INVENTING NEW MEDICINES WITH TARGETED PROTEIN DEGRADATION



November 2022

Forward-looking Statements

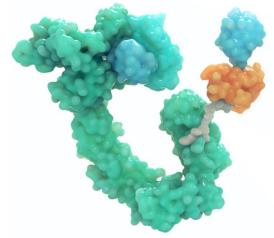
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Introduction to Kymera

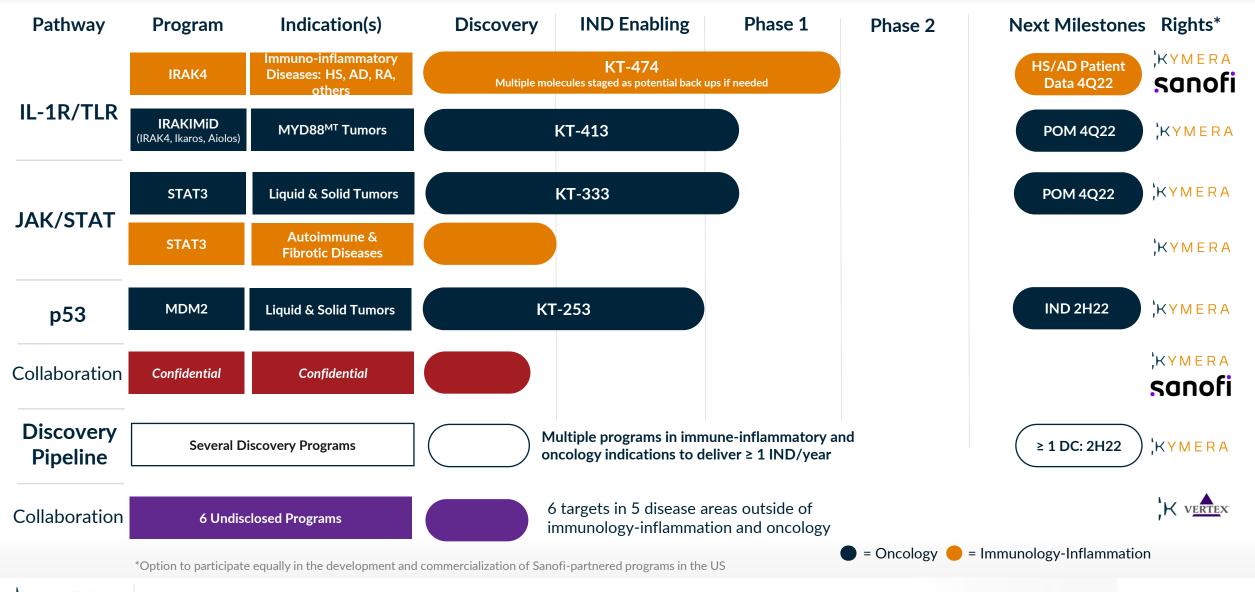
KYMERA



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

- 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
- Executed many "firsts" for TPD with initial clinical programs
- Three clinical stage programs and a deep pipeline positioned to deliver ≥1 IND/year
- Focused on **continued innovation** in platform and discovery
- Well capitalized with **\$596 million of cash** as of 9/30/22

Kymera's Pipeline of Novel Protein Degraders

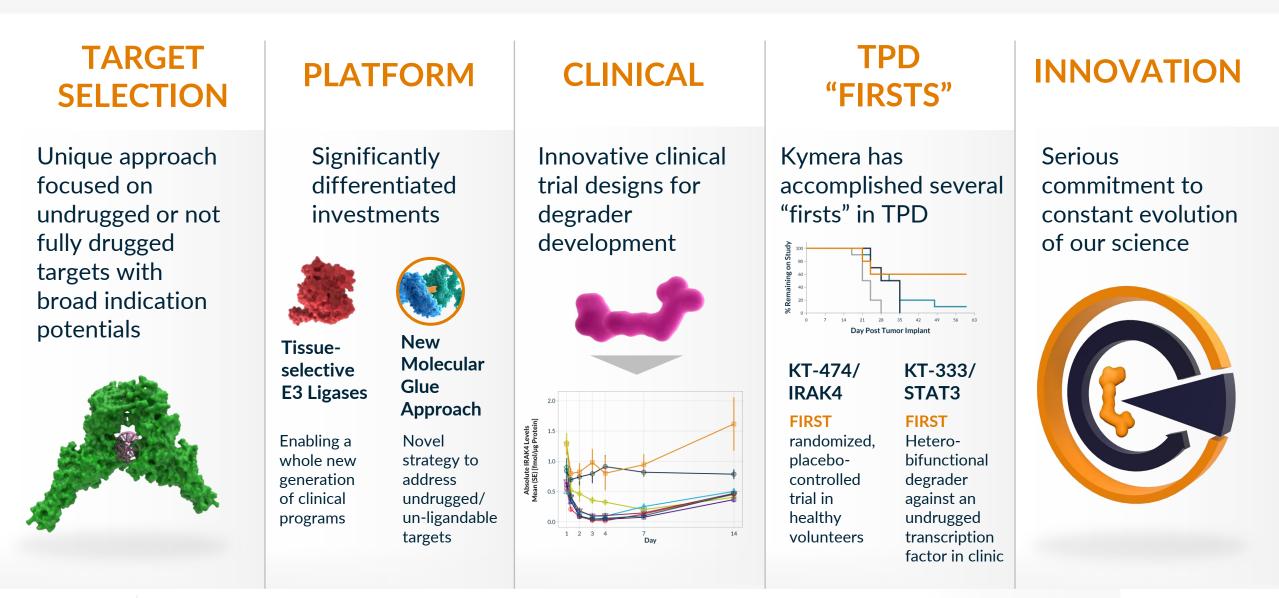


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Near-Term Milestones Provide Significant Opportunity

Program	<u>Compound</u>	Indications	Expected Upcoming Milestones
IRAK4	KT-474	AD, HS, RA, others	 Establish Phase 1-HS/AD patient cohort dose (2Q22) Initiate HS/AD patient Part C study (2Q22) Present Ph1 HS/AD patient cohort data (4Q22) Provide data package to Sanofi for advancement into Phase 2 (4Q22)
IRAKIMiD (IRAK4, Ikaros, Aiolos)	KT-413	MYD88 ^{MT} DLBCL	 Dose first patient in Phase 1 trial (2Q22) Present initial Phase 1 safety and proof-of-mechanism data in patients (4Q22) Present initial Phase 1 anti-tumor proof-of-concept data in patients (2023)
STAT3	KT-333	Liquid & Solid Tumors	 Dose first patient in Phase 1 trial (2Q22) Present initial Phase 1 safety and proof-of-mechanism data in patients (4Q22) Present initial Phase 1 anti-tumor proof-of-concept data in patients (2023)
MDM2	KT-253	P53wt Liquid & Solid Tumors	 File IND for KT-253 (2H22) Present new preclinical data elucidating indication expansion opportunities (2H22)
Discovery Programs & Platform			 Continue pipeline expansion by advancing discovery stage programs toward IND-enabling studies Further expand Pegasus platform to generate novel degrader product candidates for undruggable and inadequately drugged targets Leverage Whole-Body Atlas to unlock new opportunities across broad therapeutic applications using tissue-sparing, tissue-restricted E3 ligases as well as novel molecular glue mechanisms
= Oncolog	gy 🛑 = Immunolog	y-Inflammation	

Kymera's Differentiated Approach to TPD



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How We Select Our Targets

Drug Development Philosophy



Unmet Medical Need



Validated Biology



Undrugged Node



Precision Medicine Approach

Target Types



<u>Inadequately Drugged</u> Targets with Clear Degrader Advantage e.g. IRAK4, MDM2



<u>Undrugged Targets by</u> any other technology e.g. STAT3



Clinically Validated Targets Enabled by E3 Ligase <u>T</u>issue <u>R</u>estricted 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

We Want to Drug All Target Classes

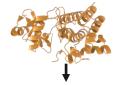


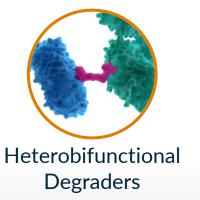
Expanding the Druggable Proteome with TPD

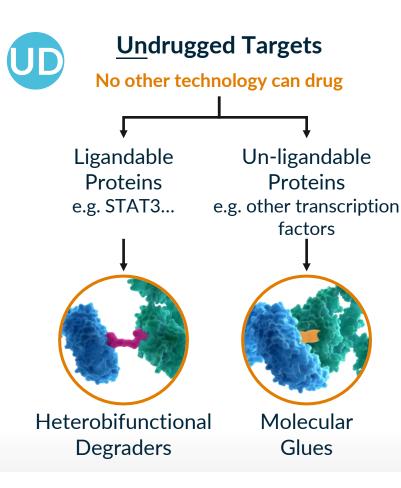


Inadequately <u>D</u>rugged Targets with Clear Degrader Advantage

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



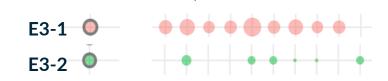






Clinically Validated Targets Enabled by E3 Ligase <u>T</u>issue <u>Restricted Expression</u>

On target unwanted pharmacology limits clinical application



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

Strategic Partnerships to Accelerate Growth

Supports Discovery, Development, and Commercialization Within and Outside of Core Therapeutic Areas

Strategic Collaborators

sanofi

- Established July 2020; **\$150M** upfront; **>\$2B** of potential milestones, plus tiered royalties
- Focused on IRAK4 in I/I + 2nd program; KYMR advances IRAK4 through Ph 1; Sanofi Ph 2 and beyond
- KYMR retains U.S. co-dev and co-co opt-in rights, and rights to IRAK4 in oncology



- Established May 2019; \$70M total upfront;
 \$1B of potential milestones, plus tiered royalties
- 6 targets in 5 disease areas
- Outside of Kymera's core focus areas in oncology and immune-inflammatory

UNIVERSITY of



- Blood-based cancers
- Leveraging patient network and access

Academic Collaborators



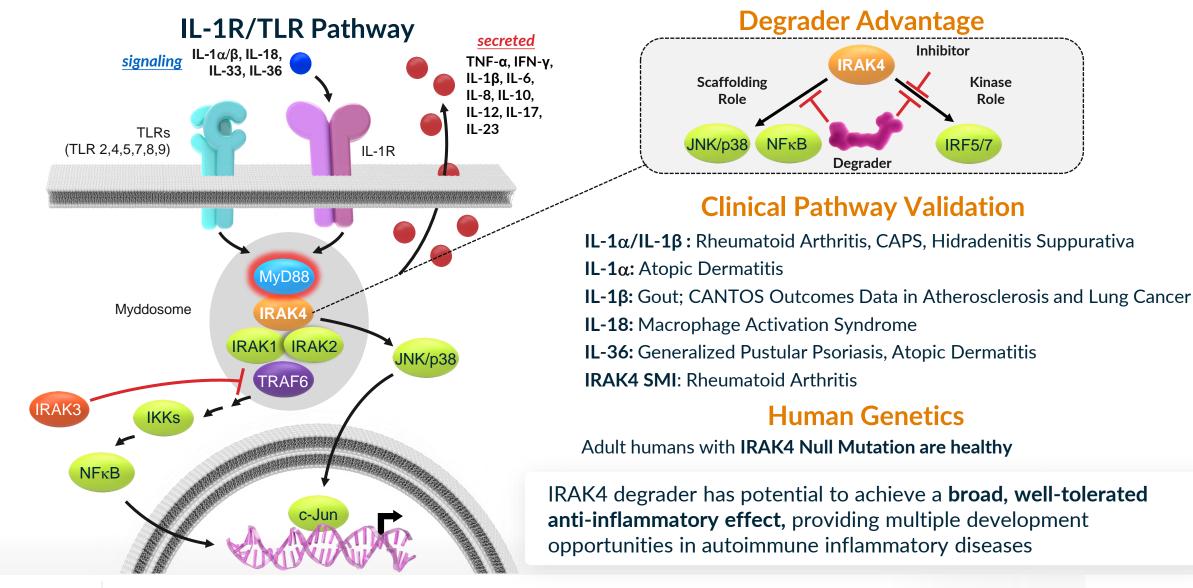




IRAK4

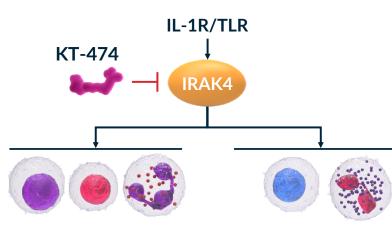


Degrading IRAK4: Best Approach to Block IL-1R/TLR driven Inflammation



Potential Best-in-class Oral Small Molecule Mechanism in I/I

Potential for Broad Activity Across Th1-Th17 and Th2 Diseases



Th2/Eosinophils

Atopic Dermatitis

Asthma

COPD

CRSwNP

Th1-Th17/Neutrophils

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

\$ 150B 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	~4.6 M	\$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)

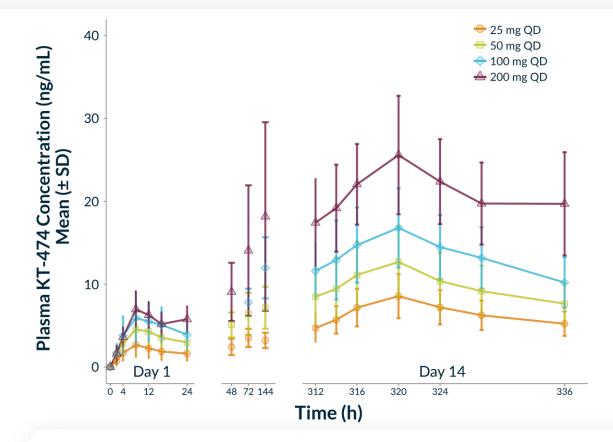
KT-474 Updated Phase 1 Includes a 28 Day Patient Study

Double-blind, Placebo-controlled SAD and MAD in HV; Open Label Patient Cohort in HS & AD Patients

Parts A & B Healthy Volunteers SAD and MAD	 7 SAD cohorts 8 subjects per cohort (6:2 randomization) 57 adult healthy subjects dosed Single dose (25-1600 mg) 4 MAD cohorts 12 subjects per cohort (9:3 randomization) 48 adult healthy subjects dosed 14x daily doses (25-200 mg) 	Primary Secondary/ Exploratory	 Safety & tolerability Pharmacokinetic measures (half-life, bioavailability) IRAK4 knockdown in PBMC and skin (MAD only) Ex vivo response of whole blood to TLR agonists (SAD & MAD)
	1 cohort Up to 20 HS and AD patients	Primary	 Safety & tolerability Pharmacokinetic measures
Part C	75 mg (fed state)		 (half-life, bioavailability) IRAK4 knockdown in PBMC and skin Change in systemic inflammatory biomarkers and
HS and AD Patients	Open-label 28x daily doses	Secondary/ Exploratory	 Change in systemic inhammatory biomarkers and proinflammatory gene transcripts in skin Ex vivo response of whole blood to TLR agonists Clinical endpoints: EASI (AD), Total AN Count (HS), symptom scores and global assessments

Н

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



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

Steady-State (Day 14) PK Parameters

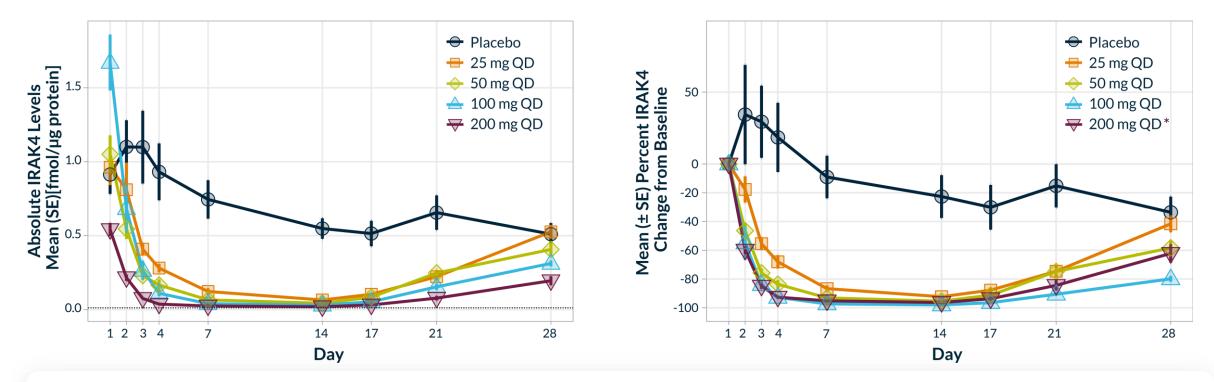
Geometric Mean (%CV) reported for all parameters, except t_{max} where median(range) are presented Accumulation Ratio represents fold change in exposure from Day 1 to Day 14

- 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 Robust and Sustained IRAK4 Degradation with Multiple Daily Oral Doses (14 Days)

Absolute IRAK4 Levels

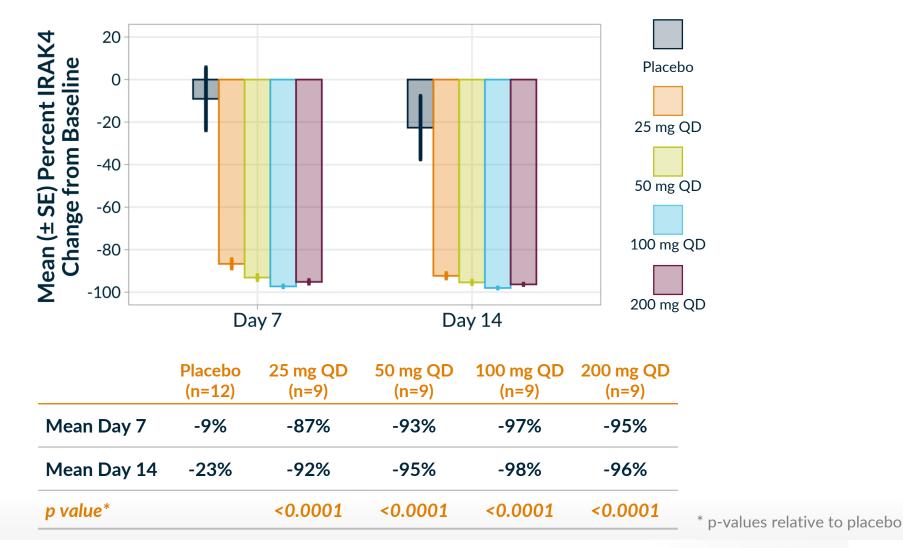
Mean % Reduction of IRAK4



- 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)

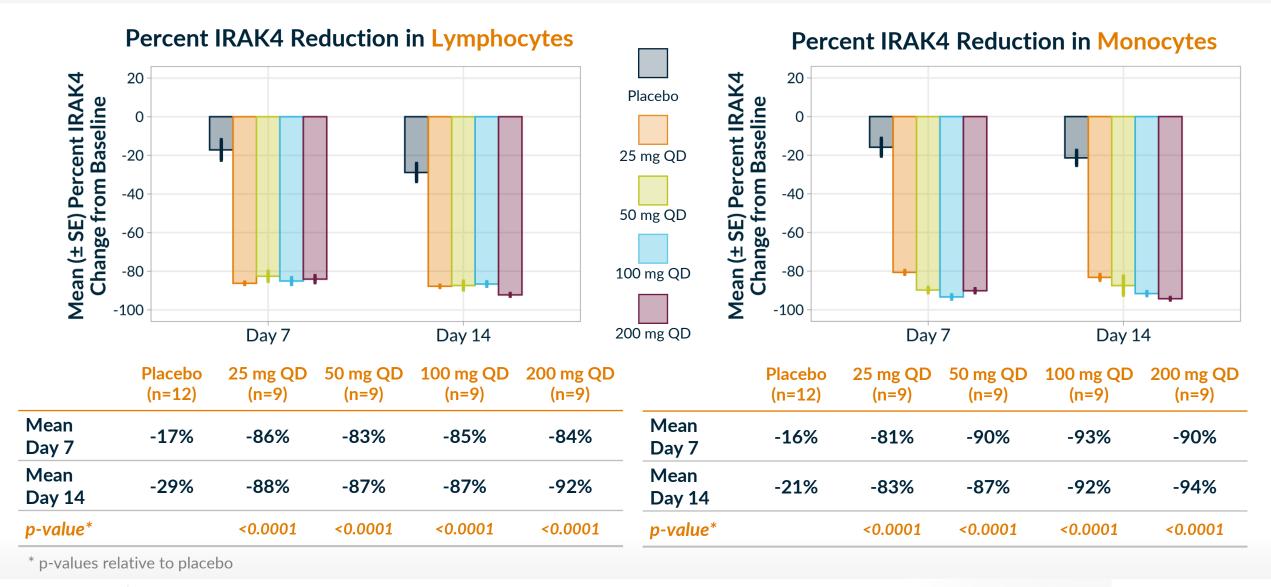
Lower Daily Doses of KT-474 Achieved >98% IRAK4 Degradation (MS) Plateau in IRAK4 Reduction after 14 days in PBMC after 100 mg

Percent IRAK4 Reduction in PBMC by Mass Spectrometry



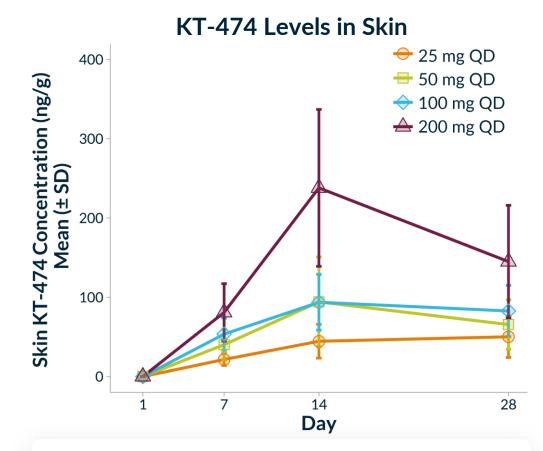
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KT-474 Achieved >90% Degradation in Monocytes at ≥ 100 mg (FLOW) Maximal Degradation in Monocytes in MAD4/200mg at Day 14



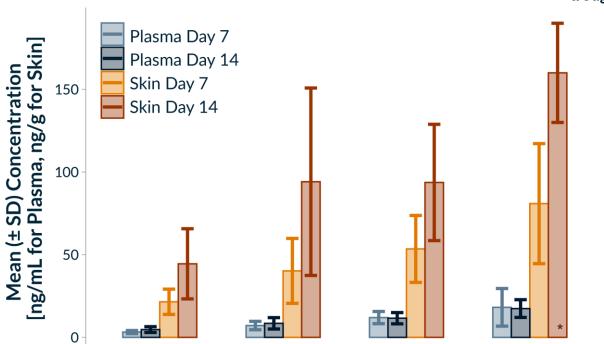
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Once Daily Dosing Resulted in High Skin Exposures Exceeding Plasma



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

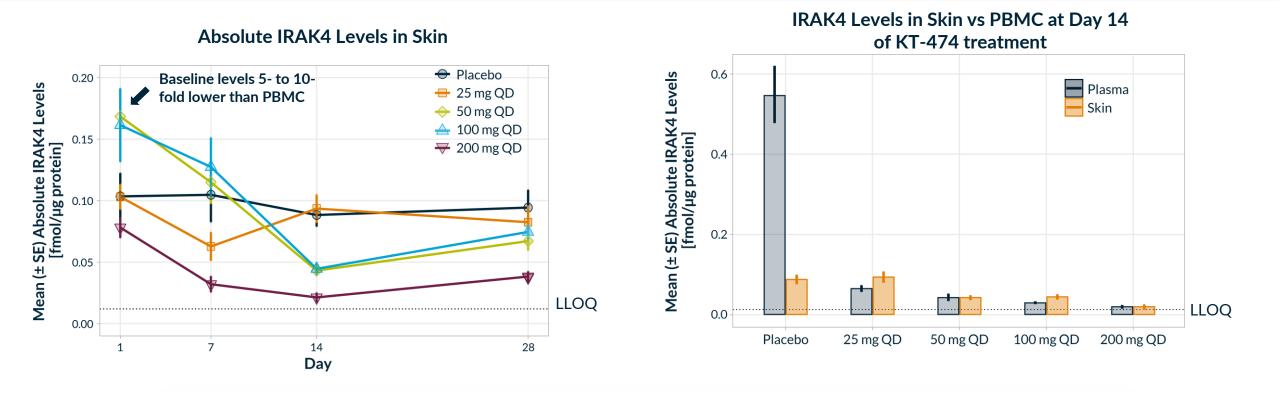
C_{trough} concentrations shown for Days 1, 7 and 14.



Substantially Larger Skin vs Plasma Exposures at $\mathrm{C}_{\mathrm{trough}}$

ng/mL (plasma) ng/g (skin)	25 mg QD (n=9)	50 mg QD (n=9)	100 mg QD (n=9)	200 mg QD (n=9)
Plasma Day 7	3.21	7.15	11.9	18.2
Plasma Day 14	4.72	8.49	11.6	17.4
Skin Day 7	21.5	40.2	53.5	80.9
Skin Day 14	44.5	94.2	93.7	238

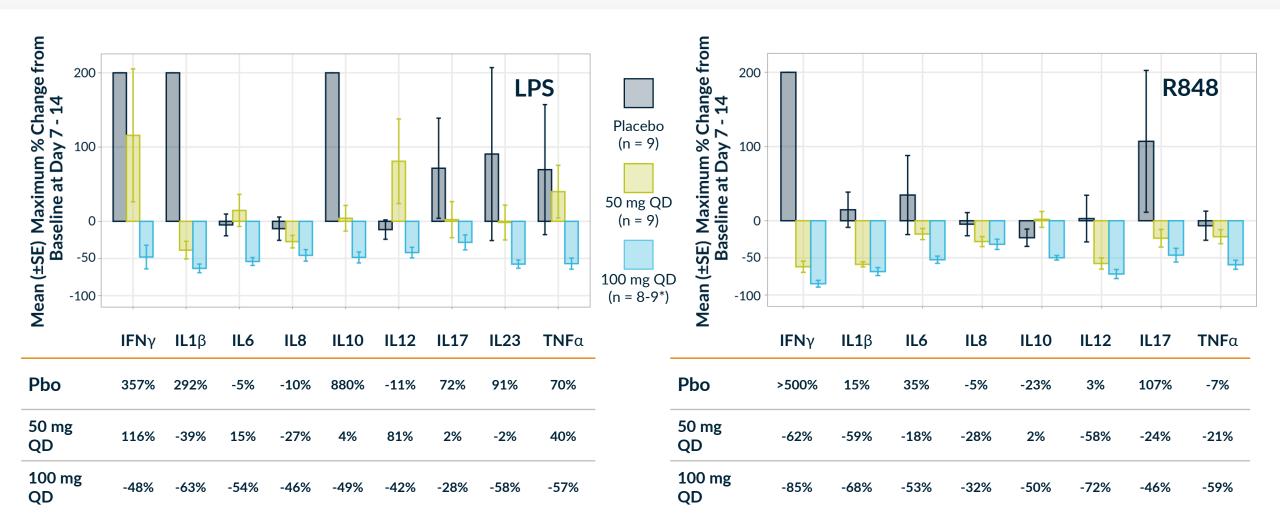
KT-474 Reduced IRAK4 to Near LLOQ in the Skin (MS)



- Baseline IRAK4 levels in skin substantially lower compared to PBMC
- Dose-dependent IRAK4 degradation in skin by mass spectrometry
- Steady-state 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

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

KT-474 Phase 1 Summary

Phase 1 Summary

- Dose escalation completed; 105 healthy volunteers enrolled in initial SAD and MAD portions of trial
- <u>POM</u>: IRAK4 degradation in blood and skin to near LLOQ; 95-98% mean IRAK4 reduction in blood at top 3 MAD doses (50mg, 100mg, 200mg)
- <u>POB</u>: Over 50% inhibition of up to 9 cytokines with up to 85% inhibition at 100 mg MAD dose
- Ongoing patient cohort study extended to 28 days to explore safety, PK, PD, biomarker impact and exploratory clinical efficacy endpoints in HS and AD patients

Safety Summary

- KT-474 was generally well tolerated, with no SAEs
- MAD TEAEs in 2 or more subjects possibly/probably drug related included Headache (5), Palpitations (3) and Nausea (2)
- A *non-adverse*, non-dose-dependent, self-limiting mean 10-20 msec prolongation of QTc was identified after multi-dosing in MAD, with QTc remaining within normal range (<450 msec).
 - Subsequent analysis suggests weak ion channel binding, not IRAK4 or degradation, as likely cause
 - Not expected to impact development plan

Profile, shared with FDA, supports advancement of KT-474 in further stages of development across immune-inflammatory diseases, starting with 28-day HS and AD patient cohort

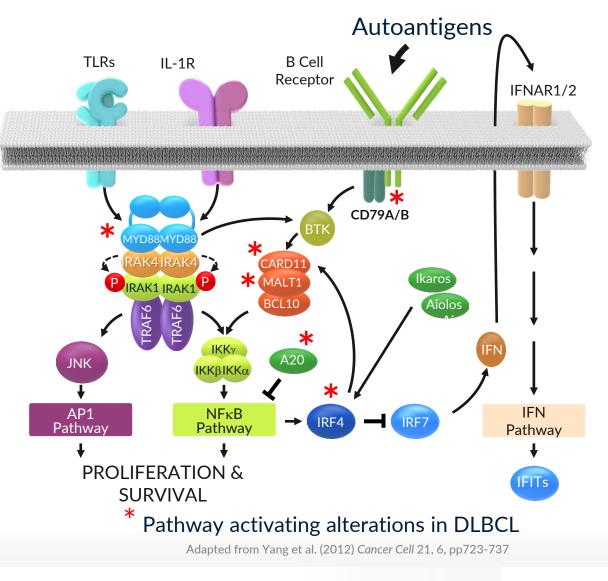
IRAKIMID



IRAKIMiDs are Potent Degraders of IRAK4 and IMiD Substrates Targeting Redundant Pro-survival Pathways in MYD88^{MT} DLBCL

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





IRAKIMiD: First Precision Medicine in MYD-88 Mutated Cancers

MYD88-mutant DLBCL

Waldenström's Macroglobulinemia

> Primary Central Nervous System Lymphoma

Patient Impact¹ ~8k US ~37k ROW* per year ~10k US ~26k ROW* per year ~3k US ~12k ROW* per year *EU, UK, Japan, China ¹Bionest

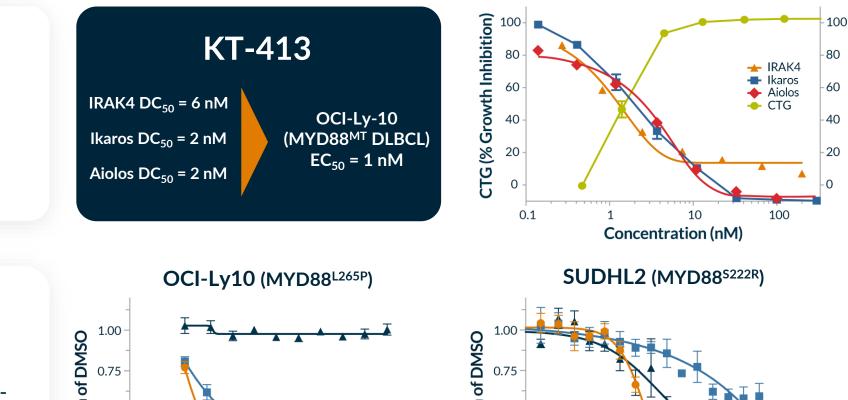
- MYD88 is mutated in ≥ 25% of DLBCL patients, the most common subtype of non-Hodgkin's lymphoma
- DLBCL **5-year survival rate is ~64%**, and MYD88 mutations are associated with poorer survival following frontline R-CHOP chemotherapy
- SOC in relapsed/refractory DLBCL, which includes CAR-T therapy, 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: Ongoing Clinical Study Design

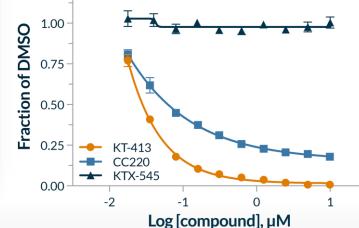
Phase 1a Phase 1b **Dose Escalation &** Key Eligibility Criteria: **Dose Expansion** R/R B-cell lymphoma MTD/RP2D Expansion \geq 2 prior systemic regimens Ineligible or refused CAR-T or MyD88^{MT} DLBCL ASCT MTD/RP2D \geq 2 prior regimens Expansion **Primary Objective:** MyD88^{WT} DLBCL To evaluate safety, PK/PD, and preliminary efficacy in ≥2 prior regimens Protocol Protocol MYD88 mutant and MYD88 Amendment DL1 Amendment wild-type R/R DLBCL Waldenström's Macroglobulinemia **Study Endpoints:** KT-413 + Primary: Safety, tolerability, SOC MTD/RP2D Primary CNS Lymphoma Combo Secondary: PK, preliminary efficacy MTD/RP2D **Combination Expansion** • Exploratory: Target Expansion (IRAK4/Ikaros/Aiolos) knockdown and downstream **Combination Expansion** effects in PBMC, and tumor Expansion

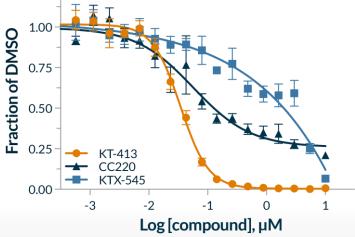
KT-413 is a Potent Degrader of IRAK4 and IMiD Substrates with Potent Activity in MYD88^{MT} Cell lines

 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^{MT} DLBCL cells than the clinically active IMiD, CC-220, and IRAK4-selective degrader, KTX-545





Degradation (%

Control)

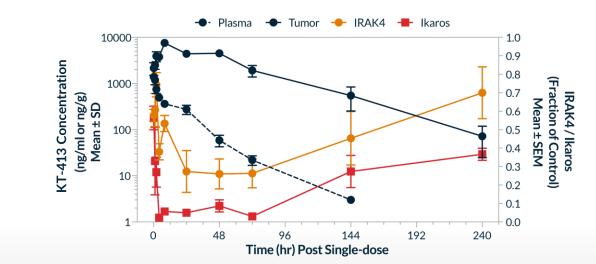
KT-413 is Highly Active on Intermittent Dosing Regimens

- In the OCI-LY10 MYD88^{MT} 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
- 2500 2000 1500 1000 500 0 7 14 21 28 35 Days After the Start of Treatment

 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%)

Drug (day 55)	(REG%)	CR	PK	50	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

- 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



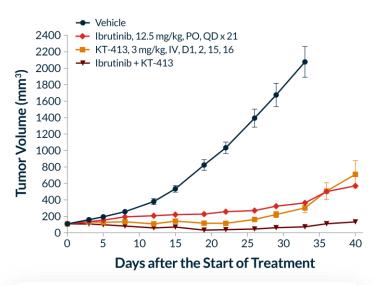
Superior Anti-tumor activity OCI-Ly-10 Tumor Volume

CD

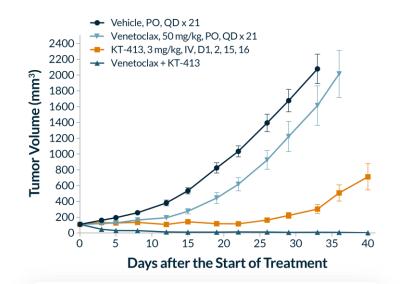
KT-413 Has Strong Activity in Combination in MYD88^{MT} OCI-Ly10 Xenografts

with BCL-2 Inhibitor

with **BTK** Inhibitor

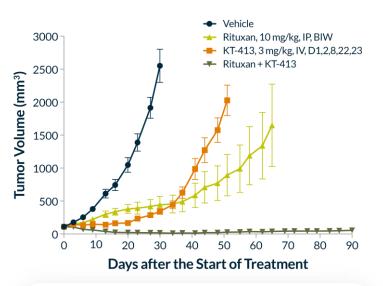


 KT-413 administered on intermittent schedules leads to strong regressions in combination with the BTK inhibitor Ibrutinib



 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

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^{MT} DLBCL for most direct path to registration
 - Other MYD88^{MT} lymphomas of interest include PCNSL, WM

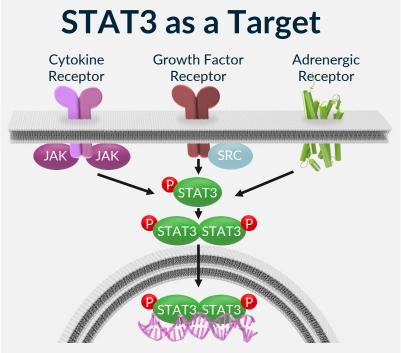
Combinations

• With SOC agents in MYD88^{MT} DLBCL to enable earlier line therapy

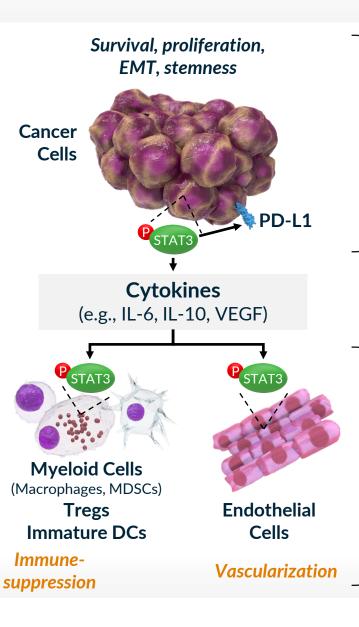




STAT3 Has Unique Tumor Cell Intrinsic and Extrinsic Mechanisms



- 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.

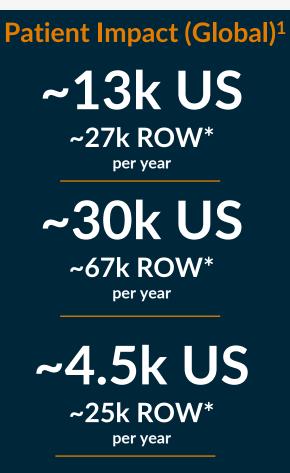
First-in-class Opportunity to Address STAT3-driven Pathology Across Diverse indications

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



~26k US

~96k ROW*

per year

EU. UK. Japan. China

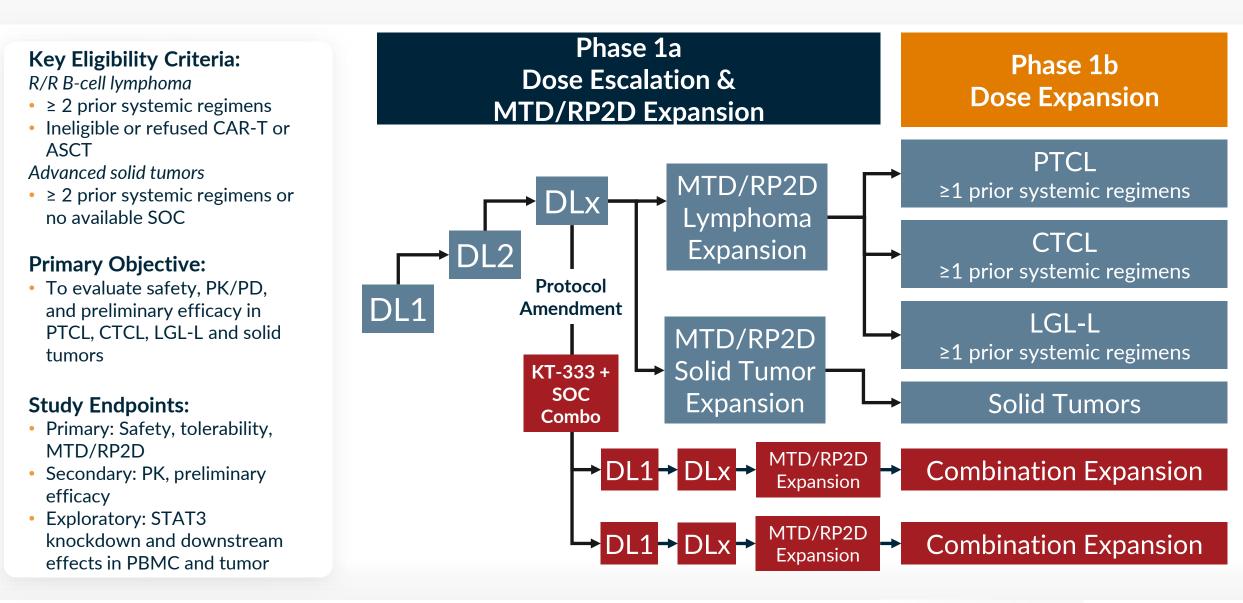
¹Bionest

 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

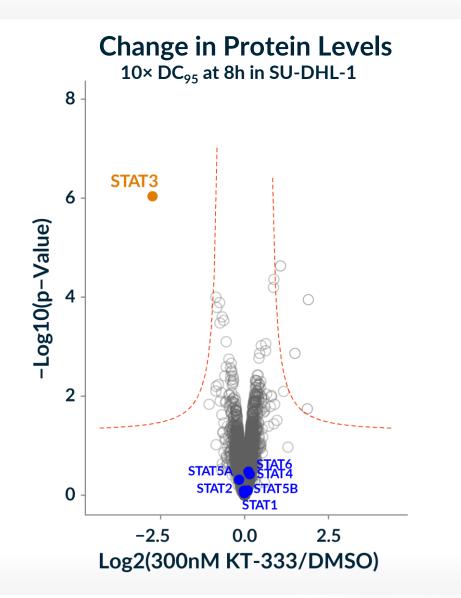
KYMERA ©2022 KYMERA THERAPEUTICS, INC.

KT-333: Ongoing Clinical Study Design



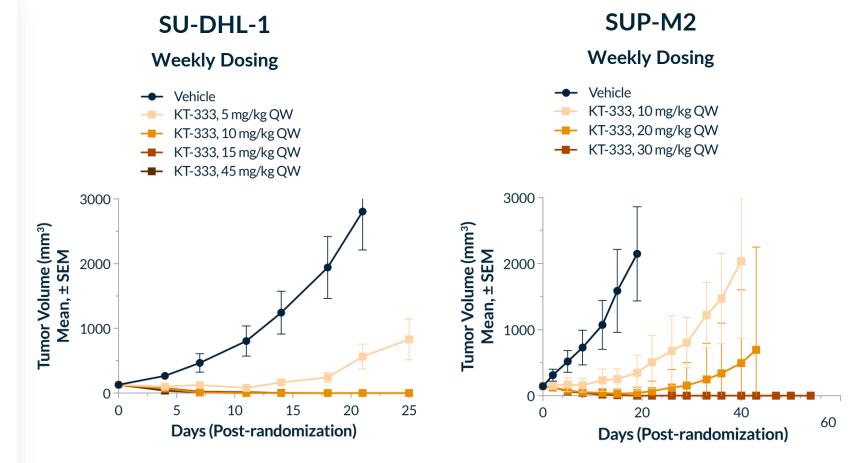
KT-333 Demonstrates Highly Selective Degradation of STAT3

- 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



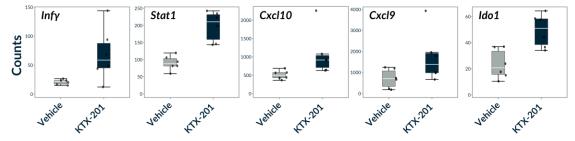
Full and Durable Regressions Across Multiple in vivo Preclinical Tumor Models

- 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)



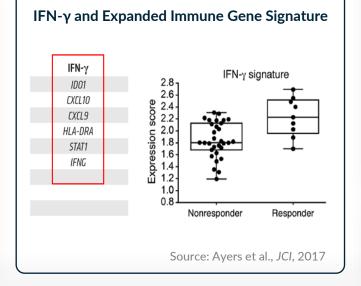
STAT3 Degrader's Role in Immuno-Oncology: Sensitization of Tumors to Anti PD-1

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

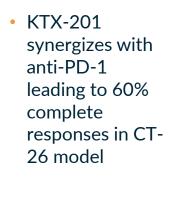


CT-26: Veh or KTX-201 25 mg/kg q2D IP; n=6/grp; t = Day 11

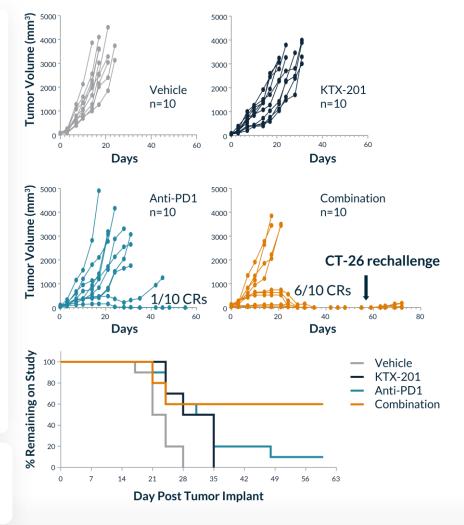
STAT3 degradation remodels the CT-26 TME to be more immune-favorable with upregulation of anti-tumor immunity genes previously identified as predictors of clinical response to pembrolizumab



STAT3 Degradation and Anti-PD-1 Synergy



- Complete responders reject tumor rechallenge demonstrating development of long-term immune memory
- Combination extends survival

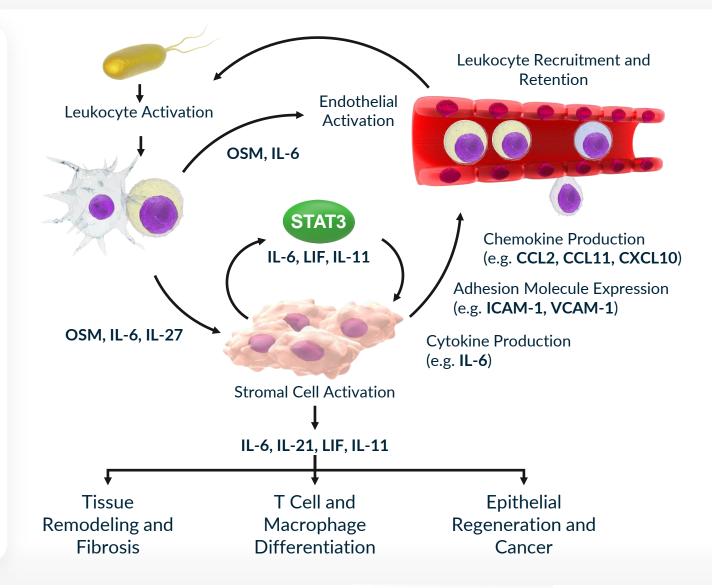


STAT3 Degrader KT-333, First-in-class Opportunity to Address STAT3-driven Pathology Across Diverse Indications

- 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

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

Fibrosis / Interstitial Lung Disease

Autoimmune

¹Bionest

Patient Impact¹

~85k US **Systemic Sclerosis** (SSc) ~200k ROW* per year ~80k US **Idiopathic** Pulmonary Fibrosis ~180k ROW* (IPF) per year ~12m **Atopic Dermatitis** (AD) moderate-to-~60m ROW* severe per year ~2m US Rheumatoid ~17m ROW* Arthritis (RA) per year EU, UK, Japan, China

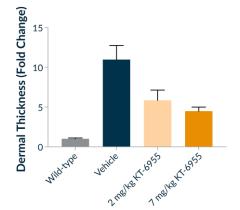
- Increased STAT3 and pSTAT3 observed in SSc skin and lung biopsies
- Aberrant IL6/JAK/STAT3 gene signature in biopsies from SSc patients
- Tocilizumab no effect on mRSS but change from baseline in FVC at week 48 (observed FVC and %pFVC) in patients with SSc/ILD
- STAT3 dependent cytokines (e.g. IL-11) 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⁺ 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

KYMERA

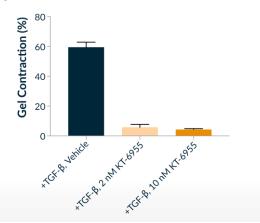
Our STAT3 Degraders Robustly Reduce Disease in Models of Systemic Sclerosis, Arthritis and CNS Inflammation

In Vivo Tight Skin Model (Fibrosis)

TSK ± Mice (BIW Dosing)

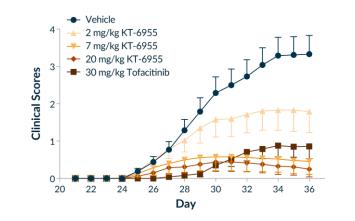


Cellular Fibrosis Model TGF-β Stimulated SSc Fibroblasts (72h)



In Vivo CIA Model (RA)

Collagen-induced Arthritis (BIW Dosing)



Pathology Score

12

10

6

4

Haive

Sum of Scores 8

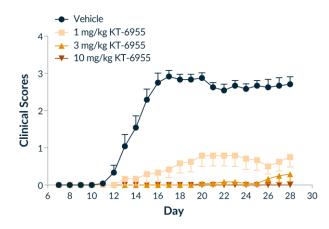
Periosteal Bone Width (μM) 150 100 50 meller to 955 meller t. 6955 malker to 955 nelle K-655 148K1-6955

Periosteal Bone Growth

31NB 47-6955

In Vivo MS Model

Experimental Autoimmune Encephalomyelitis (BIW Dosing)

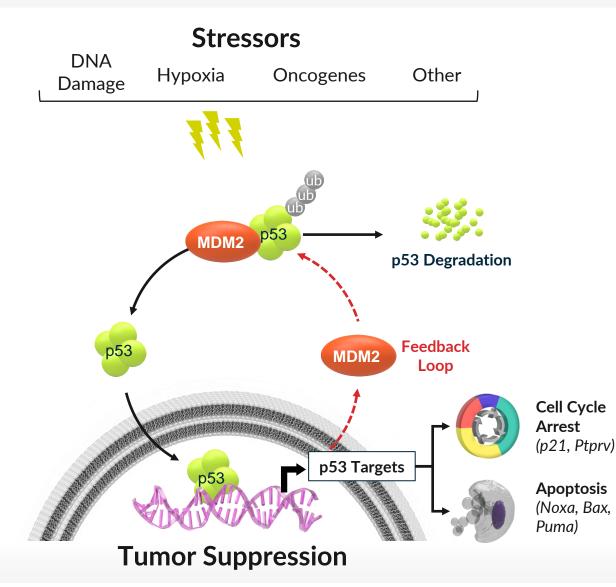


Treatment	EAE Incidence (%)	Median Day of Onset	End Score (+/- SD)
Vehicle	100.0%	13.0	2.71 +/- 0.69
1 mg/kg KT- 6955	66.7%	23.0	0.75 +/- 0.92
3 mg/kg KT- 6955	16.7%	>28.0*	0.29 +/- 0.69
10 mg/kg KT- 6955	0.0%	>28.0*	0.00 +/- 0.00

MDM2

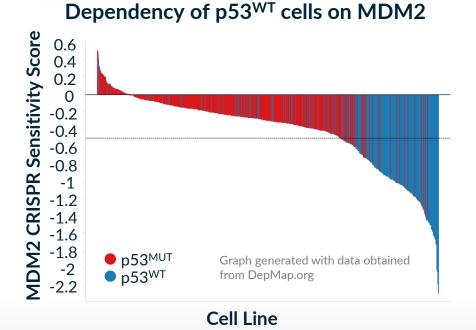


MDM2 is the E3 Ligase that Modulates P53, the Largest Tumor Suppressor

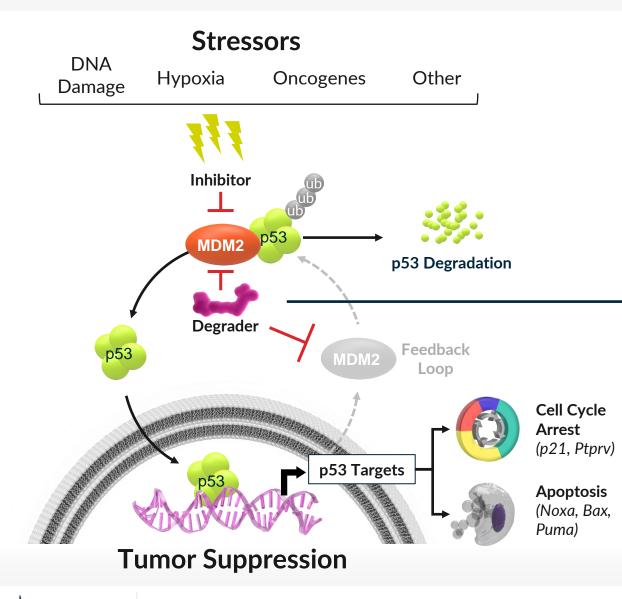


Cancer Genetics

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



MDM2 Degradation, Not Inhibition, Efficiently Restores p53



Clinical Validation

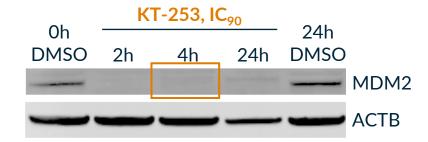
- MDM2 small molecule inhibitors of MDM2/p53 interaction show activity in the clinic..
- ...but they induce MDM2 feedback loop resulting in limited impact on pathway

Degrader Advantage

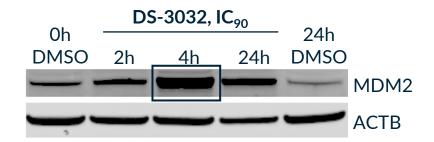
- MDM2 degraders, by removing the protein, can overcome the p53-dependent feedback loop that upregulates MDM2
- MDM2 degrader can induce an acute apoptotic response in tumor cells, increasing efficacy and therapeutic index vs a small molecule inhibitor

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

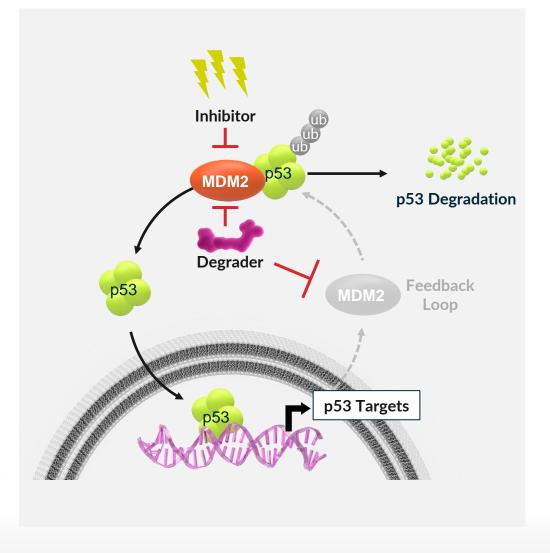
Degrader Overcomes MDM2 Feedback Loop



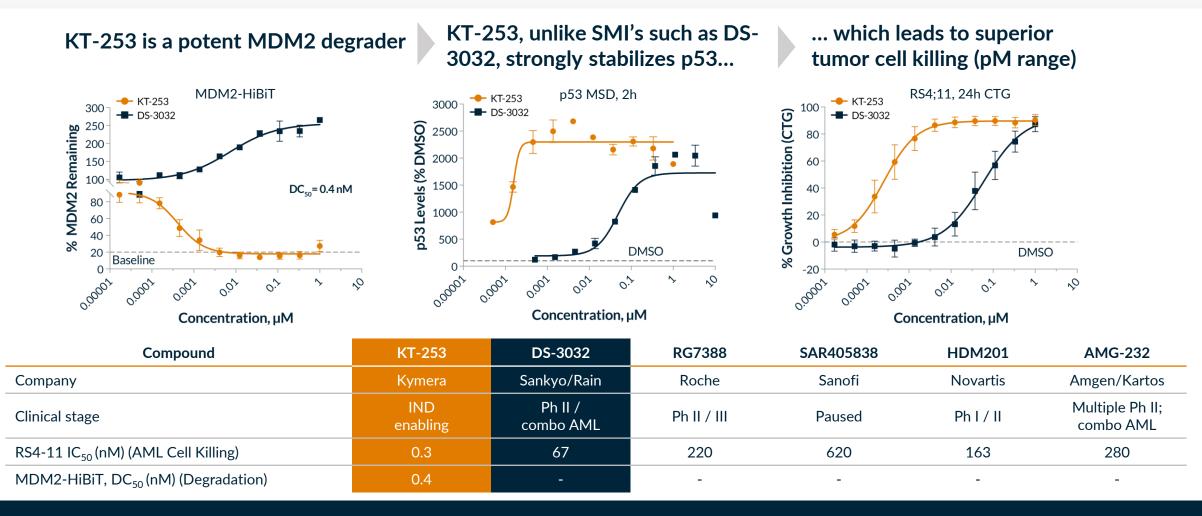
MDM2 levels are kept at undetectable levels with MDM2 degrader KT-253, leading to p53 stabilization



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



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

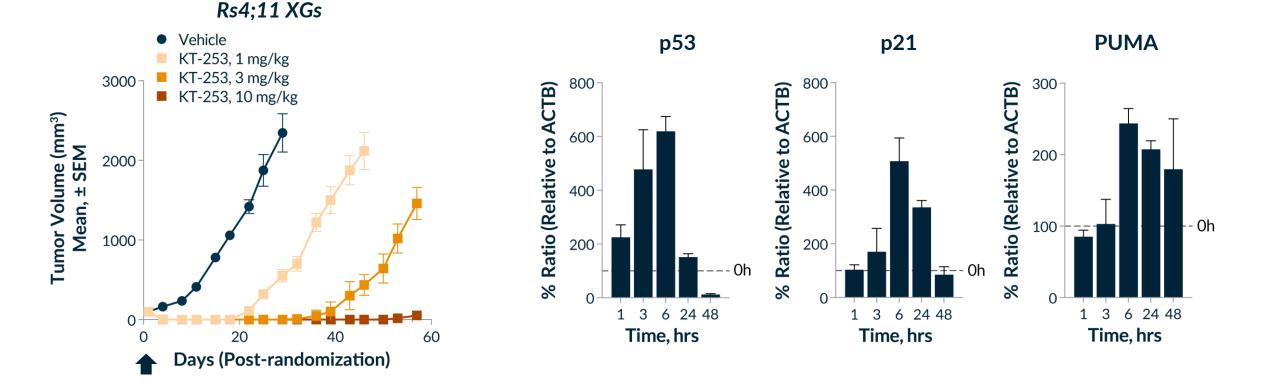


- KT-253 is >200-fold more potent in tumor cell killing assays than SMI's due to its mechanism of action
- Proteomics show selective degradation of KT-253

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

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

100

80

60

40

20

-20

0,0001

0,0001

0,001

% Growth Inhibition (CTG)

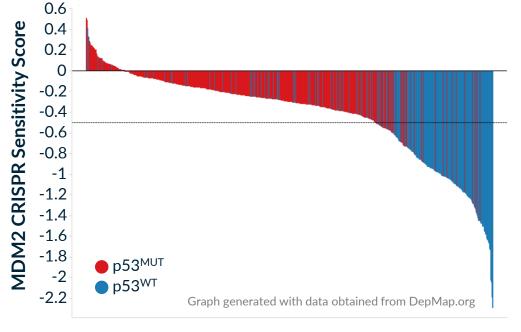
- KT-253

- DS-3032



MDM2 Degrader Superior to SMI Across Cell Line Panel

Heme & Solid Cell Lines



Cell Line

Tumor Types: Uveal melanoma, Bile Duct, Bladder, Bone, Brain, Breast, Colon, Endometrial/Uterine, Gastric, Kidney, Liver, Lung, Ovarian, Pancreatic, Rhabdoid, Sarcoma, Leukemia, Lymphoma **p53WT cell lines sensitive**: ALL, AML, DLBCL, Uveal Melanoma p53 mutant cell lines were not sensitive to KT-253 or DS-3032 as expected

0.01

Concentration, µM

0.

DMSO

2

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

- Renal cell cancer
- Uveal melanoma
- Thyroid cancer
- Liposarcoma
- HCC
- Breast cancer

MOA-specific Sensitivity (Biomarker-based)

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

MERA

MDM2 Amplification

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



Donehower, et al. 2020



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 clearance in 4Q22

Pegasus[™] Platform and R&D Approach



Proprietary PegasusTM TPD Platform Key Capabilities



- E3 ligase Whole-Body Atlas: Identification of the expression profiles of ~600 unique E3 ligases
- Match target protein with appropriate E3 ligase
- **Toolbox of proprietary ligands** leverages the E3 Ligase Whole-Body Atlas



- Understanding Degradation (PK/PD) Across Tissue Types
 - Quantitative System Pharmacology Model
 - Understanding and Translating PK/PD from preclinical systems into humans



- Comprehensive hit finding technologies toolbox
- Proprietary chemistry expertise, AI enabled optimization
 - Ability to convert into **degraders with optimal pharmaceutical properties**



- Center for Molecular Glue Discovery
- Identification of novel E3 ligases to degrade high value "undrugged and un-ligandable" proteins
- With external collaborators enable differentiated approach to molecular glues discovery

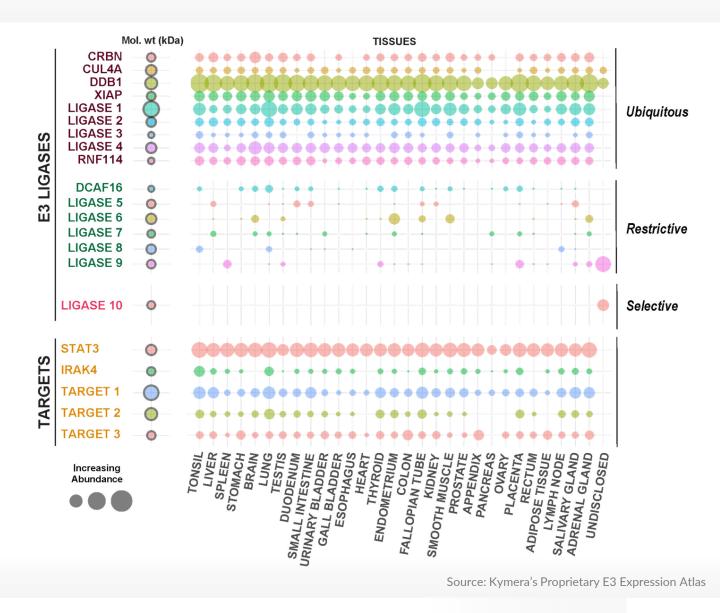
Novel E3 Ligases to Drug a New Generation of Targets

TR

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



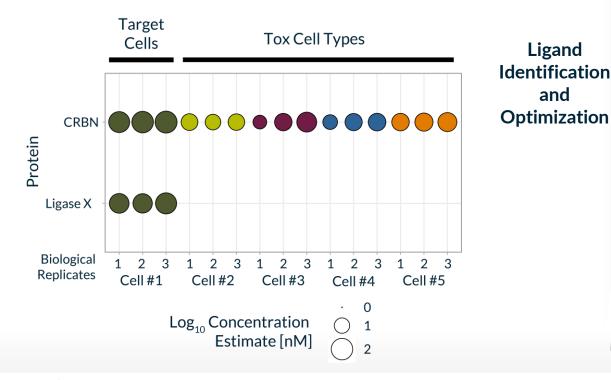
Kymera has Engaged a Broadly Expressed Protein in Only One Cell **Type Using a Tissue Selective E3 Ligase**

Ligand

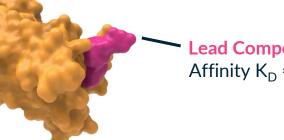
and

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

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

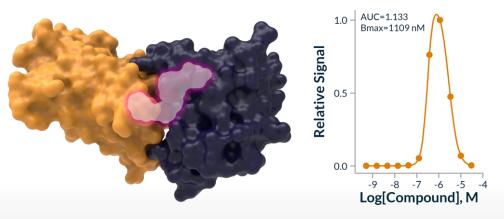


Small Molecule Ligand Bound to a Tissue-selective E3 Ligase

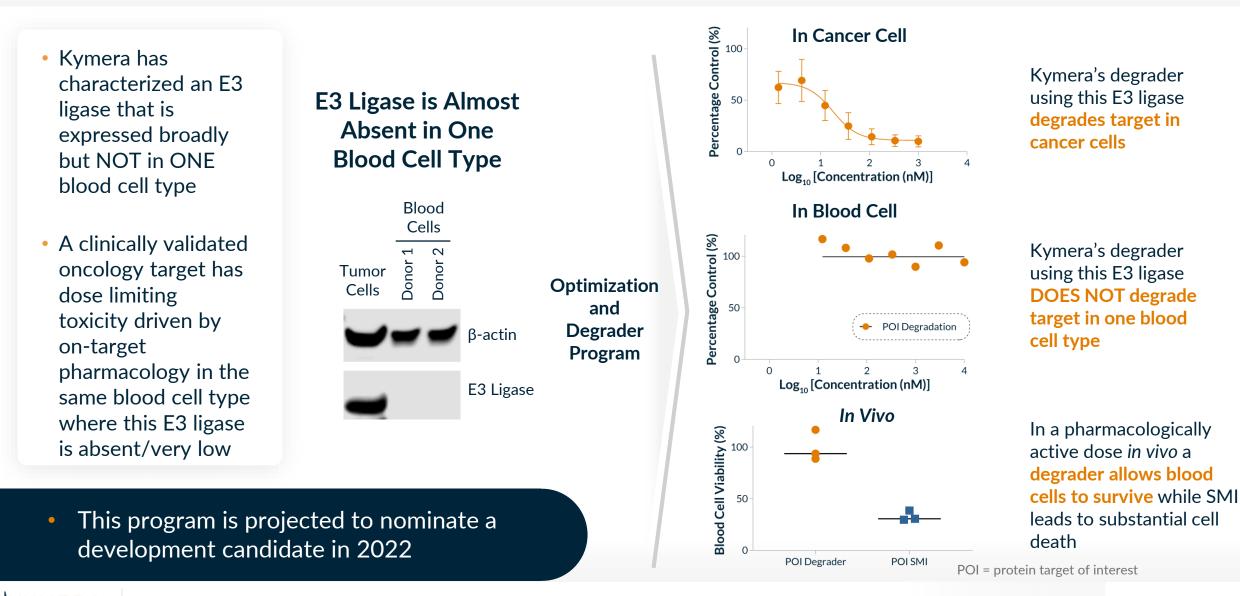


_ead Compound Affinity $K_D = < 1 \text{ uM}$

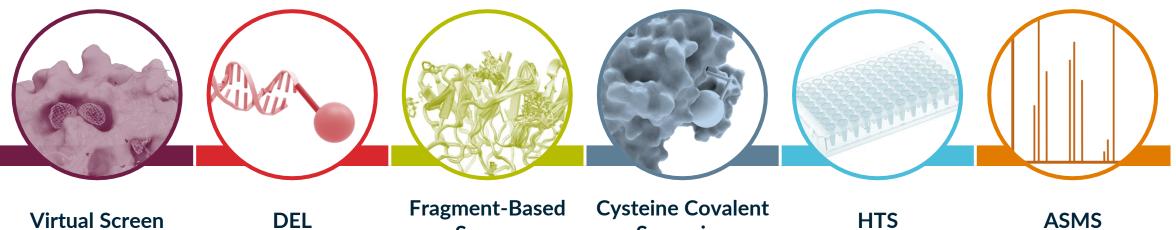
Leads to an Active Ternary Complex with a Protein of Interest



Tissue-Selective Degradation Drives Increase of Therapeutic Index



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



Criteria

 Availability of structure or homology model

Approaches

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

Criteria

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

Criteria

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

Approaches

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

Screening

Criteria

 Proteins have reactive cysteines

Approaches

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

Criteria

 Available highthroughput assay format

Approaches

- Focused library
- Diversity set

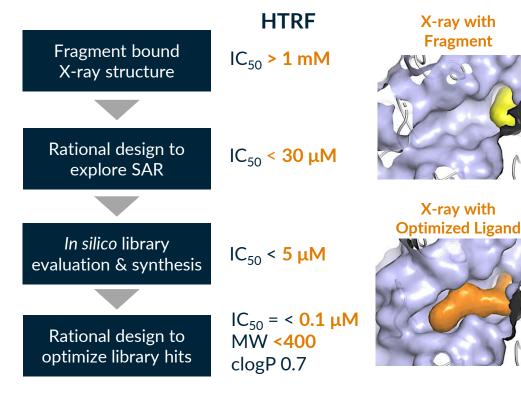
Criteria

Availability of high-

quality protein

Successful Examples of Fragment and Covalent Screens

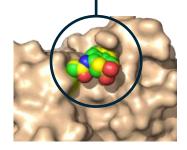
Fragment Based Virtual Optimization



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

Covalent Ligand E3 Ligase Hit Finding

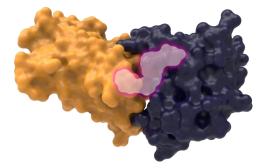




 Novel covalent ligand to bone marrow-sparing E3 ligase for multiple oncology programs

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



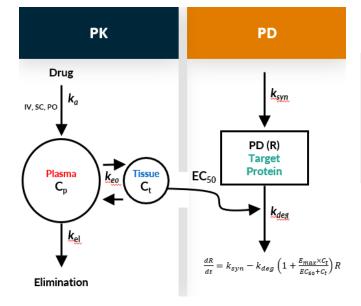
Al-driven Insights

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 _{app} (10 ⁻⁶ cm/s) / Efflux Ratio	ND / ND	6.0 / 1.3	14 / 21	4.3 / 2.0
Rat Cl (mL/min/kg) / Vdss / F%	ND	35 / 9 / 8	19 / 7 / 14	7 / 3 / 18
Dog Cl (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

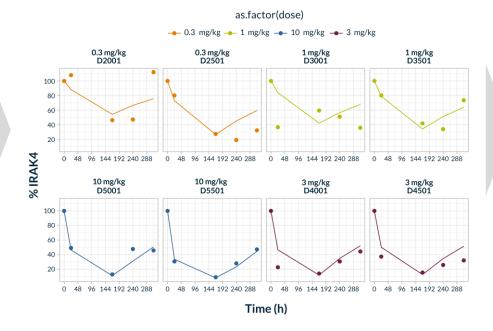
Mechanistic PK/PD Modeling Describes the MoA of TPD

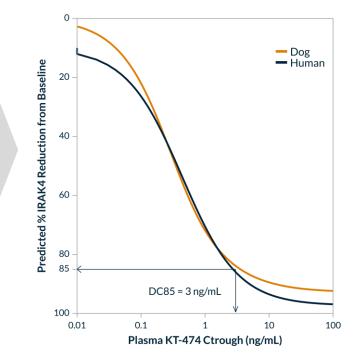


Preclinical Species Models for PK/PD

KT-474 in Dog

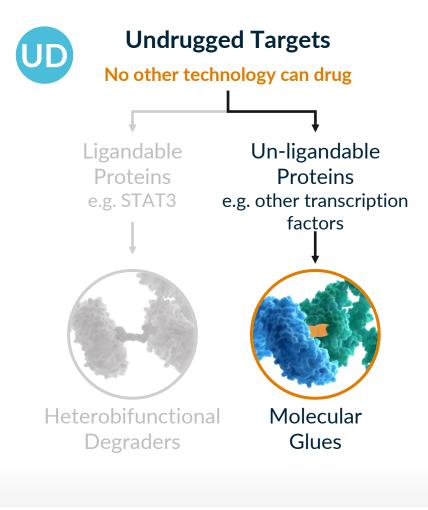
Model Predicts Human PK/PD





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



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 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

Thank You

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inquiries@kymeratx.com

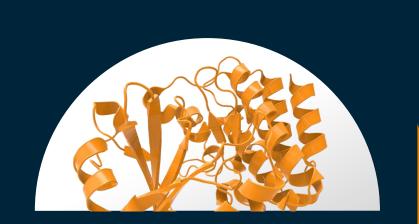


Appendix – IRAK4





IRAK4 Degradation vs Inhibition Overview



We and others have shown that IRAK4 degradation is required to block IL1R/TLR pathway activation, especially in high-inflammatory states where small molecule kinase inhibitors fail

- IRAK4 KO is able to block TLR activation unlike the kinase dead rescue (*Slide 64*)
- IRAK4 scaffolding function is critical in Myddosome formation and pathway signaling (*Slide 65*)
- IRAK4 degradation, but not kinase inhibition, can block TLR induced NF-KB translocation (Slide 66)
- IRAK4 degradation, but not kinase inhibition, can **block** IL1R+TLR activation (*Slides 67, 68*)
- IRAK4 degradation is superior to kinase inhibition at **blocking downstream phosphoproteome** (*Slide 69*)
- IRAK4 degradation is active in all blood cell types in HS patients while SMI can increase IRAK4 levels (*Slide 70*)
- IRAK4 degradation is superior to inhibition in a variety of preclinical efficacy models (*Slide* 71)

IRAK4 KO/Degradation Differentiated Over Kinase Inhibition in TLR Activation – External Data

Science Signaling



Comprehensive RNAi-based screening of human and mouse TLR pathways identifies species-specific preferences in signaling protein use

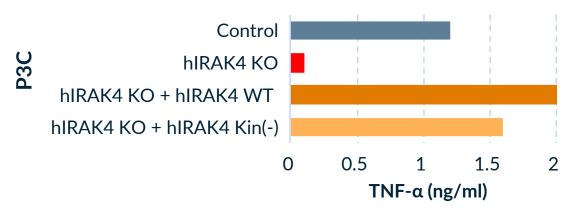
JING SUN, NING LI, KYU-SEON OH, BHASKAR DUTTA, SHARAT J. VAYTTADEN, BIN LIN, THOMAS S. EBERT, DOMINIC DE NARDO, JOIE DAVIS, RUSTAM BAGIRZADEH,

NICOLAS W. LOUNSBURY, CHANDRASHEKHAR PASARE, EICKE LATZ, VEIT HORNUNG, AND IAIN D. C. FRASER

Toll-like receptors (TLRs) are a major class of pattern recognition receptors, which mediate the responses of innate immune cells to microbial stimuli. To systematically determine the roles of proteins in canonical TLR signaling pathways, we conducted an RNA interference (RNAi)-based screen in human and mouse macrophages. We observed a pattern of conserved signaling module dependencies across species, but found notable species-specific requirements at the level of individual proteins. Among these, we identified unexpected differences in the involvement of members of the interleukin-1 receptor-associated kinase (IRAK) family between the human and mouse TLR pathways. Whereas TLR signaling in mouse macrophages depended primarily on IRAK4 and IRAK2, with little or no role for IRAK1, TLR signaling and proinflammatory cytokine production in human macrophages depended on IRAK1, with knockdown of IRAK4 or IRAK2 having less of an effect. Consistent with species-specific roles for these kinases, IRAK4 orthologs failed to rescue signaling in IRAK4-deficient macrophages from the other species, and only mouse macrophages required the kinase activity of IRAK4 to mediate TLR responses. The identification of a critical role for IRAK1 in TLR signaling in humans could potentially explain the association of IRAK1 with several autoimmune diseases. Furthermore, this study demonstrated how systematic screening can be used to identify important characteristics of innate immune responses across species, which could optimize therapeutic targeting to manipulate human TLR-dependent outputs.

Source: Sun, et al. Science Signaling, 2016

TLR-induced TNF-a



- IRAK4 KO has a strong response to TLR activation
- A kinase dead and a WT rescue behave similarly
- This demonstrate that kinase function has no impact on TLR activation response

Scaffolding Function of IRAK4 is Critical for Myddosome Formation – External Data



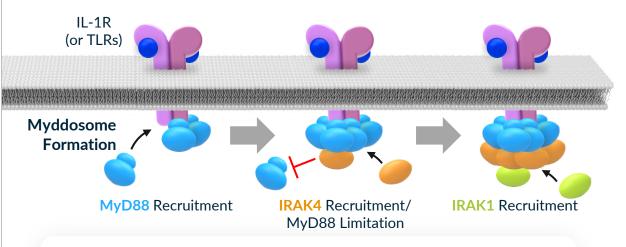


MyD88 oligomer size functions as a physical threshold to trigger IL1R Myddosome signaling

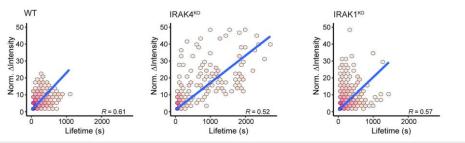
Rafael Deliz-Aguirre®, Fakun Cao®, Fenja H.U. Gerpott®, Nichanok Auevechanichkul, Mariam Chupanova, YeVin Mun®, Elke Ziska®, and Marcus J. Taylor®

A recurring feature of innate immune receptor signaling is the self-assembly of signaling proteins into oligomeric complexes. The Myddosome is an oligomeric complex that is required to transmit inflammatory signals from TLR/ILTRs and consists of MyD88 and IRAK family kinases. However, the molecular basis for how Myddosome proteins self-assemble and regulate intracellular signaling remains poorly understood. Here, we developed a novel assay to analyze the spatiotemporal dynamics of ILTR and Myddosome signaling in live cells. We found that MyD88 oligomerization is inducible and initially reversible. Moreover, the formation of larger, stable oligomers consisting of more than four MyD88s triggers the sequential recruitment of IRAK4 and IRAK1. Notably, genetic knockout of IRAK4 enhanced MyD88 oligomerization, indicating that IRAK4 controls MyD88 oligomer size and growth. MyD88 oligomer size thus functions as a physical threshold to trigger downstream signaling. These results provide a mechanistic basis for how protein oligomerization might function in cell signaling pathways.

"...indicating that IRAK4 controls MyD88 oligomer size and growth. MyD88 oligomer size thus functions as a physical threshold to trigger downstream signaling." IRAK4 Scaffolding Role Functions to Limit MYD88 Oligomer Size and Trigger Myddosome Formation



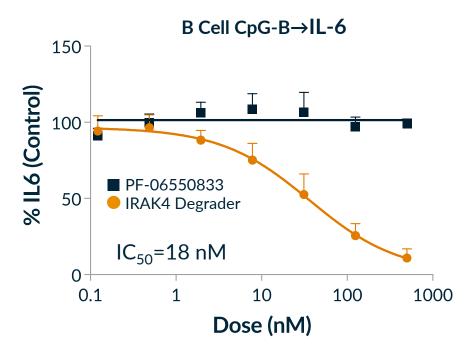
- IRAK4 caps the oligomer size of MYD88 to trigger myddosome formation
- Macromolecular assembly of proteins **in itself** can be considered a signal transduction step

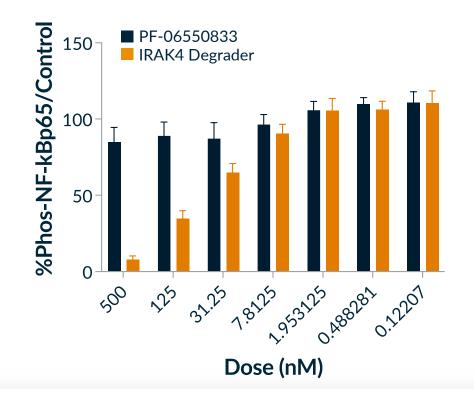


Source: Deliz-Aguirre, et al. J. Cell Biol., 2021

Scaffolding Function of IRAK4 is Critical for Pathway Signaling Through NF-κB – Kymera Data

IRAK4 Scaffolding Function, Not Kinase Activity, is Required for TLR9-mediated Activation of NF-κB in Human B cells





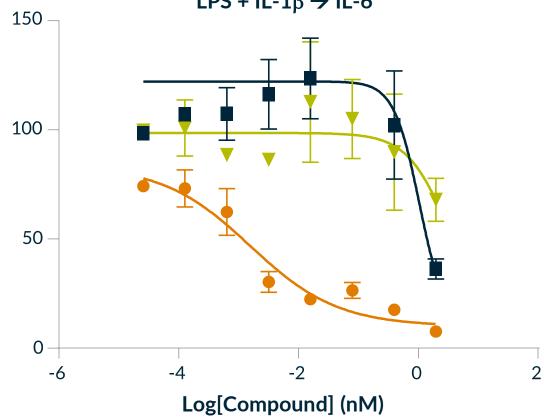
 IRAK4 degradation leads to inhibition of TLR9/ CpG-B induced phos-p65 and IL-6 • Pathway engagement result in downstream signaling that include NF-κB which only a degrader can block.

IRAK4

TPD vs. SMIs

Potent and Specific IRAK4 Degradation with Impact on Cytokines Superior to Kinase Inhibition – Kymera Data

Superiority Over SM kinase Inhibitor



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

• KT-474 DC₅₀ = 2.1 nM in human immune cells

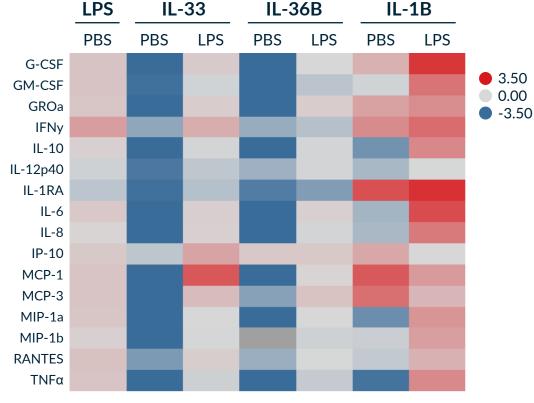
- KT-474 only degraded IRAK4 in human immune cells at concentration 10-fold above the DC₉₀
- KT-474 better able to inhibit IL-6 under both LPS and LPS + IL-1β than clinically active IRAK4 SM kinase inhibitor PF-06550833
- In high inflammatory state conditions, degradation is the only mean to pathway blockade

IRAK4

TPD vs. SMIs

Degrader More Effective than Kinase Inhibitors Against TPD vs. SMIs Cytokine/Chemokine Induction by IL-1b + LPS – Kymera Data

IL-1β+LPS Combination Induces **Enhanced Levels of Inflammation**



Expression Levels (Log2)

Only IRAK4 Degrader Can Block Pathway Stimulated by IL-1B + LPS

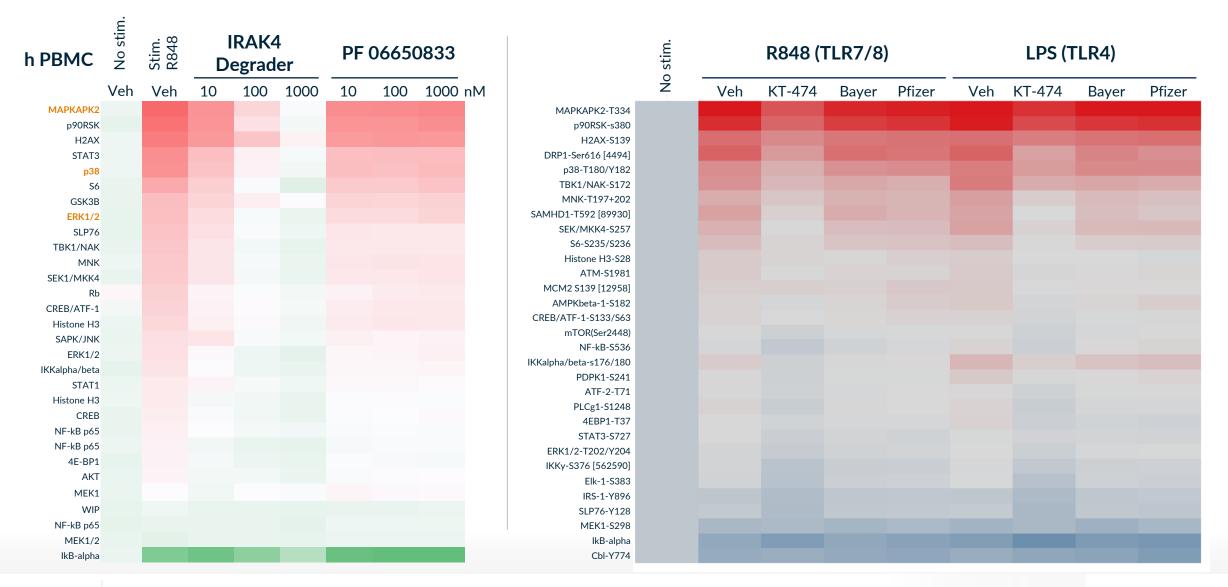
Cytokine/ Chemokine Induced by IL-1b + LPS	IRAK4 Degrader [IC ₅₀] nM	E3-ve Control [IC ₅₀] nM	PF- 06550833 [IC ₅₀] nM	BAYER Inh. [IC ₅₀] nM
IL-6	0.8	427.5	>2000	>2000
IL-8	0.08	>2000	1400	>2000
G-CSF	0.5	>2000	>2000	>2000
GM-CSF	2.6	161.6	8.1	464.9
CXCL1 (GROα)	76.4	1100	>2000	>2000
CCL3 (MIP-1α)	42.3	1977	>2000	>2000

E3-ve Control = an IRAK4 degrader molecule that is not enabled to degrade IRAK4 and functions as an inhibitor

IRAK4

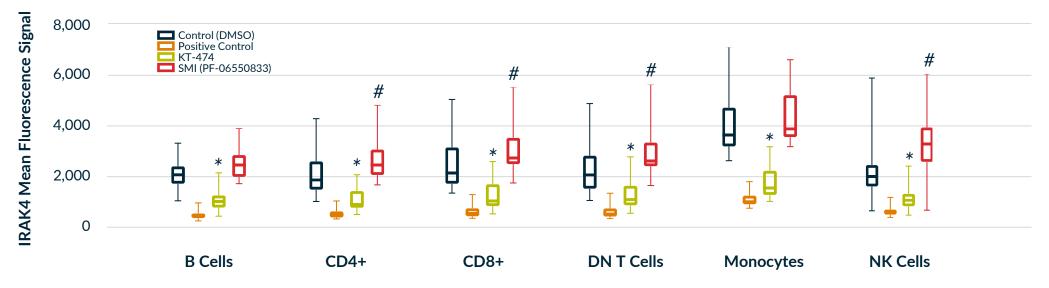
IRAK4 TPD vs. SMIs

IRAK4 Degradation Reverses Phosphoproteomic Response to Pathway Action Unlike SMI



IRAK4 Degrader Downregulates IRAK4; SMI can Increase it in HS Patients Blood – Non-Interventional Study Data Kymera

IRAK4 Levels Following Treatment with IRAK4 Degrader or Kinase Inhibitor

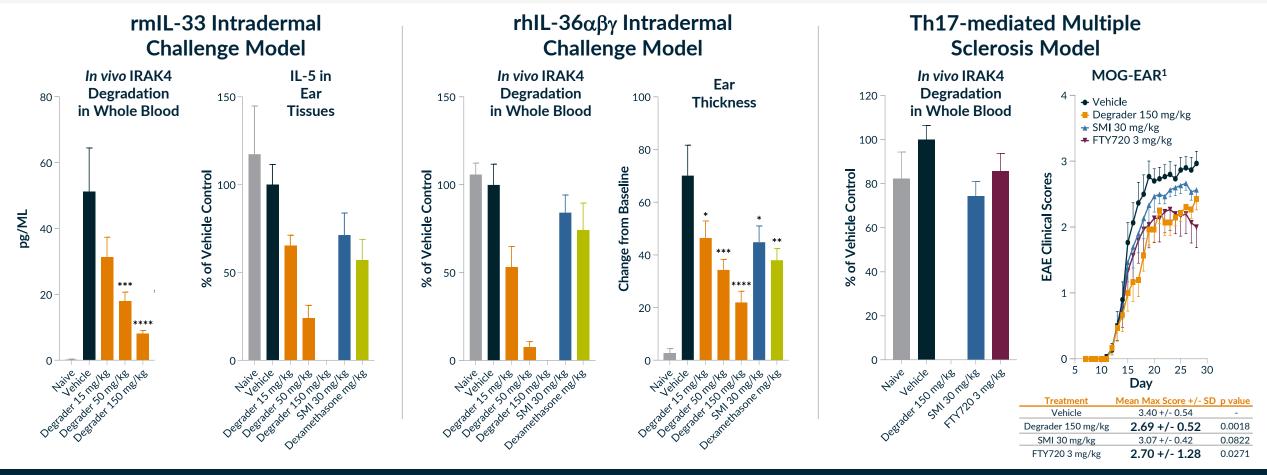


N=30 patients, One-way ANOVA* KT-474 vs DMSO Control p≤0.0001, #SMI (PF-06550833) vs DMSO Control p≤0.02 Positive Control: cells treated with IRAK4 blocking antibody prior to IRAK4 staining

KEY TAKEAWAYS

- Ex vivo incubation of HS blood with KT-474 reduced IRAK4 to a level approaching the lower limits of detection across all PBMC subsets, irrespective of baseline expression intensity, whereas an IRAK4 kinase inhibitor increased IRAK4 levels in T and NK cells
- Treatment with an IRAK4 kinase inhibitor led to an increase in IRAK4 levels of up to 2.6-fold in T and NK cells

KT-474 is Superior to IRAK4 Small Molecule Inhibitor (SMI) **TPD vs. SMIs Across Multiple Preclinical Immune-inflammatory in vivo Models**



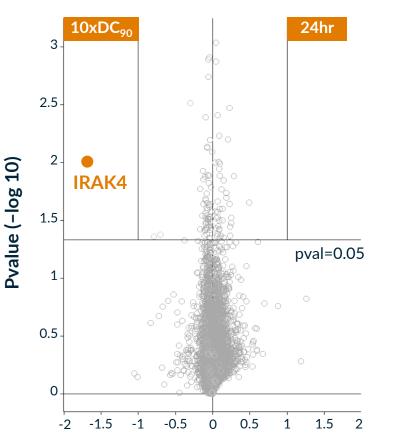
IRAK4 knockdown of ≥85% in whole blood achieved anti-inflammatory effect comparable to potent corticosteroids or approved standard of care drugs in these models as well as in models of TLR4 (MSU-Gout) or TLR7/8 (Imiguimod-Psoriasis) activation that was superior to IRAK4 small molecule inhibitor

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

IRAK4

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

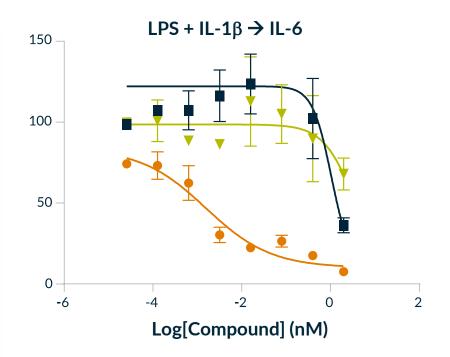
Degradation and Selectivity



Protein Level Fold Change (log2)

- KT-474 DC₅₀ = 2.1 nM in human immune cells
- KT-474 only degraded IRAK4 in human immune cells at concentration 10fold above the DC₉₀
- 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



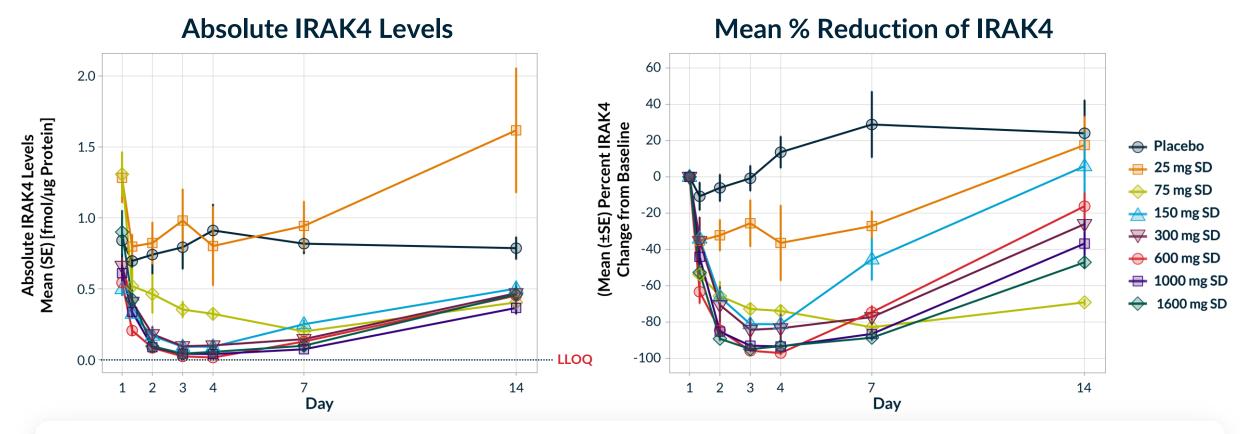
Legend	Compound	IL-6 IC ₅₀ (nM)
	IRAK4 Degrader	0.8
	Negative control	450
	IRAK4 SMI (PF-06550833)	N/A

SAD/MAD Enrollment Status and Demographics

SAD 1-/ (n=5/)	MAD 1-4 (n=48)
29	9
28	39
38.0 (20-55)	37.5 (20-55)
42	34
8	8
5	6
2	0
	29 28 38.0 (20-55) 42 8 5

^

KT-474 Achieved Deep and Dose-Dependent IRAK4 Degradation after Single Oral Doses that Lasted for at Least 6 Days



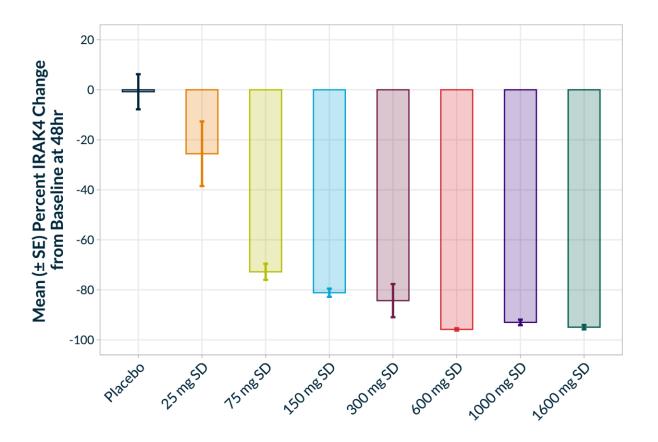
- Detected by Mass Spectrometry in circulating PBMC
- IRAK4 levels nadired at 48-72 hours (Day 3-4)
- IRAK4 reduction lasted for at least 6 days post-dose in all dose groups
- SAD 5 through 7 approached or exceeded Lower Limit of Quantitation (LLOQ)

IRAK4

SAD

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

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

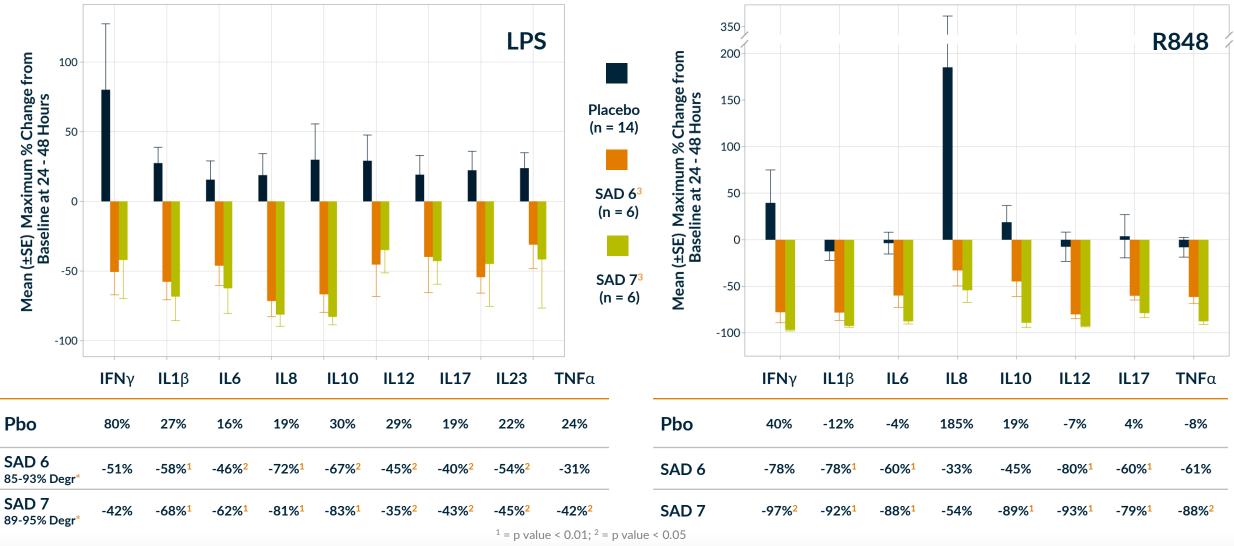


	Ν	Mean IRAK4 Change	Median IRAK4 Change	p value
Placebo	13	-1%	-2%	
25 mg	6	-26%	-39%	0.1
75 mg	6	-73%	-75%	<0.0001
150 mg	6	-81%	-82%	<0.0001
300 mg	6	-84%	-89%	<0.0001
600 mg	7	-96%	-96%	<0.0001
1000 mg	5	-93%	-94%	<0.0001
1600 mg	6	-95%	-95%	<0.0001

* p-values relative to placebo

Broad and Deep Inhibition of Disease Relevant Cytokines

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



*Mean IRAK4 degradation in PBMC at 24-48h

IRAK4

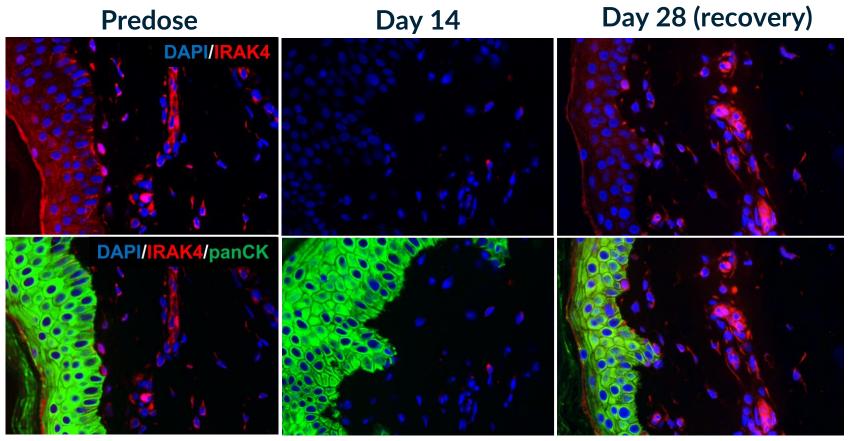
SAD

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

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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

IRAK4 Clinical

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

	Inhib			ease Relev Iflammato				timulation		
Agent/Stimulus	Target	IFNγ	ΤΝΓα	IL-1β	IL-6	IL-8	IL-17	IL-12	IL-23	IL-10
KT-474/LPS	IRAK4 (degrader)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
KT-474/R848	IRAK4 (degrader)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
CA-4948/R848	IRAK4* (inhibitor)				\checkmark					
GS-5718/R848	IRAK4 (inhibitor)		\checkmark							
ATI-450/LPS	MK2		\checkmark	\checkmark	\checkmark	\checkmark				
ΑΤΙ-450/ΙL-1 β	MK2		\checkmark		\checkmark	\checkmark				
LY2775240/LPS	PDE4		\checkmark							
Iberdomide/LPS	lkaros/ Aiolos			\checkmark						
JNJ-61803534/ T cell activation	RORγ						\checkmark			
	l berdomide : Schafer PH, 80; MK2 : Aclaris 2021 C									

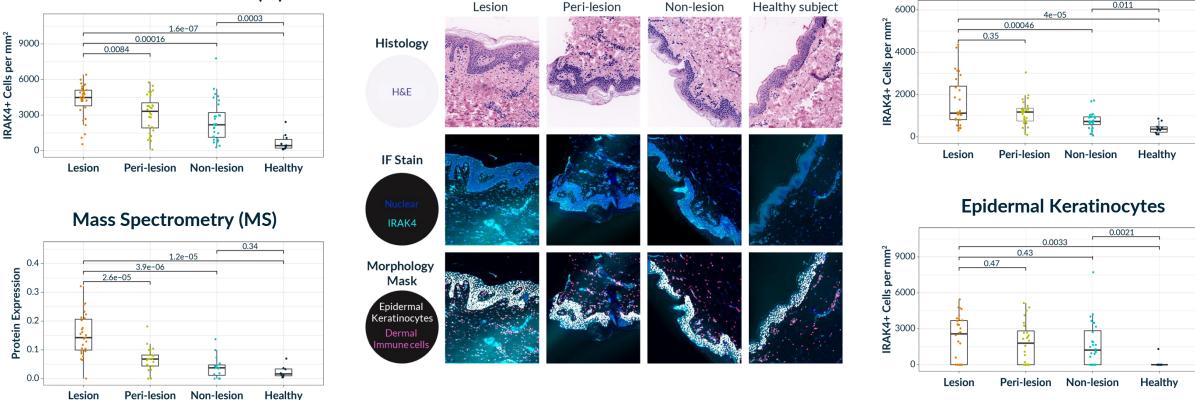
IRAK4 Protein Expression in Autoimmune Diseases: Upregulation in Skin of HS Patients Compared to Healthy Subjects

IRAK4 protein levels overexpressed in HS patient skin lesions

IRAK4 Non-

Interventional

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



Immunofluorescence (IF)

Dermal Immune Cells

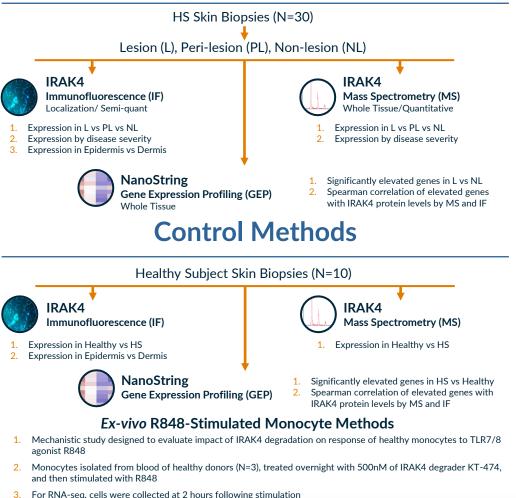
Non-interventional Study in HS and AD Patients

Designed to Characterize IRAK4 Expression and its Relationship to Inflammatory Biomarkers

Study Design

• 30 HS: 9 mild, 10 moderate, 11 severe
• 10 AD: 8 mild, 1 moderate, 1 severe
• Age 18 or older
 Active Hidradenitis Suppurativa (HS) or Atopic Dermatitis (AD)
• Mild, moderate, and severe HS (IHS4 score) or AD (EASI score)
 Patients currently on a biologic or other immunosuppressive treatment for HS or AD
 Use of biologic treatment for HS or AD within 3 months or 5 half- lives, whichever is longer
Use of non-biologic immunosuppressive treatment in last 4 weeks
Targeted MS of IRAK4 in skin biopsies
IRAK4 immunofluorescence in skin biopsies
 Proinflammatory gene transcripts in skin biopsies
 Flow cytometry for IRAK4 in ex vivo treated whole blood
Cytokines from ex vivo treated whole blood
Plasma cytokines and acute phase reactants
 Interim data on IRAK4 expression in HS skin and blood presented in October 2020 at SHSA Meeting
 Updated data presented in May 2021 at SID Meeting on full HS
 Updated data presented in May 2021 at SID Meeting on full HS skin dataset for IRAK4 protein and proinflammatory gene transcripts as well as healthy skin and monocyte controls

Non-interventional Study Methods

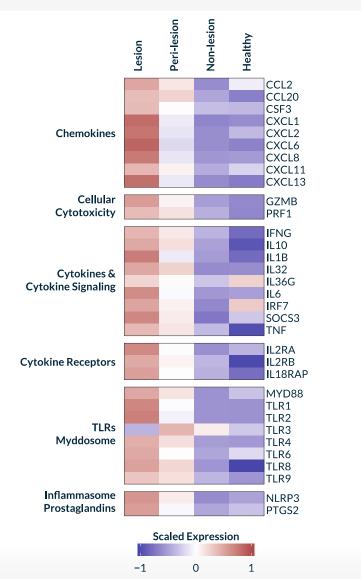


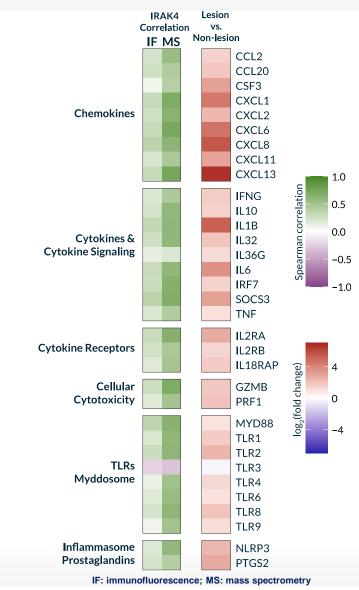
. Analysis of KT-474 effect on R848 upregulation of subset of genes overexpressed in HS skin lesions that correlate with IRAK4 protein levels

IRAK4 Non-Interventional

KYMERA

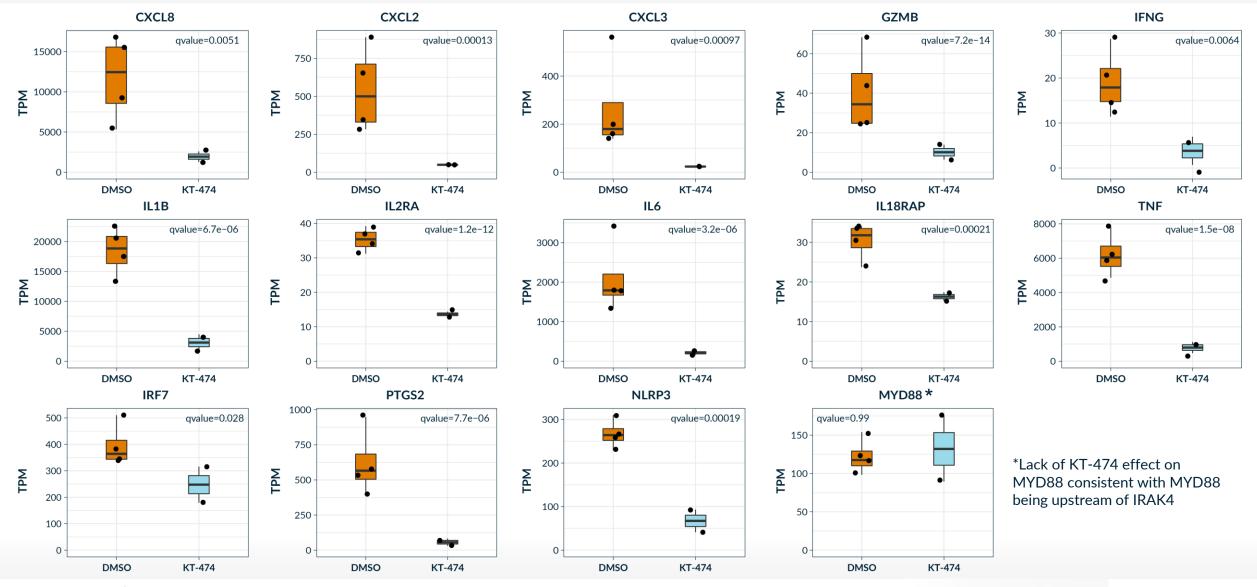
Multiple Proinflammatory Transcripts Are Upregulated and Correlate with IRAK4 Protein Levels in HS Skin Lesions





- 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

IRAK4 Degrader KT-474 Inhibits TLR-Mediated Induction of HS-Interventional **Overexpressed Proinflammatory Transcripts in Healthy Monocytes**



IRAK4 Non-



Non-interventional Study Conclusions

- IRAK4 is overexpressed in HS skin relative to healthy subjects due to increase in number of IRAK4+ dermal immune cells and epidermal keratinocytes
 - Higher expression in active HS skin Lesions compared to peri-lesion and/or non-lesion skin associated with increase in infiltrating IRAK4+ dermal immune cells
 - Higher expression in dermis and epidermis of non-lesion skin compared to skin of healthy subjects raises possibility that IRAK4 overexpression may predispose to inflammatory lesion formation in HS
- Gene expression profiling shows upregulation of multiple mediators of inflammation in HS skin lesions that correlates with IRAK4 protein overexpression
 - Includes genes involved in TLR/myddosome signaling, inflammasome activity, prostaglandin generation, Th1 and Th17 inflammation, and monocyte/neutrophil migration and activation, thereby linking IRAK4 to the pleiotropic inflammation in HS
 - Neither proinflammatory gene expression nor IRAK4 protein expression correlated with disease severity, suggesting common pathophysiology underlying inflammation in active lesions irrespective of disease stage
- IRAK4 degrader KT-474 inhibits TLR-stimulated upregulation of HS-overexpressed inflammatory genes in monocytes from healthy subjects
 - Provides further evidence for role of IRAK4 in overexpression of these mediators of inflammation in HS skin lesions and rationale for targeting IRAK4 with KT-474 for the treatment of patients with HS
 - Phase 1 trial of KT-474 in healthy volunteers and patients with HS or AD is ongoing and includes pre- and post-treatment skin biopsies and blood sampling to assess the effect of KT-474 on the expression of IRAK4 and associated biomarkers of inflammation

Appendix – Corporate



Proteome Editing is the New Frontier of Medicine

Encodes

Genome

• Essentially <u>static</u>

Alterations are responsible for <u>some</u> diseases

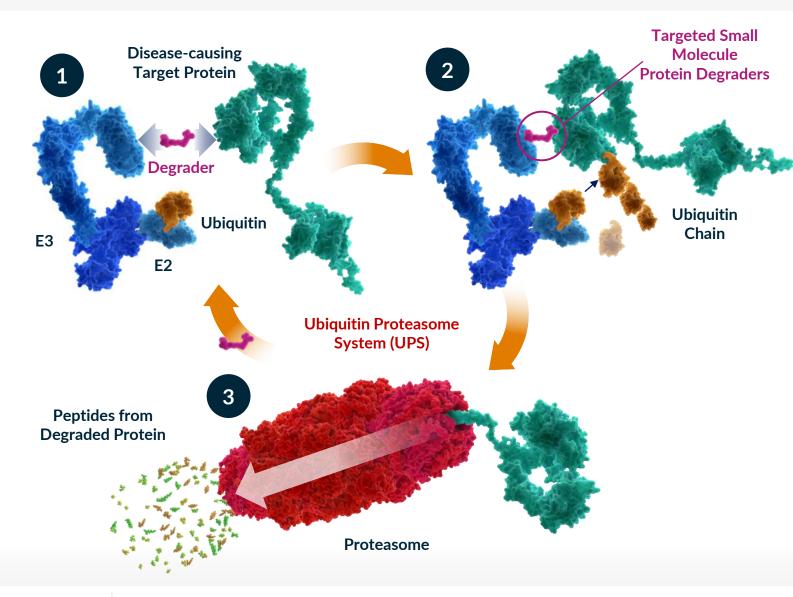
• Editing is **irreversible**

Proteome

- <u>Changes</u> 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

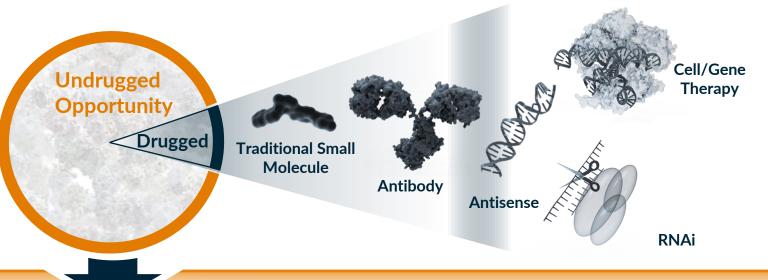


Expanded Opportunities

- Small molecule binds to E3 and target protein to effect its degradation
- Small Molecule only needs to "weakly" bind to protein: <u>Not</u> inhibit 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

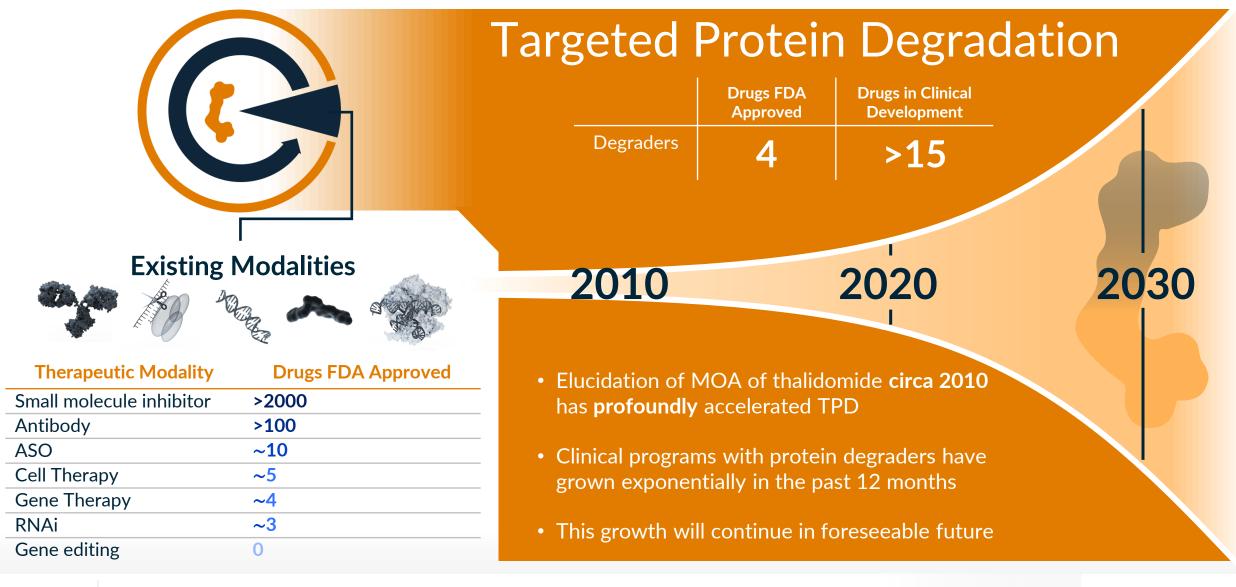
All therapeutic modalities to date only drug up to 20% of proteome





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

Exponential Clinical Pipeline Growth of Degraders



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
- Additional programs in oncology and immunology reaching development
- 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 Vision: Where Kymera Will Be in 2026

KYMERAA 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 tissueselective/restricted degradation and undrugged targets

Disease and technologyagnostic pipeline and capabilities Expand technology platform to wholistically address undrugged proteome

Continued commitment to innovation and firstin-class science and medicines Commercial organization build up in progress