.0% SALT-20 response (mITT analysis)

30.3% SALT-20 response (ITT analysis)

Bempikibart continued to demonstrate a favorable safety profile; negligible ADA

No Grade 3 or higher AEs and no new safety signals

Results demonstrate potential for differentiated profile for the treatment of alopecia areata

Profile supports further expansion in alopecia areata (registration-directed program for severe/very severe, plans for development in adolescent, moderate alopecia areata)

Off-drug follow-up through Week 52 and Part B OLE remain ongoing

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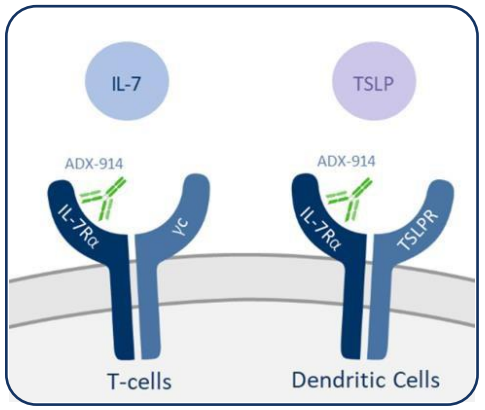
Note: Data cutoff as of June 30, 2026; All calculations are based on prespecified criteria defined in Part B statistical analysis plan (SAP); SALT = Severity of Alopecia Tool; mITT = Modified intent to treat population; ITT = intent to treat population; ADA = Anti-Drug Antibody; OLE = Open-Label Extension

[1]Prespecified sensitivity on mean percent change from baseline in SALT score using MMRM: LS mean change is 39.1%

Bempikibart: Bifunctional Antibody for T-cell Mediated I&I Diseases With Demonstrated Activity in Alopecia Areata

Bempikibart IL-7Rα antagonist antibody: Blocks IL-7 and TSLP signaling



IL-7 receptor

- IL-7 regulates pathogenic T_{eff} / T_{mem} cells that suppress T_{reg} cells in preclinical models
- Blockade of IL-7Rα provides a novel mechanism for rebalancing $T_{eff/mem}$ and T_{reg} function

TSLP receptor

- TSLP is central regulator of dendritic cell differentiation, Th2 cytokines
- Blockade of TSLP function has potential to inhibit Th2 mediated inflammation and eosinophilic disease

Biomarker changes and clinical activity across SIGNAL-AA Part B: Supports IL-7Rα antagonist approach

Biomarker Median % Changes Over Time

- $CD3^+$ T cell decrease up to **44%**
- TARC[1] decrease up to **41%**
- IgE[1] decrease up to **29%**
- Eosinophils[1] decrease up to **70%**

Opportunities beyond alopecia areata: Potential to expand into a broad range of Th1 and Th2 mediated diseases

IL-7-Driven	TSLP-Driven	Both IL-7 and TSLP-Driven
• Ulcerative Colitis • Vitiligo • Lichen Planus • Celiac Disease • Multiple Sclerosis • Type 1 Diabetes	• Eosinophilic Esophagitis • Chronic Rhinosinusitis with Nasal Polyps • Eosinophilic Granulomatosis with Polyangiitis	• Rheumatoid Arthritis • Chronic Obstructive Pulmonary Disease • Asthma • Atopic Dermatitis

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Note: Data cutoff as of June 30, 2026; IL-7Rα = Interleukin 7 receptor alpha; TSLP = Thymic Stromal Lymphopoietin; TARC = Thymus and Activation-Regulated Chemokine

[1]In baseline high patients (part of exploratory biomarker analysis)

Bempikibart Addresses the Root of the Problem: Inhibition of Pathogenic T-cells that Directly Drive Hair Follicle Destruction and Suppress the Function of T-regs

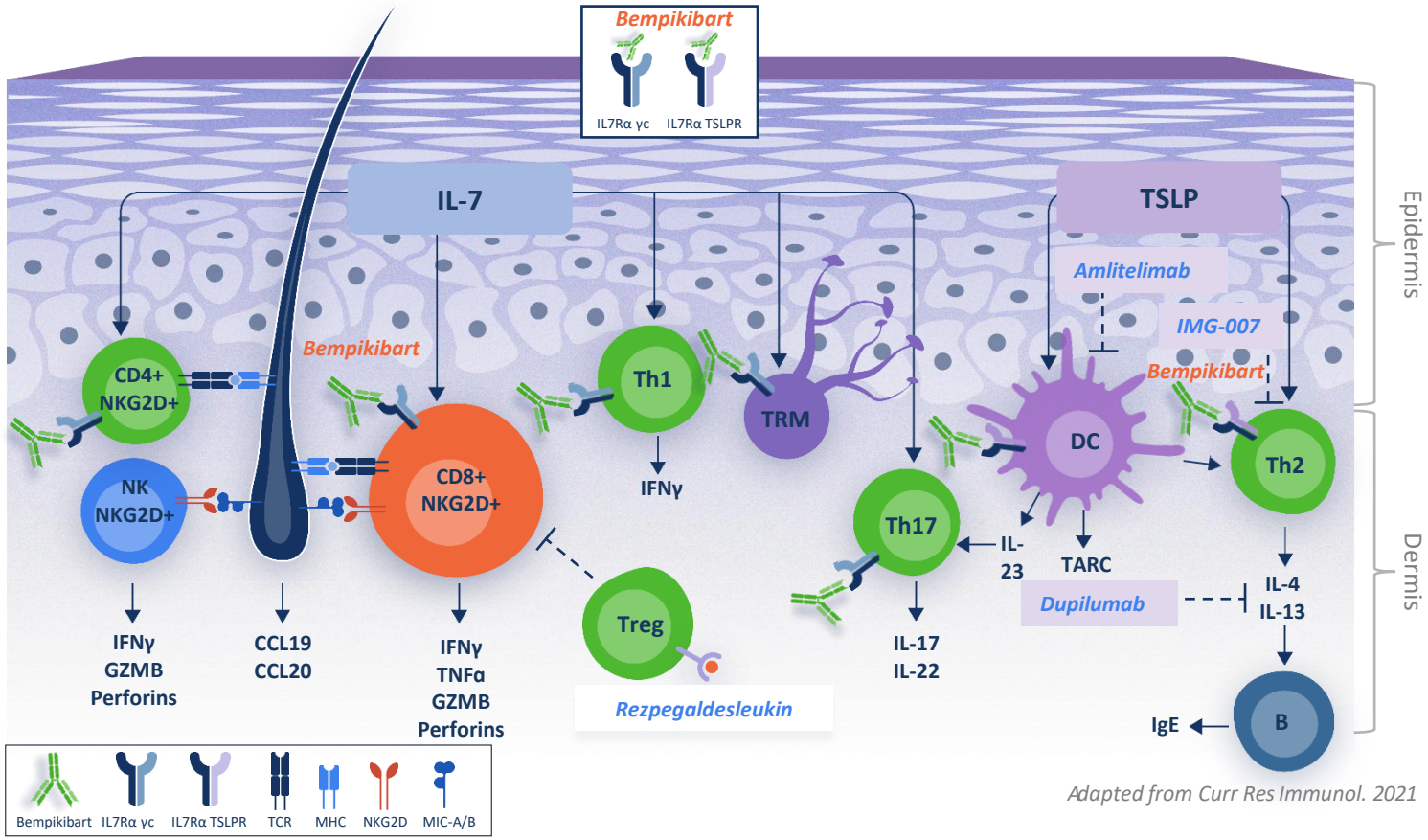
Bempikibart is designed to address the root cause of T-cell mediated inflammation by two primary mechanisms:

- Inhibition of cytotoxic CD8+ T-cells
- Inhibition of CD4+ T-effector and memory cells that suppress the function of Tregs

Bempikibart's differentiated MoA addresses the root of inflammation that drives hair follicle destruction and allows for the restoration of immune tolerance

Hair Follicle Immune Dysregulation in Alopecia Areata

Local inflammation and destruction of hair follicles driven by the infiltration of cytotoxic CD8+ T-cells and CD4+ T-effector and T-memory cells that suppress the function of Tregs



Adapted from Curr Res Immunol. 2021

Bempikibart SIGNAL Program In Severe/Very Severe Alopecia Areata Designed To Enable Registrational Studies As Next Step

SIGNAL-AA Clinical Program

Part A

24-Week Primary Endpoint Completed 4Q24; Part A OLE Completed 2Q26

Part A Findings:

- Encouraging clinical activity observed with 24 weeks of dosing, including robust pharmacologic data and a well-tolerated safety profile
- Evidence of deepening effect following dosing cessation, supportive of potential remittive effect

Part A OLE Findings:

- 8 enrolled; included responders, non-responders and placebo Part A patients; Range of off-drug time: 26-55 weeks
- Generally well tolerated with redosing; minimal ADA and no safety issues
- Durable or further hair growth observed in patients who maintained hair prior to OLE
- Results provide examples of sustained, durable response, but support importance of maintenance dosing regimen (e.g., monthly, bi-monthly, quarterly) vs. extended off-drug windows

Summary:

- Established proof-of-concept in alopecia areata
- Durable and sustained responses with dosing in some patients out to more than 100 weeks
- Generally well tolerated safety profile during treatment period and during redosing

Part B

36-Week Primary Endpoint Complete 3Q26; Off-Drug Follow-Up and OLE Ongoing

Primary Endpoint Complete; Off-Drug Follow-Up Ongoing:

- Open-label trial evaluating 36 weeks of bempikibart dosing (completed)
- 16-week off-drug follow-up through Week 52 is ongoing to assess remittive effect and provide insight into long-term maintenance schedule

Part B OLE:

- OLE enables follow-up with re-dosing after 16-weeks off-drug
- OLE insights, alongside results from Part B off-drug follow-up, to inform long-term maintenance schedule

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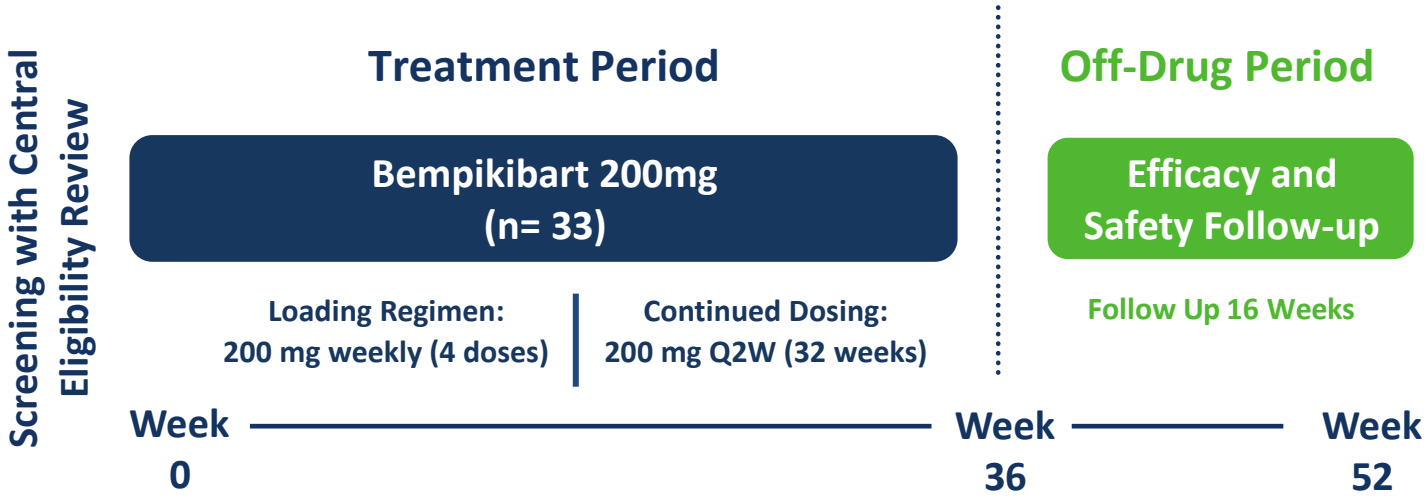
Note: Data cutoff as of June 30, 2026

SIGNAL-AA Phase 2a Part B: Builds Upon Part A
Includes Loading Regimen and Dosing Through 36 Weeks

Key Changes
from Part A

- Loading dose regimen
- Longer duration of treatment (36 Weeks from 24 Weeks)
- Maximum duration of current episode of 4 years
- Central confirmation of diagnosis



Design Elements

Key Inclusion/Exclusion Criteria

- Severe/Very Severe Alopecia Areata (SALT 50-100)
- No other forms of Alopecia
- Duration of current episode < 4 yrs
- Prior use of JAKi allowed with appropriate wash-out

Primary and Other Key Endpoints

- Primary Analysis: mITT mean percent change from baseline SALT at Week 36
- Other Key Endpoints: percentage of patients achieving relative and absolute SALT score improvements at Week 36

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Note: JAKi = Janus Kinase inhibitor

SIGNAL-AA Phase 2a Part B: Baseline Demographics

Characteristics	mITT Population N = 25	ITT Population N = 33
Age, years		
Mean [SD]	41.92 [15.0]	40.7 [14.0]
Median	39.0	38.0
Min, Max	20, 74	20, 74
Sex, n (%)		
Female	19 (76.0)	24 (72.7)
Race, n (%)		
Asian	1 (4.0)	1 (3.0)
Black or African American	2 (8.0)	3 (9.1)
White	19 (76.0)	25 (75.8)
Others	3 (12.0)	4 (12.1)

Characteristics	mITT Population N = 25	ITT Population N = 33
Actual Baseline SALT Score		
Mean [SD]	76.9 [17.2]	75.6 [17.8]
Median	79.9	72.7
Min, Max	50.9, 100.0	50.9, 100.0
Baseline SALT Score, n (%)		
≥50 to <95	19 (76.0)	25 (75.8)
≥95 to 100	6 (24.0)	8 (24.2)
Duration of Current Episode, years		
Mean [SD]	2.07 [1.1]	2.07 [1.2]
Median	2.41	2.41
Min, Max	0.5, 3.8	0.5, 3.8
Prior Oral JAK Inhibitor Exposure, n (%)		
Yes	10 (40.0)	12 (36.4)
Country, n (%)		
Canada	4 (16.0)	6 (18.2)
United States	21 (84.0)	27 (81.8)

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Note: Data cut off as of June 30,2026; mITT population excludes (i) 5 early term patients who discontinued prior to Week 18, including 2 who never returned for SALT assessment post-baseline - none of which were related to the safety of bempikibart; and (ii) 3 patients with unstable disease as per prespecified criteria in the Part B SAP.

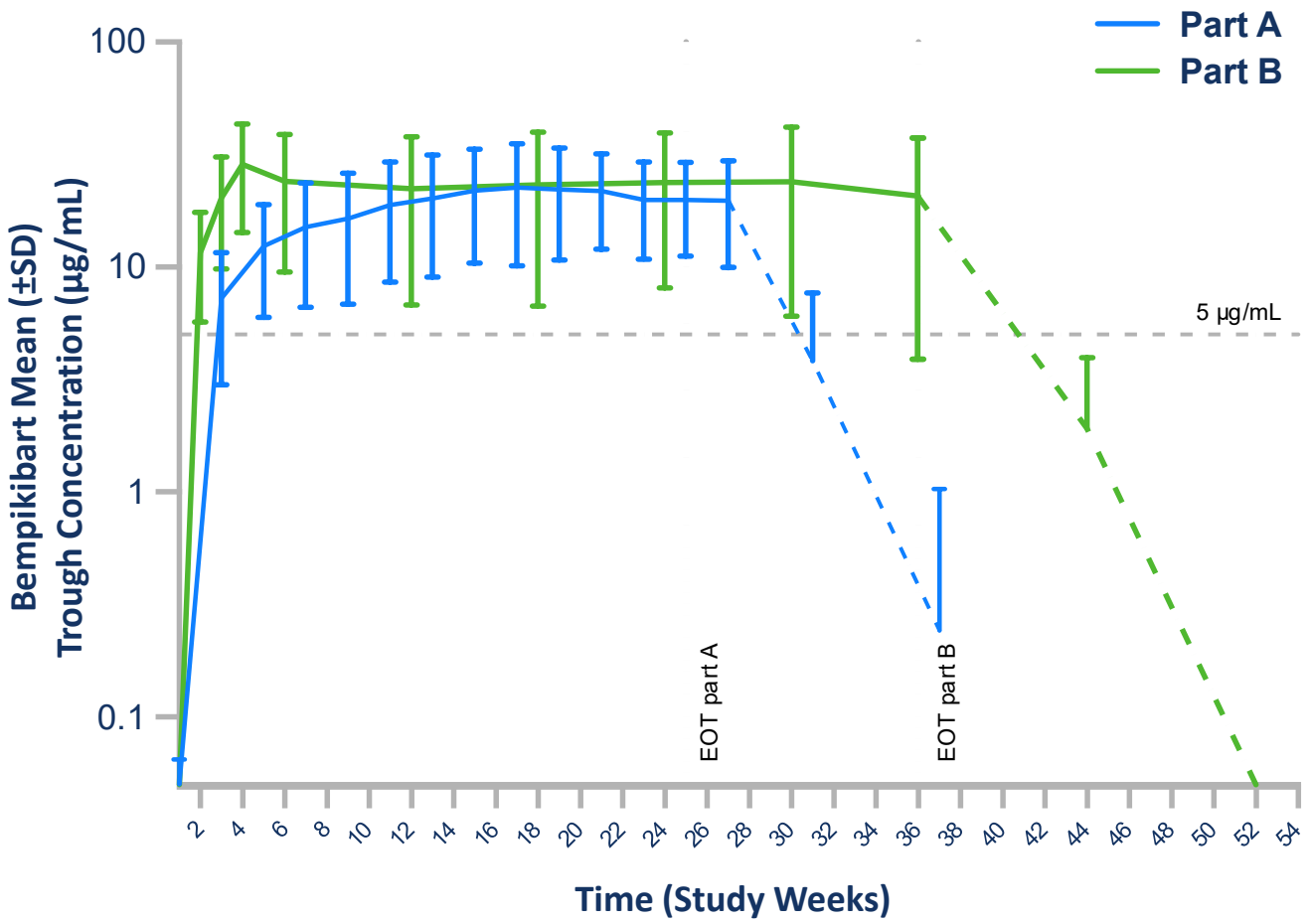
PK Results in Part B: Data Supports Steady State ~10 Weeks Earlier Than Part A

Mean Ctroughs ~3 fold higher in the first month of dosing compared to Part A

Achieved steady state concentrations ~10 weeks earlier

No change in the known safety profile of bempikibart

Negligible ADA with no impact on PK



Note: Data cutoff as of June 30, 2026; PK = pharmacokinetics

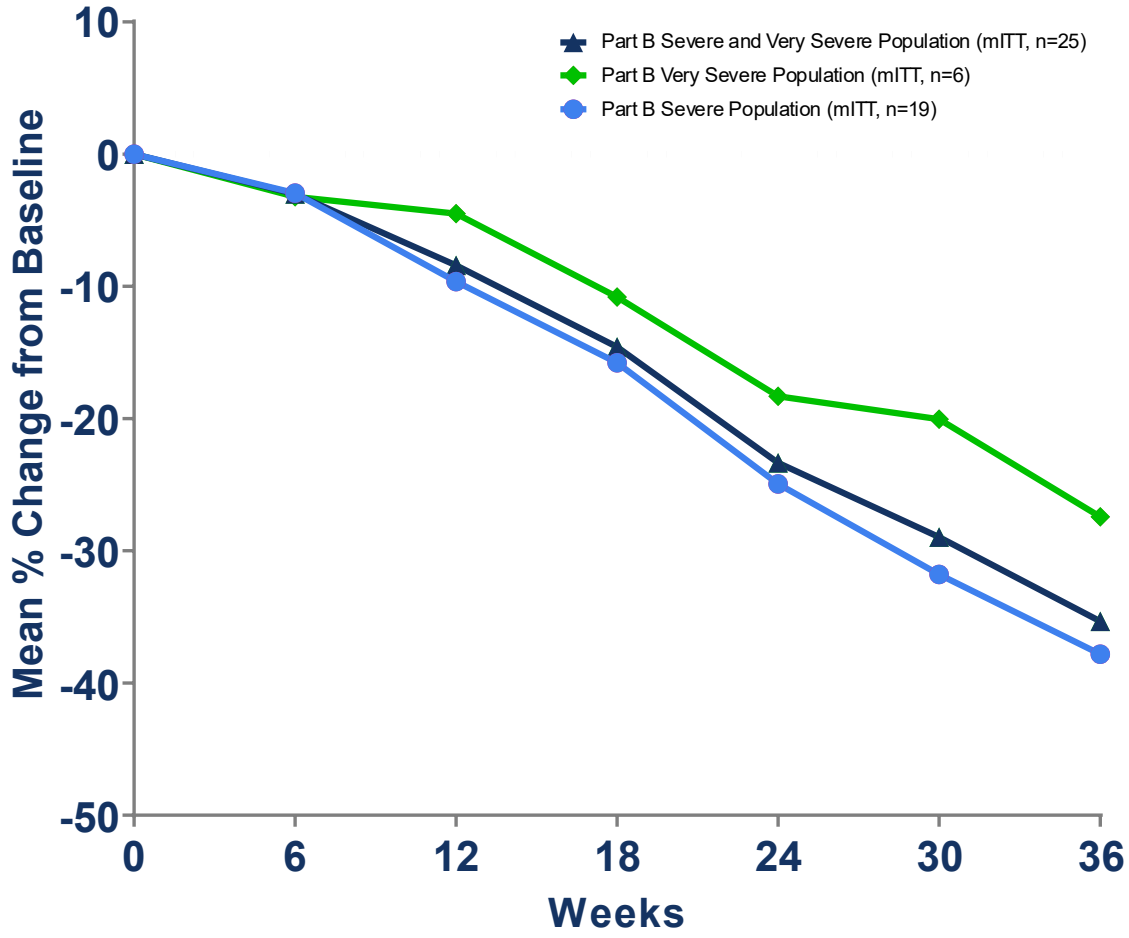
Part B (mITT): Mean % Change from Baseline at Week 36

35.3% mean reduction in SALT score (Severe and Very Severe population[1])

Robust improvement in both Severe and Very Severe populations:

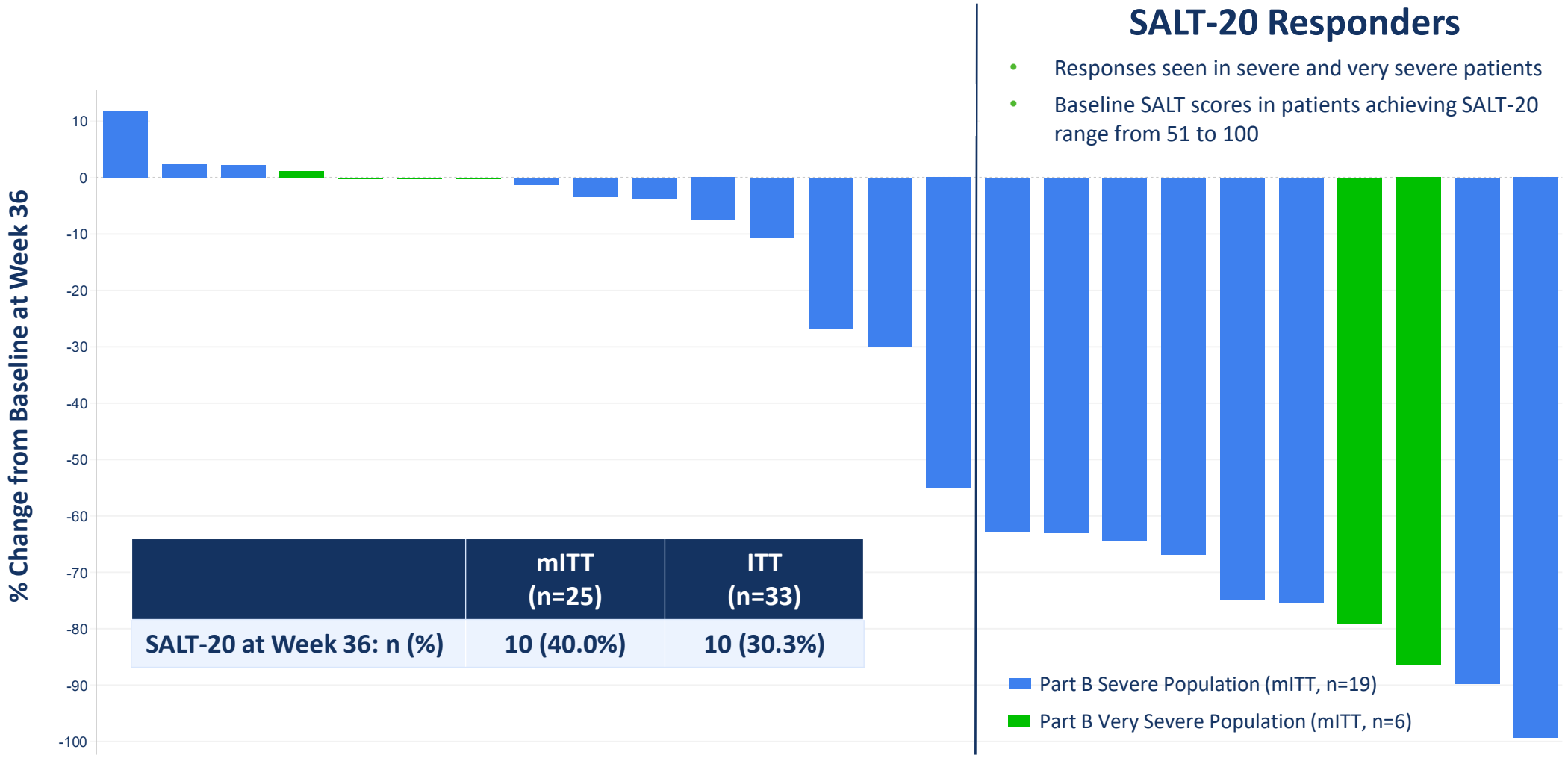
- 37.8% mean reduction in SALT score (Severe Population only)
- 27.4% mean reduction in SALT score (Very Severe Population only)

Response sustained and deepened throughout treatment period



Note: Data cutoff as of June 30, 2026; All calculations are based on prespecified criteria defined in Part B SAP.
[1]Prespecified sensitivity on mean change from baseline in SALT score using MMRM: LS mean change is 39.1%

Part B (mITT): Clinically Meaningful SALT-20 Achievement at Week 36



	mITT (n=25)	ITT (n=33)
SALT-20 at Week 36: n (%)	10 (40.0%)	10 (30.3%)

SALT-20 Responders

- Responses seen in severe and very severe patients
- Baseline SALT scores in patients achieving SALT-20 range from 51 to 100

Note: Data cutoff as of June 30, 2026; All calculations are based on prespecified criteria defined in Part B SAP.

Robust Part B Clinical Activity in Alopecia Areata Supports Potential for Paradigm Shift to Biologics

SIGNAL-AA Part B Efficacy Results at Week 36 (Responder Analysis)		
	mITT population	ITT population
SALT-20 (% pts)	40.0% (10/25)	30.3% (10/33)
$SALT_{30}$ (% pts)	44.0% (11/25)	33.3% (11/33)
$SALT_{50}$ (% pts)	44.0% (11/25)	33.3% (11/33)

On mITT, 40.0% of patients achieved SALT-20

On full ITT, 30.3% of patients achieved SALT-20

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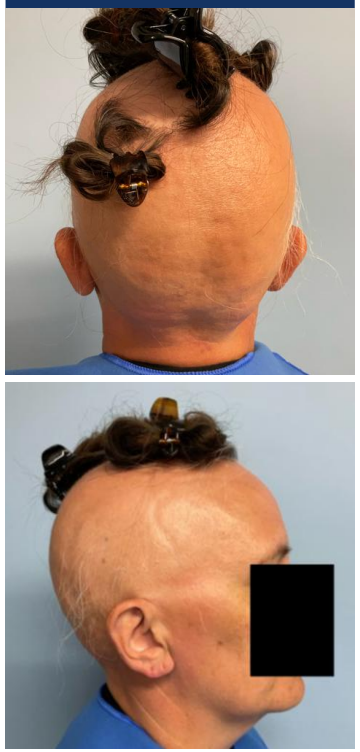
Note: Data cutoff as of June 30, 2026; All calculations are based on prespecified criteria defined in Part B SAP.

Patient with Severe AA with Robust Response and Durability Off-Drug: SALT-10 at Week 24 and 36, SALT-0 at Week 44; Maintained Off-Drug

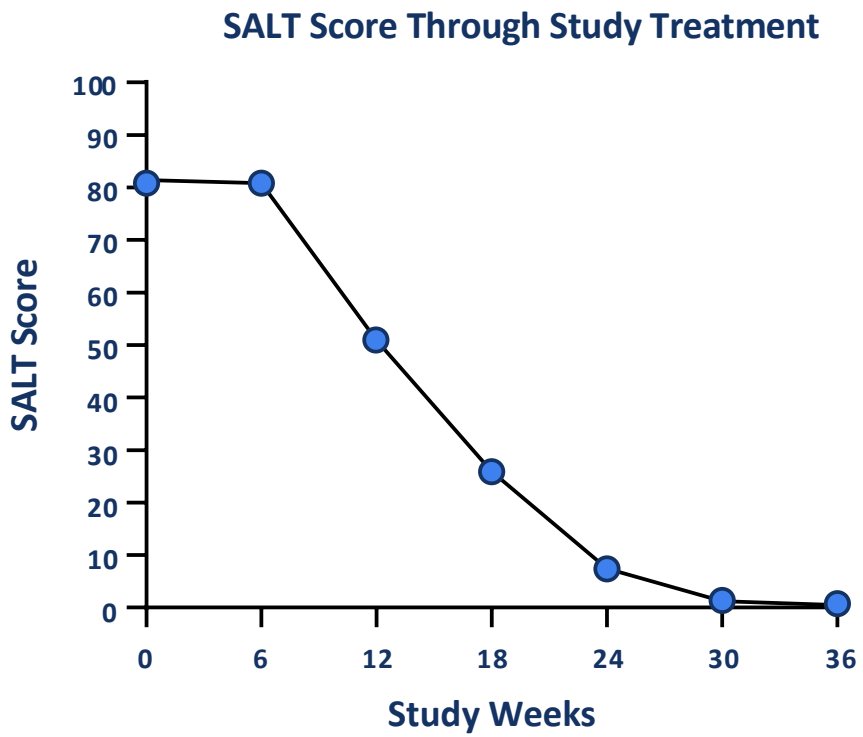
Treatment Period

Baseline



Week 36

- 48-year-old female; Duration of current episode: 1.2 years



16 Weeks Off-Drug

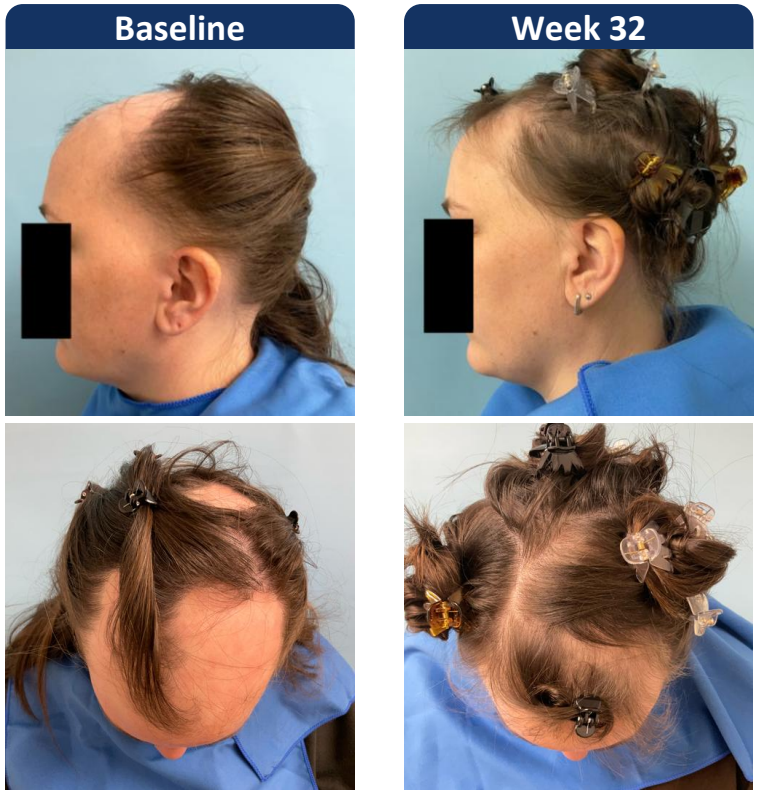
Week 52

First SALT-0
SALT-10 at Week 36 which improved to 100% SALT reduction at Week 44; maintained through Week 52 and enrolled in OLE

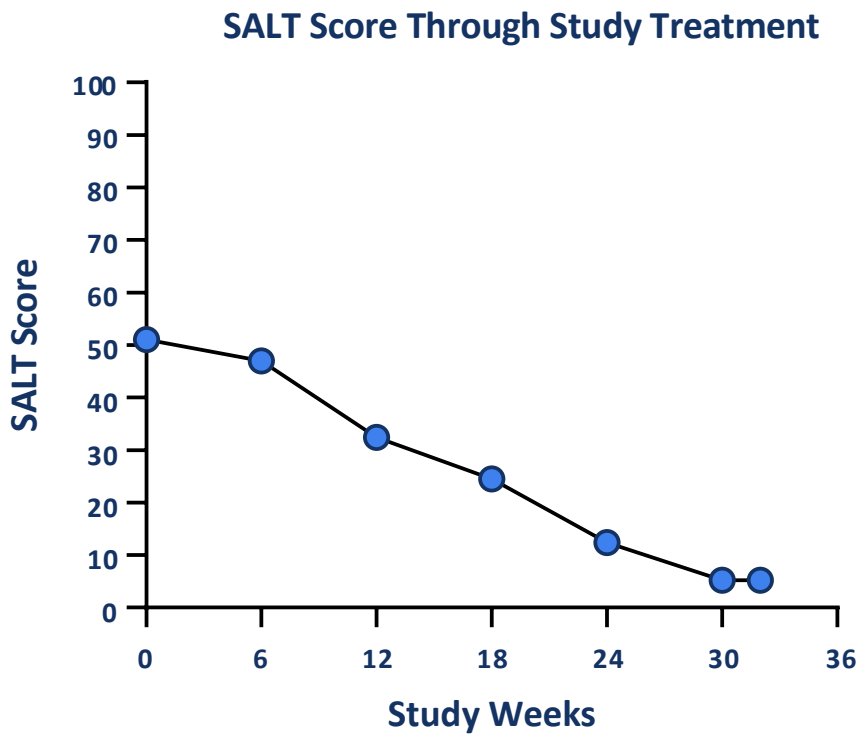
Note: AA = Alopecia Areata

Patient with Severe AA with Robust Response and Durability Off-Drug: SALT-20 at Week 24, SALT-10 by Completion Date; Maintained Off-Drug

Treatment Period



- 33-year-old female; Duration of current episode: 1.4 years
- Prior Oral JAKi experience



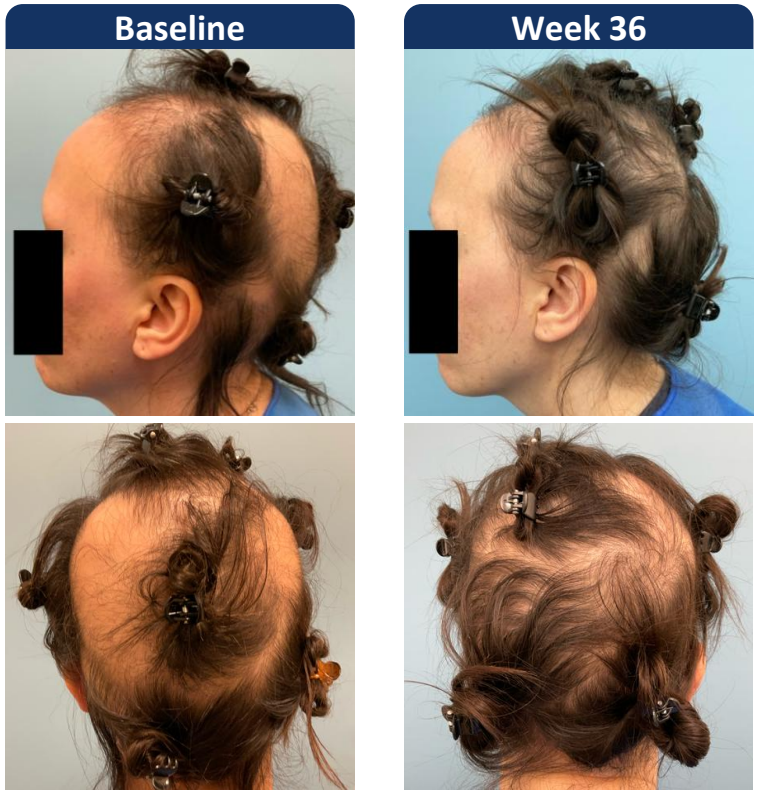
12 Weeks Off-Drug

SALT-20 at Week 24; SALT-10 at Week 32; last dose at Week 30 to focus on family planning; patient remains in off-drug follow-up with maintenance of response

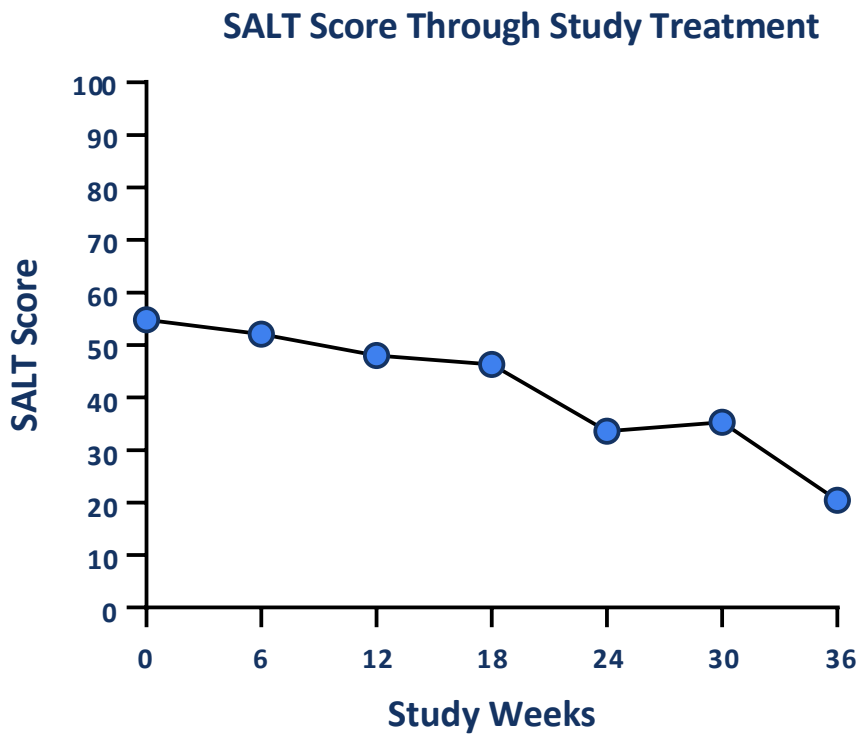
Note: AA = Alopecia Areata

Patient with Severe AA with Robust Response and Deepening Response Off-Drug: SALT-20 at Week 36, SALT-10 at Week 48 and 52

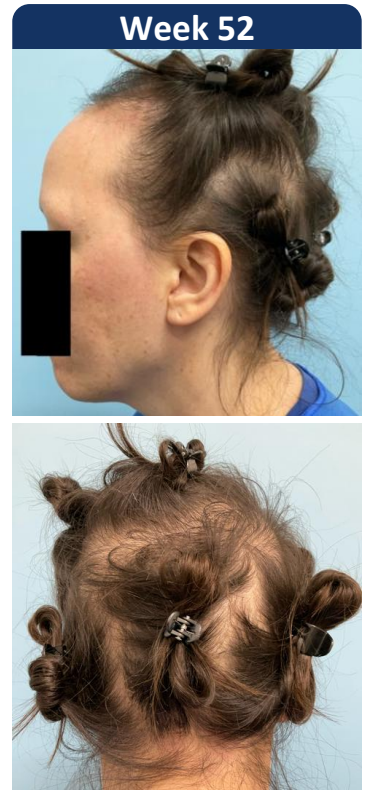
Treatment Period



- 41-year-old female; Duration of current episode: 2.5 years



16 Weeks Off-Drug

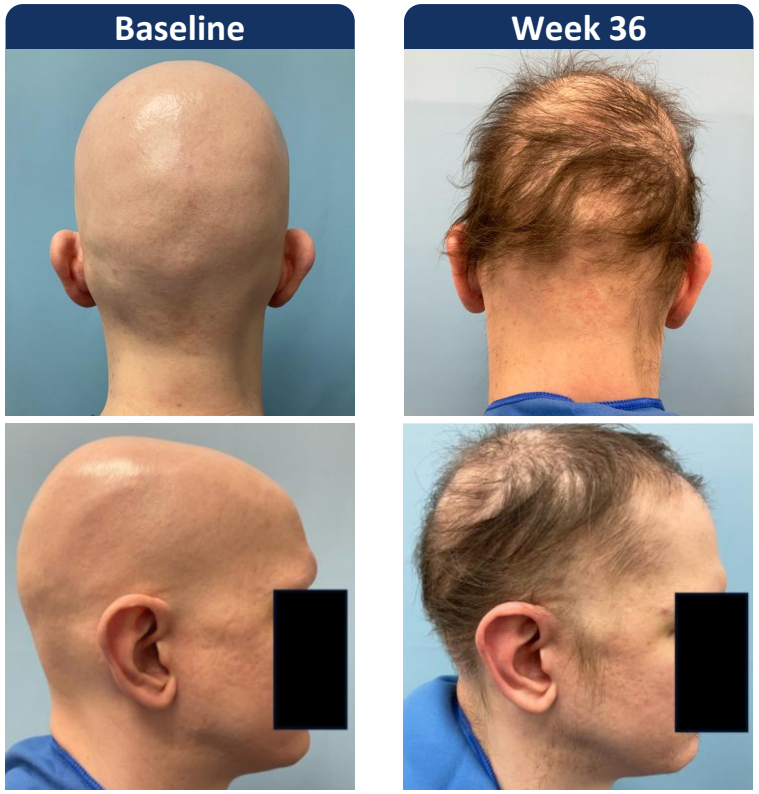


SALT-20 at Week 36 which improved to SALT-10 in off-drug follow-up; maintained through Week 52 and enrolled in OLE

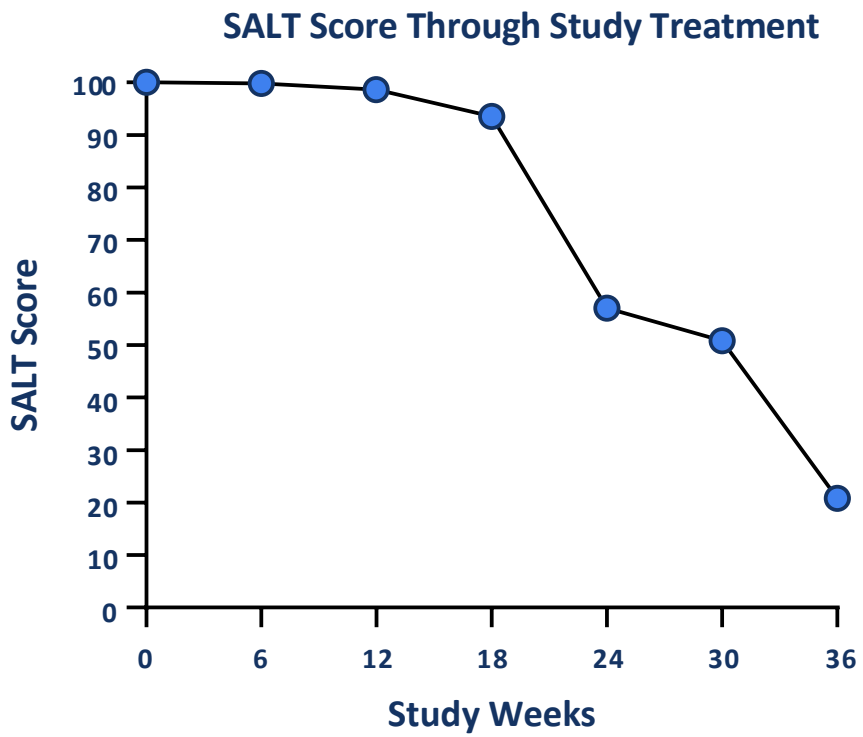
Note: AA = Alopecia Areata

Patient with Very Severe AA with Robust Response and Durability Off-Drug: SALT-20 at Week 36; Maintained Off-Drug

Treatment Period



- 32-year-old male; Duration of current episode: 3.2 years



16 Weeks Off-Drug

SALT-20 in patient with very severe AA at Week 36; hair growth maintained through Week 52 and now enrolled in OLE

Note: AA = Alopecia Areata

Bempikibart SIGNAL-AA Part B: Most Commonly Reported Treatment Emergent Adverse Events; No Severe or Higher AEs

	Bempikibart N=33		
N (% patients reporting at least one TEAE)	31 (93.9)		
Most Common TEAEs (>5%)			
Preferred Term	Gr1 (Mild), n (%)	Gr2 (Mod), n (%)	Gr3 or Higher (Sev), n (%)
Injection site reaction	12 (36.3)	0 (0.0)	0 (0.0)
Upper respiratory tract infection	7 (21.2)	5 (15.1)	0 (0.0)
Gastroenteritis	1 (3.0)	4 (12.0)	0 (0.0)
Urinary tract infection	0 (0.0)	3 (9.0)	0 (0.0)
Lymphocyte count decreased	3 (9.0)	0 (0.0)	0 (0.0)
Fatigue	2 (6.1)	0 (0.0)	0 (0.0)
Presyncope	2 (6.1)	0 (0.0)	0 (0.0)
Conjunctivitis	0 (0.0)	2 (6.1)	0 (0.0)
Influenza	0 (0.0)	2 (6.1)	0 (0.0)
Eczema	0 (0.0)	2 (6.1)	0 (0.0)
Lower respiratory tract infection	1 (3.0)	1 (3.0)	0 (0.0)
Headache	1 (3.0)	1 (3.0)	0 (0.0)
Muscle strain	1 (3.0)	1 (3.0)	0 (0.0)
Myalgia	1 (3.0)	1 (3.0)	0 (0.0)

- **ISR incidence is 4% across all Part B dose administrations**
- **In patients reporting ISR, 8 out of 12 only had one**
- **All ISRs reported to date were mild and resolved with no intervention**

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Note: Data cutoff as of June 30, 2026; If a subject experienced more than one AE, the subject is counted only for the maximum severity; ISR = Injection Site Reaction; TEAE=treatment-emergent adverse event

Bempikibart May Redefine the Long-Term Management of Alopecia Areata With Emerging Well-Tolerated, Selective and Efficacious Biologic Profile

Development of biologics in Alopecia Areata have lagged the JAK inhibitors: Unique dynamic not seen elsewhere in the broader I&I landscape

Target Product Profile for Bempikibart Development

1	**Set the Bar for Biologics in Alopecia Areata**	Novel mechanism has delivered meaningful clinical efficacy data with manageable injection site reactions observed to date
2	**Overcome JAKi Safety Concerns**	Non-JAKi biologic profile – and potential absence of class-driven black box warning – may mitigate safety concerns currently limiting alopecia areata treatment uptake
3	**Deliver Durable Control for Chronic Disease**	Selective biologic profile with durable responsiveness provides potential dosing flexibility ideal for management of a lifelong condition with expectations of step-down to longer-term maintenance regimen (e.g., monthly, bi-monthly, quarterly dosing)
4	**Simplify Real-World Use and Access**	Potential for reduced monitoring burden relative to JAKi and a physician- and patient-friendly profile to improve adherence with potential for at-home dosing
5	**Unlock Large, Undertreated Population**	Aiming to address patients and physicians unwilling to initiate or persist on existing therapies

Alopecia Areata Has Life-Altering Impact and Significant Unmet Need With Limited Treatment Options, Including JAK Inhibitors Carrying Black Box Warnings

Alopecia areata unmet need persists

*"**There's a large unmet need.** Many patients don't want JAK inhibitors and there are no other advanced options for them."*

- US Dermatologist, Community Practice

*"**There's no middle ground for ease of access, safety, and efficacy in current therapies**—either a benign topical or a chronic pill with a black box warning—and **many patients remain on subpar therapies due to hesitation around JAKi side effect risks**."*

- US Dermatologist, Community Practice

Key Findings From Survey of 50 U.S. Dermatology Healthcare Providers on Unmet Need[1]

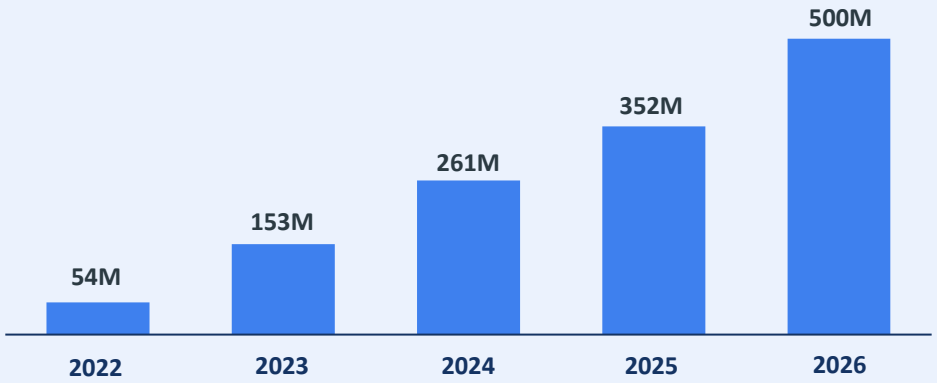
- **Improved safety profile (no black box warning)**
- **Minimal lab monitoring requirements**
- **More durable efficacy**

[1]Survey conducted by IQVIA on behalf of Company

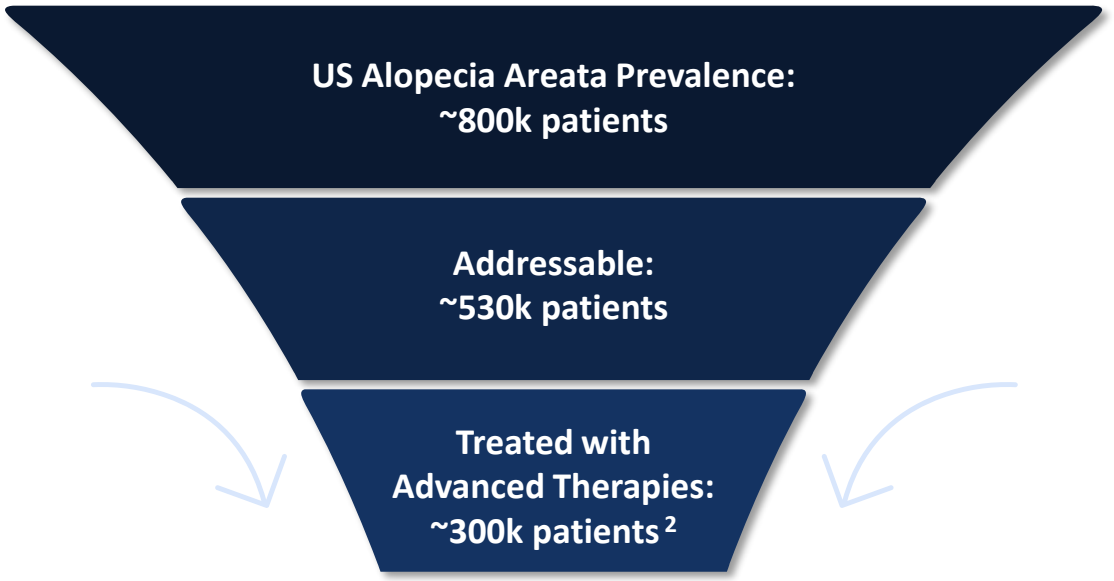
The US Alopecia Areata Market is Growing Despite Remaining Unmet Need By 2037, Estimated to be >$5B US Opportunity

Estimated Historical and 2026 Projected US Alopecia Areata Net Sales

(JAKi alopecia areata net sales est., USD)[1]



Future US Alopecia Areata Market Size (2037F)



Est. >$5 Billion

Total US Market Opportunity

[1] IQVIA analysis and forecast; average GTN of ~40% reduction assumed for AA JAKi across period; AA specific Olumiant claims referenced
[2] IQVIA quantitative market research; estimate prior to adherence and payer access

Bempikibart SIGNAL-AA Program In Severe/Very Severe Alopecia Areata Supports Registration-Directed Program

Bempikibart for Alopecia Areata

- Alopecia areata is a large and underserved patient population with significant unmet need
- Proof-of-concept with durable response and safe redosing observed in SIGNAL-AA Part A
- Meaningful efficacy data and well-tolerated safety profile with 36-week dosing in SIGNAL-AA Part B
- Favorable safety and tolerability profile with low rates of ISRs across SIGNAL-AA program

Next Steps

- Results from ongoing Part B and totality of data from SIGNAL-AA program supports advancement into a registration-directed program
- SIGNAL-AA Part B full results to be presented at a future medical meeting
- Q32 to engage with FDA on proposed registration-directed program with plans to initiate in 1H27
- Pediatric and moderate population plans under development
- Evaluation of additional I&I indications ongoing

Differentiated target product profile of bempikibart supports the potential to become standard of care as an efficacious, durable and safe targeted biologic therapy for the treatment of alopecia areata

Q32 BIO

ISR = Injection Site Reaction

Q&A with Renowned Alopecia Areata Key Opinion Leader

Q32 Bio Leadership

Jodie Morrison

Chief Executive Officer

Shelia Violette, Ph.D.

Founder &
Chief Scientific Officer

Lee Kalowski, M.B.A.

President &
Chief Financial Officer

Key Opinion Leader

Arash Mostaghimi, MD, MPA, MPH

Associate Professor of Dermatology and Vice Chair of Clinical Trials and Innovation, Brigham and Women's Hospital, Harvard Medical School

SIGNAL-AA Part B
36-Week Topline Results

July 2026