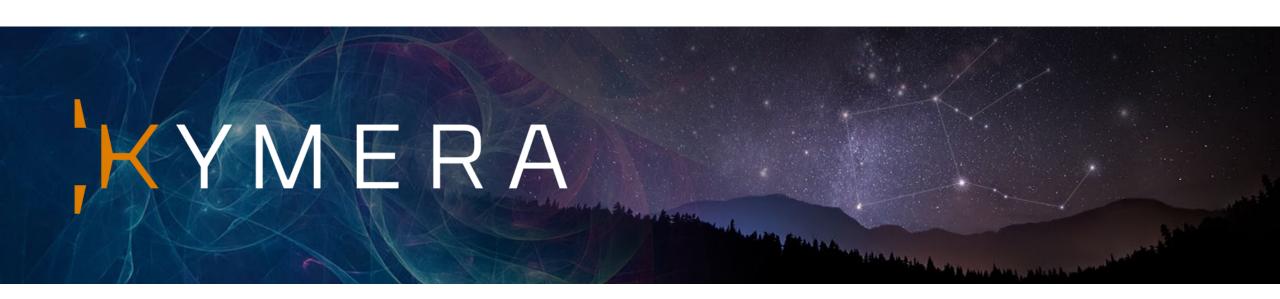


# Kymera 2021 R&D Day

December 16, 2021



# **Forward-looking Statements**

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (PSLRA) and other federal securities laws. These statements include information about our current and future prospects and our operations and financial results, which are based on currently available information. All statements other than statements of historical facts contained in this presentation, including express or implied statements regarding our strategy, future financial condition, future operations, projected costs, prospects, plans, objectives of management and expected market growth, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "design," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "predict," "positioned," "potential," "seek," "should," "target," "will," "would" and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. These forward-looking statements include statements about the initiation, timing, progress and results of our future clinical trials and current and future preclinical studies of our product candidates and of our research and development programs; our plans to develop and commercialize our current product candidates and any future product candidates and the implementation of our business model and strategic plans for our business, current product candidates and any future product candidates. 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. You should not rely upon forward-looking statements as predictions of future events.

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# Kymera 2021 R&D Day

Nello Mainolfi, Ph.D., Founder, President and CEO, Kymera



### Proteome Editing is the New Frontier of Medicine

# Genome Essentially static Alterations are responsible for **some** diseases Editing is irreversible

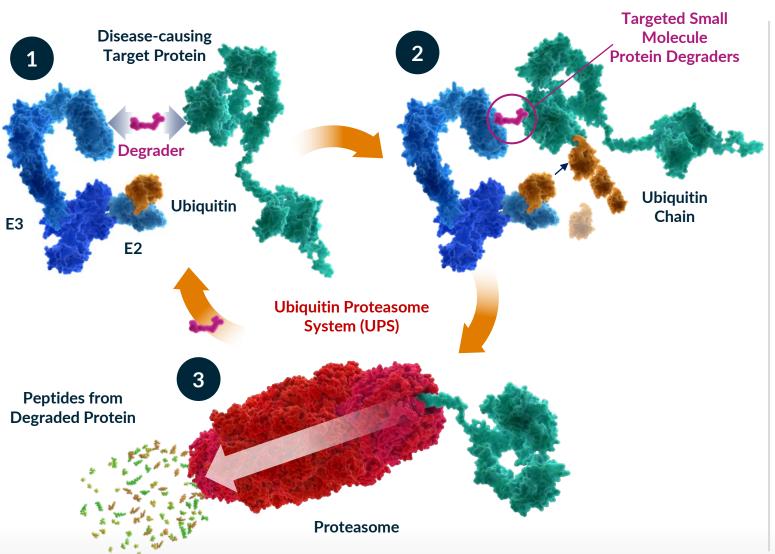
**Encodes** 

# Proteome

- Changes based on internal (genetic) and external (epigenetic) events
- Alterations are responsible for <u>all</u> diseases
- Editing is reversible

#### **Proteome Editing with Targeted Protein Degradation**

A Nobel Prize (2004) Inspired Technology

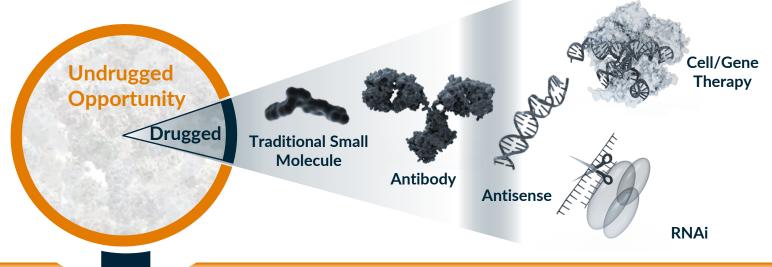


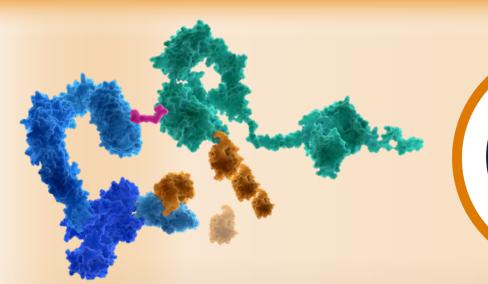
#### **Expanded Opportunities**

- Small molecule binds to E3 and target protein to effect its degradation
- Small Molecule only needs to "weakly" bind to protein: Not inhibit its function
- Highly potent/catalytic:
   Small amount of drug needed
- Highly specific
- Genetic-like knock-down effects
- Advantage of small molecule development: Route of administration, manufacturing
- Agnostic to protein type and disease

### **Expanding Druggable Proteome with Targeted Protein Degradation**

All therapeutic modalities to date only drug up to 20% of proteome



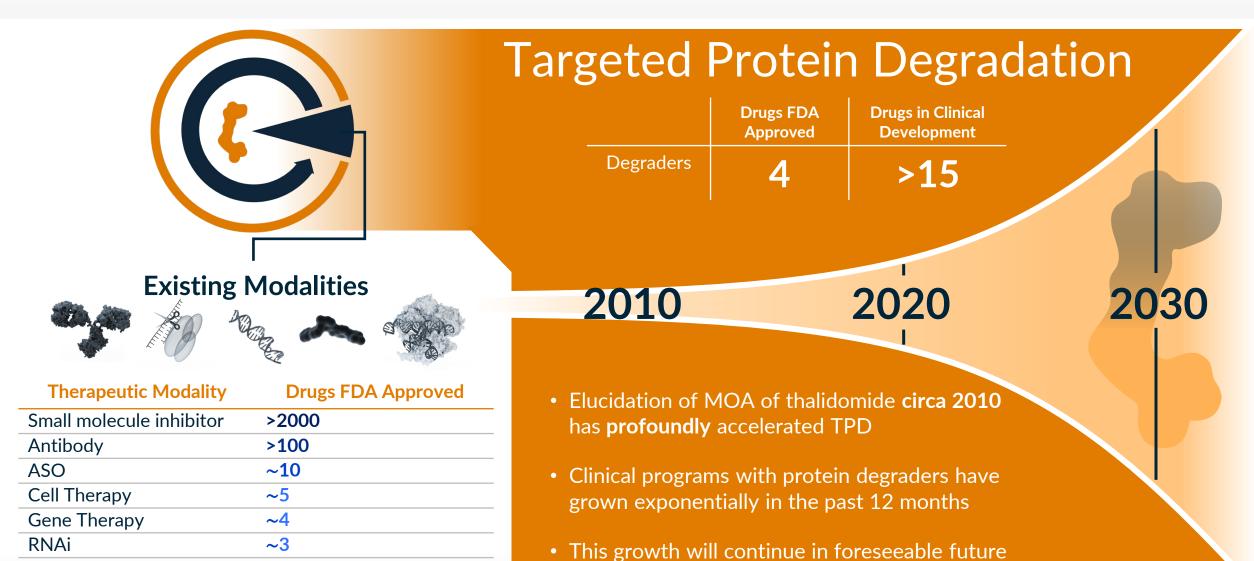


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Kymera is expanding the drugged proteome with Targeted Protein Degradation (TPD)

# **Exponential Clinical Pipeline Growth of Degraders**



Gene editing

0

# **Today's Speakers**



Bruce Jacobs, CFA, MBA

**CFO** 



Nello Mainolfi, PhD

Founder, President and CEO



Jared Gollob, MD

CMO



Naimish Patel, MD

**SVP**, Head of Global Development, Immunology and Inflammation

SANOFI 🧳



Ashwin Gollerkeri, MD

**SVP**, Head of Development



Juliet Williams, PhD

**SVP**, Head of Biology



Chris De Savi, PhD

**VP**, Head of Drug Discovery

# Today's Agenda

Introduction to Kymera	Nello Mainolfi, Ph.D. Founder and Chief Executive Officer, Kymera
Clinical Stage Pipeline	
IRAK4 Degrader KT-474 Ph1 HV study: SAD/MAD data	Jared Gollob, M.D., Chief Medical Officer, Kymera
KT-474 Development in Immuno-inflammatory Diseases	Naimish Patel, M.D., SVP, Head of Global Development, Immunology and Inflammation, Sanofi Genzyme
<ul> <li>IRAKIMiD Degrader KT-413 Update and Clinical Plans</li> <li>STAT3 Degrader KT-333 Update and Clinical Plans</li> <li>STAT3 Degraders in Immune-inflammation and Fibrosis</li> </ul>	Ashwin Gollerkeri, M.D., SVP, Head of Development, Kymera
Break	
Discovery Pipeline Principles and MDM2, New Degrader Program in Development	Juliet Williams, Ph.D., SVP, Head of Biology, Kymera
Expanding the Drugged Proteome: Kymera's Platform	Chris De Savi, Ph.D., VP, Drug Discovery, Kymera
Kymera 2026 Vision	Nello Mainolfi, Ph.D. Founder and Chief Executive Officer, Kymera
Q&A	Nello Mainolfi, Ph.D., Founder and Chief Executive Officer, Kymera Jared Gollob, M.D., Chief Medical Officer, Kymera Bruce Jacobs, CFA, MBA Chief Financial Officer, Kymera

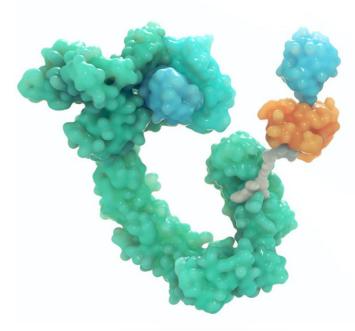


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**OUR VISION** is to be a disease- and technology-agnostic, fully integrated global biopharmaceutical company, using targeted protein degradation to deliver medicines that will transform patients' lives

### Introduction to Kymera

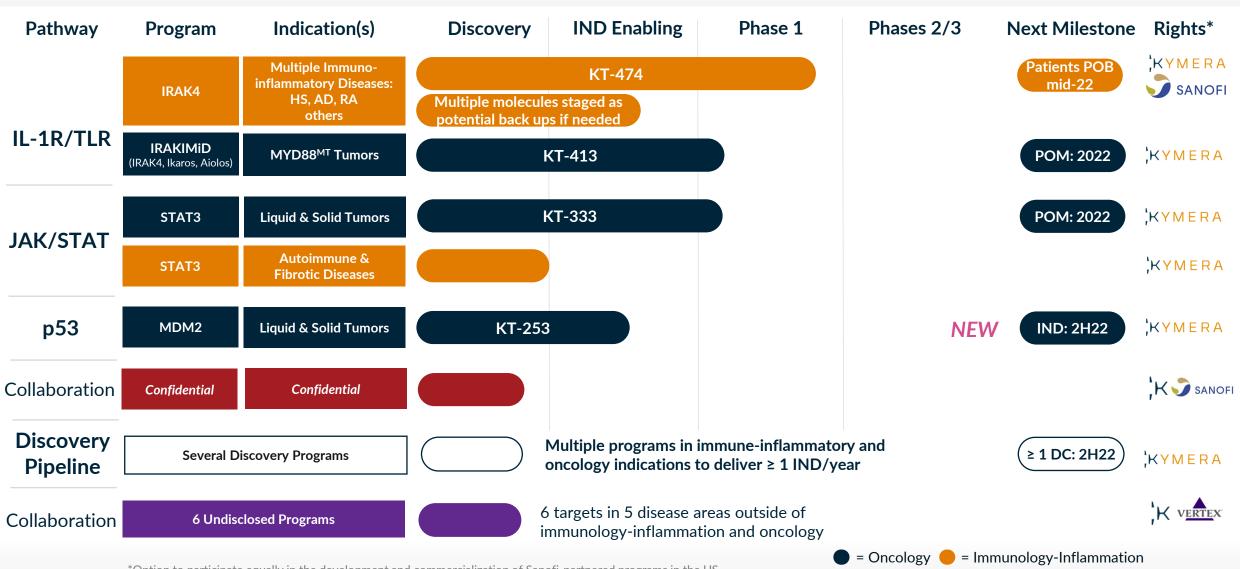




- Leader in Targeted Protein Degradation (TPD)
- Building a fully-integrated, global biotech company
- Initial focus in Immunology/Inflammation and Oncology, but already a disease-agnostic platform
- Accelerating forward integration through key strategic partnerships
- Establishing many "firsts" for TPD with initial programs
- Three programs in/entering the clinic and a deep pipeline positioned to deliver ≥1 IND/year
- Focused on continued innovation in platform and discovery
- Well capitalized with \$611 million of cash\*

\* Based on reported cash at September 30, 2021

# **Kymera's Pipeline of Novel Protein Degraders**



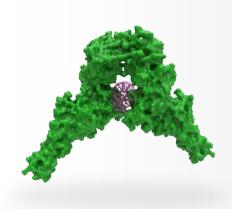
\*Option to participate equally in the development and commercialization of Sanofi-partnered programs in the US



### **Kymera's Differentiated Approach to TPD**

# TARGET SELECTION

Unique approach focused on undrugged or not fully drugged targets with broad indication potentials



#### **PLATFORM**

Significantly differentiated investments



Tissueselective E3 Ligases

Enabling a whole new generation of clinical programs



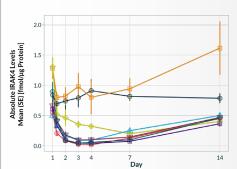
New Molecular Glue Approach

Novel strategy to address undrugged/ un-ligandable targets

#### **CLINICAL**

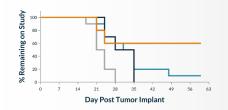
Innovative clinical trial designs for degrader development





# TPD "FIRSTS"

Kymera has accomplished several "firsts" in TPD



#### KT-474/ IRAK4

FIRST randomized, placebocontrolled trial in healthy volunteers

#### KT-333/ STAT3

FIRST
Heterobifunctional
degrader
against an
undrugged
transcription
factor in clinic

#### **INNOVATION**

Serious commitment to constant evolution of our science





### **Our People & Culture**

To build a **thriving**, high-performing and diverse organization that **enables leaders and teams** to do their best work every day and propels us to boldly innovate and transform treatment paradigms for serious diseases

#### **Organizational Strategy**

We are building a company that is scalable, flexible and with a clear view of what's needed to be a fully integrated, commercial organization.

#### **Core Values**

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Through rigorous science, trust, tenacity and resilience, this team of collaborative pioneers create transformative medicines for patients.

#### **Differentiated Experience**

We fully engage our people by creating experiences that empower them to be their best selves and inspire how we live and work.



#### **Culture Of Belonging**

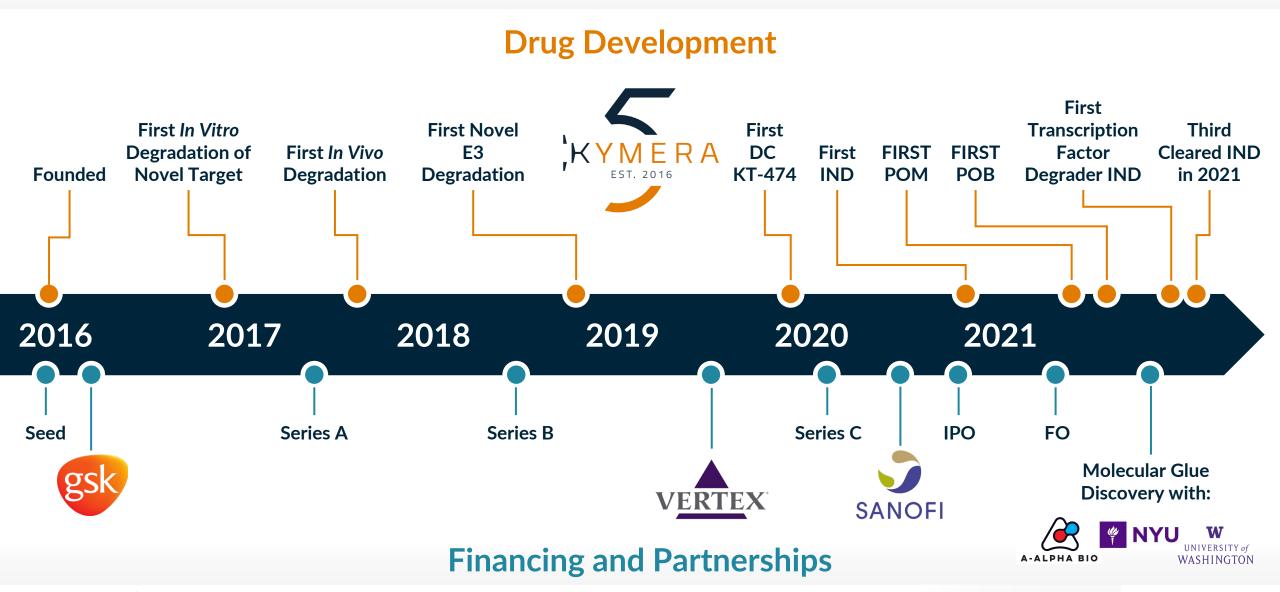
We recognize and celebrate everyone's unique contributions and experiences.

#### People + Leadership

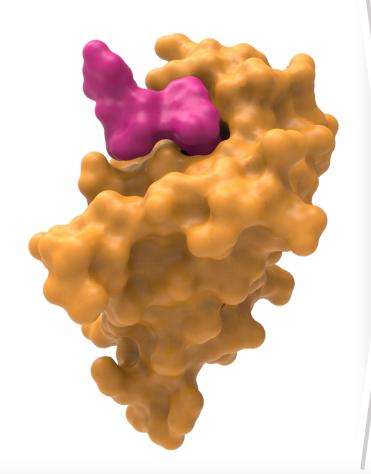
Our people bring depth of knowledge, accomplishments and creative ideas to move challenging work forward.



#### Our First 5 Years, a Foundation for the Future



#### **R&D Day Objectives**



- Why TPD is uniquely poised to transform treatment paradigms
  - Who we are and what we have accomplished so far
  - Rationale for our strategy and approach to TPD
  - Power of the Kymera drug development engine
  - What we have delivered in 2021
- How we are evolving our pipeline, our platform and all TPD
- Our vision for the company we are building



# **Clinical Pipeline**



# Agenda

IRAK4 Degrader KT-474 Ph1 HV study: SAD/MAD data

IRAKIMiD Degrader KT-413 Update and Clinical Plans

STAT3 Degrader KT-333 Update and Clinical Plans

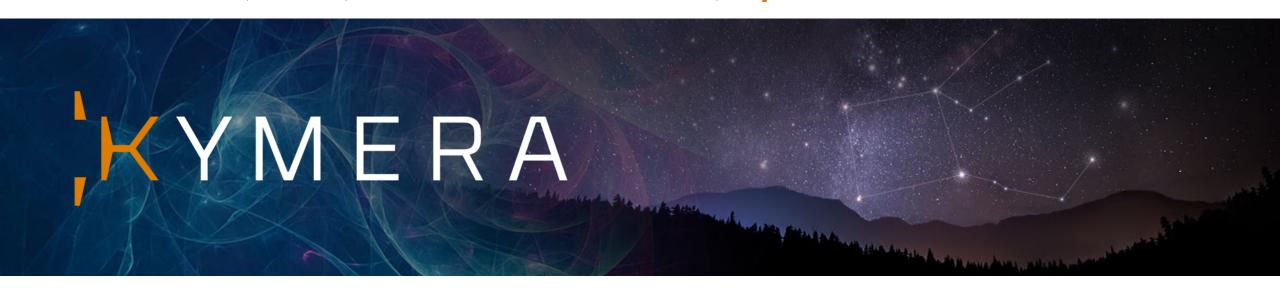
STAT3 Degraders in Immune-inflammation and Fibrosis

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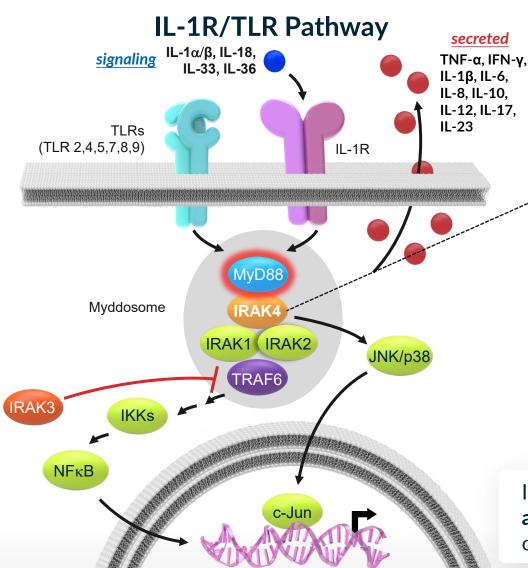


# Safety, PK and PD from SAD and MAD Dose Portion of KT-474 Phase 1 Trial in Healthy Volunteers

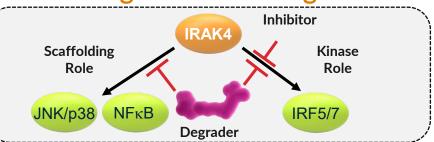
Jared Gollob, M.D., Chief Medical Officer, Kymera



# IRAK4 Targeting: Degrader Advantage, Clinical Validation, and Human Genetics De-risking



**Degrader Advantage** 



#### **Clinical Pathway Validation**

IL- $1\alpha$ /IL- $1\beta$ : Rheumatoid Arthritis, CAPS, Hidradenitis Suppurativa

**IL-1**α: Atopic Dermatitis

**IL-1β:** Gout; CANTOS Outcomes Data in Atherosclerosis and Lung Cancer

**IL-18:** Macrophage Activation Syndrome

IL-36: Generalized Pustular Psoriasis, Atopic Dermatitis

**IRAK4 SMI**: Rheumatoid Arthritis

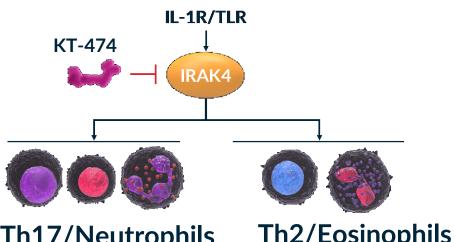
#### **Human Genetics**

Adult humans with IRAK4 Null Mutation are healthy

IRAK4 degrader has potential to achieve a **broad**, **well-tolerated anti-inflammatory effect**, providing multiple development opportunities in autoimmune inflammatory diseases

### Development Opportunities for IRAK4 Degrader in Inflammation

Potential for Broad Activity Across Th1-Th17 and Th2 Diseases



#### Th1-Th17/Neutrophils

- **Hidradenitis Suppurativa**
- **Rheumatoid Arthritis**
- Lupus
- **IBD**
- Gout
- **Psoriasis**

-	-	 •		_	_	 -	_	•	-		
			•					•			

- **Atopic Dermatitis**
- **Asthma**
- COPD
- **CRSwNP**

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#### Combined global drug sales

Source: EvaluatePharma; GlobalData; Dash. Allied Market Research. 2021; Koto. Modern Rheumatology. 2021; Ahn. JAMA Otolaryngol Head Neck Surg. 2016; UC: Ulcerative Colitis; CD: Crohn's Disease.

Indication	2021 Prevalence US/EU5/JP	2021 Global Sales
AD	~82.5 M	\$5,760 M
HS	~785 K	\$1,106 M
RA	~385 K	\$27,634 M
SLE	~580 K	\$1,333 M
IBD	~3.2 M	\$21,710 M
Gout	~18.2 M	\$1,319 M
Psoriasis	~15.8 M	\$23,268 M
Asthma	~87.3 M	\$15,664 M
COPD	~61.7 M	\$9,960 M
CRSwNP	~20.4 M	\$2,622 M

#### **Limitations of Current Therapies**

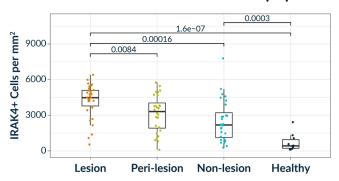
- **Anti-Cytokine/Cytokine Receptor Antibodies** 
  - Target only 1-2 cytokines
  - Require injection
- Small Molecule Inhibitors
  - Limited pathway blockade (IRAK4 SMI)
  - Safety issues (JAK family)

### **IRAK4 Protein Expression in Autoimmune Diseases**

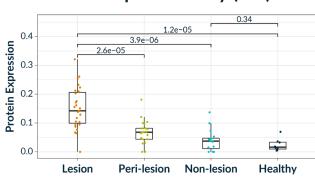
#### Upregulation in Skin of HS Patients Compared to Healthy Subjects

IRAK4 protein levels overexpressed in **HS** patient skin lesions

#### Immunofluorescence (IF)

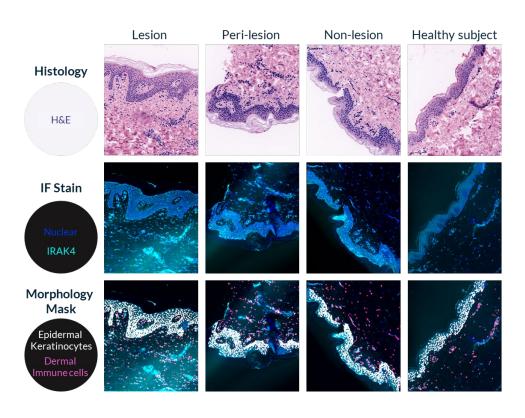


#### Mass Spectrometry (MS)

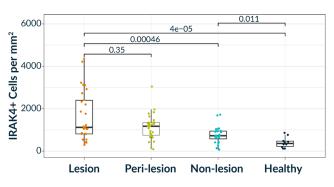


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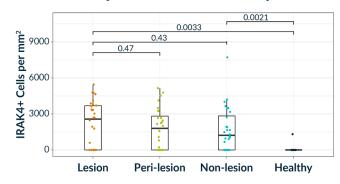
IRAK4 expression is upregulated in dermis and epidermis of HS patients relative to healthy subject skin



#### **Dermal Immune Cells**



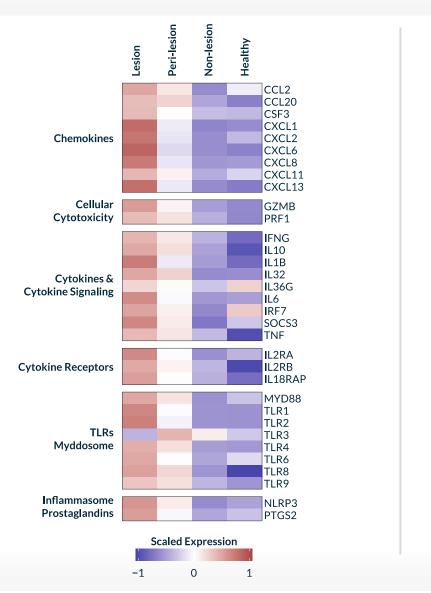
#### **Epidermal Keratinocytes**

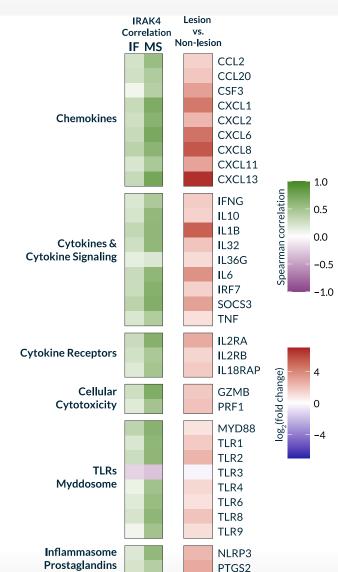


Alavi et al., Society for Investigative Dermatology Annual Meeting, 2021



# Multiple Proinflammatory Transcripts Are Upregulated and Correlate with IRAK4 Protein Levels in HS Skin Lesions





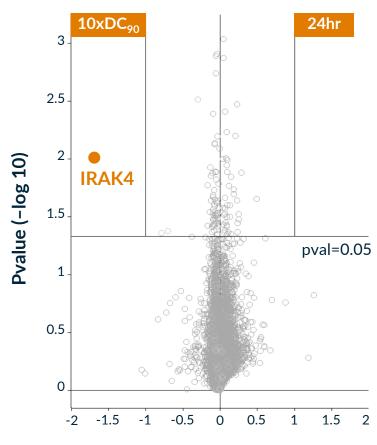
- Upregulation of TLRs, IL-1β/IL-36, MYD88, and multiple additional drivers of inflammation that all correlate with IRAK4 protein expression
- Highlights potential of IRAK4 targeting to treat diseases like HS characterized by marked pleiotropic inflammation

Alavi et al., Society for Investigative Dermatology Annual Meeting, 2021

IF: immunofluorescence; MS: mass spectrometry

# KT-474: Potent and Specific IRAK4 Degradation with Impact on Cytokines Superior to Kinase Inhibition

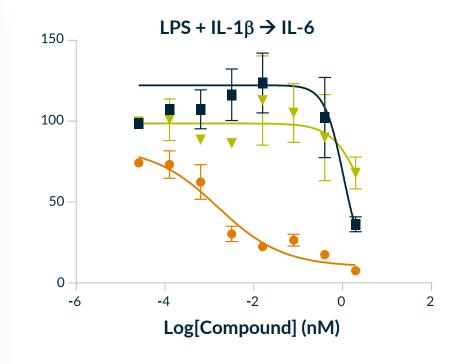
#### **Degradation and Selectivity**



**Protein Level Fold Change (log2)** 

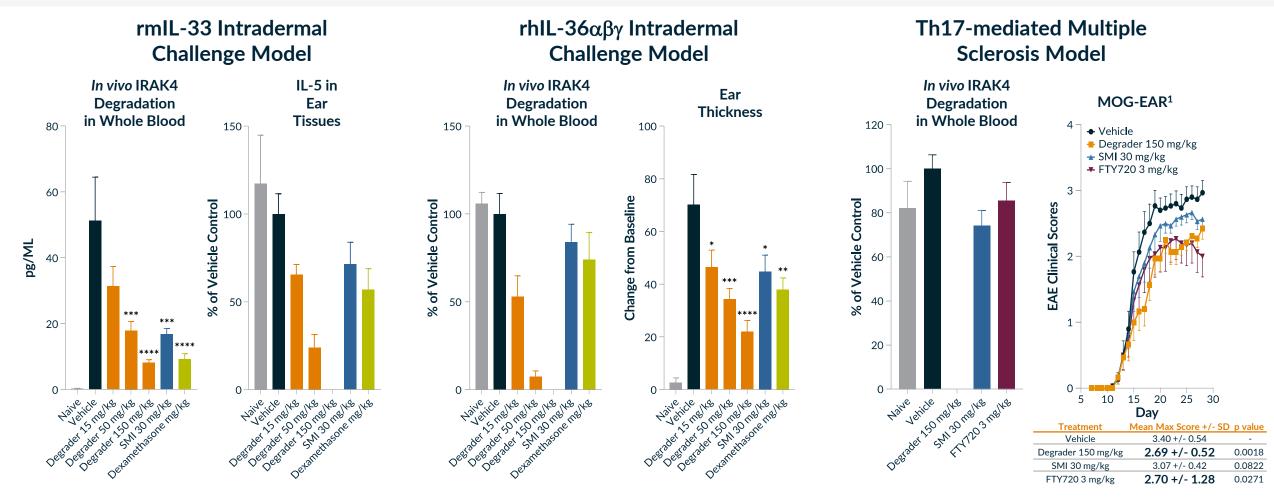
- KT-474 DC<sub>50</sub> = 2.1 nM in human immune cells
- KT-474 only degraded IRAK4 in human immune cells at concentration 10fold above the DC<sub>90</sub>
- KT-474 better able to inhibit IL-6 under both LPS and LPS + IL-1β than clinically active IRAK4 SM kinase inhibitor PF-06550833

#### **Superiority over SM kinase Inhibitor**



Legend	Compound	IL-6 IC <sub>50</sub> (nM)
-	IRAK4 Degrader	0.8
-	Negative control	450
	IRAK4 SMI (PF-06550833)	N/A

# KT-474 is Superior to IRAK4 Small Molecule Inhibitor (SMI) Across Multiple Preclinical Immune-inflammatory *In Vivo* Models



IRAK4 knockdown of ≥85% in whole blood achieved anti-inflammatory effect comparable to potent corticosteroids or approved standard of care drugs in these models as well as in models of TLR4 (MSU-Gout) or TLR7/8 (Imiguimod-Psoriasis) activation that was superior to IRAK4 small molecule inhibitor

1. Myelin Oligodendrocyte Glycoprotein-induced Experimental Autoimmune Encephalomyelitis (MOG-EAR) Model

# **KT-474** Phase 1 Trial Design Includes HV and Patients

Double-blind, Placebo-controlled, Single Ascending Dose (SAD) and Multiple Ascending Dose (MAD) trial

#### **Three-part Phase 1 Design**

1 2 3
SAD Portion
Healthy Volunteers

A 3 MAD Portion
Healthy Volunteers

Patient Cohort

- 7 cohorts
  (up to 56 adult healthy subjects)
- 8 per cohort
  (6:2 randomization)
- Single dosing (starting dose 25 mg)

- 5 cohorts

   (up to 60 adult healthy subjects)
- 12 per cohort (9:3 randomization)
- 14x daily doses (starting dose 25 mg)

- 1 cohort

   (up to 20 AD and
   HS patients)
- Open-label
- **14x** daily doses

#### **Endpoints**

#### **Primary**

Safety & tolerability

#### Secondary/ Exploratory

SAD & MAD

- Pharmacokinetic measures (half-life, bioavailability)
- IRAK4 knockdown in PBMC

# Exploratory

SAD & MAD

 Ex vivo response of whole blood to TLR agonists (SAD & MAD) and IL-1β (MAD only)

# **Exploratory**

MAD Only

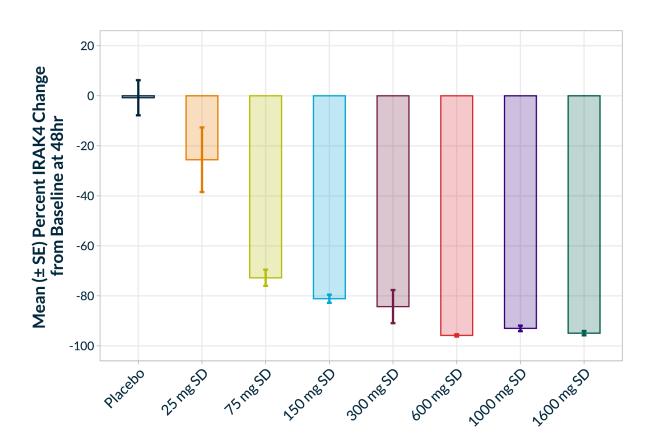
- IRAK4 knockdown in skin biopsies
- Proinflammatory cytokine and chemokine levels in skin biopsies (Patients only)
- Plasma C-reactive protein (HV and Patients) and cytokine levels (Patients only)

# **SAD/MAD Enrollment Status and Demographics**

	SAD 1-7 (n=57)	MAD 1-4 (n=48)
Gender, n		
Female	29	9
Male	28	39
Median age, years (range)	38.0 (20-55)	37.5 (20-55)
Ethnicity		
<ul> <li>Hispanic or Latino</li> </ul>	42	34
<ul> <li>Black or African American</li> </ul>	8	8
<ul> <li>Non-Hispanic or Latino- White</li> </ul>	5	6
<ul> <li>Asian</li> </ul>	2	0

### KT-474 Achieved >95% IRAK4 Degradation After Single Dose

#### Percent IRAK4 Reduction in PBMC at 48 Hours Post-Dose Using Mass Spectrometry

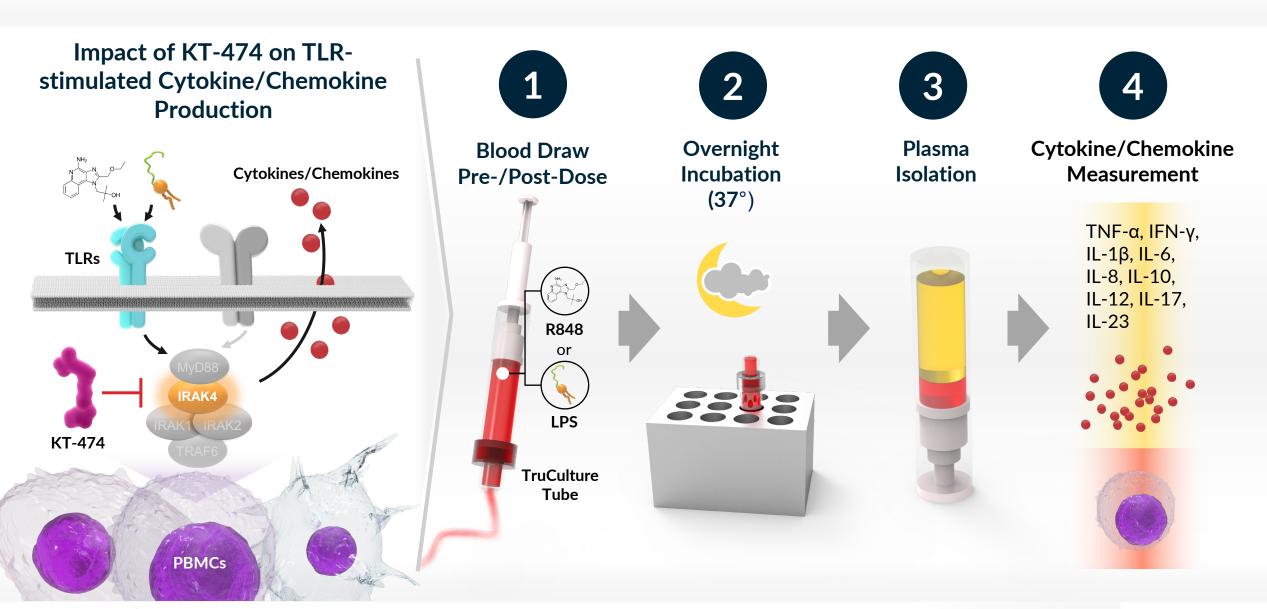


	N	Mean IRAK4 Change	Median IRAK4 Change	p value
Placebo	13	-1%	-2%	
25 mg	6	-26%	-39%	0.1
75 mg	6	-73%	-75%	<0.0001
150 mg	6	-81%	-82%	<0.0001
300 mg	6	-84%	-89%	<0.0001
600 mg	7	-96%	-96%	<0.0001
1000 mg	5	-93%	-94%	<0.0001
1600 mg	6	-95%	-95%	<0.0001

<sup>\*</sup> p-values relative to placebo

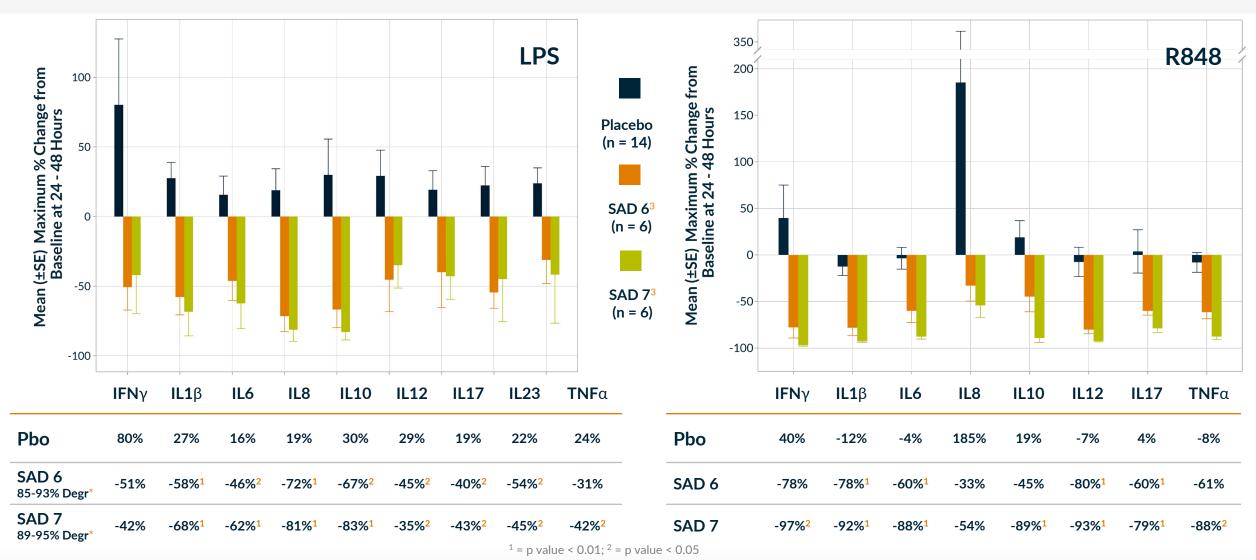


# Ex Vivo Cytokine Stimulation: Methodology in KT-474 Phase 1 Trial



# **Broad and Deep Inhibition of Disease Relevant Cytokines**

Effect Against LPS (TLR4)- or R848 (TLR7/8)-Stimulated Cytokine Induction in Whole Blood



<sup>\*</sup>Mean IRAK4 degradation in PBMC at 24-48h

<sup>3</sup>Ex vivo cytokine assay was performed at 48h nadir (maximal degradation) only in cohorts 6-7

PAGE 30

# KT-474 Demonstrates Broadest Anti-inflammatory Effect Compared to Other Clinical Agents

Inhibition of Ex Vivo Disease Relevant Cytokine/Chemokine Stimulation by Anti-Inflammatory Agents in Ph1 Studies

Agent/Stimulus	<b>Target</b>	IFNγ	TNFα	IL-1β	IL-6	IL-8	IL-17	IL-12	IL-23	IL-10
KT-474/LPS	IRAK4 (degrader)	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
KT-474/R848	IRAK4 (degrader)	<b>√</b>	<b>√</b>	$\checkmark$	<b>√</b>	<b>√</b>	<b>√</b>	$\checkmark$		<b>√</b>
CA-4948/R848	IRAK4* (inhibitor)				<b>√</b>					
GS-5718/R848	IRAK4 (inhibitor)		<b>√</b>							
ATI-450/LPS	MK2		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>				
ATI-450/IL-1β	MK2		<b>√</b>		<b>√</b>	<b>√</b>				
LY2775240/LPS	PDE4		<b>√</b>							
Iberdomide/LPS	Ikaros/ Aiolos			<b>√</b>						
JNJ-61803534/ T cell activation	RORγ						<b>√</b>			

<sup>\*</sup> Non-selective

**Iberdomide**: Schafer PH, et al. Ann Rheum Dis 2018;77:1516–1523; **LY2775240**: Patel DR, et al. Clin Transl Sci. 2021;14:1037–1048; **JNJ61803534**: Xue X, et al. Sci Rep 2021;11:11066-80; **MK2**: Aclaris 2021 Company Overview; **CA-4948**: Booher RN, et al. ASH Annual Meeting 2018, Poster #4168; **GS-5718**: Roedder S, et al. ACR Convergence 2021, Poster #0185



#### **Blinded SAD Safety Summary**

n=8 per cohort (6 drug/2 placebo)

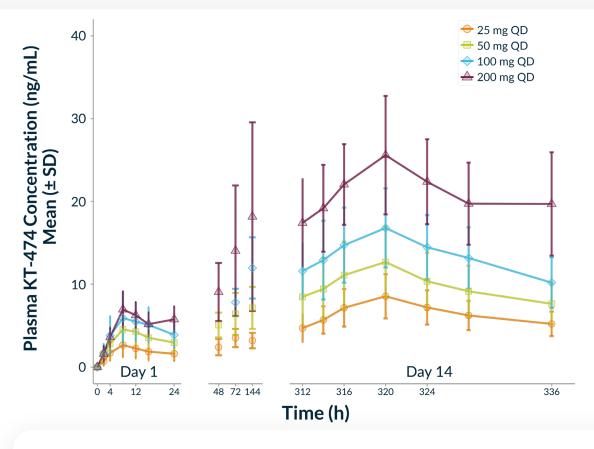
- No SAEs
- Treatment-related AEs observed only in SAD 5 and SAD 6; all were self-limiting and resolved
  - No treatment-related AEs in SAD 7
- No significant ECG changes

# Possibly or Probably Treatment-Related AEs\* (>1 Subject)

	AE Term	#Subjects	Severity	Cohort
Headache	Headache	4	Moderate (x2)	SAD 5, SAD 6
			Mild (x2)	SAD 5
	2	Mild (x2)	SAD 6	

<sup>\*</sup> per investigator assessment

### MAD Study: Once Daily Dosing Resulted in High Steady-State Exposures



#### **Steady-State (Day 14) PK Parameters**

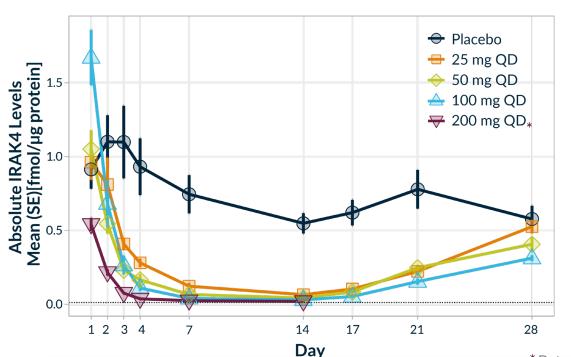
PK Parameter	25 mg QD (n = 9)	50 mg QD (n = 9)	100 mg QD (n = 9)	200 mg QD (n = 9)
C <sub>max</sub> (ng/mL)	8.20 (34.5)	12.0 (39.1)	16.1 (32.0)	25.2 (26.7)
t <sub>max</sub> (h) <sup>a</sup>	8.00 (4.0 - 8.0)	8.00 (8.0 - 8.0)	8.00 (8.0 - 12)	8.00 (8.0 - 12)
AUC <sub>24</sub> (ng*h/mL)	153 (30.8)	224 (39.4)	314 (29.9)	498 (24.0)
C <sub>trough</sub> (ng/mL)	5.03 (30.3)	7.28 (35.1)	9.81 (30.1)	18.8 (32.6)
Day 14/1 Ratio <sub>Cmax</sub>	3.73 (47.1)	2.64 (26.3)	2.92 (37.7)	3.51 (34.7)
Day 14/1 Ratio <sub>AUC</sub>	4.01 (41.2)	2.97 (23.2)	3.29 (38.9)	4.22 (28.8)

Geometric Mean (%CV) reported for all parameters, except t<sub>max</sub> where median(range) are presented Day 14/1 Ratio represents fold change in exposure from Day 1 to Day 14

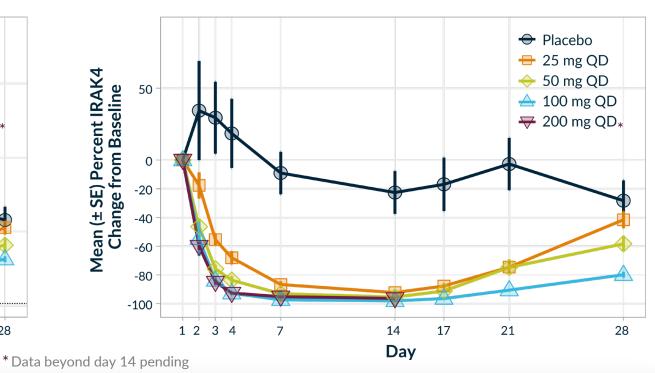
- High steady-state exposures with QD dosing, 3- to 4-fold increase in exposure on Day 14
  - Day 14 Ctrough in range where >90% IRAK4 degradation is expected
- Steady-state reached by Day 7 of dosing

# KT-474 Achieved Near Complete and Sustained IRAK4 Degradation with Multiple Daily Oral Doses (14 Days)





#### Mean % Reduction of IRAK4

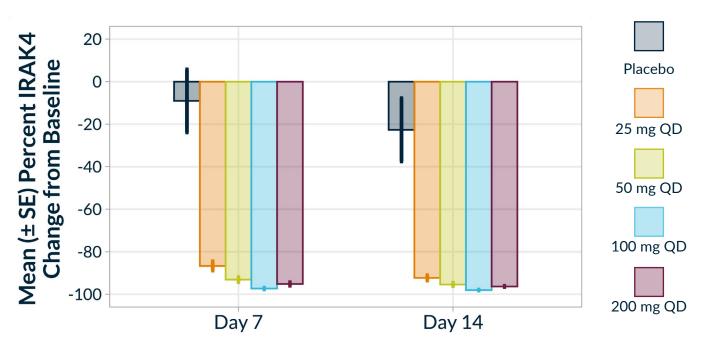


- Detected by mass spectrometry in circulating PBMC
- Steady state IRAK4 reduction achieved between Days 7 and 14
- Recovery towards baseline by Day 28 (2 weeks after last dose)
- MAD 2 through 4 approached Lower Limit of Quantitation (LLOQ)

### Lower Daily Doses of KT-474 Achieved >98% IRAK4 Degradation (MS)

Plateau in IRAK4 Reduction after 14 days in PBMC after 100 mg

#### Percent IRAK4 Reduction in PBMC by Mass Spectrometry



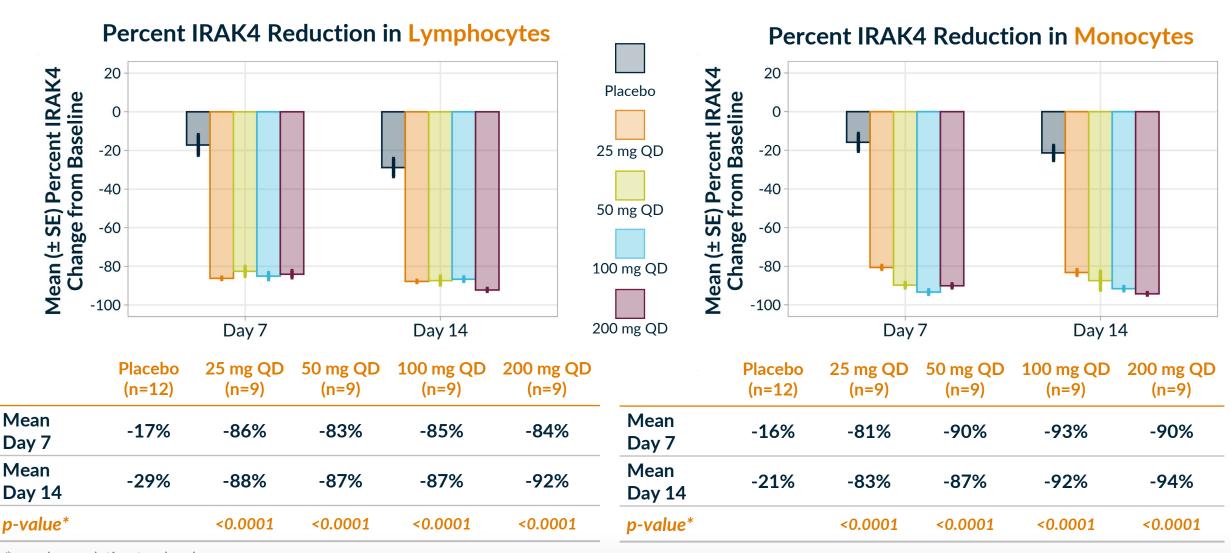
	Placebo (n=12)	25 mg QD (n=9)	50 mg QD (n=9)	100 mg QD (n=9)	200 mg QD (n=9)
Mean Day 7	-9%	-87%	-93%	-97%	-95%
Mean Day 14	-23%	-92%	-95%	-98%	-96%
p value*		<0.0001	<0.0001	<0.0001	<0.0001

<sup>\*</sup> p-values relative to placebo

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# KT-474 Achieved >90% Degradation in Monocytes at ≥ 100 mg (FLOW)

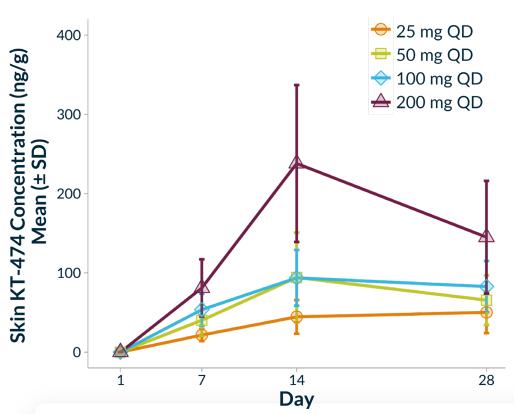
Maximal Degradation in Monocytes in MAD4/200mg at Day 14



<sup>\*</sup> p-values relative to placebo

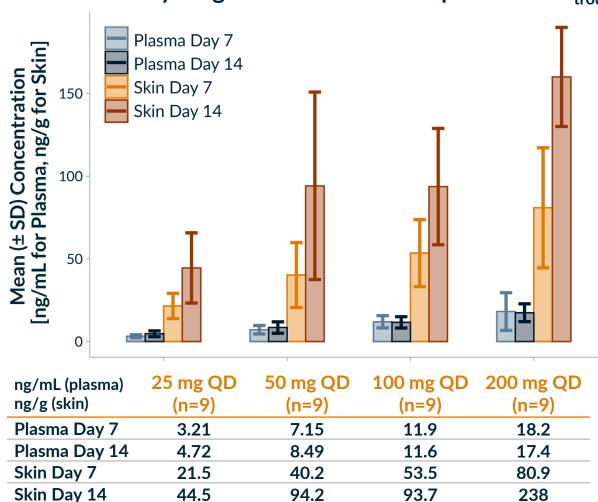
## Once Daily Dosing (14 Days) Resulted in High Skin Exposures Exceeding Plasma

#### KT-474 Levels in Skin



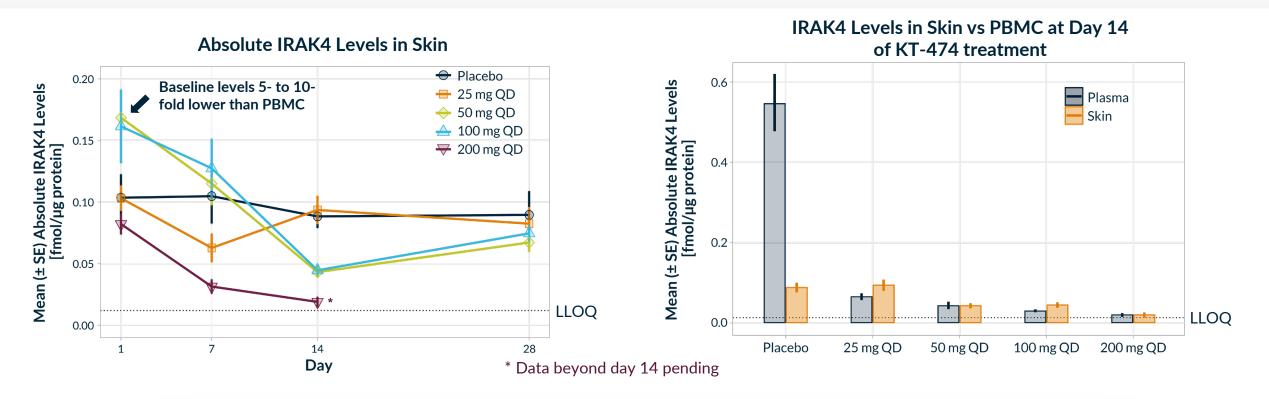
- Increasing exposures through Day 14
- $C_{trough}$  levels in skin ~10-14 fold higher than plasma on Day 14

#### Substantially Larger Skin vs Plasma Exposures at C<sub>trough</sub>



 $C_{trough}$  concentrations shown for Days 1, 7 and 14.

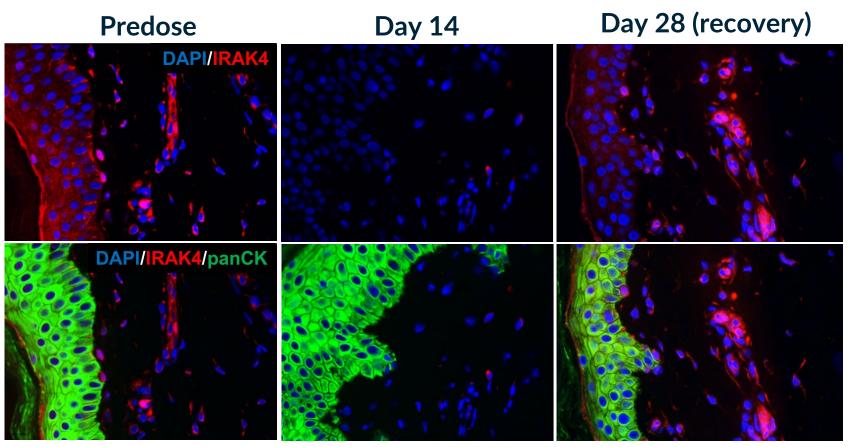
### KT-474 MAD4/200mg Reduced IRAK4 to Near LLOQ in the Skin (MS)



- Baseline IRAK4 levels in skin substantially lower compared to PBMC
- Dose-dependent IRAK4 degradation in skin by mass spectrometry
- Steady-state degradation not yet reached at day 14
- Mean IRAK4 levels at 200 mg dose nearing LLOQ by Day 14, with knockdown up to 90% at 200 mg
- Comparable degradation in PBMC shows that effect of KT-474 is independent of baseline expression level

## Substantial IRAK4 Degradation in Skin Observed in Dermis and Epidermis

IRAK4 = Red

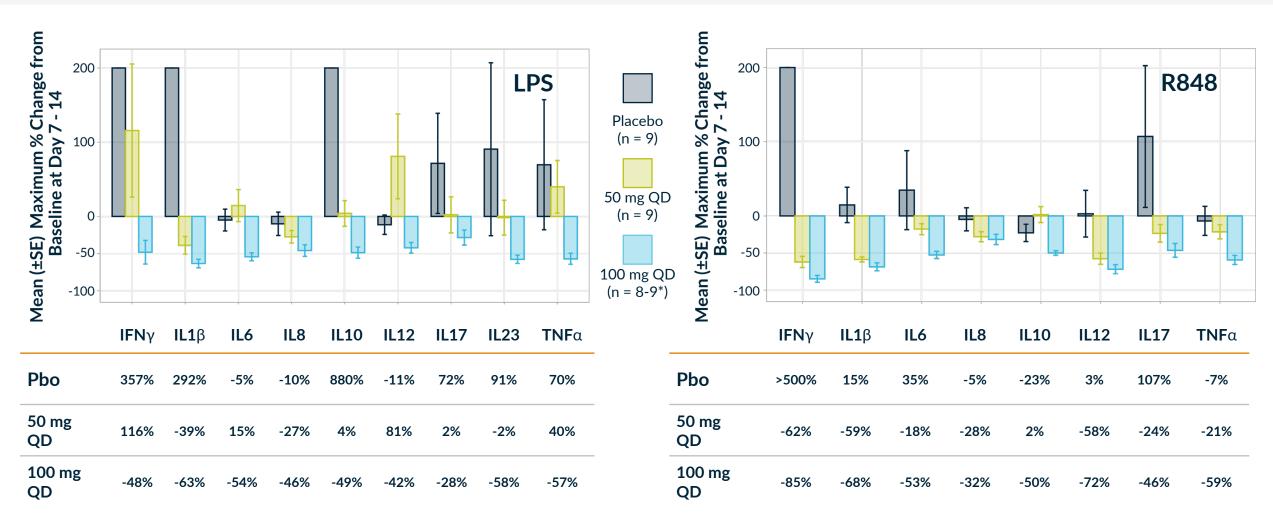


Pan cytokeratin (panCK) is used as the epidermal marker

Representative images from subject in 50 mg cohort

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

Results through MAD3 Showed Dose-Dependent Effect Tracking with Extent of Monocyte IRAK4 Degradation



50 mg QD: 93-95% PBMC degradation at Day 7-10; 87-90% Monocyte degradation at Day 7-14 100 mg QD: 97-98% PBMC degradation at Day 7-10; 92-93% Monocyte degradation at Day 7-14

\*n=8 for LPS, n=9 for R848

Mean values > 200% have been replaced by 200 for visualization purposes

### **Blinded MAD Safety Summary**

n=12 per cohort (9 drug/3 placebo)

#### No SAEs

- Treatment-related AEs were self-limiting and resolved
- No ECG changes, including QTc

## Possibly or Probably Treatment-Related AEs\* (>1 Subject)

AEs	<b>#Subjects</b>	Severity	Cohort
		Moderate, Mild	MAD2
Headache	6	Mild	MAD 3
		Mild (x3)	MAD 4
Palpitations**	3	Mild (x3)	MAD 2, MAD 4 (x2)
Nausea	2	Mild (x2)	MAD 2

<sup>\*</sup> per investigator assessment;

<sup>\*\*</sup> all were considered possibly-related, single, transient self-reported episodes during 21 days of in-patient observation in Phase 1 unit; not associated with any objective findings and did not lead to interruption in dosing

### Summary of Phase 1 KT-474 SAD/MAD

- Healthy volunteer SAD dose escalation completed; MAD enrolled through Cohort 4 (200 mg), with proof of mechanism (IRAK4 degradation) and proof of biology (broad inhibition of cytokine induction) established in SAD and at substantially lower doses in MAD
- Marked reduction of IRAK4 protein in blood and skin to near LLOQ of highly quantitative and sensitive mass spectrometry assay achieved at a dose of 100-200 mg daily x 14 days
- Strong and broad inhibition of whole blood ex vivo cytokine induction in MAD comparable to what
  was seen at highest SAD dose (1600 mg) demonstrated in association with >90% IRAK4 reduction
  in monocytes at 100 mg daily dose
  - While cytokine results at 200 mg not currently available, even greater inhibition anticipated at that dose given the substantial increase in plasma exposure and tissue degradation (e.g. skin) and 94% IRAK4 reduction in monocytes
  - High sensitivity CRP levels in plasma too noisy over time to detect meaningful changes
- Prolonged suppression of IRAK4 in blood and skin for at least 14-21 days with KT-474 multidosing shown to be safe and well-tolerated
- On track to initiate open-label cohort in HS and AD patients in Q1 next year with data read-out planned for mid-year, followed thereafter by start of Phase 2 studies in multiple indications



# KT-474 Development in Immuno-inflammatory Diseases

Naimish Patel, M.D. - SVP, Head of Global Development, Immunology and Inflammation, Sanofi Genzyme





#### Naimish Patel

Global Head of Development, Immunology & Inflammation



## Sanofi's approach to R&D



Deep understanding of disease pathways



**Patients** 

Relentless patient focus



**Platforms** 

Expanded tools for drug discovery



**Expanding capabilities** 



## Sanofi - Rich Immunology portfolio extending to other TAs

Dermatology	Respiratory	GI	Rheumatology	Hematology	Neurology	Oncology
Dupixent®	Dupixent <sup>®</sup>	Dupixent <sup>®</sup>	Kevzara <sup>®</sup>	Sutimlimab	Aubagio <sup>®</sup>	Libtayo <sup>®</sup>
Amlitelimab <sup>(2)</sup>	Itepekimab	*Bispecific NANOBODY®	Rilzabrutinib	Rilzabrutinib	Tolebrutinib	Sarclisa <sup>®</sup>
Rilzabrutinib	Rilzabrutinib		Anti-CD40L mAb <sup>(4)</sup>	Isatuximab	Anti-CD40L mAb <sup>(4)</sup>	SAR442257 CD38xCD28xCD3
SAR444727 topical BTKi	*anti-IL-13-TSLP NANOBODY®		*Bispecific NANOBODY®	SAR445088 Complement C1s inh	SAR445088 Complement C1s inh.	SAR444245 <sup>(6)</sup> Non-alpha IL-2
SAR444656 <sup>(1)</sup> IRAK4 degrader					Lemtrada <sup>®</sup>	SAR445419 <sup>(7)</sup> K-NK.
SAR443726 Anti IL13/OX40L nanob.					SAR443820 <sup>(3)</sup> RIPK1i	SAR439459 Anti-TGFb mAB
SAR443122 <sup>(3)</sup> RIPK1i						*NKCE <sup>(8)</sup>
*THOR809						

Type 2

Type 2+ mixed

Autoantibody

Immunoregulatory

Th1/Th17

**Immunostimulatory** 

GI: gastrointestinal; TCE: T cell engager; NKCE: NK cell engager

\*= preclinical

All assets except for Dupixent®, Libtayo®, Sarclisa®, Aubagio® (3) and Lemtrada® are under investigation and are not approved by (4)

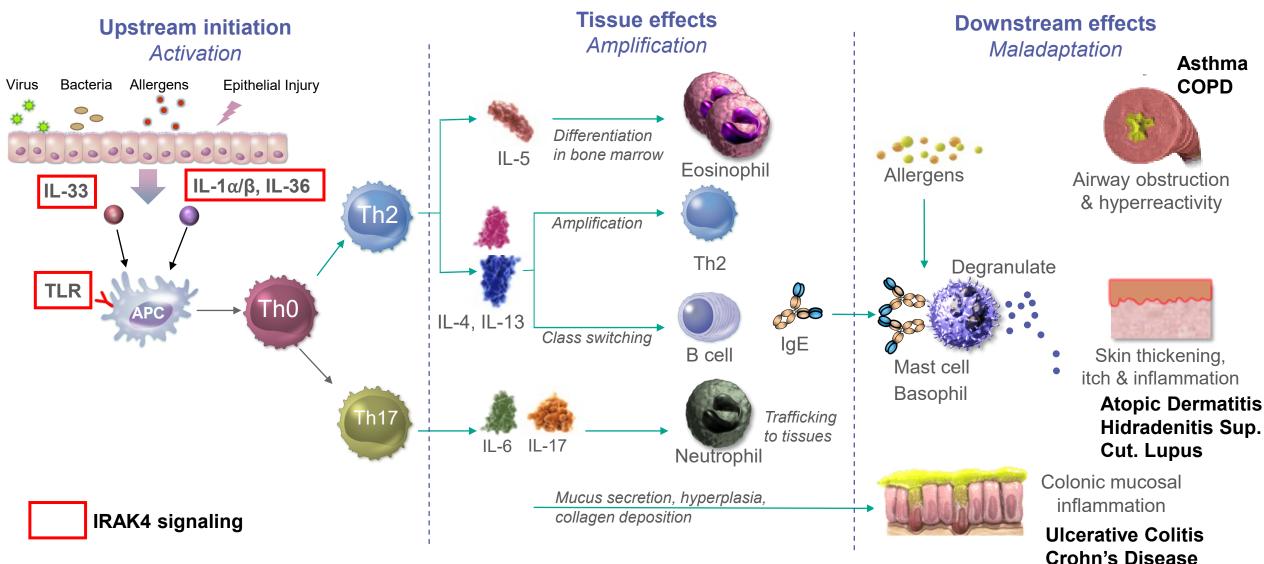
any regulators

- (1) Developed in collaboration with Kymera (KT474)
- (2) Anti-OX40L mAb, formerly known as KY1005/SAR445229 (7)
- In collaboration with DenaliIn collaboration with Immunext

- (5) Pending closure of Kiadis acquisition
- (6) Formerly known as THOR707
- Formerly known KDS1001 (Kiadis)
   In collaboration with Innate Pharma

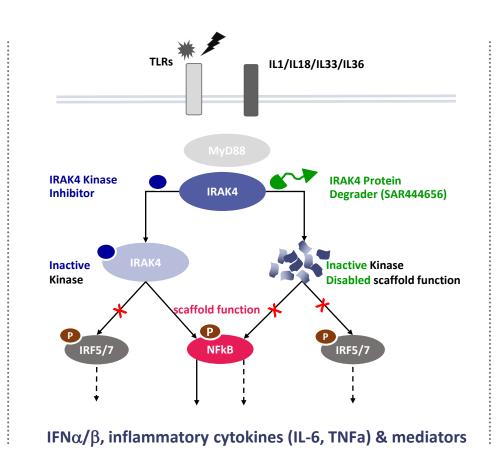


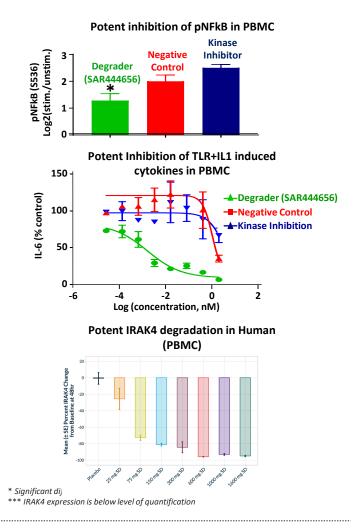
## IRAK4 is a key initiator of Type 2 and Type 17 inflammation of mucosal tissues via TLRs and IL-1 family receptors



## First-in-class IRAK4<sup>(1)</sup> oral protein degrader SAR444656 or KT-474

- Degradation of IRAK4 protein abolishes its kinase activity and scaffold function
- IRAK4 protein degrader SAR444656 inhibits pNFkB and pro-inflammatory cytokines
- Potential for oral immunology pathway drug across multiple indications
- Targeting early initiation steps may afford possibility of early intervention and disease modification





Entered the clinic in 2021; Initial indications: Atopic Dermatitis and Hidradenitis Suppurativa





# IRAKIMiD Degrader KT-413 Update and Clinical Plans

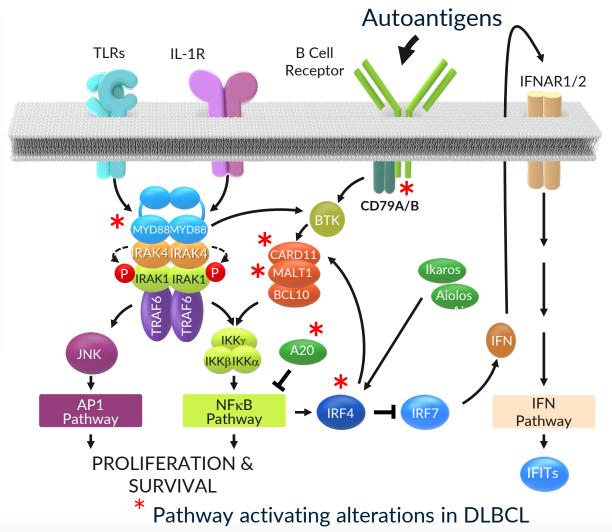
Ashwin Gollerkeri, M.D., SVP, Head of Development, Kymera



## **IRAKIMiDs** are Potent Degraders of IRAK4 and IMiD Substrates Targeting Redundant Pro-survival Pathways in MYD88<sup>MT</sup> DLBCL

- Single-agent therapies that target activated NFkB signaling in DLBCL show limited activity in preclinical or clinical settings
- Redundant NFkB pathway activation and downregulation of Type 1 IFN is common in MYD88<sup>MT</sup> lymphoma, supporting need to seek combination therapies
- Targeting simultaneous degradation of IRAK4 and IMiD substrates Ikaros and Aiolos shows synergistic activity in MYD88<sup>MT</sup> models, supporting this targeted combination





Adapted from Yang et al. (2012) Cancer Cell 21, 6, pp723-737

#### **IRAKIMiD: First Precision Medicine in MYD-88 Mutated Cancers**

MYD88-mutant DLBCL

Waldenström's Macroglobulinemia

Primary Central Nervous System Lymphoma Patient Impact<sup>1</sup>

~8k US ~37k ROW\*

~10k US

~26k ROW\*

per year

~3k US ~12k ROW\* per year

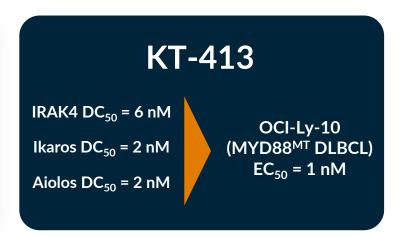
\*EU, UK, Japan, China

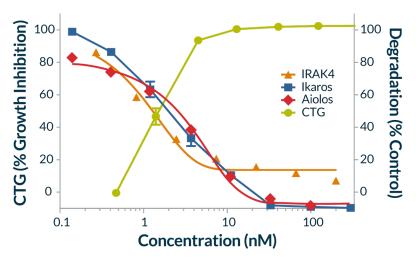
<sup>1</sup>Bionest

- MYD88 is mutated in ≥ 25% of DLBCL patients, the most common subtype of non-Hodgkin's lymphoma
- DLBCL **5-year survival rate is ~64%**, and MYD88 mutations are associated with poorer survival following frontline R-CHOP chemotherapy
- SOC in relapsed/refractory DLBCL, which includes CAR-T therapy, antibody drug conjugates (ADC), and anti-CD19 and CD20 compounds, are associated with ORR of 40-80%
- There are no treatments indicated specifically in MYD88 mutant DLBCL
- MYD88 is mutated in approximately 90% of Waldenström's macroglobulinemia (WM) cases.
- Standard therapy includes ibrutinib-based or zanubrutinib with overall response rates of 80-90% and major response rates (≥ partial response) of approximately 73%
- MYD88 is mutated in approximately 70% of primary central nervous system lymphoma (PCNSL)
- Standard therapy in 1L includes high-dose (HD) methotrexate combinations result in overall response rates (ORR) of 53-87%, complete response (CR) in 23-49%, and 2-year PFS rates of 36-61%.
- Approximately 20-30% of patients with PCNSL experience tumor progression within first 6 months of treatment.
- There is no standard of care therapy in relapsed disease

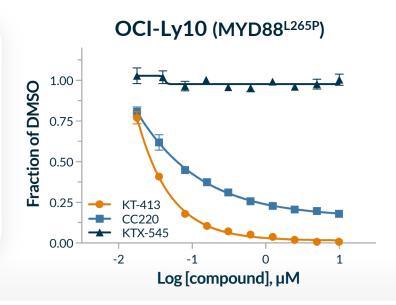
## KT-413 is a Potent Degrader of IRAK4 and IMiD Substrates with Potent Activity in MYD88<sup>MT</sup> Cell lines

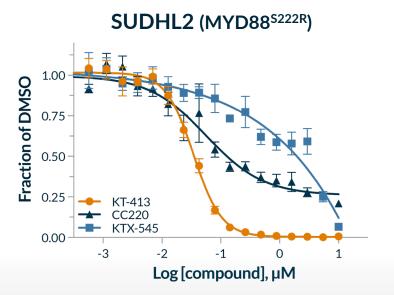
 KT-413 selectively degrades both IRAK4 and IMiD substrates which leads to a profound antitumor effect in vitro and in vivo





 KT-413 is more active in MYD88<sup>MT</sup> DLBCL cells than the clinically active IMiD, CC-220, and IRAK4-selective degrader, KTX-545



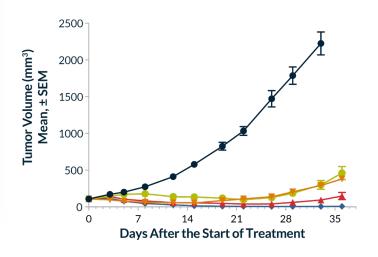


### **KT-413** is Highly Active on Intermittent Dosing Regimens

- In the OCI-LY10 MYD88<sup>MT</sup> xenograft model, intermittent dosing of KT-413 induced strong antitumor activity, including complete or partial regressions.
  - Superior activity compared to the clinically active IRAK4-inhibitor CA-4948 or the IMiD CC-220 alone

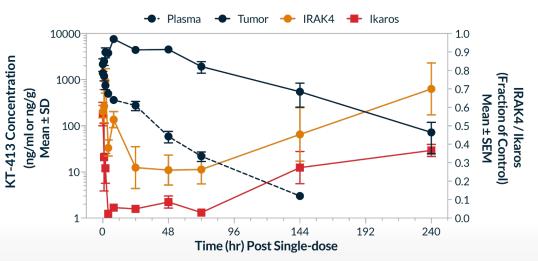
- Single 10 mg/kg dose showed extended tumor exposure and strong degradation of both IRAK4 and IMiD substrates that was maintained for least 72hr
- Single 10 mg/kg dose Q3W had robust anti-tumor activity

## Superior Anti-tumor activity OCI-Ly-10 Tumor Volume



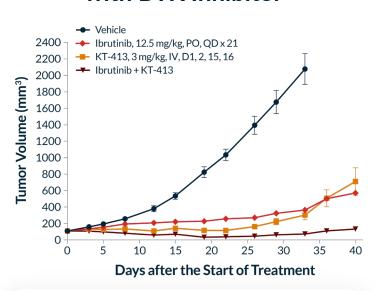
- IV Vehicle
- CA-4948, 150 mg/kg, PO, QD x 37
- CC-220, 3 mg/kg, PO, QD x 21
- ★ KT-413, 5 mg/kg, IV, D1,2,15,16
- → KT-413, 10 mg/kg, IV, D1,2,21,22

Drug (day 33)	T/C% (REG%)	CR	PR	SD	PD
CA-4948	9	0	0	0	7
CC-220	9	0	0	0	7
KT-413 5mg/kg	(14)	1	0	3	3
KT-413 10 mg/kg	(94)	5	2	0	0



## KT-413 Has Strong Activity in Combination in MYD88<sup>MT</sup> OCI-Ly10 Xenografts

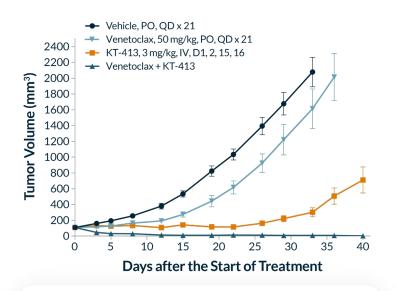
#### with BTK Inhibitor



 KT-413 administered on intermittent schedules leads to strong regressions in combination with the BTK inhibitor Ibrutinib

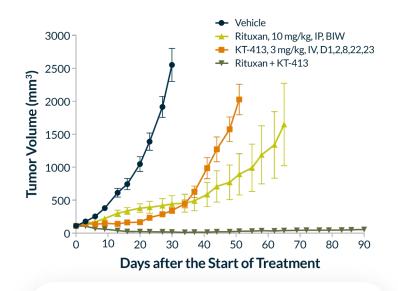
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#### with BCL-2 Inhibitor



 KT-413 administered on intermittent schedules leads to deep and durable regressions in combination with the BCL-2 inhibitor, Venetoclax

#### with Rituxan



 KT-413 administered on intermittent schedules leads to deep and durable regressions in combination with Rituxan

Data support potential for KT-413 in combination in earlier lines of therapy

### **KT-413: Clinical Study Design and Objectives**

#### **Key Eligibility Criteria:**

R/R B-cell lymphoma

- ≥ 2 prior systemic regimens
- Ineligible or refused CAR-T or **ASCT**

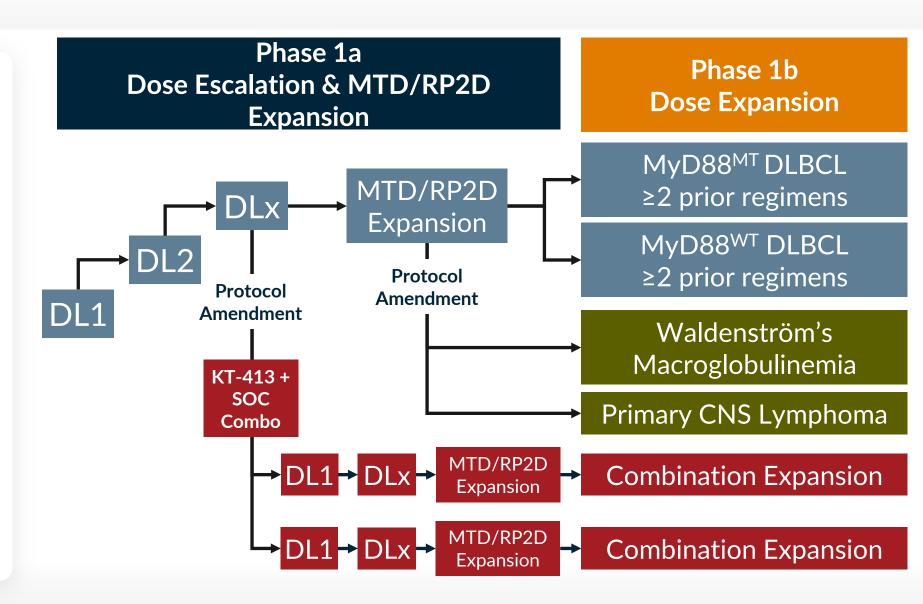
#### **Primary Objective:**

 To evaluate safety, PK/PD in MYD88 mutant and MYD88 wild-type R/R DLBCL

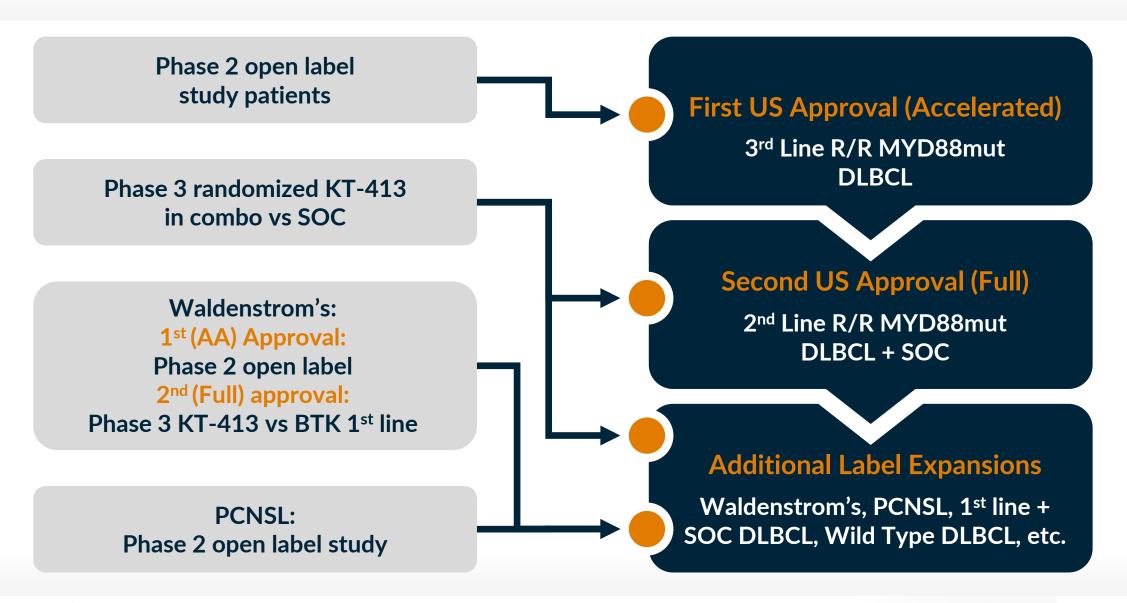
#### **Study Endpoints:**

- Primary: Safety, tolerability, MTD/RP2D
- Secondary: PK, preliminary efficacy
- Exploratory: Target (IRAK4/Ikaros/Aiolos) knockdown and downstream effects in PBMC, and tumor

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### **KT-413 Registration Strategies**



## IRAKIMiD Degrader KT-413 has Potential to be First Precision Medicine in DLBCL to Target a Genetically-defined Population (MYD88MT)

- Profound antitumor activity in preclinical models both in single agent and combination
- Clinical strategy in place to enable accelerated approval:

#### Monotherapy

- MYD88<sup>MT</sup> DLBCL for most direct path to registration
- Other MYD88<sup>MT</sup> lymphomas of interest include PCNSL, WM

#### **Combinations**

With SOC agents in MYD88<sup>MT</sup> DLBCL to enable earlier line therapy

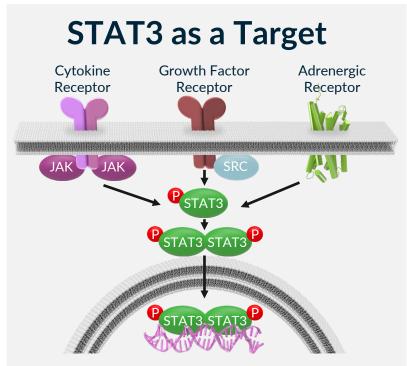


# STAT3 Degrader KT-333 Update and Clinical Plans

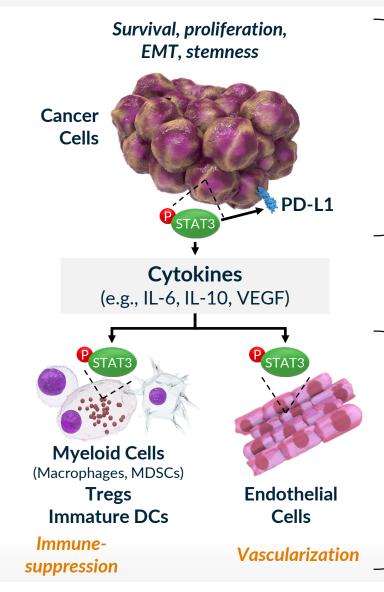
Ashwin Gollerkeri, M.D., SVP, Head of Development, Kymera



### STAT3 Has Unique Tumor Cell Intrinsic and Extrinsic Mechanisms



- High degree of validation of JAK-STAT pathway in oncology and immunooncology supported by >25k publications
- Traditionally undrugged target
- First-in-class opportunity to address
   STAT3 driven pathology across large and diverse indications



#### **Tumor Cell Intrinsic**

- Hyperactivation of STAT3 via either receptor signaling, or hotspot mutations promotes gene expression programs involved with survival, proliferation, stemness and metastasis of tumor cells
- Opportunities in STAT3-dependent malignancies (e.g., T cell malignancies, DLBCL, AML) and drug resistant tumors (e.g., TKI resistant oncogene-driven solid tumors)

#### **Tumor Cell Extrinsic**

- STAT3 promotes the differentiation and activity of immunosuppressive and endothelial cells, resulting in an immunosuppressive tumor microenvironment.
- Opportunities in multiple heme and solid tumor indications that are not responsive to immune checkpoint inhibitors.

## First-in-class Opportunity to Address STAT3-driven Pathology Across Diverse indications

Peripheral T-cell Lymphoma (PTCL)

Cutaneous T-cell Lymphoma (CTCL)

Large Granular Lymphocytic Leukemia (LGL-L)

Solid Tumors PD-1 Combo: e.g. Stage IV CRC - MSI-H Patient Impact (Global)<sup>1</sup>

~13k US

~27k ROW\*

~30k US

~67k ROW\*

~4.5k US

~25k ROW\*

per year

~26k US

~96k ROW\*

per year

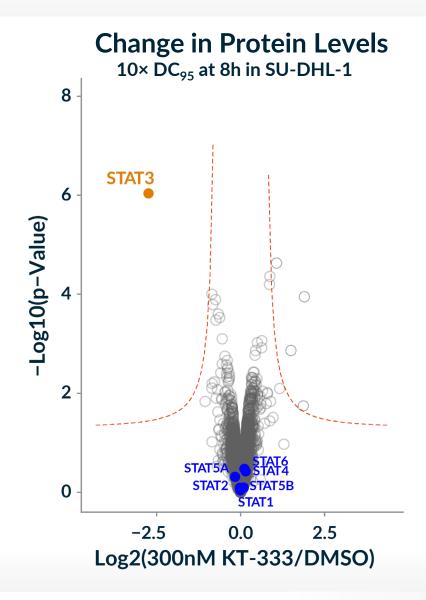
\*EU, UK, Japan, China

<sup>1</sup>Bionest

- Abnormal activation of JAK/STAT pathway occurs in nearly all T-cell lymphomas
- STAT3 is most frequent mutation among JAK/STAT pathway
- Standard therapies in relapsed/refractory PTCL including result in ORRs ~25%, CR rate of ~10% and mDOR of approximately 9 months
- Advanced stages of disease associated with constitutively activated STAT3
- Standard therapies in relapsed/refractory CTCL result in ORRs of ~30% with few CRs and mPFS of 5-8 months
- STAT3 mutations in up to 70% cases
- Constitutively active STAT signaling in nearly all cases
- No approved agents in LGL-L; SOC in 1L which includes methotrexate and cyclophosphamide result in ORRs ~60%
- No SOC in ≥2L
- STAT3 decreases inflammatory state in tumor, degradation of STAT3 sensitizes to PD1/L1 activity
- PD1 inhibitors approved as single agents or in combination with CTLA4 inhibitor in 1L and in later lines following chemotherapy in patients with metastatic MSI-H CRC

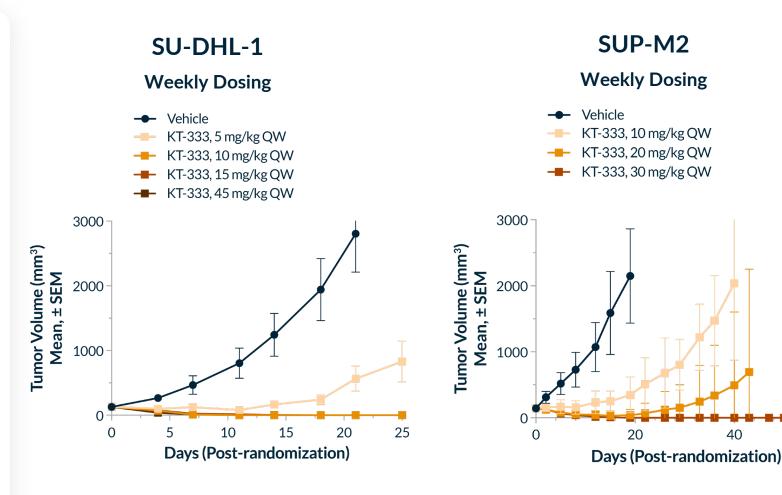
## **KT-333 Demonstrates Highly Selective Degradation of STAT3**

- Deep mass spectrometry-based proteomics to assess STAT3 selectivity performed
- In hPBMC and SU-DHL-1 cancer line (shown), treatment with KT-333 degrader led to selective degradation of only STAT3 protein



## Full and Durable Regressions Across Multiple in vivo Preclinical Tumor Models

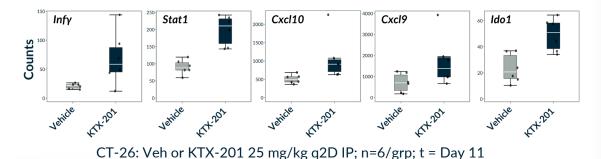
- Mice bearing STAT3dependent ALK+ ALCL SU-DHL-1 or SUP-M2 tumor xenografts dosed with STAT3 degrader
- Dose- and degradation dependent tumor growth inhibition observed with oncea-week dosing
- 10 mg/kg sufficient to drive full tumor regression in SU-DHL- 1 that was durable for multiple weeks after the last dose (on day 14)



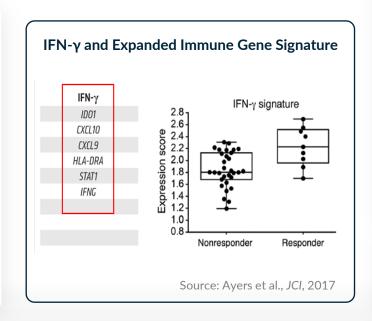
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## STAT3 Degrader's Role in Immuno-Oncology: Sensitization of Tumors to Anti PD-1

## IFNγ-dependent Gene Signature Induced by STAT3 Degrader Monotherapy in CT-26 Tumors

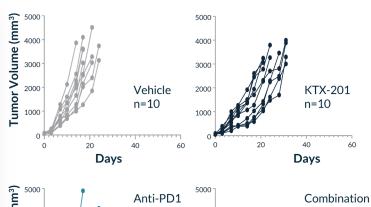


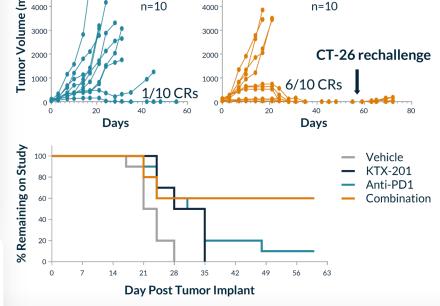
 STAT3 degradation remodels the CT-26 TME to be more immune-favorable with upregulation of anti-tumor immunity genes previously identified as predictors of clinical response to pembrolizumab



#### **STAT3** Degradation and Anti-PD-1 Synergy

- KTX-201 synergizes with anti-PD-1 leading to 60% complete responses in CT-26 model
- Complete
   responders reject
   tumor
   rechallenge
   demonstrating
   development of
   long-term
   immune memory
- Combination extends survival





### **KT-333: Clinical Study Design and Objectives**

#### **Key Eligibility Criteria:**

R/R B-cell lymphoma

- ≥ 2 prior systemic regimens
- Ineligible or refused CAR-T or ASCT

Advanced solid tumors

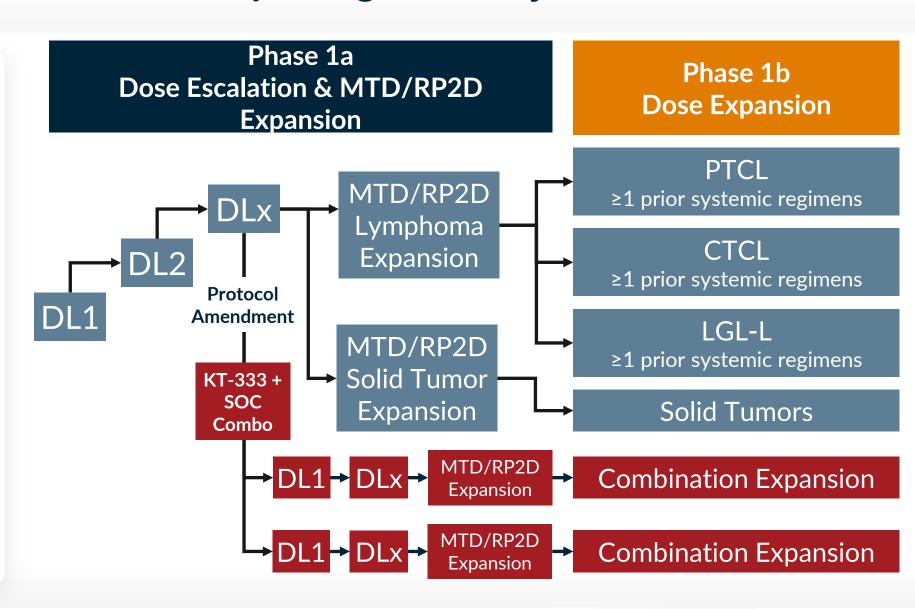
 ≥ 2 prior systemic regimens or no available SOC

#### **Primary Objective:**

 To evaluate safety, PK/PD in PTCL, CTCL, LGL-L and solid tumors

#### **Study Endpoints:**

- Primary: Safety, tolerability, MTD/RP2D
- Secondary: PK, preliminary efficacy
- Exploratory: STAT3 knockdown and downstream effects in PBMC and tumor



### KT-333 Accelerated and Full Approval Strategies Across Several Indications

≥2<sup>nd</sup> Line R/R PTCL (or CTCL)-KT-333 monotherapy



First US Approval
[Accelerated]
(Phase 2 single arm study)

LGL-L KT-333 monotherapy



FULL Approval (Phase 2 single arm study)

**Solid Tumor** 

CRC MSI-H (e.g.) – PD1 inhibitor refractory KT-333 + PD1 inhibitor



(Phase 2/3 randomized study)

1<sup>st</sup> Line PTCL (or CTCL)-KT-333 monotherapy or combo with SOC

FULL Approval (Phase 3 Study)

1<sup>st</sup> Line KT-333 combo with PD-1 inhibitor

(Phase 3 Study)

## STAT3 Degrader KT-333, First-in-class Opportunity to Address STAT3-driven Pathology Across Diverse Indications

- First heterobifunctional degrader against an undrugged target in the clinic
- Profound single agent activity in liquid tumor and promising combo activity with anti-PD1 in liquid and solid tumors
- Clinical development strategy includes direct registrational path in STAT3 pathway activated heme malignancies
- Opportunity for expansion into solid tumors in combination with immune checkpoint inhibitors



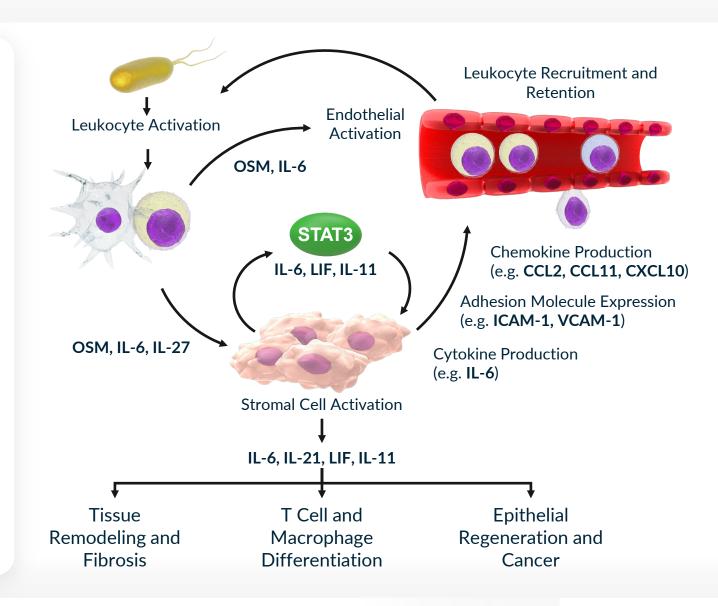
# STAT3 Degraders in Immune-Inflammation and Fibrosis

Ashwin Gollerkeri, M.D., SVP, Head of Development, Kymera



### **Role of STAT3 in Inflammatory Processes**

- STAT3 is activated by multiple tyrosine kinases and plays a critical role in the signaling of cytokines, hormones, and growth factors including IL-6, IL-21, IL-11, OSM, TGF-β, VEGF
- STAT3 gain-of-function mutations lead to a polyautoimmunity with clinical manifestations that include interstitial lung disease (ILD), arthritis, scleroderma and eczema
- Increased STAT3 activation is associated with disease severity in chronic inflammation including SSc, RA, AS, MS, IBD, Psoriasis
- STAT3 activation is also implicated in conditions defined by intense stromal remodeling in the absence of overt inflammation, e.g. IPF, PAH, NAFLD, and Diabetic Kidney Disease



### **STAT3** Degraders Have Applicability in Serious Inflammatory and Fibrotic Diseases

**Systemic Sclerosis** (SSc)

Idiopathic **Pulmonary Fibrosis** (IPF)

**Atopic Dermatitis** (AD) moderate-tosevere

> Rheumatoid **Arthritis (RA)**

Patient Impact<sup>1</sup>

~85k US

~200k ROW\*

per year

~80k US

~180k ROW\*

per year

~12m

~60m ROW\*

per year

~2m US

~17m ROW\*

per year

EU, UK, Japan, China

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<sup>1</sup>Bionest

Increased STAT3 and pSTAT3 observed in SSc skin and lung biopsies

Aberrant IL6/JAK/STAT3 gene signature in biopsies from SSc patients

Tocilizumab no effect on mRSS but change from baseline in FVC at week 48 (observed FVC and %pFVC) in patients with SSc/ILD

STAT3 dependent cytokines (e.g. IL-11) upregulated in lung of IPF patients and are associated with disease severity

IL-6/gp130 stimulation is mitogenic for IPF fibroblasts but no normal fibroblasts

SoC reduces the annual rate of FVC decline

STAT3 GoF patients exhibits signs of dermatitis

TSLP receptor activates STAT3

Pruritis is linked to mechanical and IL-31R activation of STAT3

• Fibrotic changes associated with AD is associated with STAT3 activation

STAT3 mRNA and pSTAT3 are significantly higher in blood of RA patients

STAT3 target genes (BCL3, SOCS3 and PIM1) are upregulated in early RA

Constitutive STAT3 phosphorylation in circulating CD4<sup>+</sup> T cells correlates to IL-6 levels in recent-onset RA

~30% of SoC therapies in moderate to severe RA achieve ACR70 at week 52

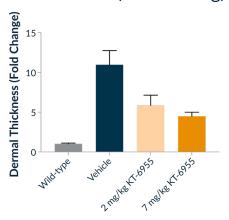
**Autoimmune** 

Fibrosis / Interstitial Lung Disease

## Our STAT3 Degraders Robustly Reduce Disease in Models of Systemic Sclerosis, Arthritis and CNS Inflammation

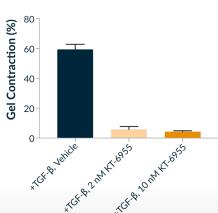
#### In Vivo Tight Skin Model (Fibrosis)

TSK ± Mice (BIW Dosing)



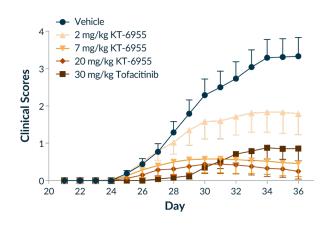
#### **Cellular Fibrosis Model**

TGF-β Stimulated SSc Fibroblasts (72h)



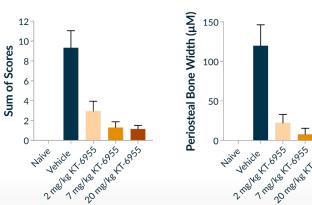
#### In Vivo CIA Model (RA)

Collagen-induced Arthritis (BIW Dosing)



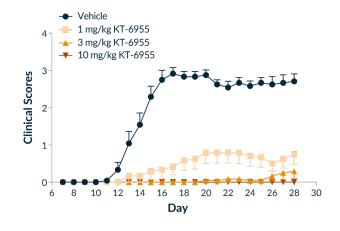
Pathology Score

Periosteal Bone Growth



#### In Vivo MS Model

Experimental Autoimmune Encephalomyelitis (BIW Dosing)



Treatment	EAE Incidence (%)	Median Day of Onset	End Score (+/- SD)
Vehicle	100.0%	13.0	2.71 +/- 0.69
1 mg/kg K7 6955	Г- 66.7%	23.0	0.75 +/- 0.92
3 mg/kg K1 6955	16.7%	>28.0*	0.29 +/- 0.69
10 mg/kg K 6955	T- 0.0%	>28.0*	0.00 +/- 0.00





## **Discovery Pipeline Principles**

Juliet Williams, Ph.D., SVP, Head of Biology, Kymera



## **How We Select Our Targets**

# Drug Development Philosophy



Unmet Medical Need



Validated Biology



Undrugged Node



Precision Medicine Approach

### **Target Types**





Clinically Validated
Targets Enabled by E3
Ligase <u>Tissue</u> Restricted
Expression

### **Therapeutic Profile**

#### **Oncology:**

- Clear patient stratification
- Clear single agent activity with potential for expansion with combos
- Multiple addressable unmet needs

#### Immunology:

- Address key unmet needs providing game changing oral therapies
- Key validated signaling pathways with clear degrader advantage

#### Other Disease Areas:

- Enabled by E3 ligase differential expression
- Key insights from biology and technology expansion
- Some areas enabled by collaborations

# Kymera's Roadmap to Deliver ≥ 1 IND per Year

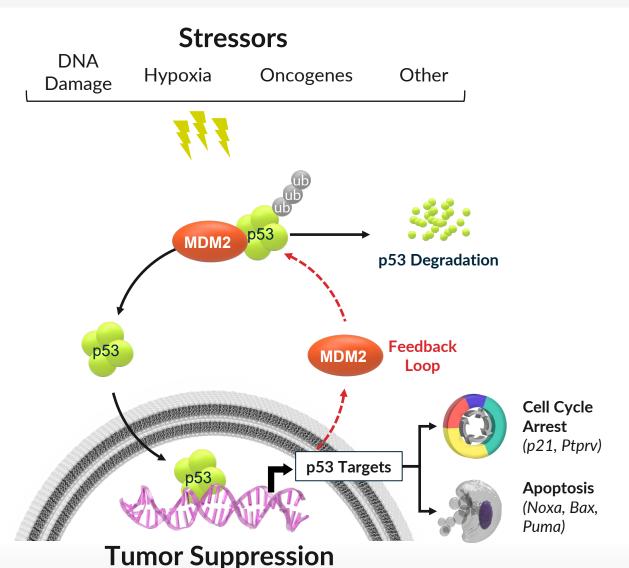
	Strategy	Program	Asset(s)	2021	2022	2023	2024	2025	2026
ID	Inadequately _ <b>D</b> rugged	IRAK4	KT-474	IND					
		IRAKIMID	KT-413	IND					
		MDM2	KT-253		IND				
		2-3 new targets per year	-				Multi-IND Potential		
UN	<b>Un</b> drugged	STAT3	KT-333	IND					
		2-4 new targets per year	-				Multi-IND Potential		
	Tissue- Restricted	3-5 target pairs per year	-				Multi-IND Potential		



Juliet Williams, Ph.D., SVP, Head of Biology, Kymera

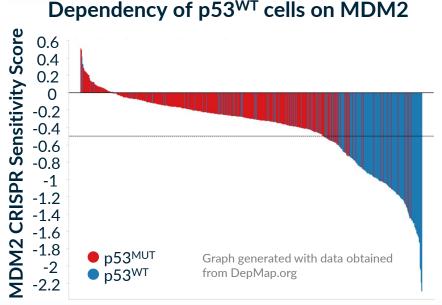


# MDM2 is the E3 Ligase that Modulates P53, the Largest Tumor Suppressor



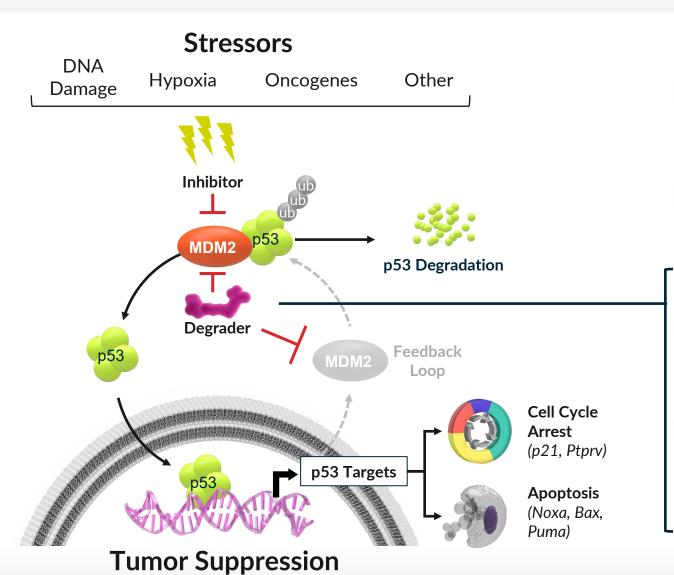
#### **Cancer Genetics**

- p53 is NOT mutated in almost 50% of tumors
- MDM2 overexpression and amplification can inactivate p53
- Large opportunity in wide variety of cancers



**Cell Line** 

## MDM2 Degradation, Not Inhibition, Efficiently Restores p53



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#### Clinical Validation

- MDM2 small molecule inhibitors of MDM2/p53 interaction show activity in the clinic...
- ...but they induce MDM2 feedback loop resulting in limited impact on pathway

#### **Degrader Advantage**

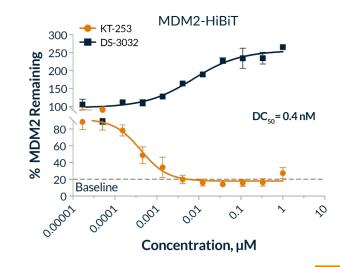
- **MDM2 degraders**, by removing the protein, can overcome the p53-dependent feedback loop that upregulates MDM2
- MDM2 degrader can induce an acute apoptotic response in tumor cells, increasing efficacy and therapeutic index vs a small molecule inhibitor

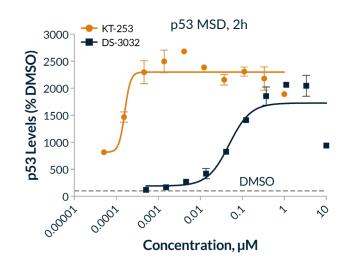
# Kymera's MDM-2 Degrader Development Candidate, KT-253 is Superior to MDM2/p53 Small Molecule Inhibitors

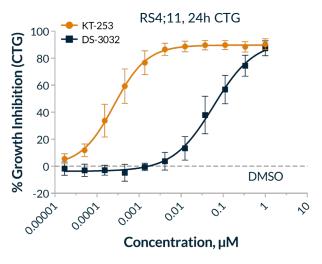
KT-253 is a potent MDM2 degrader

KT-253, unlike SMI's such as DS-3032, strongly stabilizes p53...

... which leads to superior tumor cell killing (pM range)





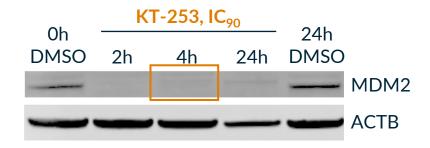


Compound	KT-253	DS-3032	RG7388	SAR405838	HDM201	AMG-232
Company	Kymera	Sankyo/Rain	Roche	Sanofi	Novartis	Amgen/Kartos
Clinical stage	IND enabling	Ph II / combo AML	Ph II / III	Paused	Ph I / II	Multiple Ph II; combo AML
RS4-11 IC <sub>50</sub> (nM) (AML Cell Killing)	0.3	67	220	620	163	280
MDM2-HiBiT, DC <sub>50</sub> (nM) (Degradation)	0.4	-	-	-	-	-

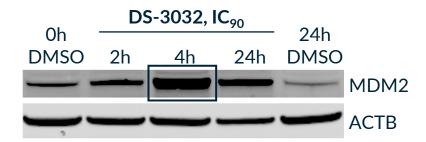
- KT-253 is >200-fold more potent in tumor cell killing assays than SMI's due to to its mechanism of action
- Proteomics show selective degradation of KT-253

# KT-253, Unlike Small Molecule Inhibitors, Overcome the MDM2 and p53 Autoregulatory Feedback Loop

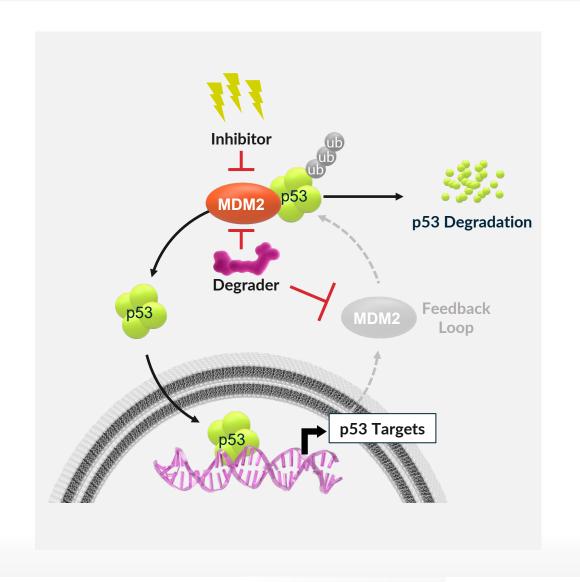
#### **Degrader Overcomes MDM2 Feedback Loop**



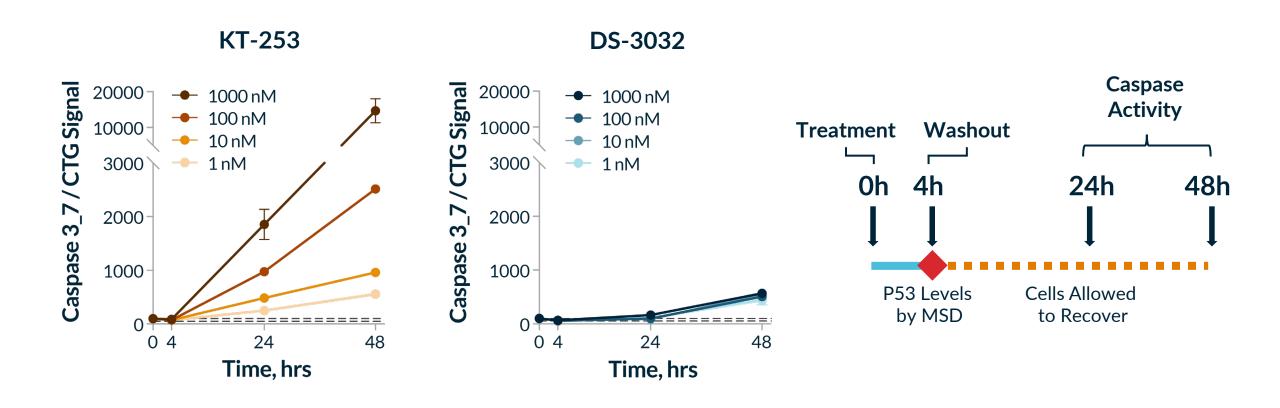
MDM2 levels are kept at undetectable levels with MDM2 degrader KT-253, leading to p53 stabilization



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



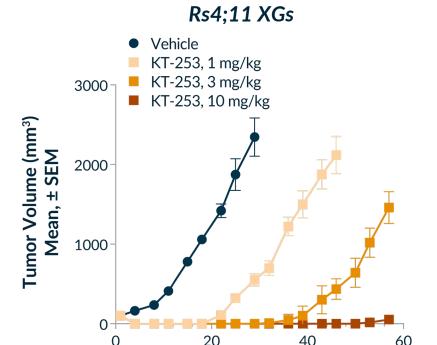
# Short Term Exposure to MDM2 Degrader, but not SMI, is Sufficient to Commit Cells to Undergo Apoptosis



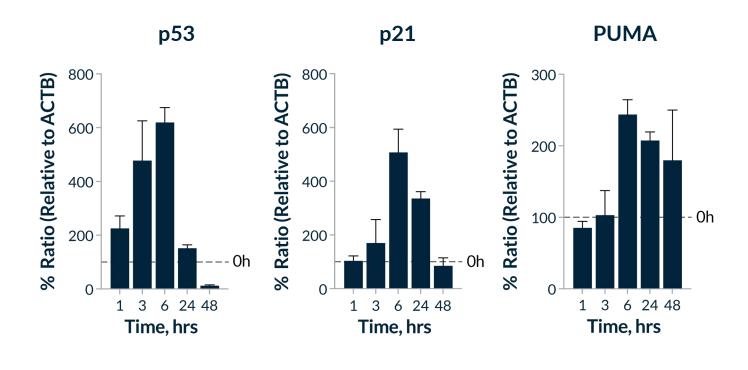
- 4 hr target coverage by KT-253 is sufficient to induce apoptosis in contrast to SMIs
- Supports hypothesis that intermittent dosing schedule of KT-253 can drive efficacy while increasing therapeutic index

## Single Dose of KT-253 Leads to Sustained Tumor Regression

# Single Dose of KT-253 Achieves Sustained Tumor Regression



MDM2 Degradation (KT-253, 1 mg/kg) Leads to Fast Increase in p53, p21, and PUMA (Key Apoptotic Biomarker)

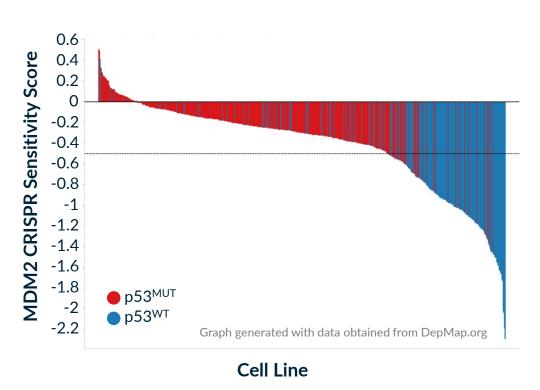


Clinical equivalent doses of small molecule inhibitors have no significant *in vivo* impact in these xenograft models

Days (Post-randomization)

# MDM2 Dependency Seen Across a Large Subset of Tumor Types Large Franchise Potential in Liquid and Solid Tumors

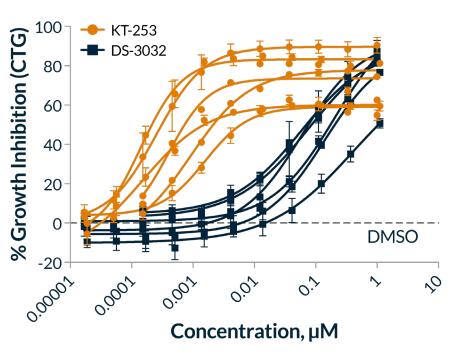
# Dependency of p53<sup>WT</sup> Cell Lines on MDM2



**Tumor Types**: Uveal melanoma, Bile Duct, Bladder, Bone, Brain, Breast, Colon, Endometrial/Uterine, Gastric, Kidney, Liver, Lung, Ovarian, Pancreatic, Rhabdoid, Sarcoma, Leukemia, Lymphoma

# MDM2 Degrader Superior to SMI Across Cell Line Panel

Heme & Solid Cell Lines



**p53WT cell lines sensitive**: ALL, AML, DLBCL, Uveal Melanoma p53 mutant cell lines were not sensitive to KT-253 or DS-3032 as expected

# Focus on Indications Where MDM2 Degradation Leads to Acute Apoptotic Response

#### p53 WT in >50% of Tumors

- Mesothelioma
- Melanoma
- DLBCL
- Prostate cancer
- Cholangiocarcinoma
- Cervical cancer
- AML
- Renal cell cancer
- Uveal melanoma
- Thyroid cancer
- Liposarcoma
- HCC
- Breast cancer

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**MOA-specific** Sensitivity (Biomarker-based)

- AML
- Uveal Melanoma
- Lymphomas
- Others will be disclosed in upcoming medical meetings

YMERA

### MDM2 **Amplification**

- Liposarcoma (87%)
- Sarcoma (19%)
- Glioblastoma multiforme (7%)
- Bladder (3%)
- Cholangiocarcinoma (3%)



Donehower, et al. 2020

**TCGA** 

Oliner, et al. 2015

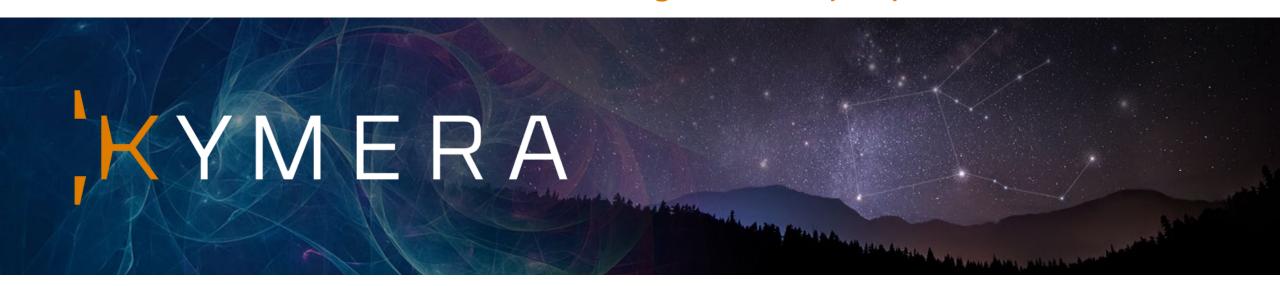
# KT-253 is a Potent MDM2 Degrader and a Best-in-Class p53 Stabilizer with Potential to Treat Numerous p53 WT Tumors

- KT-253 inhibits tumor cell growth with picomolar potency and is more than 200-fold more potent than clinically active MDM2 small molecule inhibitors
- KT-253, unlike small molecule inhibitors, blocks the feedback loop which up-regulates MDM2 production and in doing so more effectively stabilizes the tumor suppressor p53
- Short term high exposures of KT-253 are enough to induce apoptosis in cell lines and in vivo xenografts, which ensures high activity and improved therapeutic index vs SMI's
- Broad franchise opportunities available for this mechanism (p53 WT is present in >50% tumors), Kymera is focused on indications with specific sensitivity to degrader mechanism, such as AML, Uveal melanoma and others through a biomarker strategy
- Projected IND filing in 2022



# **Expanding the Drugged Proteome: Kymera's Platform**

Chris De Savi, Ph.D., VP, Head of Drug Discovery, Kymera



## **Targeted Protein Degradation**

Next Potential Breakthrough Modality to Expand Drugged Proteome

**Human Proteome** Targeted Protein Degradation **Existing Modalities** Undrugged **Opportunity** Cell/Gene Drugged **Traditional Small Therapy** Molecule **Antibody Antisense RNAi Undruggable Targets** Scaffold, transcript factor, multiple functions **Efficient Development / Manufacturing Systemic Exposure Oral Bioavailability** 

## We Want to Drug All Target Classes



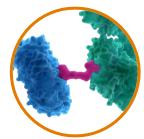
### **Expanding the Druggable Proteome with TPD**



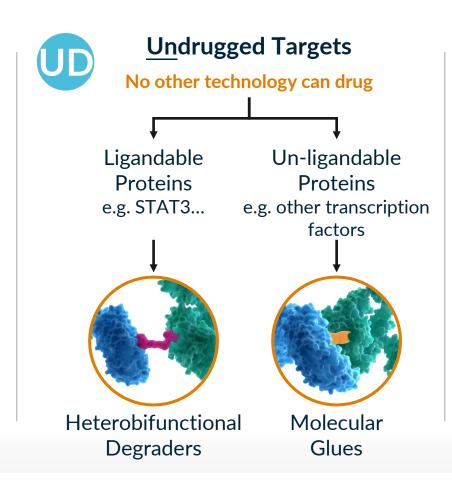
#### Inadequately <u>D</u>rugged Targets with Clear Degrader Advantage

Small molecule binders exist but unable to drug target fully e.g. IRAK4, MDM2...





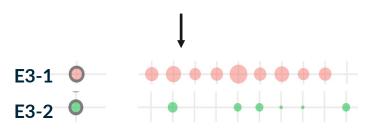
Heterobifunctional Degraders





#### Clinically Validated Targets Enabled by E3 Ligase <u>Tissue</u> Restricted Expression

On target unwanted pharmacology limits clinical application



Tissue sparing or selective E3 ligases eliminate unwanted toxicity and allow full clinical potential

### **Proprietary Pegasus™ TPD Platform**

#### **Key Capabilities**



**Expanded E3** Ligase Toolbox

- E3 ligase Whole-Body Atlas: Identification of the expression profiles of ~600 unique E3 ligases
- Match target protein with appropriate E3 ligase based on expression, distribution, intracellular localization, and biology through a machine learning based algorithm
- **Toolbox of proprietary ligands** leverages the E3 Ligase Whole-Body Atlas



**Understanding Degradation** PK/PD) Across Tissue Types

- Quantitative System Pharmacology Model measures and predicts diverse sets of parameters that impact protein levels
- Based on understanding of PK/PD, both in vitro and in vivo, and across different tissues and cell types



**Proprietary Chemistry** 

- Comprehensive hit finding technologies toolbox
- **Proprietary chemistry expertise** enables the design and optimization of both E3 ligases and target protein binders, Al enabled optimization
- Ability to convert into degraders with optimal pharmaceutical properties



Center for Molecular Glue Discovery

- Identification of novel E3 ligases, beyond CRBN, that enable degradation of high value "undrugged and un-ligandable" proteins through small molecule interactions
- Established collaborations with A-Alpha Bio and two academic organizations in the US to enable this novel and differentiated approach to molecular glues discovery



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**Inadequately Drugged Targets** with Clear Degrader Advantage



**Undrugged Targets** 



Clinically Validated Targets Enabled by E3 **Ligase Tissue Restricted Expression** 





















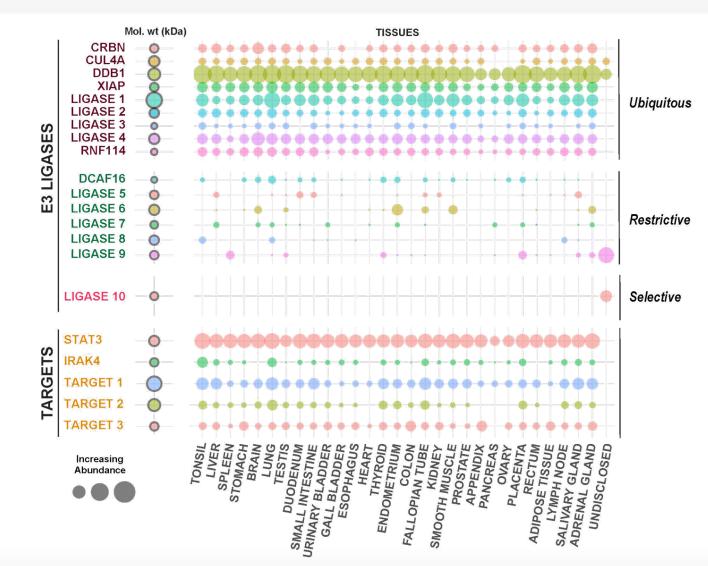


## Novel E3 Ligases to Drug a New Generation of Targets

#### **Clinically Validated Targets** Unlocked by E3 Ligase **Differential Expression**

On target unwanted pharmacology limits clinical application

- Focused on determining the expression profiles of ~600 unique E3 ligases
- Patterns mapped in both disease and healthy contexts
- Ability to match a target protein with appropriate E3 ligase based on expression and biology via a machine learning algorithm
- Vision to develop tissue-selective or tissue-restricted degraders to enable novel therapeutic opportunities

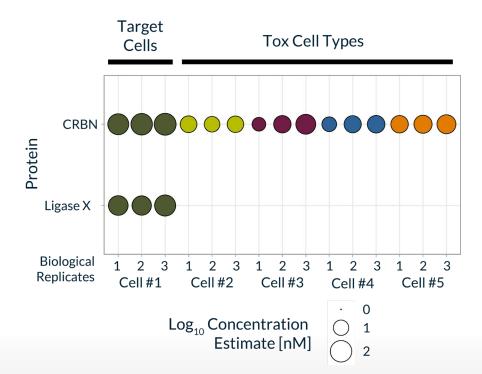


Source: Kymera's Proprietary E3 Expression Atlas

# Kymera has Engaged a Broadly Expressed Protein in Only One Cell Type Using a Tissue Selective E3 Ligase

Kymera Has Identified an E3 Ligase that is Expressed Almost **Exclusively in One Cell Population** 

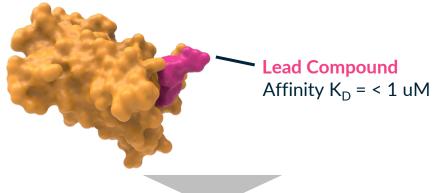
> **Protein Expression Profile** (Proprietary E3 Atlas)



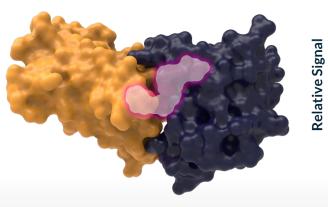
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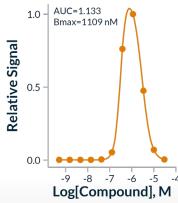
Ligand Identification and **Optimization** 

**Small Molecule Ligand Bound** to a Tissue-selective E3 Ligase



**Leads to an Active Ternary Complex** with a Protein of Interest

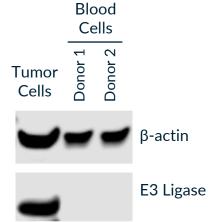




## Tissue-Selective Degradation Drives Increase of Therapeutic Index

- Kymera has characterized an F3 ligase that is expressed broadly but NOT in ONE blood cell type
- A clinically validated oncology target has dose limiting toxicity driven by on-target pharmacology in the same blood cell type where this E3 ligase is absent/very low

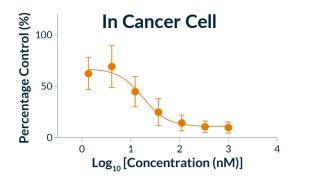




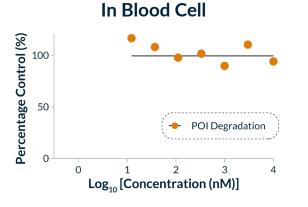
**Optimization** and Degrader **Program** 

This program is projected to nominate a development candidate in 2022

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Kymera's degrader using this E3 ligase degrades target in cancer cells



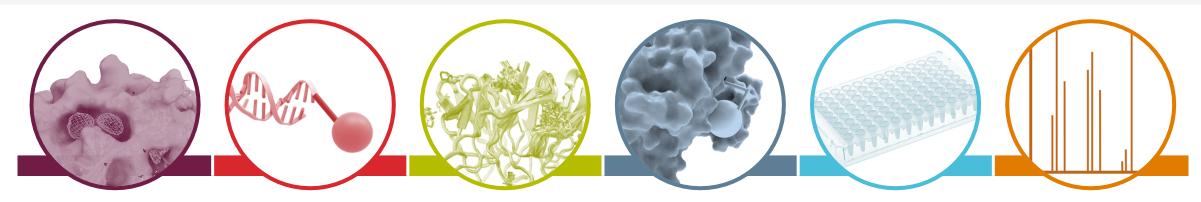
Kymera's degrader using this E3 ligase **DOES NOT degrade** target in one blood cell type



In a pharmacologically active dose in vivo a degrader allows blood cells to survive while SMI leads to substantial cell death

POI = protein target of interest

# A Comprehensive Hit Finding Toolbox Rapidly Enables New Ligand Discovery Against All Target Classes



#### **Virtual Screen**

#### Criteria

 Availability of structure or homology model

#### **Approaches**

- DB ~8 million purchasable cpds
- Cloud enables screen
   24hrs
- Al to improve enrichment

#### **DEL**

#### Criteria

- High quality protein
- Ideal QC profile (single-species by SEC; <5% aggregation by DLS)

# Fragment-Based Screen

#### Criteria

- Availability of high quality (crystallization-grade) protein
- Robust crystallization system

#### **Approaches**

- SPR, NMR
- X-ray
- LC/MS (covalent)

# Cysteine Covalent Screening

#### Criteria

Proteins have reactive cysteines

#### **Approaches**

- Covalent fragment screening on recombinant protein
- Whole cell covalent fragment screening

#### HTS

#### Criteria

 Available highthroughput assay format

#### **Approaches**

- Focused library
- Diversity set

#### **ASMS**

#### Criteria

 Availability of highquality protein

# Successful Examples of Fragment and Covalent Screens

X-ray with Fragment

X-ray with

**Optimized Ligand** 

#### **Fragment Based Virtual Optimization**

Fragment bound X-ray structure

IC<sub>50</sub> > 1 mM

**HTRF** 

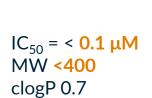
Rational design to explore SAR

 $IC_{50} < 30 \mu M$ 

In silico library evaluation & synthesis

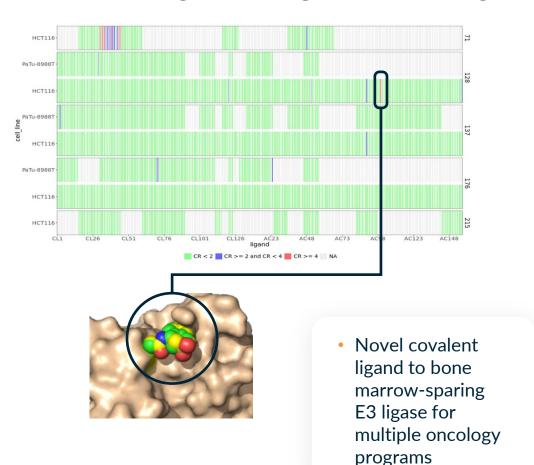
 $IC_{50} < 5 \mu M$ 

Rational design to optimize library hits



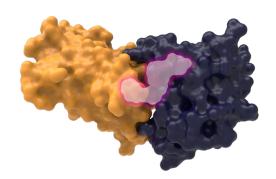
Total # of virtual compounds evaluated	40K
Total # of crystal structures	18
Total # of compounds made	195

#### **Covalent Ligand E3 Ligase Hit Finding**



# Kymera Can Develop Degraders with Predictable Drug-Like Properties

Pre-clinical Optimization of Degraders Leads to High Oral Bioavailability Across Pre-clinical Species



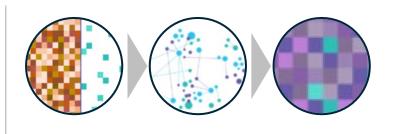
#### **Ternary Complex Modeling (TCM)**

Harnessing the power of cloud computing and AI to evaluate millions of TCM models



#### **Molecular Chameleonicity**

Accurately capturing the chameleonic nature of degraders to predict ADME/PK profile



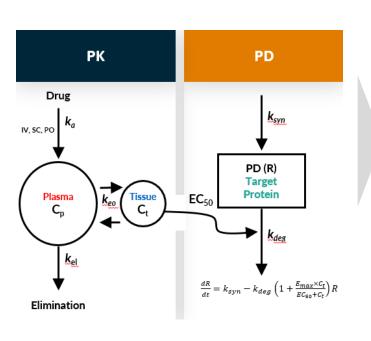
#### Al-driven Insights

Leveraging deep-learning to derive design insights from in silico and in vitro data

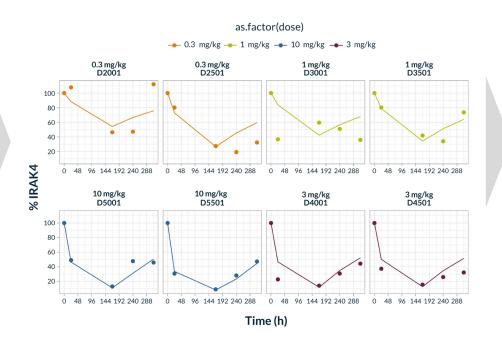
DMPK Properties	Degrader 1	Degrader 2	Degrader 3	Degrader 4
HLM / RLM (μL/min/mg)	317 / 193	74 / 22	<12 / <12	<12 / <12
P <sub>app</sub> (10 <sup>-6</sup> cm/s) / Efflux Ratio	ND / ND	6.0 / 1.3	14 / 21	4.3 / 2.0
Rat CI (mL/min/kg) / Vdss / F%	ND	35 / 9 / 8	19 / 7 / 14	7/3/18
Dog CI (mL/min/kg) / Vdss / F%	ND	69 / 19 / 9	15 / 11 / 58	6 / 4 / 60
Monkey CI (mL/min/kg) / Vdss / F%	ND	129 / 16 / 1	33 / 16 / 45	9 / 6 / 62

# Mechanistic Modeling Allowed Kymera to Accurately Predict Human PK and PD from Preclinical Dog Data for Clinical Candidate KT-474

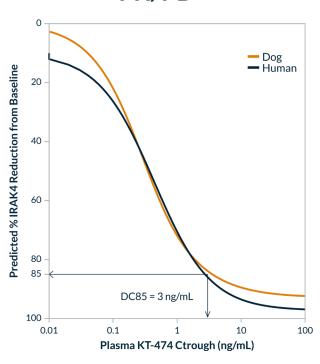
# Mechanistic PK/PD Modeling Describes the MoA of TPD



# Preclinical Species Models for PK/PD KT-474 in Dog

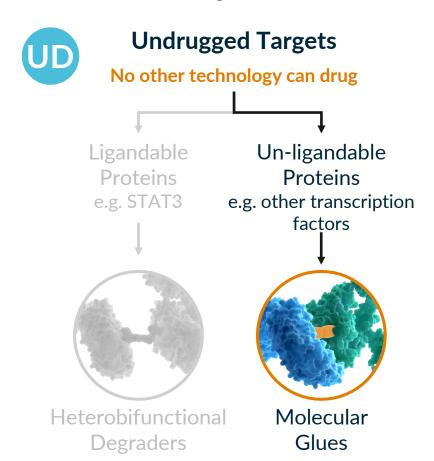


# Model Predicts Human PK/PD



# Rationally Designing Molecular Glues to Drug Historically **Undrugged/Unligandable Targets**

To drug all genetically validated but undrugged and un-ligandable proteins through the discovery of novel E3 ligases and small molecule glues



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#### **Our Approach:**

- We are **NOT** iterating on CRBN/IMiD Scaffold
- Identifying the best matched pairs between targets of interests and E3 ligases exploiting natural affinity augmented with small molecule glues
- Established a platform that uses high content genetic-based screens, structural insights, biological pathways deconvolution, degron discovery, computational knowledge expansion
- Multiple programs in discovery stage
- Strategic partnerships with:









## **Expanding the Druggable Proteome with TPD**

- Kymera intends to drug all target classes using targeted protein degradation
- A comprehensive hit finding toolbox with key Al and machine learning inputs has been developed to identify ligands against novel E3 and undrugged targets
- Our capabilities have evolved to accurately predict human active doses and compound properties
- We have developed know-how and technologies to drug inadequately drugged targets such as IRAK4 and MDM2, undrugged targets such as STAT3 and have for the first time in TPD drugged targets in a tissue selective manner using our E3 ligase toolbox.
- Kymera has established a new discovery unit to identify new molecular glue degrader drugs focused on undrugged/un-ligandable high value protein targets
- Multiple strategic collaborations have been established to enable MG Discovery



# **Kymera 2026 Vision**

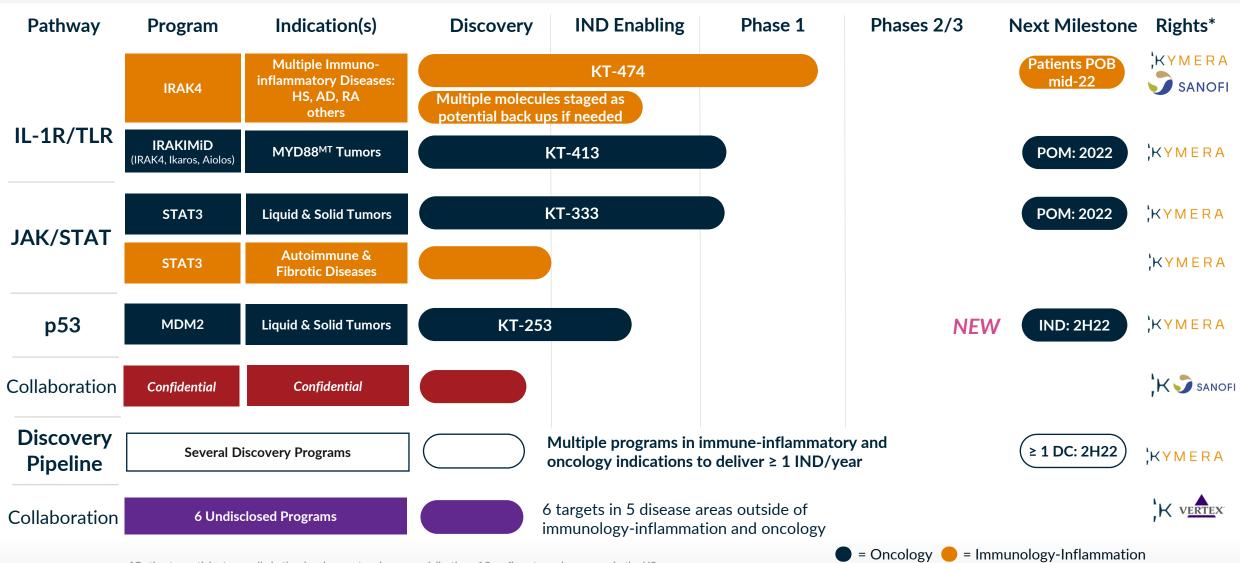
Nello Mainolfi, Ph.D., Founder and CEO, Kymera



## What We Showed You Today

- Our first 5 years; pipeline and platform investments
- Three compelling clinical programs with large franchise potential:
  - IRAK4, KT-474 Ph1 data de-risks profile for best-in-class oral drug in broad immune-inflammatory indications
  - IRAKIMID, KT-413 Potential for first therapeutics for genetically defined subtype of DLBCL, IND cleared
  - STAT3, KT-333 First specific degrader against a transcription factor with large franchise potentials, IND cleared
- Significant investment in our discovery pipeline:
  - MDM2, KT-253 Best in class P-53 stabilizer for liquid and solid tumors, IND in 2022
  - Commitment to at least 1 new IND/year, yearly disclosure of new development program(s)
- Commitment to innovation for our platform and pipeline:
  - First tissue restricted E3 ligase in vivo POC, leading to tissue sparing biology
  - Novel approach to molecular glue for undrugged/unligandable targets
  - Goal of drugging all target classes in the cell

## **Kymera's Pipeline Today**



\*Option to participate equally in the development and commercialization of Sanofi-partnered programs in the US



## What We Expect in 2022

- Completion of Ph1 patient cohort for KT-474 and transition to Sanofi
- Proof of mechanism in patients for KT-413 and KT-333 oncology Ph1 studies
- IND filing for KT-253
- First tissue restricted E3 ligase enabled program in development
- Continued growth of team and capabilities
- Expanded recognition as a leader in TPD with a disruptive innovation engine across the biotech sector
- Multiple scientific contributions in medical meetings and in peer reviewed publications
- Continued investment in providing our employees, collaborator and partners the best experience

## Our 5-year Vision: Where Kymera Will Be in 2026

# ,KYMERA

A fully-integrated biotech company with a disease and technology agnostic pipeline and capabilities

Path to NDA for at least 1 program

At least 8 clinical stage programs across different development stages and disease areas

Pipeline positioned to deliver at least 1 new IND per year

Clinical proof-of-concept established in tissue-selective/restricted degradation and undrugged targets

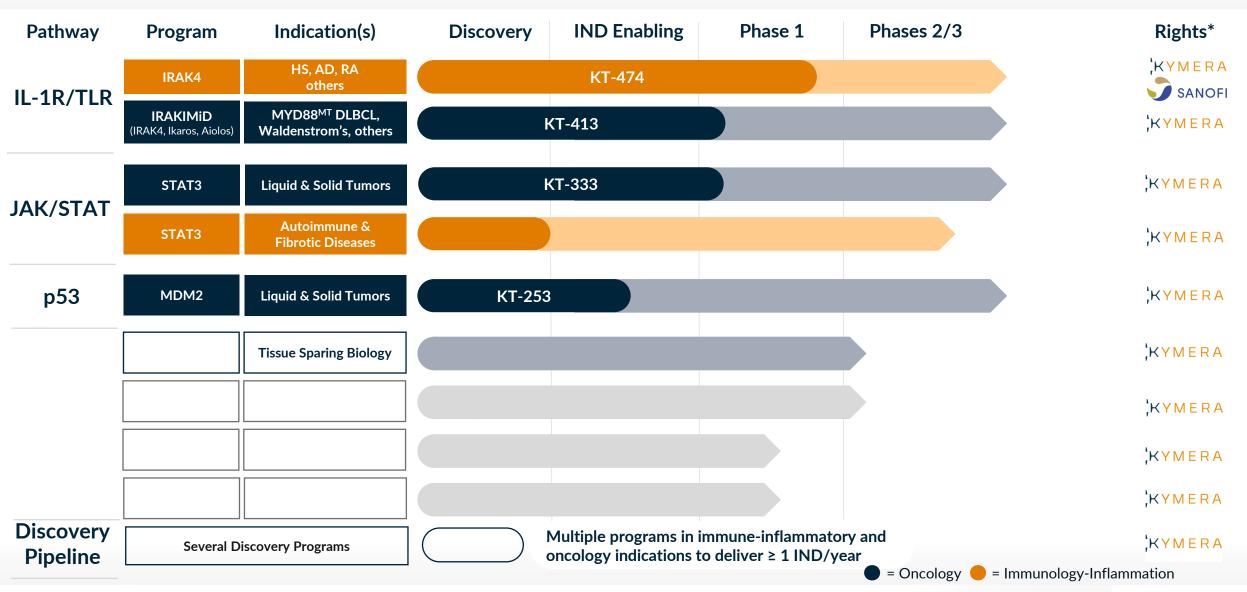
Disease and technology-agnostic pipeline and capabilities

Expand technology platform to wholistically address undrugged proteome

Continued commitment to innovation and first-in-class science and medicines

Commercial organization build up in progress

## What Kymera's Clinical Pipeline Could Look Like in 2026



## What We Hope You Will Take from Today

- Targeted Protein Degradation is positioned to transform drug development landscape
- Kymera is a medicine focused company with recognized leadership in TPD
- We employ a novel and differentiated scientific strategy and approach around target selection, drug development and platform investments
- We are committed to innovation, execution and to the pursuit of real step change in treatment paradigms
- There is much we have accomplished since our founding, but even more we expect to deliver in 2022 and beyond
- We have a very ambitious but achievable vision for the company



# Thank you

Q&A

