SELECTIVE TARGETS. BROAD IMPACT.

Uniquely Powerful Approaches to Tackling the Toughest Diseases

Kezar Life Sciences

November 15, 2021

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This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “target,” and similar expressions (as well as other words or expressions referencing future events or circumstances) are intended to identify forward-looking statements. Each of these forward-looking statements involves substantial risks and uncertainties that could cause actual results to differ significantly from those expressed or implied by such forward-looking statements. Forward-looking statements contained in this presentation include, but are not limited to, statements about the company’s financial position and cash runway, statements about the potential use of our product candidates to treat patients, the association of data with treatment outcomes, the design, timing and progress of clinical trials, the expected timing of data disclosures, the likelihood that data, including interim or topline data, will support future development, the likelihood of obtaining regulatory approval for our product candidates, and the regulatory pathway and competitive landscape for our product candidates.

Data from the MISSION Phase 2 clinical trial are preliminary and will require confirmation in additional patients as well as longer follow-up to draw any clinical conclusions. Interim top-line data and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

Forward-looking statements in this presentation reflect Kezar's current beliefs and expectations. Many factors may cause differences between current expectations and actual results, including the availability of additional data, confirmation of data resulting from trial auditing and verification procedures, unexpected safety or efficacy data observed during preclinical or clinical studies, upon study completion, clinical trial enrollment rates that are lower than expected, changes in expected or existing competition, and changes in the regulatory environment. Other factors that may cause our actual results to differ from current expectations are discussed in Kezar’s most recent Form 10-K or Form 10-Q filed with the U.S. Securities and Exchange Commission (SEC), under the caption “Risk Factors” and elsewhere in such reports. Except as required by law, we assume no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

Analyst Day Agenda

Time (ET)	Agenda	Presenter
4:30 PM – 4:35 PM	Welcome, Introductions, and Opening Remarks	John Fowler, MBA
4:35 PM – 4:50 PM	KZR-616 for LN: MISSION Phase 2 Interim Data	Noreen R. Henig, MD
4:50 PM – 5:05 PM	Investigator-led IND Update	Samir V. Parikh, MD
5:05 PM – 5:20 PM	KZR-616 for DM/PM: PRESIDIO Overview	Noreen R. Henig, MD
5:20 PM – 5:40 PM	KZR-261 and Protein Secretion Platform Overview	Christopher Kirk, PhD
5:40 PM – 5:45 PM	Summary and Closing Remarks	John Fowler, MBA
5:45 PM – 6:00 PM	Question and Answer (sell side only)	

The Kezar Opportunity: Harnessing Master Regulators of Cellular Function to Tackle Immune-mediated Diseases and Cancer

Builds on 10+ years of R&D work in proteasome biology and protein secretion led by Kezar's Scientific Co-founders, Chris Kirk & Jack Taunton

Deep Expertise in Immunology and Oncology

KZR-616: First-in-Class Immunoproteasome Inhibitor

A novel approach to harmonizing the immune system via immunomodulation; Potential to be a pipeline in a drug

First in class agent with broad anti-tumor activity; Potential to inhibit multiple targets with a single small molecule

KZR-261: First candidate from Protein Secretion Platform

Strong Financial Position (as of 9/30/2021)

$121M cash, cash equivalents, and marketable securities; 48.6M common shares outstanding; recent credit facility extends runway

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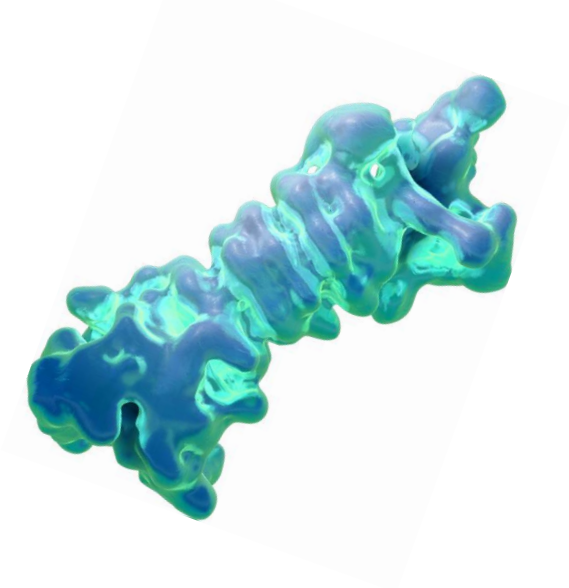
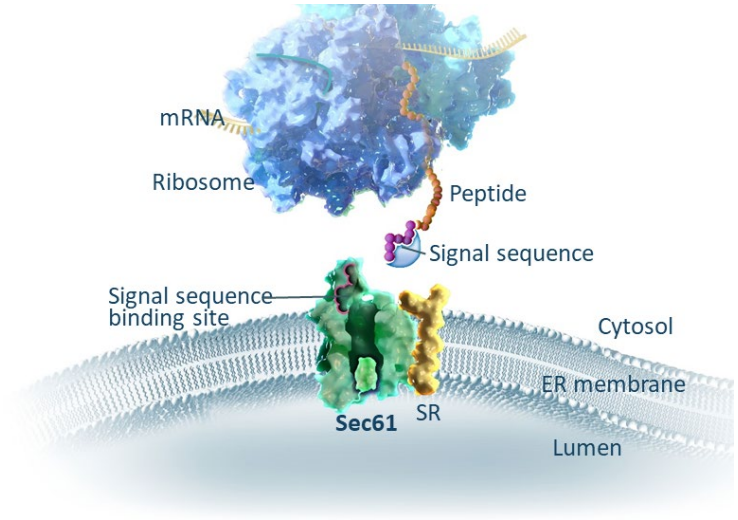
Kezar's Novel, Complementary Programs Target Master Regulators of Cellular Function to Achieve Broad Therapeutic Activity

PROTEIN DEGRADATION: The Immunoproteasome



- Modulates multiple drivers of inflammation
- Restores normal immune responses, without evidence of immunosuppression

PROTEIN SECRETION: The Sec61 Translocon



- Broad anti-tumor activity in preclinical models
- Applications in oncology, immuno-oncology, and autoimmunity
- Potential for small molecules to replace certain biologics

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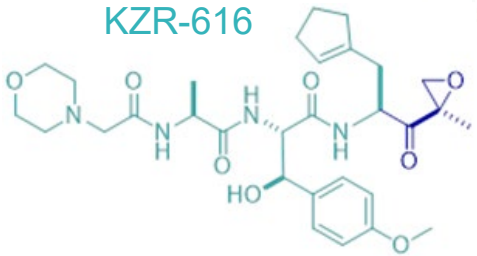
Immunoproteasome Inhibition is a powerful, differentiated mechanism broadly applicable across the autoimmune landscape

The Immunoproteasome

KZR-616



Potent and selective inhibitor of immunoproteasome-specific subunits LMP7 and LMP2[1]

Effects of KZR-616

- Potential to restore normal immune responses while avoiding immunosuppression
- Modulates multiple drivers of inflammation across immune cell types
- Avoids cytopenias; favorable safety profile for chronic use based on Phase 1 studies
- Active in broad array of autoimmune disease models

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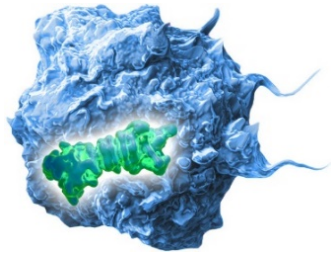
[1]Johnson et al. J. Med Chem 201;

Inflammatory Disorders are Currently Treated One Cytokine or Cell at a Time, but the Inhibition of Immunoproteasome with KZR-616 Targets Them All

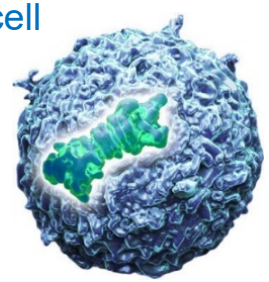
Macrophages
Dendritic Cells
Monocytes



Cytokines
TNF-α
IL-6
IL-23
IFN-α

Humira, et al
Actemra
Skyrizi/Stelara
Saphnelo

T-cell

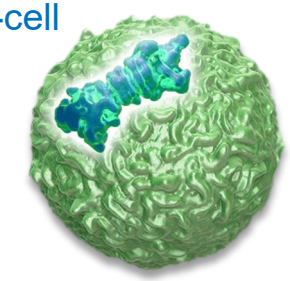


Orencia
Lupkynis
Xeljanz

Cytokines
IL-17

Cosentyx/Taltz

B-cell



Rituxan/Gazyva
Benlysta
IVIg/FcRn Inhibitor

KZR-616

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Our Clinical Programs Inhibit Multiple Drivers of Disease via Selective Targets to Address a Diverse Pipeline of Indications

COMPOUND	THERAPEUTIC INDICATION	DEVELOPMENT STAGE				MILESTONES
		PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3	
Selective Immunoproteasome Inhibition						
KZR-616	Lupus Nephritis (LN)			MISSION		Q4 2021 (Interim) Q2 2022 (Top-Line Data)
	Dermatomyositis (DM) Polymyositis (PM)			PRESIDIO		Q2 2022 (Top-Line Data)
Protein Secretion Inhibition						
KZR-261	Solid Tumors					
KZR-TBD	Oncology					
KZR-TBD	Immunology					

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MISSION: Phase 1b/2 Study to Evaluate the Safety and Efficacy of KZR-616 in Systemic Lupus Erythematosus/Lupus Nephritis

Noreen R. Henig, MD
Chief Medical Officer

Interim data reported and are subject to audit and verification procedures that could result in material changes in the final data.

KZR-616 Clinical Program Overview

Phase	Study Protocol	Name/Indication	Study Design	Status
Phase 1	KZR-616-001	Healthy Volunteers (frozen formulation)	Randomized, double-blind, placebo-controlled, single and multiple ascending dose study (N=100)	Completed
Phase 1	KZR-616-004	Female Healthy Volunteers (lyophilized formulation)		Completed
Phase 1b/2	KZR-616-002	MISSION (SLE +/- LN, LN)	Phase 1b: Open-label, multiple dose escalation study (N=47) Phase 2: Open-label, single dose level study (N=20)	Ph 1b (completed) Ph 2 (active, not recruiting)
Phase 2	KZR-616-003	PRESIDIO (DM/PM)	Randomized, double-blind, placebo-controlled, crossover multicenter study (N=24)	Active, not recruiting
Phase 2 Extension Study	KZR-616-003E	Extension for DM/PM	Multicenter, open-label extension study	Active, by invitation

Abbreviations: DM, dermatomyositis; LN, lupus nephritis; PM, polymyositis; SLE, systemic lupus erythematosus.

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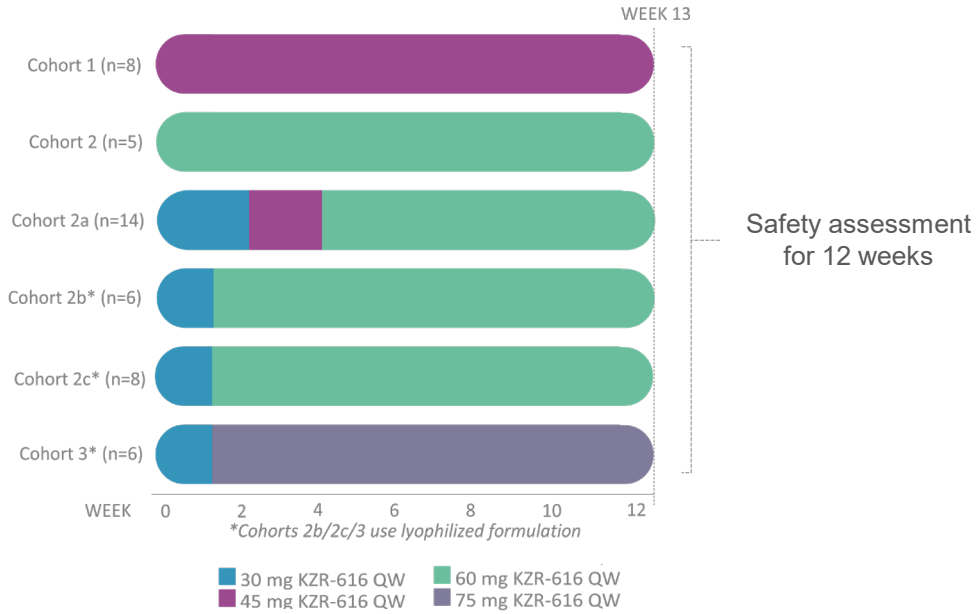
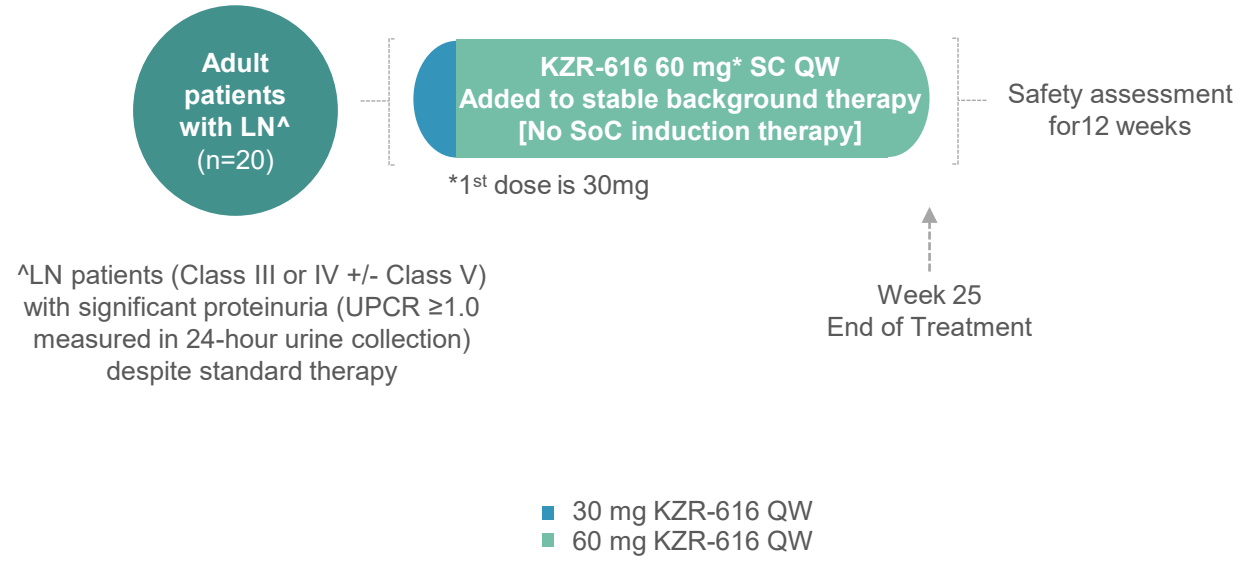
MISSION: Phase 1b/2 Open-Label, Multi Center Study to Evaluate the Safety and Efficacy of KZR-616 in SLE/LN

Part 1: Phase 1b



Part 2: Phase 2



ENDPOINTS

1º: Safety and tolerability

2º: Recommended Phase 2 dose, PK

Exploratory: Efficacy, PD, biomarkers, pharmacogenomics

1º: Number of patients with ≥50% reduction in UPCR

2º: Safety and tolerability, additional renal response parameters (e.g., CRR, PRR), extra-renal SLE disease indices, and PRO

Exploratory: Biomarkers

Abbreviations: CRR, complete renal response; LN, lupus nephritis; PD, pharmacodynamics; PK, pharmacokinetics; PRO, patient reported outcomes; PRR, partial renal response; QW, every week; SLE, systemic lupus erythematosus.

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KZR-616: Phase 1 Findings to Date
Well-Positioned to Be Chronic Therapy for Autoimmune Diseases

- Modulates innate and acquired immune responses without signs of immunosuppression to date
- Weekly administration results in consistent pharmacokinetics and pharmacodynamics
  - Selective inhibition of the immunoproteasome via targeting of specific subunits LMP2 and LMP7
  - Weekly dose leads to consistent exposure and clearance ($T_{1/2}$ <5 hours)
- Not predicted to result in clinically significant DDI
- Demonstrates rapid and sustained immunomodulatory gene expression changes
- Favorable safety and tolerability profile
- Improved signs and symptoms of SLE and LN as measured with exploratory endpoints in symptoms, serologic markers, reduction in proteinuria, and reduction in markers of specific kidney inflammation

Abbreviations: DDI, drug-drug interactions; SLE, systemic lupus erythematosus; LN, lupus nephritis.
Furie et al, EULAR 2021 and Data on File.

MISSION Phase 1b [Complete]: Safety and Tolerability Supports Extended Use in Chronic Diseases

Measures, No. (%)	Cohort 1 (n=8)	Cohort 2 (n=5)	Cohort 2a (n=14)	Cohort 2b* (n=6)	Cohort 2c* (n=8)	Cohort 3* (n=6)	All patients (Cohorts 1-3) (N=47)
Target dose, mg	45	60	60	60	60	75	45-75
Mean compliance, %	69.2	52.3	70.3	92.3	100.0	76.9	76.9
At least 1 TEAE	8 (100.0)	5 (100.0)	12 (85.7)	4 (66.7)	7 (87.5)	3 (50.0)	39 (83.0)
Most common TEAEs							
Injection-site erythema	5 (62.5)	2 (40.0)	5 (35.7)	2 (33.3)	6 (75.0)	0 (0)	20 (42.6)
Nausea	2 (25.0)	4 (80.0)	5 (35.7)	1 (16.7)	4 (50.0)	3 (50.0)	19 (40.4)
Vomiting	1 (12.5)	5 (100.0)	3 (21.4)	1 (16.7)	2 (25.0)	1 (16.7)	13 (27.7)
Infections and Infestations TEAEs	1 (12.5)	0 (0)	5 (35.7)	2 (33.3)	2 (25.0)	1 (16.7)	11 (23.4)
Serious TEAEs	0 (0)	1 (20.0)	2 (14.3)	1 (16.7)	0 (0)	0 (0)	4 (8.5)
TEAEs leading to d/c of study drug	3 (37.5)	3 (60.0)	2 (14.3)	0 (0)	0 (0)	2 (33.3)	10 (21.3)
Patients receiving prednisone	5 (62.5)	5 (100.0)	10 (71.4)	4 (66.7)	5 (62.5)	3 (50.0)	31 (66.0)

*Cohorts 2b, 2c, and 3 received a lyophilized formulation of KZR-616.
Furie et al, EULAR 2021.
Abbreviations: d/c, discontinuation; TEAE, treatment-emergent adverse event.

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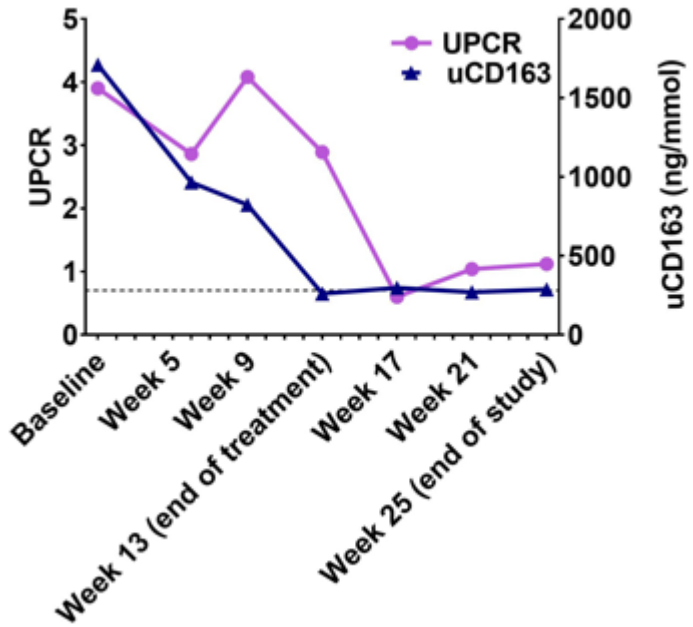
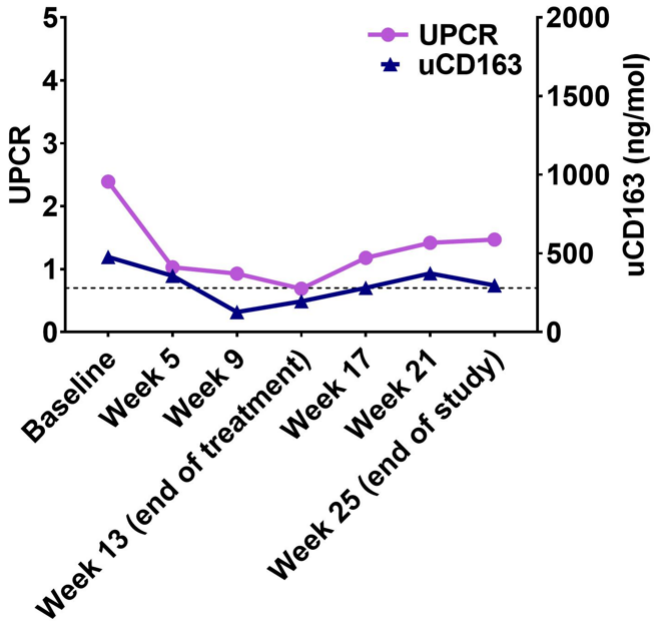
MISSION Phase 1b [Complete]: Reduced UPCR and uCD163* in 2 of 2 Patients With LN

Patient 1
(LN class IV/V)



Patient 2
(LN class III)



*uCD163 - novel noninvasive biomarker that correlates with active LN inflammation and shows moderate concordance with UPCR; normalized to urine creatinine.

- Baseline stable treatment regimen of leflunomide, hydroxychloroquine, and prednisone (10 mg/d); failed prior tacrolimus
- Nephrotic range
- >50% reduction in UPCR at week 17
- Reduced anti-dsDNA at week 13

- Baseline stable treatment regimen of MMF (2 g), hydroxychloroquine, and prednisone (10 mg/d)
- Nephrotic range
- >50% reduction in UPCR at week 5
- Improved symptom scores at week 5
- Reduced anti-dsDNA at week 5

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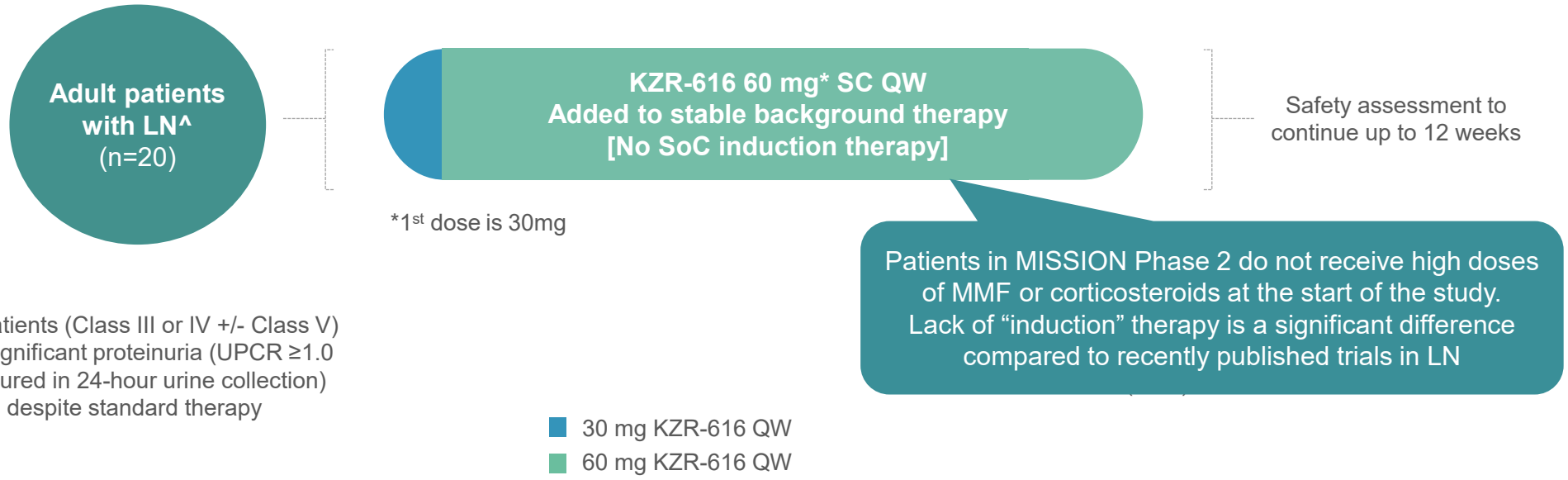
Interim Data
MISSION Phase 2

Data from the MISSION Phase 2 clinical trial are preliminary and will require confirmation in additional patients as well as longer follow-up to draw any clinical conclusion. Interim top-line and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

MISSION Phase 2:
Open-Label Study to Evaluate the Efficacy and Safety of KZR-616 in Patients with Active Proliferative Lupus Nephritis



^LN patients (Class III or IV +/- Class V) with significant proteinuria (UPCR ≥1.0 measured in 24-hour urine collection) despite standard therapy

ENDPOINTS

1º: Number of patients with ≥50% reduction in UPCR

2º: Safety and tolerability
Additional renal response parameters (e.g., CRR, PRR)
Extra-renal SLE disease indices
PRO

Exploratory: Biomarkers

https://clinicaltrials.gov/ct2/show/NCT03393013
*Patients received 24 weeks of KZR-616; End of treatment assessments performed at Week 25.
Abbreviations: UPCR, urine protein to creatinine ratio; CRR, complete renal response; EOT, end of treatment; PRR, partial renal response; PRO, patient reported outcomes; SC, subcutaneous; QW, every week.

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MISSION Phase 2: Endpoints

Open-label study evaluating KZR-616 60mg weekly for 24 weeks in patients with active, proliferative lupus nephritis (LN, Class III or IV, +/- V)

Primary endpoint: Number of patients with 50% reduction in UPCR compared to baseline after 24 weeks of KZR-616

Key secondary endpoints:

- Safety and tolerability of KZR-616
- The number of patients with a complete renal response (CRR) and partial renal response (PRR) after 24 weeks of treatment as defined by:

CRR:

- UPCR ≤0.5
- eGFR ≥60 mL/min/1.73m^2 or no worsening of eGFR from baseline of ≥25%
- Prednisone (or equivalent) ≤10 mg
- No use of prohibited medication

PRR:

- 50% reduction in UPCR and/or UPCR <1 (if baseline UPCR <3) and/or UPCR <3 (if baseline UPCR >3)
- eGFR ≥60 mL/min/1.73m^2 or no worsening of eGFR from baseline of ≥25%
- No use of prohibited medication

For MISSION interim data, CRR and PRR were calculated using absolute UPCR values and not percentages

Abbreviations: UPCR, urine protein to creatinine ratio; CRR, complete renal response; PRR, partial renal response.

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MISSION Phase 2: KZR-616 for the Treatment of LN Interim Data Overview

- Target enrollment of 20 patients met for MISSION Phase 2 study
- Interim analysis is based on laboratory and safety analysis; a full data analysis will occur at the completion of the study
- 10 patients who completed at least 13 weeks of treatment with KZR-616 SC QW were included in the analysis
- 5 of the 10 patients reached EOT (W25) at the time of the interim analysis
- Patients did not receive induction therapy, and there was no mandated taper of glucocorticoids or other agents.
- Patients included in the interim analysis participated from 4 countries [US, Australia, Russia and Ukraine]

Data from the MISSION Phase 2 clinical trial are preliminary and will require confirmation in additional patients as well as longer follow-up to draw any clinical conclusion. Interim top-line and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

Abbreviation: EOT, end of treatment; SC, subcutaneous; QW, once weekly.
Patients received 24 weeks of KZR-616; end of treatment assessments performed at Week 25

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MISSION Phase 2 [Interim Data]: KZR-616 60mg SC QW is Associated with Clinically Important Renal Response

- KZR-616 demonstrates a safety and tolerability profile favorable for long-term administration
- **4 of 5 patients** completing end of treatment (Week 25) demonstrated clinically meaningful reduction in proteinuria:
  - **2 patients with CRR (complete renal response)**
  - **2 patients with PRR (partial renal response)**
  - **1 non-responder**

CRR and PRR based on absolute UPCR values

Data from the MISSION Phase 2 clinical trial are preliminary and will require confirmation in additional patients as well as longer follow-up to draw any clinical conclusion. Interim top-line and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

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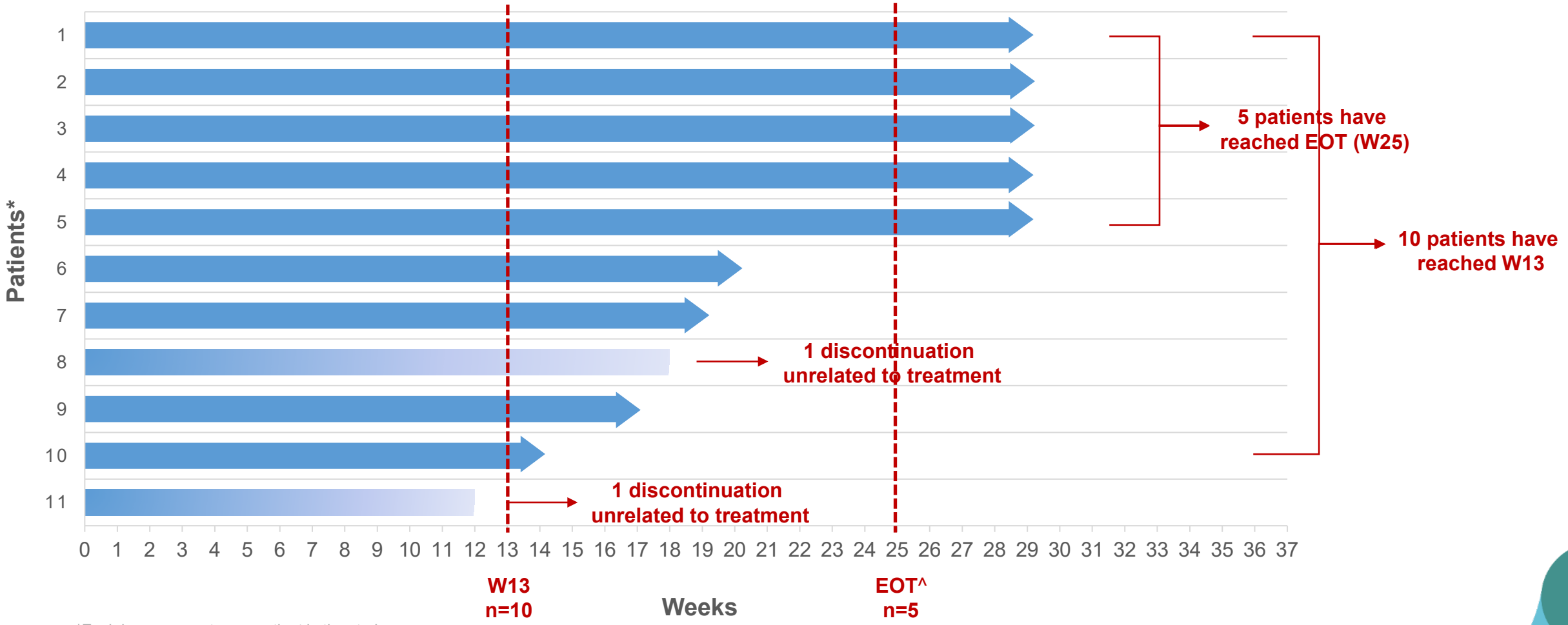
MISSION Phase 2 [Interim Data]: Patient Disposition



*Each bar represents one patient in the study.

^Patients received 24 weeks of KZR-616; end of treatment assessments performed at Week 25.

Interim data reported as of 01-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

MISSION Phase 2 [Interim Data]: Key Demographics and Baseline Characteristics of 10 Patients Who Reached ≥13 Weeks

	Safety Population (n=10)
Age, mean (years)	39.4
Female, n (%)	8 (80%)
SLE duration (years), median (min, max)	7.6 (0, 26.3)
LN duration (years), median (min, max)	7.6 (0.4, 16.1)
LN class type, n (%)	
Class III	4
Class IV	3
Class III + V	2
Class IV + V	1
24-hour UPCR (mg/mg)	
Mean (SD)	2.2 (0.97)
Median (Min, Max)	1.8 (1.2, 3.8)
eGFR (mL/min/1.73 m^2)	
Mean (SD)	78.5 (13.4)
Median (Min, Max)	78.5 (69, 88)
Corticosteroid (prednisone or equivalent) dose (mg), mean (min, max)	14.7 (5, 30)

	Safety Population (n=10)
Concomitant medications, n	
MMF/MPA	8
Prednisone (or equivalent)	10
Hydroxychloroquine	5
Azathioprine	1

Abbreviations: MMF, mycophenolate mofetil; MPA, mycophenolic acid.

Interim data reported as of 01-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

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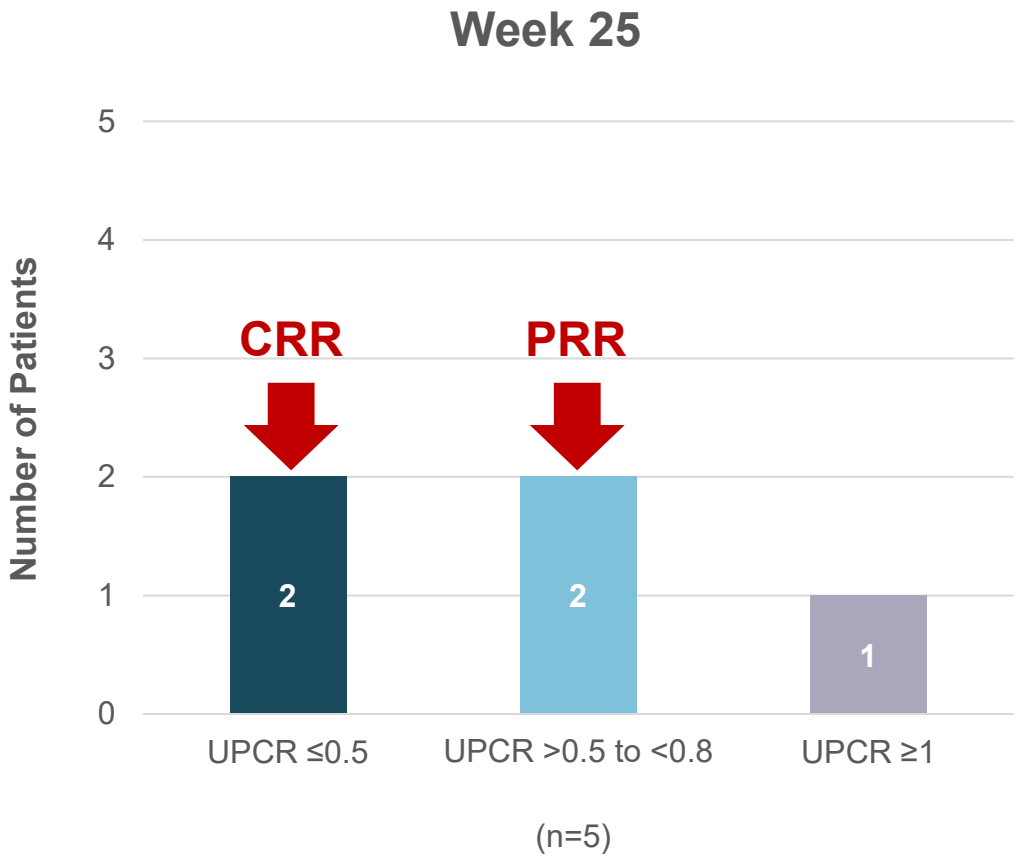
MISSION Phase 2 [Interim Data]: Overall Renal Response in 4 out of 5 Patients at EOT



CRR and PRR were calculated using absolute UPCR values and not percentages.
Patients received 24 weeks of KZR-616; end of treatment assessments performed at Week 25.

Interim lab data reported as of 12-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

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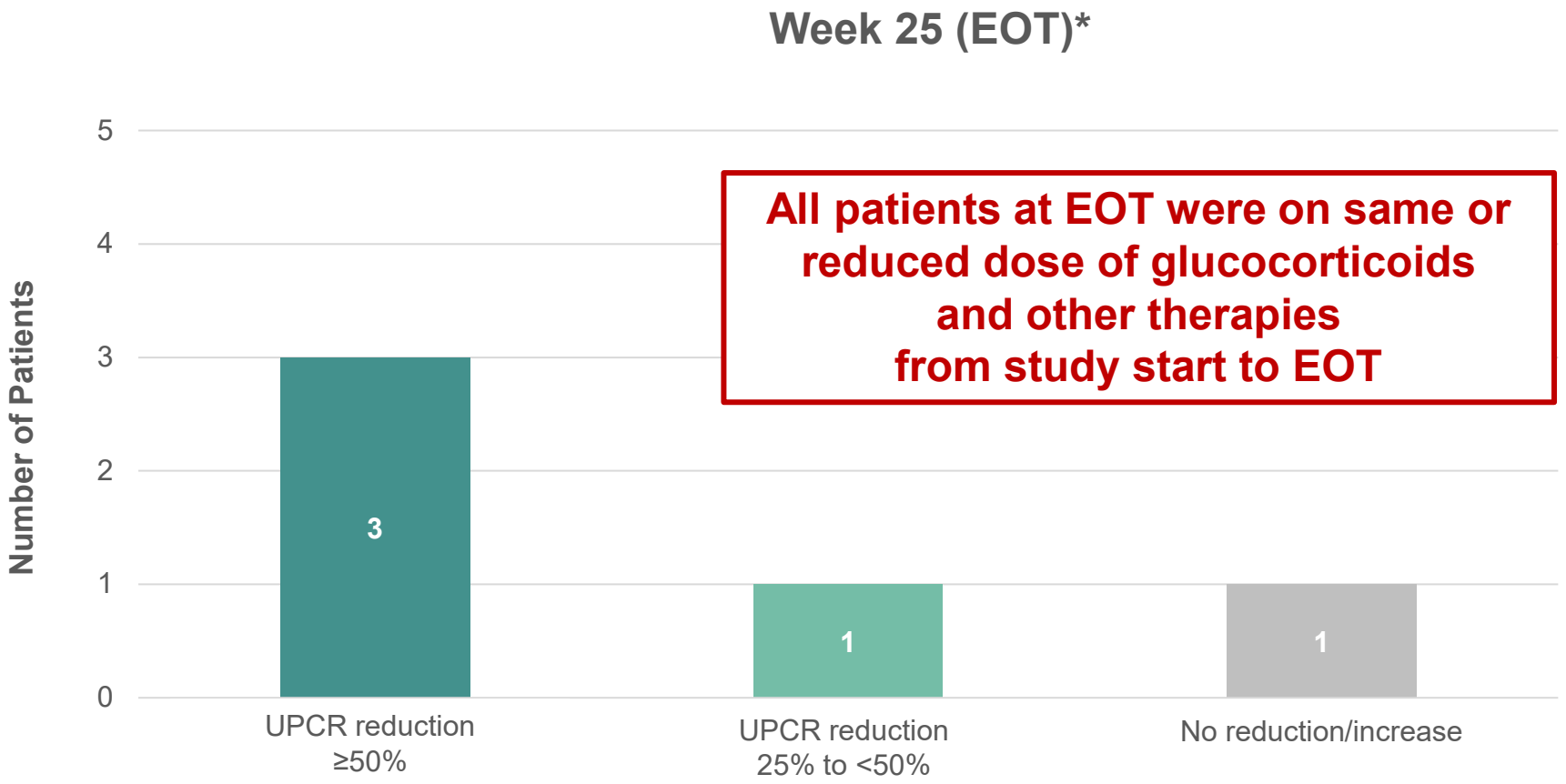
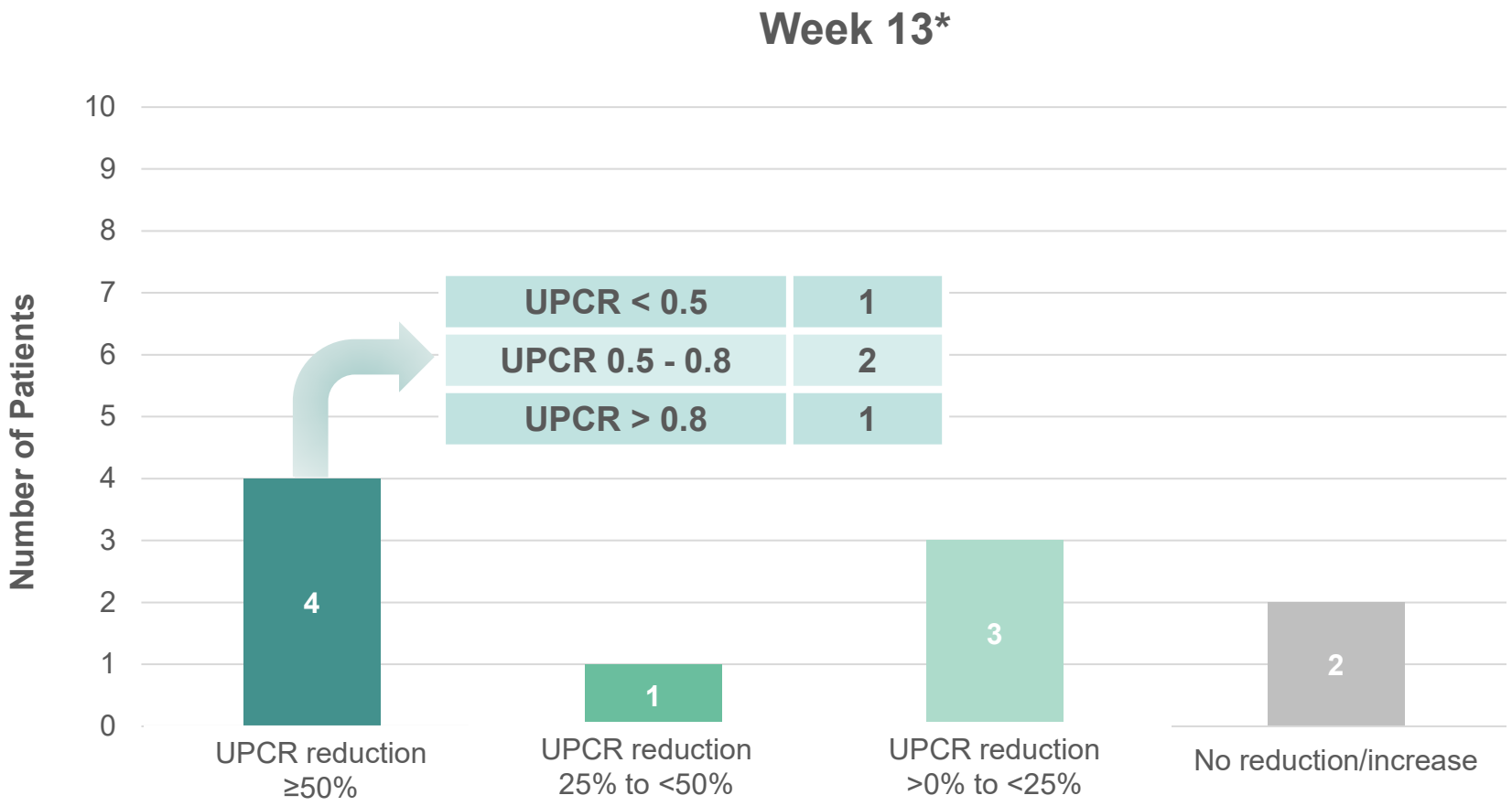
MISSION Phase 2 [Interim Data]: 3 out of 5 Patients Achieved ≥50% Reduction in UPCR at EOT



*n=5 patients with 25 weeks data; patients received 24 weeks of KZR-616; end of treatment assessments performed at Week 25.
Abbreviation: EOT, end of treatment.

Interim lab data reported as of 12-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

MISSION Phase 2 [Interim Data]: KZR-616 Showed Early, Meaningful Reduction in UPCR at Week 13



*N=10 patients with ≥13 weeks data.

Interim lab data reported as of 12-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

MISSION Phase 2 [Interim Data]: Improvement in Key Serologic Biomarkers Observed at Week 13 in Patients with Abnormal Levels at Baseline

Biomarker	Patients with Abnormal Levels at Baseline	Patients with Improvement at Week 13
Anti-dsDNA	9	7
C3	6	3
C4	2	1

- No abnormal disease biomarkers, including cell counts, emerged in patients on study

Week 25 data pending.
Reference ranges: dsDNA <20 IU/mL; C3 90 - 180 mg/dL; C4 10 - 40 mg/dL.

Interim lab data reported as of 12-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

MISSION Phase 2 [Interim Data]: KZR-616 Continues to Show Favorable Safety and Tolerability Profile

- All reported AEs were mild to moderate (≤Grade 2) except
  - 1 related SAE of Grade 3 migraine occurred, which led to temporary interruption of study drug. Patient fully recovered and resumed study treatment at the same 60mg dose level.
  - 1 unrelated SAE of worsening PAH and AKI; led to discontinuation
- No study discontinuations due to related AEs
- Injection site reactions continue to be the most commonly reported AE
- MISSION Phase 2 shows nausea and vomiting is episodic and may occur at any point throughout 24 weeks of the study
  - 10 reports of nausea and 6 reports of vomiting occurred in 4 patients, with nausea and vomiting often occurring together
  - Any nausea and/or vomiting lasts ≤1 day in duration
  - No patients reported nausea or vomiting with first dose of KZR-616
  - Some incidents of N/V were reported as attributed to the SAE, as in the case of the patient with migraine headache
- 204 doses of KZR-616 received in total at the time of the interim analysis --> 3-5% rate of N/V which is same or less than commonly used therapies for the treatment of SLE/LN
- No opportunistic infections reported to date

Abbreviations: SAE, serious adverse event; PAH, pulmonary arterial hypertension; AKI, acute kidney injury; N/V, nausea and vomiting.

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Interim data reported as of 01-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

MISSION Phase 2 [Interim Data]
Patients With Persistent Proteinuria Despite SOC Achieved Clinically Meaningful Benefit per EULAR/ERA-EDTA Treatment Goals With Addition of KZR-616 and Without Induction or Higher Doses of Immunosuppressive Therapy

EULAR/ERA-EDTA Goals of Treatment for Patients with LN

Optimization of kidney function along with:

EULAR/ERA-EDTA Treatment Duration	EULAR/ERA-EDTA Treatment Goal	MISSION Ph2 [Interim]
3 months	Reduction in proteinuria of at least 25%	5 of 10 patients
6 months	50% reduction in proteinuria	3 of 5 patients
12 months	Proteinuria ≤0.7	2 of 5 patients had UPCR <0.7 2 of 5 patients had UPCR <0.8 [at 6 months]

Fanouriakis A et al., 2019, Update of EULAR/ERA-EDTA Recommendations for the Management of Lupus Nephritis, *Ann Rheum Dis* 2020;79:713-723.
Abbreviation: SOC, standard of care.

Interim lab data reported as of 12-Oct 2021 and are subject to audit and verification procedures that could result in material changes in the final data.

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MISSION Phase 2 [Interim Data]: KZR-616 Interim Analysis Suggests Clinically Significant Renal Activity and Kezar is Planning for Later Phase Studies

- KZR-616 MISSION Phase 2 interim data learnings
  - KZR-616 60mg SC QW dosing (starting with “step-up” dose) demonstrates a favorable safety and tolerability profile
  - KZR-616 60mg SC QW demonstrated meaningful reductions in proteinuria in patients with LN, including those who are refractory or hard to treat
- KZR-616 continues to appear to be immunomodulatory rather than immunosuppressive
- The top-line data is anticipated for late second quarter 2022
- Given the strength of the interim analysis, Kezar is planning next studies of KZR-616 for the treatment of LN

Interim data reported are subject to audit and verification procedures that could result in material changes in the final data.

Introduction to Investigator-led IND Study
Restarting KZR-616 in MISSION Phase 1b: Patient #1

- MISSION 1b enrolled two patients with active LN, which were reported as Patient #1 and Patient #2
- Following completion of the MISSION 1b study, the site investigator treating Patient #1 approached Kezar about re-starting KZR-616 as the patient reported improvements in SLE symptoms and showed reduced proteinuria while on the open-label Phase 1b study
- The site investigator took necessary steps to open an Investigator-led IND application and agreed to share safety and efficacy data with Kezar
- This case report is distinct from the MISSION 1b and MISSION 2 study
- Samir V. Parikh, MD will be presenting this patient's experience today

Investigator-led IND Study: KZR-616 for the Treatment of Refractory LN

Samir V. Parikh, MD, FASN

Associate Professor, Division of Nephrology

The Ohio State University Wexner Medical Center

November 15, 2021

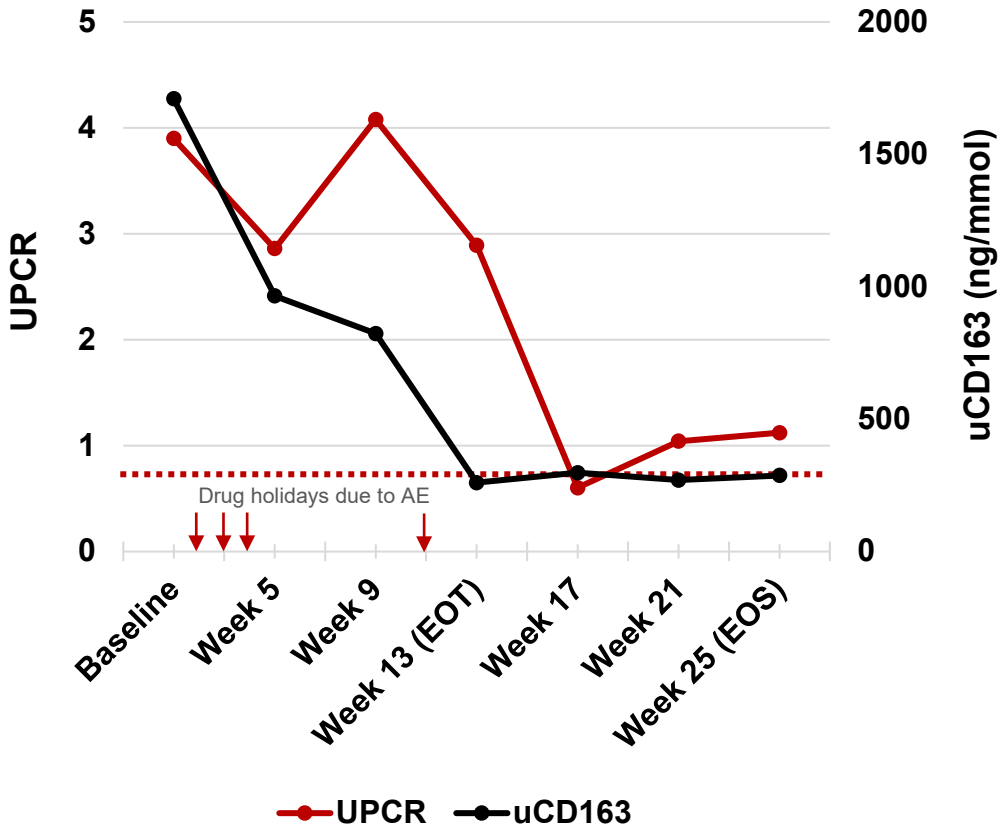
THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER

Case Report: Past Medical History

- 29-year-old Asian female diagnosed with SLE and LN in 2015-Jan
- LN Biopsy (2019-May): Class IV/V
- LN Treatment:
  - Initially treated with high dose steroids and MMF. Developed leukopenia on MMF so discontinued
  - Failed prior therapy with tacrolimus and no improvement on leflunomide. Remained steroid dependent on prednisone 10mg daily
  - At baseline on stable regimen of hydroxychloroquine, leflunomide, prednisone (10mg/d) but still active disease
- Nephrotic range proteinuria at baseline (UPCR – 3.9)

OSU Patient was “Patient 1” Presented From MISSION 1b



Patient had drug holidays (weeks 2-4, 11) due to AE of Systemic Inflammatory Response Syndrome, and KZR-616 was reinitiated in this trial.

Serologic biomarkers:

Instrument	Baseline	Week 13 (end of treatment)	Week 25 (end of study)
Anti-dsDNA (<20 IU/mL)	134	53	61
C3 (90-180 mg/mL)	78	81	84
C4 (10-40 mg/mL)	9	11	10

Disease activity assessment:

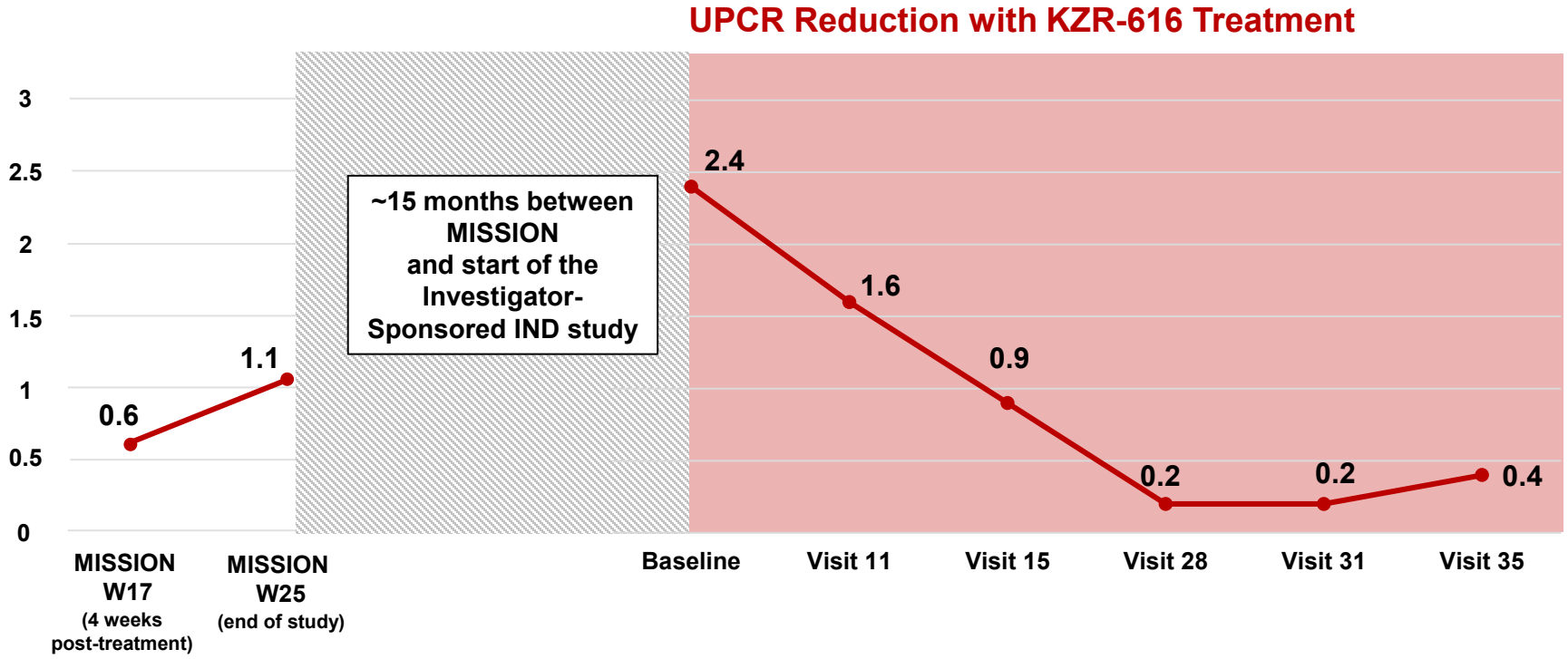
Instrument	Baseline	Week 13 (end of treatment)	Week 25 (end of study)
SLEDAI-2K	17	12	8
CLASI	7	1	0
PGA	67	59	35

Abbreviations: EOS, end of study; EOT, end of treatment.

Patient 1 Experienced Worsening Course of Disease Following Completion of MISSION Phase 1b Study

- No significant changes to medications
- UPCR:
  - 0.56 (3 months following completion of MISSION Ph1b)
  - 5.5 (9 months following completion of MISSION Ph1b)
- Symptoms at 9 months following completion of MISSION Ph1b:
  - Alopecia, arthralgia, higher BP (140s systolic), low C3/C4 (69/11)
- Started on high dose prednisone 40mg/d for 30 days and then tapered by 10mg every 2 weeks to 20mg daily and then to 15mg daily until she started Inv-led IND study
- Following prednisone therapy, proteinuria improved from 5.5 to 2.4 and remained there until resuming KZR-616

UPCR Reduced <0.5 in Investigator-Sponsored IND Patient with Complete Cessation of Corticosteroids Within 12 Weeks of Initiation of KZR-616



Disease activity assessment:

Instrument	Baseline	Week 11	Week 15	Week 27	Week 33
SLEDAI-2K	10	4	6	0	n/a
PGA (mm)	63	44	51.5	37	n/a

Serologic biomarkers:

- Anti-dsDNA antibody: Baseline: 7 IU/mL; Negative throughout the study
- C3/C4 values normalized after KZR-616 treatment

SUMMARY: Patient Improves on KZR-616 Treatment

- Rapid improvement in proteinuria and clinical disease activity seen in the MISSION Phase 1b
- Patient experienced worsening of disease with a return to nephrotic range proteinuria 9 months following completion of MISSION Phase 1b
- Improvements seen early on and continued once initiated back on KZR-616 in Investigator-led IND Study
  - >50% reduction in proteinuria observed at Week 14
  - Discontinuation of corticosteroid therapy within 12 weeks
  - UPCR = 0.4 at Week 34
  - Patient reports feeling well and has no extra-renal symptoms

KZR-616 Potential in the LN Treatment Landscape

- Preclinical and early clinical data suggest that KZR-616 has broad immunomodulatory potential, with no major safety signals to date
- Possible role as:
  - Potent anti-inflammatory
  - Anti-autoimmunity therapy
  - Steroid-sparing
  - Consolidation therapy to limit number of concomitant therapies required for LN treatment

PRESIDIO: Phase 2 Trial to Evaluate the Safety and Efficacy of KZR-616 in Dermatomyositis and Polymyositis

Noreen R. Henig, MD
Chief Medical Officer

KEZAR LIFE SCIENCES

KZR-616 Clinical Program Overview

Phase	Study Protocol	Name/Indication	Study Design	Status
Phase 1	KZR-616-001	Healthy Volunteers (frozen formulation)	Randomized, double-blind, placebo-controlled, single and multiple ascending dose study (N=100)	Completed
Phase 1	KZR-616-004	Female Healthy Volunteers (lyophilized formulation)		Completed
Phase 1b/2	KZR-616-002	MISSION (SLE +/- LN, LN)	Phase 1b: Open-label, multiple dose escalation study (N=47) Phase 2: Open-label, single dose level study (N=20)	Ph 1b (completed) Ph 2 (active, not recruiting)
Phase 2	KZR-616-003	PRESIDIO (DM/PM)	Randomized, double-blind, placebo-controlled, crossover multicenter study (N=24)	Active, not recruiting
Phase 2 Extension Study	KZR-616-003E	Extension for DM/PM	Multicenter, open-label extension study	Active, by invitation

Abbreviations: DM, dermatomyositis; LN, lupus nephritis; PM, polymyositis; SLE, systemic lupus erythematosus.

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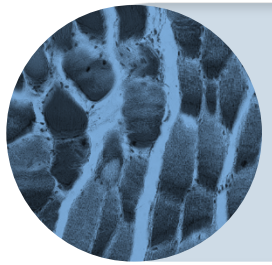
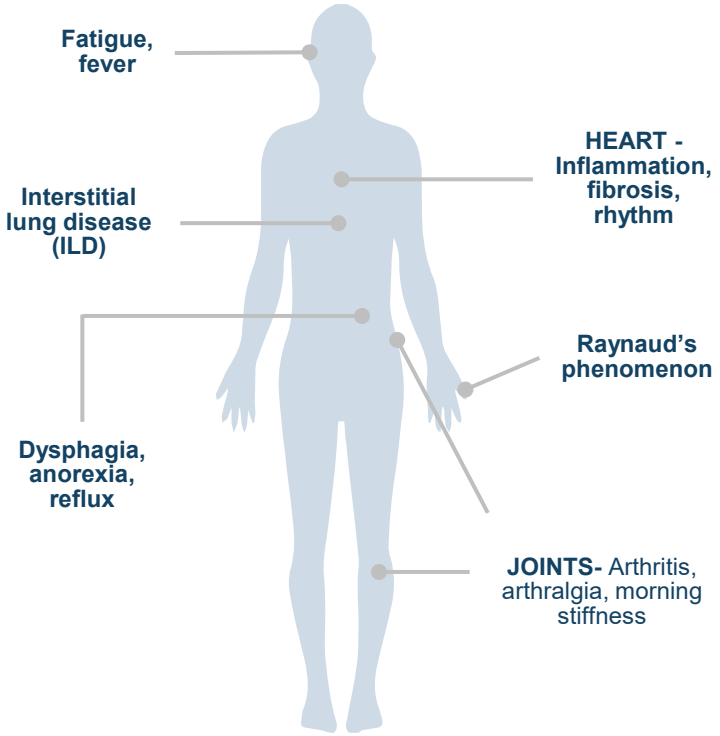
KZR-616 has the Potential to Address the Significant Unmet Need in Dermatomyositis (DM) and Polymyositis (PM)



DM and PM are chronic, severe, and often debilitating autoimmune diseases resulting in high morbidity and mortality. They are characterized by inflammation of the muscles and associated tissues

Prevalence: up to ~120K US patients

- Limited effective treatment options
- KZR-616 has been granted ODD by the US FDA for both indications
- Women 2x as likely to have DM/PM
- Prevalence is highest among the black population



Morbidity and Increased Mortality

- Difficulty in activities of daily function which can lead to being wheel-chair bound
- Skin rash and ulcerations, itching and pain
- Dyspnea /Cough to respiratory failure
- Calcinosis
- Dysphagia
- Treatment side-effects

Available Therapies

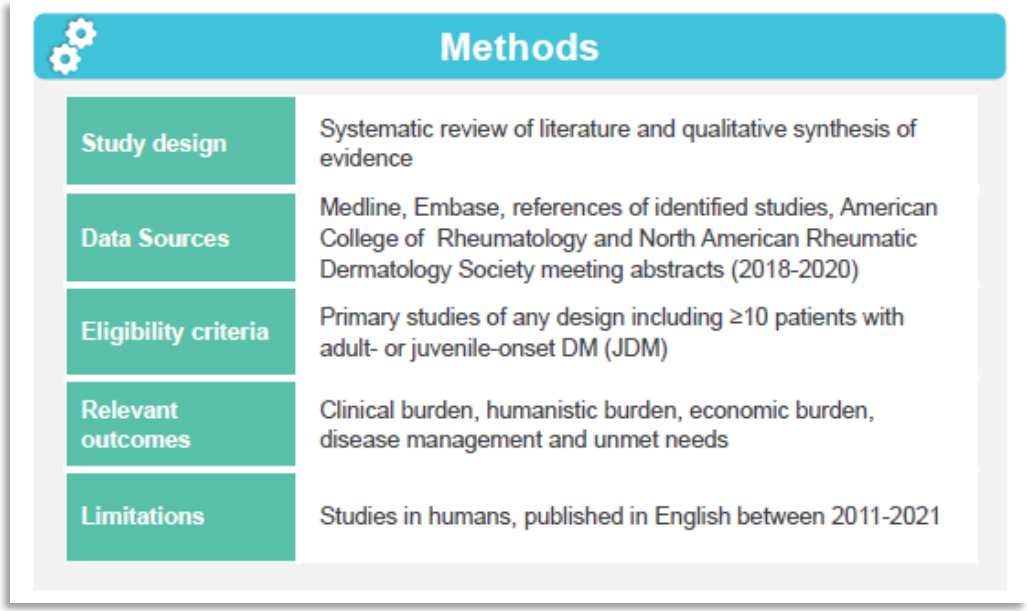
- Corticosteroids (high dose)
- Corticosteroid sparing agents (e.g., azathioprine or methotrexate)
- Rituximab
- IVIg (DM only)
- Hydroxychloroquine
- Corticotropin
- Sunscreen

KEZAR LIFE SCIENCES

Abbreviations: DM, Dermatomyositis; PM, Polymyositis; ODD, Orphan Drug Designation, ILD-Interstitial Lung Disease

Despite Currently Available Therapies, Most of Which Have Been Available for Decades, There Remains a Large Unmet Medical Need and Increased Health Care Utilization for Patients with DM and PM

ACR 2021 Convergence [08-Nov 2021]



Poster 1031: Clinical and Humanistic Burden of Dermatomyositis and Polymyositis in the US: A Systematic Literature Review
Presenter: Swamy Venuturupalli MD

Poster 1039: Healthcare Resource Utilization and Costs of Dermatomyositis and Polymyositis in the US: A Systematic Literature Review
Presenter: Rohit Aggarwal MD

KZR-616 is the only agent in the US granted Orphan Drug Designation (ODD) for DM and PM

KEZAR LIFE SCIENCES

KZR-616 Improved Muscle Function in a Mouse Model of PM and DM*

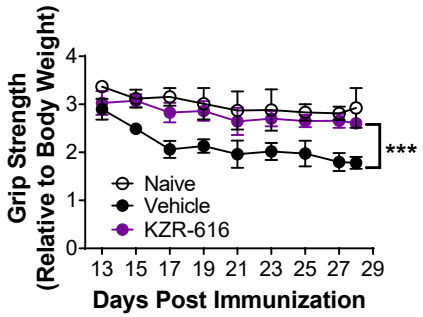
CIM MODEL

- Gold standard model for PM and DM (Sugihara 2007)
- Replicates multiple features of clinical disease
- Validated with IVIg approval

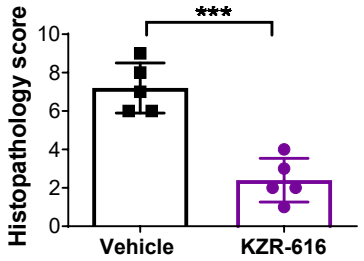
Tx
(2 weeks)

- KZR-616 treatment of diseased animals restored normal muscle function
- Significant reduction in tissue damage (histology and circulating enzyme levels)

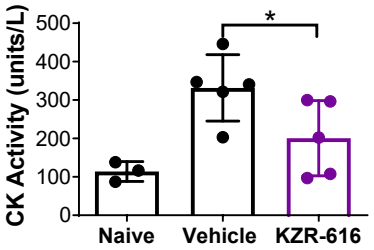
Muscle Strength



Muscle Histology

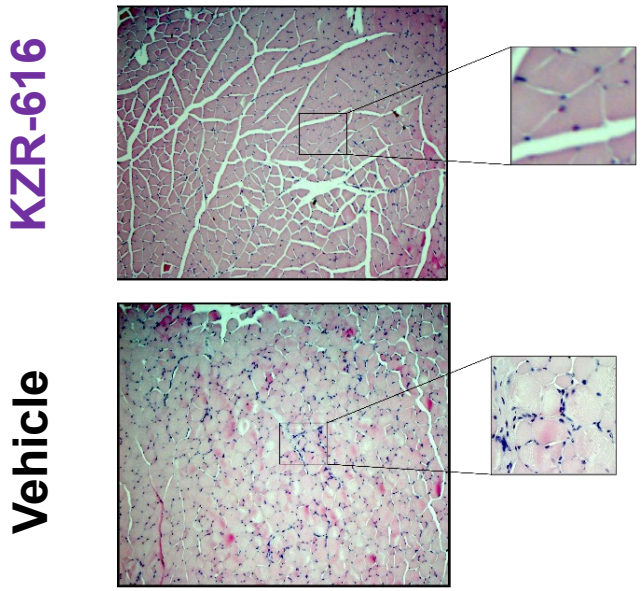


Muscle Enzymes



Triceps Histology

(H&E Staining)



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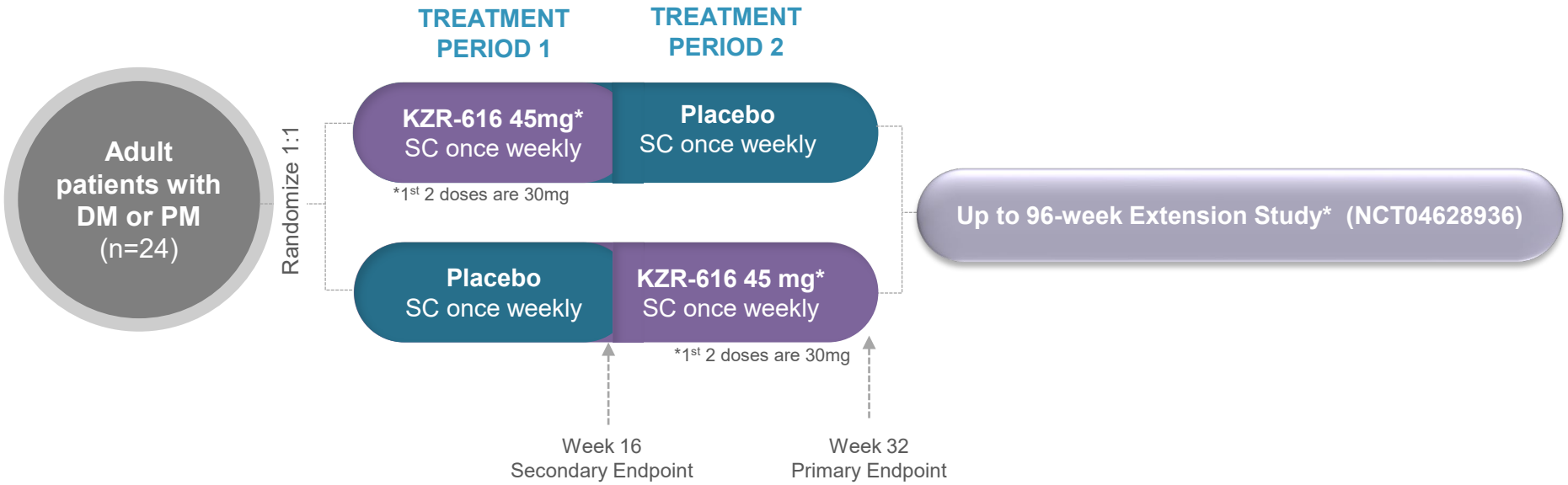
Abbreviations: CIM=C protein-induced myositis

*Oliva MDR et al, ACR 2020

PRESIDIO Phase 2 Placebo-Controlled Cross-over Study for the Treatment of DM and PM Designed to Inform Late-Stage Studies



Study NCT04033926

ENDPOINTS

1º: Efficacy: Total Improvement Score

2º: Safety and tolerability; Patient Reported Outcomes, PK

Exploratory: Biomarkers, PK/PD relationship

Abbreviations: TIS, total improvement score; PRO, patient reported outcome; SC, subcutaneously; PK, pharmacokinetic; PD, pharmacodynamic.

KZR-616 for the Treatment of DM/PM
Top-Line Results to Be Available Q2 2022

- TIS is the same endpoint used in label expansion study for Octagam 10% [immune globulin intravenous (human)] for the treatment of DM. Also used in the Phase 3 trial of lenabasum for the treatment of DM
- TIS is a composite score which includes measures of muscle strength, serum enzymes which correspond to muscle injury, patient and physician directed symptom scores, and extra-muscular symptoms
- Kezar included patients with both DM and PM in the PRESIDIO study
  - PM patients have not been included in recent interventional studies
  - We will be looking to see if one or both patient groups show an efficacy signal

Rohit A et al. Ann Rheum Dis. 2017;76(5):792-801.
Abbreviations: TIS, total improvement score.

KEZAR LIFE SCIENCES

Next Steps for the Development of KZR-616 in DM and PM

- PRESIDIO study achieved target enrollment in August 2021
- Top-line results anticipated in the second quarter of 2022
- Kezar is currently planning registrational studies of KZR-616 in inflammatory myositis based on
  - High unmet need
  - Strong preclinical data
  - Demonstration of immunoproteasome activity in inflamed muscle
  - Data from the MISSION trial demonstrating that KZR-616 is an active agent

Kezar Will Consider Development in Other Inflammatory Myopathies if PRESIDIO Generates Positive Results

- Dermatomyositis and polymyositis are two of four subtypes of the idiopathic inflammatory myositis

- Dermatomyositis has a bimodal age distribution with one peak in adults and the other in pediatric patients aged 5-15 years. Juvenile PM is described but considered rare. Kezar is evaluating clinical trials for juvenile DM and PM

- Necrotizing myopathy and inclusion body myositis are two additional subtypes of idiopathic inflammatory myositis and will be considered as potential opportunities in the future

KZR-261 & Protein Secretion Platform

Christopher Kirk, PhD
President and Chief Scientific Officer, Co-Founder

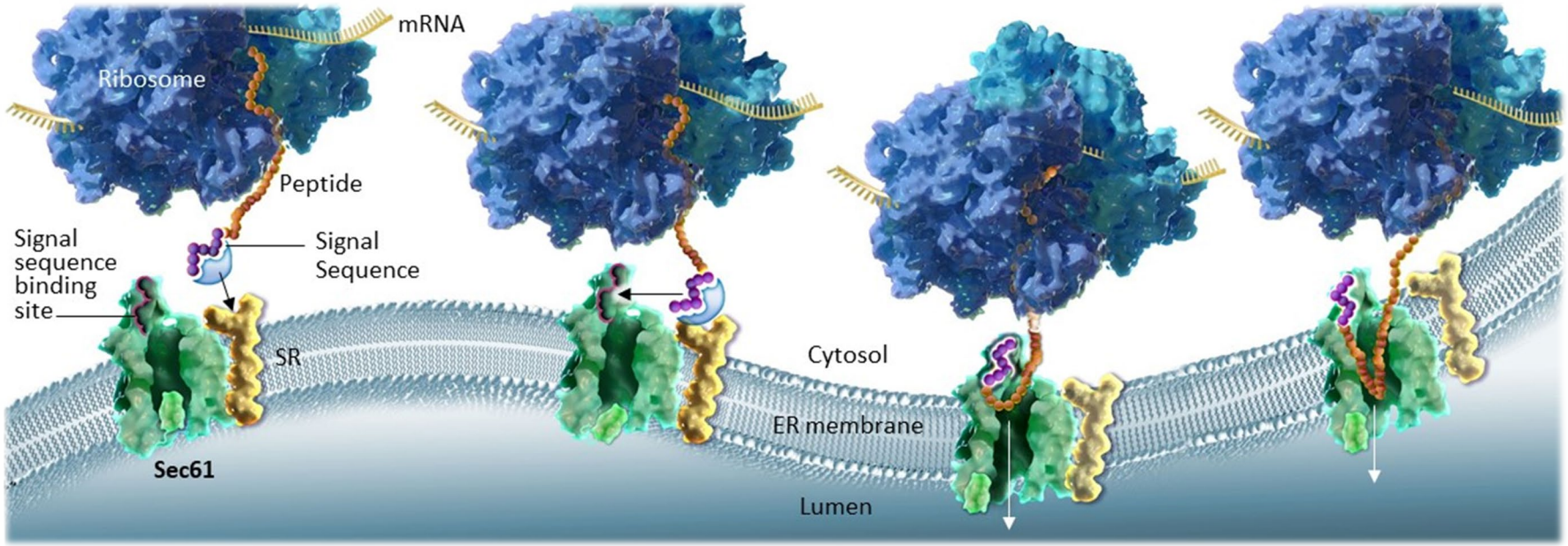
KZR-261, Our First Protein Secretion Candidate, Began a Phase 1 Trial in Patients With Advanced Solid Malignancies in October 2021

COMPOUND	THERAPEUTIC INDICATION	DEVELOPMENT STAGE			
		PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3
Protein Secretion Inhibition					
KZR-261	Solid Tumors				
KZR-TBD	Oncology				
KZR-TBD	Immunology				

KEZAR LIFE SCIENCES

The Sec61 Translocation Channel (Translocon) is the Initiation of the Protein Secretion Pathway and a Novel Drug Target in Oncology

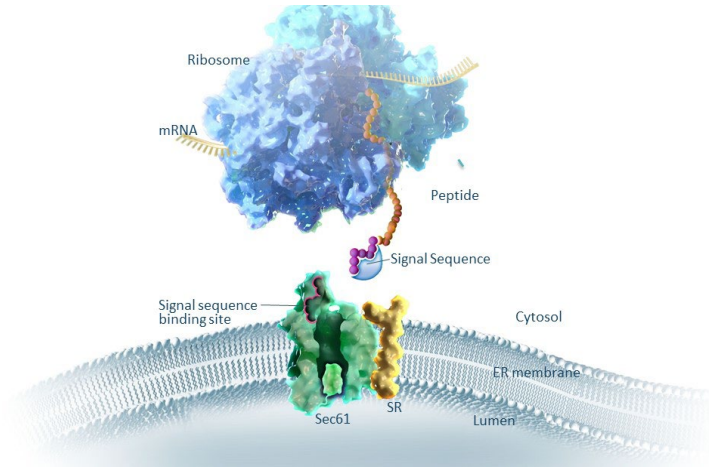
- Highly conserved process, functional in all cells
- Nearly all secreted and transmembrane proteins (5,000 – 7,000 proteins) utilize Sec61 to enter the ER
- Each protein expresses a unique signal sequence or transmembrane domain enabling selective inhibition of therapeutic targets
- **Tumor cells utilize Sec61 for proliferation, metastasis and immune evasion**



KEZAR LIFE SCIENCES

Kezar's Novel Platform for Drug Discovery Targets the Sec61 Translocon and the Protein Secretion Pathway

- Unique drug discovery engine developed with applications in multiple diseases
- Opportunity for orally bioavailable inhibitors of 1 or more high value targets with a single compound



Multi-Target → Target Selective

Multi-Protein Secretion Inhibitors

- Inhibition of **multiple** secreted/membrane proteins
- Combination therapy in a single molecule
- **Multiple oncology indications (tumor agnostic)**

KZR-261: 1st clinical candidate

Subset Protein Secretion Inhibitors

- Inhibition of relevant **subset** secreted/membrane proteins
- Non-cytotoxic agents
- **Indications: oncology, immuno-oncology, immunology**

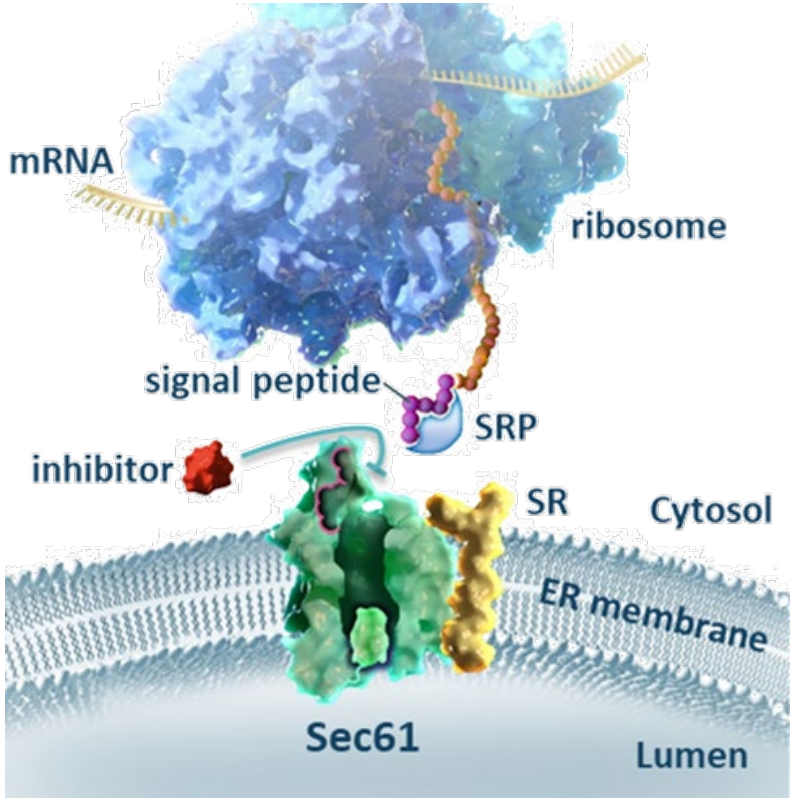
Single Protein Secretion Inhibitors

- Inhibition of a **single** secreted/membrane protein
- Non-cytotoxic agents
- **Indications: Many…**

KEZAR LIFE SCIENCES

KZR-261 Is the First Sec61 Inhibitor to Reach Clinical Trials

- First clinical candidate from our novel discovery platform
- Optimized to inhibit a small subset of secreted proteins
  - **Inhibits ~9% of secreted/transmembrane proteins**
  - **Inhibits only ~3% in non-transformed cells**
- Broad anti-cancer activity in vitro and in vivo
  - Active in chemo-resistant models
  - Favorable therapeutic index/activity
- GLP studies suggest on-target toxicities only

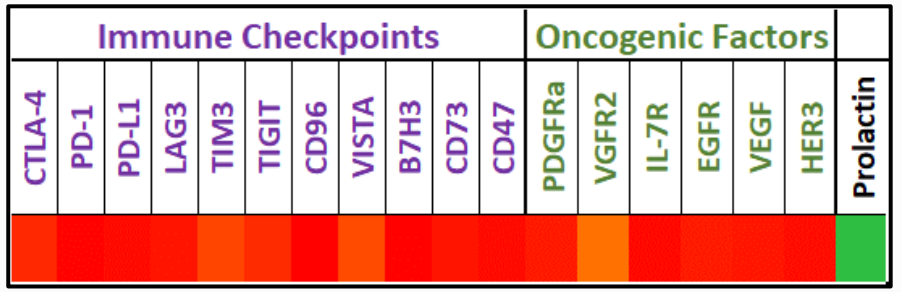


Lowe E et al. AACR 2021; Qian Y et al. AACR 2021

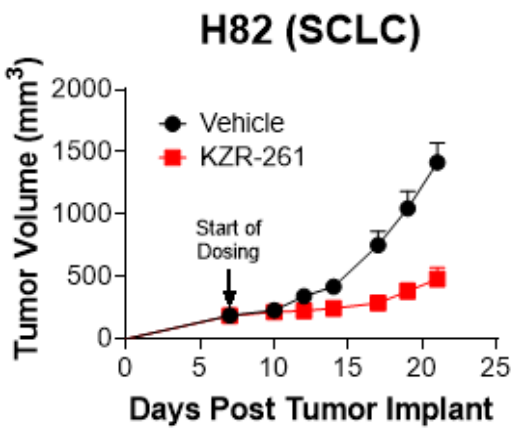
KEZAR LIFE SCIENCES

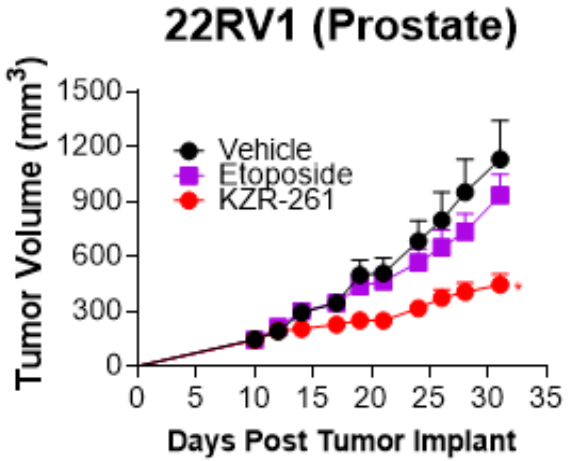
KZR-261 Blocks Expression of Immune Checkpoints and Oncogenic Factors

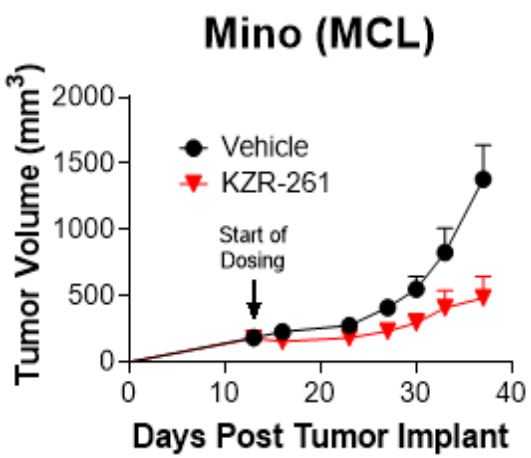
In vitro Protein Secretion Assays



In vivo Tumor Xenografts







Lowe E et al. ASCO 2020

KEZAR LIFE SCIENCES

KZR-261: Unique MOA Involving Direct Effects on Tumor Cells and the Microenvironment

Direct Effects on Tumor Cells

- Tumor cell death via proteotoxic stress
- Reduced growth factor & oncogenic RTK expression

KZR-261

Tumor Microenvironment Modulation

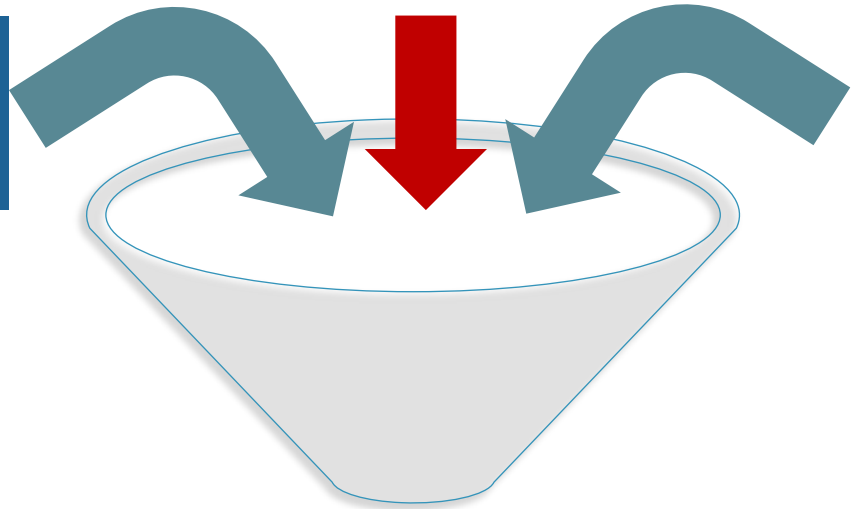
- Reduced angiogenic factor expression (e.g., VEGF)
- Reduced immune checkpoint expression

KEZAR LIFE SCIENCES

Kezar Utilized a Novel Bioinformatics Approach to Identify Potentially Sensitive Tumor Types for Clinical Development

450+ cell lines treated with a Sec61 inhibitor

- Gene Module Expression Analysis (FGSEA)



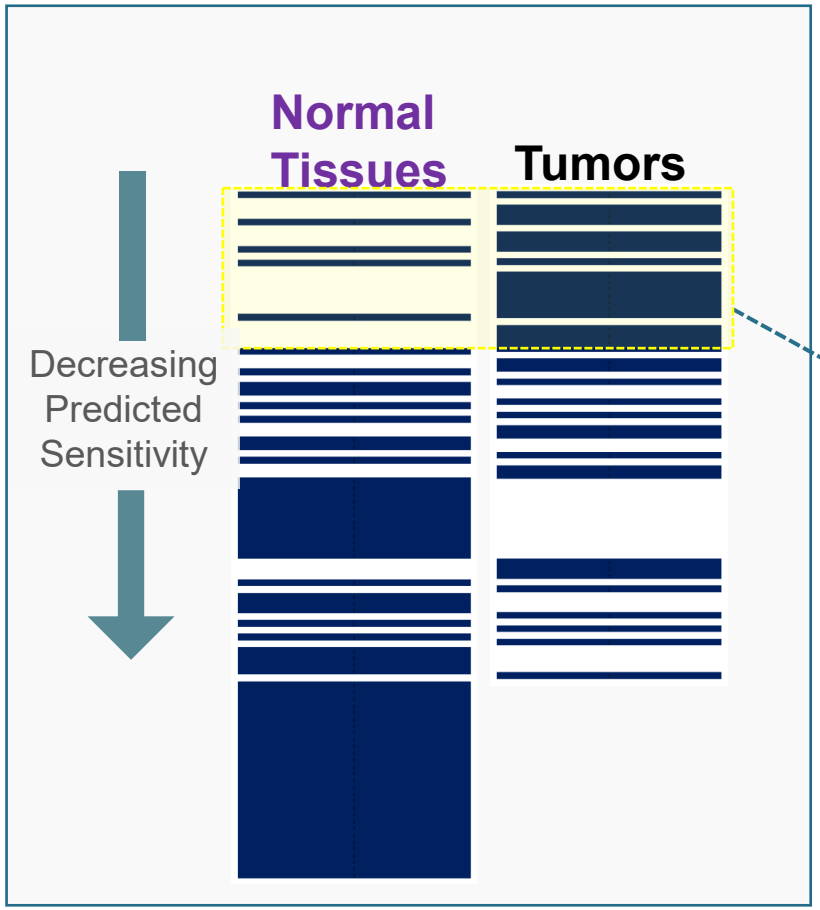
- Gene Expression Databases
- Tumor Cell lines (CCLE)
- Tumor Tissues (TCGA)
- Normal Tissues (Gtex)

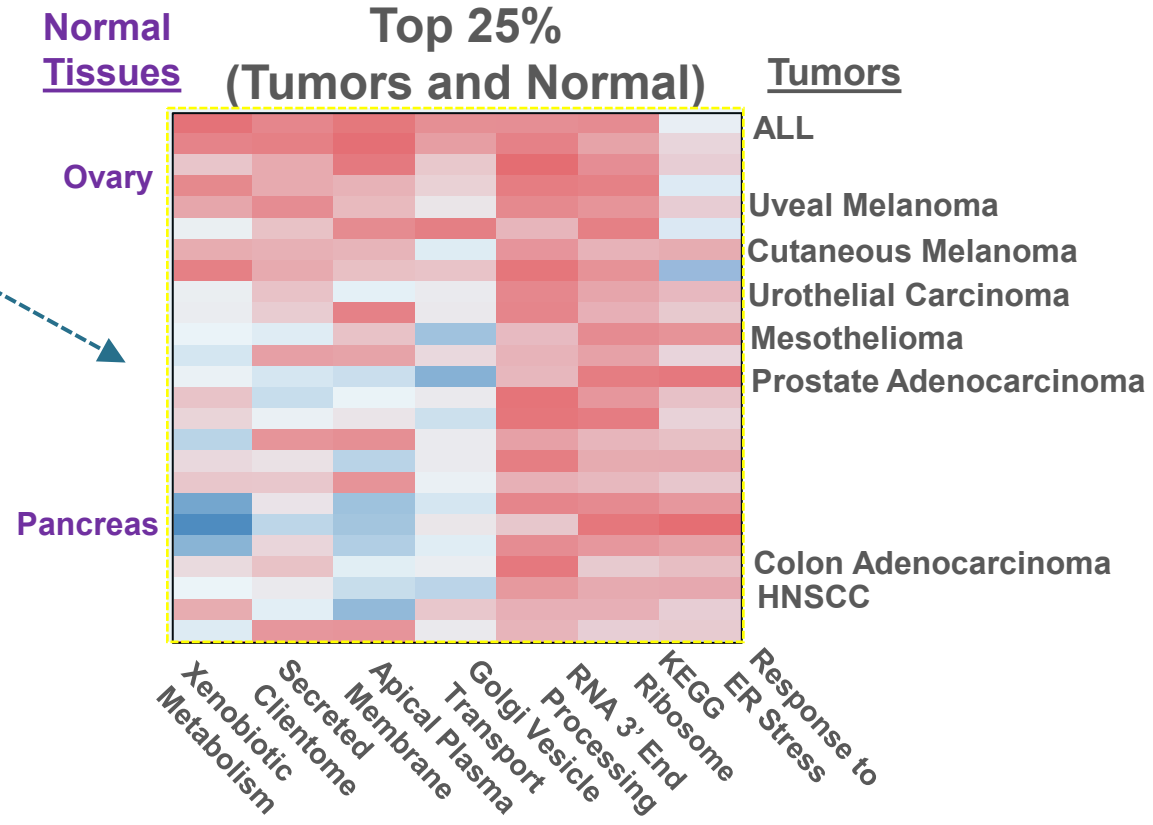
Target Tumor Types For Clinical Study
(Solid Tumor and Hematologic Malignancies)

Focus on Solid Tumors for Initial Phase 1

Lowe E et al. AACR 2021

Results of Bioinformatics Research Indicates Selective Sensitivity of Tumor Cells and Tumor Types for Prioritization in Phase 1 Study



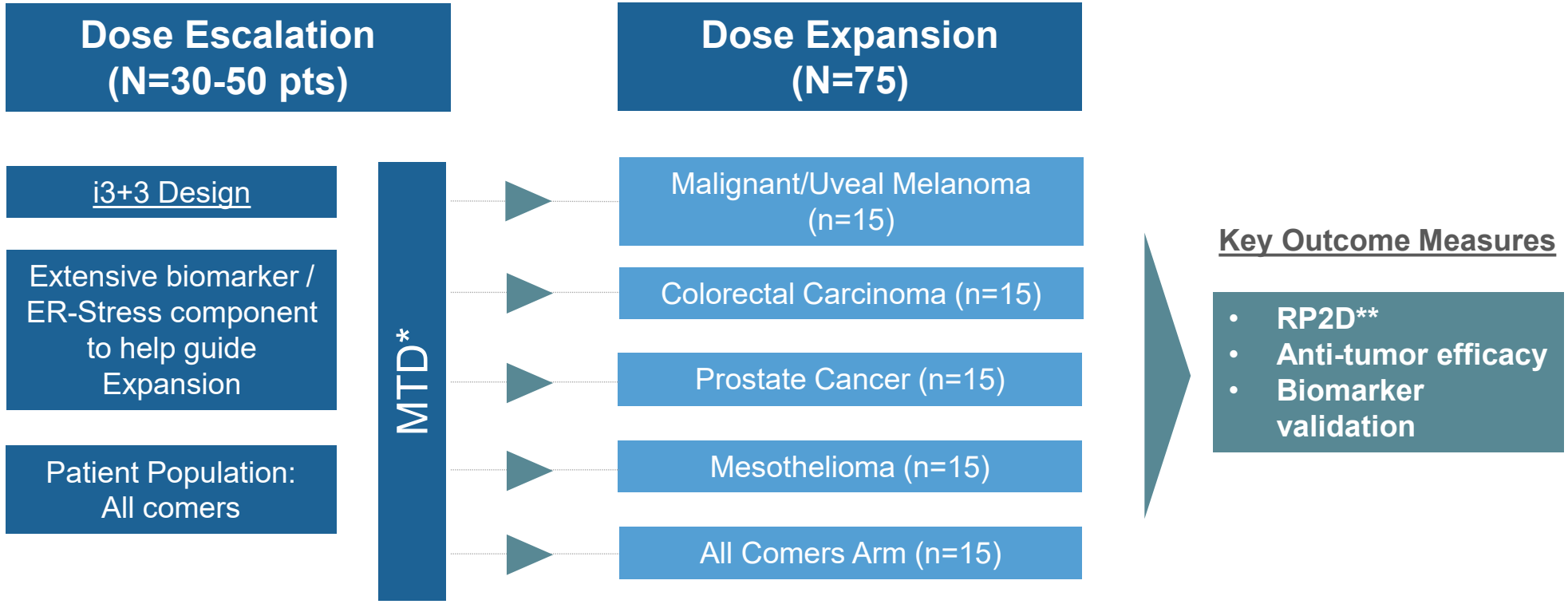


Tumors are predicted to be more sensitive than normal tissues

KEZAR LIFE SCIENCES

Lowe E et al. AACR 2021

First-in-Human Dose Escalation and Expansion Study of KZR-261 Initiated



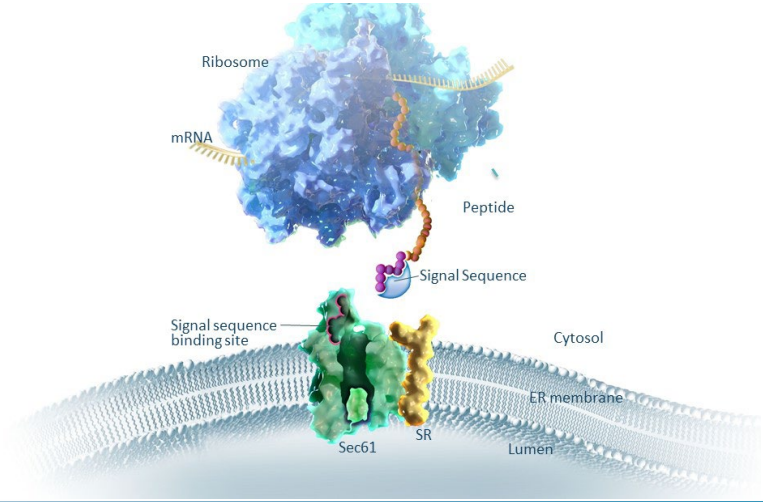
Goals for KZR-261-101

- Establish single agent activity
- Maximize opportunities for success for KZR-261
- Identify/confirm potential, predictive biomarkers

NCT05047536
*Maximum Tolerated Dose
**Recommended Phase 2 Dose

Kezar's Novel Platform for Drug Discovery Targets the Sec61 Translocon and the Protein Secretion Pathway

- Unique drug discovery engine developed with applications in multiple diseases
- Opportunity for orally bioavailable inhibitors of 1 or more high value targets with a single compound

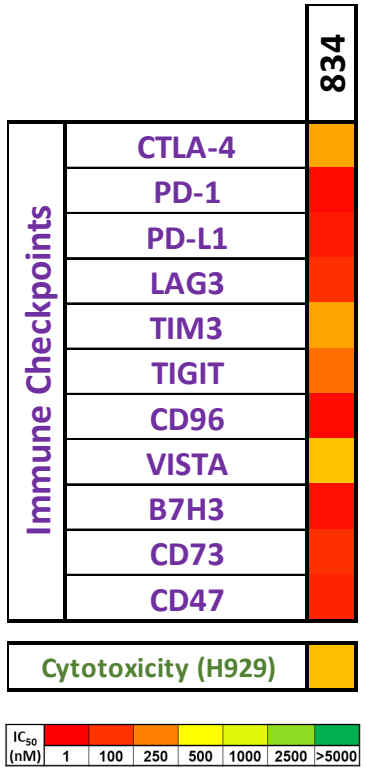


Multi-Target		Target Selective
Multi-Protein Secretion Inhibitors	**Subset Protein Secretion Inhibitors**	**Single Protein Secretion Inhibitors**
• Inhibition of **multiple** secreted/membrane proteins • Combination therapy in a single molecule • **Multiple oncology indications (tumor agnostic)**	• Inhibition of relevant **subset** secreted/membrane proteins • Non-cytotoxic agents • **Indications: oncology, immuno-oncology, autoimmunity**	• Inhibition of a **single** secreted/membrane protein • Non-cytotoxic agents • **Indications: Many…**

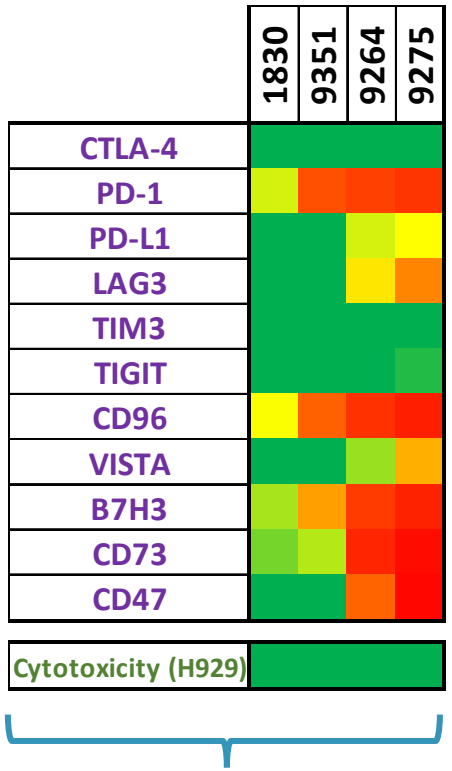
KZR-261: 1st clinical candidate

KEZAR LIFE SCIENCES

Generation of Multi-Target I/O Agents as Potential Combination Therapy in a Single Small Molecule



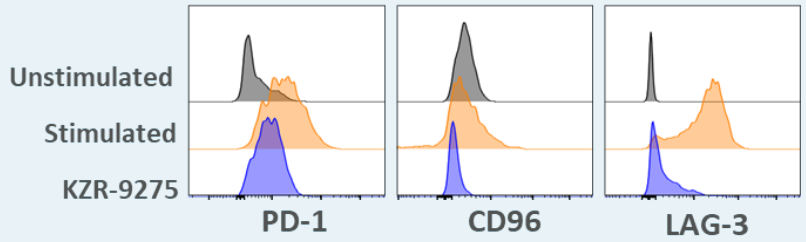
Cytotoxic anti-cancer agents



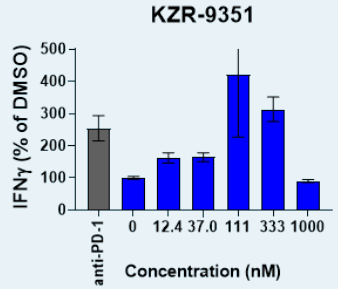
Subset-I/O selectivity, no cytotoxicity

Potent targeting of checkpoint expression leads to:

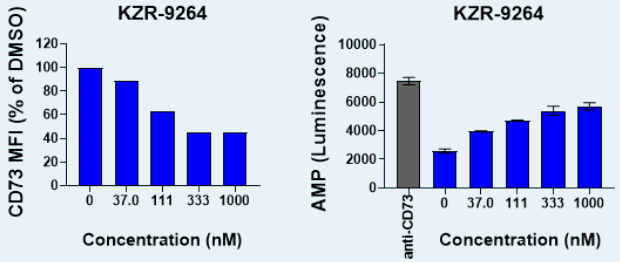
Reduced expression on T-cells



Enhanced functional T-cell activity (MLR)



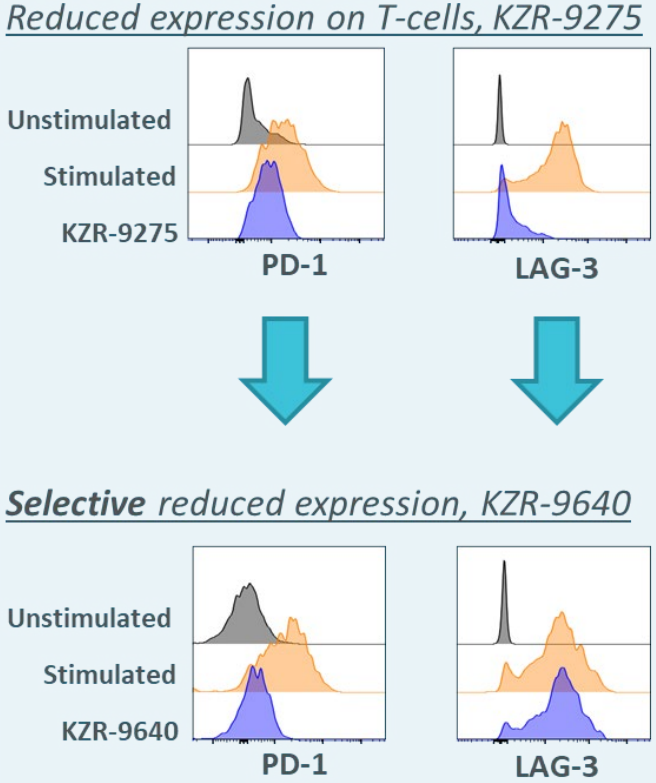
Inhibition of tumor CD73 expression and activity



KEZAR LIFE SCIENCES

Whang J et al. SITC 2019

Kezar has Discovered Selective Small Molecule PD-1 Inhibitors



Multiple chemical series may be tuned toward selective target inhibition

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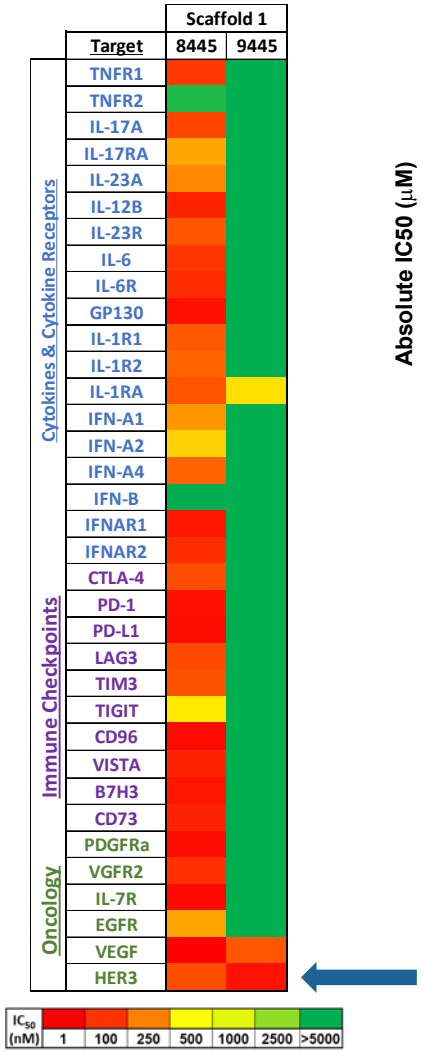
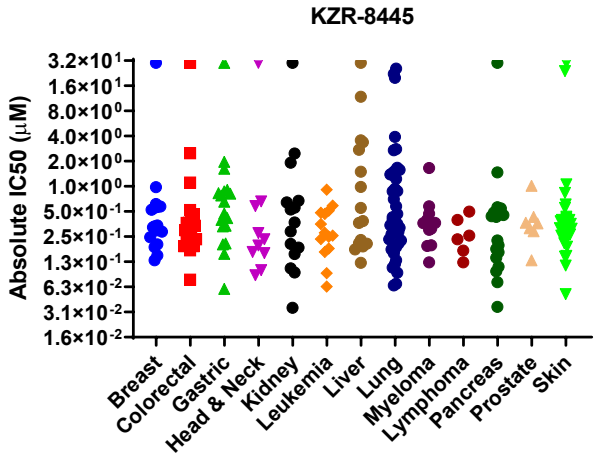
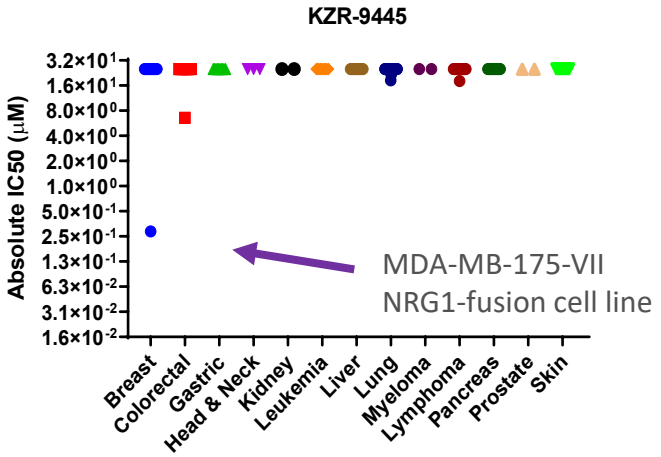
Data on file.

Sec61 Inhibitors Can be Tuned to Precision Oncology Agents

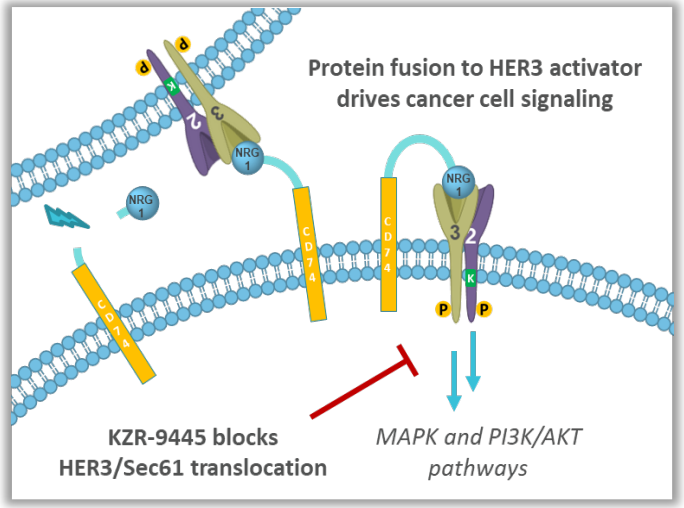




KZR-8445
- Broad anti-cancer potential



KZR-9445
- Selective Inhibition of HER3



- 9445 selectively targets HER3-dependent, MDA-MB-175-VII NRG1-fusion cell line

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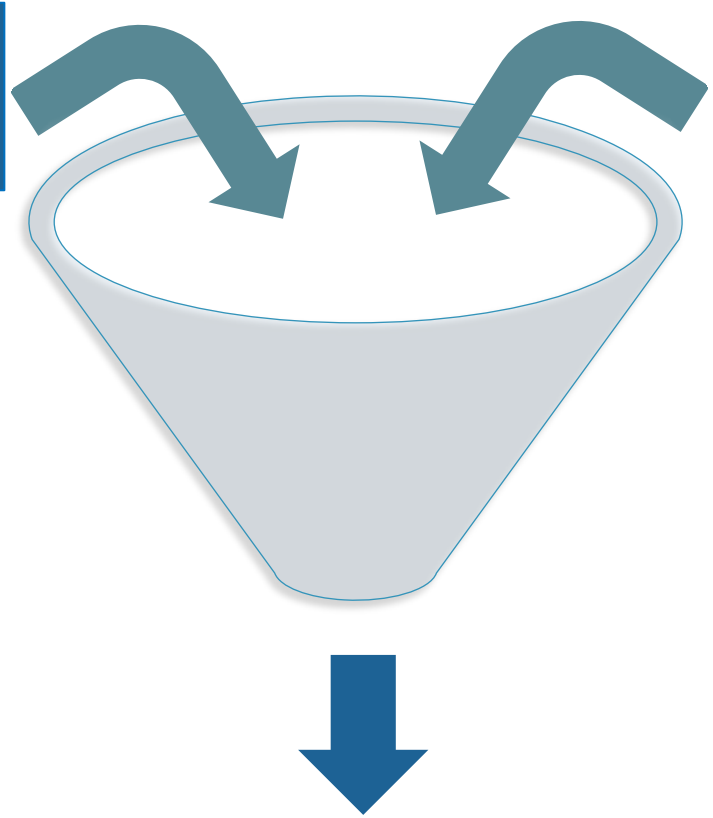
McMinn D. Drug Discovery Chemistry 2020

Kezar has a Unique Platform to Identify and Drug High-Value Secreted and Transmembrane Proteins

Small Molecule Replacements of Therapeutic mAb **(50+ Targets)**

Proprietary Oncology Target ID Analysis Program **(50+ Targets)**



1. **Chemical tractability**
2. **Identification of Kezar advantage (i.e., benefit of Sec61-targeting approach)**
3. **Synergy with current development efforts**

New Targets for Drug Discovery Campaigns

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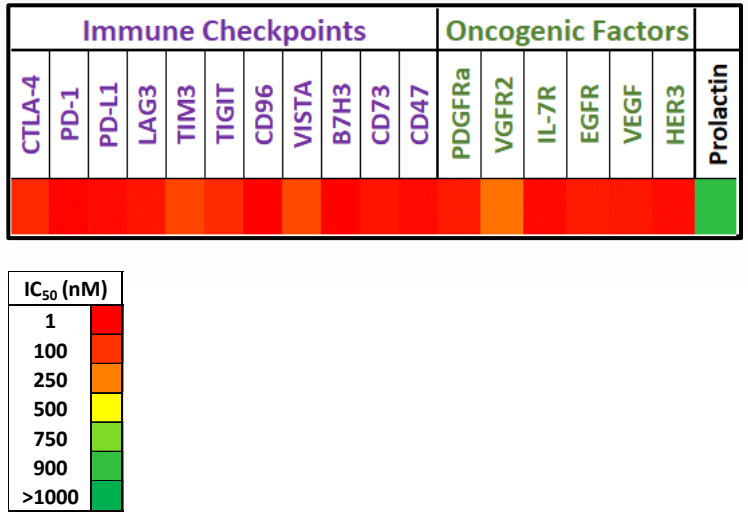
KZR-261 Represents Kezar's First of Multiple Opportunities to Bring Protein Secretion Inhibitors Into Clinical Development

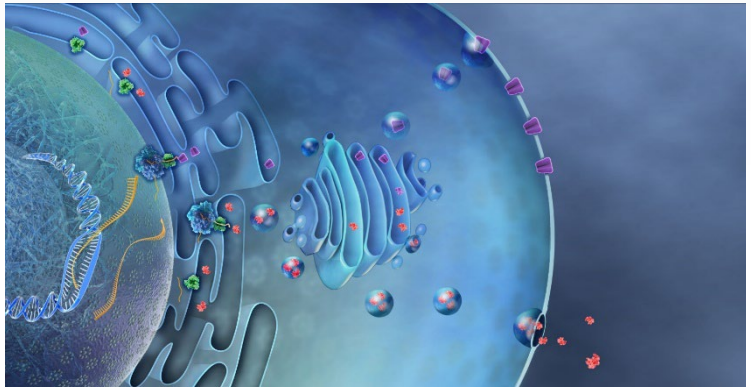
KZR-261: First-in-Class Protein Secretion Inhibitor

- Phase 1 study initiated in Q4'21
- Multiple oncology indications
- Potential to represent combination therapy in a single drug



Platform Potential of the Sec61 Translocon

- Gateway for multiple therapeutic targets across many indications
- High value drug target with ability to inhibit with hyper-selectivity as well as multi-valency
- World leading know-how in chemical targeting and target biology



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The Kezar Opportunity: Harnessing Master Regulators of Cellular Function to Tackle Immune-mediated Diseases and Cancer

Builds on 10+ years of R&D work in proteasome biology and protein secretion led by Kezar's Scientific Co-founders, Chris Kirk & Jack Taunton

Deep Expertise in Immunology and Oncology

KZR-616: First-in-Class Immunoproteasome Inhibitor

A novel approach to harmonizing the immune system via immunomodulation; Potential to be a pipeline in a drug

First in class agent with broad anti-tumor activity; Potential to inhibit multiple targets with a single small molecule

KZR-261: First candidate from Protein Secretion Platform

Strong Financial Position (as of 9/30/2021)

$121M cash, cash equivalents, and marketable securities; 48.6M common shares outstanding; recent credit facility extends runway

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