



# Reinventing Medicine with Protein Degradation

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May 2024

 K Y M E R A

# Forward Looking Statements

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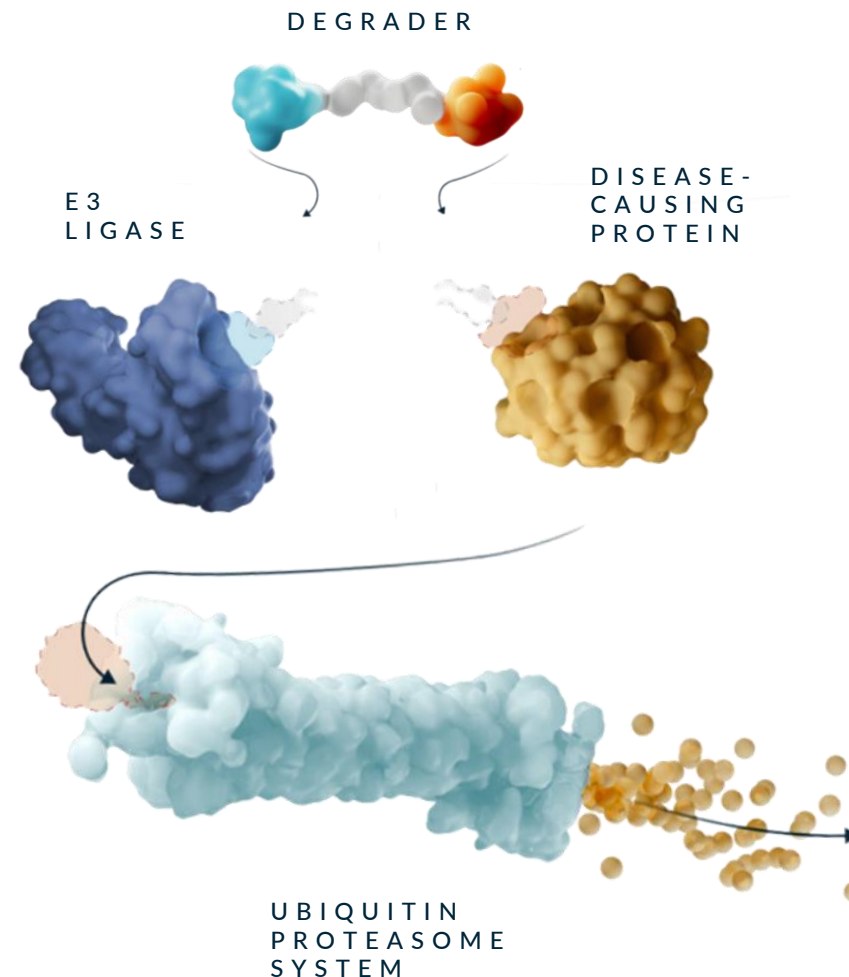
# Harnessing a Game-Changing, Novel Modality

## Kymera, a Leader in Targeted Protein Degradation

- Focused on unlocking high value, undrugged targets using TPD
- Highly productive and reproducible platform for discovery of innovative medicines
- Leading platform and pipeline IP, developed internally
- Well-capitalized with \$745 million in cash and expected runway into the first half of 2027, enabling expansion into areas with large clinical and commercial opportunities

## Industry Leading Execution

- Since founding Kymera in 2016:
  - Advanced four first-in-class programs to the clinic
  - Demonstrated clinical translation of degradation and safety
  - Achieved early clinical POC in I&I and oncology programs
- Extensive validation of target selection and molecular design
- Successful track record delivering multiple new drug mechanisms in clinic, expecting up to 10 novel INDs within first 10 years



# Target Selection Strategy

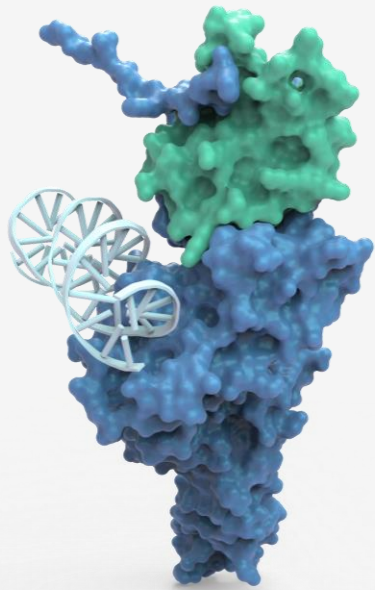
Focus on First- or Best-in-Class Opportunities

Undrugged or Inadequately  
Drugged targets

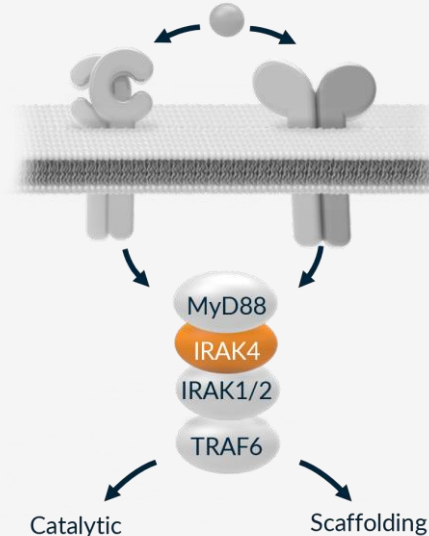
Strong Genetic/Pathway  
Validation

Clear Path to Early Clinical  
Differentiation

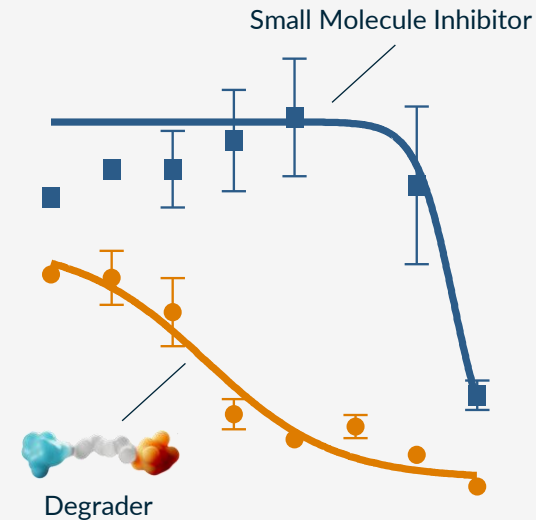
Large Clinical/Commercial  
Opportunities



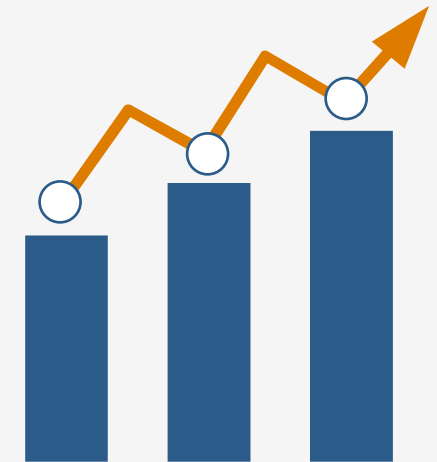
TRANSCRIPTION  
FACTORS &  
SCAFFOLDING PROTEINS



APPROVED DRUGS IN  
SAME PATHWAY



SUPERIORITY VS  
PATHWAY DRUGS



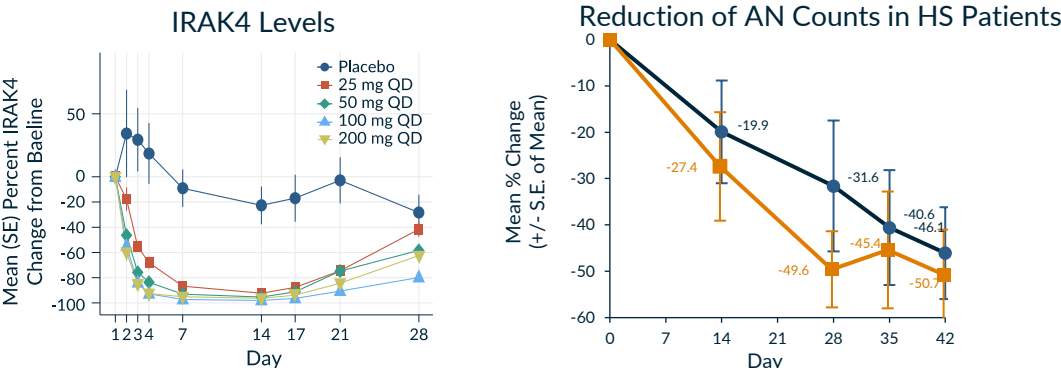
AREAS OF  
SIGNIFICANT VALUE  
CREATION



# Demonstrating Reproducible and Scalable Clinical Innovation

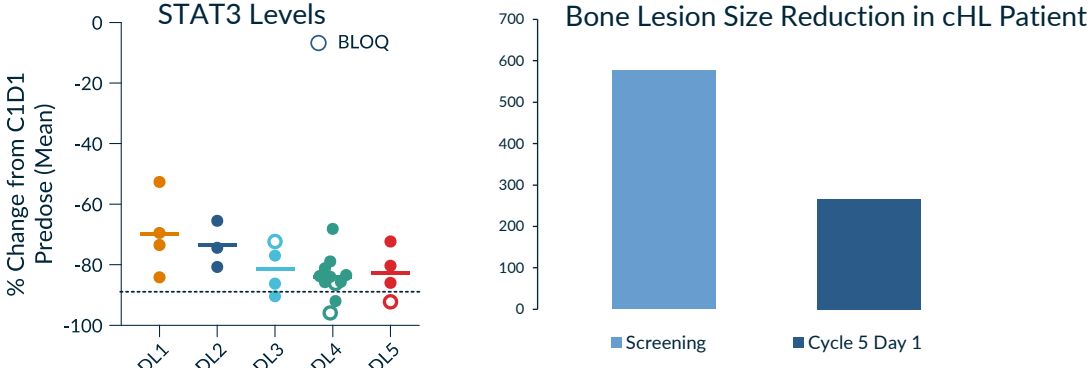
## IRAK4 KT-474

### IRAK4 Degradation leads to Early POC in HS and AD



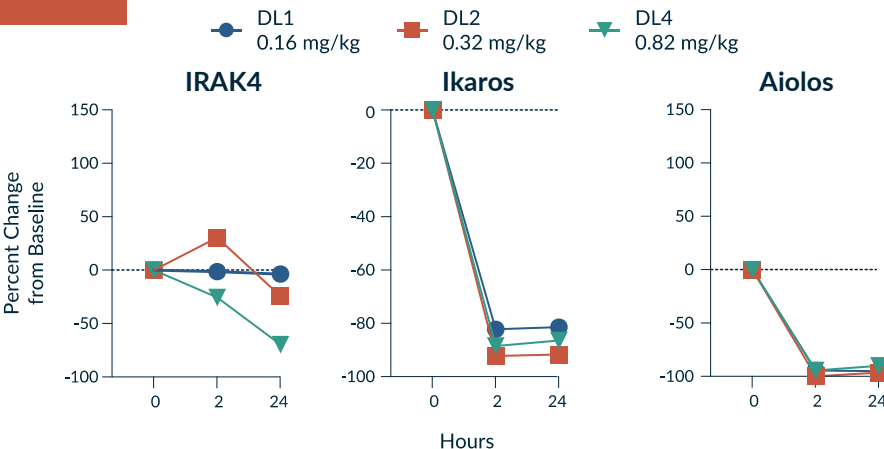
### STAT3 Degradation Leads to Major Response in cHL Patient

## STAT3 KT-333



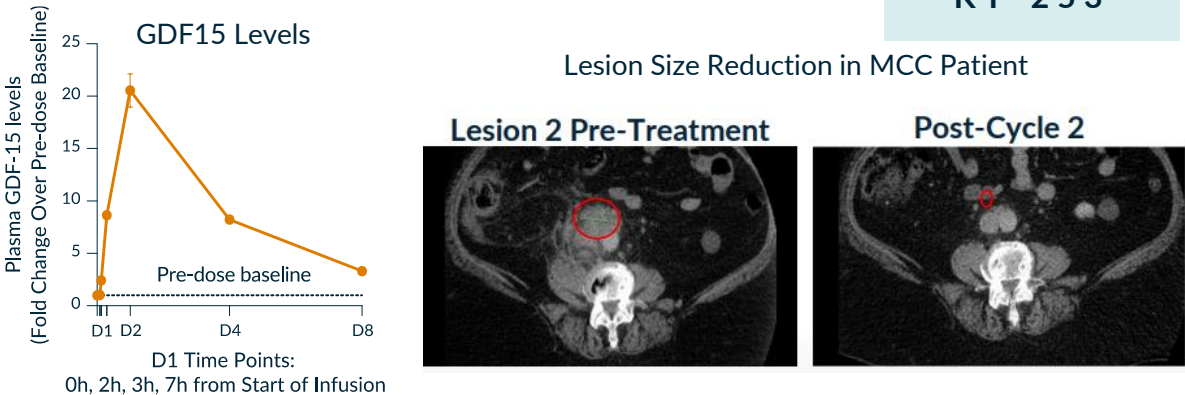
## IRAKIMID KT-413

### Degradation of IRAK4 and Ikaros/Aiolos



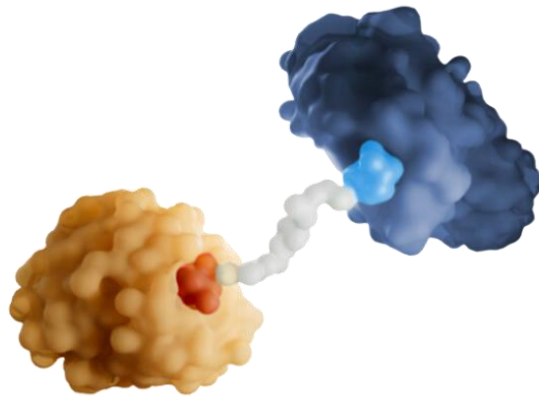
### MDM2 Degradation Leads to Major Response in MCC Patient with no Heme-tox

## MDM2 KT-253

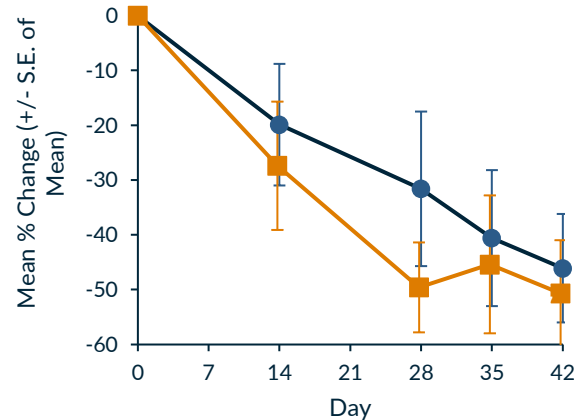


# Building a Global Medicines Company

Pioneering a  
new modality  
2016-2020



Demonstrating  
early POC  
2021-2023



Delivering a new generation  
of medicines  
2024-2028



Focused on undrugged targets within clinically validated pathways

Forged multiple strategic partnerships to forward integrate (>\$3B total value)

Developed industry leading capabilities in TPD and novel E3s

Advanced four drug candidates into clinic demonstrating clinical activity in oncology and immunology

Initiated two Phase 2 studies in significant immunology indications with Sanofi

Demonstrated potential for biological and clinical superiority of degrader vs. SMIs

Focus on large clinical/commercial opportunities with oral degraders

Increase investments in I&D

Complete multiple POC studies in large indications and launch several registrational studies

Build towards a fully integrated global biotech

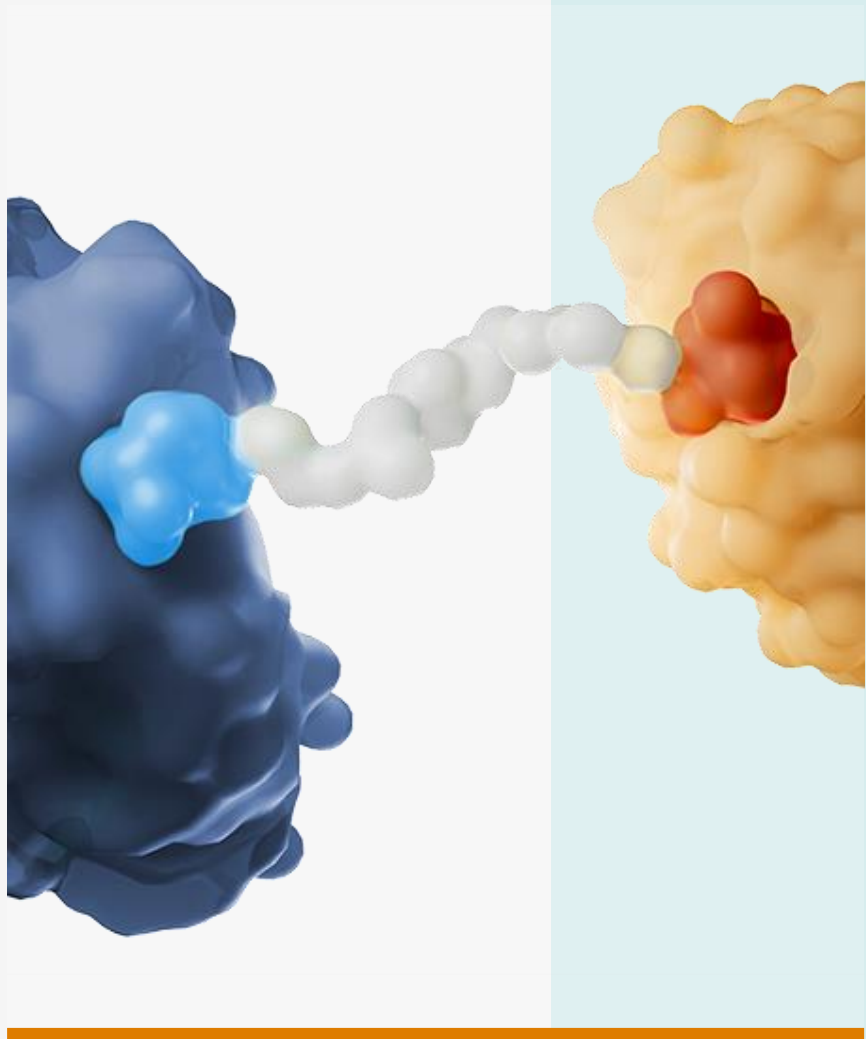
# Clear Line of Sight to Substantial Patient Impact and Value Creation

	Potential Indications	IND-enabling	Phase 1	Phase 2	Upcoming Milestones	Rights
Immunology – Oral QD Small Molecule Degraders						
IRAK4 <sup>1</sup> KT-474	HS, AD, RA, Asthma, IBD, others <sup>2</sup>	<div>HS</div> <div>AD</div>			Ph2 HS & AD Data: 1H25	50/50 US sanofi KYMERA
STAT6 KT-621	AD, Asthma, COPD, PN, CRSwNP, EoE, others				Phase 1 Start: 2H24	KYMERAK
TYK2 KT-294	Psoriasis, IBD, PsA, Lupus, others				Phase 1 Start: 1H25	KYMERAK
Oncology						
STAT3 KT-333 <sup>3</sup>	PTCL, LGL-L, CTCL, Solid Tumors	<div>Arm A: Lymphomas, Solid Tumors</div> <div>Arm B: T-Cell Leukemias</div>			Ph1 Data: EHA and 2H24	KYMERAK
MDM2 KT-253	Liquid & Solid Tumors	<div>Arm A: Solid Tumors/Lymphomas</div> <div>Arm B: AML, ALL, MF</div>			Ph1 Data: ASCO and 2H24	KYMERAK

<sup>1</sup>KT-474 (SAR444656) partnered with Sanofi, with Kymera option to participate in the development and commercialization, and 50/50 profit split, in the United States. Double digit tiered royalties in ROW.

<sup>2</sup>Current indications; HS and AD. Other diseases shown, where IL-1R/TLR pathway has been implicated in pathogenesis, are additional potential opportunities.

<sup>3</sup>Assessment of STAT3 I/I opportunity is ongoing.

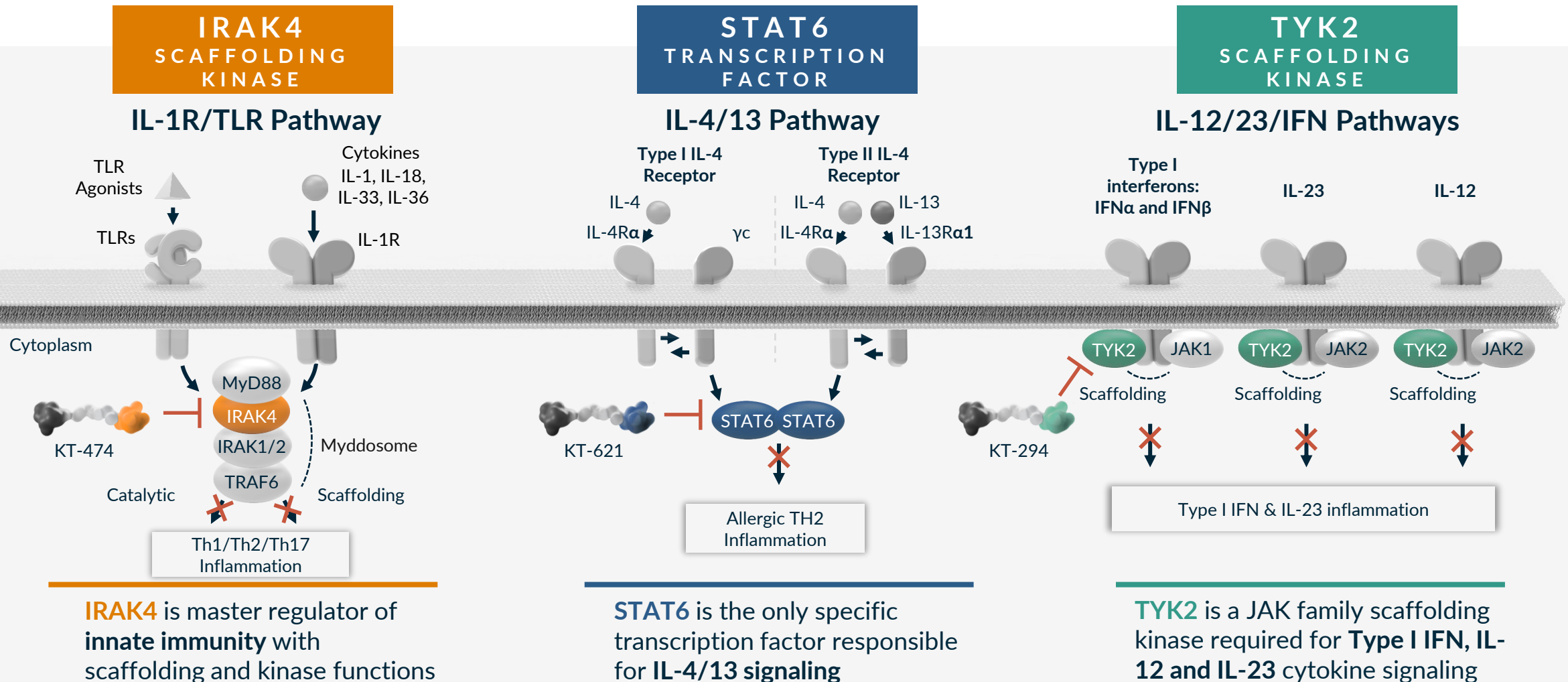


# Kymera's Immunology Pipeline

IRAK4, STAT6, TYK2

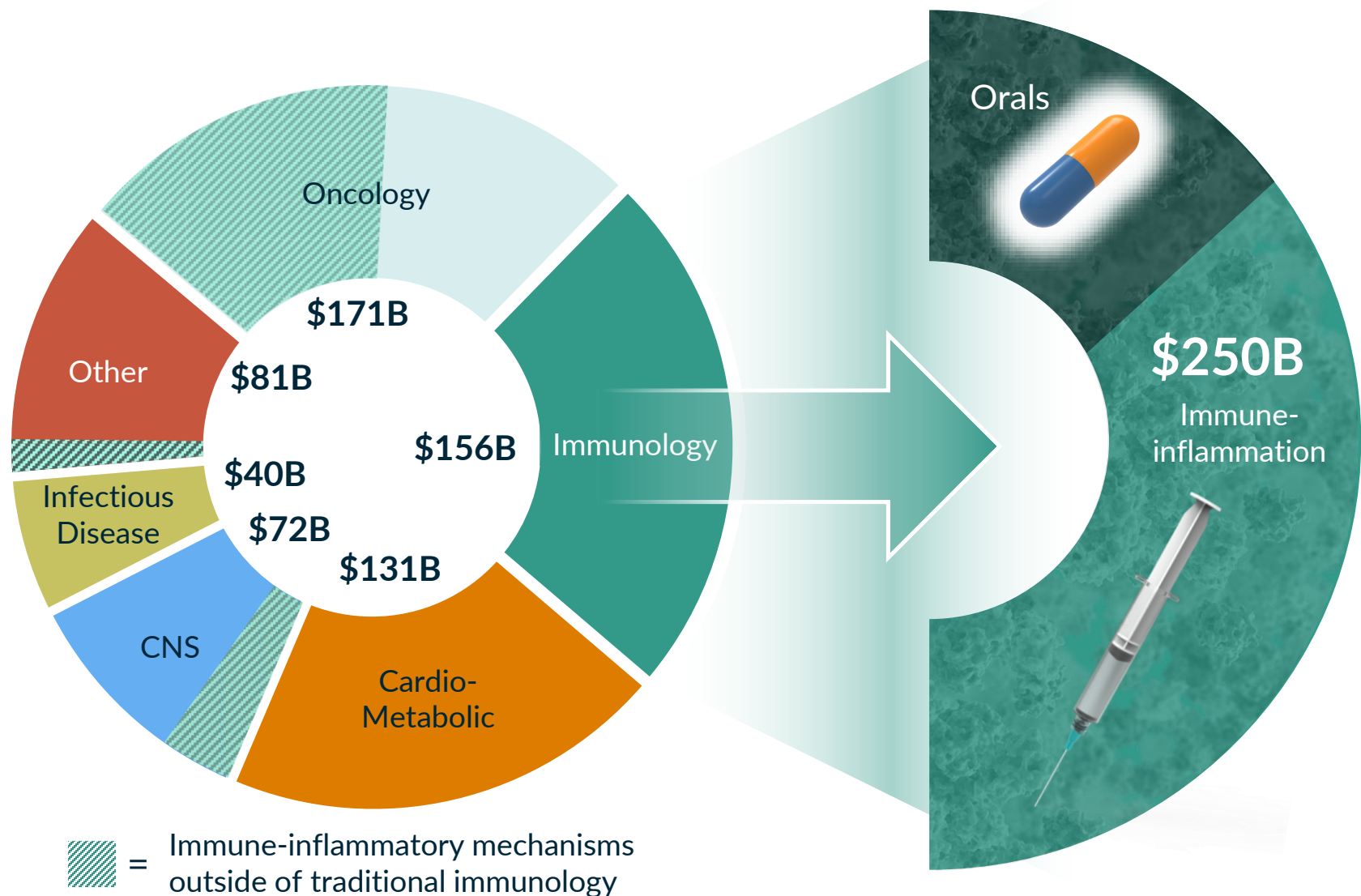
# Kymera Immunology Oral Degradable Portfolio

## Complementary, First-in-class Mechanisms





# The Opportunity in Immunology



Immune-inflammation is a **\$250B WW market<sup>1</sup>** spanning multiple therapeutic areas.

Injectables dominate, comprising >75% of the established market.

<sup>1</sup>Revenues from Top 1,000 worldwide brands by revenue; Source: GlobalData; 2022 Non-Covid, Non-Vaccine Rx Market

# Why Small Molecule Oral Degraders in Immunology



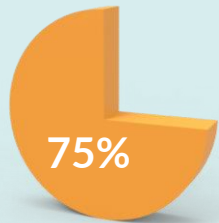
Key pathways/cytokines validated as drivers of many diseases in I&I

Biologics blocking these pathways/cytokines have revolutionized treatment

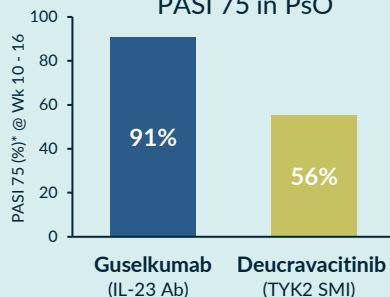
Biologics are injected, can be inconvenient for patients and costly to manufacture

Traditional small molecule inhibitors insufficiently block these pathways, limiting efficacy

Patients on Biologics that Would Switch to Orals<sup>1</sup>



IL-23 Biologics vs TYK2 SMI<sup>2</sup>  
PASI 75 in PsO



## Oral Degraders Can Offer Biologic-like Activity in a Pill



Degraders can provide **comparable pathway inhibition to biologics**, convenience of **oral dosing**, ease of **manufacturing** and potentially access **broader populations**

# Revolutionizing Immunology with Small Molecule Oral Degraders

## IRAK4 (KT-474) SCAFFOLDING KINASE

## STAT6 (KT-621) TRANSCRIPTION FACTOR

## TYK2 (KT-294) SCAFFOLDING KINASE

<b>Status</b>	<ul style="list-style-type: none"> <li>Phase 2 Trials in HS and AD with Sanofi</li> </ul>	<ul style="list-style-type: none"> <li>IND-Enabling</li> </ul>	<ul style="list-style-type: none"> <li>IND-Enabling</li> </ul>
<b>Potential Indications</b>	<ul style="list-style-type: none"> <li>HS, AD, RA, Asthma, COPD, IBD, others<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>AD, Asthma, COPD, CRSwNP, EoE, PN, others</li> </ul>	<ul style="list-style-type: none"> <li>IBD, PsO, PsA, Lupus, others</li> </ul>
<b>Next Milestone</b>	<ul style="list-style-type: none"> <li>HS and AD Ph2 data: 1H 2025</li> </ul>	<ul style="list-style-type: none"> <li>FIH: 2H 2024</li> </ul>	<ul style="list-style-type: none"> <li>FIH: 1H 2025</li> </ul>
<b>Opportunity</b>	<ul style="list-style-type: none"> <li>First-in-class broad anti-inflammatory oral degrader</li> </ul>	<ul style="list-style-type: none"> <li>Dupilumab-like activity in a pill</li> </ul>	<ul style="list-style-type: none"> <li>Biologic-like activity in a pill</li> </ul>
<b>Commercial Rights</b>	<ul style="list-style-type: none"> <li>Up to 50% US with Sanofi, tiered royalties in ROW<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Wholly owned</li> </ul>	<ul style="list-style-type: none"> <li>Wholly owned</li> </ul>

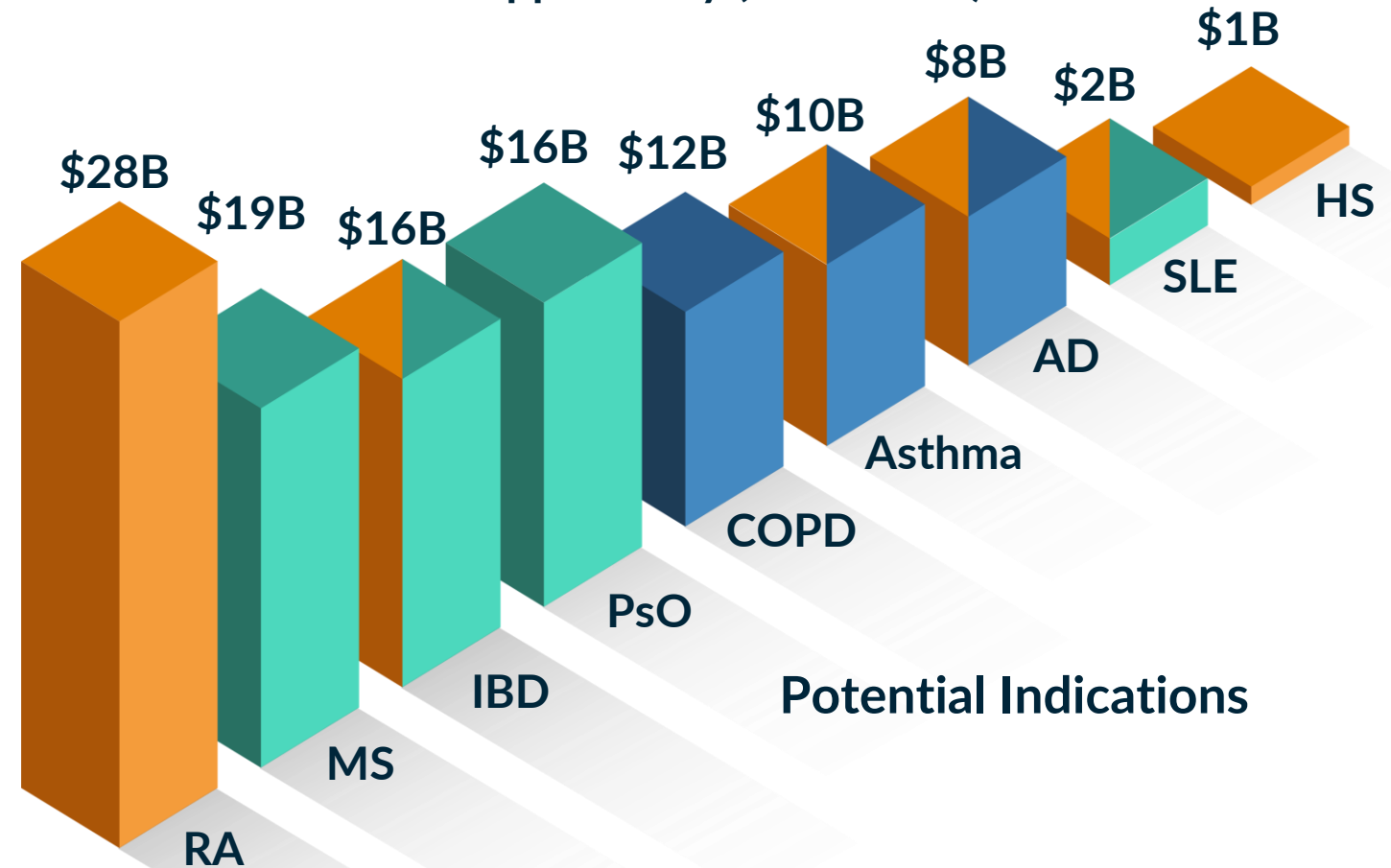
<sup>1</sup>Current indications; HS and AD. Other diseases shown, where IL-1R/TLR pathway has been implicated in pathogenesis, are additional potential opportunities; <sup>2</sup>KT-474 (SAR444656) partnered with Sanofi, with Kymera option to participate in the development and commercialization, and 50/50 profit split, in the United States. Double digit tiered royalties in ROW.

# Kymera Immunology Oral Degrader Portfolio

Complementary Mechanisms Each with Mega-blockbuster Potential

Market Opportunity (2022 Sales)

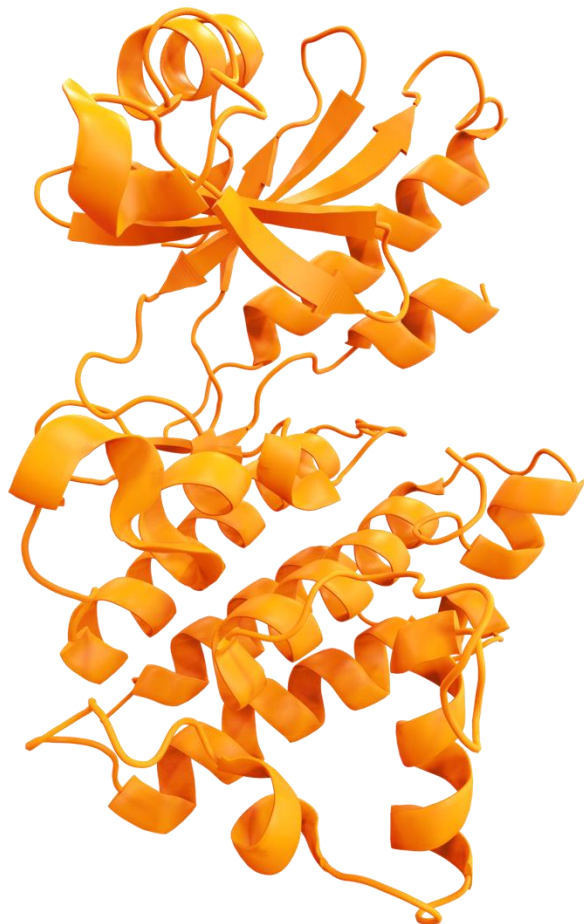
- IRAK4<sup>1</sup>:** IL-1R/TLR pathway  
Th1/17/Th2 biology
- STAT6:** IL-4/13 pathway  
Th2 biology
- TYK2:** IL-23/IFN pathway



Potential Indications

GlobalData, focused only on large markets based on 2022 sales of approved drugs

<sup>1</sup>Current indications; HS and AD. Other diseases shown, where IL-1R/TLR pathway has been implicated in pathogenesis, are additional potential opportunities



# KT-474 (SAR444656)

A First-in-Class Oral IRAK4 Degradator



# IRAK4 Biology and Target Rationale

## Target Rationale

- IRAK4 is an obligate node in IL-1R/TLR signaling, and its degradation is the only approach to fully block the pathway

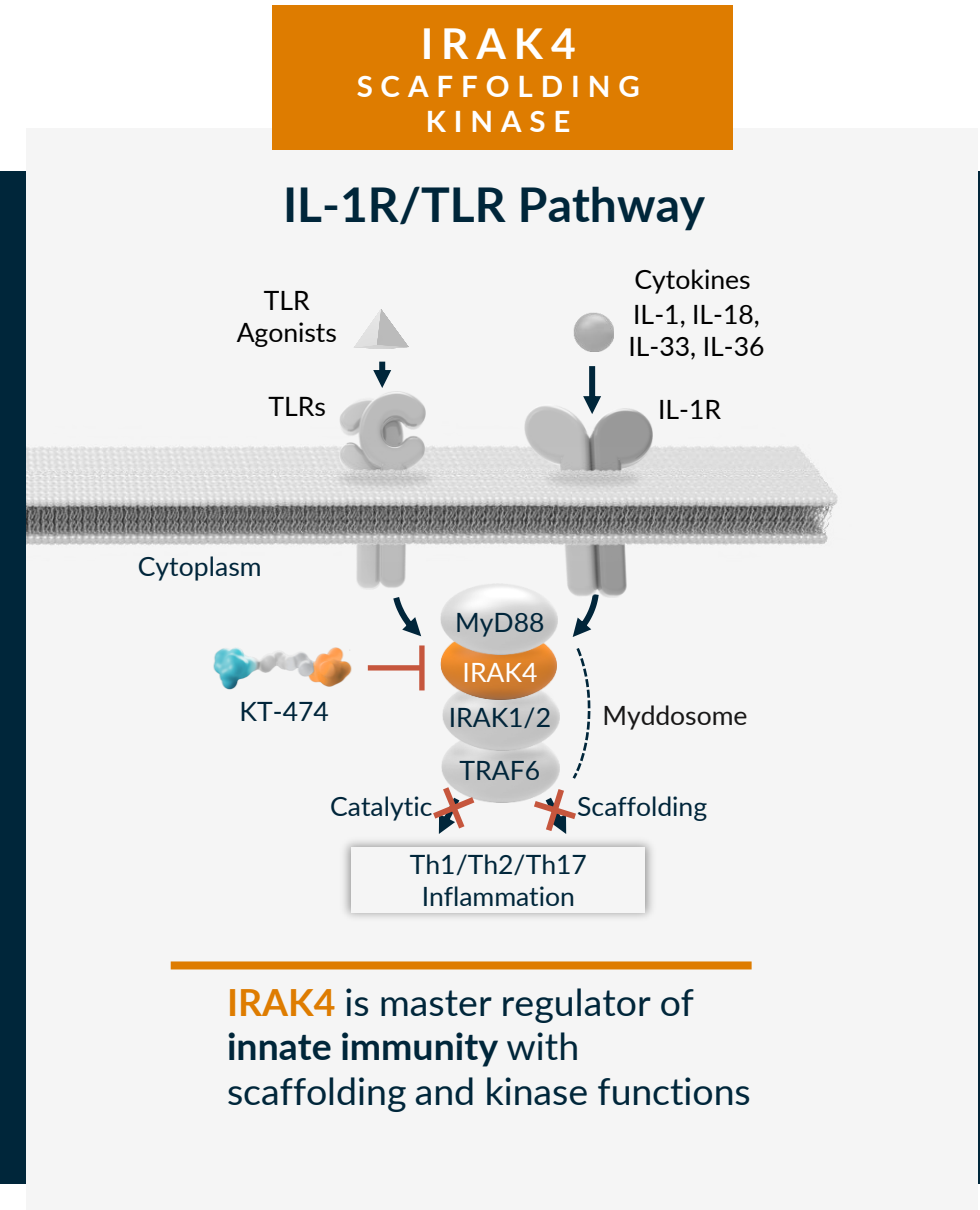
## Human Genetics

- Adult humans with IRAK4 null mutation are healthy

## Clinical Pathway Validation

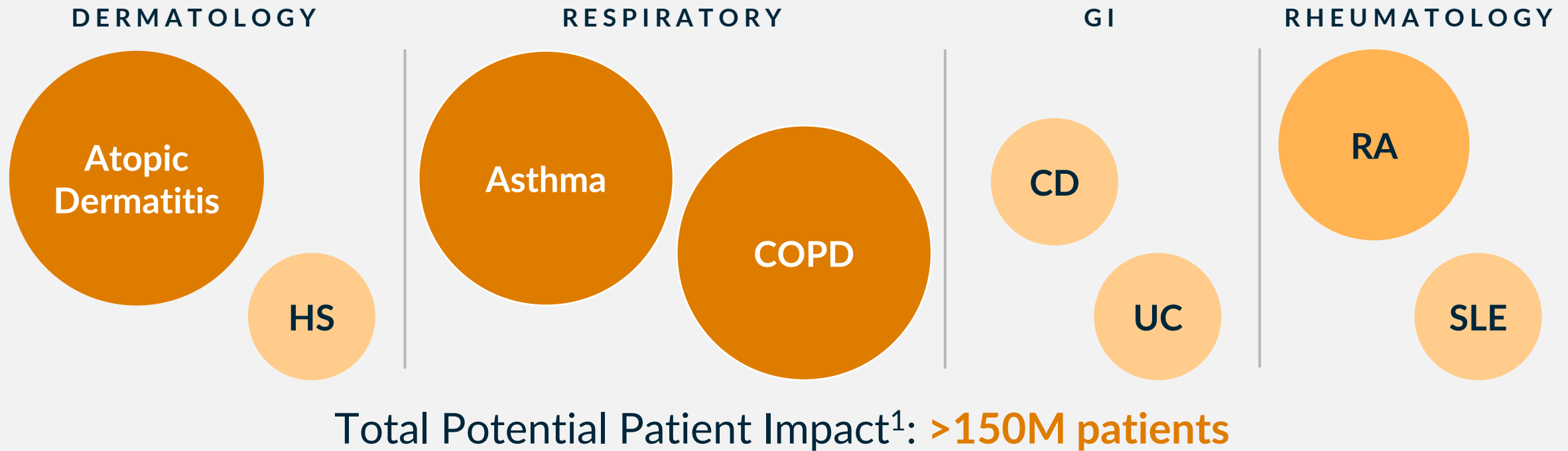
- IRAK4 degradation has the potential to achieve a broad, well-tolerated anti-inflammatory effect
- Multiple development opportunities in immune-inflammatory diseases which signal through MyD88/IRAK4 have been validated<sup>1</sup>:
  - IL-1 $\alpha$ /IL-1 $\beta$  : RA, CAPS, HS, AD, Gout
  - IL-18: AD, Macrophage Activation Syndrome
  - IL-36: Generalized Pustular Psoriasis, AD
  - IL-33: Asthma
  - IRAK4 SMI: RA

Adapted from West NT. Front Immunol 2019



<sup>1</sup>Current indications; HS and AD. Other diseases shown, where IL-1R/TLR pathway has been implicated in pathogenesis, are additional potential opportunities

# IL-1R/TLR Pathway Potential Impact Across Multiple Immune-Inflammatory Diseases



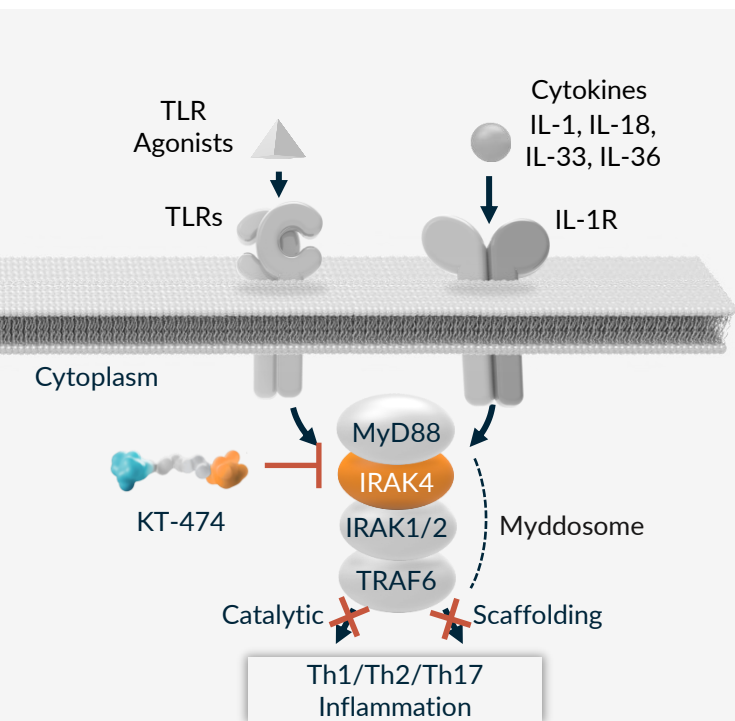
Numerous indication opportunities across multiple therapeutic areas validated by sub-optimal pathway inhibitors

IRAK4 degradation leading to full pathway inhibition has the potential to deliver superior profile to upstream biologics

Oral degrader medicines offer opportunity to reach broader patient populations

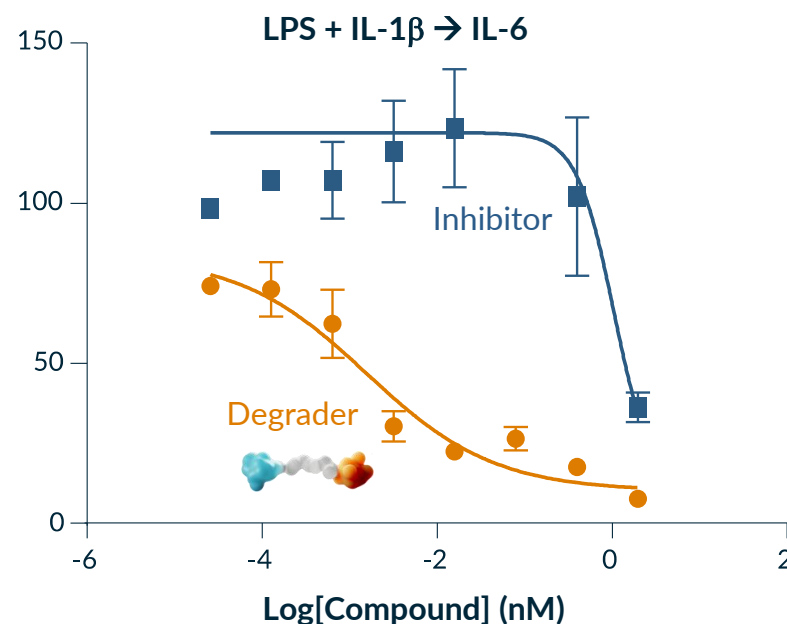
<sup>1</sup>GlobalData (2022 diagnosed prevalent patient population for US/EU5/JP)

# IRAK4 Degradation Advantage



**IRAK4** caps the oligomer size of MYD88 to trigger myddosome formation

## Only Degradation Can Fully Block Inflammation



## Preclinical Data (Kymera IRAK4 Backgrounder)

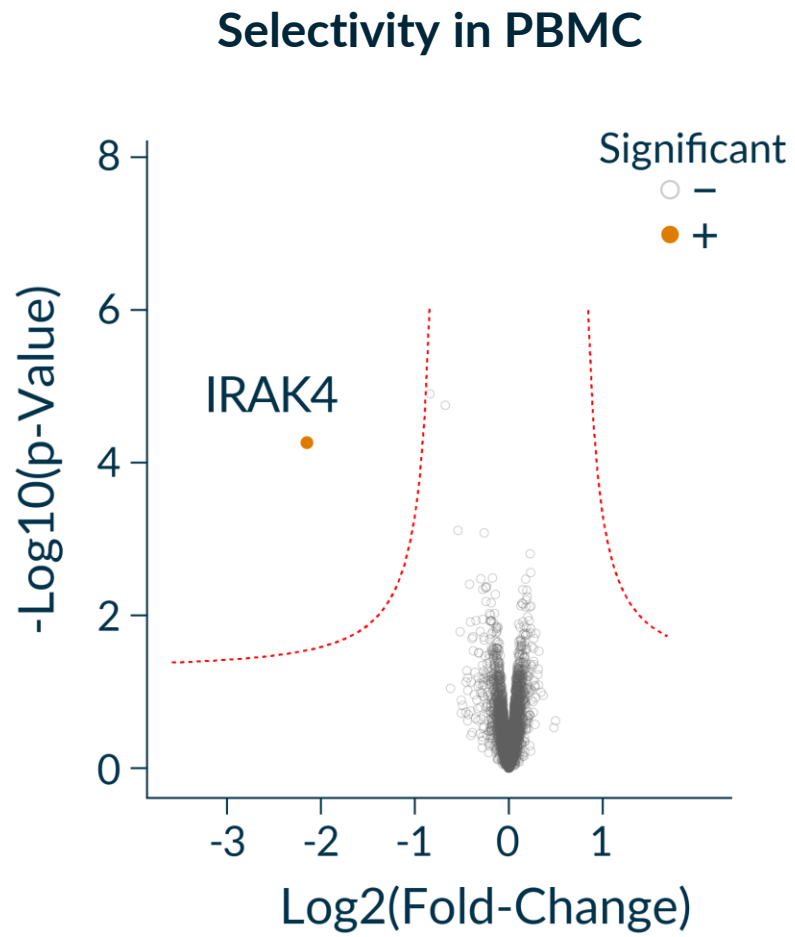
- IRAK4 KO is able to block TLR activation unlike the kinase dead rescue
- IRAK4 **scaffolding function** is critical in Myddosome formation and pathway signaling
- IRAK4 degradation, but not kinase inhibition, can **block TLR induced NF-κB translocation** and **IL1R+TLR activation**
- IRAK4 degradation is superior to kinase inhibition at **blocking downstream phosphoproteome**
- IRAK4 degradation is superior to inhibition in a **variety of preclinical efficacy models**

## Clinical Data (Nature Medicine\*)

- IRAK4 degradation **reduces signs and symptoms of HS and AD**, while IRAK4 SMI inactive in Phase 2 HS trial
- IRAK4 blocks inflammation in blood and skin of HS and AD patients

\*Ackerman, et al., Nature Medicine (2023).

# KT-474: Selective and Potent IRAK4 Degradader Active in Multiple Cell Types



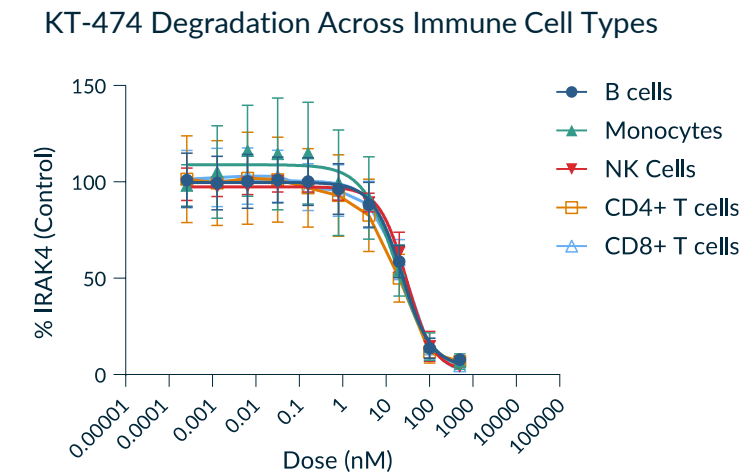
KT-474 selectively degrades IRAK4 in human immune cells at concentration 10-fold above the DC<sub>90</sub>

Potent degradation in PBMC subsets and skin cells including fibroblasts, with single-digit nM DC<sub>50</sub>

Associated with functional inhibition of TLR- and IL-1 $\beta$ -stimulated cytokine production

Comprehensive understanding of degradation kinetics across cell types to enable human translation

### Potency in Blood and Skin Cells



Cell type (Human)	Source	KT-474 DC <sub>50</sub> (nM)
Monocytes	Blood	2.6
B cells	Blood	2.7
CD4 T cells	Blood	1.5
CD8 T cells	Blood	1.5
NK cells	Blood	1.8
Fibroblasts	Skin	1.5
Keratinocytes	Skin	7.8

# Initial Clinical Focus for KT-474: Moderate to Severe HS and AD

## Hidradenitis Suppurativa (HS)

Chronic and debilitating skin disease with painful nodules, abscesses and draining fistulae/tunnels

Major QoL impact: Pain, itching, depression, social isolation



Many diagnosed in their 20s/30s; more common in females (~3:1); prevalence estimated to be up to 1-3% of population in US and EU

Lesions characterized by pleotropic inflammation with Th1/Th17 skewing; bacterial infection and tissue destruction leading to TLR activation; IL-1 and IL-36 production

Active agents approved or in development target TNF- $\alpha$ , IL-17 and JAK/STAT pathways

## Atopic Dermatitis (AD)

Chronic inflammatory skin disease with scaly, dry, erythematous lesions; intense itching/scratching, predisposition to infections

Major QoL impact: Itching, pain, sleep disturbance



Onset usually in early childhood; affects an estimated 98 million adults in US/EU5/JP<sup>1</sup>

Lesions characterized by pleotropic inflammation with Th2 skewing; bacterial infection and skin barrier breakdown leading to TLR activation; IL-33 and IL-1 production

Active agents approved or in development target IL-4/IL-13, JAK/STAT and OX40/OX40-L pathways

**KT-474 Opportunity:** Potential for broad anti-inflammatory effect, competitive efficacy vs. pathway biologics and convenience of once-daily oral dosing

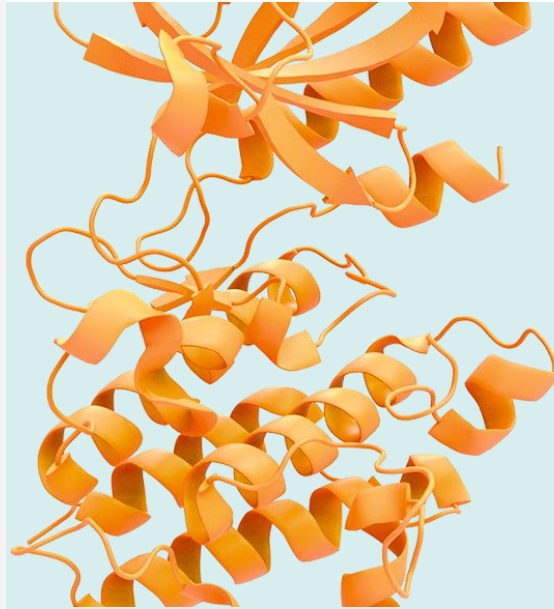
<sup>1</sup>GlobalData – undiagnosed, all-age prevalence



# KT-474 Phase 1: Compelling Data and Early POC in HS and AD

## Healthy Volunteers (HV): SAD and MAD

- Evaluated safety, tolerability and pharmacokinetics in 105 healthy volunteers
  - SAD: Oral doses of 25-1600 mg
  - MAD: Escalating doses up to 200 mg were administered for 14 consecutive days
- Robust (>95%) and sustained IRAK4 degradation with single and multiple daily doses
- Broad inhibition of *ex vivo* TLR-mediated cytokine induction
- Generally well-tolerated across all dose groups



## HS and AD Patient Cohort

- Open label study in 21 patients with HS and AD
- Dose: 75 mg QD with food (equivalent exposure to 100 mg fasted), administered for 28 consecutive days
- Safety, PK and PD comparable to healthy volunteers
- Robust IRAK4 degradation in blood and skin with associated systemic anti-inflammatory effect in HS and AD patients
- Promising clinical activity observed in HS and AD

nature medicine



Article

<https://doi.org/10.1038/s41591-023-02635-7>

## IRAK4 degrader in hidradenitis suppurativa and atopic dermatitis: a phase 1 trial

Received: 21 July 2023

Accepted: 6 October 2023

Published online: 13 November 2023

 Check for updates

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News & views

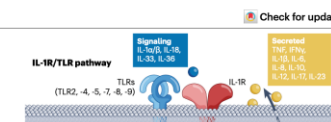
Targeted therapy

<https://doi.org/10.1038/s41591-023-02622-y>

## PROTACs reach clinical development in inflammatory skin disease

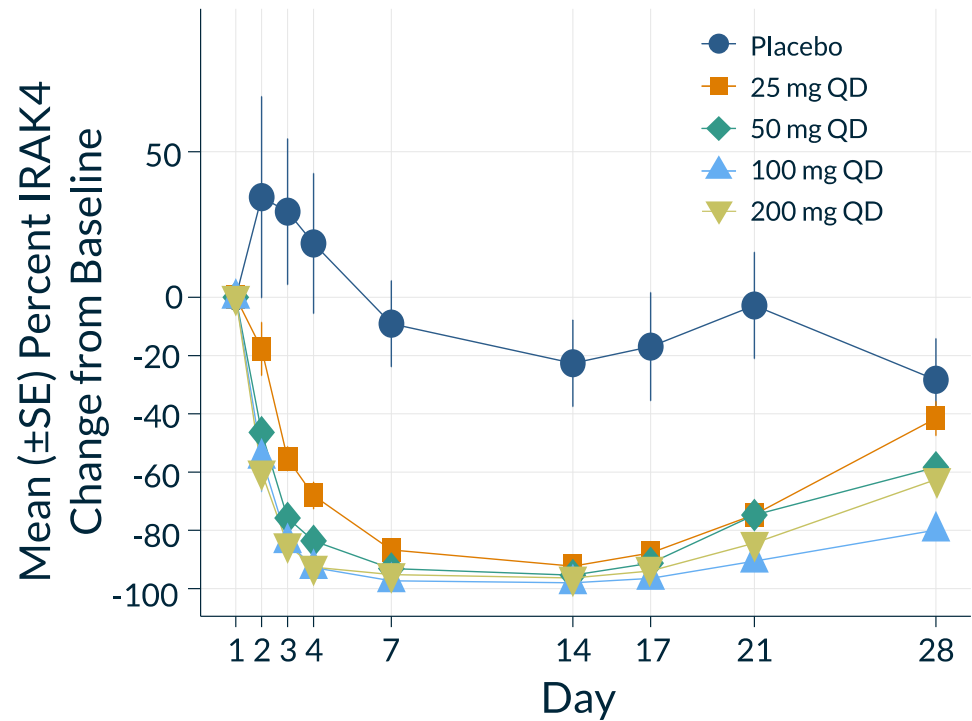
Fleur M. Ferguson

A phase 1 trial of an IRAK4-targeted protein degrader in patients with chronic inflammatory skin diseases hits an important milestone for the safe application of this drug class beyond oncology.



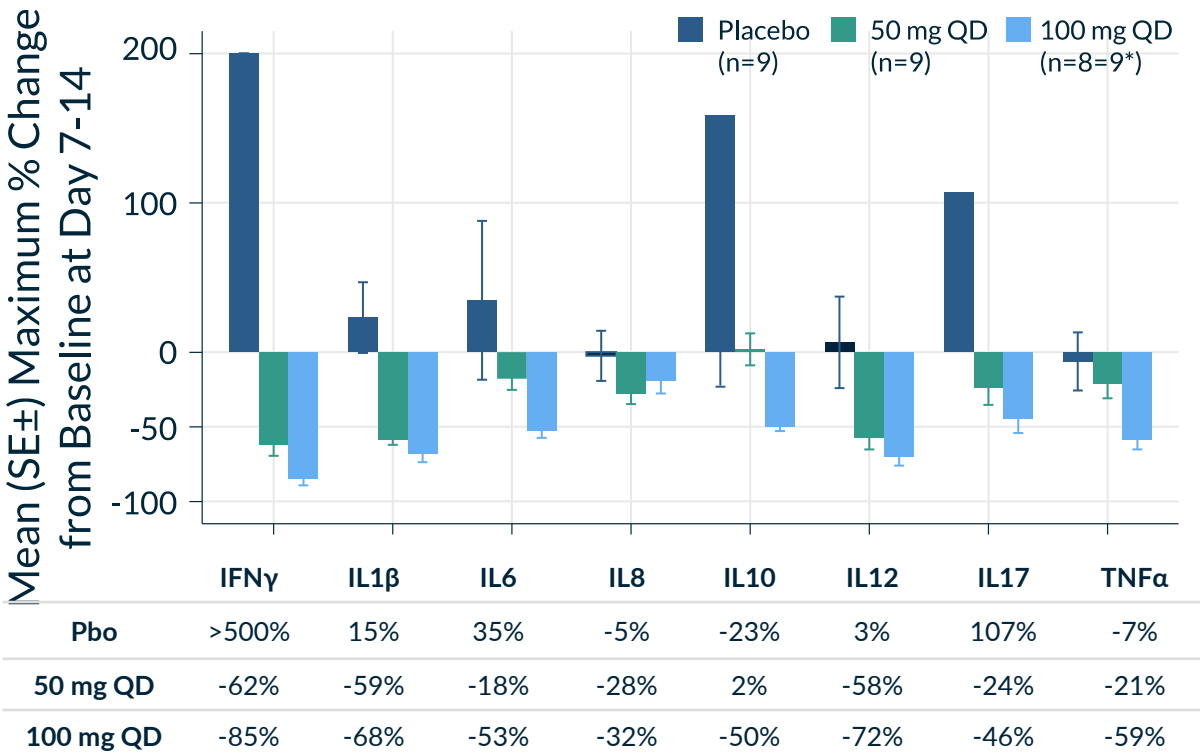
# Near-Complete Degradation and Broad Cytokine Impact in Healthy Volunteers

Mean % Reduction of IRAK4  
(Daily oral doses for 14 days)



Ex Vivo Inhibition of 9 Disease-Relevant  
Cytokines, Day 7-14

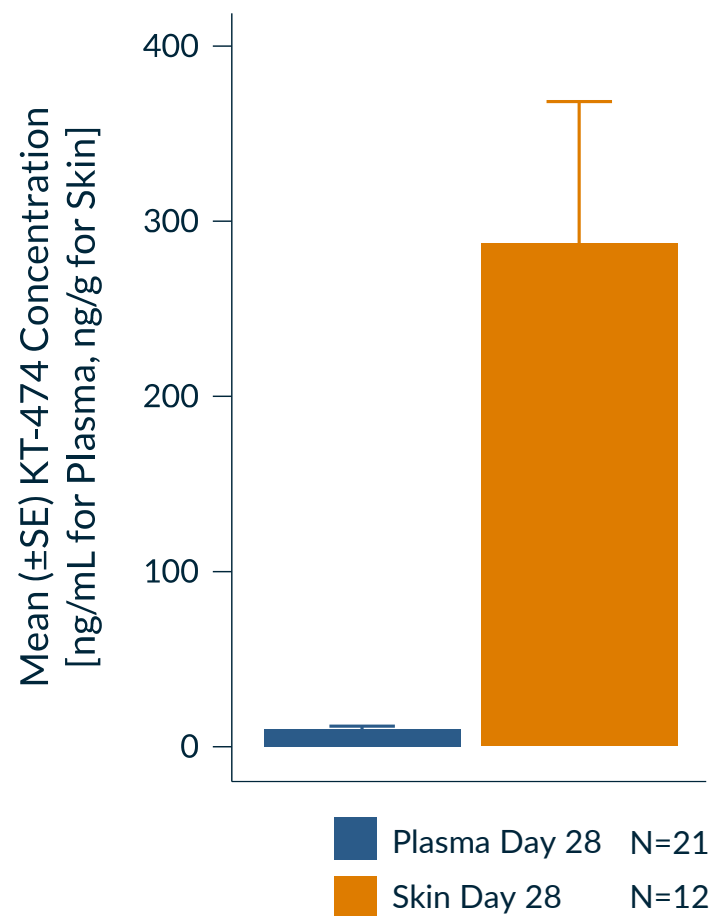
R848 (TLR7/8) Stimulation



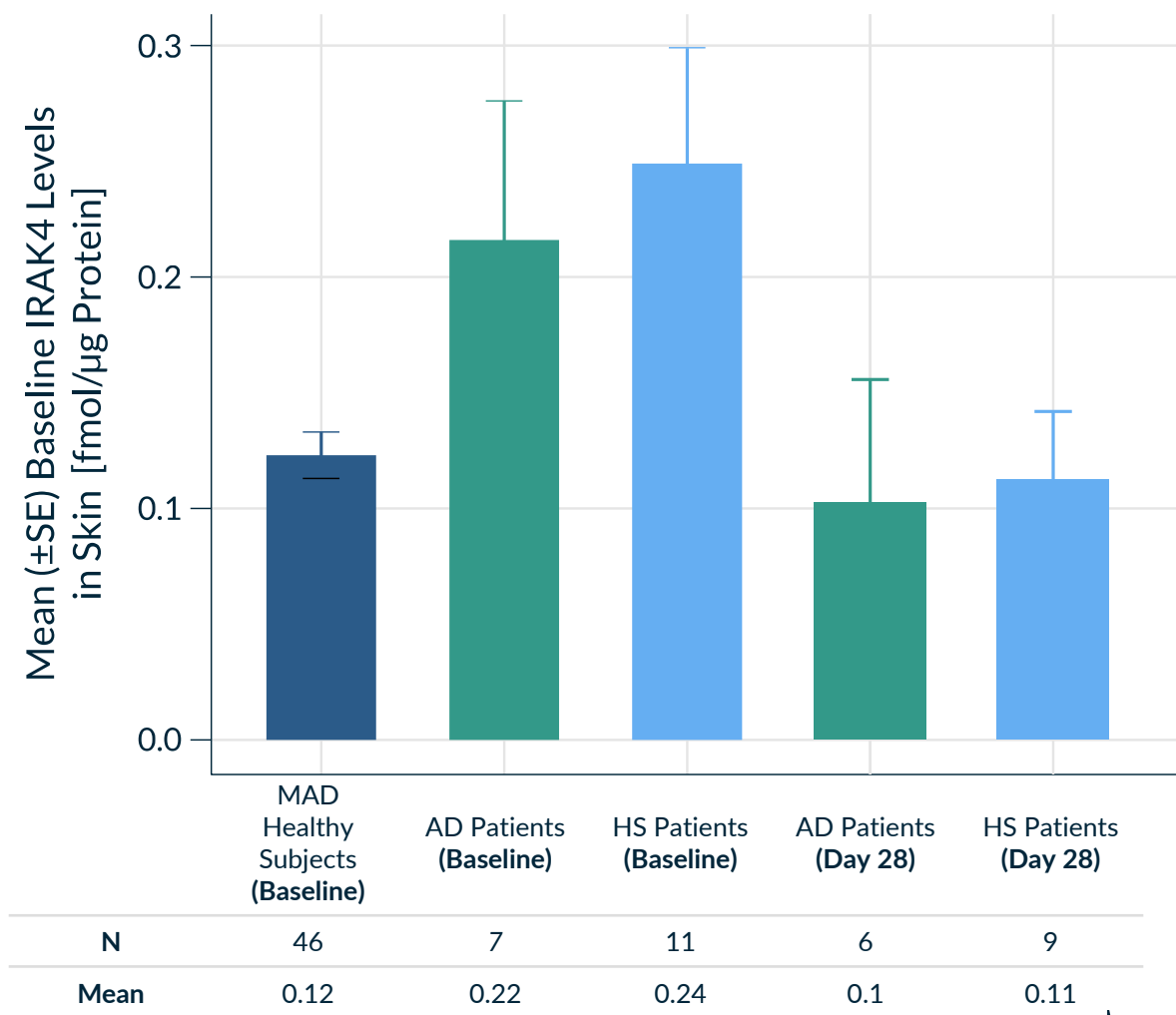
- High fidelity of PKPD translation from preclinical species to humans.
- Human efficacious concentrations ( $C_{trough}$  3 ng/mL) and doses (50-200 mg) were correctly predicted

# High Skin Exposure and Degradation in Skin of HS and AD Patients

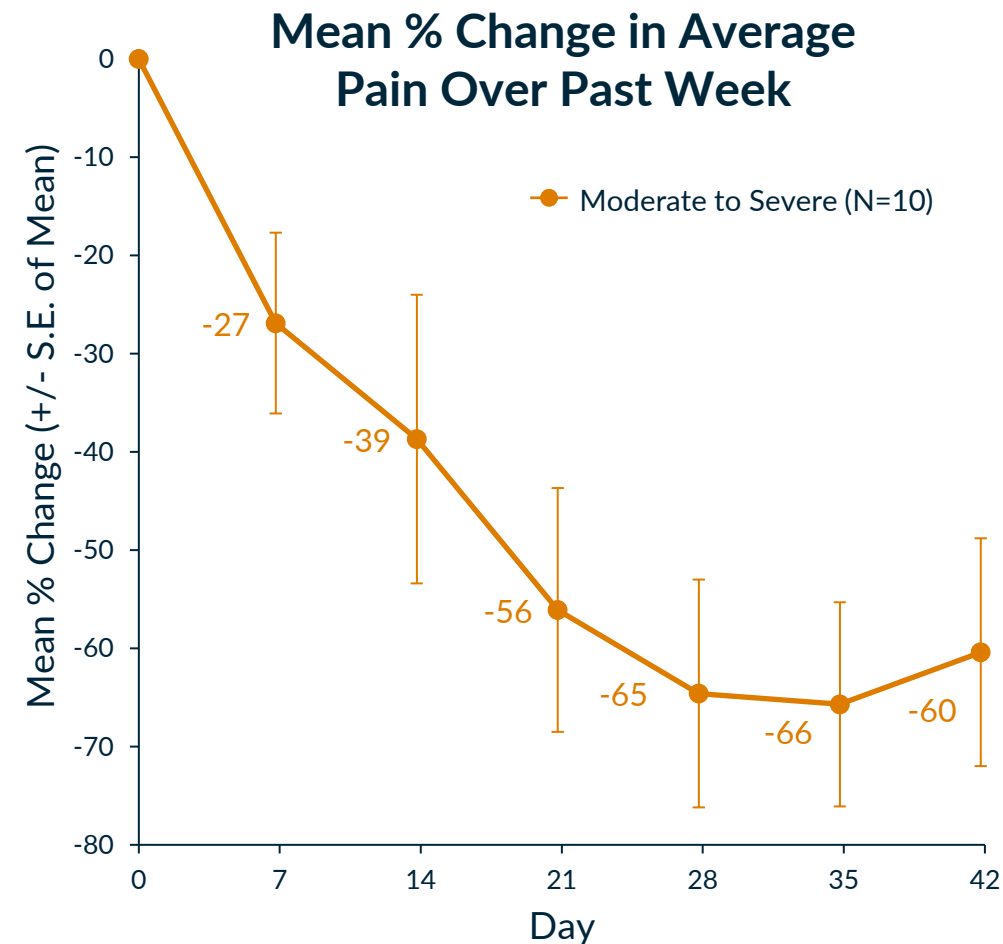
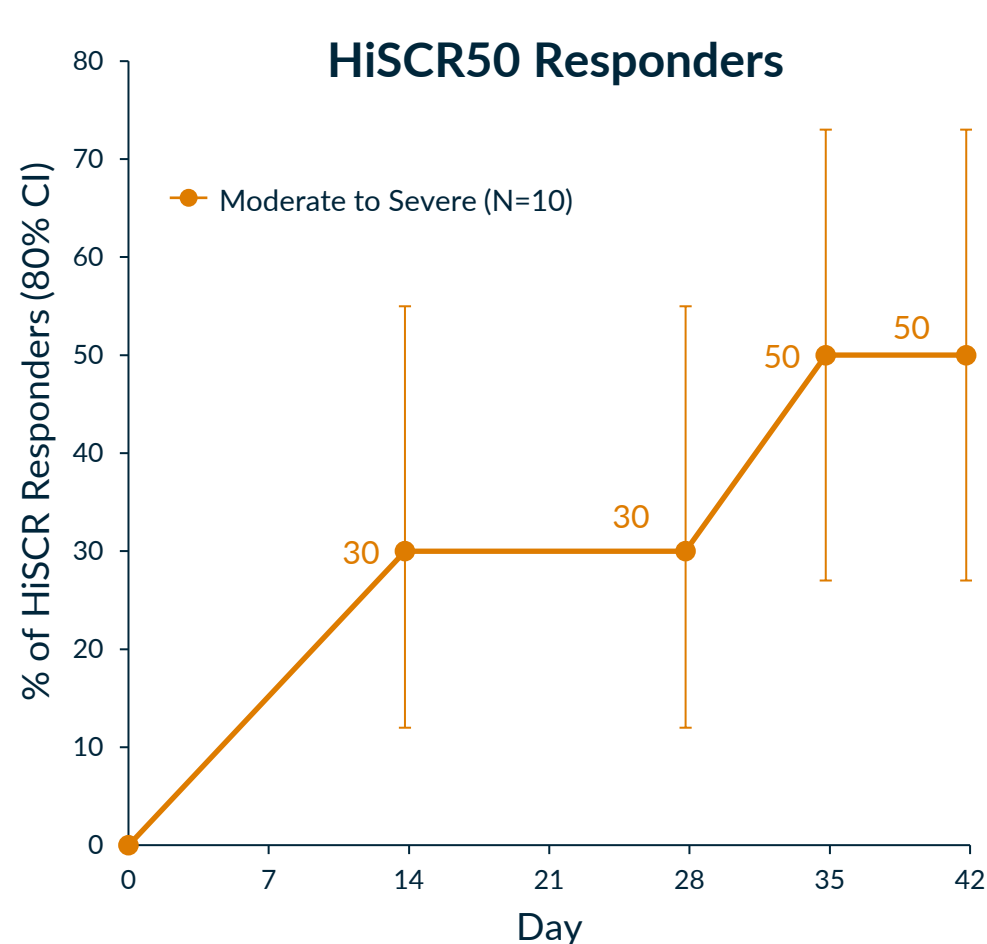
High KT-474 Exposure in HS and AD Patients Skin



Reduced IRAK4 in Skin Lesions of AD and HS Patients

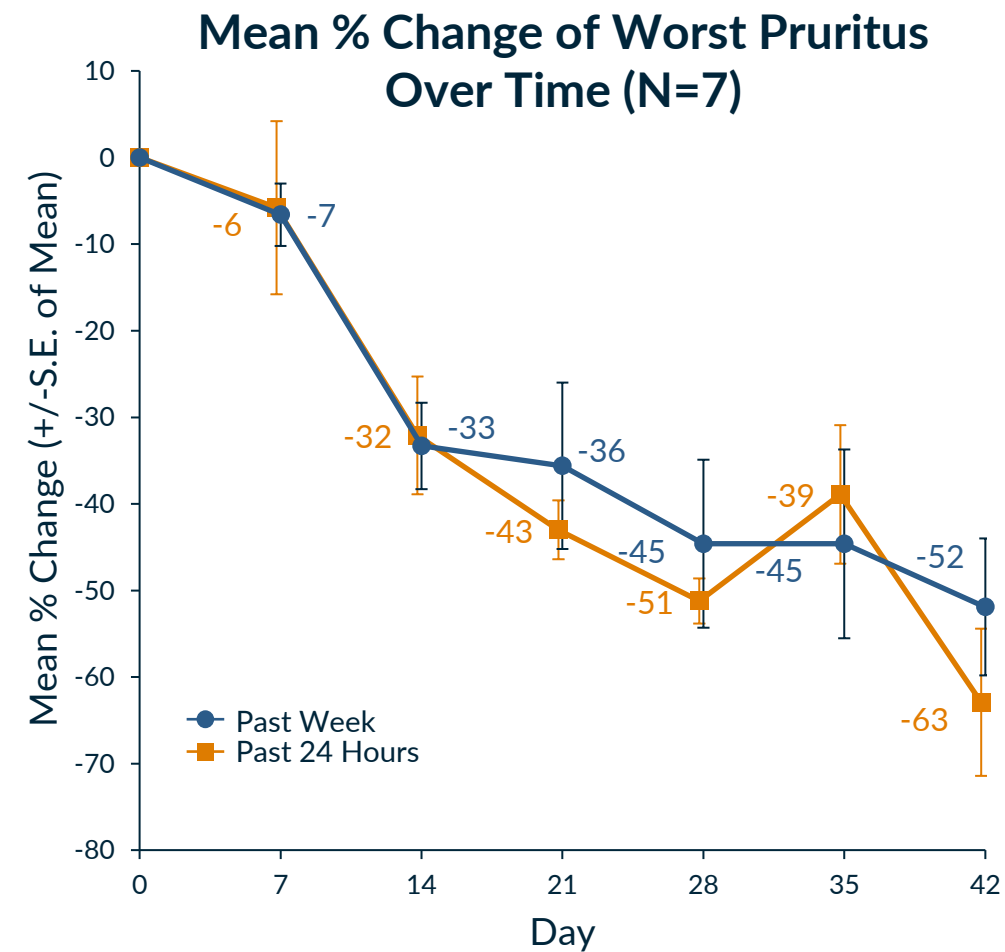
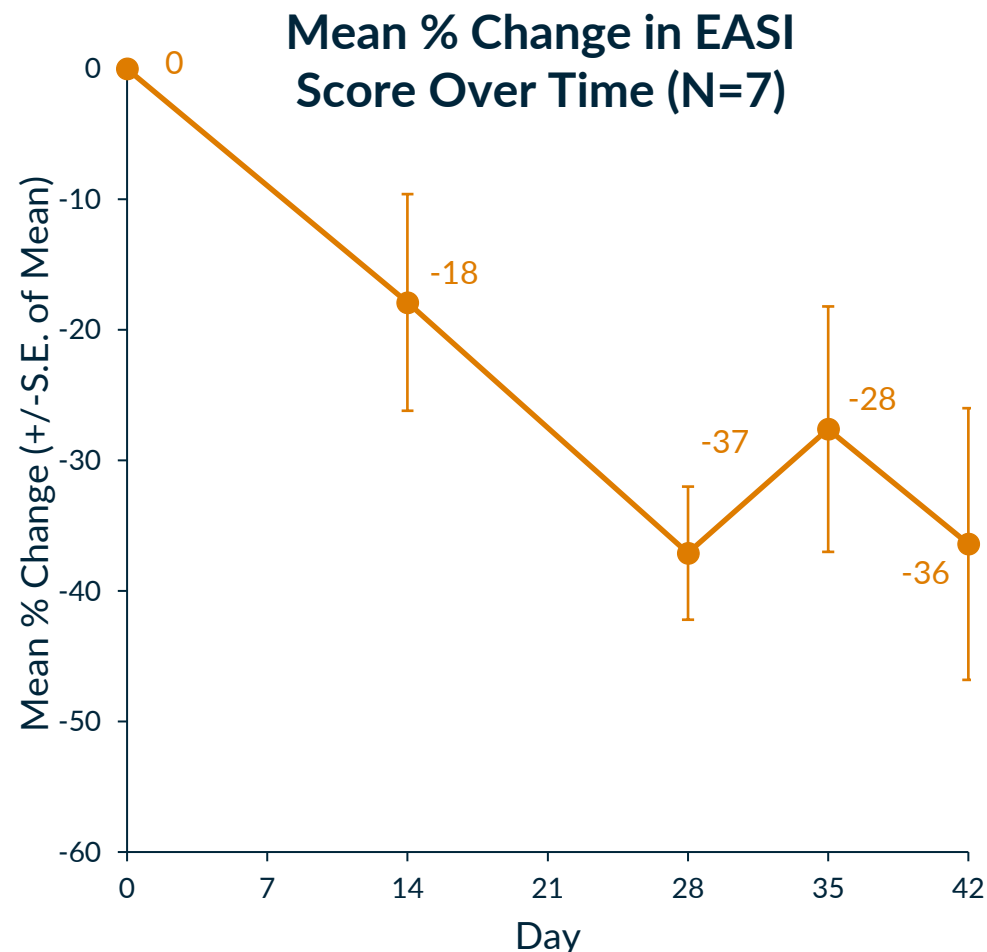


# Robust Clinical Impact in HS After Only 28 Days of Dosing



HiSCR50 response rate of up to 50% and pain reduction of up to 66% in moderate to severe HS patients

# Robust Clinical Impact in AD After Only 28 Days of Dosing



**EASI score reduction of up to 36% and pruritus reduction of up to 63% in moderate to severe AD patients**



# KT-474/SAR444656: Positioned for Clinical Success



## Phase 2 HS Trial (ZEN)

- Double-blind, placebo-controlled
- Up to 99 patients, dosed for 16 weeks
- 1 KT-474 dose arm, 1 placebo arm
- Primary endpoint: % Change in AN Count
- Additional endpoints (select):
  - HiSCR50, IHS4, HS-Skin Pain-NRS30
- Primary completion (est.): February 2025

## Phase 2 AD Trial (ADVANTA)

- Double-blind, placebo-controlled
- Up to 115 patients, dosed for 16 weeks
- 2 KT-474 dose arms, 1 placebo arm
- Primary endpoint: % Change in EASI
- Additional endpoints (select):
  - EASI 50/75/90, vIGA-AD, PP-NRS
- Primary completion (est.): January 2025

**Topline data expected 1H 2025**

# Oral IRAK4 Degradator: KT-474

A best-in-pathway broad oral anti-inflammatory agent for multiple inflammatory diseases



## Validated Biology

Mediates signaling through IL-1 and toll-like receptors

Upstream cytokine blockers with proven clinical activity across many diseases

Scaffolding kinase at the interface of innate and adaptive immune responses with a variety of functions

## Competitive Profile

Potential for Broad Activity Across Th1-Th17 and Th2 Diseases

>\$50B in combined global drug sales<sup>1</sup> opportunity

Large potential for oral degraders with best in pathway efficacy

## KT-474 Progress/Next Steps

Phase 1 complete:

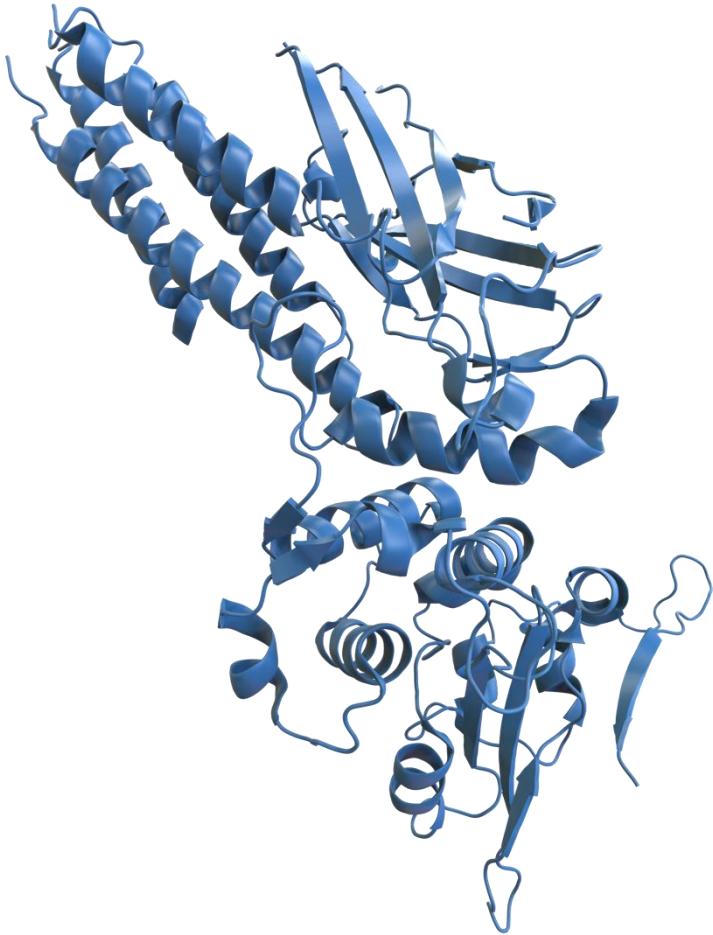
- Robust IRAK4 degradation
- Favorable safety profile
- Systemic suppression of proinflammatory cytokines and chemokines
- Early signs of strong clinical activity

Partner Sanofi conducting Phase 2 trials in HS and AD

Phase 2 data expected in 1H 2025

**Activity and fidelity of translation of TPD platform in KT-474 Phase 1 trial informs probability of success with STAT6 and TYK2 immunology programs**

<sup>1</sup>GlobalData (2022 sales for AD, HS, Asthma, COPD, UC, CD, RA, SLE)



# KT-621

A First-in-Class Oral STAT6 Degradator

# STAT6 Biology and Target Rationale

## Target Biology and rationale

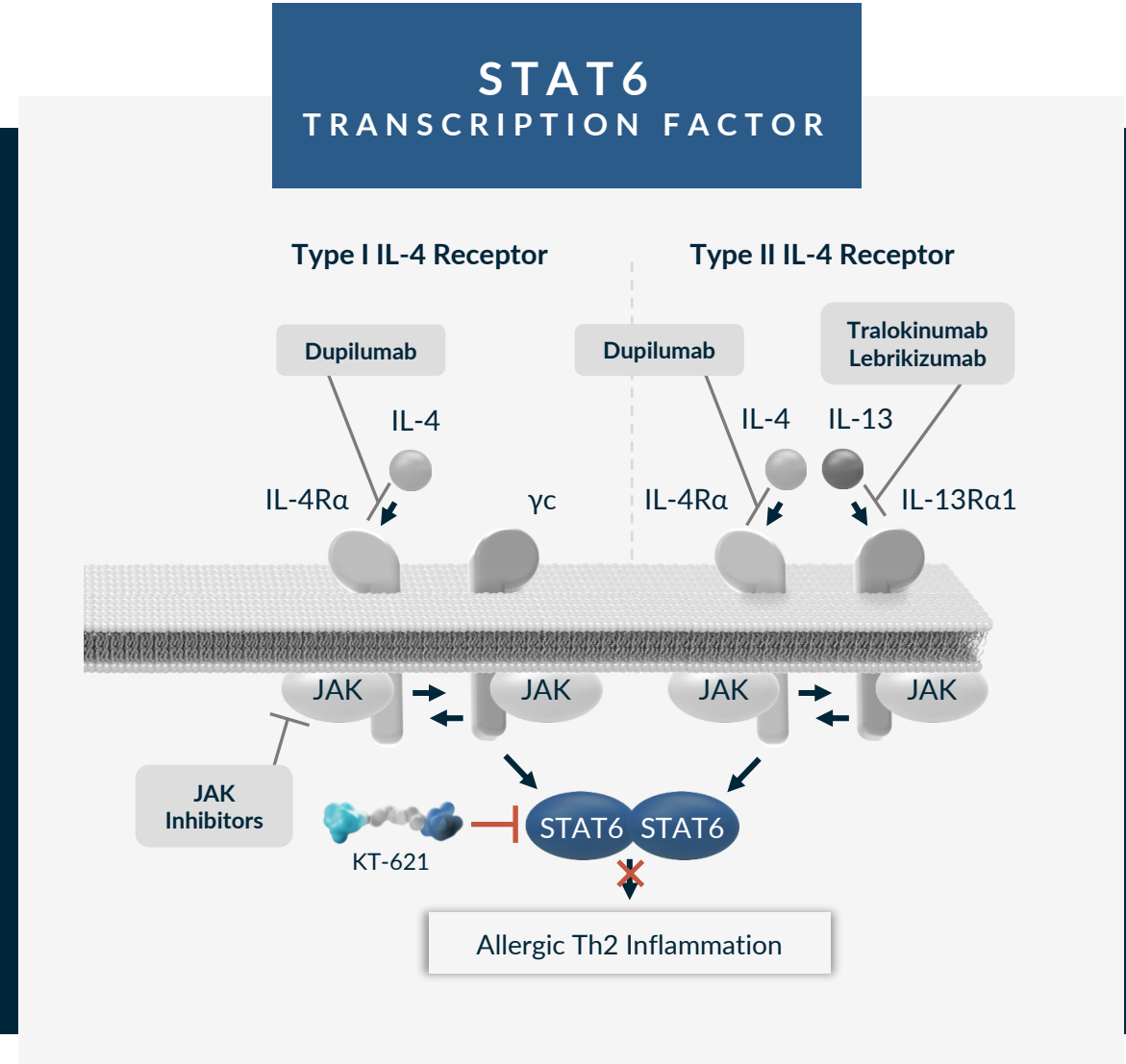
- STAT6 is the specific transcription factor required for IL-4 and IL-13 cytokine signaling
- STAT6 regulated cytokines are clinically validated targets for allergic diseases

## Human and Mouse Genetics

- Gain of function (GOF) mutations of STAT6 cause severe allergic diseases in human
- STAT6 KO mice develop normally, are viable and fertile

## Clinical Pathway Validation

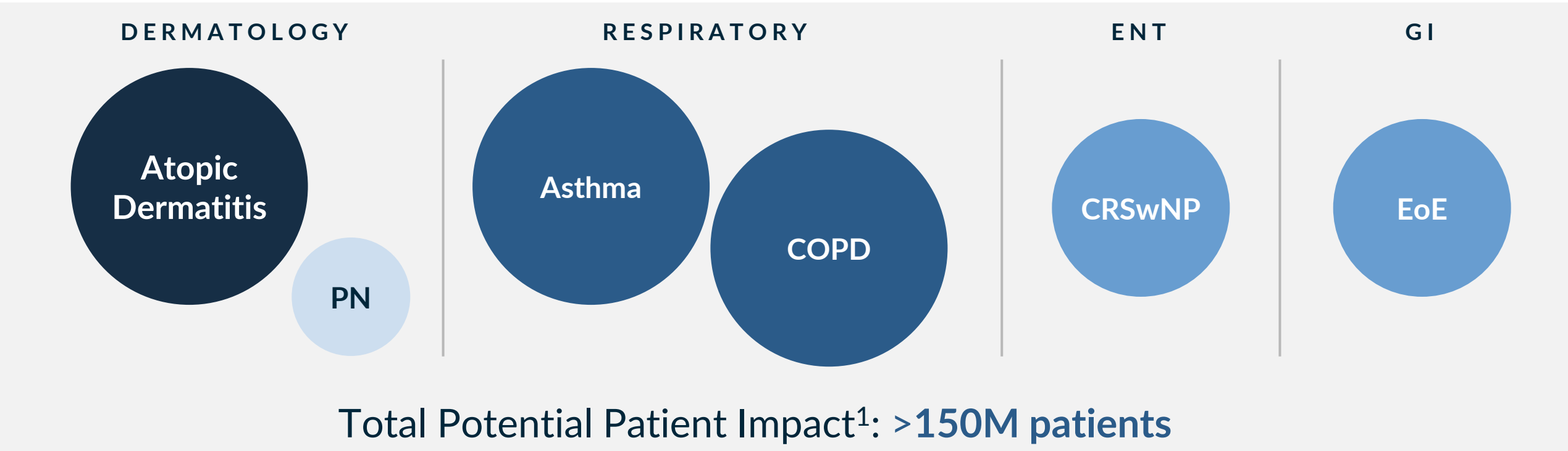
- Dupilumab, an IL-4R $\alpha$  monoclonal Ab that blocks IL-4/IL-13 signaling, has been approved in: Atopic dermatitis, Asthma, CRSwNP, Eosinophilic Esophagitis, Prurigo Nodularis, has positive Phase 3 data in COPD and is in development for multiple additional indications
- STAT6 degradation can fully block IL-4/IL-13 signaling\*



Adapted from Junttila. Front Immunol. 2018; Sharma et al. J Exp Med. 2023; Suratannon et al. J Allergy Clin. Immunol. 2022; Takeuchi et al. J Allergy Clin Immunol. 2022

\*Statements regarding STAT6 degrader biology throughout this presentation are based upon preclinical experiments in human cells and preclinical species conducted by Kymera

# Oral STAT6 Degraders Can Transform Treatment Paradigm in Multiple Indications De-risked by Dupilumab



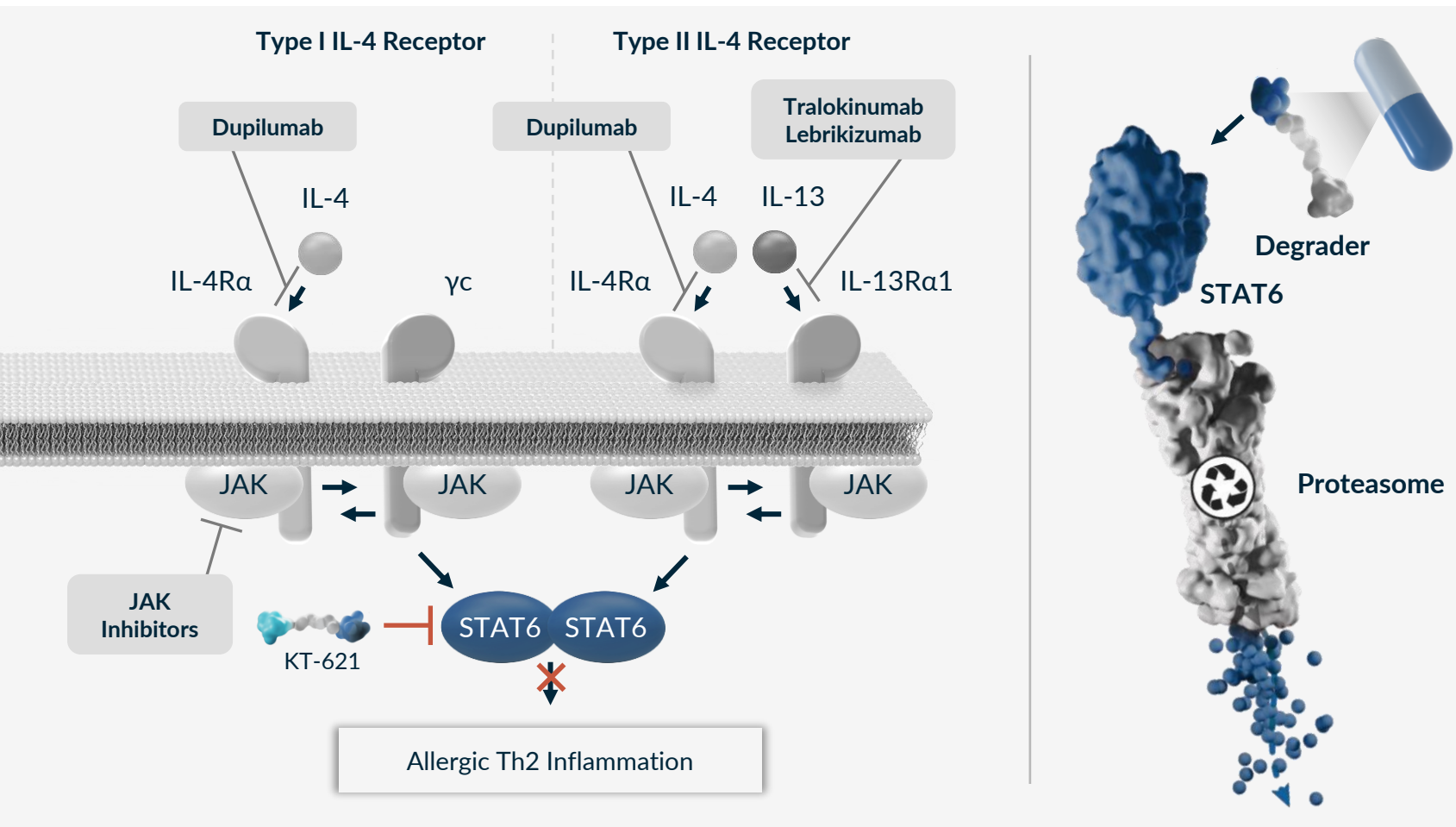
Numerous indication opportunities across multiple therapeutic areas de-risked by dupilumab

STAT6 degradation leading to full pathway inhibition has the potential to deliver dupilumab-like activity

Oral degrader medicines offer opportunity to reach broader patient populations

<sup>1</sup>GlobalData (2022 diagnosed prevalent patient population for US/EU5/Jp)

# STAT6 Degradation Advantage








- STAT6 is the specific and essential transcription factor in the IL-4/13 pathway
- Occupancy based approaches (e.g., SMI) unlikely to block pathway fully in a pharmacologically relevant manner
- However, degradation of STAT6 can fully block IL-4/IL-13 signaling *in vitro* and *in vivo*

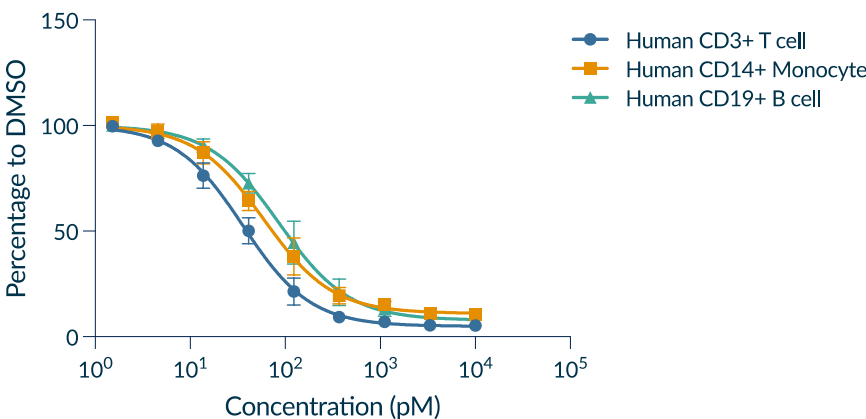


# KT-621: A Picomolar Degradator of STAT6

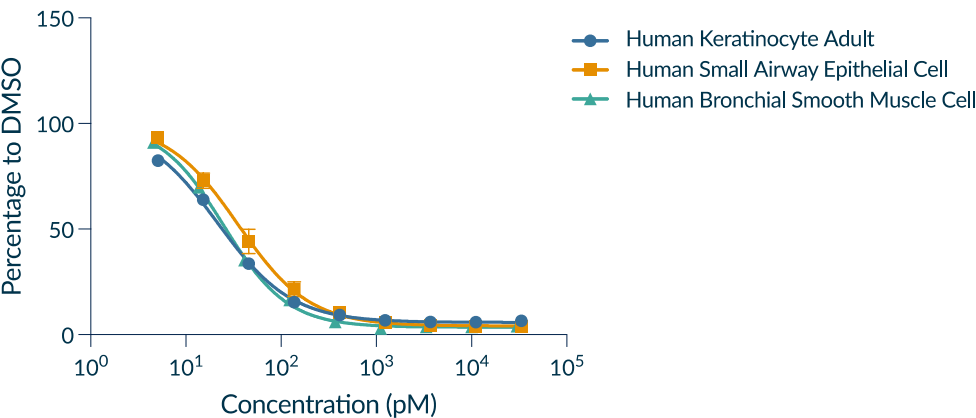
## Consistent Degradation Across All Disease Relevant Cell Types Evaluated

Human Primary Cell Type		KT-621, DC <sub>50</sub> (pM)
<b>Hematopoietic cell (all TH2 diseases)</b>		
 Blood	Human PBMC	13
	Human CD3 T cell	36
	Human CD14 monocyte	60
	Human CD19 B cell	86
	Human eosinophil	99
<b>Epithelial cell (AD, CPG, CU, asthma, COPD)</b>		
 Skin	Human keratinocyte (adult)	22
	Human keratinocyte (neonatal)	18
 Lungs	Human bronchial tracheal epithelial cell	33
	Human small airway epithelial cell	35
<b>Smooth muscle cell (asthma, COPD, EoE)</b>		
 Throat/ Airway	Human bronchial smooth muscle cell	25
	Human esophageal smooth muscle cell	33
<b>Endothelial cell (all TH2 diseases)</b>		
 Blood Vessels	Human vascular endothelial cell	46

STAT6 Degradation in Hematopoietic Cells



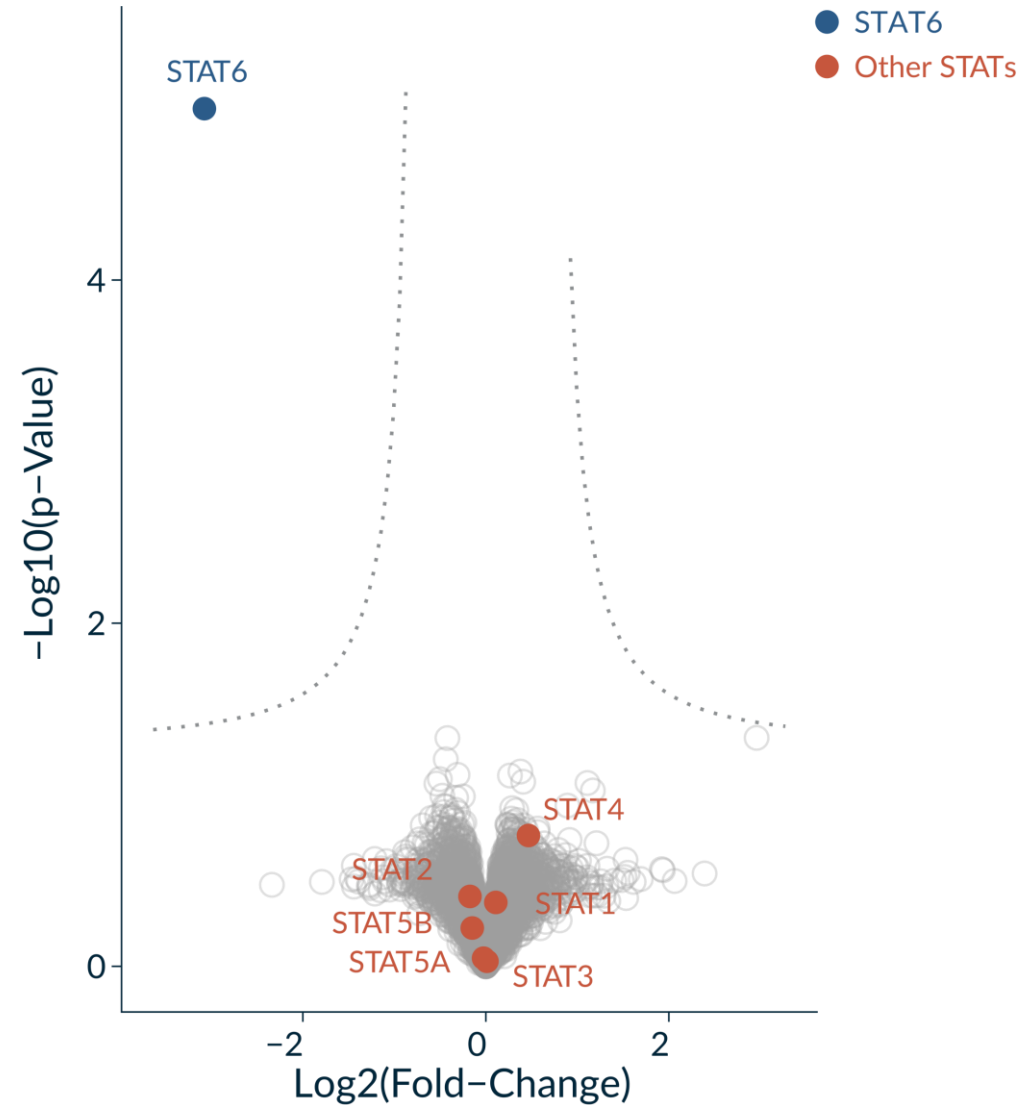
STAT6 Degradation in Tissue Cells



# KT-621: Exquisite Degradation Selectivity for STAT6

Complete STAT6 degradation  
selectivity in human PBMC proteome at  
100 x DC<sub>90</sub>

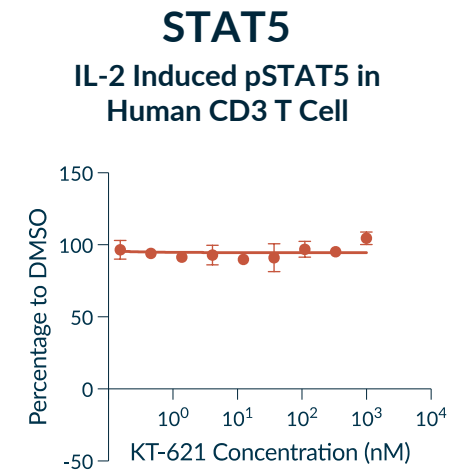
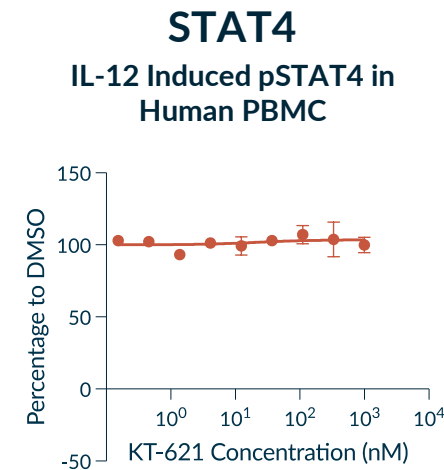
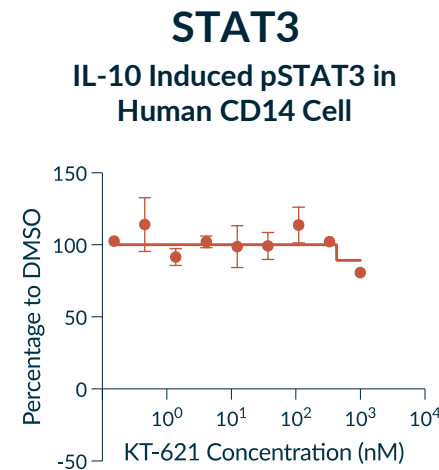
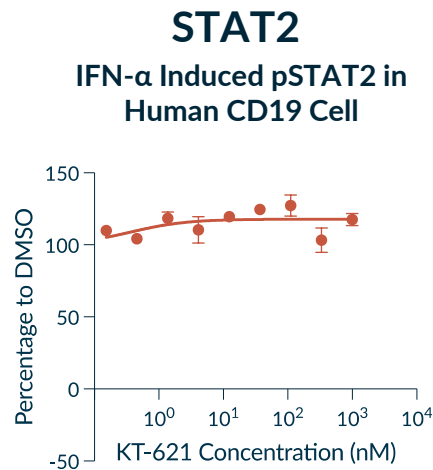
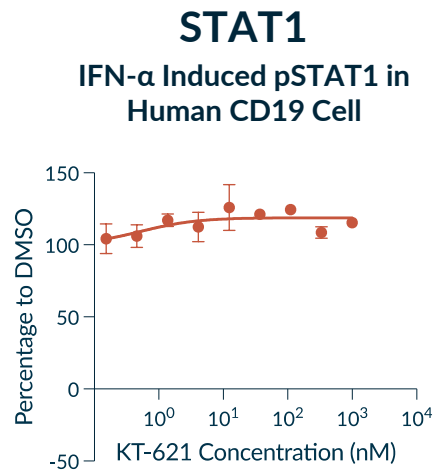
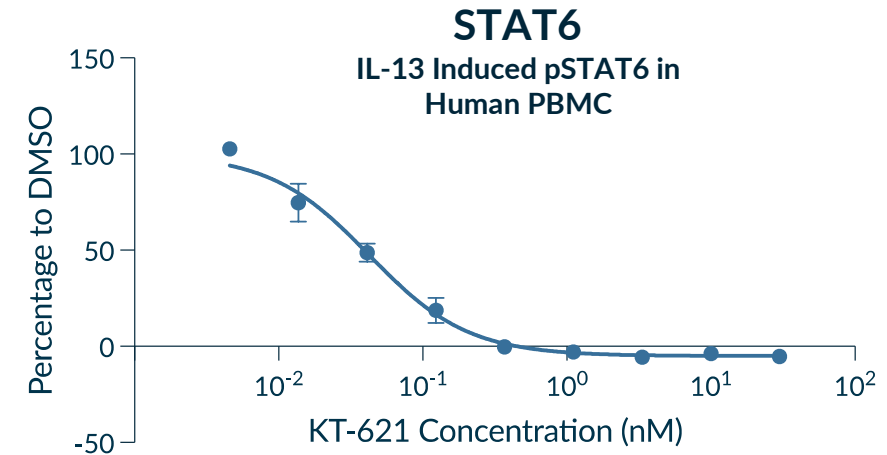
No other STATs are degraded to any  
extent



# KT-621: Exquisite Pathway Selectivity for STAT6

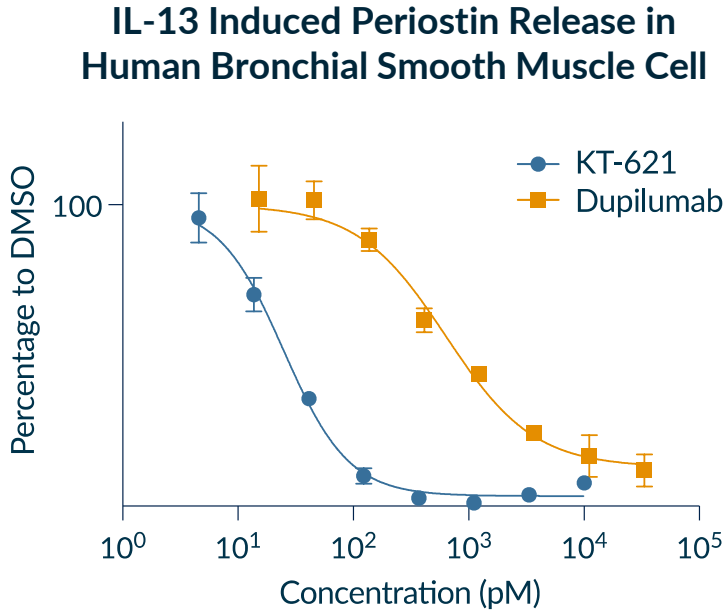
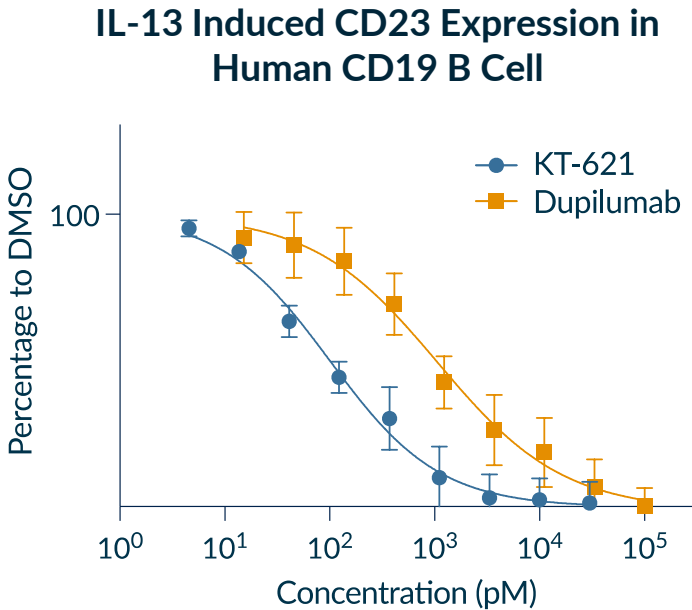
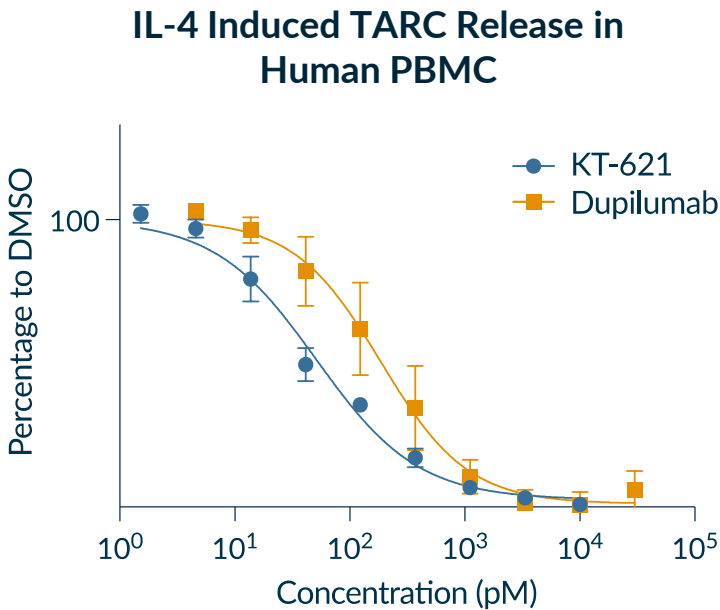
## No Impact on Any Other STAT Pathway Observed

STAT assays	KT-621, IC <sub>50</sub> (nM)
IFN-α induced pSTAT1	> 1000
IFN-α induced pSTAT2	> 1000
IL-10 induced pSTAT3	> 1000
IL-12 induced pSTAT4	> 1000
IL-2 induced pSTAT5	> 1000
IL-13 induced pSTAT6	0.042



# KT-621 Fully Blocks IL-4/13 Pathway in Human TH2 Functional Assays with IC<sub>50</sub>'s Lower than Dupilumab

Cellular Functional Assay			KT-621 IC <sub>50</sub> (pM)	Dupilumab IC <sub>50</sub> (pM)
TARC	Serum Th2 biomarker, chemoattractant for Th2 cell	IL-4 TARC release in human PBMC	62	194
		IL-13 TARC release in human PBMC	43	113
CD23	B cell activation marker, correlates with IgE class switch	IL-4 CD23 expression in human CD19 B cell	125	354
		IL-13 CD23 expression in human CD19 B cell	98	1070
PERIOSTIN	Serum Th2 biomarker and ECM protein associated with tissue remodeling in atopic diseases	IL-13 Periostin release in human bronchial smooth muscle cell	24	637
		IL-13 Periostin release in human esophageal smooth muscle cell	39	431

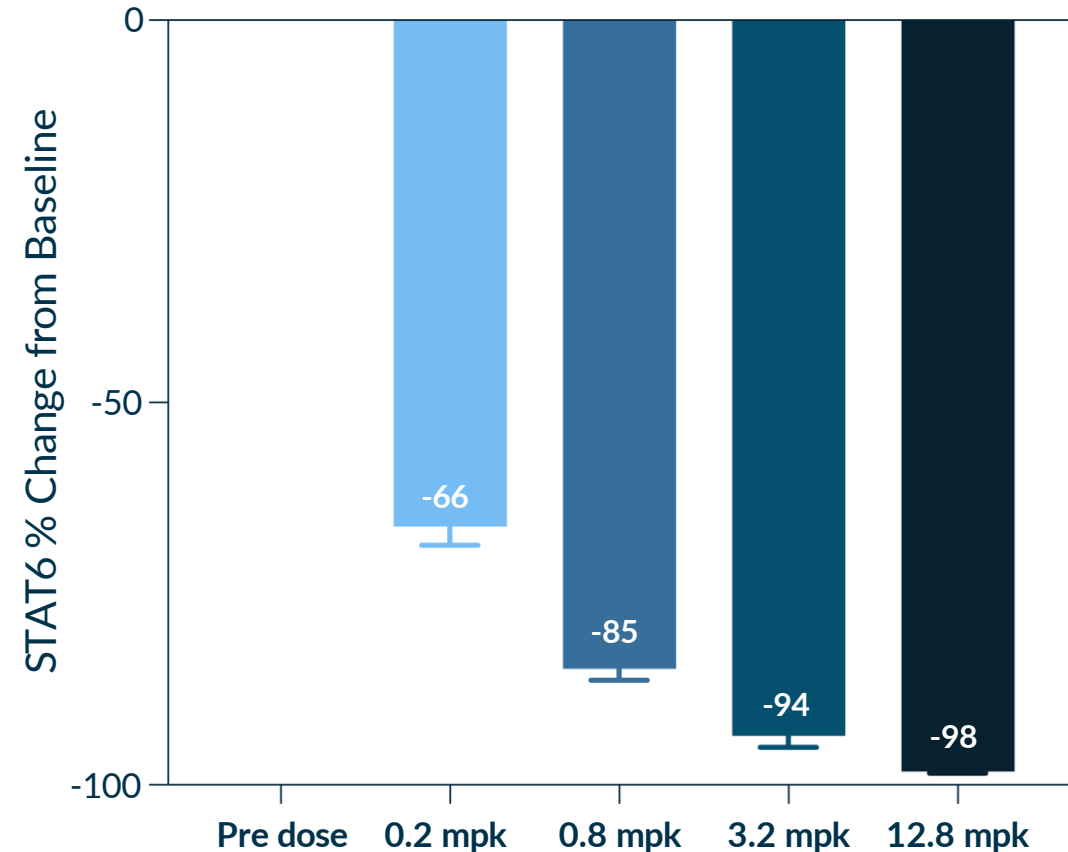


# KT-621 Achieves Dose Dependent Deep Degradation of STAT6 *in vivo* with Low Oral Doses

KT-621 potently degrades STAT6 across multiple preclinical species

KT-621 can degrade STAT6 to depletion with low oral doses

STAT6 Degradation in Dog Blood  
post 7 days of KT-621 QD Oral Dosing

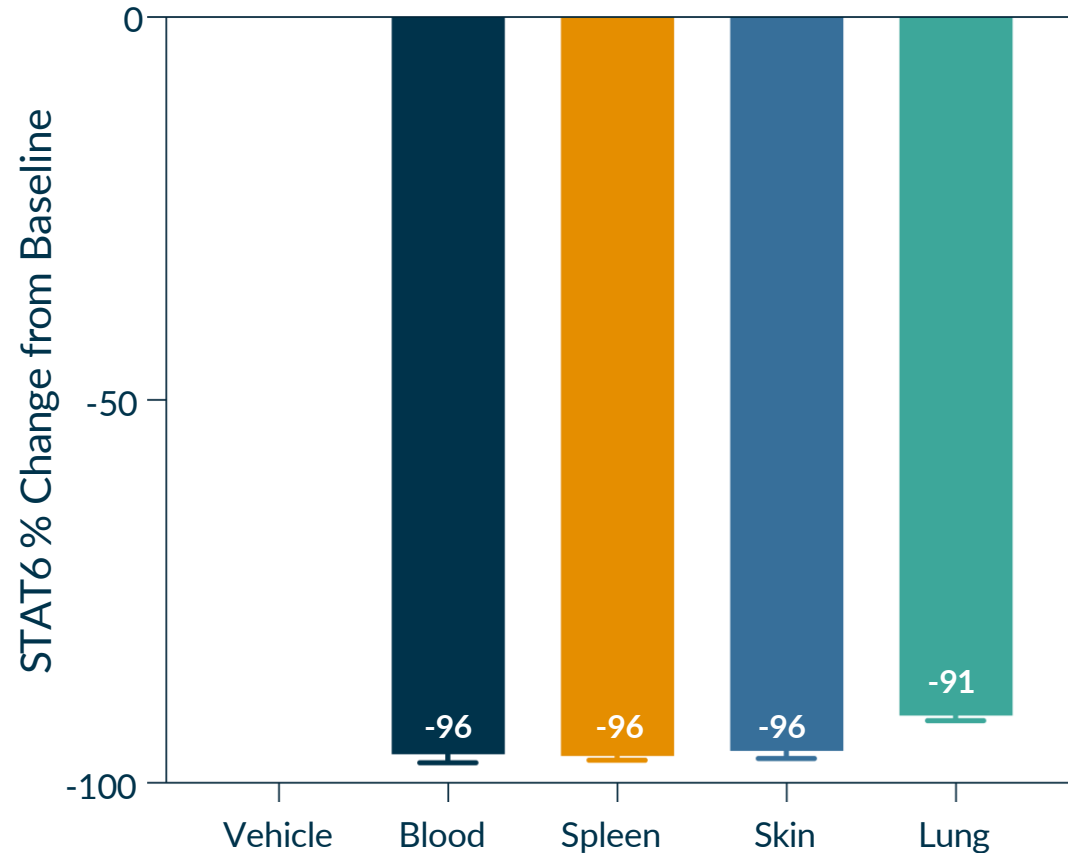


# KT-621 Degrades STAT6 in Disease Relevant Tissues in NHP

Deep degradation of STAT6 in NHP after 14 days of daily oral dosing

STAT6 is degraded in key disease-relevant tissues: blood, spleen, skin and lung

STAT6 Degradation in NHP Tissues post 14 days of KT-621 10 mpk QD Oral Dosing



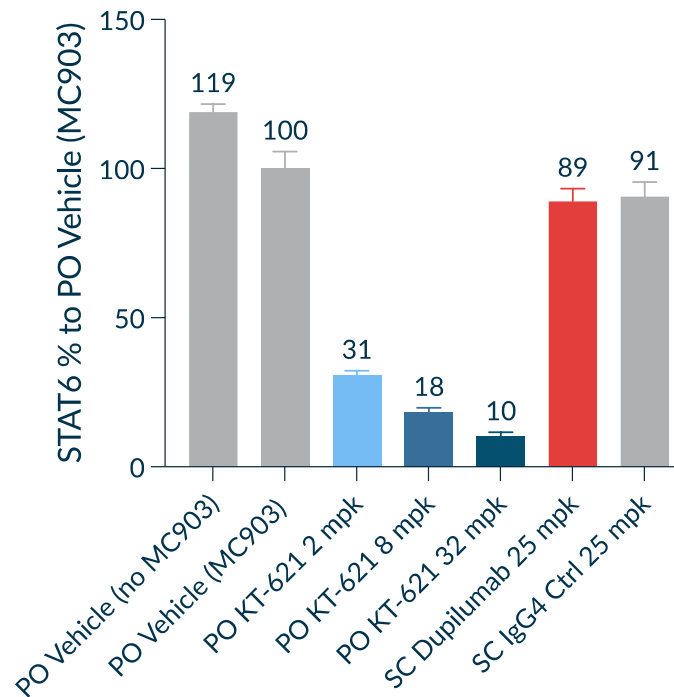


# KT-621 Has Comparable *in vivo* Activity to IL-4R $\alpha$ Saturating Dose of Dupilumab in the MC903 Atopic Dermatitis Model

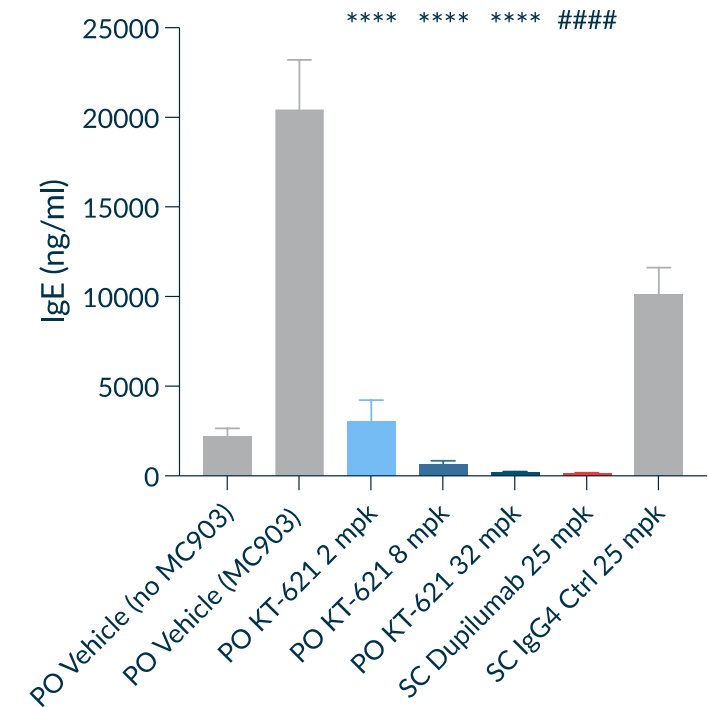
An atopic dermatitis model induced by topical application of low-calcemic vitamin D3 analog MC903 with prominent Th2 inflammation in the IL4/IL4RA humanized mice:

- KT-621 dosed QD orally for 11 days
- Dupilumab dosed 4 times subcutaneously, 25 mpk twice a week (IL-4R $\alpha$  saturating dose); **effect equivalent to 300 mg every other week in human**

STAT6 Degradation in Mouse Spleen



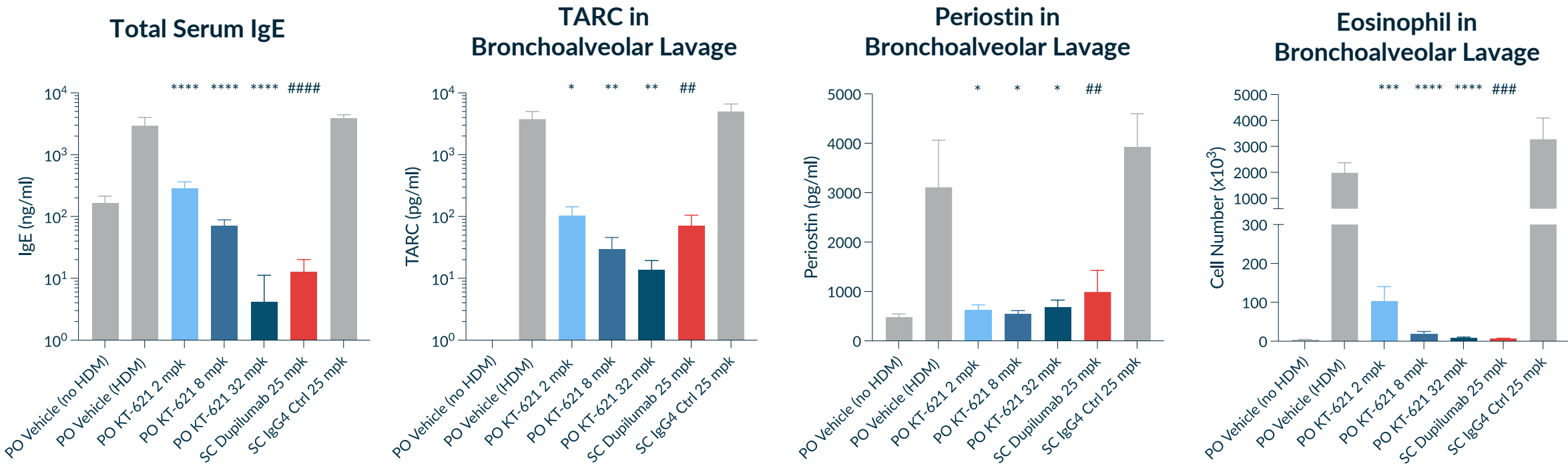
Total Serum IgE



\* Significance to PO vehicle (MC903); # Significance to SC IgG4 25 mpk BIW

# KT-621 Blocks TH2 Inflammation in vivo Equally or Better than an IL-4Rα Saturating Dose of Dupilumab in the Intranasal HDM Asthma Model

- A lung inflammation model induced by intranasal house dust mite administration with dominant Th2 inflammation in the IL4/IL4RA humanized mice (Le Floc'h et al. *Allergy*. 2020)
- KT-621 dosed QD orally for 31 days. 2/8/32 mpk doses showed 72/85/91% STAT6 degradation respectively in mouse spleen
  - Dupilumab dosed 9 times subcutaneously, 25 mpk BIW (IL-4Rα saturating dose), effect equivalent to 300 mg every other week in human



\*Significance to PO vehicle (HDM); # Significance to SC IgG4 Ctrl 25 mpk

# Oral STAT6 Degradator: KT-621

Potential for dupilumab-like activity with oral small molecule profile

Upcoming Presentations:  
DDW & ATS 2024

## Validated Biology

Specific and essential transcription factor in IL-4 and IL-13 signaling pathways

Central driver of Th2 inflammation

STAT6 validated by human genetics

Pathway validated by human genetics and dupilumab across multiple indications

## Competitive Profile

WW IL-4/IL-13 biologic market currently \$10B+ annually

Estimated to grow to \$23B+ with expanded indications and new entrants

Mega-blockbuster potential for oral degraders in allergic diseases

Potential to access beyond biologics-eligible patients and much larger population



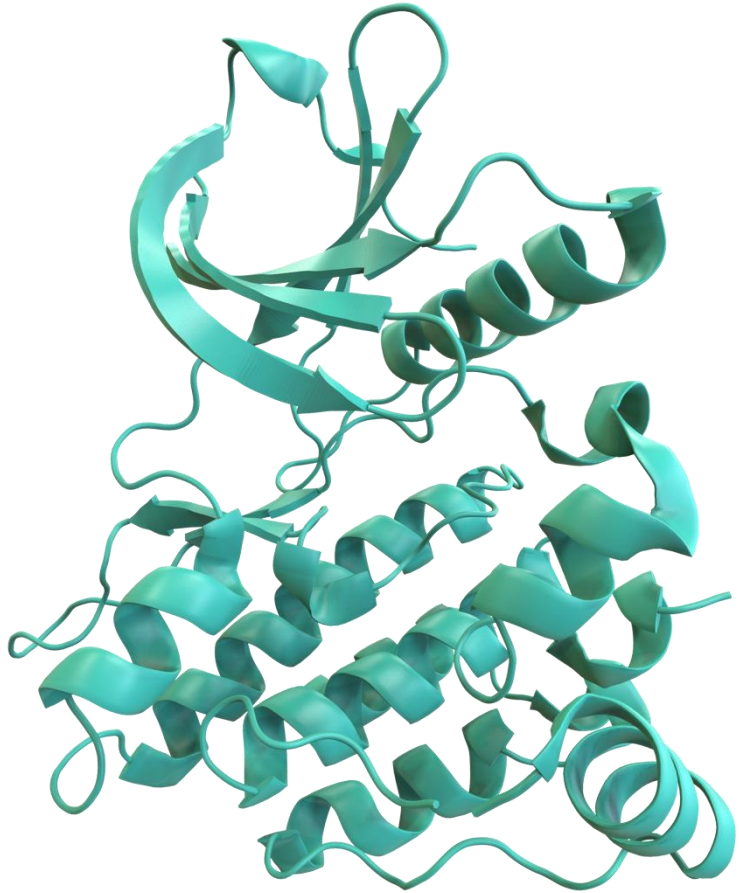
## KT-621, FIH: 2H 2024

Full IL-4 and IL-13 functional inhibition with picomolar  $IC_{50}$ 's superior to dupilumab

Robust activity shown in *in vivo* preclinical models of atopic dermatitis and lung inflammation equal or superior to dupilumab

STAT6 degradation was well-tolerated in multiple preclinical safety studies at >40x efficacious concentration

Currently in IND enabling studies



# KT-294

A First-in-Class Oral TYK2 Degradator

# TYK2 Biology and Target Rationale

## Target Biology and Rationale

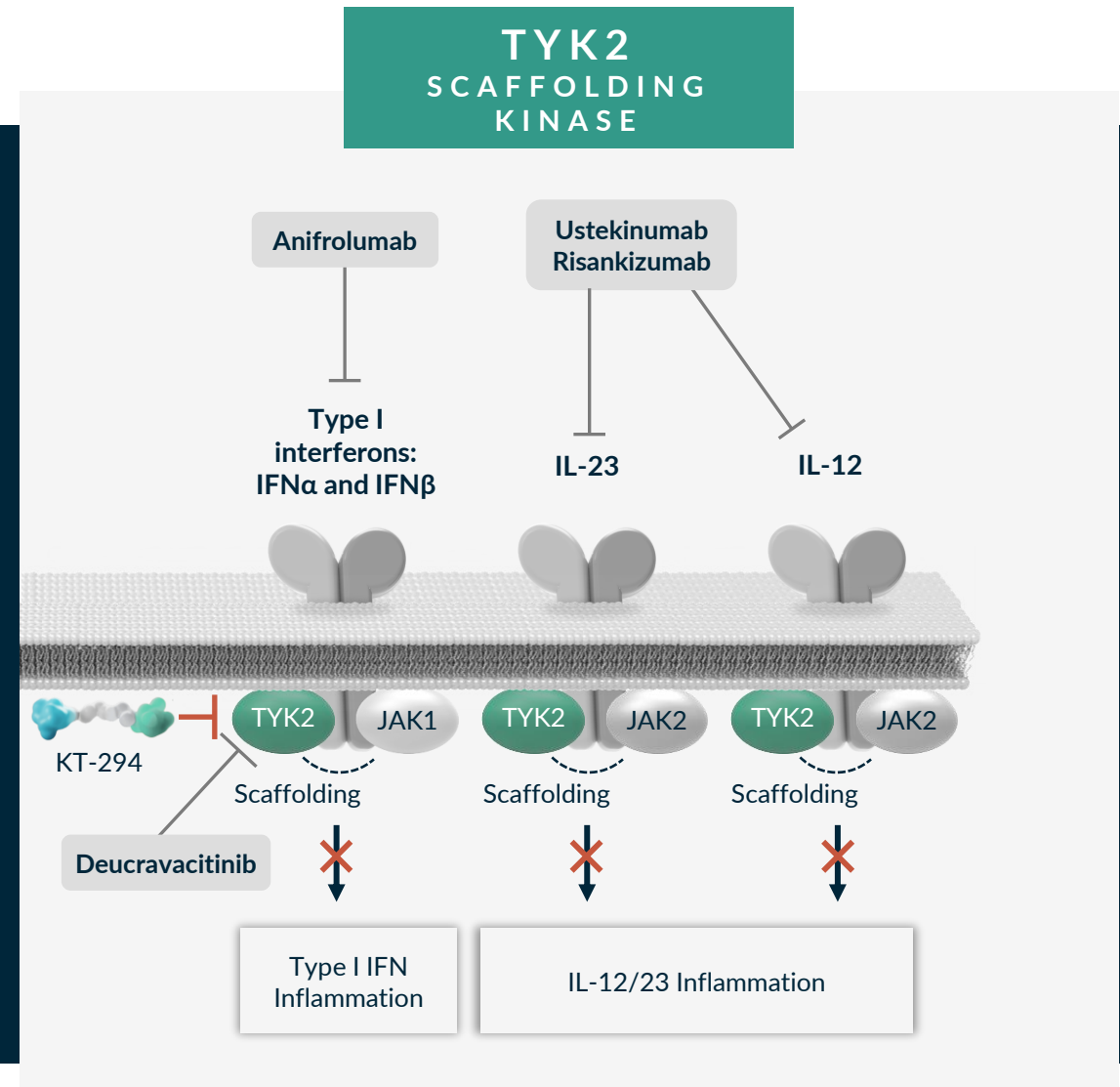
- TYK2 is a member of the JAK family required for Type I IFN, IL-12 and IL-23 cytokine signaling
- TYK2 regulated cytokines are clinically validated targets for autoimmune and inflammatory diseases

## Human Genetics

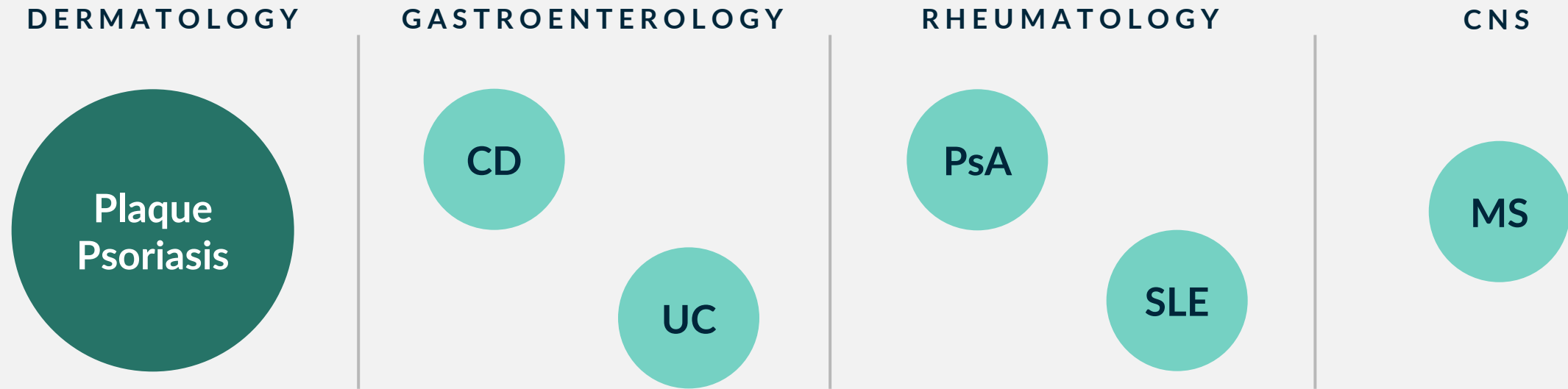
- Loss-of-function variant of TYK2 is protective in autoimmune and inflammatory diseases

## Clinical Pathway Validation

- IL-23 ( $\pm$  IL-12)-targeting agents include ustekinumab, risankizumab, guselkumab, and tildrakizumab, with approvals in PsO, PsA, CD, UC
- Type I IFN-targeting agents include anifrolumab with approval in SLE
- TYK2 SMI deucravacitinib recently approved in PsO



# Patient Impact of TYK2: Potential Best-In-Class Opportunity in I&I



Total Potential Patient Impact<sup>1</sup>: > 20M patients

Numerous indication opportunities across multiple therapeutic areas de-risked by biologics and deucravacitinib

TYK2 degradation, differentiated from inhibition, leads to full pathway inhibition with potential to deliver biologic-like activity\*

Oral degrader medicines offer opportunity to reach broader patient populations

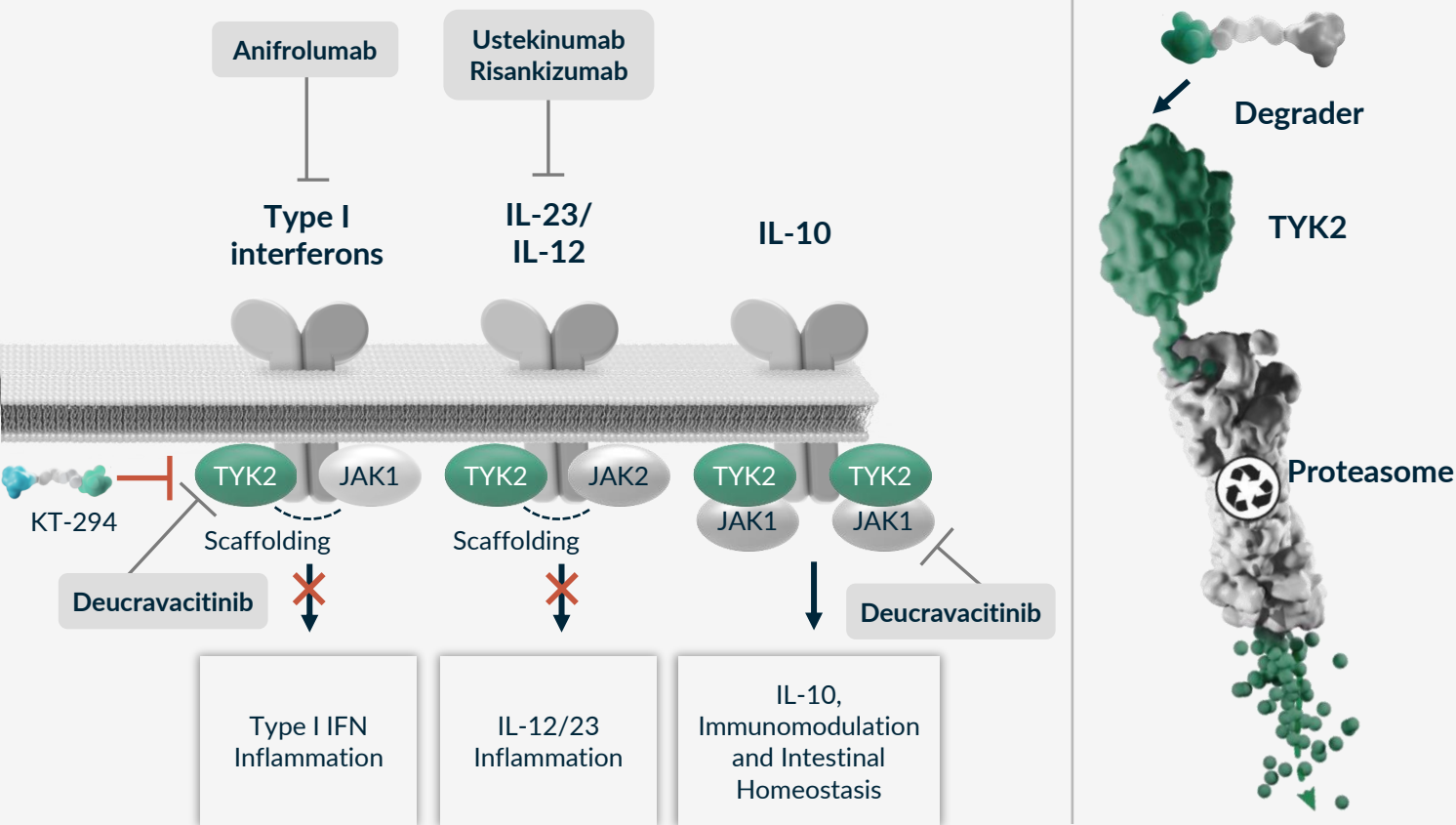
<sup>1</sup>GlobalData (2022 diagnosed prevalent patient population for US/EU5/JP)

\*Statements regarding TYK2 degrader biology throughout this presentation are based upon preclinical experiments in human cells and preclinical species conducted by Kymera



# TYK2 Degradator Advantage

## Only TYK2 Degraders Can Reach Biologics-like Activity



- TYK2 has a well-established scaffolding function that is responsible for cytokine receptor surface expression and activation
- Unlike SMIs, only TYK2 degradation recapitulates the human LOF phenotype of full pathway inhibition of Type I IFN, IL-12 and IL-23 and sparing of IL-10
  - Unlike deucravacitinib, which inhibits IL-10 through JAK1, KT-294 does not inhibit IL-10, which is important in IBD
  - Compared to TAK-279, KT-294 fully inhibits Type I IFN
- Full TYK2 degradation demonstrated by KT-294 leads to superior pathway inhibition to existing SMIs and potentially reach biologic-like activity

# TYK2 Has Well-Established Scaffolding Function

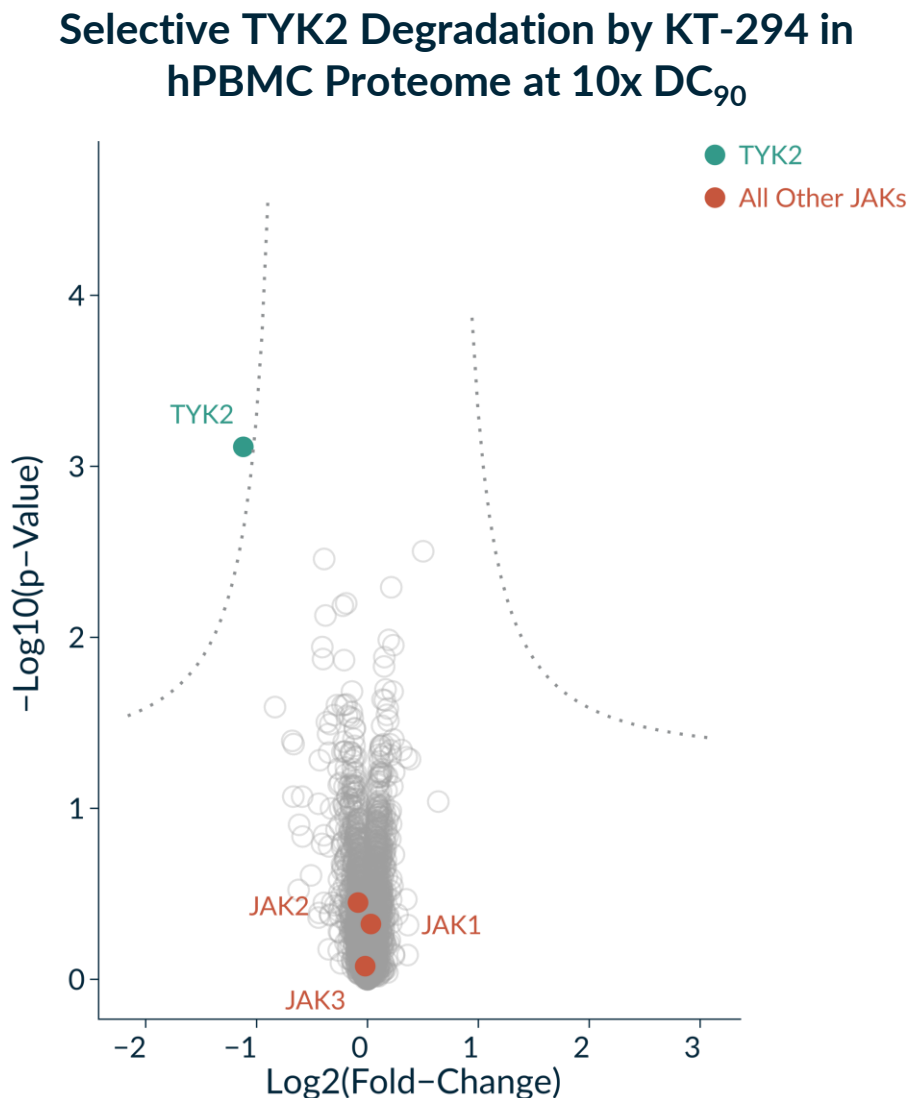
- TYK2 complete deficiency severely impairs IL-23, Type I IFN, and IL-12 signaling but spares IL-10 in humans
- TYK2 scaffolding functions are demonstrated by differential pathway inhibitions in complete TYK2 deficiency vs a kinase dead variant in humans
- TYK2 deficient humans are generally healthy with only increased risk of some mycobacteria and viral infections that are relatively mild, curable and tend not to recur, de-risking safety for TYK2 degradation














Cytokine Pathway	IL-23	Type I IFN	IL-12	IL-10
WT TYK2	++++	++++	++++	++++
Complete deficiency TYK2 -/-	+	+	+	+++
TYK2 Kinase dead P1104A/P1104A	+	++++	++++	++++

Degrading TYK2 is the only small molecule approach to potentially eliminate all scaffolding and catalytic functions of TYK2, fully recapitulating the human TYK2-/- biology

# KT-294, a Highly Selective Picomolar TYK2 Degradator, Recapitulates TYK2 Human Deficiency Biology

Fully Inhibits of Type I IFN and IL-12/23 and Spares IL-10/22



Cellular Degradation/Functional Assay	KT-294 DC <sub>50</sub> /IC <sub>50</sub> (nM)
 Human PBMC degradation	0.08
 Human keratinocyte (neonatal and adult)	0.07
IL-23 pathway	
 IL-23 pSTAT4 in human PBMC	0.7
 IL-23 pSTAT3 in human CD3+CD161high TH17 cell	2.1
 IL-23/IL-1β IFN-γ release in human PBMC	2.4
Type I IFN pathway	
 IFN-α pSTAT1 in human CD19 B cell	13
 IFN-α pSTAT2 in human CD19 B cell	15
 IFN-α IP10 release in human PBMC	4.9
IL-12 pathway	
 IL-12/IL-18 pSTAT4 in human PBMC	1.3
 IL-12/IL-18 IFN-γ release in human PBMC	10
IL-10 and IL-22 pathways	
 IL-10 pSTAT3 in human CD14 monocyte	> 1000
 IL-22 pSTAT1 in HT29 cell	> 1000
 IL-22 pSTAT3 in HT29 cell	> 1000

# KT-294, Unlike Allosteric TYK2 Inhibitor Deucravacitinib, Does not Inhibit IL-10

IL-10 has essential roles in intestinal homeostasis

- Loss of function mutations of the IL-10 pathway cause early onset refractory colitis in humans

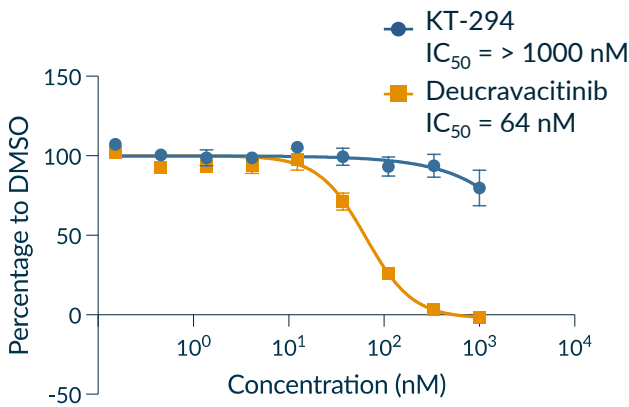
Deucravacitinib inhibits IL-10 because of its anti-JAK1 activity; KT-294 spares JAK1 and as a result IL-10

- Deucra JAK1 Ki = 0.33 nM (Burke et al. Sci Transl Med. 2019)
- KT-294 JAK1 Ki = > 1000 nM

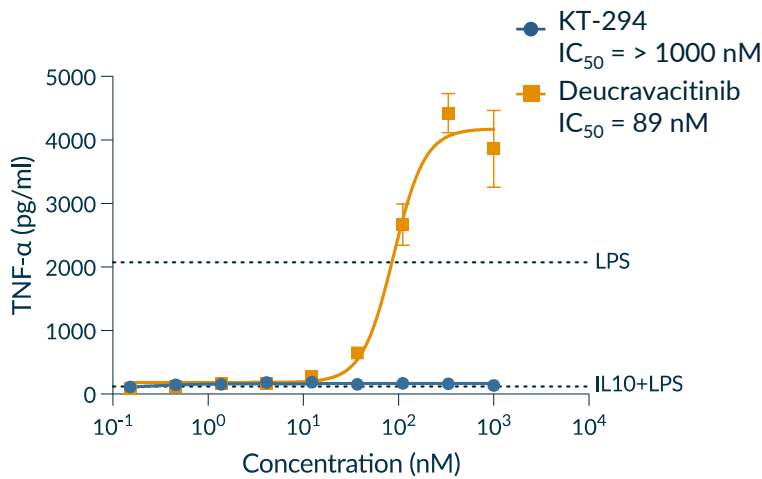
Deucravacitinib Inhibited IL-10 induced pSTAT3 in TYK2 KO EBV B Cell



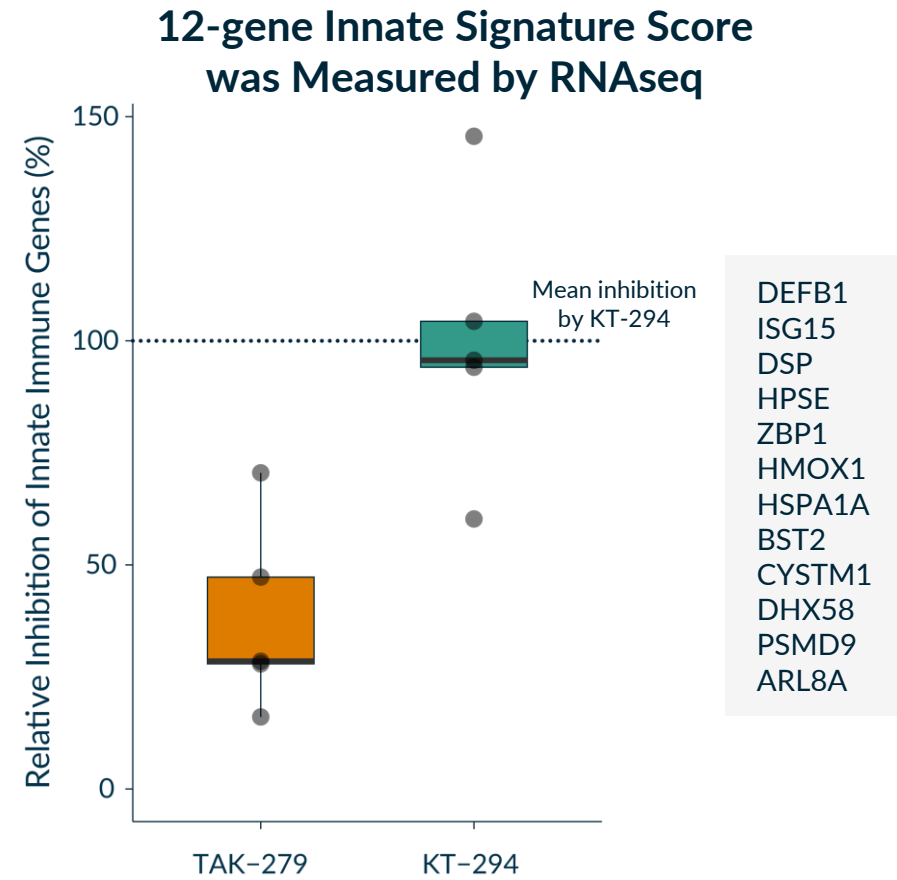
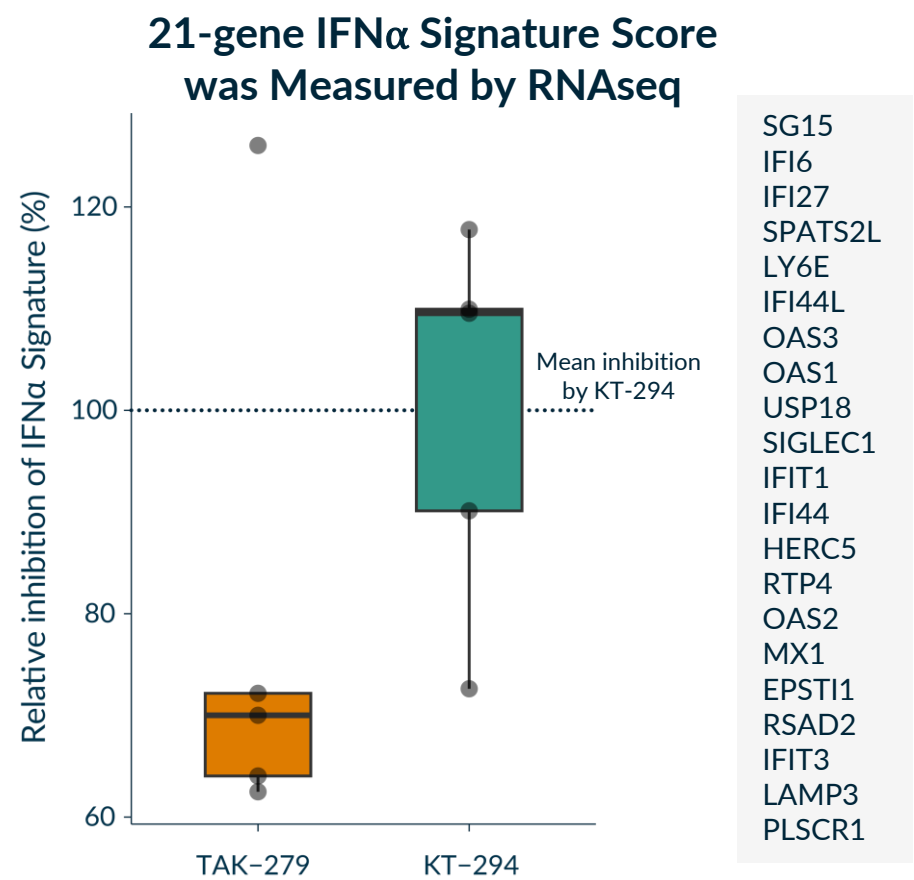
Deucravacitinib Inhibited IL-10 Induced pSTAT3 in Human CD14 Monocyte



Deucravacitinib Inhibits IL-10's Function of Suppressing LPS Induced TNF-α Release in Human CD14 Monocyte



# Superior Inhibition of Type I IFN Pathway and Innate Immunity by KT-294 vs TAK-279



**Doses Used:**

- TAK-279 = 422nM (IFN $\alpha$  stimulated pSTAT2 IC<sub>95</sub>). Clinical exposure C<sub>max</sub> (free) at 35mg<sup>1</sup> = ~ 77 nM
- KT-294 = 56nM (IFN $\alpha$  stimulated pSTAT2 IC<sub>95</sub>)

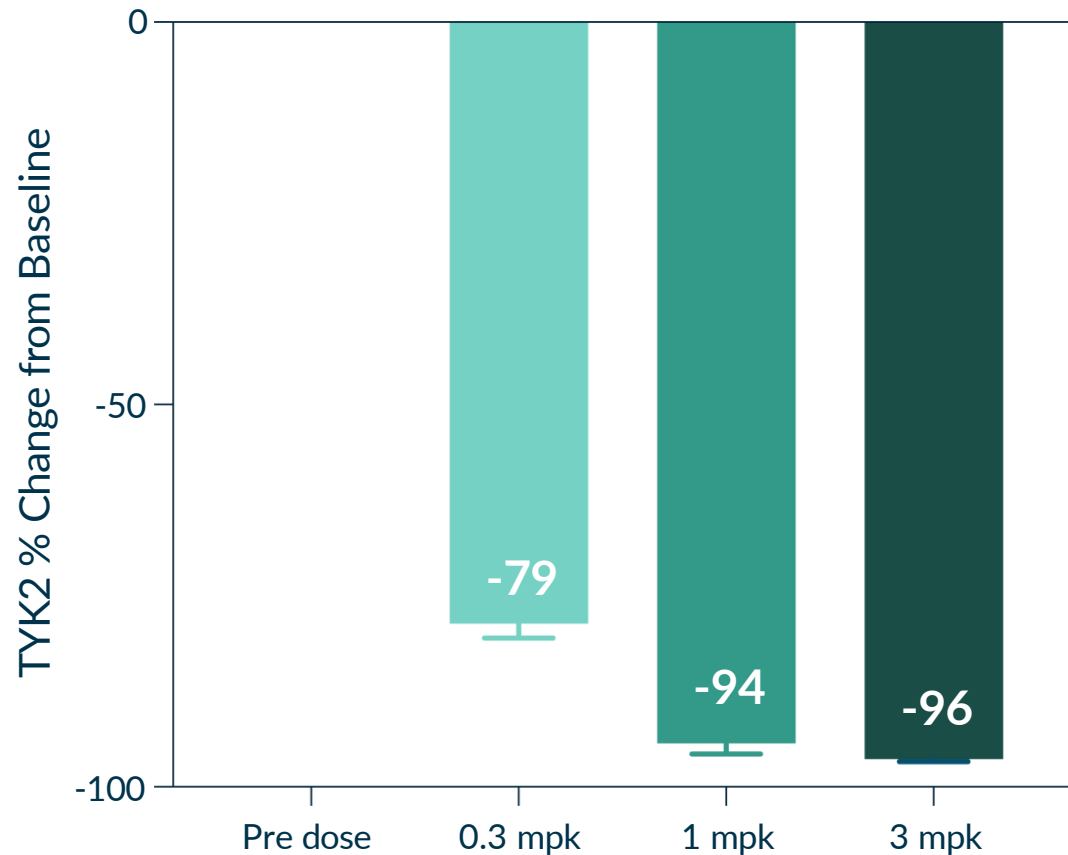
**At concentrations where TAK-279 and KT-294 block pathway 95%, degrader demonstrates superior biological effect. (TAK-279 does not reach these exposures in clinic)**

# KT-294 Achieved Dose Dependent Deep Degradation of TYK2 *in vivo* with Low Oral Doses

KT-294 potently degrades TYK2 across multiple preclinical species

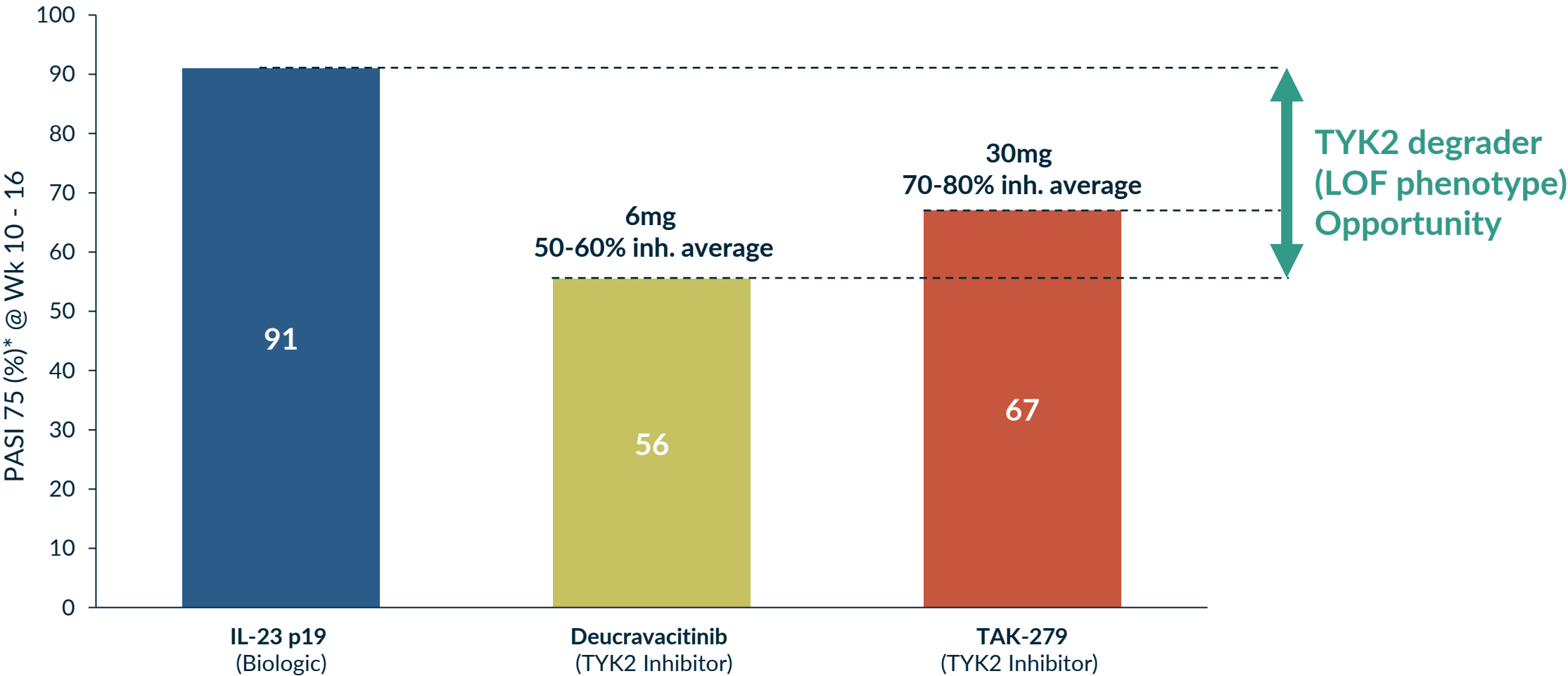
In NHP, KT-294 can degrade TYK2 to depletion with low oral doses

TYK2 Degradation in NHP Blood  
Post 7 days of KT-294 QD Oral Dosing



# TYK2 SMI's Do Not Reach Maximal Target Engagement

Clinical Efficacy In Psoriasis is Target Engagement Dependent



Company presentations and package inserts; \* total observed response rate for primary endpoint cut-off ranges from Wk 10 to Wk 16.



# Biological and Clinical Differentiation

TYK2 Clinical Opportunities	Deucravacitinib IL12/23, IFN, IL10	TAK-279 IL12/23, ~IFN	KT-294 IL12/23, IFN	<i>KT-294, unlike TYK2 SMI, can replicate the TYK2 deficient phenotype and result: potent Type I IFN, IL-12/23 inhibition fully while sparing IL-10</i> <b>WITH FOLLOWING EXPECTED CLINICAL DIFFERENTIATION:</b>
Psoriasis	++	++	+++	>90% degradation vs 70-80% inhibition at steady state (best anti-IL23 profile)
Psoriatic Arthritis	++	++	+++	>90% degradation vs 70-80% inhibition at steady state (best anti-IL23 profile)
IBD	-	++	+++	>90% degradation vs 70-80% inhibition at steady state (best anti-IL23 profile), + sparing IL-10
Lupus & interferonopathies	++	+	+++	>90% degradation vs 70-80% inhibition at steady state (best anti-IL23 profile) + best anti-IFN profile

# Oral TYK2 Degradator: KT-294

Potential Best-in-Class Opportunity with Biologics-like Profile



## Validated Biology

TYK2 is a member of the JAK family required for Type I IFN, IL-12 and IL-23 cytokine signaling

Pathway validated by upstream biologics (i.e. ustekinumab) and TYK2 SMI across many diseases

TYK2 validated by human genetics

## Competitive Profile

IL-23 and Type 1 IFN-based biologic market currently ~\$18B annually

Estimated to grow to ~\$27B with expanded indications and new entrants

TYK2 SM inhibitors have limitations due to selectivity (deucravacitinib) or lack of potent IFN- $\alpha$  activity (TAK-279) and limited clinical target engagement (both)

Mega-blockbuster potential for oral degrader with biologics-like activity that is superior to TYK2 SMI

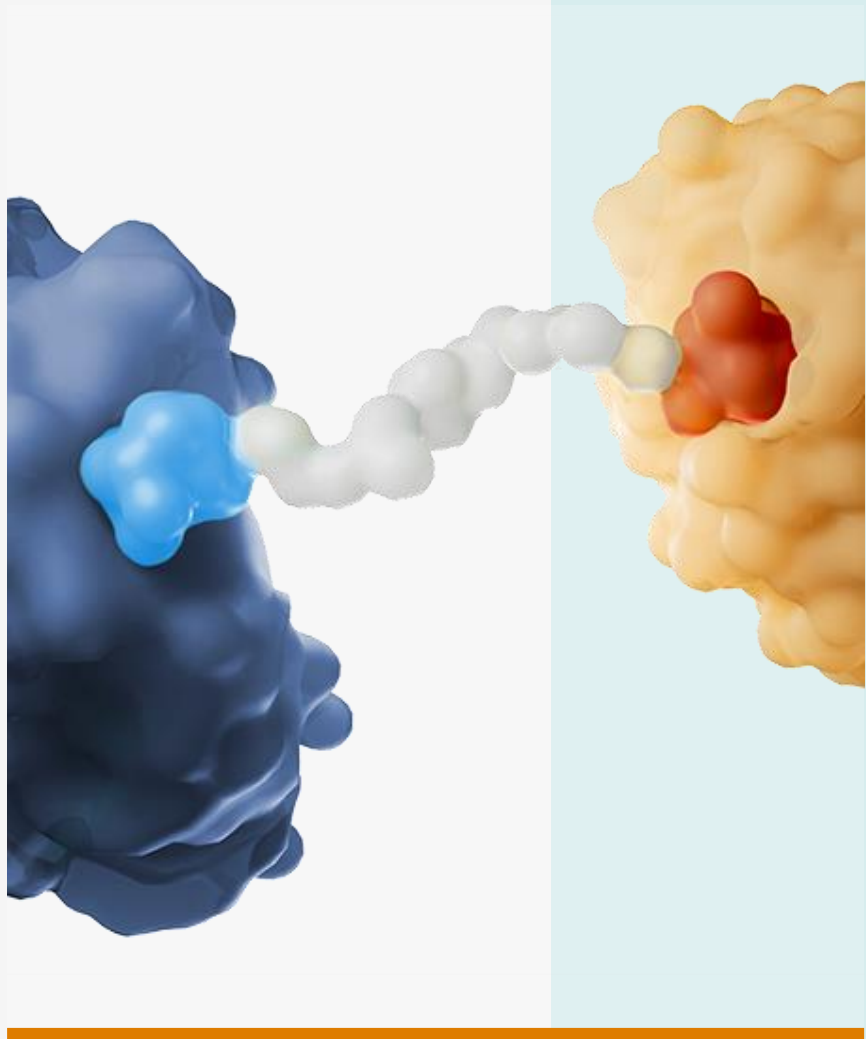
## KT-294, FIH: 1H 2025

Degrades TYK2 in human cells with pM potency

Recapitulates the phenotype of TYK2 human deficiency showing potent IFN- $\alpha$ , IL-12 and IL-23 inhibition and sparing IL-10

Dosed orally, shows complete TYK2 degradation in NHP providing a path to full target engagement in clinic, unlike current SMI

Currently in IND enabling studies

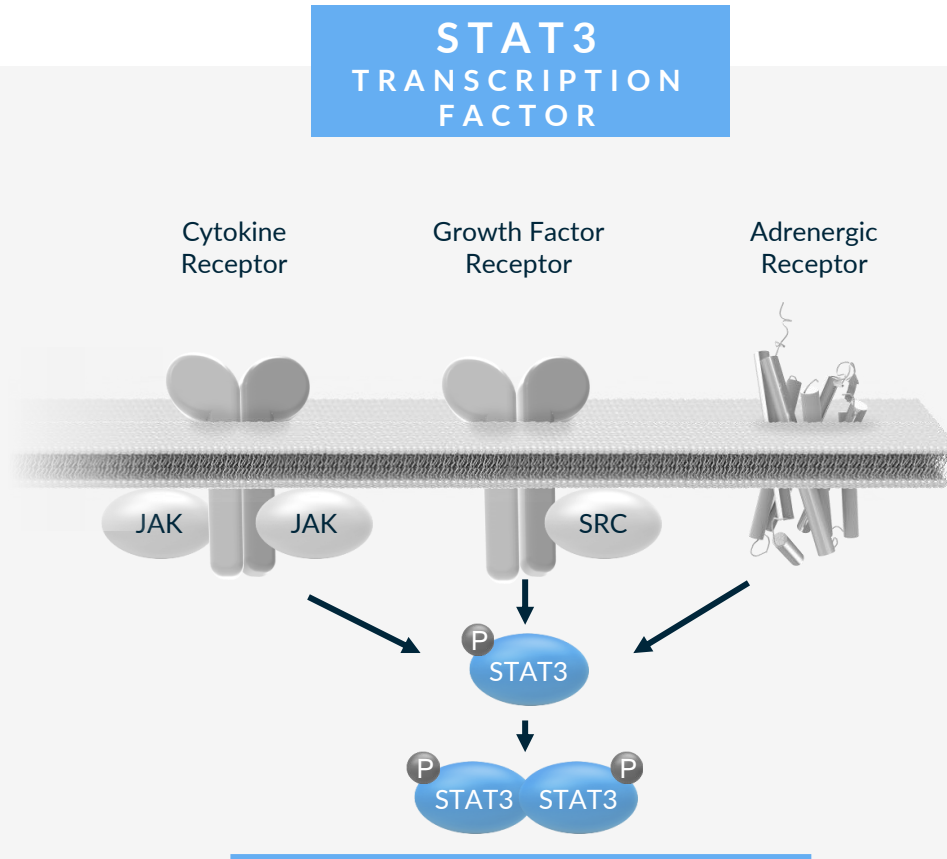


# Kymera's Oncology Pipeline

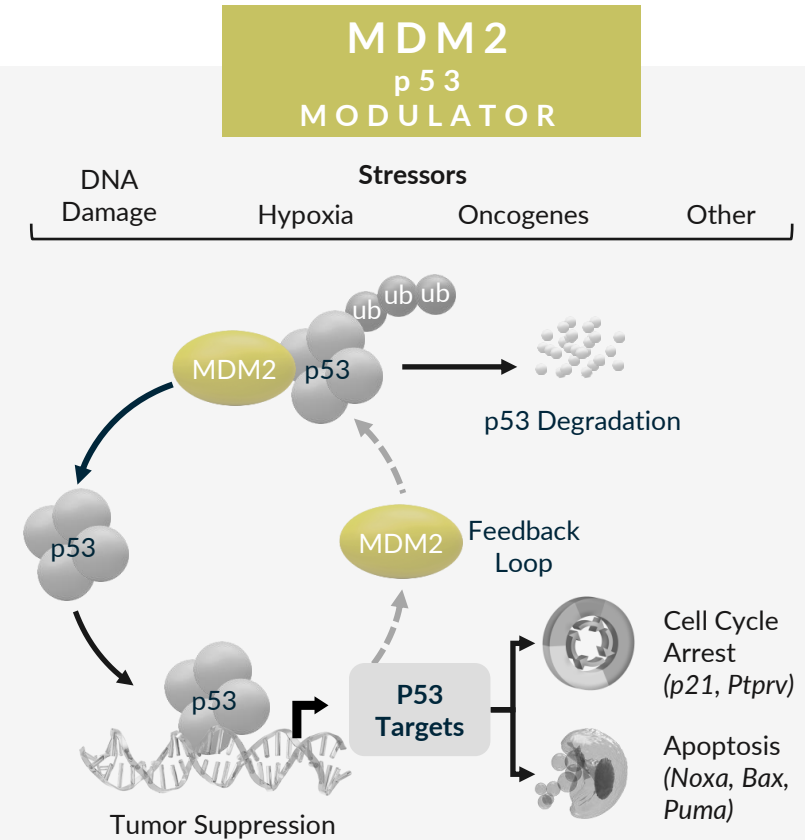
MDM2, STAT3

# Kymera Oncology Degradar Portfolio

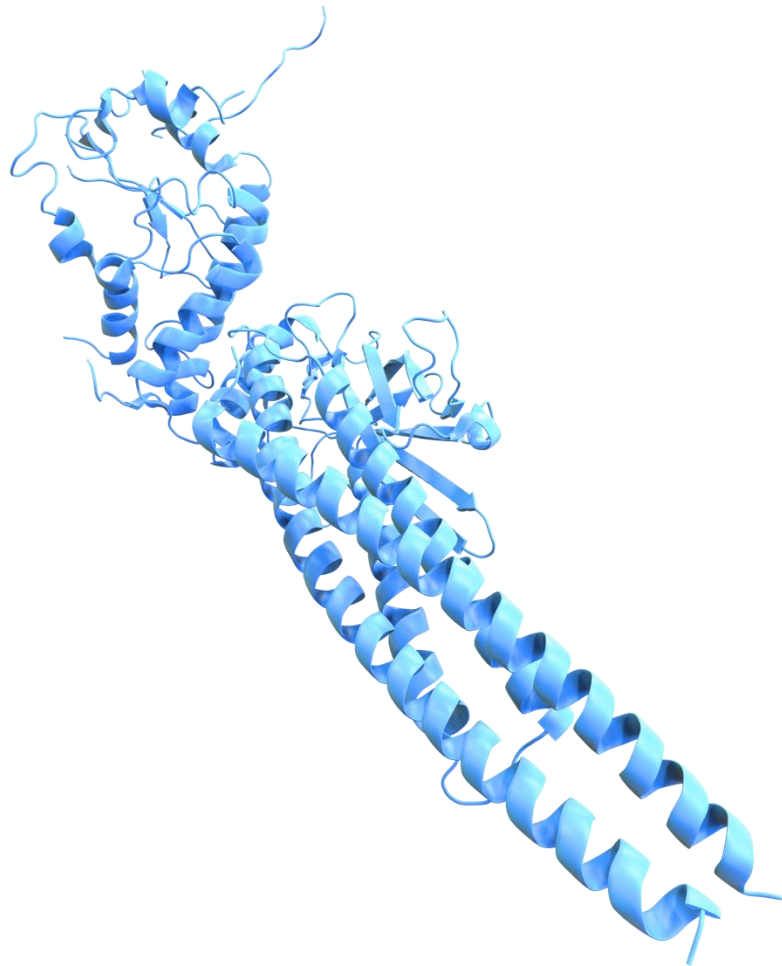
Targeting undrugged or poorly drugged targets in areas with large clinical and commercial impact, with focus on mechanisms that can address both liquid and solid tumors



**STAT3** is a **traditionally undrugged transcription factor** within a clinically validated pathway with unique tumor cell intrinsic and extrinsic mechanisms



**MDM2** is a poorly drugged (by SMI) E3 ligase that modulates p53, the **largest tumor suppressor**



# KT-333

## A First-in-Class STAT3 Degradator

# STAT3 Biology and Target Rationale

## Target Biology and Rationale

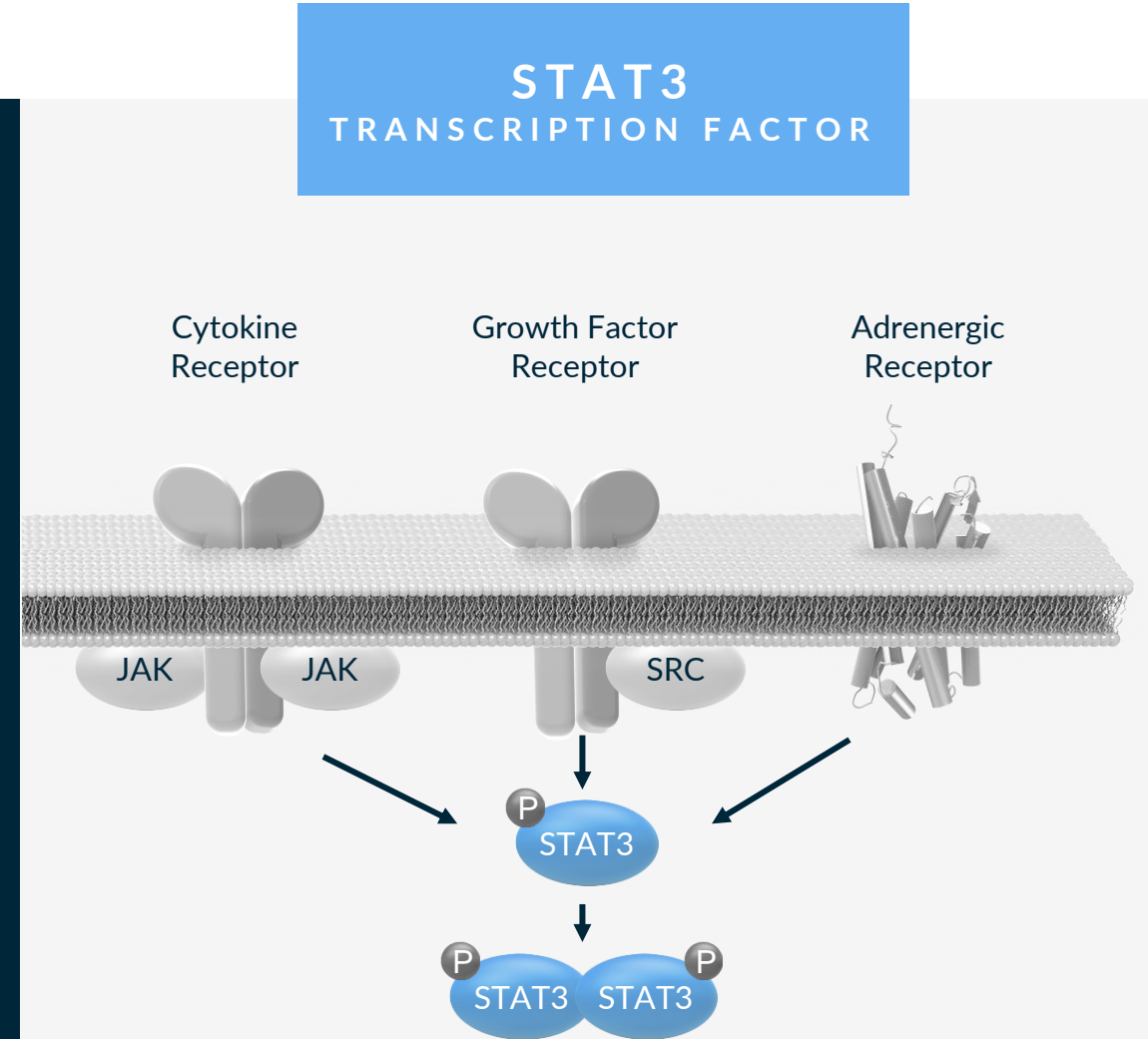
- STAT3 is a largely undrugged transcription factor activated through cytokine and growth factor receptors via JAKs and non-JAK mediated mechanisms
- STAT3 plays a role in tumor biology, evasion of immune surveillance and inflammation/fibrosis
- No known drugs selectively block STAT3 broadly across all relevant cell types or address both phosphorylation-dependent and -independent functions of STAT3

## Clinical Pathway Validation

- Multiple drugs approved that target upstream effectors signaling through STAT3 (ruxolitinib [JAK1/2], tocilizumab [IL-6R], belumosudil [ROCK-2])

## Human Genetics

- T cell lymphomas/leukemias responsive to JAK inhibition have STAT3 and/or JAK mutations and STAT3 pathway hyperactivation





# STAT3 Has Unique Tumor Cell Intrinsic and Extrinsic Mechanisms

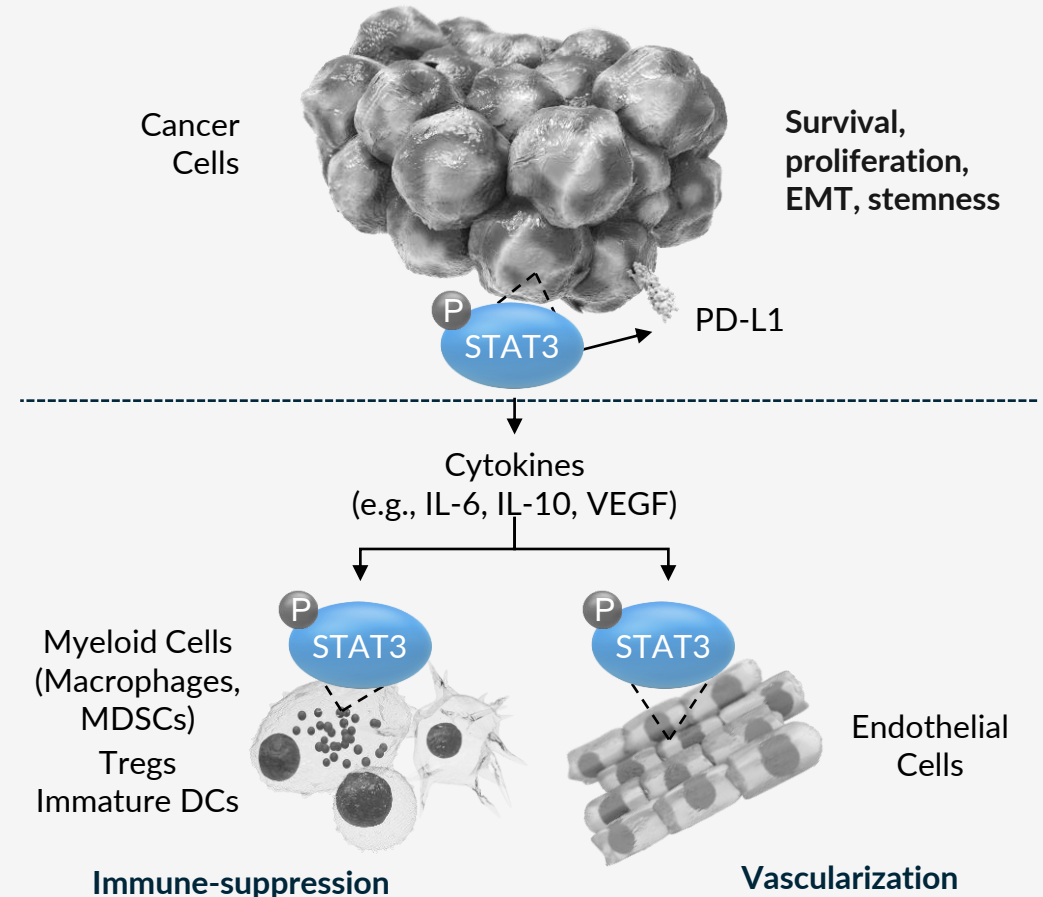
## Tumor Intrinsic

- Hyperactivation of STAT3 via dysfunctional receptor signaling or genomic aberrations lead to tumorigenic processes.
- Therapeutic opportunities lie in STAT3-dependent malignancies (e.g., T cell malignancies) & in mitigation of resistance mechanisms driven by STAT3 signaling (e.g., TKI; KRAS G12C resistance)

## Tumor Extrinsic

- STAT3 plays pivotal role in generation and maintenance of an immunosuppressive tumor microenvironment.
- Opportunities in multiple heme and solid tumor indications poorly sensitive to immune checkpoint inhibitors that can be sensitized by TME remodeling (e.g. NSCLC with inactivating mutations in STK11, cHL, others)

### STAT3 TRANSCRIPTION FACTOR



# KT-333: First-in-Class STAT3 Degradator

## Multiple Monotherapy and Combination Development Opportunities in Liquid and Solid Tumors

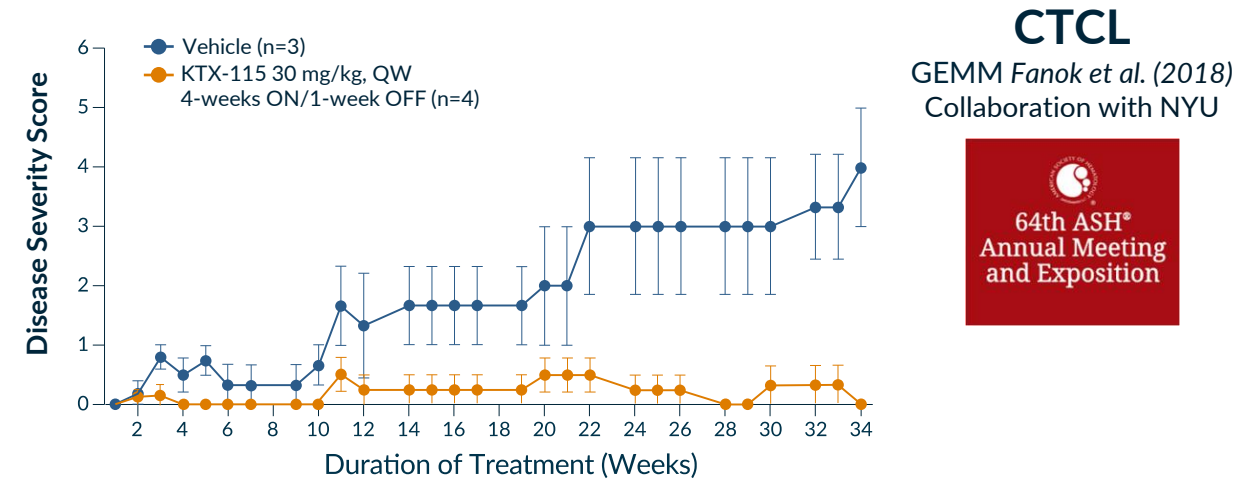
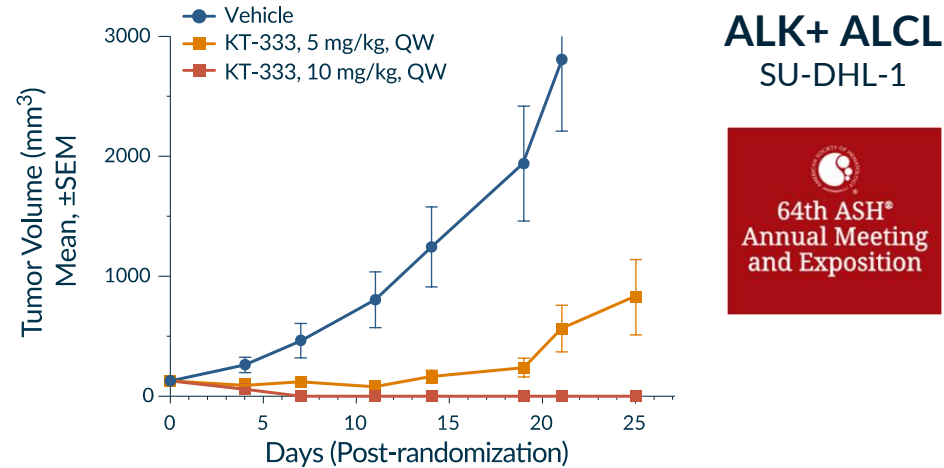
	Hematological Malignancies	Solid Tumors
Pre-Clinical	<ul style="list-style-type: none"> <li><b>Durable single agent anti-tumor activity</b> across multiple T-cell lymphoma models (ALCL and CTCL)</li> </ul>	<ul style="list-style-type: none"> <li><b>TME remodeling with induction of IFN-<math>\gamma</math> signature</b> in solid tumor models leading to <b>sensitization to anti-PD-1</b></li> <li><b>Single agent growth inhibition in solid tumor models</b> (undisclosed)</li> </ul>
Clinical	<ul style="list-style-type: none"> <li>Anti-tumor activity in ongoing Phase 1a study in CTCL and Hodgkin's lymphoma with <b>multiple PRs</b></li> </ul>	<ul style="list-style-type: none"> <li><b>IFN<math>\gamma</math> signature response</b> in blood and tumor in ongoing Phase 1a study indicates <b>remodeling of TME</b></li> </ul>
Development Opportunities	<ul style="list-style-type: none"> <li><b>Monotherapy opportunities with accelerated registration path</b> across several high unmet need lymphoma indications</li> </ul>	<ul style="list-style-type: none"> <li>Opportunities in <b>combination with anti-PD-1</b> across different CPI-sensitive indications, and possible <b>monotherapy and combo opportunities in certain sensitive patient populations</b></li> </ul>

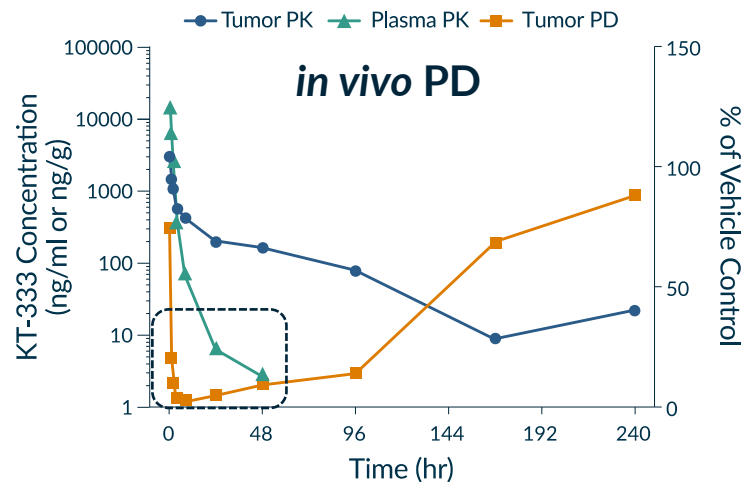
	U.S. Incidence	R.O.W. Incidence	Potential Patient Impact
Classical Hodgkin Lymphoma (cHL)	~8.8k	~11.4k	<b>Combination potential to re-sensitize solid tumors to CPI therapy and/or enhance the response rates of CPI therapies across approved solid tumor indications, including NSCLC, SCLC, melanoma, SCCHN, RCC, UC, TNBC, MSI-H CRC, dMMR endometrial</b>  <b>Mono- and combination therapy potential in biomarker-selected NSCLC, breast, pancreatic, cervical, others</b>
Peripheral T-cell lymphoma (PTCL)	~3.6k	~4.5k	
Cutaneous T-cell lymphoma (CTCL)	~3.6k	~2.5k	
Large granular lymphocyte leukemia (LGL-L)	<1k	<1k	

Sources: GlobalData, NORD, Ricciuti B 2022 JTO. Note: R.O.W = France, Germany, Italy, Spain, UK, and Japan.

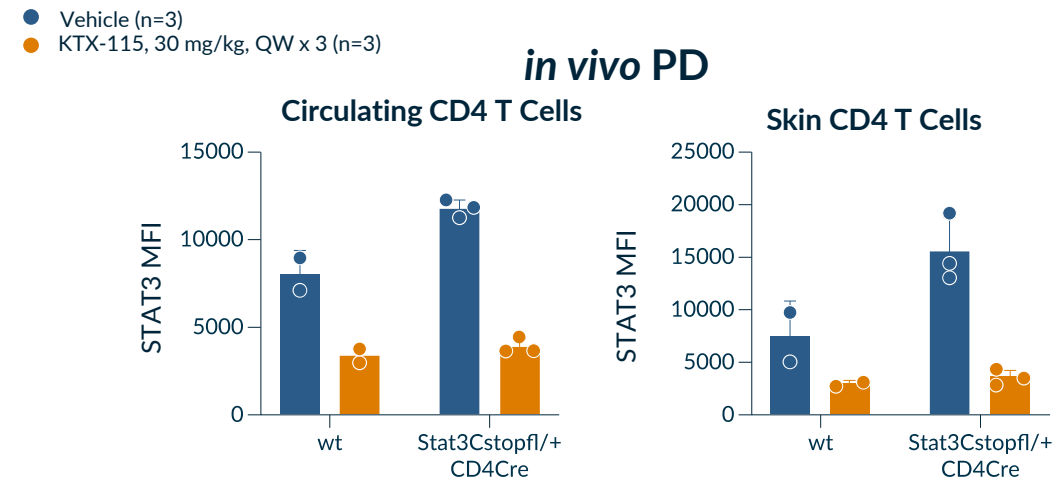
# Durable Anti-Tumor Activity of STAT3 Degradation as a Single Agent in Preclinical Models of T cell Lymphoma



**Complete Tumor Regressions Associated with  $\geq 90\%$  STAT3 KD for ~48h Achieved with Intermittent Dosing of KT-333**

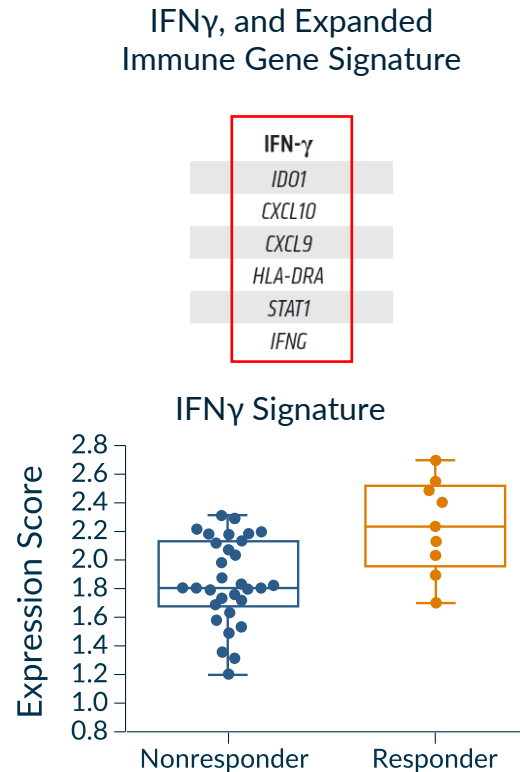


**STAT3 Degradation Results in Disease Amelioration in a CTCL Preclinical Model with Potent Degradation of STAT3 in CD4+ T Cell-of-Origin**

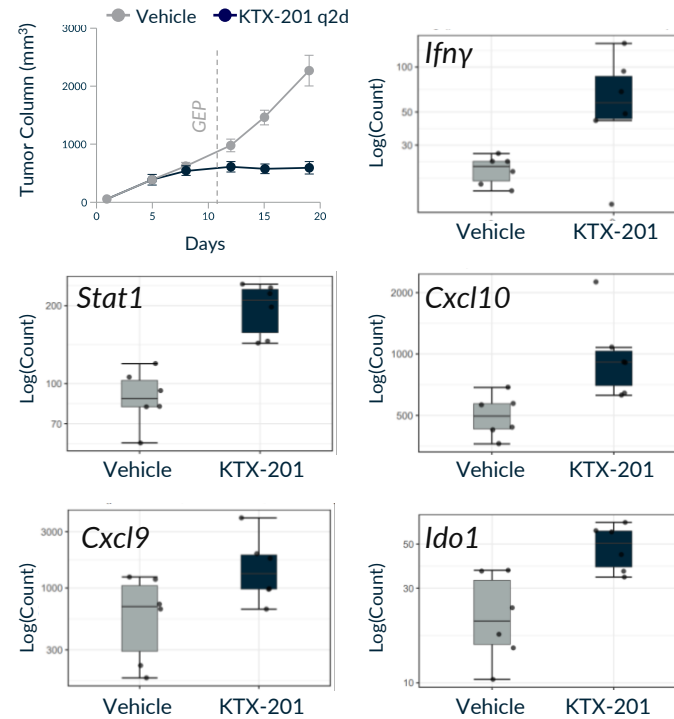


# STAT3 Degradation Elicits an IFN $\gamma$ Gene Signature in TME and Sensitizes Solid Tumor Mouse Models to PD-1 Inhibition

## IFN $\gamma$ mRNA Signature Predictive of Clinical Responses to Anti-PD-1 (Pembrolizumab)



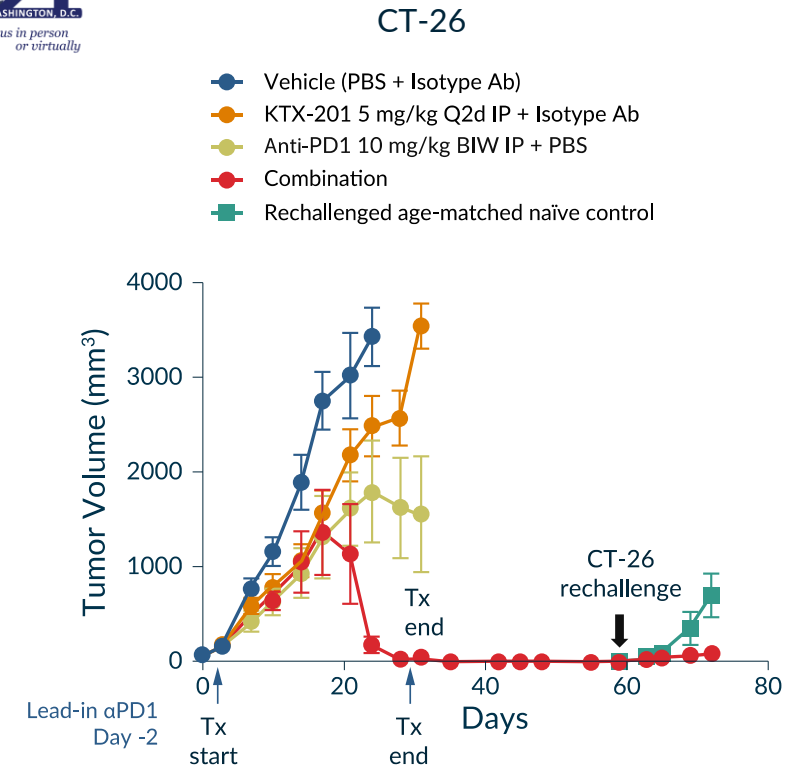
## IFN $\gamma$ mRNA Signature in TME Elicited by STAT3 Degradation in CT-26 Preclinical Model



On treatment - Day 11; n=6/grp

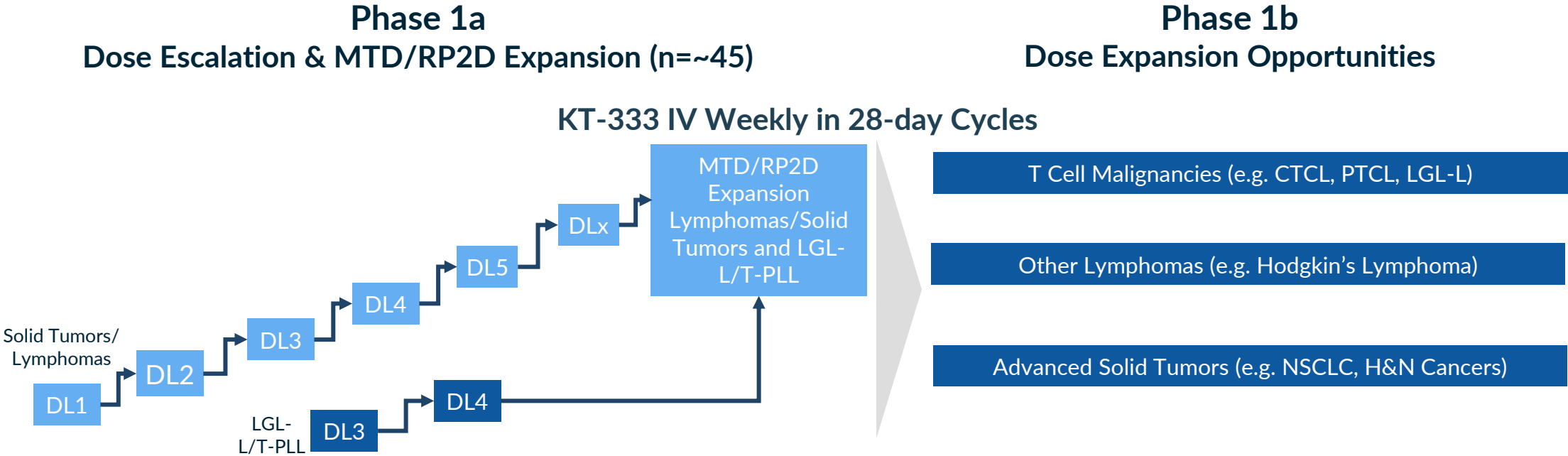


## STAT3 Degradation Sensitizes CT-26 Model to Anti-PD-1 via Activation of Anti-tumor Immunity



# KT-333: Phase 1, Multicenter, Dose-Escalation and Expansion Trial to Evaluate KT-333

Adult Patients with Lymphomas, Leukemias and Solid Tumors



Key Objectives	Phase 1a	Phase 1b
Primary	<ul style="list-style-type: none"><li>Safety/Tolerability and MTD and RP2D</li></ul>	<ul style="list-style-type: none"><li>Safety/Tolerability at RP2D in Patients with Lymphoma/Leukemia and Solid Tumors</li></ul>
Secondary	<ul style="list-style-type: none"><li>PK Parameters of KT-333</li><li>Preliminary Estimates of Activity</li></ul>	<ul style="list-style-type: none"><li>Preliminary Clinical Activity (ORR, DoR, PFS, DCR, OS)</li><li>PK Parameters of KT-333</li></ul>
Exploratory	<ul style="list-style-type: none"><li>PD Effects of KT-333</li></ul>	<ul style="list-style-type: none"><li>PD Effects of KT-333</li></ul>

MTD: Maximum Tolerated Dose. RP2D: Recommended Phase 2 Dose. ORR: Overall Response Rate

# KT-333 Safety Summary: DL1-5

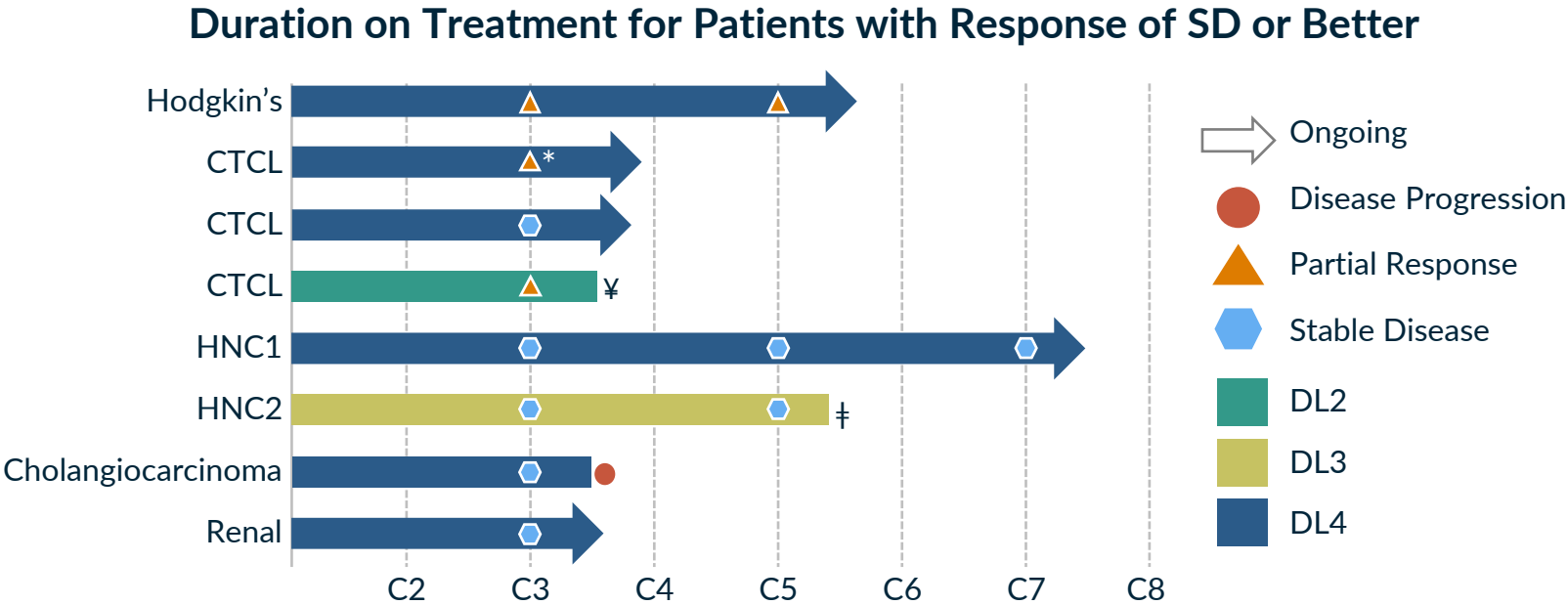
Data cut-off date of October 18, 2023

- Overall, KT-333 well-tolerated with primarily Gr. 1-2 AEs
- 2 DLTs observed (Gr. 3 stomatitis, Gr. 3 arthralgia) both in LGL-L patients at DL5; No DLTs in solid tumor/lymphoma patients at any dose level
- Led to protocol amendment to assess safety/MTD in solid tumor and lymphoma patients separately from leukemic patients (LGL-L, T-PLL)
  - Solid tumor/lymphoma- currently at DL5 with plan to continue dose escalation as planned
  - LGL-L/T-PLL- currently at DL3 with max escalation to DL4
- Most common related AEs across all patients (n=29), n (%):
  - Stomatitis, 6 (21%)
  - ALT increase, 3 (10%)\*
  - AST increase, 2 (7%)\*
- Related Grade 3 AEs\*\*: 1 pt each: Stomatitis, arthralgia, weight decreased

# Responses Observed Across Multiple Tumor Types During Dose Escalation of KT-333

Data cut-off date of October 18, 2023

Tumor Type	Best Response
CTCL (n=5)	2 PR 1 SD 2 PD
cHL (n=1)	1 PR
PTCL (n=1)	1 PD
LGL-L (n=2)	Not Evaluable
Solid Tumors (n=12)	4 SD* 8 PD



\*Mucoepidermoid carcinoma of parotid gland (C7+), sinonasal adenocarcinoma (C5), cholangiocarcinoma (C3), renal cell cancer (C3+)

\* Received steroids during 1<sup>st</sup> week of C1 to treat symptoms arising from Sezary Syndrome; † Discontinued d/t AE (Gr. 2 squamous cell carcinoma of skin); ‡ Discontinued d/t PI discretion (stable disease at discontinuation); HNC1 = Mucoepidermoid carcinoma of parotid gland; HNC2 = Sinonasal adenocarcinoma

- Disease control in 3 of 5 CTCL patients including 2 PR's and 1 SD; 1 PR in cHL, demonstrating single agent activity in liquid tumors supported by preclinical data
- In solid tumors, where preclinically no strong single agent activity was observed, a pattern of more prolonged SD in H&N tumors was seen with overall 4 patients with SD

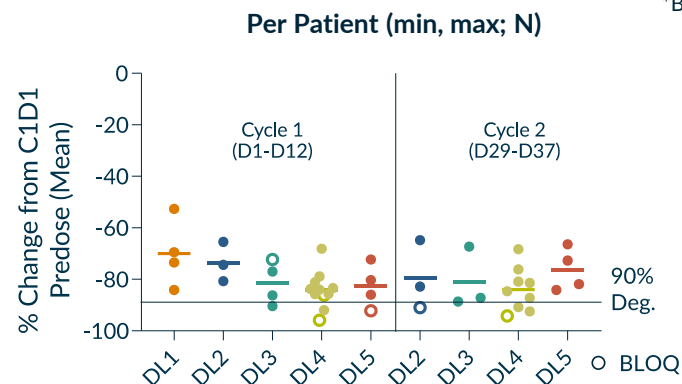


# Robust STAT3 Degradation in PBMCs and Tumor

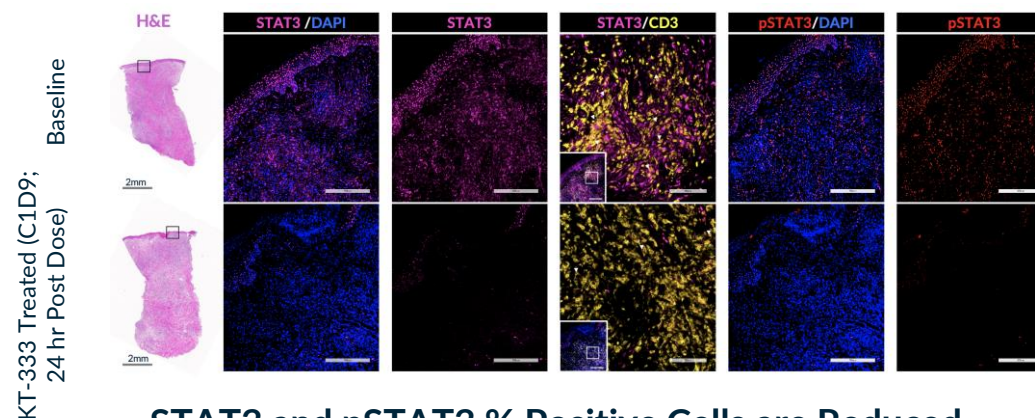
## Maximum Degradation of STAT3 in PBMCs

Dose Level	Per Cohort (min, max; N)	
	Cycle 1 D1-D12	Cycle 2 D29-D37
0.05 mg/kg	-69.9% (-52.6%, -84.1%; 4)	N/A
0.1 mg/kg	-73.5% (-65.5%, -80.7%; 3)	-79.5% (-64.8%, -91.0%; 3)
0.2 mg/kg	-81.5% (-72.3%, -90.4%; 4)	-81.0% (-67.3%, -88.6%; 3)
0.4 mg/kg	-84.0% (-68.1%, -95.9%; 11)	-84.0% (-68.3%, -94.2%; 9)
0.7 mg/kg	-82.7% (-72.3%, -92.2%; 4)	-76.3% (-66.4%, -84.1%; 4)

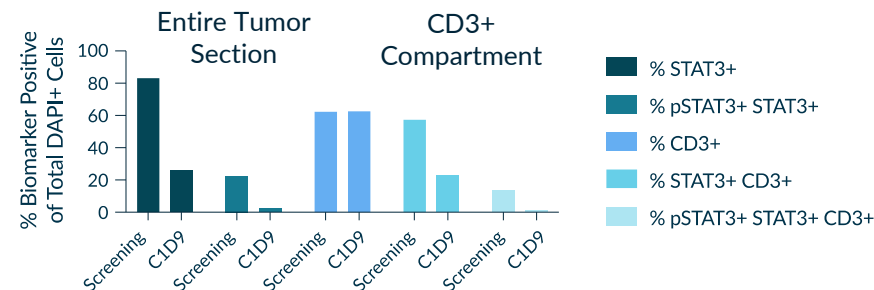
\*BLOQ



## KT-333 Leads to Marked Reductions in STAT3, pSTAT3 in Tumor Tissue from a CTCL Patient



## STAT3 and pSTAT3 % Positive Cells are Reduced

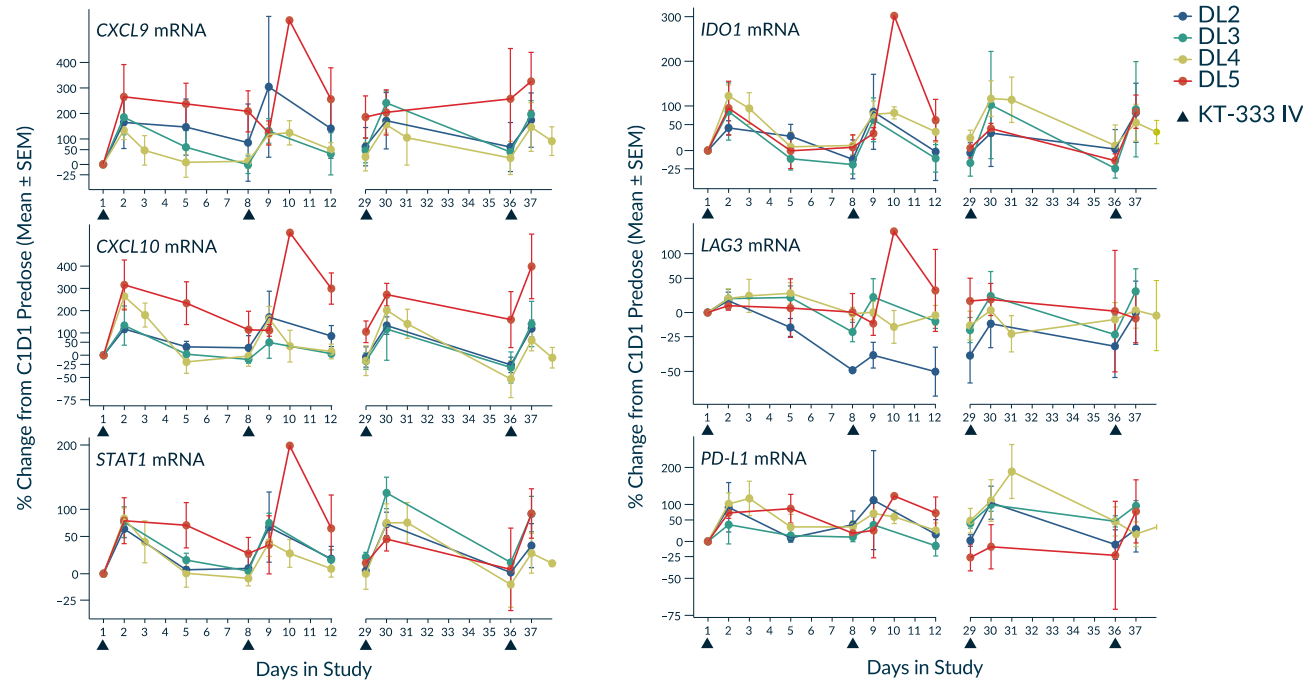


69% & 87% respectively in the post treatment tumor biopsy compared to screening

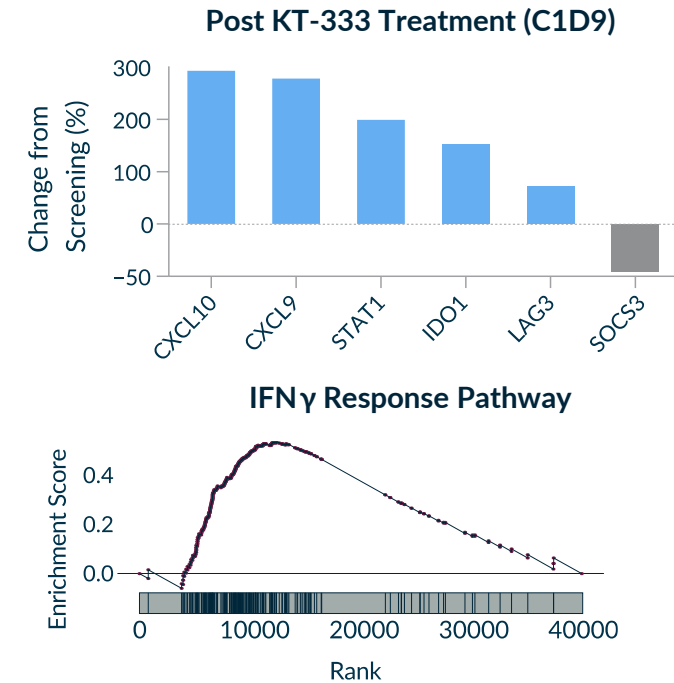
- Strong proof-of-mechanism for KT-333 with up to 96% maximum degradation of STAT3 in PBMCs
- STAT3 and pSTAT3 positive cells reduced by 69% and 87% in tumor

# STAT3 Degradation Elicits IFN- $\gamma$ Response Gene Signature in Blood and Tumor

## Blood Time Course of Transcriptional Induction of Select IFN $\gamma$ Stimulated Genes Post KT-333 Infusion



## Tumor KT-333 Leads to Induction of IFN $\gamma$ Pathway Response and Downregulation of SOCS3 in a CTCL Tumor



Induction of IFN- $\gamma$  signature in tumor by KT-333 consistent with preclinical findings where effect in syngeneic solid tumor model associated with enhanced response to anti-PD-1

# STAT3 Degradator: KT-333

First-in-class opportunity to address STAT3 driven pathology across broad indications

Upcoming Presentation:  
EHA 2024



## Interim Clinical Data

Strong proof-of-mechanism with up to 96% maximum degradation of STAT3 in PBMCs

STAT3 and pSTAT3 positive cells reduced by 69% and 87% in tumor

Disease control in 3 of 5 CTCL patients (2 PR's and 1 SD) and 1 PR in cHL, demonstrating single agent activity

Robust STAT3 knockdown and induction of antitumor IFN- $\gamma$  response in tumor biopsies

In solid tumors, a pattern of more prolonged SD in H&N tumors was seen with overall 4 patients with SD

## Significant Opportunity

First heterobifunctional degrader against an undrugged target in the clinic

Clinical development strategy includes monotherapy direct registrational path in STAT3 dependent T cell malignancies

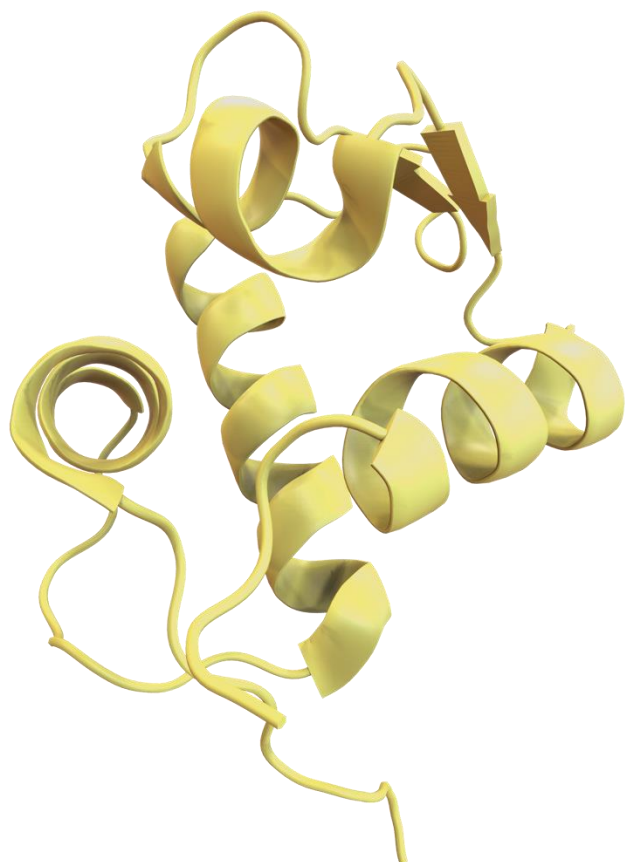
Opportunity for expansion into solid tumors in combination with immune checkpoint inhibitors and targeted therapy

## P1a Completion: 2024

Completion of Phase 1a dose escalation expected 2024

Evaluate next steps including potential expansion into Phase 1b at RP2 dose in liquid and solid tumors

Solid tumor opportunity in combination with immune checkpoint inhibitors and target therapy to be informed by preclinical data and planned analysis of TME remodeling in solid tumor biopsies from ongoing trial



# KT-253

A First-in-Class MDM2 Degraders

# MDM2 Biology and Target Rationale

## Target Biology and Rationale

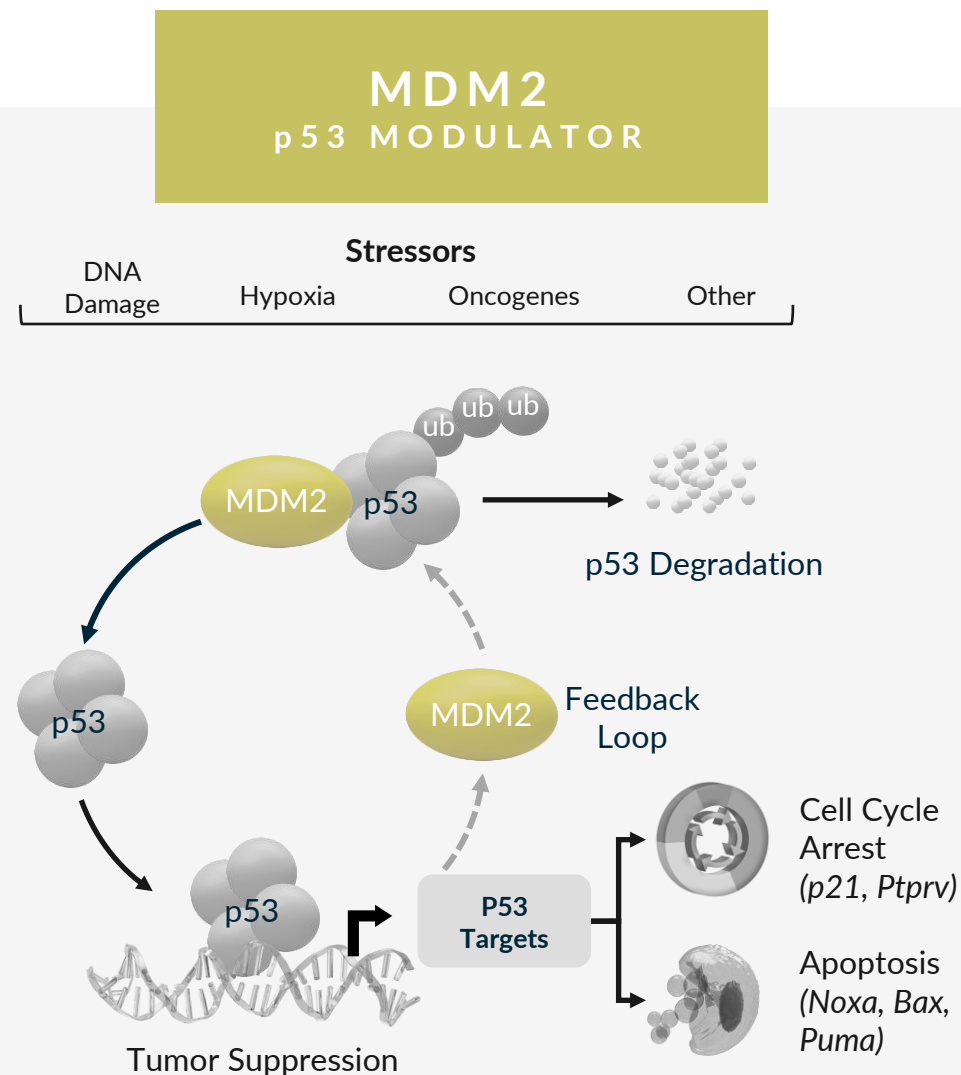
- MDM2 is the E3 ligase that modulates p53, the largest tumor suppressor
- MDM2 overexpression and amplification can inactivate p53 in the 50% of tumors that are p53 WT
- Activity of small molecule inhibitors of MDM2 limited by p53-MDM2 feedback loop that interferes with pharmacologic effect of SMIs

## Clinical Pathway Validation

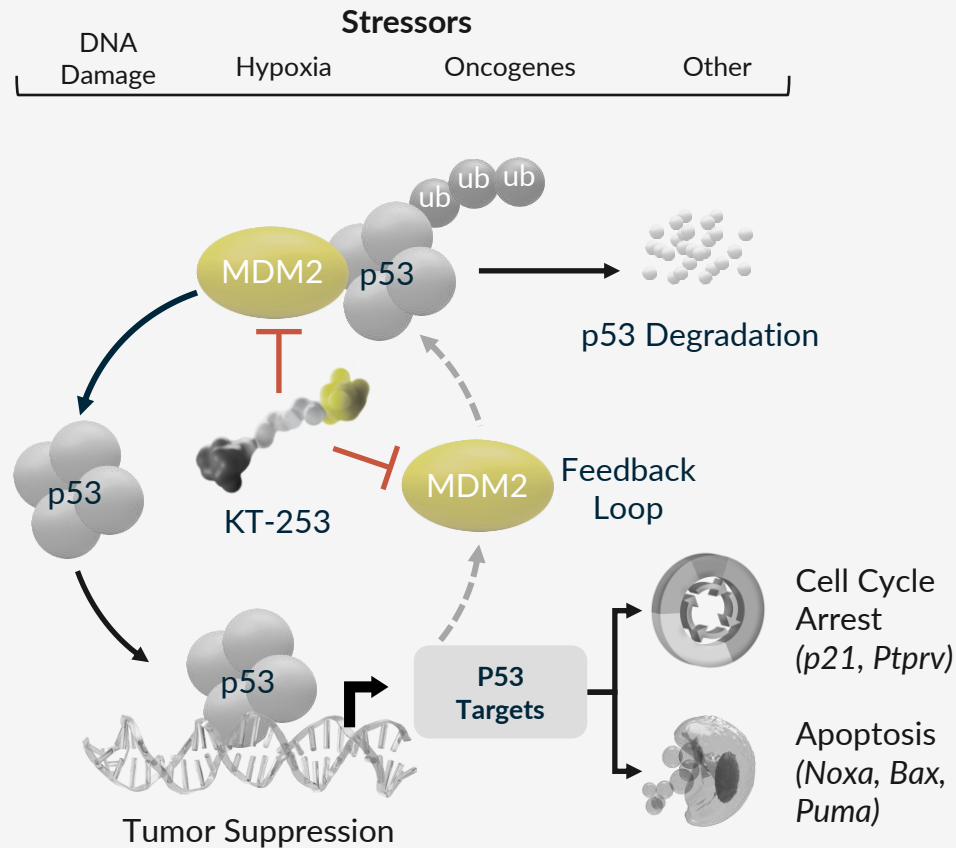
- MDM2 SMIs have demonstrated p53 pathway activation (e.g. plasma GDF-15 elevation) and modest monotherapy clinical activity in AML as well as activity in Merkel Cell Carcinoma and Myelofibrosis

## Human Cancer Genetics

- DepMap demonstrated MDM2 dependency across multiple p53 WT cell lines
- Only MDM2 degradation has potential to phenocopy impact of genetic deletion in p53 WT tumors



# MDM2 Degradation Advantage



- Unlike small molecule inhibitors, degraders remove the protein, which can overcome the p53-dependent feedback loop that upregulates MDM2 production, enabling an acute apoptotic response
- Induction of acute apoptotic response in tumors allows time for recovery of normal cells and an increase TI vs SMI
- Emerging gene signature of sensitivity to MDM2 degrader mechanism to be leveraged to prospectively select patients in Phase 1b and beyond



# KT-253: Best-in-Class p53 Stabilizer

## Potential to Treat Numerous p53WT Tumors

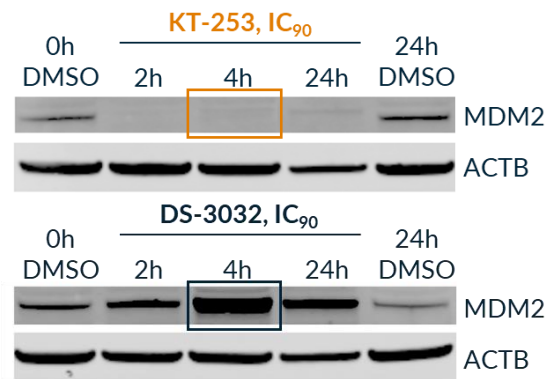
	Hematological Malignancies	Solid Tumors																			
Pre-Clinical	<ul style="list-style-type: none"><li>As monotherapy, <b>robust responses in AML/ALL models</b>, including venetoclax-resistant AML, and <b>strong combinatorial effect seen with venetoclax</b> in venetoclax-resistant AML models</li></ul>	<ul style="list-style-type: none"><li><b>Preclinical activity across variety of solid tumors</b>, including Merkel cell carcinoma (MCC), pediatric tumors and subsets of common adult tumors</li><li><b>Gene signature of sensitivity</b> to degrader mechanism emerging from adult solid tumor models</li></ul>																			
Clinical	<ul style="list-style-type: none"><li>Recently initiated AML enrollment with early evidence of p53 pathway activation</li></ul>	<ul style="list-style-type: none"><li><b>PR in MCC patient at DL1</b> in ongoing Phase 1a study shows translation of preclinical sensitivity to the clinic</li></ul>																			
Development Opportunities	<ul style="list-style-type: none"><li>Monotherapy and combination opportunities in <b>AML</b>, and potential opportunities across <b>Myelofibrosis, MDS, ALL and TP53<sup>WT</sup> lymphomas</b></li></ul>	<ul style="list-style-type: none"><li>As monotherapy across a <b>subset of adult and pediatric solid tumors</b>, to be <b>informed by emerging gene signature</b> with potential for tumor agnostic development path</li></ul>																			
	<table><tr><td></td><td>U.S.</td><td>R.O.W.</td></tr><tr><td></td><td>Incidence</td><td>Incidence</td></tr><tr><td>Acute Myeloid Leukemia (AML)</td><td>~21k</td><td>~21k</td></tr><tr><td>Myelodysplastic Syndromes (MDS)</td><td>~41k</td><td>~58k</td></tr><tr><td>Myelofibrosis (MF)</td><td>~2k</td><td>~3k</td></tr></table>		U.S.	R.O.W.		Incidence	Incidence	Acute Myeloid Leukemia (AML)	~21k	~21k	Myelodysplastic Syndromes (MDS)	~41k	~58k	Myelofibrosis (MF)	~2k	~3k	<table><tr><td></td><td>Potential Patient Impact</td></tr><tr><td rowspan="2">Solid Tumors</td><td>Subsets of various p53 functional adult solid tumors (<b>melanoma, colorectal, lung, gastric, breast</b>) selected based on emerging gene signature of sensitivity, and majority of <b>Merkel cell carcinoma, rhabdomyosarcoma, neuroblastoma, Ewing sarcoma</b></td></tr></table>		Potential Patient Impact	Solid Tumors	Subsets of various p53 functional adult solid tumors ( <b>melanoma, colorectal, lung, gastric, breast</b> ) selected based on emerging gene signature of sensitivity, and majority of <b>Merkel cell carcinoma, rhabdomyosarcoma, neuroblastoma, Ewing sarcoma</b>
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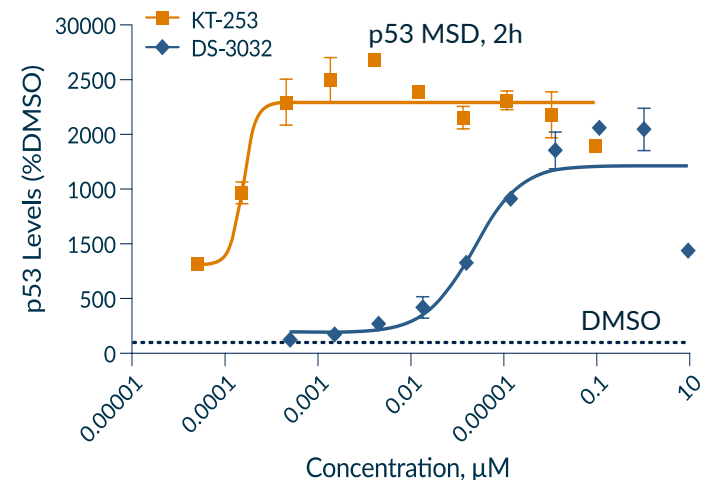
# KT-253's Potent p53 Stabilization with Brief Exposures Drives Apoptosis in Cancer Cells

## KT-253 Keeps MDM2 Levels Undetectable, Stabilizing p53

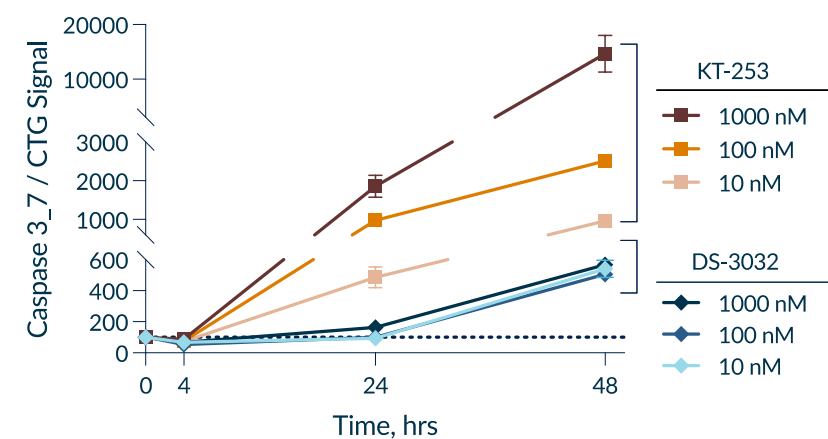


MDM2 levels are increased by the small molecule inhibitor (feedback loop), impairing p53 stabilization

## KT-253 Strongly Stabilizes p53



## 4hr Target Coverage by KT-253 Is Sufficient to Induce Apoptosis

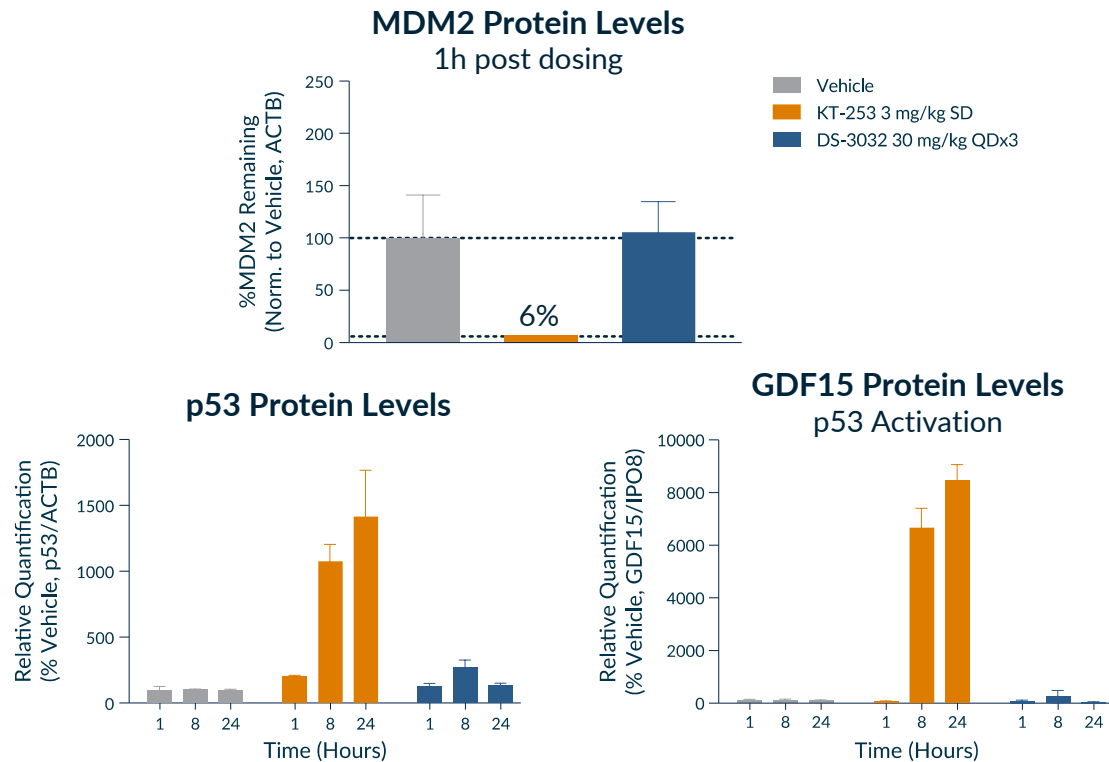


Compound	KT-253	DS-3032	AMG-232
Company	Kymera	Sankyo/Rain	Amgen/Kartos
Clinical stage	Phase I	Completed/Terminated	Multiple Ph II; combo AML
RS4;11 IC <sub>50</sub> (nM) (Cell Viability)	0.3	67	280
MDM2-HiBiT, DC <sub>50</sub> (nM) (Degradation)	0.4	-	-

- KT-253 is >200-fold more potent in tumor cell viability assays than SMI's
- Data supports intermittent dosing schedule of KT-253 can drive efficacy while increasing therapeutic index

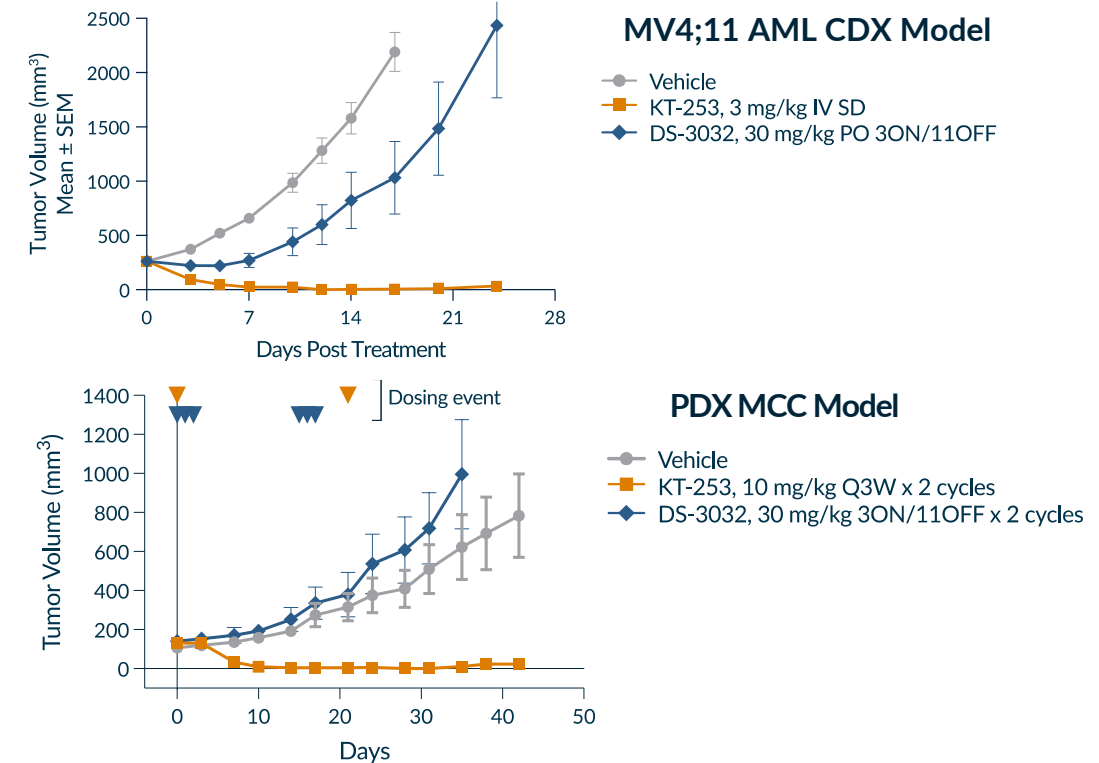
# KT-253 Potently Degrades MDM2 leading to Pathway Impact and Antitumor Activity Superior to SMI in AML and MCC Models

## MDM2 Degradation Leads to Superior P53 Upregulation vs SMI



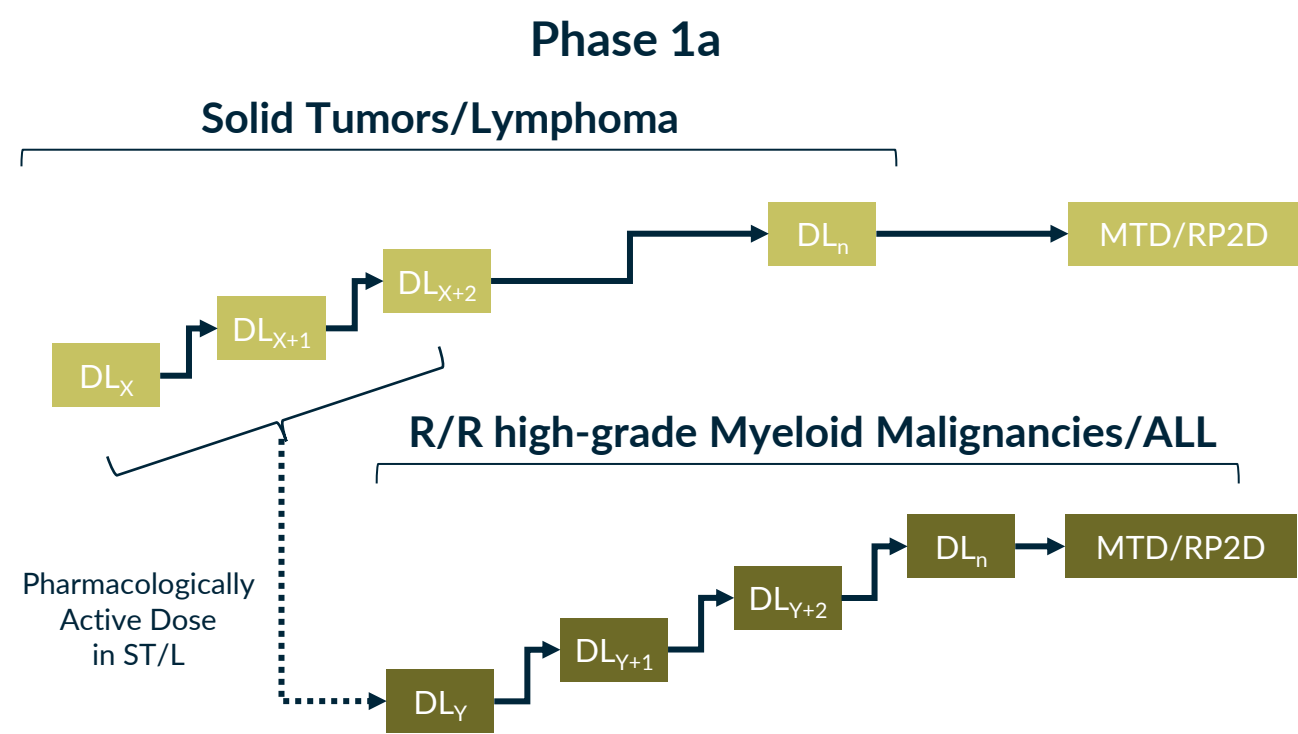
- Targeted proteomic analysis of RS4;11 tumors demonstrates robust degradation of MDM2 one hour post dosing and associated pathway activation biomarkers including p53 and GDF15

## MDM2 Degradation Leads to Superior Antitumor Responses in AML and MCC Preclinical Models



- Sustained tumor regressions in MV4;11 (AML) CDX models after a single 3 mg/kg KT-253 dose
- KT-253 demonstrated robust anti-tumor activity in Merkel Cell Carcinoma
- No antitumor activity observed with clinically relevant dosing regimen of SM (DS-3032)

# KT-253 Phase 1a: Study Design



Key Objectives	Phase 1a
Primary	<ul style="list-style-type: none"><li>• Safety, MTD and/or RP2D</li></ul>
Secondary	<ul style="list-style-type: none"><li>• PK</li><li>• Preliminary Efficacy</li></ul>
Exploratory	<ul style="list-style-type: none"><li>• PD</li></ul>

## Clinical Trial Design

- Arm A: R/R Solid Tumors and Lymphomas
  - 9 patients enrolled across first three dose levels
- Arm B: R/R high-grade Myeloid Malignancies/ALL
  - Enrollment initiated
- Regimen: IV infusion once every 3 weeks

# KT-253 Clinical Summary

As of October 20, 2023, Cut-off

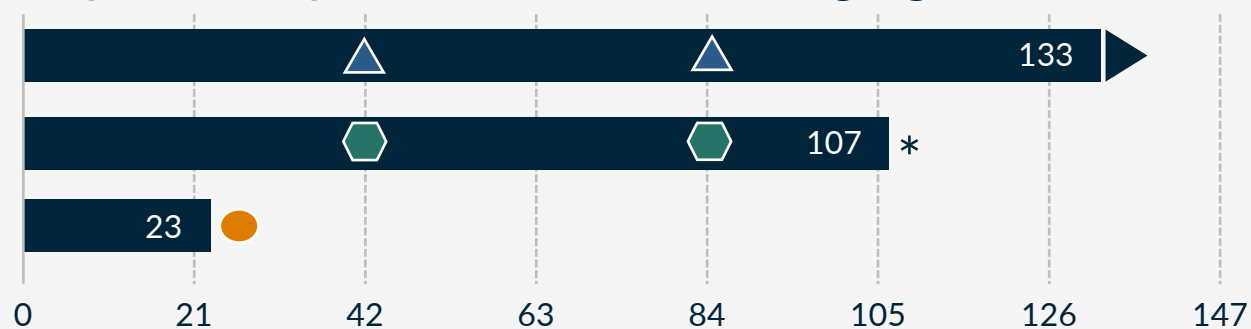
## Initial Results: Arm A

- Robust PD in blood in first two dose cohorts (POM)
- Antitumor activity in dose level 1

## Safety

- No dose-limiting toxicities across dose levels 1-3; no thrombocytopenia or neutropenia even after 6 cycles
- Related AEs (observed in at least 2 patients): Nausea (n=3): Grade 1 (n=2) and Grade 2 (n=1); Diarrhea (n=2): Grade 1
- One SAE deemed related to KT-253: Hypotension: Grade 3, occurred during cycle 4
  - Due to decreased oral intake; resolved with treatment including IV fluids; Patient remains on study without dose reduction or recurrence of hypotension

## Days on Study – Dose Level 1 (0.05 mg/kg)



Merkel Cell Carcinoma

Fibromyxoid Sarcoma

Uveal Melanoma

- ▶ Ongoing
- Discontinued (Progressive Disease)
- ▲ Partial Response
- ⬢ Stable Disease

\*Patient discontinued from study

# MDM2 Degradator: KT-253

First-in-Class Opportunity to Address p53 Wild Type Tumors  
Across Variety of Tumors

Upcoming Presentation:  
ASCO 2024

## Interim Clinical Data

Interim Phase 1a data from Arms A show evidence of target engagement and p53 pathway activation

Fidelity of translation of PK, PD, and safety

Initial evidence of antitumor activity and without hematological toxicities

Arms A and B recruiting ongoing

## Significant Opportunity

Monotherapy opportunity in subsets of solid tumors

Biomarker-based patient selection strategy to be informed by emerging gene signature indicating sensitivity to degrader mechanism

Monotherapy and combination opportunities in hematological malignancies, including AML, ALL, and potentially MF, MDS, and other p53WT tumors

## P1a Completion: 2024






Completion of Phase 1a dose escalation expected 2024

Clinical development strategy includes accelerated registration path in p53 WT tumors with high sensitivity to degrader mechanism such as AML, lymphomas and solid tumors

Additional clinical and preclinical data supporting biomarker-based patient selection strategy to be disclosed in 2024



# Pipeline with Clear Line of Sight to Large Value Creation

	Potential Indications	2024	2025	2026+	Upcoming Milestones	Rights
Immunology – Oral QD Small Molecule Degraders						
IRAK4 <sup>1</sup> KT-474	HS, AD, RA, Asthma, IBD, other <sup>3</sup>	HS Ph2 AD Ph2	HS Late Development AD Late Development		Ph2 HS & AD Data: 1H25	 sanofi KYMERA 50/50 US
STAT6 KT-621	AD, Asthma, COPD, PN CRSwNP, EoE	IND	Ph1	Mid-Late Development	Ph1 Start: 2H24	 KYMERA
TYK2 KT-294	Psoriasis, IBD, PsA, Lupus, other	IND	Ph1	Mid-Late Development	Ph1 Start: 1H25	 KYMERA
<sup>1</sup> KT-474 (SAR444656) partnered with Sanofi, with Kymera option to participate in the development and commercialization, and 50/50 profit split, in the United States. Double digit tiered royalties in ROW						
Oncology						
STAT3 <sup>2</sup> KT-333	PTCL, LGL-L, CTCL, Solid Tumors	Ph1	Mid-Late Development		Ph1 Data: EHA and 2H24	 KYMERA
MDM2 KT-253	Liquid & Solid Tumors	Ph1	Mid-Late Development		Ph1 Data: ASCO and 2H24	 KYMERA

<sup>2</sup>Assessment of STAT3 I/I opportunity is ongoing

▲ = key data readout

<sup>3</sup>Current indications; HS and AD. Other diseases shown, where IL-1R/TLR pathway has been implicated in pathogenesis, are additional potential opportunities





## 2024 PRIORITIES

- Completion of enrollment in oral IRAK4 degrader KT-474 Phase 2 trials in HS and AD by partner Sanofi (topline data 1H 2025)
- Initiation of oral STAT6 degrader KT-621 Phase 1
- IND ready for oral TYK2 degrader KT-294
- Additional oncology proof-of-concept data for the STAT3 degrader KT-333 and MDM2 degrader KT-253



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# Thank You

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