



**alumis**

# Corporate Presentation

September 2024

*Transform Therapies. Reimagine Lives.*

# Disclaimer

This presentation and any accompanying oral commentary have been prepared by Alumis Inc. (“Alumis”) for informational purposes only and not for any other purpose. All statements contained in this presentation and the accompanying oral commentary, other than statements of historical facts, are forward-looking statements, including: statements about our expectations regarding the potential benefits, effectiveness, and safety of our product candidates, including our allosteric TYK2 inhibitors ESK-001 and A-005; our expectations with regard to the design and results of our research and development programs, preclinical studies, and clinical trials, including the timing and availability of data from such trials; our preclinical, clinical, and regulatory development plans for our product candidates, including the timing or likelihood of regulatory filings and approvals for our product candidates; the expected markets and market opportunity for our product candidates, if approved; the timing and likelihood of success, plans and objectives of management for future operations; and our business strategy. These statements involve substantial known and unknown risks, uncertainties and other factors that may cause our actual results, timing of results, levels of activity, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “expect,” “should,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “believe,” “estimates,” “potential” or “continue” or the negative of these terms or other similar expressions. Additional risk factors facing Alumis can be found in our public filings with the SEC.

We operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially and adversely from those anticipated or implied in the forward-looking statements. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. The forward-looking statements in this presentation represent our views as of the date of this presentation. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. Except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements in this presentation and the accompanying oral commentary. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation.

This presentation contains trademarks, service marks, trade names and copyrights of Alumis and other companies which are the property of their respective owners.

This presentation discusses product candidates that are under clinical study and which have not yet been approved for marketing by the U.S. Food and Drug Administration. No representation is made as to the safety or effectiveness of these product candidates for the uses for which they are being studied.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified the data generated by independent parties and cannot guarantee their accuracy or completeness. In addition, projections, assumptions, and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

This presentation shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. Sales and offers to sell our securities will only be made in accordance with the Securities Act of 1933, as amended, and applicable SEC regulations, including written prospectus requirements.

# Corporate Overview



# Developing Oral Therapies To Transform Lives of Patients With Immune-Mediated Diseases

## ESK-001

### **ESK-001, potentially the first and only allosteric TYK2 inhibitor well-tolerated at maximal target inhibition**

- › Demonstrated maximal target inhibition, potential best-in-class tolerability profile in plaque psoriasis (PsO)
- › Multibillion dollar market opportunity<sup>1</sup> in a broad set of indications, including systemic lupus erythematosus (SLE)
- › Ongoing ONWARD Phase 3 clinical trials in PsO and LUMUS Phase 2b trial in SLE

## A-005

### **A-005, a Phase 1 CNS penetrant allosteric TYK2 inhibitor for the treatment of neuroinflammatory and neurodegenerative diseases**

- › Potential first- and best-in-class opportunity with blood-to-brain ratio of approximately 1:1

## APPROACH

### **Precision approach to replace broad immuno-suppression with targeted therapies**

- › Precision data analytics platform generating genetic, genomic, proteomic, and biological and clinical disease insights
- › Accelerate research and development and increase the probability of clinical success

## CATALYSTS

### **Anticipated value-creating near-term catalysts**

- › Multiple milestones in 2024 / 2025, including readout for A-005 Phase 1 trial in healthy volunteers
- › Catalyst rich 2026 with topline data for Phase 3 trials in PsO, Phase 2b trial in SLE and Phase 2 trial in multiple sclerosis (MS)

## LEADERSHIP

### **Experienced team with strong track record in value creation**

- › Strong financial position and backed by established blue-chip life science investors

# Alumis is Building a Wholly Owned, Diverse Precision Therapeutics Portfolio

TARGET	INDICATION	DEVELOPMENT				ANTICIPATED MILESTONES	GLOBAL RIGHTS
		PRECLINICAL	PHASE 1	PHASE 2	PHASE 3		
ESK-001 (TYK2)	Moderate-to-Severe Plaque Psoriasis (PsO)	[Progress bar: ~85% complete]				2026: Phase 3 topline data	alumis
	Systemic Lupus Erythematosus (SLE)	[Progress bar: ~65% complete]				2026: Phase 2b topline data	
A-005 (TYK2)	Neuroinflammation	[Progress bar: ~45% complete]				YE24: Phase 1 data	alumis
IRF5	Undisclosed	[Progress bar: ~25% complete]					alumis
ADDITIONAL TARGETS	Undisclosed	[Progress bar: ~25% complete]					alumis

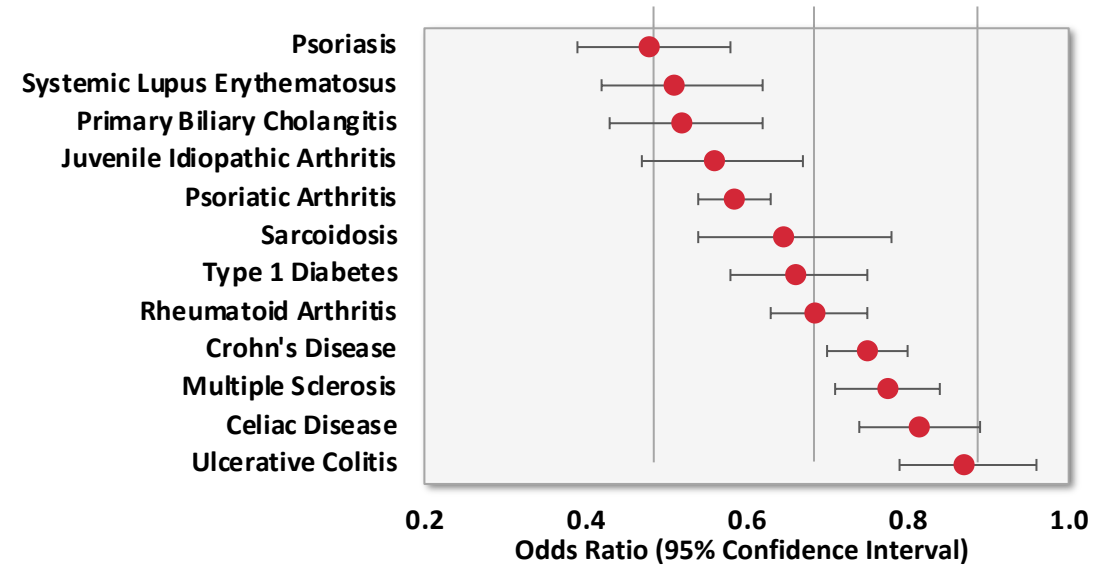
# Alumis' Precision Approach and Capabilities

## Precision Approach

- › Drug targets selected with strong human genetic evidence or with human clinical validation
- › Proprietary genetic database
- › Comprehensive biomarker collection and profiling
- › Data platform with large multi modal data sets utilizing modern AI- and ML-based methods
- › Differentiated molecules designed to achieve maximal target engagement

## Example of Application: The “Right Indication”

Association of TYK2 P1104A Loss of Function Variant with Immune Mediated Diseases

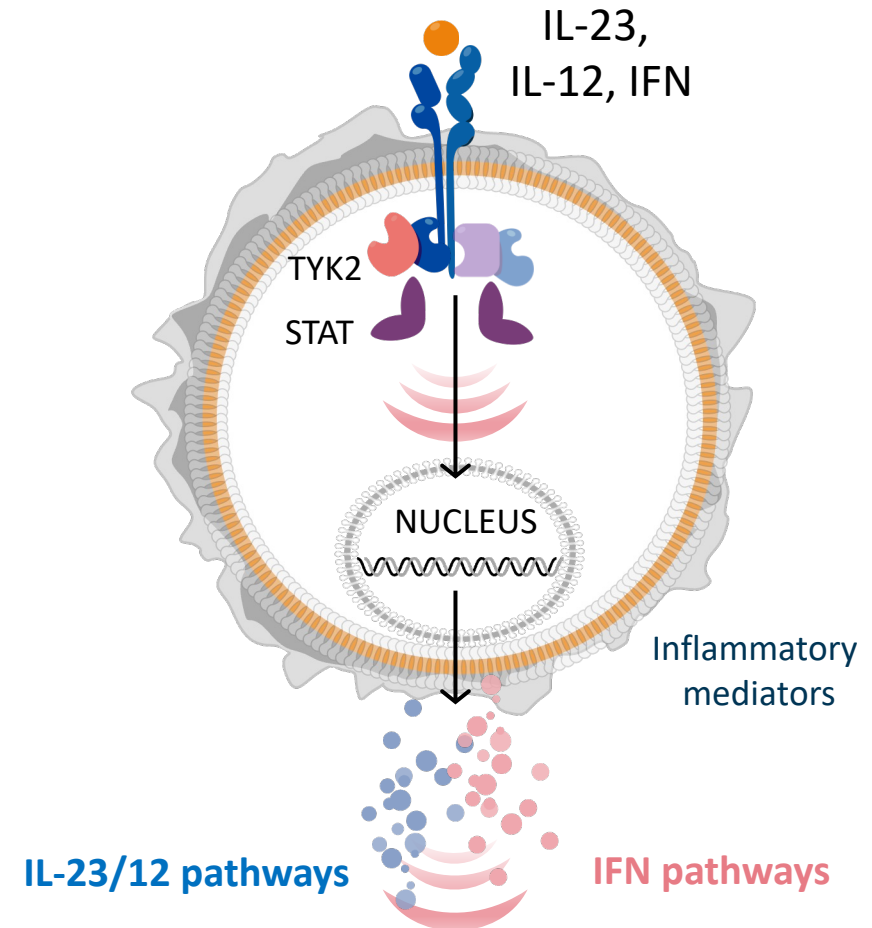


**Potential to increase speed of development, probability of success and precision of therapy**

**Genetic associations established by proprietary comprehensive immune-focused database and advanced multi-trait statistical methods**

# TYK2 Pipeline-in-a-Product Opportunity

- > **Pathogenic TYK2 signaling** is associated with the development of **immune mediated diseases** in both the periphery and CNS
- > TYK2 mediates signaling from key validated proinflammatory cytokines, including **IL-23, IL-12 and Type I IFN**
- > We believe allosteric inhibition of TYK2 has potential to treat a **wide array of diseases** with a **benign safety profile**
- > Orals offer opportunity for **greater tissue penetration, immediate treatment cessation and convenience**



- Psoriasis
- SLE
- Multiple Sclerosis
- IBD
- Psoriatic Arthritis
- Other I&I Diseases

# ESK-001: Our Allosteric TYK2 Inhibitor





# ESK-001: Potent and Highly Selective Allosteric TYK2 Inhibitor Designed to Achieve Maximal Target Inhibition

## Designed to Deliver Potentially Best-in-class Pharmacokinetic Properties

- > Dose-dependent exposure with very low variability
- > Excellent penetration into relevant tissues
- > Robust PK/PD achieves maximal target inhibition

## No Clinically Limiting Findings

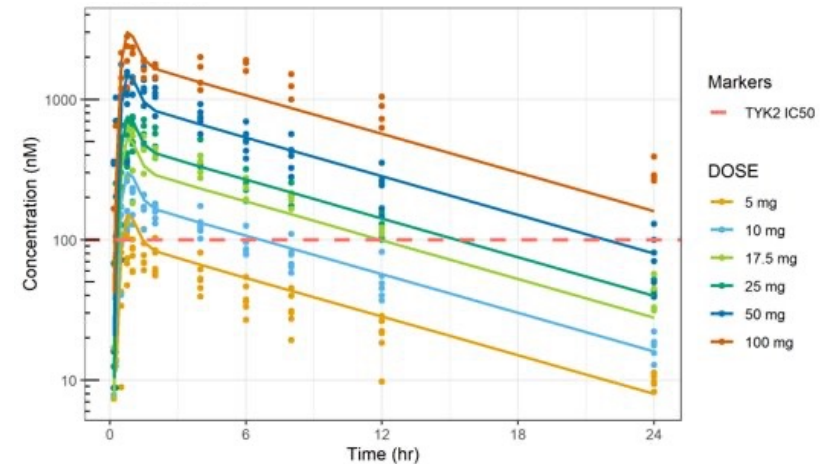
- > Highly selective for TYK2 with no off-target JAK pharmacology
- > Enabling clinical pharmacology profile including no drug-drug interactions

## Only Clinical TYK2 to Safely Achieve Maximal Target Inhibition

Drug	Dose	Steady State Time Above (hr)	
		IC50	IC90
ESK-001	40 mg QD	19	7
	40 mg BID	>24	>24
Sotyktu	6mg QD	9	0
TAK-279	30mg QD	>24	5

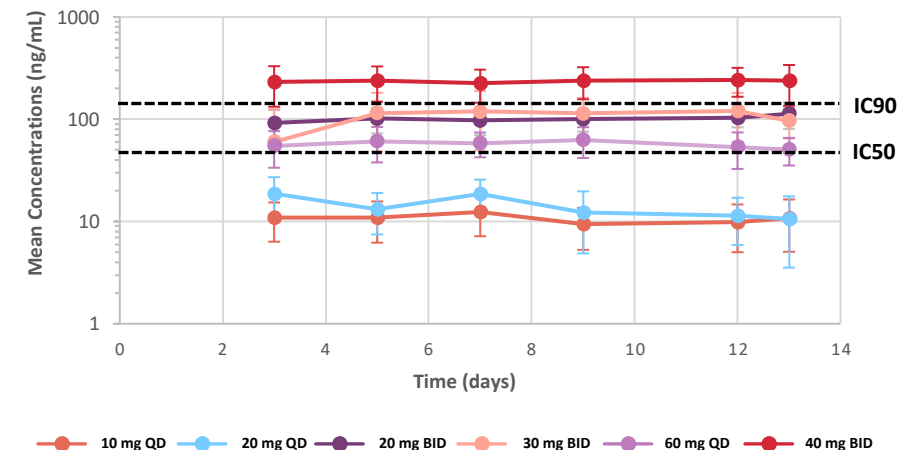
## Dose-dependent Exposure, Very Low Variability

ESK-001 Phase 1 SAD PK

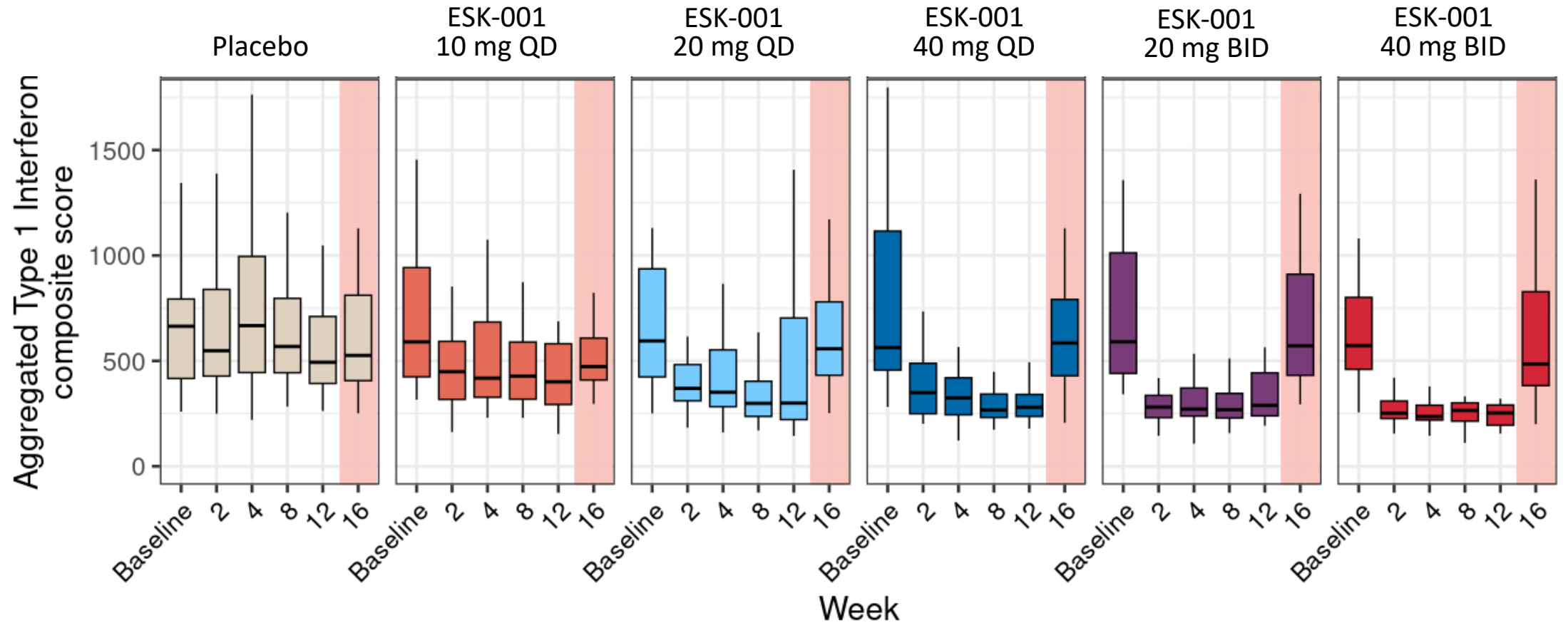


## Coverage of IC90 at Trough with 40mg BID Dose

ESK-001 Phase 1 Multidose, Trough PK



# Maximal Inhibition of Type I IFN Gene Signature Shown in RNA-seq of Phase 2 Blood Samples



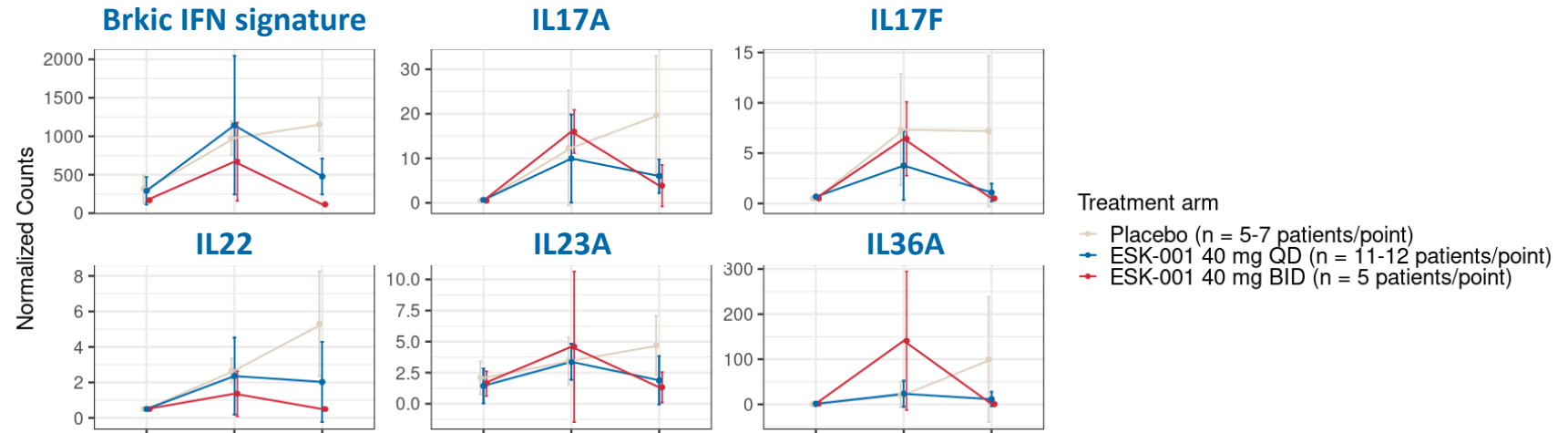
Note: Pink Bar Reflects Samples from End of Drug Washout Period (Week 12 to Week 16)

Note: Blood samples collected at trough

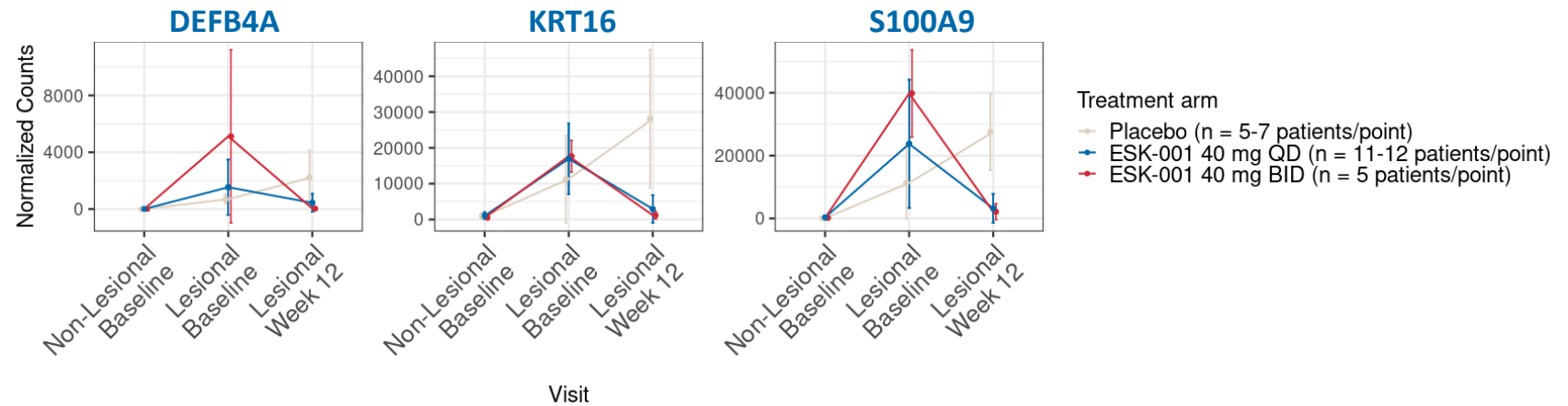
# Phase 2 Skin Biopsy RNA-seq Confirms Maximal Inhibition

*Lesional Skin Levels of Key Cytokines & Disease Related Biomarkers Return to Non-lesional Levels*

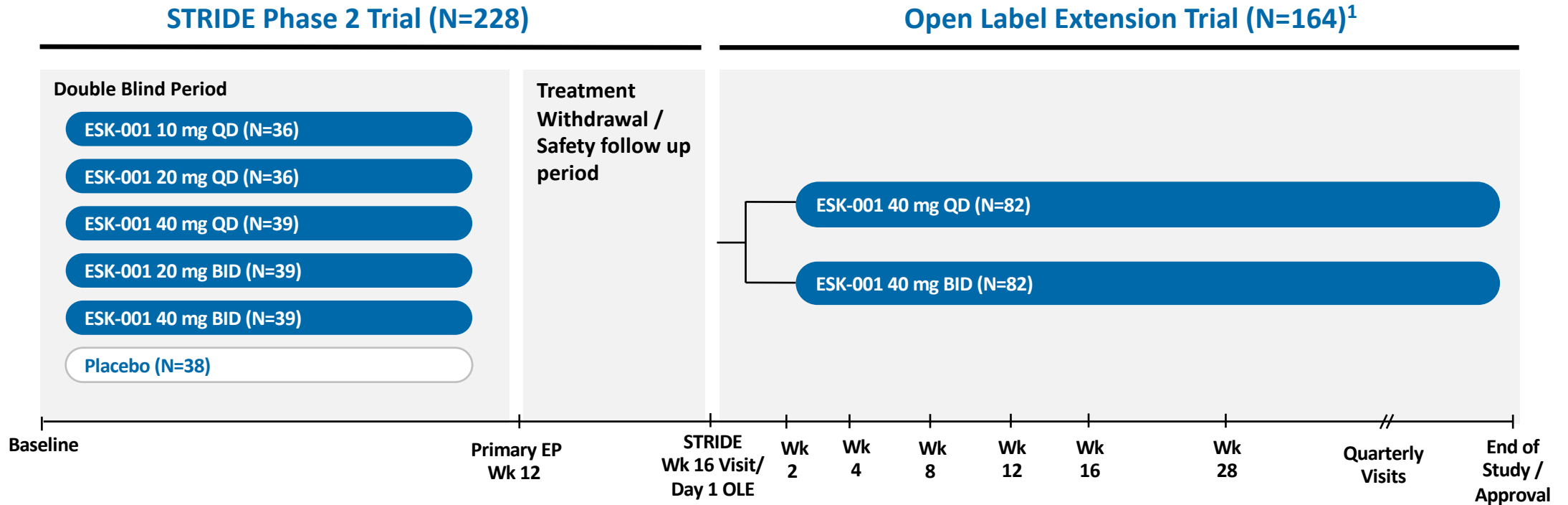
## TYK2 Pathway Key Cytokines



## Disease Biomarkers



# ESK-001 Phase 2 STRIDE and OLE Studies Designed to Assess Both Short- and Long-Term Efficacy, Safety and Tolerability



## Stride Phase 2 Study

- > **Key Inclusion Criteria:** adults 18-75 years with plaque psoriasis
  - > PASI ≥ 12, sPGA ≥ 3, BSA ≥ 10%
- > **1° EP:** PASI 75 Response at Week 12
- > **Key 2°EPs at Week 12:** PASI 90, PASI 100, sPGA 0/1, and sPGA 0

## Open Label Extension Study

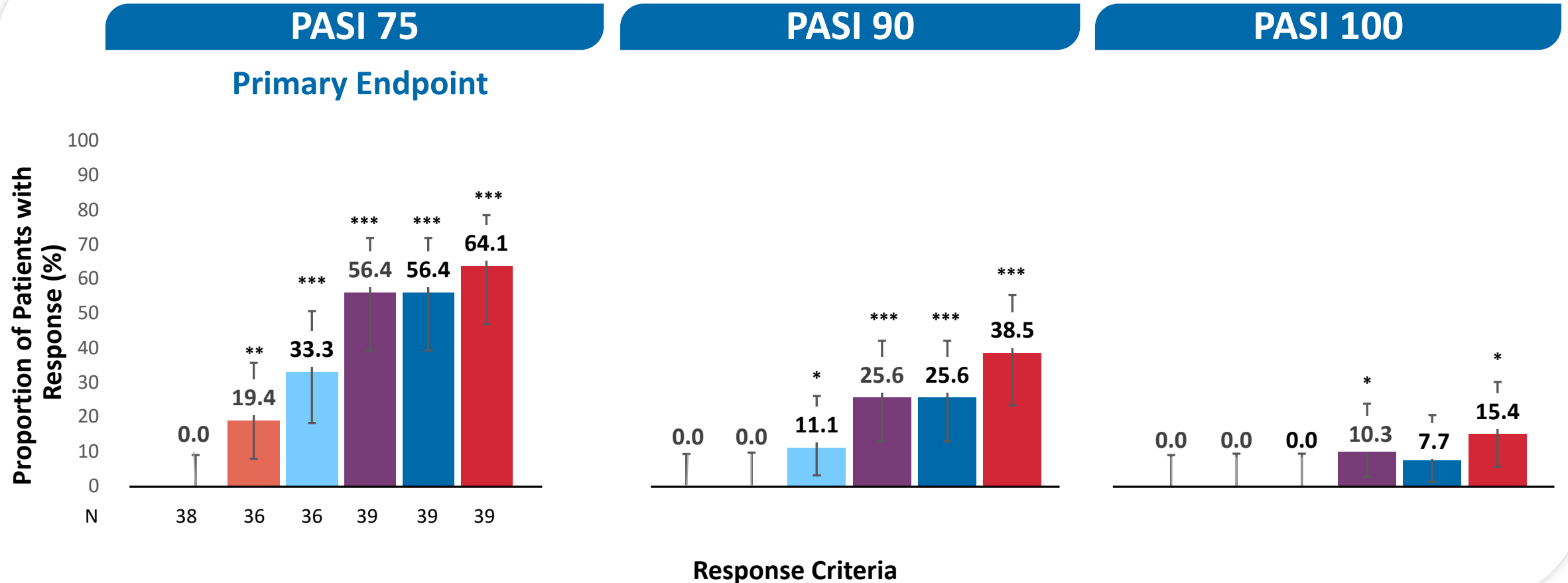
- > **OLE Dose Assignment:** same or higher dose as in parent study
- > **Safety EPs:** Incidence of TEAEs and SAEs over time
- > **Key Efficacy EPs:** PASI-75, PASI-90 and PASI-100; sPGA 0/1 and sPGA 0

TEAE: Treatment emergent adverse event. SAE: Serious adverse event.

# STRIDE: Demographics and Baseline Disease Characteristics Were Well-Balanced Across Study Arms

	Placebo (N=38)	10 mg QD (N=36)	20 mg QD (N=36)	20 mg BID (N=40)	40 mg QD (N=39)	40 mg BID (N=39)	Overall (N=228)
Age, mean (SD)	49.1 (11.7)	48.8 (12.7)	43.9 (12.0)	47.7 (12.5)	49.5 (10.5)	47.9 (14.2)	47.8 (12.3)
Male, n (%)	31 (81.6)	24 (66.7)	24 (66.7)	23 (57.5)	26 (66.7)	26 (66.7)	154 (67.5)
Race, n (%)							
White	27 (71.1)	30 (83.3)	31 (86.1)	34 (85.0)	33 (84.6)	33 (84.6)	188 (82.5)
Asian	4 (10.5)	1 (2.8)	2 (5.6)	2 (5.0)	2 (5.1)	2 (5.1)	13 (5.7)
Black/African American	3 (7.9)	4 (11.1)	0	1 (2.5)	1 (2.6)	1 (2.6)	10 (4.4)
Other	4 (10.5)	1 (2.8)	3 (8.3)	3 (7.5)	3 (7.7)	3 (7.7)	17 (7.5)
BMI (kg/m <sup>2</sup> ), mean (SD)	31.9 (6.8)	30.5 (5.9)	34.9 (12.1)	31.7 (7.4)	30.4 (6.4)	31.6 (7.1)	31.8 (7.9)
Psoriasis Duration (years), mean (SD)	19.8 (11.6)	19.3 (13.4)	17.3 (8.3)	21.8 (12.2)	16.7 (12.4)	21.5 (15.5)	19.4 (12.5)
PASI score, mean (SD)	18.0 (4.5)	16.5 (3.9)	18.9 (6.6)	18.3 (6.5)	17.4 (6.5)	17.5 (4.9)	17.8 (5.6)
PGA score, n (%)							
3 (moderate)	22 (57.9)	24 (66.7)	17 (47.2)	23 (57.5)	25 (64.1)	23 (59.0)	134 (58.8)
4 (marked)	15 (39.5)	9 (25.0)	17 (47.2)	16 (40.0)	14 (35.9)	16 (41.0)	87 (38.2)
5 (severe)	1 (2.6)	3 (8.3)	2 (5.6)	1 (2.5)	0	0	7 (3.1)
BSA, mean	22.9 (12.1)	20.6 (12.2)	19.9 (12.6)	21.4 (15.0)	20.1 (12.9)	21.5 (15.1)	21.1 (13.3)
Bioexperienced (biologics or JAKi), n(%)	13 (34.2)	13 (36.1)	14 (38.9)	16 (40.0)	13 (33.3)	13 (33.3)	82 (36.0)

# STRIDE: Primary and Secondary PASI Endpoints Achieved at Week 12 With Dose-Dependent Increase in Response Rates

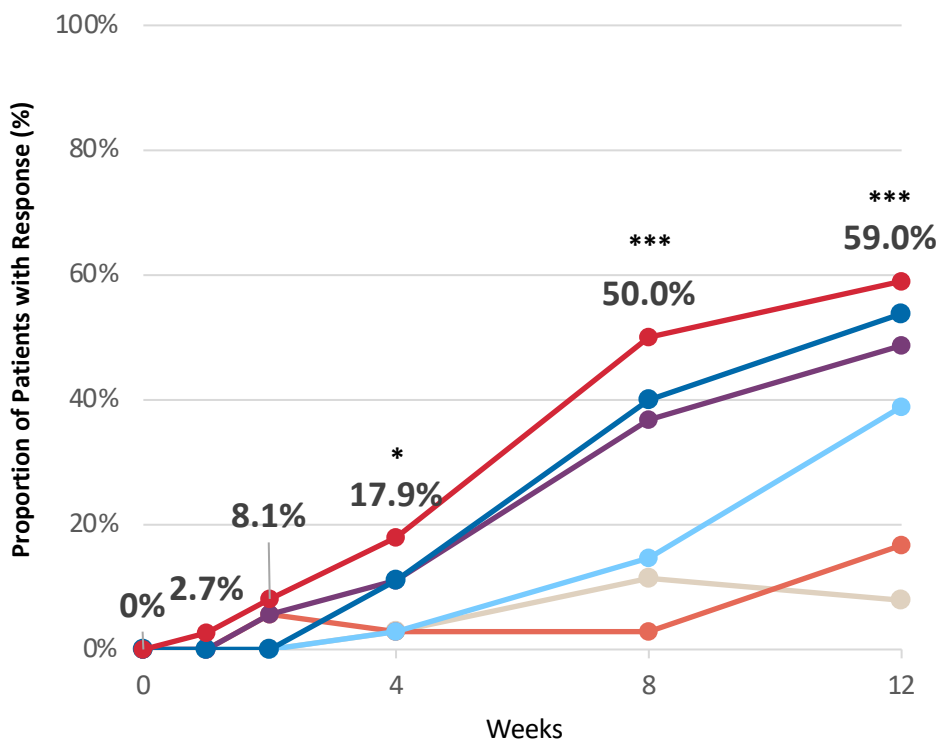


Placebo
  10 mg QD
  20 mg QD
  20 mg BID
  40 mg QD
  40 mg BID

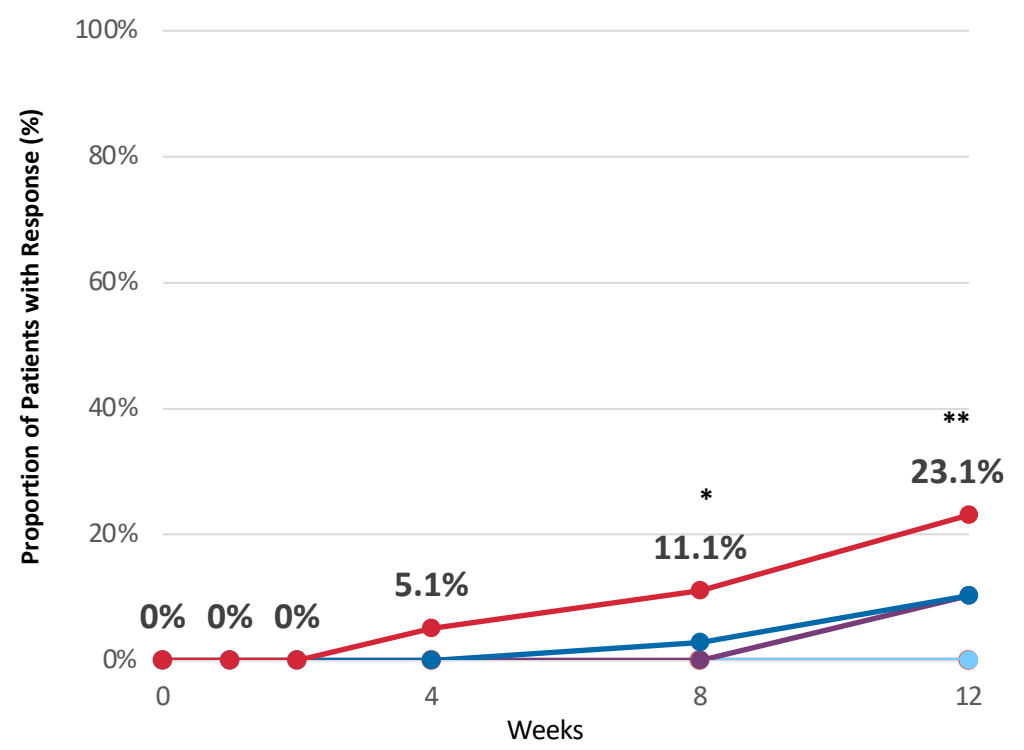
\*p<0.05; \*\*p<0.005; \*\*\*p<0.001 . P-value is comparing proportion in each active arm vs placebo using the Cochran-Mantel-Haenszel test adjusted for stratification factors (prior use of biologics and geographic region (North American vs. ROW)). NRI imputation was applied for subjects who discontinued study.

# STRIDE: Secondary sPGA Endpoints Achieved at Week 12 With Increasing Response Observed over Time

sPGA 0/1



sPGA 0



—●— Placebo    —●— 10 mg QD    —●— 20 mg QD    —●— 20 mg BID    —●— 40mg QD    —●— 40 mg BID



\*p<0.05; \*\*p< 0.005; \*\*\*p<0.001 . P-value is comparing proportion in each active arm vs placebo using the Cochran-Mantel-Haenszel test adjusted for stratification factors (prior use of biologics and geographic region (North American vs. ROW)). NRI imputation was applied for subjects who discontinued study.

# STRIDE Safety Summary at Week 16

	Placebo (N=38)	10 mg QD (N=36)	20 mg QD (N=36)	20 mg BID (N=39)	40 mg QD (N=39)	40 mg BID (N=39)	Overall (N=227)
<b>Subjects with ≥1 TEAE</b>	15 (39.5)	19 (52.8)	14 (38.9)	18 (46.2)	19 ( 48.7)	25 (64.1)	110 (48.5)
<b>Subjects with ≥1 SAE</b>	0	1 (2.8)	0	3 (7.7)	1 (2.6)	0	5 (2.2)
<b>Subjects with treatment related SAEs</b>	0	0	0	0	0	0	0
<b>Deaths</b>	0	0	0	0	0	0	0
<b>Subjects with TEAE leading to treatment discontinuation</b>	0	0	2 (5.6)	0	2 (5.1)	1 (2.6)	5 (2.2)
<b>Most frequent TEAEs</b>							
Headache	2 (5.3)	0	2 (5.6)	3 (7.7)	4 (10.3)	3 (7.7)	14 (6.2)
Upper resp. tract infection	0	2 (5.6)	2 (5.6)	1 (2.6)	2 (5.1)	3 (7.7)	10 (4.4)
Nasopharyngitis	3 (7.9)	2 (5.6)	0	1 (2.6)	1 (2.6)	3 (7.7)	10 (4.4)

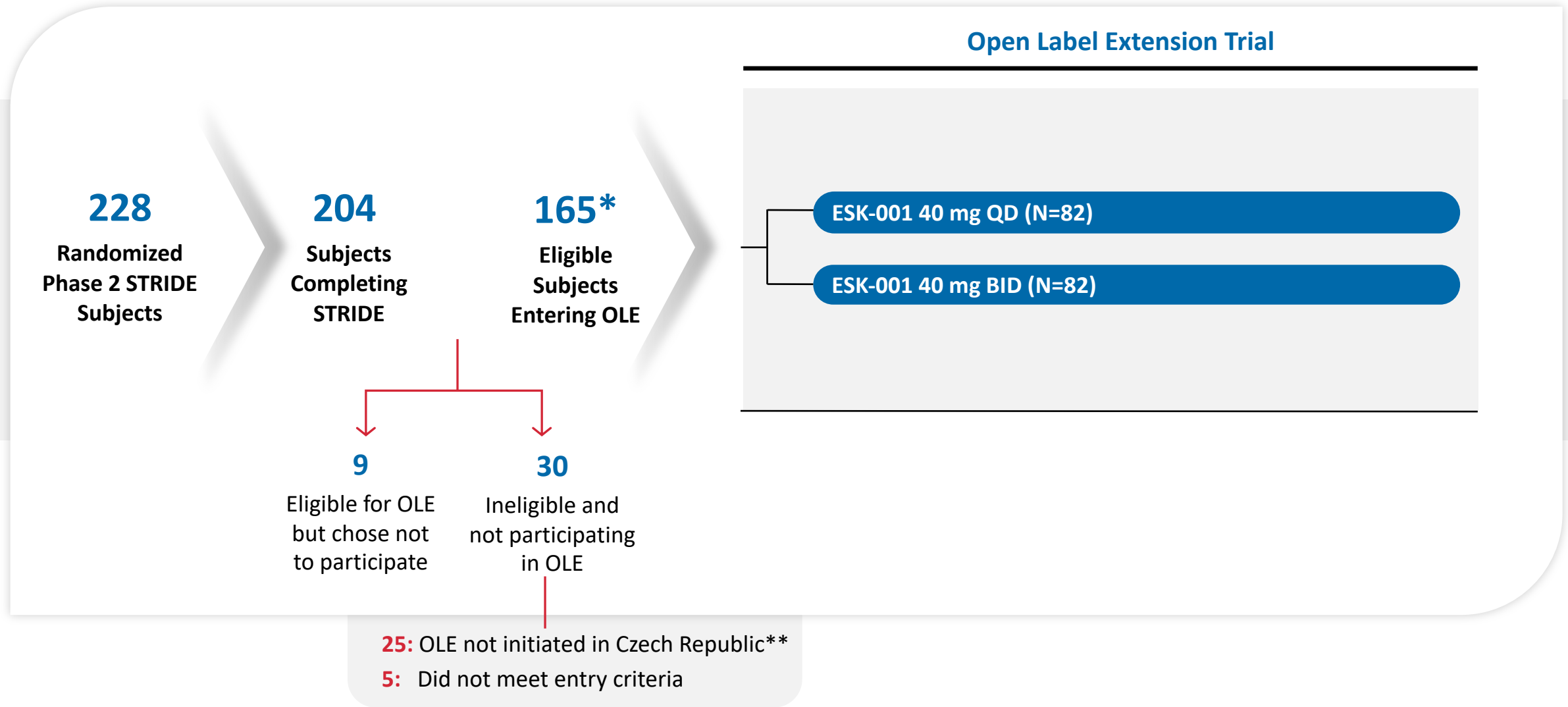
Note: No Major Adverse Cardiac Events (MACE), serious infections, cytopenias, treatment related thromboses or concerning lab/ECG trends were observed.

TEAE: treatment emergent adverse event.

Most frequent TEAEs: ≥3 patients where occurrence greater in active group vs. placebo.



# 95% of Eligible STRIDE Subjects Continued in OLE Study



\* 1 Subject randomized into OLE but not dosed and not included in mITT population analyses

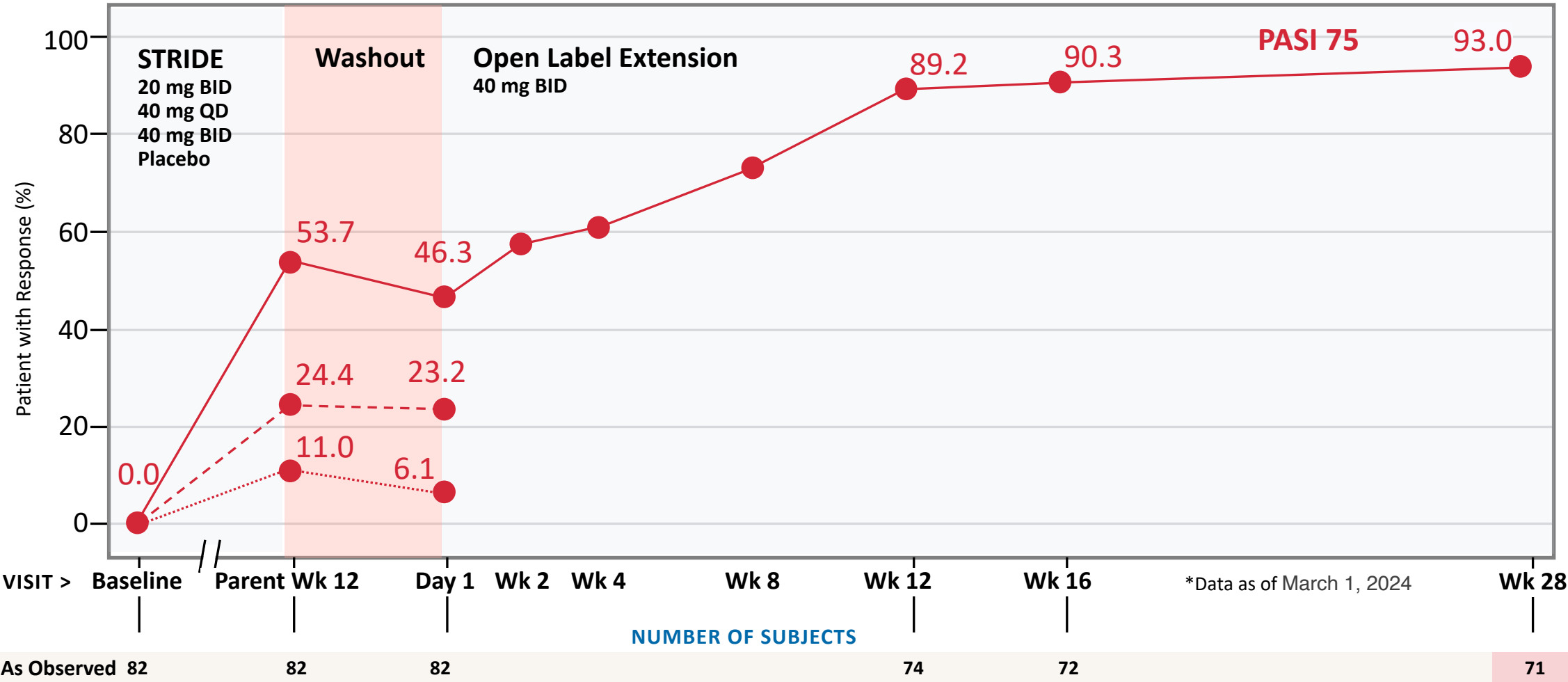
\*\*Patients in the Czech Republic were not eligible to participate in the OLE because local regulatory requirements would not have been consistent with the global protocol

# OLE Safety Summary

	ESK-001 40 mg QD (N=82)	ESK-001 40 mg BID (N=82)	Overall (N=164)
Subjects with $\geq 1$ TEAE	41 (50.0)	45 (54.9)	86 (52.4)
Subjects with $\geq 1$ TE SAE	1 (1.2)	3 (3.7)	4 (2.4)
Deaths	0	0	0
Subjects with TEAE leading to treatment discontinuation	0	4 (4.9)	4 (2.4)
Subjects with TEAE $\geq$ Grade 3	1 (1.2)	4 (4.9)	5 (3.0)
Most frequent TEAEs			
Nasopharyngitis	10 (12.2)	3 (3.7)	13 (7.9)
Upper Respiratory Tract Infection	2 (2.4)	9 (11.0)	11 (6.7)
Folliculitis	0	3 (3.7)	3 (1.8)
Gastroenteritis	0	3 (3.7)	3 (1.8)
Urinary Tract Infection	0	3 (3.7)	3 (1.8)
Acne	2 (2.4)	3 (3.7)	5 (3.0)
Arthralgia	1 (1.2)	3 (3.7)	4 (2.4)
Headache	5 (6.1)	3 (3.7)	8 (4.9)
Cough	0	3 (3.7)	3 (1.8)

# STRIDE and OLE: Continued ESK-001 Exposure Achieves Significant Increases in PASI Responses

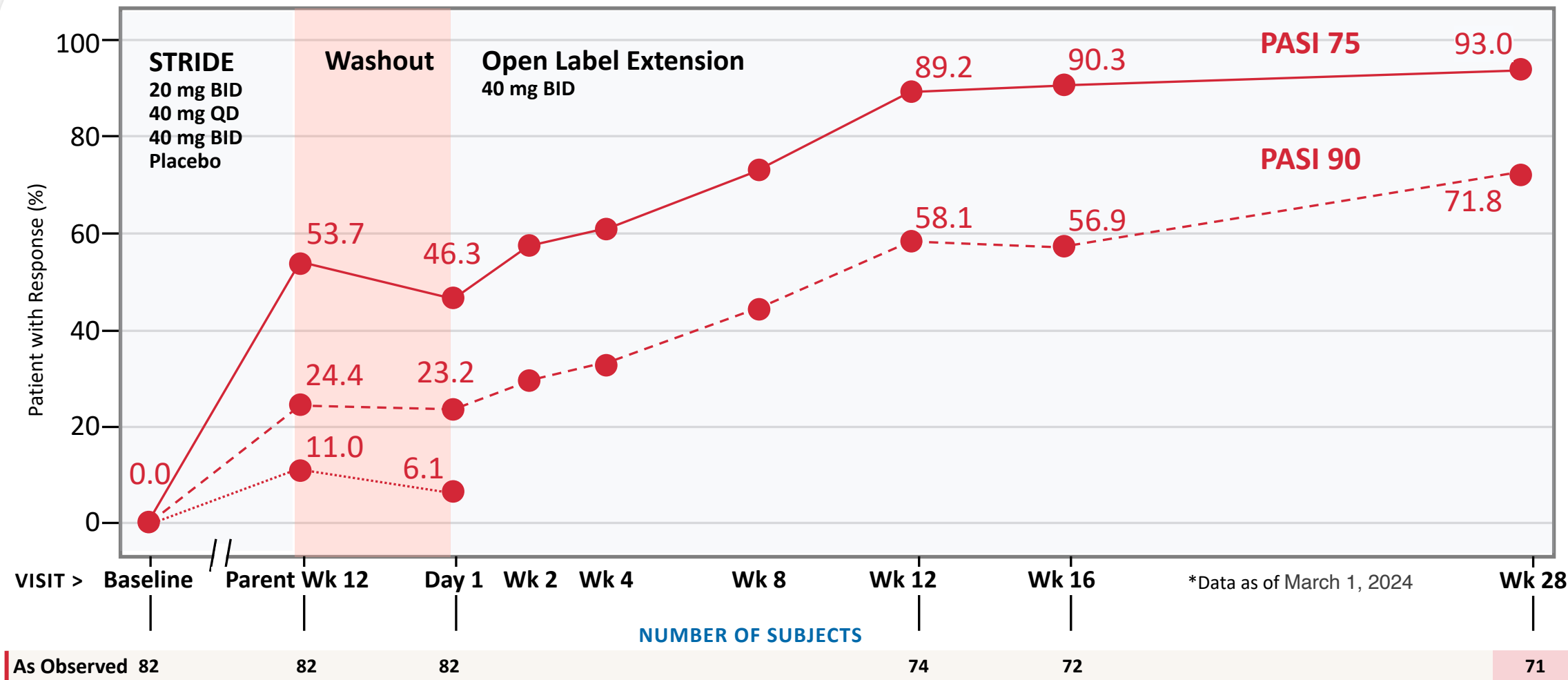
OLE Treatment: ESK-001 40 mg BID



—●— Patient Achieving PASI-75 (AO) (%)    - - -●- - - Patient Achieving PASI-90 (AO) (%)    .....●..... Patient Achieving PASI-100 (AO) (%)

# STRIDE and OLE: Continued ESK-001 Exposure Achieves Significant Increases in PASI Responses

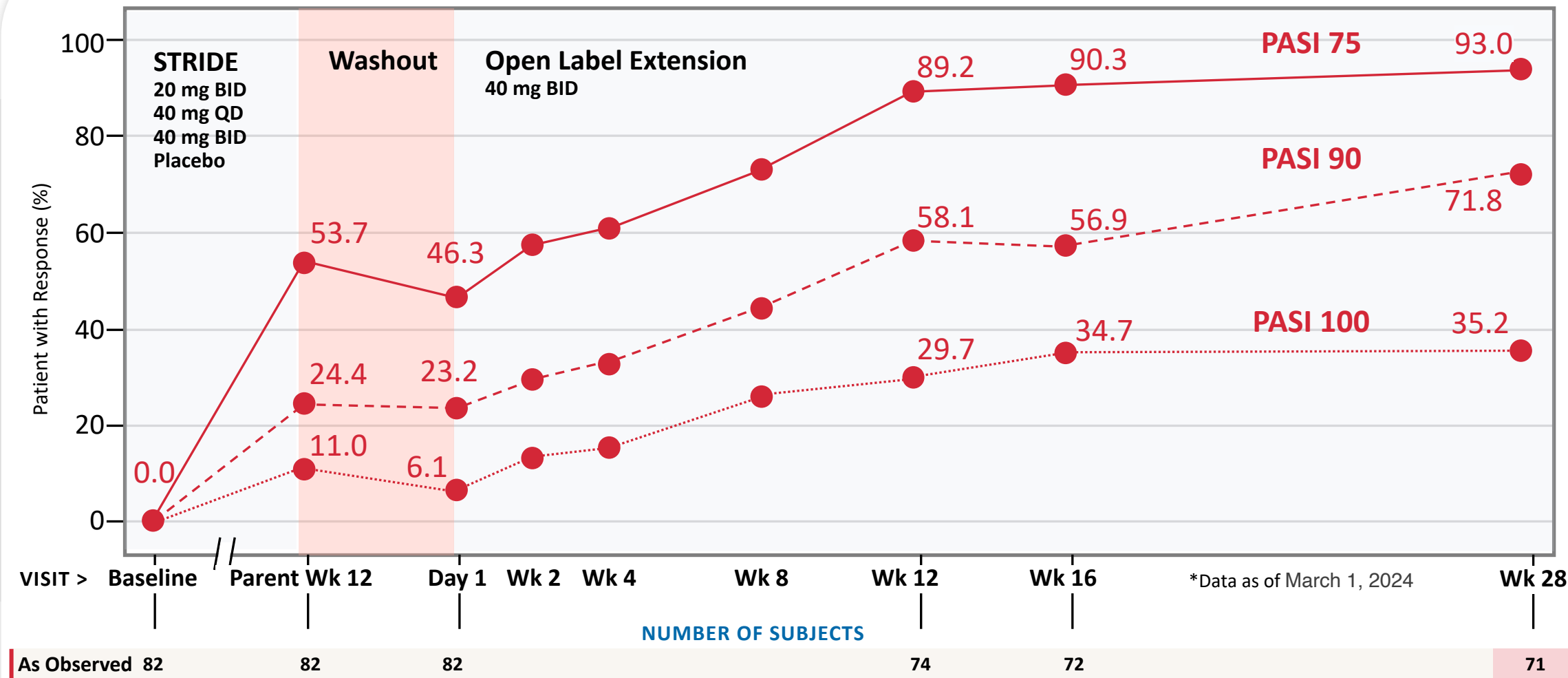
OLE Treatment: ESK-001 40 mg BID



—●— Patient Achieving PASI-75 (AO) (%)    - - -●- - - Patient Achieving PASI-90 (AO) (%)    .....●..... Patient Achieving PASI-100 (AO) (%)

# STRIDE and OLE: Continued ESK-001 Exposure Achieves Significant Increases in PASI Responses

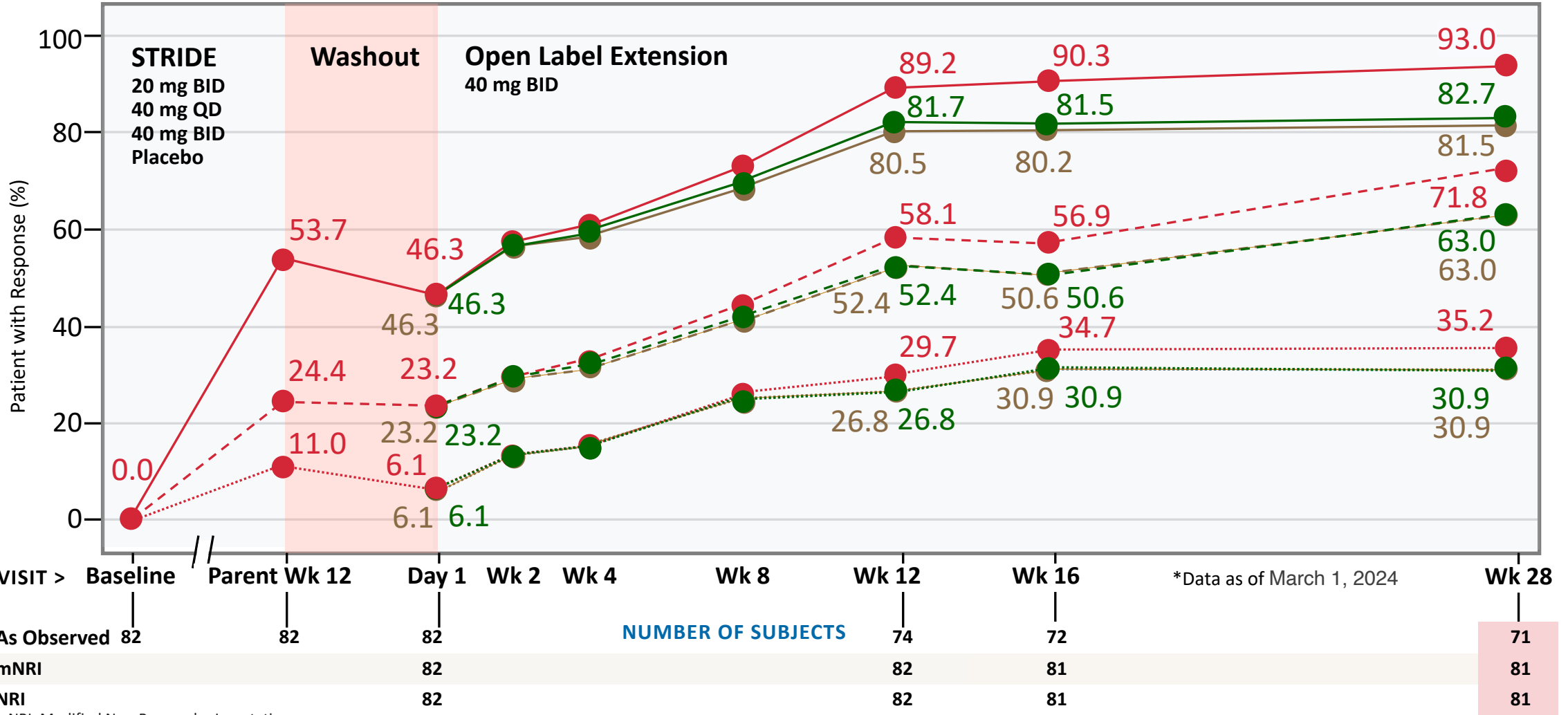
OLE Treatment: ESK-001 40 mg BID



—●— Patient Achieving PASI-75 (AO) (%)    - - -●- - - Patient Achieving PASI-90 (AO) (%)    .....●..... Patient Achieving PASI-100 (AO) (%)

# STRIDE and OLE: Continued ESK-001 Exposure Achieves Significant Increases in PASI Responses

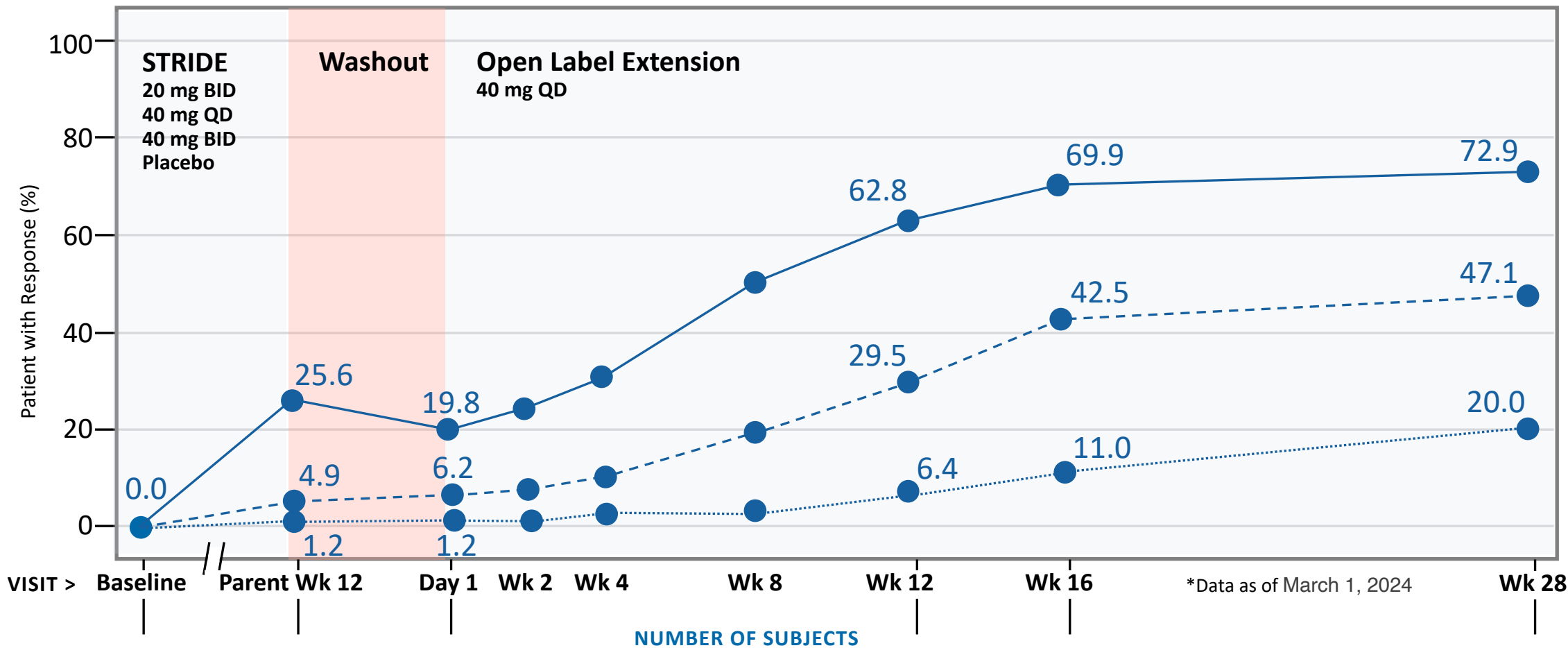
OLE Treatment: ESK-001 40 mg BID



- Patient Achieving PASI-75 (AO) (%)
- - - ● - - - Patient Achieving PASI-90 (AO) (%)
- ⋯ ● ⋯ Patient Achieving PASI-100 (AO) (%)
- Patient Achieving PASI-75 (mNRI) (%)
- - - ● - - - Patient Achieving PASI-90 (mNRI) (%)
- ⋯ ● ⋯ Patient Achieving PASI-100 (mNRI) (%)
- Patient Achieving PASI-75 (NRI) (%)
- - - ● - - - Patient Achieving PASI-90 (NRI) (%)
- ⋯ ● ⋯ Patient Achieving PASI-100 (NRI) (%)

# Incomplete Target Inhibition Results in a Substantially Lower PASI Response Compared to Maximal Target Inhibition

OLE Treatment: ESK-001 40 mg QD

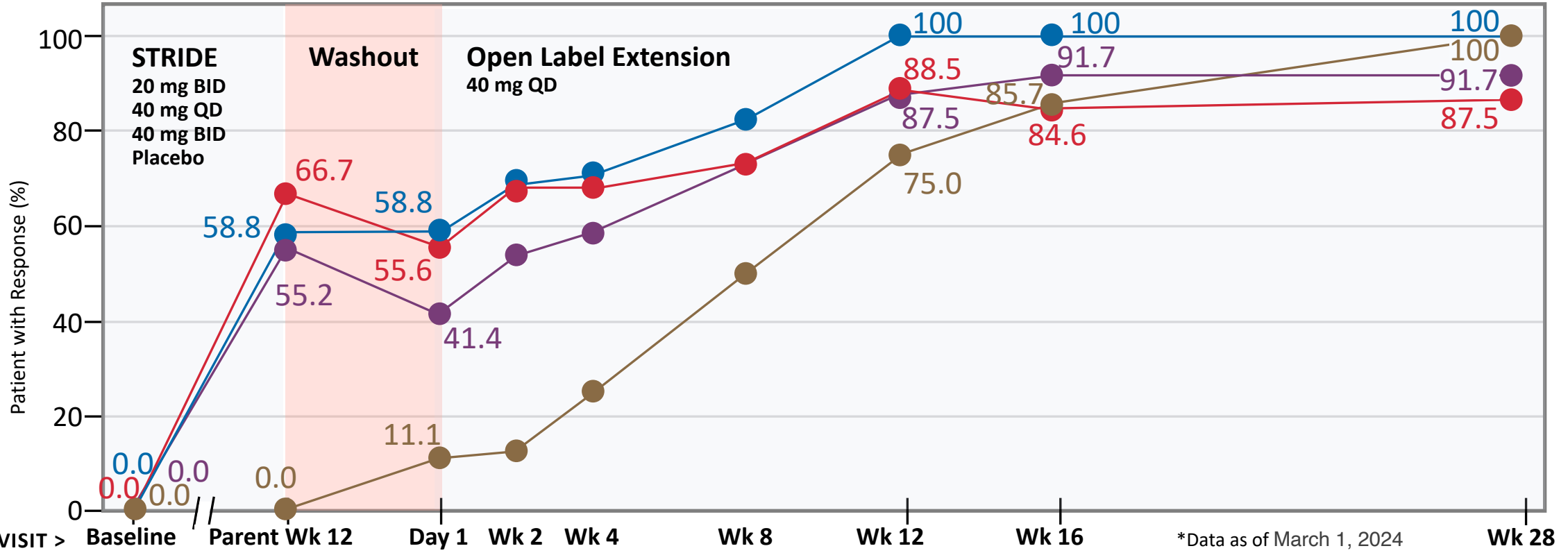


As Observed 82 82 81 78 73 70

# PASI-75 Over Time for OLE 40 mg BID Cohort by Parent Study Dose

*Includes Patients from STRIDE Placebo, 20 mg BID, 40 mg QD and 40 mg BID Cohorts*

## OLE Treatment: ESK-001 40 mg BID

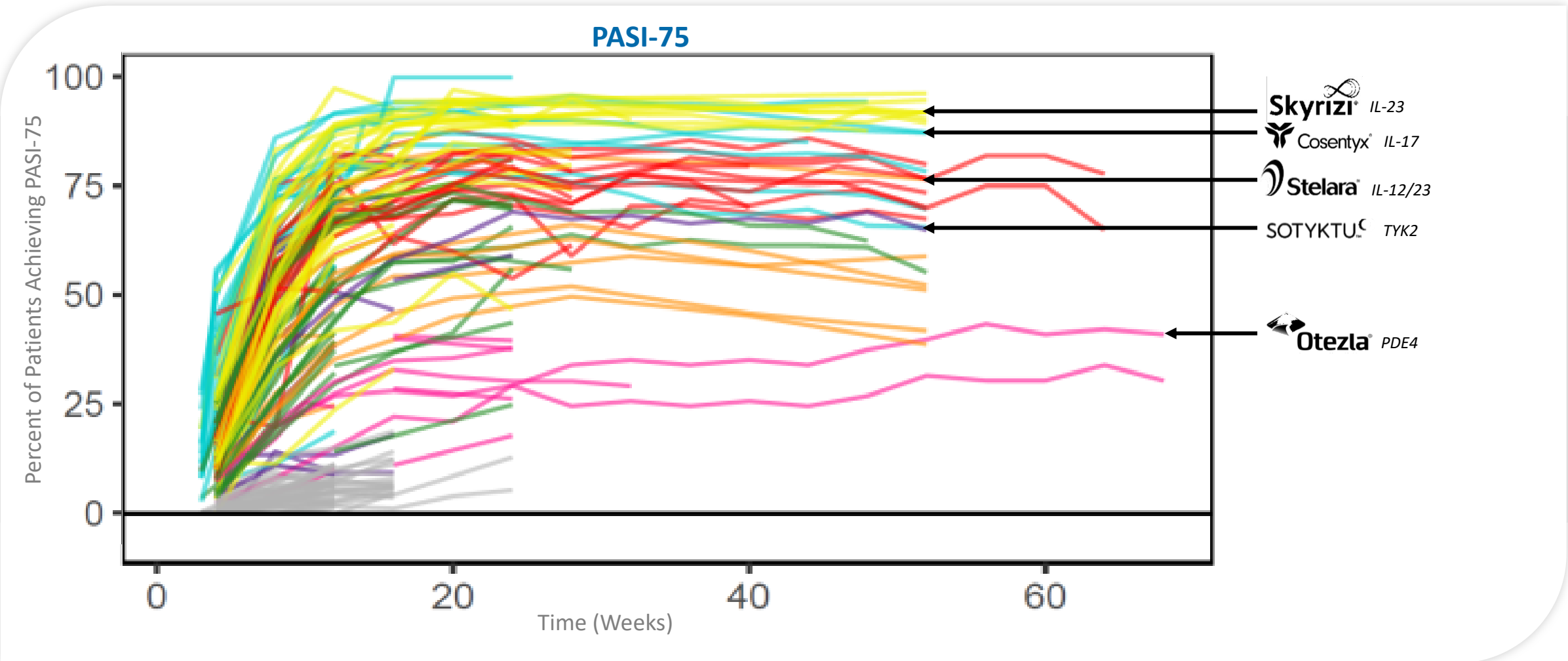


	Baseline	Parent Wk 12	Day 1	Wk 2	Wk 4	Wk 8	Wk 12	Wk 16	Wk 28
40mg QD	17	17	17				16	15	16
20mg BID	29	29	29				24	24	24
40mg BID	27	27	27				26	26	24
Placebo	9	9	9				8	7	7



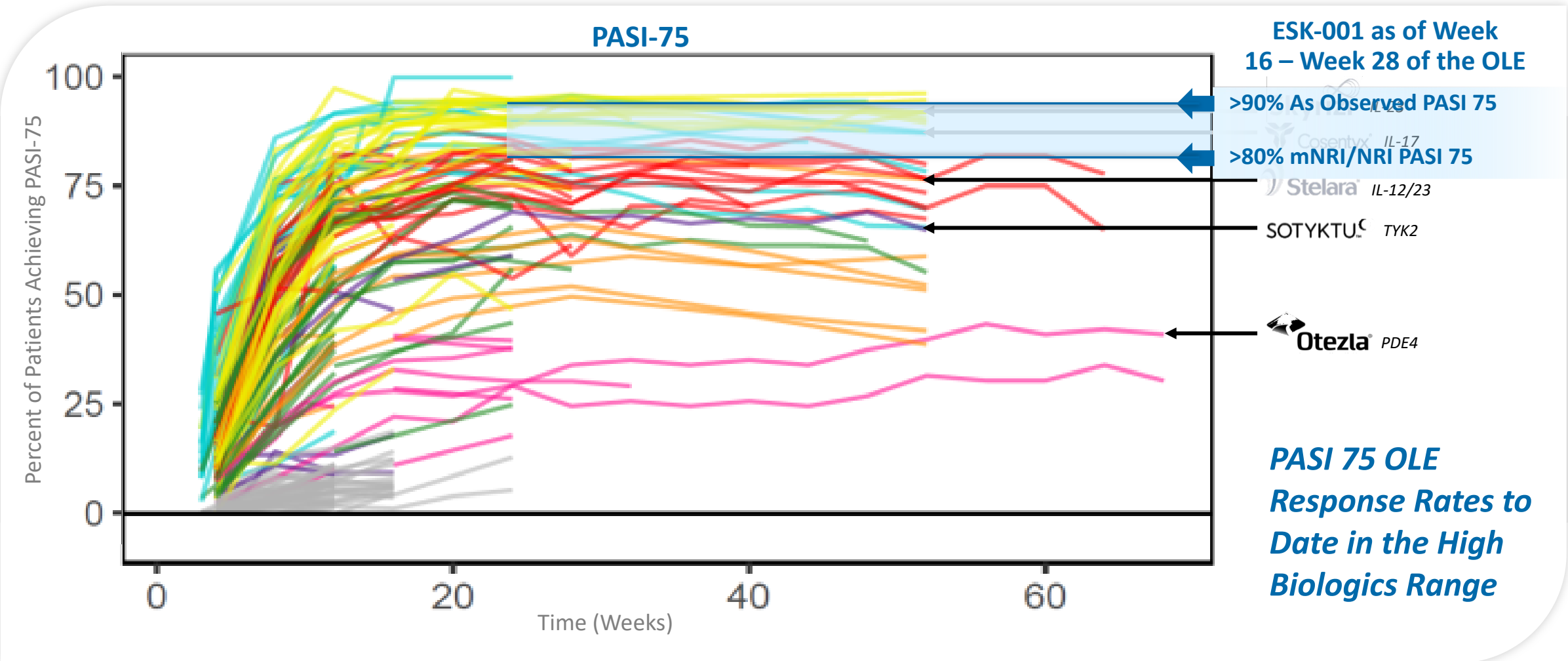
# PASI-75 Outcomes for Recent Psoriasis Studies (69 studies, 11 molecules)

*Maximal Response Is Achieved at Week 24 and Beyond*



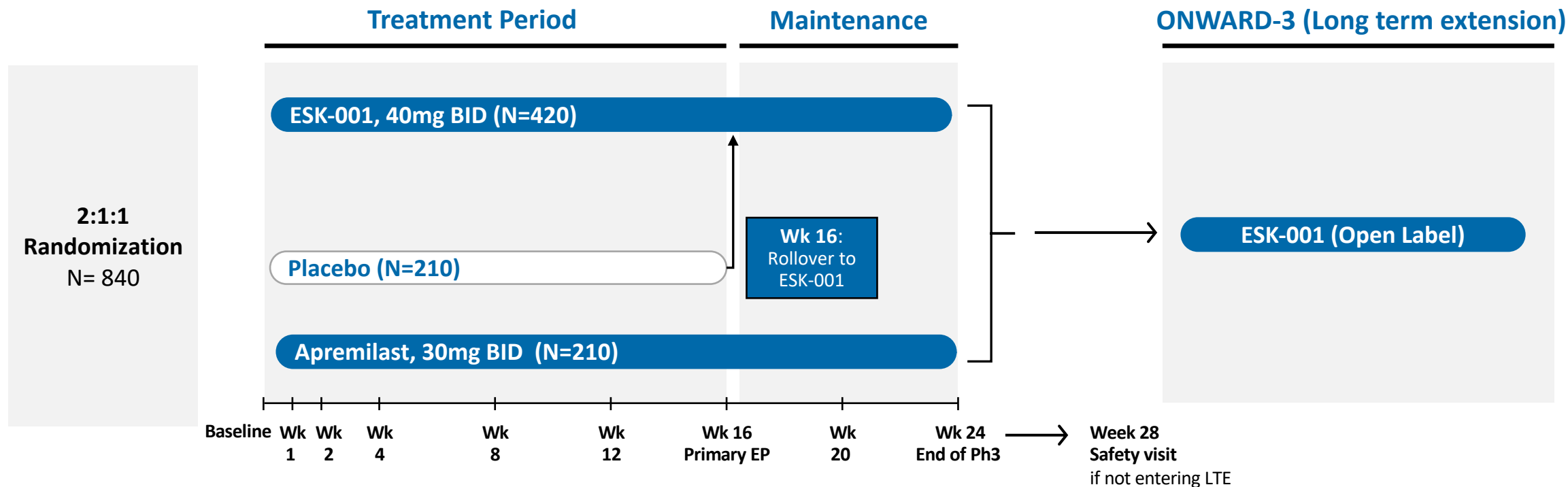
# PASI-75 Outcomes for Recent Psoriasis Studies (69 studies, 11 molecules)

*Maximal Response Is Achieved at Week 24 and Beyond*



# ESK-001 Psoriasis Phase 3 ONWARD Program

*Three Studies: Two parallel Phase 3 studies and a long term extension (LTE) study*



## ESK-001-016 (ONWARD1) & ESK-001-017 (ONWARD2):

> 24-week duration, apremilast active comparator

## ESK-001-018 (ONWARD3)

> Long term extension (LTE) study, includes treatment withdrawal period

> In parallel, Alumis is developing a once-a-day modified release formulation for ESK-001

# Accelerated Phase 3 Plan Designed to Enable Speed to Market Without Compromising Essential Label Elements at Launch



	<b>alumis</b> <b>ESK-001</b> <b>24-Wk Ph3's Plus LTE</b>		<b>Bristol Myers Squibb™</b> <b>Sotyktu</b> <b>Ph3</b>		<b>Takeda</b> <b>TAK-279*</b> <b>Current Ph3 Trials</b>		<b>Johnson &amp; Johnson</b> <b>JNJ-2113*</b> <b>Current Ph3 Trials</b>	
<b>16-wk Efficacy &amp; Safety vs. Pb0 1° Endpoint</b>		✓		✓		✓		✓
<b>Efficacy &amp; Safety vs. Comparator</b>	Otezla	✓	Otezla	✓	Otezla	✓	Sotyktu	✓
<b>24 &amp; 52-wk Efficacy &amp; Safety</b>	Via Ph3 LTE	✓	Via Ph3	✓	Via Ph3	✓	Via Ph3	✓
<b>Treatment Durability (Descriptive)</b>	Ph3 LTE	✓	Ph3 pivotal	✓	Ph3 pivotal	✓	Ph3 pivotal	✓
<b>2-Year Efficacy &amp; Safety</b>	Via Ph2 OLE & Ph3 LTE	✓	Via Ph3	✓	Via Ph3	✓	Via Ph3	✓
<b>3-Year Efficacy &amp; Safety</b>	Via Ph2 OLE	✓	Not in NDA	✗	Not in NDA	✗	Not in NDA	✗



\* Label expectations based on assumptions of clinical data that will be available at time of NDA submission based on published clinical trial plans.

# SLE: ESK-001's Potential Ability to Maximally Inhibit Type I Interferon Offers Promise as an Oral Treatment Option for SLE

SYSTEMIC LUPUS  
ERYTHEMATOSUS

~3.4M

PATIENTS  
WORLDWIDE<sup>1</sup>

\$4B+

GLOBAL MARKET<sup>3</sup>

- >240K people have SLE in the US, 68% with moderate-to-severe disease<sup>2</sup>
- Strong unmet need persists in the SLE treatment space, with only two approved treatments available; biologics are effective in a subset of patients
- Opportunity to expand into lupus nephritis and cutaneous lupus erythematosus (CLE)

1. Current patient estimates from Tian J, Zhang D, Yao X, Huang Y, Lu Q. Global epidemiology of systemic lupus erythematosus: a comprehensive systematic analysis and modelling study. *Ann Rheum Dis.* 2023 Mar;82(3):351-356. doi: 10.1136/ard-2022-223035. Epub 2022 Oct 14. PMID: 36241363; PMCID: PMC9933169.
2. Current patient estimate per GlobalData report
3. 2030 estimates from GlobalData report

# Ongoing Phase 2b SLE Program (LUMUS) Is Designed for Speed to Market and Probability of Clinical Success

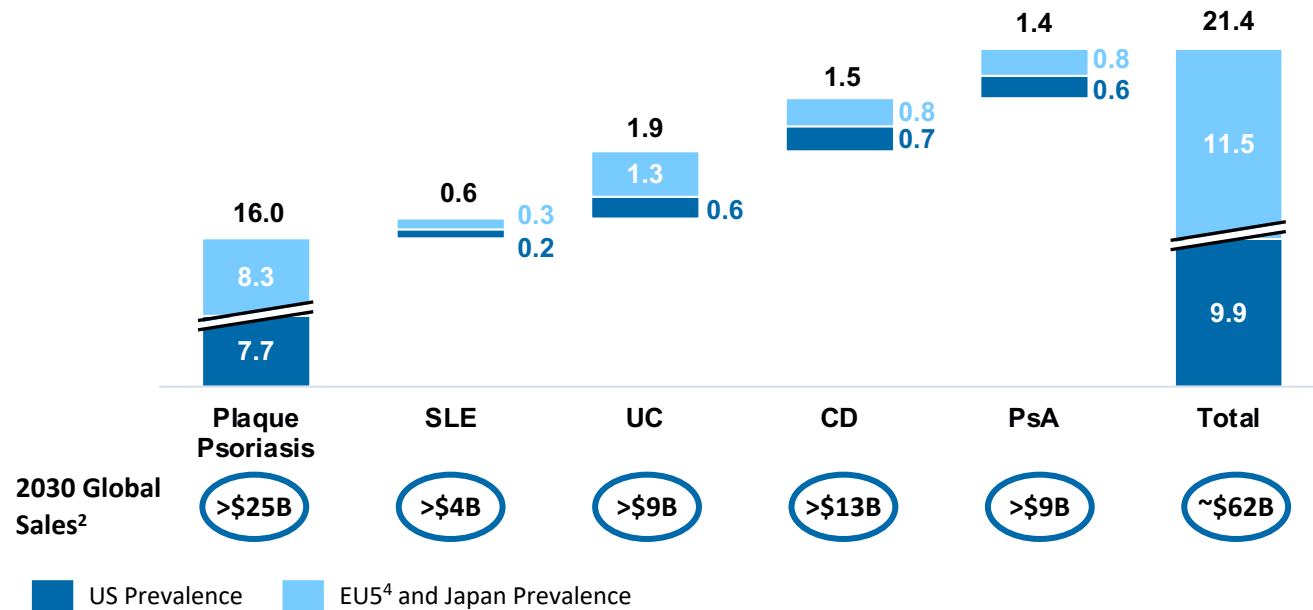
- › **Multiple points of validation for TYK2 and associated pathways in SLE**
  - Strong genetic rationale from P1104A loss of function mutation
  - Strong scientific rationale for inhibition of Type I Interferon pre-clinically and from Saphnelo<sup>®</sup>
  - Positive Phase 2 results from competitive TYK2 molecule
- › **Saphnelo<sup>®</sup> data supports the need for maximal Type I IFN inhibition to achieve optimal patient benefit**
- › **Ongoing Global Phase 2b LUMUS trial, expected topline readout in 2026**
  - Designed as pivotal trial
  - Primary endpoint BICLA at week 48, target enrollment: n=388 patients
  - Includes OLE for faster enrollment and building of safety database
  - Operationally designed to minimize placebo effect
- › **Potential for accelerated regulatory pathway with one additional Phase 3 trial**

# ESK-001 Is Designed to Unlock Multi-Billion Dollar Markets With High Unmet Need

## Cumulative Prevalence Across Our Potential Indications<sup>1</sup> (M)

(Million patients)

~10 million patients across our current clinical indications<sup>3</sup>      ~11 million additional patients across potential future indications



- > ~21 million cumulative prevalence across our current and considered indications, representing an estimated ~\$62Bn cumulative annual market by 2030
- > Large indications dominated by injectable biologics or sub-effective orals, driving high demand for safe and effective oral agents
- > Strong rationale for TYK2 across all these indications

# ESK-001 Profile Creates Significant Opportunity to Address Additional Indications

*TYK2 Class Has Extensive Validation with Substantial Market Potential Across Immune-mediated Diseases*

Indication	Market Size <sup>1</sup>	Clinical POC	Ongoing Trial	Genetic Evidence	Biologic Rationale
Plaque Psoriasis	>\$25B	✓	✓	✓	✓
Psoriatic Arthritis	>\$9B	✓	✓	✓	✓
Systemic Lupus	>\$4B	✓	✓	✓	✓
Ulcerative Colitis	>\$9B		✓	✓	✓
Crohn’s Disease	>\$13B		✓	✓	✓
Alopecia Areata	>\$1.7B		✓	✓	✓
Cutaneous Lupus	>\$2B		✓	✓	✓
Ankylosing Spondylitis	>\$6B			✓	✓
Multiple Sclerosis	>\$30B			✓	✓
Rheumatoid Arthritis	>\$33B			✓	✓
Juvenile RA	>\$8B			✓	✓
Others	>\$20B		✓	✓	✓
<b>Market Size Total</b>	<b>&gt;\$160B</b>				

*Publicly disclosed indications for TYK2, Market size estimates for 2030 worldwide*



1. GlobalData, market research reports



# ESK-001: Potent, Highly Selective Allosteric TYK2 Inhibitor with Differentiated Clinical Profile

## Potentially Best-in-Class Efficacy and Safety Profile for Moderate-to-Severe Plaque Psoriasis

- › Well-behaved molecule achieves maximal target inhibition
- › Maximal TYK2 inhibition results in high biologic-like efficacy with PASI 75 up to 90% and PASI 90 up to 70%
- › Favorable risk-benefit profile to date

## Effect of target inhibition on efficacy is significant

- › Incomplete target inhibition results in sub-optimal efficacy
- › Underscores importance of potent and sustained target inhibition

## Significant opportunity in psoriasis and additional immune-mediated diseases

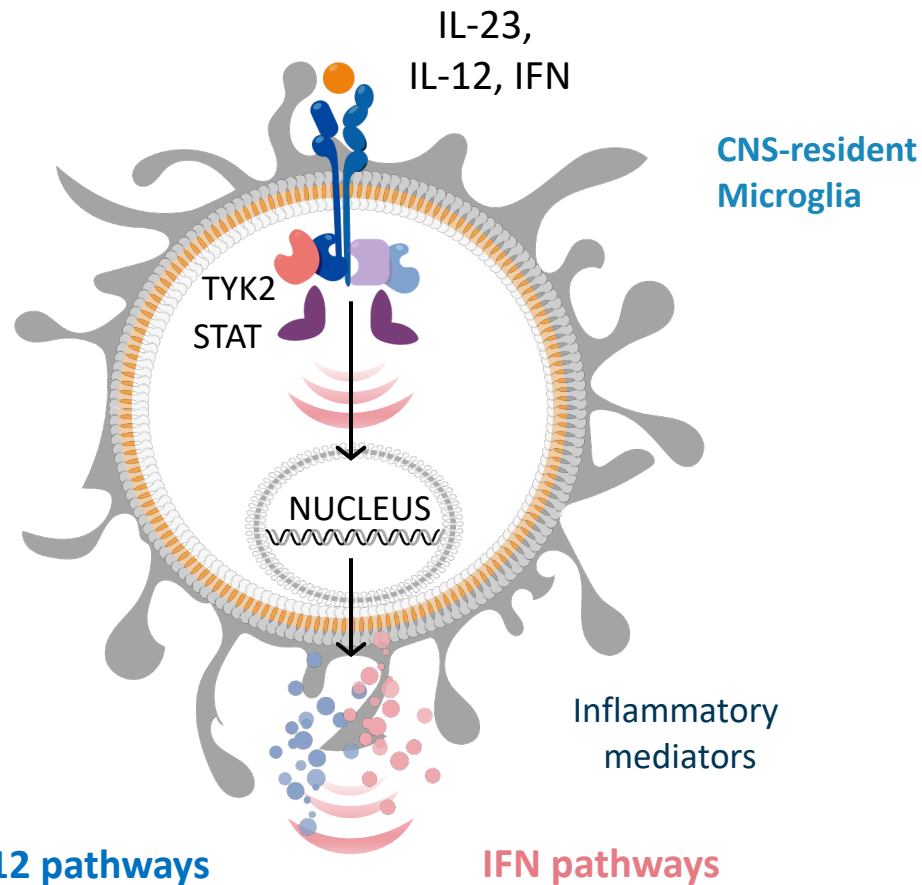
- › Ongoing clinical trial in SLE and broad opportunities in additional immune-mediated diseases
- › Combination potential in immunology

# A-005: Our CNS Penetrant Allosteric TYK2 Inhibitor



# Inhibition of TYK2 Provides Potential for Immunomodulation in Neuroinflammatory and Neurodegenerative Diseases

## Targeting TYK2 in CNS Disorders



- > Strong biological rationale for the involvement of TYK2 in neuroinflammatory and neurodegenerative diseases .
- > Genome-wide association studies have shown the loss-of function TYK2 genetic variant, P1104A, has a protective effect for the development of MS.
- > TYK2 is known to be expressed and functionally active in CNS-resident microglia. TYK2 pathway cytokines are active in CNS resident immune cells.

***TYK2 inhibition has potential utility in various neuroinflammatory and neurodegenerative diseases***

Multiple Sclerosis

Alzheimer's Disease

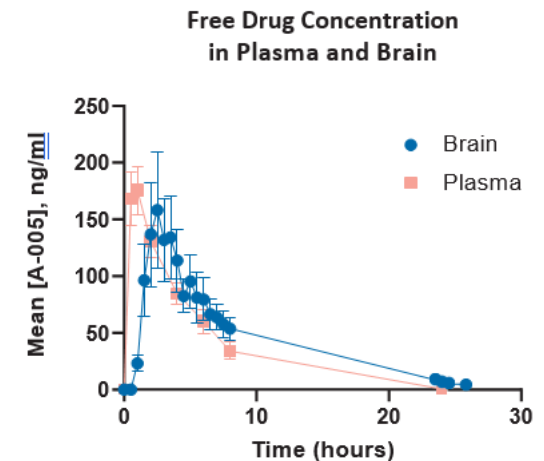
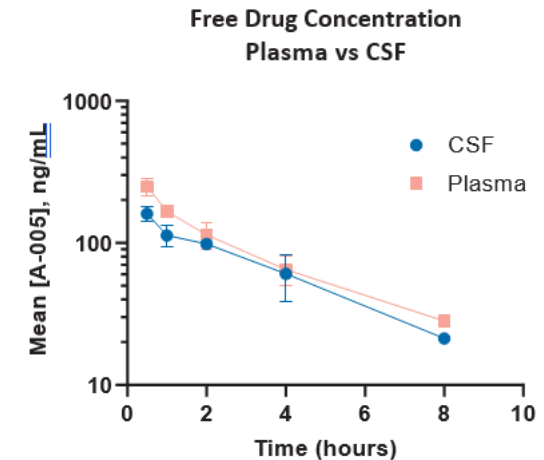
Parkinson's Disease

Neuroinflammation

# A-005 Is a Potential First-in-Class, CNS-Penetrant, Allosteric TYK2 Inhibitor for Neuro-Inflammation

- > Highly potent and intrinsically selective for TYK2 with no off-target JAK pharmacology
- > Inhibits human whole blood and microglial activation
- > A-005 achieves ~1:1 ratio CNS penetration *in vivo*
- > Projected low QD dose with ~12h projected half-life
- > Phase 1 initiated, with MS Phase 2 as fast-to-POC for neuro-inflammation

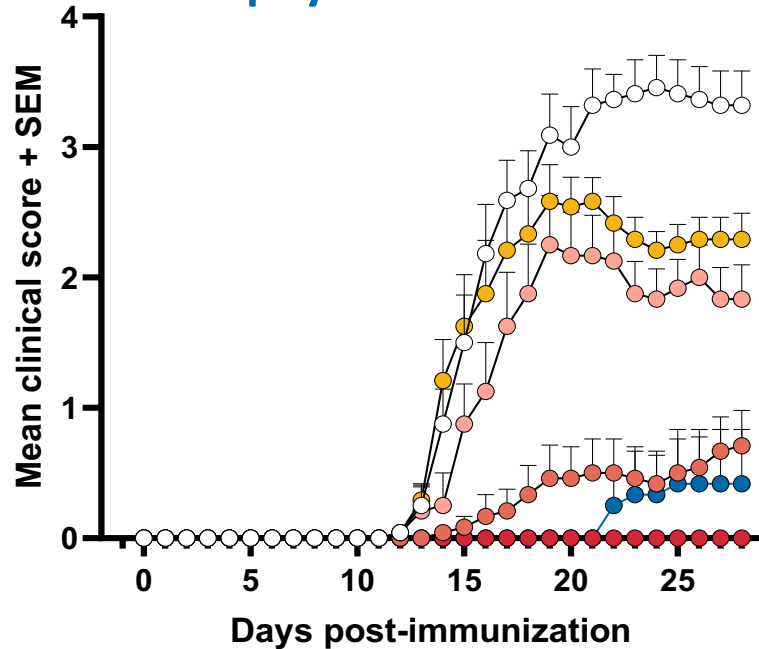
## High CNS Penetration Confirmed With Oral Dosing of A-005 *In Vivo*



# A-005 Achieves Significant Dose-Dependent Response Preclinically

*In Both Prophylactic and Therapeutic EAE Models with Once Daily Oral Dosing*

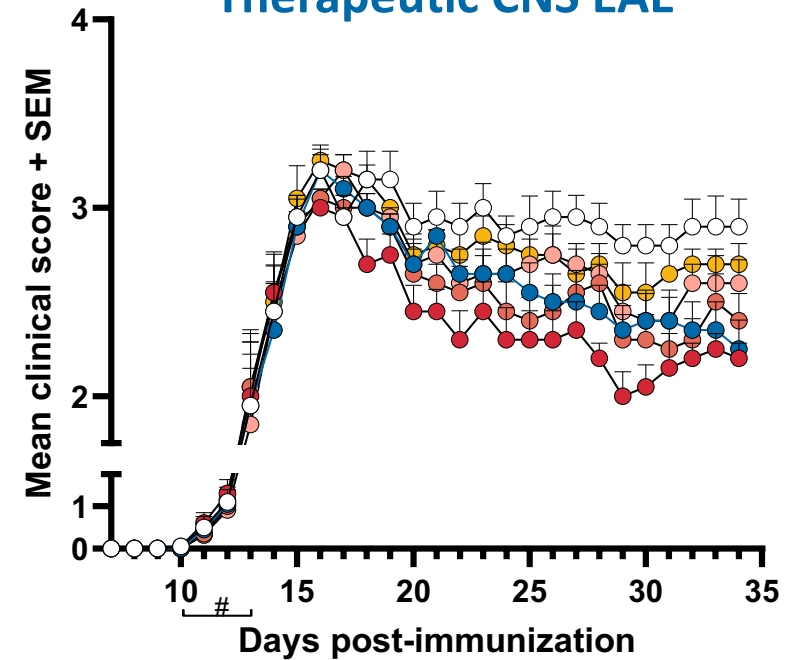
## Prophylactic CNS EAE



Once daily oral dosing initiated 1 day prior to EAE induction; Mann-Whitney U test vs vehicle,  $p < 0.05$  for 1 mg/kg (day 20-28), 3 mg/kg (day 20-28), 10 mg/kg (day 14-28), 30 mg/kg (day 14-28)

- Vehicle (n=10)
- 1 mg/kg A-005 (n=10)
- 3 mg/kg A-005 (n=10)
- 10 mg/kg A-005 (n=10)
- 30 mg/kg A-005 (n=10)
- 3 mg/kg Fingolimod (n=10)

## Therapeutic CNS EAE



Once daily oral dosing initiated the onset of EAE clinical signs (# enrollment period, days 10-13). Experience continued until each mouse had been dosed for at least 21 days (day 34). Mann-Whitney U-test vs vehicle,  $p < 0.05$  for 10 mg/kg (day 21, 25-27, 29-32, 34), 30 mg/kg (day 18-34)

- > **Complete suppression** of EAE achieved in prophylactic EAE model, and significantly effective in a therapeutic EAE model
- > A-005 **recapitulates** TYK2 human loss of function variant knock-in mouse EAE data

# Clinical Development Strategy for A-005

**Goal:** Establish Clinical Proof-of-Concept in First Neuroinflammatory Indication by 2026

## Ongoing Phase 1 Trial in Healthy Volunteers

- › Trial initiated in April 2024, readout expected by year-end 2024
- › Assess the safety, PK, and PD of single ascending doses (SAD) and multiple ascending doses (MAD) of orally-administered A-005 in healthy volunteers
- › Longer term pre-clinical toxicology program ongoing

## Future Clinical Development

- › Initial development in Multiple Sclerosis
- › Phase 2 study in MS patients currently expected to be initiated in 2025 with readout in 2026
- › Potential expansion into neurodegenerative diseases




# Conclusion



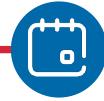
# Anticipated Value-Creating Near-Term Catalysts

2024



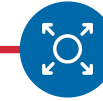
- MAR24** ESK-001 – Present Phase 2 STRIDE and OLE Data at AAD 
- APR24** A-005 – Phase 1 Initiation 
- JUL24** ESK-001 – Initiate Phase 3 in PsO 
- 3Q24** ESK-001 – PsO OLE Data Update
- YE24** A-005 – Phase 1 Data

2025



- 2025** A-005 – MS Phase 2 Initiation
- 2025** IND Filing for 3rd Program
- 2025** ESK-001 – PsO OLE Data Update

2026



- 2026** ESK-001 – PsO Phase 3 Topline Data
- 2026** ESK-001 – SLE Phase 2b Topline Data
- 2026** A-005 – MS Phase 2 Topline Data



# Experienced Team & Strong Financial Position to Execute on Milestones

## Management Team



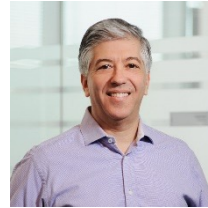
**Martin Babler**  
President and CEO,  
Chairman



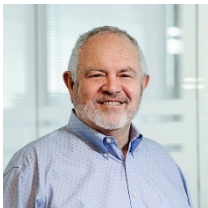
**Mark Bradley**  
Chief Development  
Officer



**Jörn Drappa**  
Chief Medical  
Officer



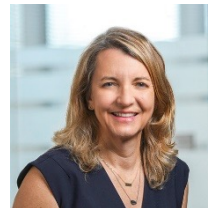
**David Goldstein**  
Chief Scientific  
Officer



**Roy Hardiman**  
Chief Business and  
Legal Officer



**John Schroer**  
Chief Financial  
Officer



**Sara Klein**  
General  
Counsel



**Derrick Richardson**  
Senior Vice President  
of People and Culture

## Board of Directors

**Martin Babler**  
President and CEO,  
Chairman

**Alan Colowick, M.D., M.P.H.**  
Managing Member  
AyurMaya, an affiliate of  
Matrix Capital Management

**Sapna Srivastava, Ph.D.**  
Independent Board Member

**Zhengbin (Bing) Yao, Ph.D.**  
CEO  
ArriVent Biopharma

**Srinivas Akkaraju, M.D., Ph.D.**  
Founder and Managing  
General Partner  
Samsara BioCapital

**Patrick Machado, J.D.**  
Independent Board Member

**Jim Tananbaum, M.D.**  
Founder and CEO  
Foresite Capital

Cash and cash equivalents and marketable securities  
Expected to fund operations into 2026

# Developing Oral Therapies To Transform Lives of Patients With Immune-Mediated Diseases

## ESK-001

### **ESK-001, potentially the first and only allosteric TYK2 inhibitor well-tolerated at maximal target inhibition**

- › Demonstrated maximal target inhibition, potential best-in-class tolerability profile in plaque psoriasis (PsO)
- › Multibillion dollar market opportunity<sup>1</sup> in a broad set of indications, including systemic lupus erythematosus (SLE)
- › Ongoing ONWARD Phase 3 clinical trials in PsO and LUMUS Phase 2b trial in SLE

## A-005

### **A-005, a Phase 1 CNS penetrant allosteric TYK2 inhibitor for the treatment of neuroinflammatory and neurodegenerative diseases**

- › Potential first- and best-in-class opportunity with blood-to-brain ratio of approximately 1:1

## APPROACH

### **Precision approach to replace broad immuno-suppression with targeted therapies**

- › Precision data analytics platform generating genetic, genomic, proteomic, and biological and clinical disease insights
- › Accelerate research and development and increase the probability of clinical success

## CATALYSTS

### **Anticipated value-creating near-term catalysts**

- › Multiple milestones in 2024 / 2025, including readout for A-005 Phase 1 trial in healthy volunteers
- › Catalyst rich 2026 with topline data for Phase 3 trials in PsO, Phase 2b trial in SLE and Phase 2 trial in multiple sclerosis (MS)

## LEADERSHIP

### **Experienced team with strong track record in value creation**

- › Strong financial position and backed by established blue-chip life science investors

Thank you!

