Corporate Presentation

APRIL 2024

Forward Looking Statements

This presentation (together with any other statements or information that we may make in connection herewith) contains forward-looking statements with respect to Kiniksa Pharmaceuticals, Ltd. (and its consolidated subsidiaries, collectively, unless context otherwise requires, “Kiniksa,” “we,” “us” or “our”). In some cases, you can identify forward looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “goal,” “design,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” “strategy,” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements contain these identifying words. All statements contained in this presentation that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation, statements regarding our strategy; potential value drivers; potential indications; potential market opportunities and competitive position; ongoing, planned and potential clinical trials and other studies; timing and potential impact of clinical data; regulatory and other submissions, applications and approvals; commercial strategy and commercial activities; expected run rate for our cash, cash equivalents and short-term investments; expected funding of our operating plan; financial guidance; and capital allocation.

These statements involve known and unknown risks, uncertainties, and other important factors that may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements, including, without limitation: risks arising from the planned redomiciliation of our principal holding company from Bermuda to the United Kingdom; potential delays or difficulties with our clinical trials; potential inability to demonstrate safety or efficacy or otherwise producing negative, inconclusive or uncompetitive results; potential for changes in final data from preliminary or interim data; potential inability to replicate in later clinical trials positive results from earlier trials and studies; our reliance on third parties for manufacturing and conducting clinical trials, research and other studies; risks arising from our technology transfer of ARCALYST drug substance manufacturing; our ability to realize value from our licensing and collaboration arrangements; our ability to source sufficient drug product, as needed, to meet our clinical and commercial requirements; our inability to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities; potential for applicable regulatory authorities to not accept our filings or to delay or deny approval of any of our product candidates or to require additional data or trials to support any such approval or authorization; delays, difficulty or inability to successfully execute on our commercial strategy for ARCALYST; potential changes in our strategy, clinical trial priority, operating plan, business development strategy or funding requirements; raw materials, important ancillary product and drug substance and/or drug product shortages; substantial new or existing competition; risks arising from political and economic instability; and our ability to attract and retain qualified personnel.

These and the important factors discussed in our filings with the U.S. Securities and Exchange Commission, including under the caption “Risk Factors” contained therein could cause actual results to differ materially from those indicated by the forward-looking statements made in this presentation. These forward-looking statements reflect various assumptions of Kiniksa's management that may or may not prove to be correct. No forward-looking statement is a guarantee of future results, performance, or achievements, and one should avoid placing undue reliance on such statements. Except as otherwise indicated, this presentation speaks as of the date of this presentation. We undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

This presentation also contains estimates, projections, and/or other information regarding our industry, our business and the markets for certain of our product candidates, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, clinical trials, studies and similar data prepared by market research firms and other third parties, from industry, medical and general publications, and from government data and similar sources. Information that is based on estimates, forecasts, projections, market research, or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information.

Portfolio of Immune-Modulating Assets

Program	Target	Preclinical	Phase 1	Phase 2	Phase 3	Commercial
CARDIOVASCULAR FRANCHISE						
ARCALYST® (rilonacept)[1,2,3] IL-1α & IL-1β Trap	*Recurrent Pericarditis*					
Mavrilimumab[4] Anti-GM-CSFRα	*Evaluating Potential Partnership Opportunities*					
AUTOIMMUNE FRANCHISE						
Abiprubart Anti-CD40	*Sjögren's Disease* *(Expected to initiate in 2H 2024)*					

Program	Licensee	Exclusive Licensed Territory
OUT-LICENSING AGREEMENTS		
ARCALYST (rilonacept) IL-1α & IL-1β Trap	*Huadong Medicine*	*Asia Pacific Region, Excluding Japan*
Mavrilimumab Anti-GM-CSFRα	*Huadong Medicine*	*Asia Pacific Region, Excluding Japan*
Vixarelimab Anti-OSMRβ	*Roche and Genentech*	*Worldwide*

1) Approved in the U.S.; ARCALYST is also approved in the U.S. for cryopyrin-associated periodic syndromes (CAPS) and deficiency of the interleukin-1 receptor antagonist (DIRA); 2) The FDA granted Breakthrough Therapy designation to ARCALYST for recurrent pericarditis in 2019; the FDA granted Orphan Drug exclusivity to ARCALYST in March 2021 for the treatment of recurrent pericarditis and reduction in risk of recurrence in adults and pediatric patients 12 years and older. The European Commission granted Orphan Drug designation to ARCALYST for the treatment of idiopathic pericarditis in 2021; 3) Kiniksa has worldwide rights, excluding the Middle East and North Africa; Kiniksa granted Huadong Medicine exclusive rights in the Asia Pacific Region, excluding Japan; 4) Phase 2 clinical trials of mavrilimumab in rheumatoid arthritis and giant cell arteritis achieved their primary and secondary endpoints with statistical significance; Kiniksa granted Huadong Medicine exclusive rights in the Asia Pacific Region, excluding Japan

IL-1α = interleukin-1α; IL-1β = interleukin-1β; GM-CSFRα = granulocyte macrophage colony stimulating factor receptor alpha; OSMRβ = oncostatin M receptor beta

ARCALYST®

Arcalyst® (rilonacept) For Injection

IL-1α AND IL-1β CYTOKINE TRAP

DISEASE AREA: Recurrent pericarditis[1]; painful and debilitating auto-inflammatory cardiovascular disease

COMPETITION[2]: First and only FDA-approved therapy for recurrent pericarditis

REGULATORY: U.S. Orphan Drug exclusivity for treatment of and reduction in risk of recurrence of recurrent pericarditis; European Commission Orphan Drug designation in idiopathic pericarditis

STATUS: FDA-Approved

ECONOMICS: 50/50 split on profit and third-party proceeds

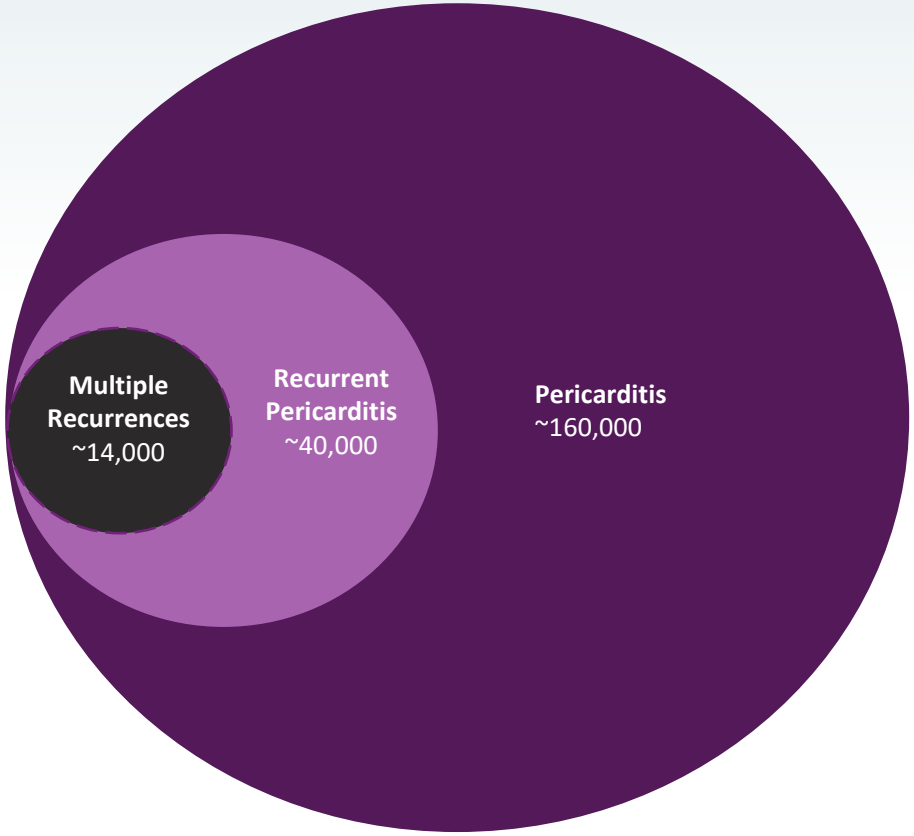
RIGHTS: Kiniksa has worldwide rights[3] (excluding MENA) for all indications outside those in oncology and local administration to the eye or ear

KINIKSA

1) ARCALYST is also approved and marketed for Cryopyrin-Associated Periodic Syndromes (CAPS) and maintenance of remission of Deficiency of Interleukin-1 Receptor Antagonist (DIRA) in the United States;
2) Drugs@FDA: ARCALYST Prescribing Information, Ilaris Prescribing Information, Kineret Prescribing Information; Kaiser et al. Rheumatol Int (2012) 32:295–299; Theodoropoulou et al. Pediatric Rheumatology 2015, 13(Suppl 1):P155; Fleischmann et al, 2017 ACR/ARHP Abstract 1196; Kosloski et al, J of Clin Pharm 2016, 56 (12) 1582-1590; Cohen et al. Arthritis Research & Therapy 2011, 13:R125; Cardiel et al. Arthritis Research & Therapy 2010, 12:R192; Hong et al. Lancet Oncol 2014, 15: 656-666; 3) Kiniksa granted Huadong Medicine exclusive rights in the Asia Pacific Region, excluding Japan;
IL-1α = interleukin-1α ; IL-1β = interleukin-1β; MENA = Middle East North Africa

Pericarditis Epidemiology

Of the 14,000 target population with multiple recurrences, there is a high turnover of ~50% of patients each year, meaning ongoing opportunities to ensure diagnosis and targeted treatment



All figures annual period prevalence

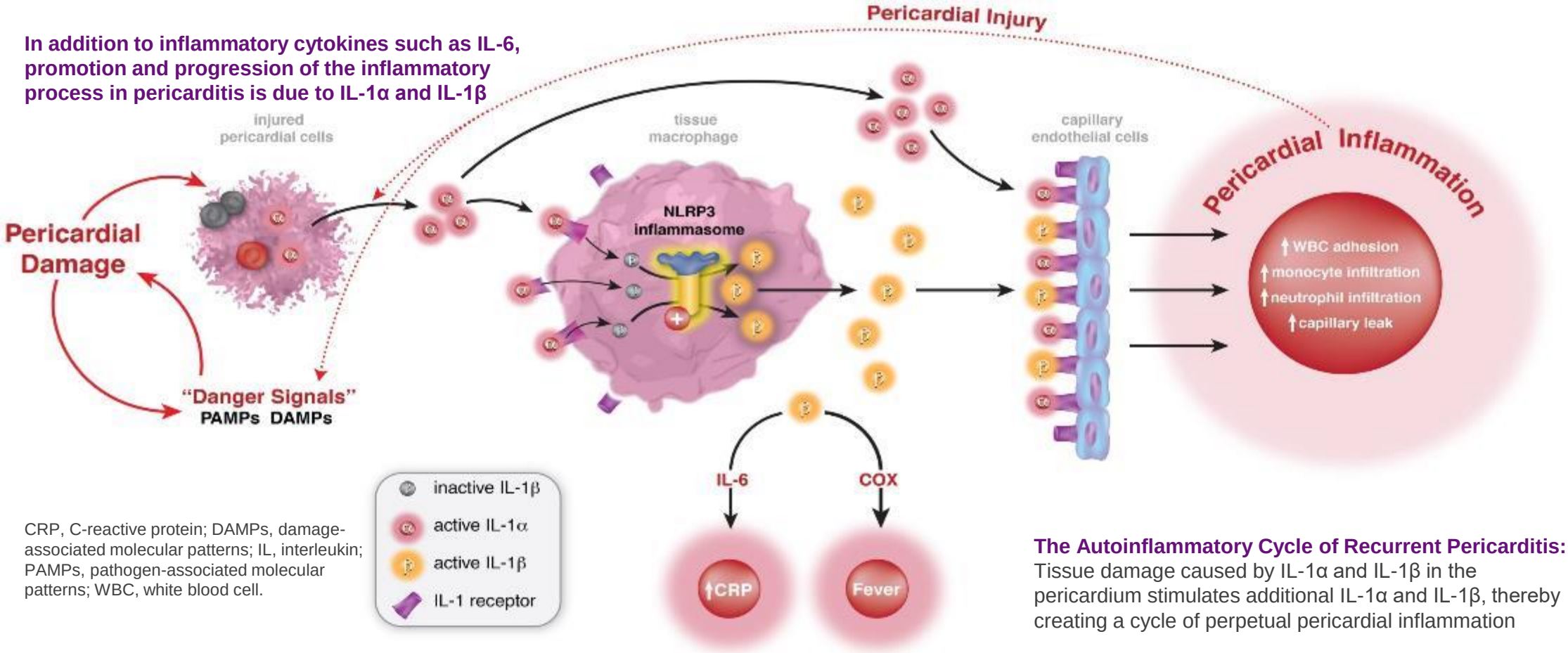
Approximately 14,000 recurrent pericarditis patients in the U.S. suffer from persistent underlying disease, with multiple recurrences and inadequate response to conventional therapy[1]

- **~160,000:** Epidemiological analysis using large national surveillance databases to calculate the pooled annualized prevalence of pericarditis ***(Basis for Orphan Drug Designation)[2]***
- **~40,000:** Up to 30% experience at least one recurrence; some recur over multiple years[3,4]
- **~14,000:** Nearly 50% annual turnover with ~7,000 patients entering into the pool each year[5]

1) Cremer et al. American Journal of Cardiology. 2016;2311-2328; 2) DOF, Kiniksa Pharmaceuticals, Ltd.; 3) Imazio et al. Circulation. 2005;112:2012-2016; 4) Adler et al. Circulation. 1998;97:2183-2185; 5) Klein A, Cremer P, Kontzias A, et al. US database study of clinical burden and unmet need in recurrent pericarditis. J Am Heart Assoc. 2021; 10:e018950. doi:10.1161/JAHA. 120.018950

Role of IL-1α and IL-1β in the Autoinflammatory Cycle of Recurrent Pericarditis

In addition to inflammatory cytokines such as IL-6, promotion and progression of the inflammatory process in pericarditis is due to IL-1α and IL-1β



CRP, C-reactive protein; DAMPs, damage-associated molecular patterns; IL, interleukin; PAMPs, pathogen-associated molecular patterns; WBC, white blood cell.

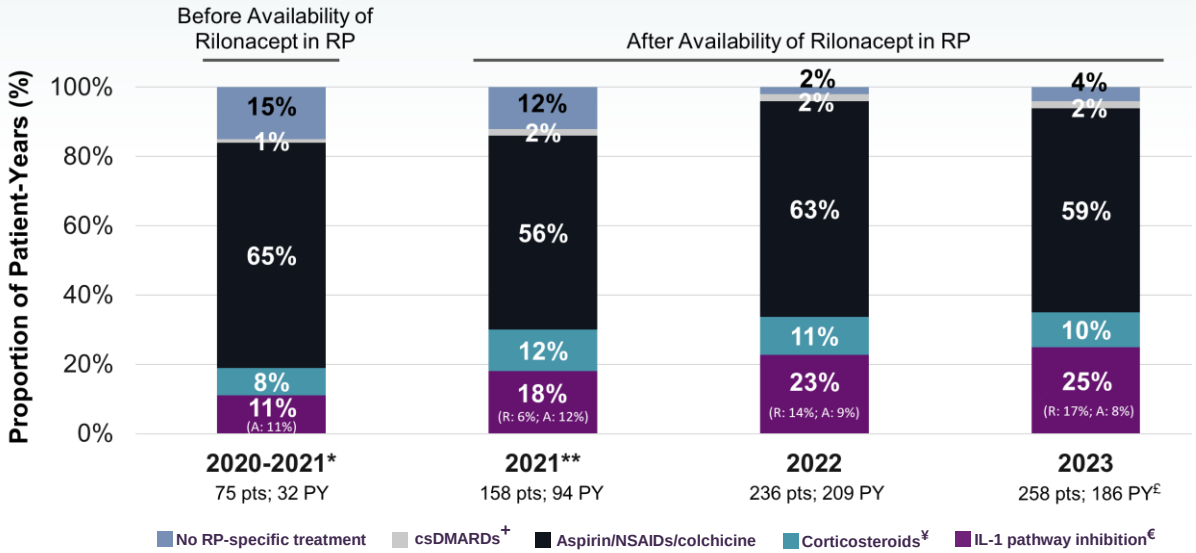
The Autoinflammatory Cycle of Recurrent Pericarditis: Tissue damage caused by IL-1α and IL-1β in the pericardium stimulates additional IL-1α and IL-1β, thereby creating a cycle of perpetual pericardial inflammation

Brucato A, et al. Int Emerg Med 2018 https://doi.org/10.1007/s11739-018-1907-x
Dinarello CA, et al. Nat Rev Drug Discov 2012;11:633-652

RESONANCE: Growing Adoption of ARCALYST as a Steroid-Sparing Therapy[1,2]

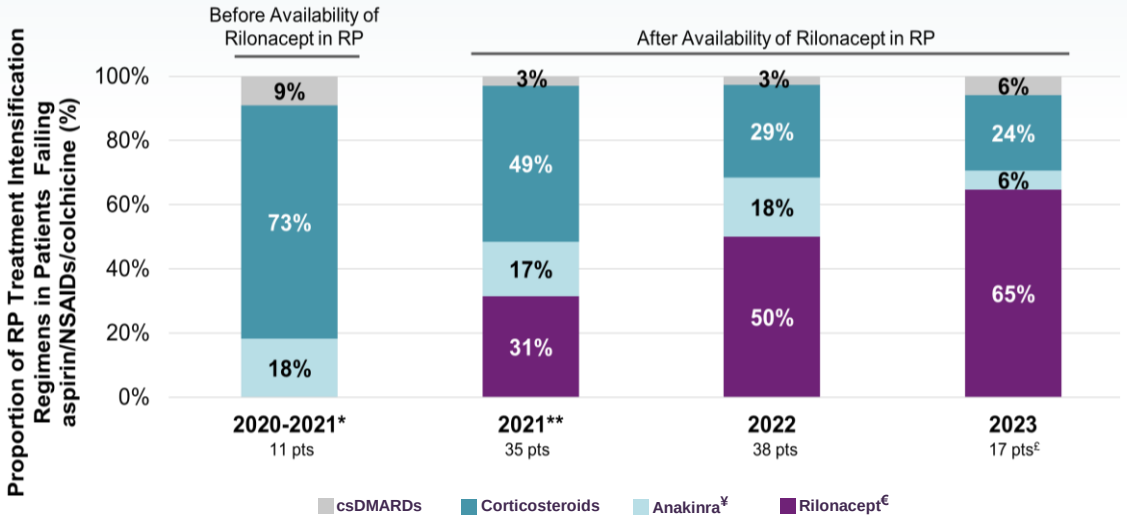
RESONANCE is an ongoing observational registry in up to 500 patients from 29 US sites, collecting real-world data on RP natural history and disease management over a 6-year intensive-observation period

The proportion (n=264) of IL-1 pathway inhibition use increased from 11% of patient-years before ARCALYST availability to 25% of patient-years in 2023, with ARCALYST use driving this observed shift



A = anakinra; R = rilonacept; *Partial year prior to rilonacept availability; **Partial year after rilonacept availability April 1, 2021 – Dec 31, 2021
# Not mutually exclusive, pts could contribute whole/fractions of PY to multiple medication classes (i.e., includes combination therapy & sequential therapy)
€ 24% of pts using anakinra went on to use rilonacept; of those, 9% used anakinra for ≤30 days (possibly as short-term bridge therapy)
¥ 16% of pts who utilized steroids did so as short-term bridge therapy (≤30 days) before transitioning to rilonacept
+ Includes azathioprine, methotrexate, hydroxychloroquine/Plaquenil®, sulfasalazine
£ Data censored at last check-in visit
Total absolute pt counts: rilonacept (n=89); anakinra (n=45), corticosteroids (n=85), aspirin/NSAIDs/colchicine (n=239), csDMARDs (n=12)
csDMARDs: conventional disease-modifying antirheumatic drugs

In a sub-analysis of patients failing Aspirin/NSAIDs/Colchicine (n=101), substantially more patients transitioned to ARCALYST, and fewer patients transitioned to steroids over time

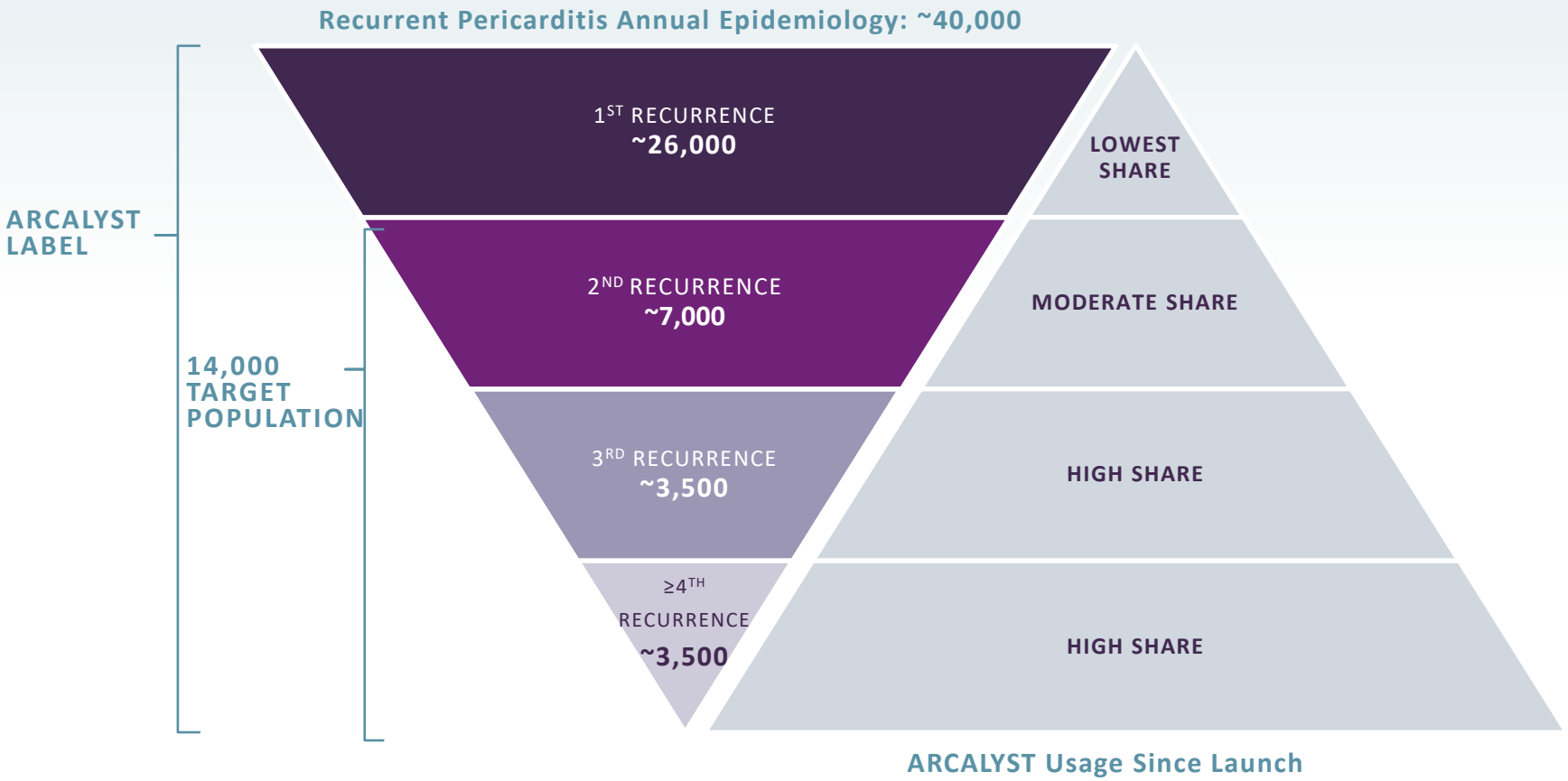


*Partial year 2021 prior to rilonacept availability on April 1, 2021; **Partial year 2021 after rilonacept availability after April 1, 2021
€ Of 41 pts starting rilonacept after aspirin/NSAIDs/colchicine, 4 pts utilized steroids as a short-term bridge prior to starting rilonacept (1 pt in 2021, 2 pts in 2022, 1 pt in 2023); 1 pt (in 2022) utilized anakinra as a short-term bridge prior to starting rilonacept
¥ Of 16 pts starting anakinra after aspirin/NSAIDs/colchicine, 3 pts utilized steroids as a short-term bridge prior to starting anakinra (1 pt in 2021, 2 pts in 2022)
£ Data censored at last check-in visit
csDMARDs: conventional disease-modifying antirheumatic drugs

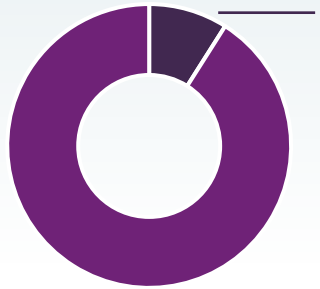
This interval analysis included medication class use data from study start (March 2021) until data cutoff (Feb 15, 2024) collected from 21 US sites

1. Luis, S, Cremer, P, Raisinghani, A. et al. Rilonacept utilization in a steroid-sparing paradigm for recurrent pericarditis: real world evidence demonstrating increased adoption. *J Am Coll Cardiol*. 2024 Apr, 83 (13_Supplement) 408; **2.** Clinicaltrials.gov NCT04687358

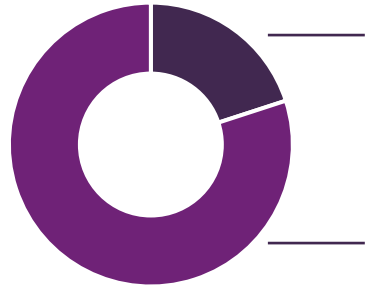
Commercial Experience Highlights Successful Targeting Strategy with Further Upside Potential



SIGNIFICANT MARKET POTENTIAL



ARCALYST PATIENTS BY FLARE STATUS AT INITIATION[1]



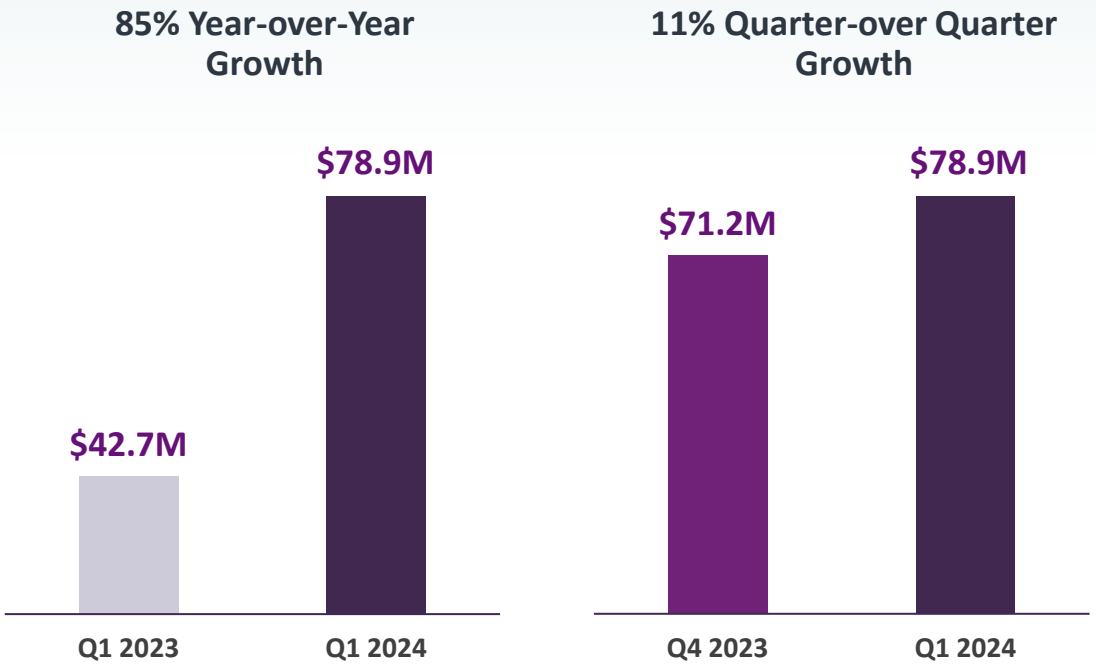
Commercial nationwide experience demonstrates the vast majority of patients are within the target population of 14K multiple-recurrent patients, while the broad label allows for additional upside

Klein A, Cremer P, Kontzias A, Furqan M, Tubman R, Roy M, Magestro M. Annals of Epidemiology. 2019;36:71; Lin D, Majeski C, DerSarkissian M, Magestro M, Cavanaugh C, Laliberte F, Lejune D, Mahendran M, Duh M, Klein A, Cremer P, Kontzias A, Furqan M, Tubman R, Roy M, Mage. (Nov, 2019). Real-World Clinical Characteristics and Recurrence Burden of Patients Diagnosed with Recurrent Pericarditis in the United States. Poster session presented at the American Heart Association, Philadelphia, PA.

1) Kiniksa Pharmaceuticals data on file 2024. 2) Other late line agents include anakinra, azathioprine, methotrexate

Strong ARCALYST Growth Driven by Robust Commercial Execution

Significant Net Revenue Growth



Key Revenue Drivers[1]

Total Prescribers (Since Launch)	**~2,000**
Repeat Prescribers (% of Total)	**~24%**
Payer Approval (% of Completed Cases)	**>90%**
Average Total Duration of Therapy	**~23 months**
Patient Compliance	**>85%**

1) Data since launch through 3/31/2024

Key Executional Priorities to Drive Greater Patient and Physician Adoption

Identify appropriate patients and drive a proactive mindset with physicians and patients

Close the ARCALYST **knowledge gap** with physicians

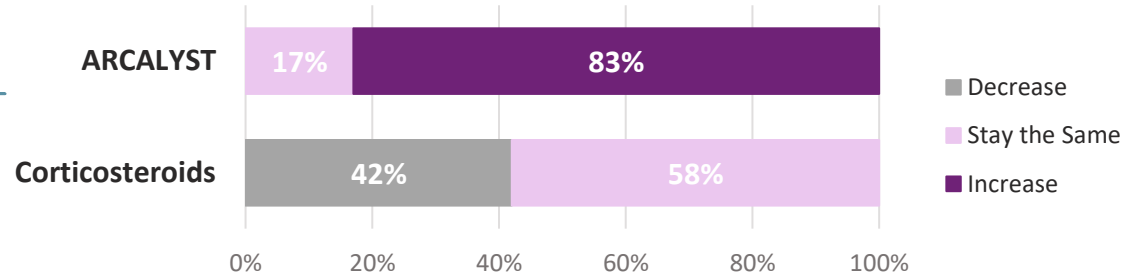
Advance the **treatment paradigm**

Educate on **duration of disease** and treatment

Externally: U.S. thought leaders have introduced treatment paradigms for recurrent pericarditis that recommend IL-1 antagonists, such as ARCALYST, be used ahead of corticosteroids[1]

Our Aim: Continue to drive the evolution of this treatment paradigm

Intended Future Use Among Target Healthcare Providers[2]



- Target physicians who have knowledge of ARCALYST-overwhelmingly expect to **increase their prescribing of ARCALYST in next 6 months**
- The biggest barriers for physicians to prescribing ARCALYST are **limited knowledge about the product and/or perception of the payer approval process**

1) Dong, Klein, Wang. Paradigm Shift in Diagnosis and Targeted Therapy in Recurrent Pericarditis. Springer Nature. 2023.; Klein, Cremer, Kafil. Recurrent Pericarditis A Promising Future for IL-1 Blockers in Autoinflammatory Phenotypes. Journal of the American College of Cardiology, Editorial Comment. 2023.; Thomas, Bonaventura, Vecchié, et al. Interleukin-1 blockers for the treatment of recurrent pericarditis: pathophysiology, patient reported outcomes and perspectives. Journal of Cardiovascular Pharmacology. 2023.; Imazio, Mardigyan, Andreis, et al. New developments in the management of recurrent pericarditis. Canadian Journal of Cardiology. 2023.; Kumar, Khubber, Reyaldeen, et al. Advances in Imaging and Targeted Therapies for Recurrent Pericarditis. JAMA Cardiology Review. 2022.; Sushil, Cremer, Raisinghani.
2) HCP Market Research, Q3 2023; Kiniksa Data on File.

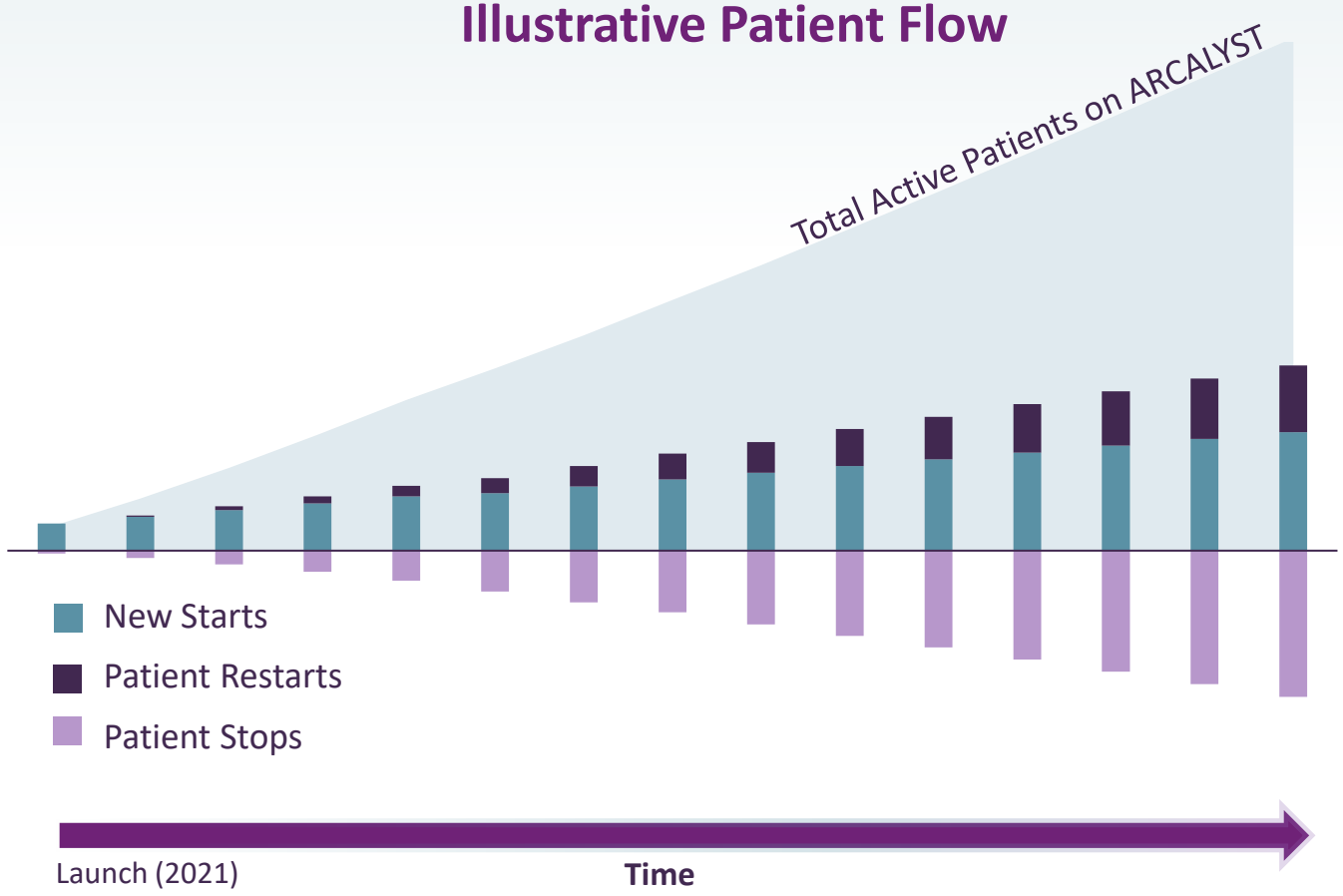
Growth in Total Patients on ARCALYST Therapy

Acceleration in new-to-brand and restart patients offset higher patient stops over time

ARCALYST Patient Flow

New to Brand Patients	Strong sequential growth: ~2,000 unique prescribers; ~24% of which are repeat prescribers
−	
Patient Stops	Increases over time as base of active ARCALYST patients grows with Initial Starts and Restarts
+	
Patient Restarts	Increases over time as patient stops increase; currently ~45% after ~8 weeks
=	
Active Patients	Increases over time driven by new-to-brand and restart growth; as of Q4 2023, ~9% of 14K multiple recurrence target patient population

Illustrative Patient Flow



Average Total Duration of ARCALYST Therapy: ~23 Months[1]

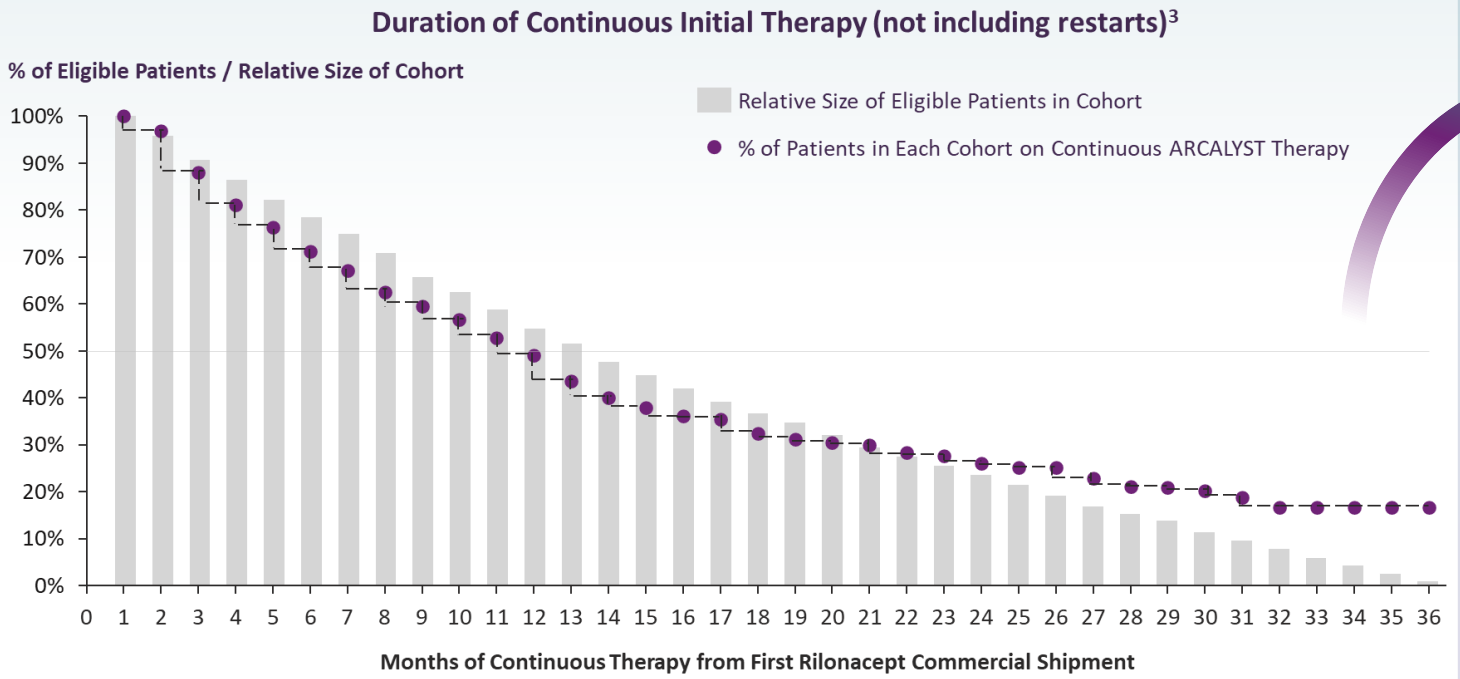
Advancing the treatment paradigm to treat continuously throughout disease duration (median 3 years[2])

Average
Initial
Duration of Therapy

~15 Months[1]

Median
Initial
Duration of Therapy

~12 Months[1]



~45%

Of Patients Restarted Therapy Following Initial Discontinuation

(Within ~8 weeks)

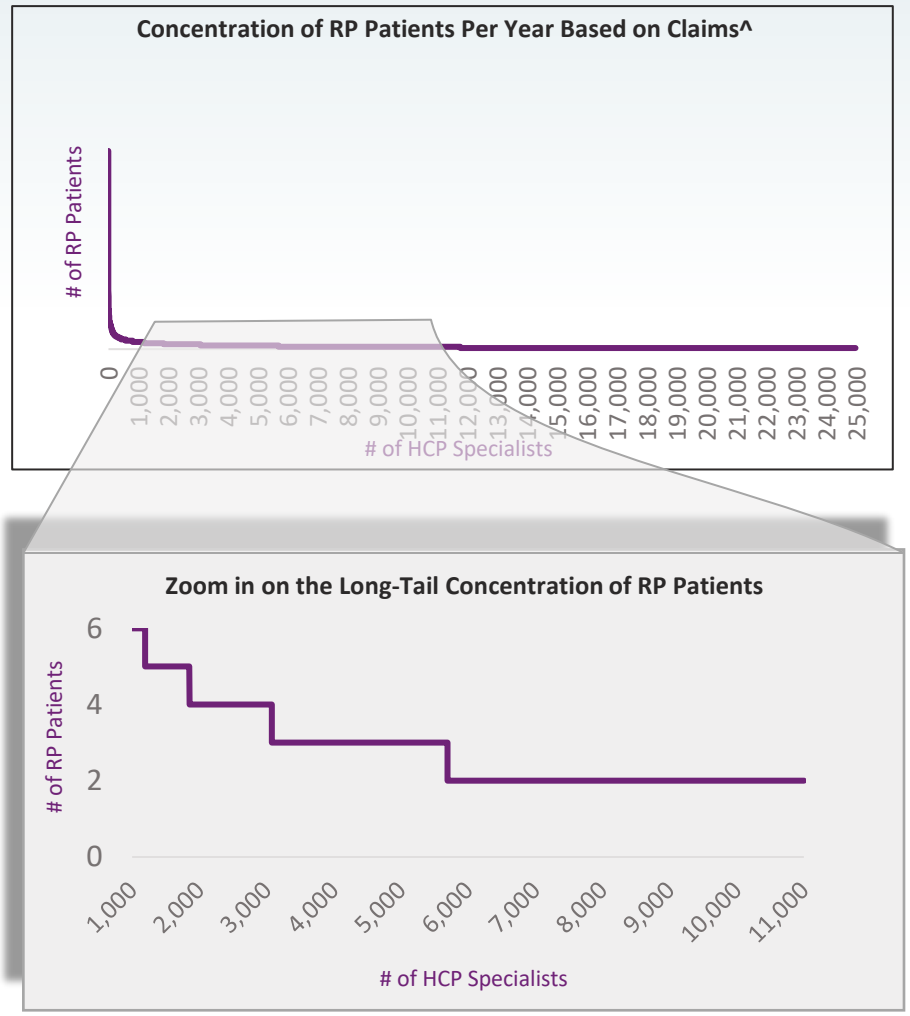
~23 Months Average ***Total*** Duration of Therapy After Accounting for Patient Restarts

1) As of Q1 2024; 2) Lin D, Laliberté F, Majeski C, et al. Disease and economic burden associated with recurrent pericarditis in a privately insured United States population. Adv Ther. 2021;38(10):5127-5143. doi:10.1007/s12325-021-01868-7; 3) Initial continuous therapy is determined to have ended if greater than 28 days elapses beyond the exhaustion date of a patient's most recent days supplied without an observed refill of ARCALYST

Evolving ARCALYST Field Strategy

Targeting an increased number of top and mid-tier physicians

The recurrent pericarditis population is widely dispersed



Data driven expansion to field sales team

Q4 2022	Q4 2023
Prior expansion to create greater reach & frequency	New expansion to provide greater frequency on top tier physicians and improved coverage to the mid tier
~50 Specialty Cardiology Reps	**~85** Specialty Cardiology Reps
Reaching:	Reaching:
~6,000 top and mid tier prescribers	**~11,000** top and mid tier prescribers
~70%* of RP patients nationally	**~85%*** of RP patients nationally

- In any given year, the 14,000 multiple recurrent pericarditis patients may present to any of the >20,000 cardiologists and >5,000 rheumatologists in US
- With our field expansion, we expect to accelerate coverage and frequency among the top tier as well as the long tail of physicians who may identify recurrent pericarditis patients
  - ➢ Data-driven decisions ensured continued growth in collaboration profitability following the prior expansion
  - ➢ With the new expansion, we have the opportunity to meaningfully increase frequency on prior field targets and to reach new health care providers that have no prior field interactions

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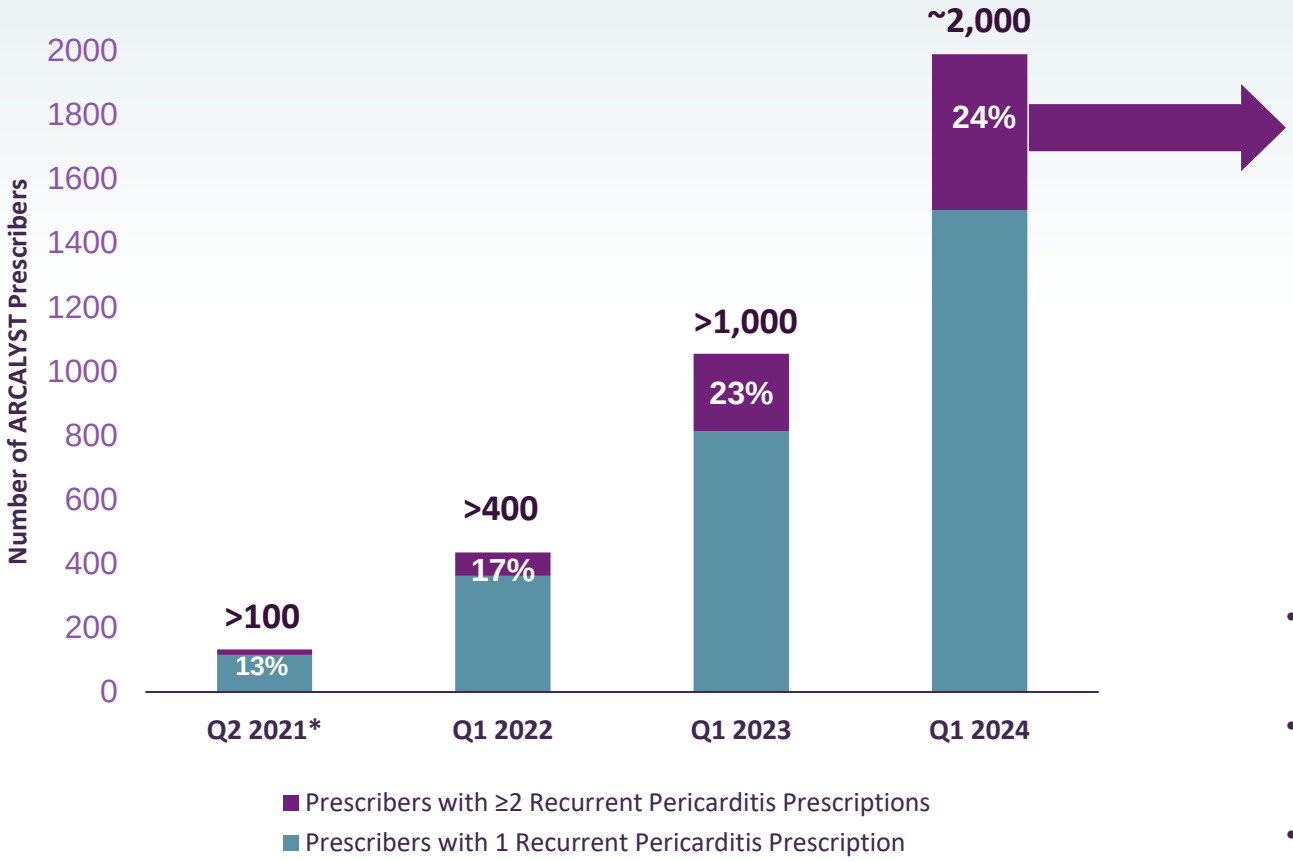
*Including targets, prospects, and opportunistic calls to non-targets

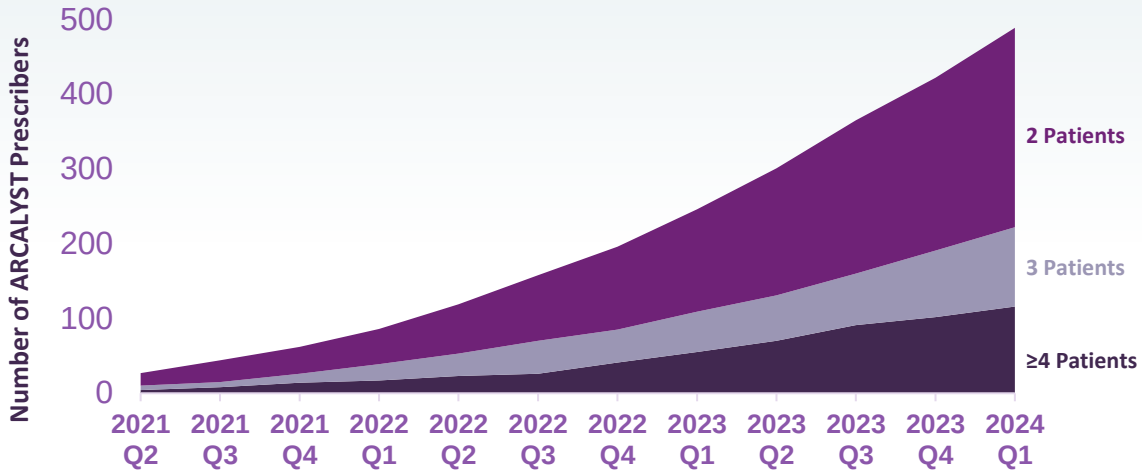
^Internal analysis based on Komodo Claims Data; includes patients with at least 1 recurrence

Opportunity for Continued ARCALYST Growth Remains High

Total and Repeat Prescribers of ARCALYST for Recurrent Pericarditis Patients



The Growing Repeat Prescriber Base is Delivering >40% of All New Patient Prescriptions



- Strong year-over-year growth in total prescribers, with **both new** (+89%) **and repeat** (+101%) **prescribers**
- Both physicians and patients are gaining **positive experiences with ARCALYST** as the first and only approved therapy for recurrent pericarditis[1]
- Cardiologist market research shows a steady **increase in their level of comfort with prescribing biologics**[1]

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* First quarter of ARCALYST commercial availability in recurrent pericarditis
1) Kiniksa data on file

Pricing, Access and Distribution Considerations

Pricing

- ARCALYST list price of $22,603 per month

  Based on first and only FDA-approved therapy for recurrent pericarditis, in-line with specialty biologics with Breakthrough Therapy and Orphan Drug designation

- Helping to ensure **patient affordability** and access to treatment is one of our core principles and to this end, we offer a suite of programs to support affordability to eligible patients who are prescribed ARCALYST; eligible patients are able to get ARCALYST for a copay of as low as $0

Access

- Kiniksa's goal is to maintain rapid and broad access to ARCALYST for patients with Recurrent Pericarditis, CAPS, and DIRA
- Payer mix for ARCALYST is largely **commercial (~70%)**
- Payer engagement has increased awareness of recurrent pericarditis and the differentiated value of ARCALYST
- The **Kiniksa OneConnect™** program is a personalized treatment support program for patients prescribed ARCALYST

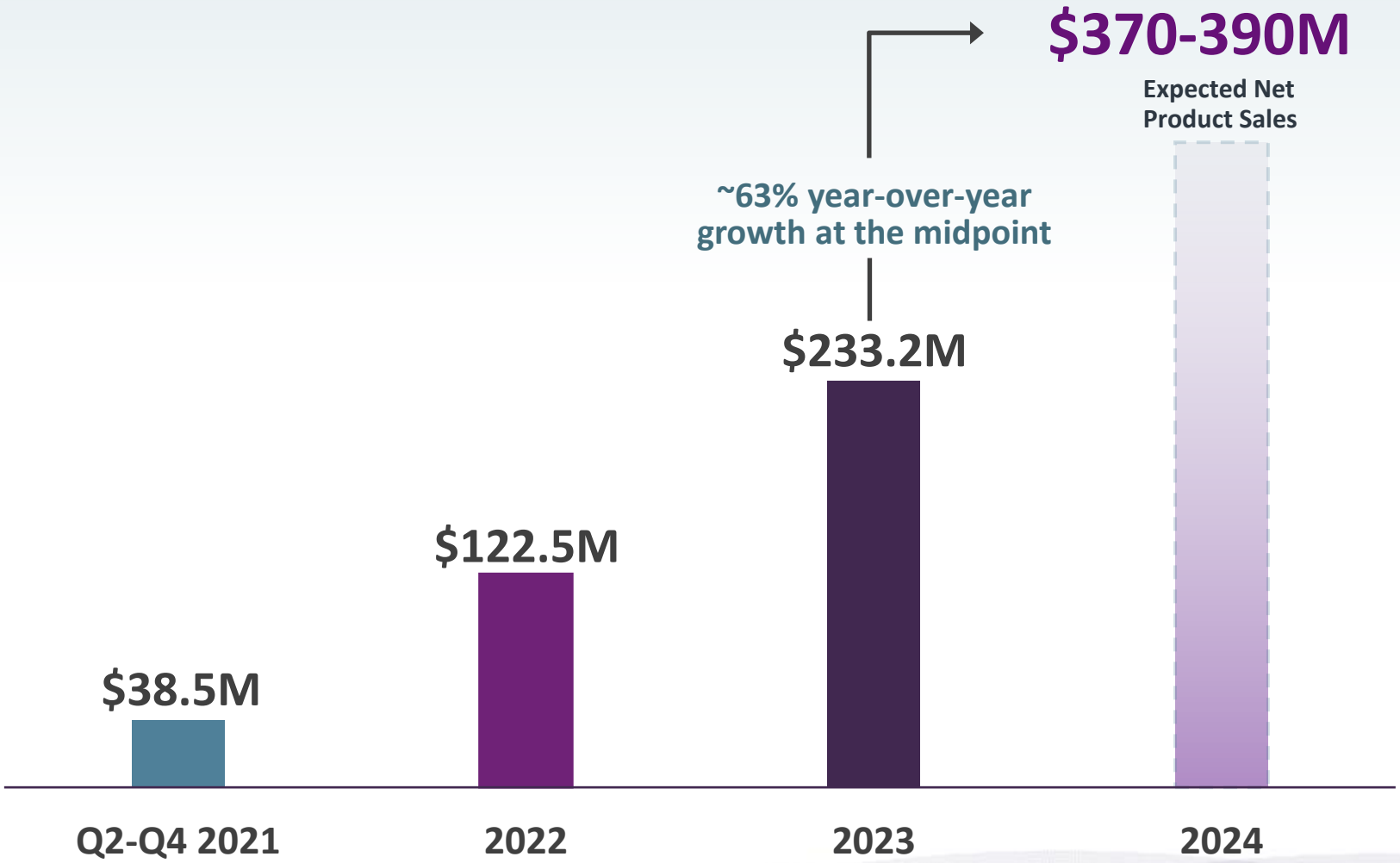
Distribution

- ARCALYST is distributed **through a closed network of designated specialty pharmacies and the Veterans Affairs**
- The distribution network for ARCALYST was developed to provide a high and consistent level of patient support with broad access. Network pharmacies provide customized services to support patients

CAPS = Cryopyrin-Associated Periodic Syndromes ; DIRA = Deficiency of IL-1 Receptor Antagonist

2024 ARCALYST Net Product Sales Guidance

Well-positioned to expand the breadth and depth of ARCALYST in recurrent pericarditis



Summary of ARCALYST Profit Share Arrangement with Regeneron[1]

- Kiniksa is responsible for sales and distribution of ARCALYST in all approved indications in the United States.
- Kiniksa's license to ARCALYST includes worldwide rights*, excluding MENA, for all applications other than those in oncology and local administration to the eye or ear.
- Kiniksa covers 100% of development expenses related to approval of additional indications.
- Kiniksa evenly splits profits on ARCALYST sales and licensing proceeds with Regeneron

1) Subject to description contained in definitive agreement; 2) Global net sales for CAPS, DIRA and recurrent pericarditis recognized as revenue on Kiniksa's income statement; 3) Profit Split-Eligible Cost of Goods Sold = total cost of goods sold - amortization of Regeneron milestone payment
*Kiniksa exclusively licensed rights for the development and commercialization of ARCALYST in APAC (ex-Japan) to Huadong Medicine
CAPS = Cryopyrin-Associated Periodic Syndromes; DIRA = Deficiency of the Interleukin-1 Receptor Antagonist; MENA =Middle East and North Africa; APAC = Asia Pacific Region

ABIPRUBART

ANTI-CD40 MONOCLONAL ANTIBODY INHIBITOR OF THE CD40-CD154 CO-STIMULATORY INTERACTION

DISEASE AREA: Sjögren's Disease, an immune system disease characterized by autoimmune-driven destruction of the salivary and tear glands as well as arthritis, kidney, and lung dysfunction

SCIENTIFIC RATIONALE[1,2]: Attractive target for blocking T-cell dependent, B-cell–mediated autoimmunity; external proof-of-concept previously established in broad range of autoimmune diseases: Sjögren's Disease, systemic lupus, solid organ transplant and Graves' Disease[3,4]

STATUS: Plan to initiate a Phase 2b trial in Sjögren's Disease in the second half of 2024

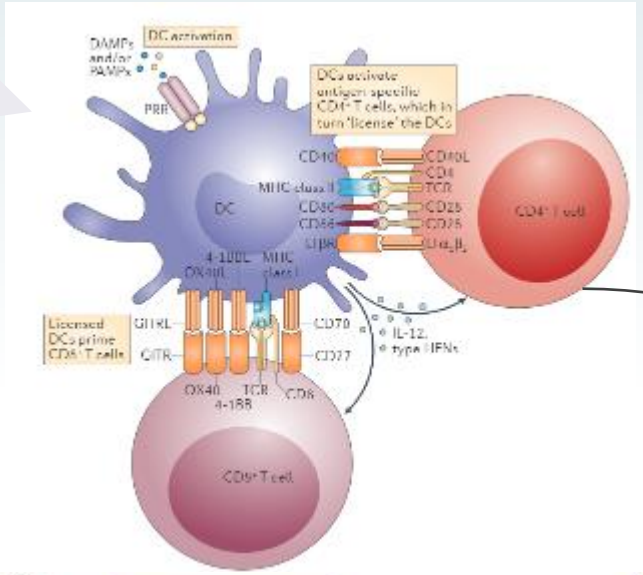
ECONOMICS: Negligible clinical and regulatory milestones and royalty on annual net sales

RIGHTS: Worldwide

Sources: 1) Elgueta, et al. Immunol Rev 2009, 229 (1), 152-172; 2) Peters, et al. Semin Immunol 2009, 21 (5) 293-300 3) Muralidharan et al. Preclinical immunopharmacologic assessment of KPL-404, a novel, humanized, non-depleting antagonistic anti-CD40 monoclonal antibody. J Pharmacol Exp Ther. 2022, 381(1):12-21. 4) Samant M, Ziemniak J, Paolini JF. First-in-Human Phase 1 Randomized Trial with the Anti-CD40 Monoclonal Antibody KPL-404: Safety, Tolerability, Receptor Occupancy, and Suppression of T-Cell-Dependent Antibody Response. J Pharmacol Exp Ther. 2023 Dec;387(3):306-314.

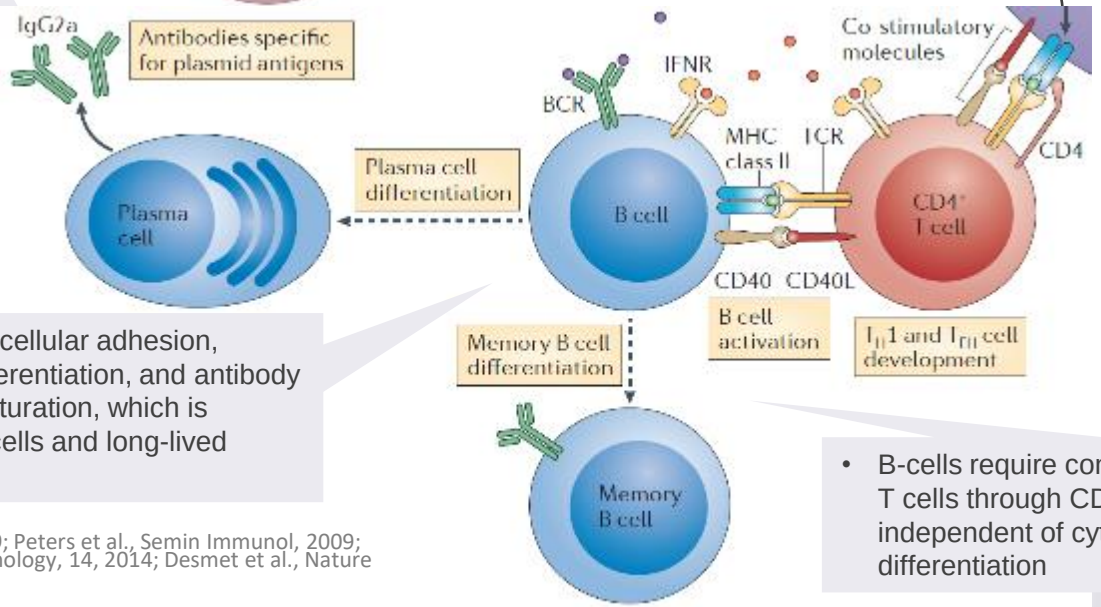
CD40/CD154 Interaction: Essential Immune Pathway for T-Cell Priming and T-Cell Dependent B-Cell Responses

- CD40 is expressed on the surface of dendritic cells, B-cells, antigen-presenting cells and non-immune cell types
- Its ligand, CD40L (CD154), is expressed by activated T-cells, platelets, and other cell types



- CD40 ligation on DCs induces cell maturation by promoting antigen presentation and enhancing their costimulatory activity
- Mature DCs stimulate activated T-cells to increase IL-2 production that facilitates T-helper cells (Th) and cytolytic T-Lymphocyte (CTL) expansion
- CD40-stimulated DCs also secrete cytokines favoring Th1 cell differentiation and promoting Th cell migration to sites of inflammation
- CD40 ligation also provides a pro-inflammatory signal within the mononuclear phagocyte system

- Humoral immunity is dependent on a thriving B cell population and activation by Th cells; blockade of CD40-CD40L interaction has been shown to completely ablate primary and secondary TDAR response



- CD40 engagement triggers B-cell intercellular adhesion, sustained proliferation, expansion, differentiation, and antibody isotype switching leading to affinity maturation, which is essential for generation of memory B cells and long-lived plasma cells

- B-cells require contact-dependent stimulus from T cells through CD40-CD40L interaction independent of cytokines to trigger growth and differentiation

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Sources: Elgueta et al., Immunol Rev, 2009; Peters et al., Semin Immunol, 2009; Kambayashi et al., Nature Reviews: Immunology, 14, 2014; Desmet et al., Nature Reviews: Immunology, 12, 2012

Abiprubart Has Potential to Provide Meaningful and Differentiated Benefit to Patients with Sjögren's Disease

Unmet Need for Patients: No FDA-Approved Therapies

Sjögren's Disease is a debilitating disease characterized by autoimmune-driven destruction of the salivary and tear glands as well as arthritis, kidney, and lung dysfunction

Biological Rationale for CD40 Inhibition in Sjögren's Disease

There is substantial **external proof-of-concept** that the inhibition of the CD40-CD154 co-stimulatory interaction could be an efficacious therapeutic approach for Sjögren's Disease

Abiprubart Differentiation Potential

The **clear biological activity** and **favorable pharmacokinetics** of abiprubart have enabled **convenient chronic subcutaneous dosing** and could provide significant differentiation versus other assets in development for Sjögren's Disease

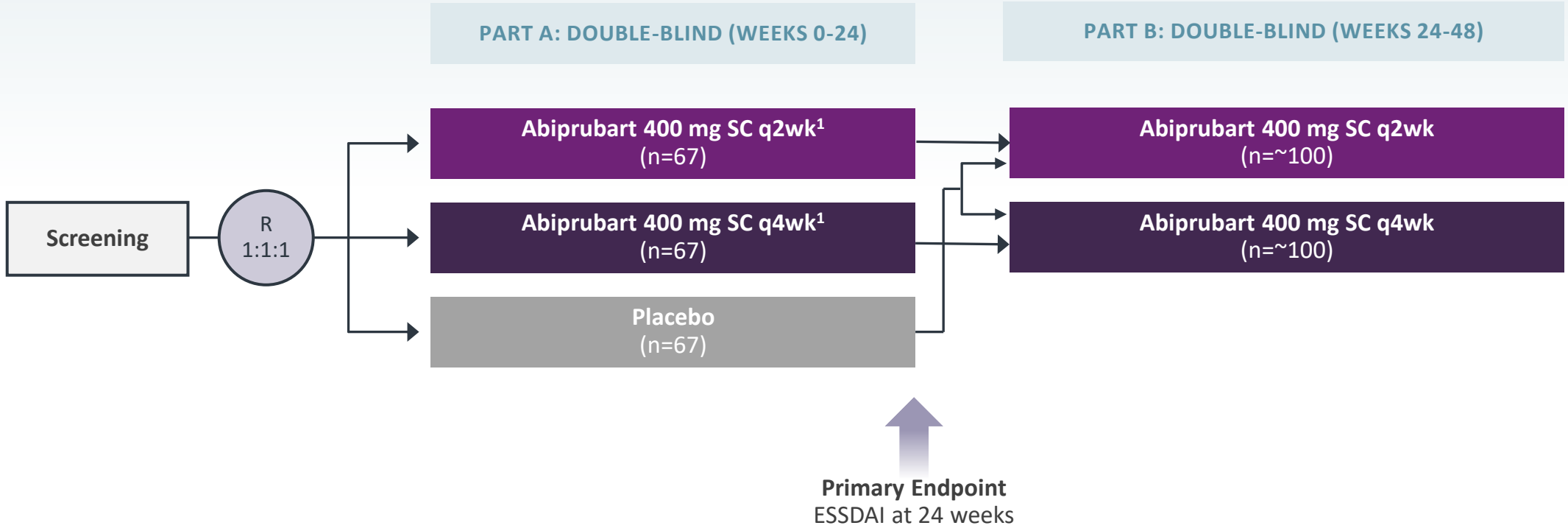
~50% of these patients are believed to be addressable with biologic therapies[2]

Additional addressable population outside of the US

1) Maciel, G., Crowson, C.S., Matteson, E.L. and Cornec, D. (2017), Prevalence of Primary Sjögren's Syndrome in a US Population-Based Cohort. Arthritis Care & Research, 69: 1612-1616. https://doi.org/10.1002/acr.23173
2) Kiniksa primary market research

Planned Abiprubart Phase 2b Trial in Sjögren's Disease

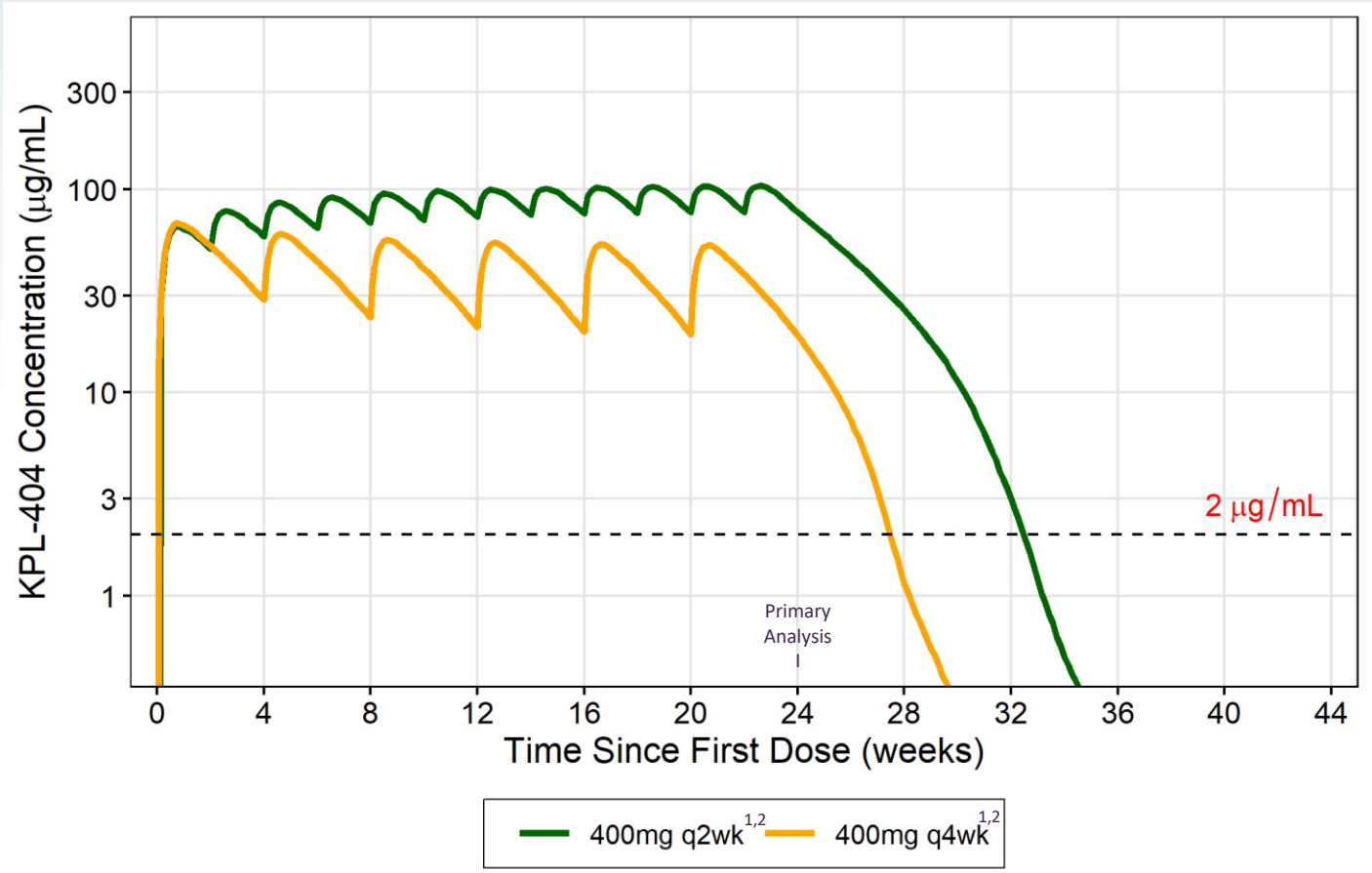
Trial is expected to initiate in the second half of 2024



- Patients randomized to abiprubart groups in Part A will continue the same treatment assignment in Part B (without unblinding to prior treatment assignment)
- Patients randomized to Placebo in Part A will also be randomized 1:1 to an abiprubart treatment arm in Part B (without unblinding to prior treatment assignment)

1) Both abiprubart dosing groups include an 800mg loading dose on Day 1
SC = subcutaneous; q2wk = every other week; q4wk = every four weeks; R = Randomization; ESSDAI = EULAR Sjögren's Syndrome Disease Activity Index

PK-Modeling and Dose Simulations for the Phase 2b Sjögren's Disease Trial

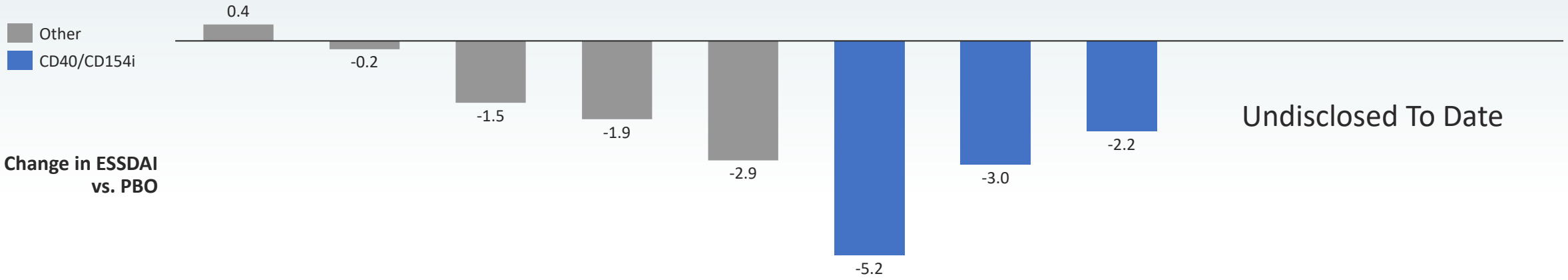


Complete RO & TDAR Suppression

Modeling data generated based on PK data from Cohorts 1-4 of the abiprubart Phase 2 trial in rheumatoid arthritis as well as Phase 1 data from healthy volunteers

1) All doses are subcutaneous; 2) Both abiprubart dosing groups include an 800mg loading dose on Day 1
RO = receptor occupancy; TDAR = T-Cell Dependent Antibody Response

PoC Results from Iscalimab (anti-CD40) and Dazodalibep (anti-CD154) Show Promise for CD40/CD154 Inhibition in Sjögren's Disease Relative to Other Tested MoAs



	Abatacept	Petesicatib	Prezalumab	Lanalumab	Remibrutinib	Iscalimab (Ph2a)	Iscalimab (Ph2b)	Dazodalibep	Frexalimab	Nipocalimab	Efgartigimod
Company	Bristol Myers Squibb	Roche	AstraZeneca	Novartis	Novartis	Novartis	Novartis	Horizon	Sanofi	Johnson & Johnson	Argenx
Mechanism	CTLA4	Cathepsin S	ICOS	BAFFi	BTKi	CD40i	CD40i	CD154i	CD154i	FcRN	FcRN
Regimen	125mg SC qwk	100mg PO BiD	210mg SC qwk	300mg SC qm	100mg PO qd/BiD	10mpk IV qm	150mg q2wk	1,500mg IV qm	IV Load / q2wk SC	IV q2wk	IV
Timepoint	Wk 24	Wk 12	Wk 14	Wk 24	Wk 24	Wk 12	Wk 24	Wk 24	Wk 12	Wk 24	Wk 24
N per Arm	92	38	13 v. 16 PBO	47	49	21 v. 11 PBO	~87	~37	~42	~54	~18
Statistical Significance?	No (P=0.442)	No (P=0.890)	No (P=0.262)	No (P=0.092)	Yes (P=0.003)	Yes (P=0.009)	Yes (P<0.005)	Yes (P=0.017)	N/A* (undisclosed)	Yes (undisclosed)	Yes (undisclosed)

*The data confirmed pharmacologic activity and well-tolerated safety profile but not the necessary efficacy outcomes to continue to move forward the development in this indication

Sources: 1) Baer et al., Anne Rheum Dise 2021; 80:339-348 (10.1136/annrheumdis-2020-218599); 2) https://clinicaltrials.gov/ct2/show/results/NCT02701985; 3) https://www.clinicaltrialsregister.eu/ctr-search/trial/2014-003896-41/results; 4) Bowman et al., Lancet 2022 (https://doi.org/10.1016/ S0140-6736(21)02251-0); 5) ACR Convergence Abstract Presentation; 6) Fisher et al., Lancet Rheumatol 2020 (https://doi.org/10.1016/S2665-9913(19)30135-3); 7) ACR2023 abstract 8) Horizon PR 12Sept2022; 9) Sanofi PR 25April2024

PoC = proof of concept; MoA = mechanism of action; ESSDAI = EULAR Sjögren's Syndrome Disease Activity Index; PBO = placebo; SC = subcutaneous; IV = intravenous; qwk = every week; q2wk = every other week; qm = every month; qd = once a day; BiD = twice a day; PO = by mouth

Abiprubart Phase 2 Trial in Rheumatoid Arthritis

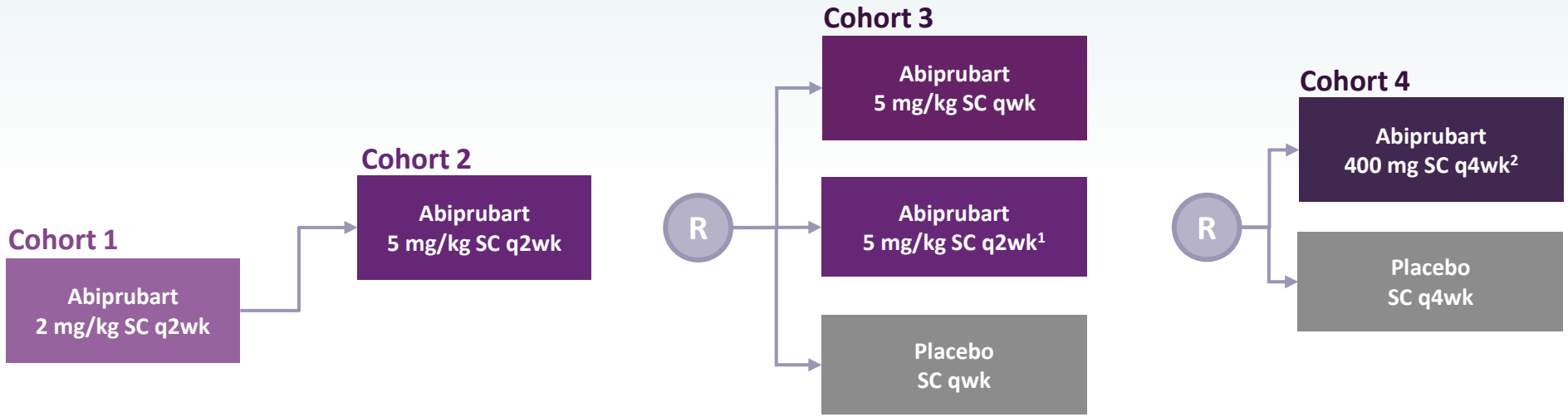
Study to evaluate the efficacy, dose response, PK, and safety of chronic SC dosing over a 12-week treatment duration

PATIENT POPULATION:

- Patients with active RA who have been treated with a biological disease-modifying anti-rheumatic drug (bDMARDs) AND/OR Janus kinase inhibitor (JAKi) therapy for RA for ≥ 3 months and who have had inadequate response or have had to discontinue bDMARD and/or JAKi therapy due to intolerance or toxicity, regardless of treatment duration.

DISEASE CRITERIA:

- Six or more swollen joints and ≥ 6 tender joints at screening and baseline line visits; levels of high sensitivity C-reactive protein ≥ 5 mg/L; seropositivity for serum RF and/or ACPA at screening.



PK Lead-In: Cohorts 1-2

- Each cohort sequentially randomized 8 patients in a 3:1 (active:placebo) ratio; placebo recipients from Cohorts 1 and 2 were pooled
- Primary Endpoints:
  - Incidence of treatment-emergent adverse events (TEAEs)
  - Pharmacokinetics (C_{max}, $AUC_{(0-t)}$)
- Secondary Efficacy Endpoint:
  - Change from baseline in DAS28-CRP at Week 12

Proof of Concept: Cohorts 3-4

- Cohort 3 randomized 78 patients in a 1:1:1 ratio (n~26/arm)
- Cohort 4 randomized 51 patients in a 3:2 ratio (n=~20-30/arm)
- Primary Efficacy Endpoint:
  - Change from baseline in DAS28-CRP at Week 12
- Secondary Endpoints :
  - Incidence of treatment-emergent adverse events (TEAEs)
  - Pharmacokinetics (C_{max}, $AUC_{(0-t)}$)

1) The 5 mg/kg SC q2wk group will receive weekly administrations of alternating active investigational product and matching blinded placebo
2) The Cohort 4 Abiprubart 400mg SC q4wk group includes a 600mg loading dose on Day 1

SC = subcutaneous; qwk = every week; q2wk = every other week; q4wk = every four weeks; AUC = Area Under the Curve; RF = Rheumatoid Factor; ACPA = anti-citrullinated protein antibodies, PD = Pharmacodynamics; PK = Pharmacokinetics; R = Randomization

Baseline Demographics (Cohort 3)[1]

	Abiprubart 5 mg/kg SC qwk (n=27)	Abiprubart 5 mg/kg SC q2wk (n=25)	Placebo (n=26)	Total (n=78)
Mean Age (Years)	58.5	60.0	57.6	58.7
Sex % (Male/Female)	18.5/81.5	20.0/80.0	7.7/92.3	15.4/84.6
Race				
White %; (n)	92.6 (n=25)	92.0 (n=23)	92.3 (n=24)	92.3 (n=72)
Black or African American %; (n)	3.7 (n=1)	8.0 (n=2)	7.7 (n=2)	6.4 (n=5)
Asian %; (n)	3.7 (n=1)	0	0	1.3 (n=1)
Country[2]				
United States %; (n)	29.6 (n=8)	28.0 (n=7)	38.5 (n=10)	32.1 (n=25)
Bulgaria %; (n)	0	4.0 (n=1)	11.5 (n=3)	5.1 (n=4)
Czechia %; (n)	11.1 (n=3)	4.0 (n=1)	3.8 (n=1)	6.4 (n=5)
Georgia %; (n)	7.4 (n=2)	12.0 (n=3)	11.5 (n=3)	10.3 (n=8)
Hungary %; (n)	18.5 (n=5)	4.0 (n=1)	3.8 (n=1)	9.0 (n=7)
Poland %; (n)	25.9 (n=7)	28.0 (n=7)	19.2 (n=5)	24.4 (n=19)
South Africa %; (n)	7.4 (n=2)	20.0 (n=5)	11.5 (n=3)	12.8 (n=10)

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1) Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); 2) Cohorts 1 and 2 were conducted entirely in the United States

Baseline Disease Characteristics Balanced Across Treatment Arms (Cohort 3)[1]

	Abiprubart 5 mg/kg SC qwk (n=27)	Abiprubart 5 mg/kg SC q2wk (n=25)	Placebo (n=26)	Total (n=78)
DAS28-CRP Score				
DAS28-CRP[2]	5.58	5.92	5.98	5.82
Tender Joint Count-28[2]	13.4	16.1	15.4	14.9
Swollen joints-28[2]	10.1	12.2	12.0	11.4
Patient Global Assessment[2]	6.68	6.49	6.73	6.64
C-Reactive Protein (mg/L)[2]	16.00	18.72	26.74	20.45
Mean Duration of Rheumatoid Arthritis (years)	12.24	13.50	15.47	13.72
Rheumatoid factor (IU/mL)[2]	165.21	183.45	154.62	167.53
Anti-Cyclic Citrullinated Peptide %; (n)				
Positive	74.1 (n=20)	80.0 (n=20)	76.9 (n=20)	76.9 (n=60)
Negative	22.2 (n=6)	20.0 (n=5)	23.1 (n=6)	21.8 (n=17)
Intermediate	3.7 (n=1)	0	0	1.3 (n=1)

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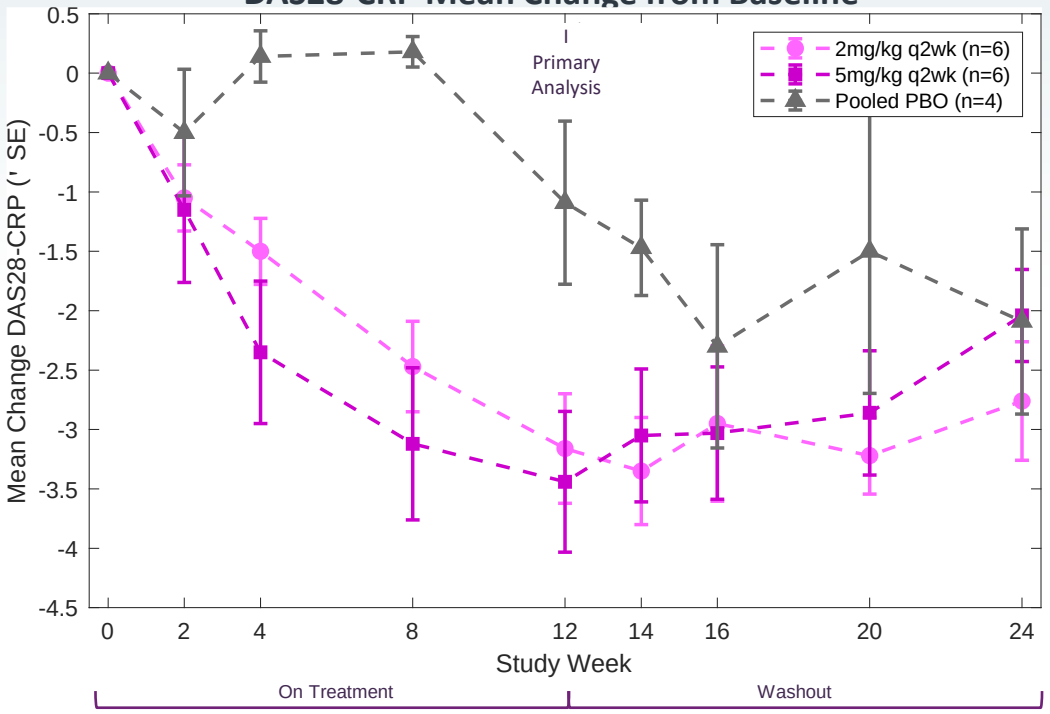
1) Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); 2) Mean

Phase 2 Clinical Trial of Abiprubart in Rheumatoid Arthritis Met Primary Efficacy Endpoint (Change from Baseline in DAS28-CRP vs Placebo at Week 12)

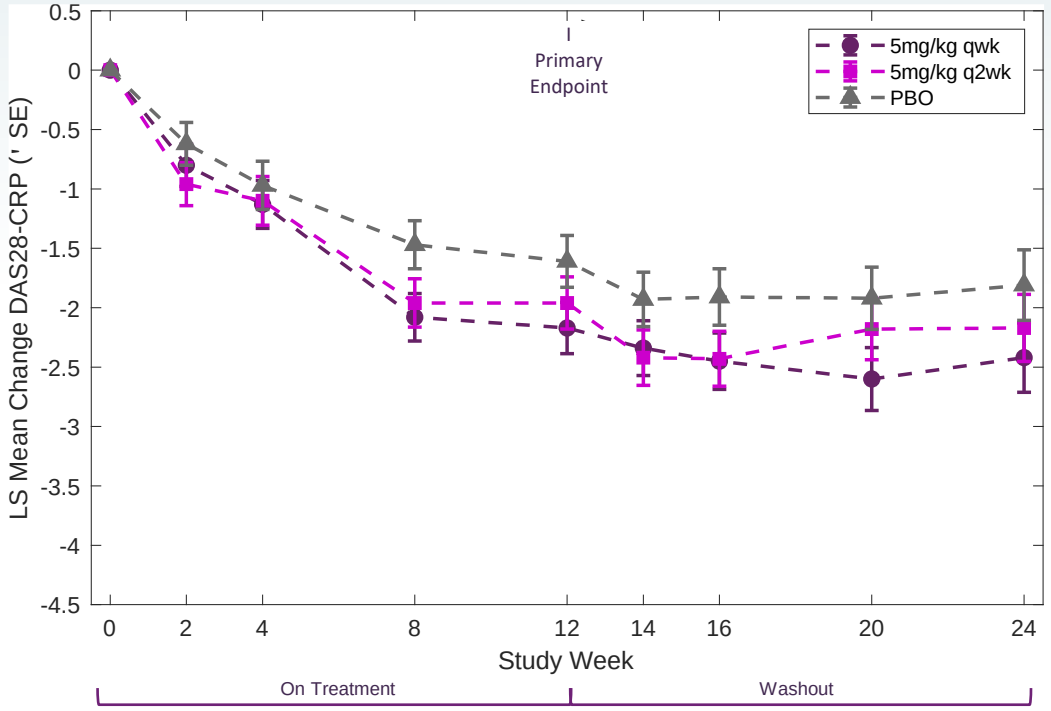
Cohorts 1 & 2
DAS28-CRP Mean Change from Baseline[1]



Cohort 1: in the abiprubart 2 mg/kg SC biweekly dosing group (n=6), mean change from baseline in DAS28-CRP at Week 12 was -3.16 points, compared to -1.09 points in pooled placebo recipients (n=4), (Mean Difference = -2.07, p=0.0312)

Cohort 2: in the abiprubart 5 mg/kg SC biweekly dosing group (n=6), mean change from baseline in DAS28-CRP at Week 12 was -3.44 points, compared to -1.09 points in pooled placebo recipients (n=4), (Mean Difference = -2.35, p=0.0338)

Cohort 3
DAS28-CRP LS Mean Change from Baseline[1,2]



In the abiprubart 5 mg/kg SC weekly dosing group (n=27), LS mean change [95% CI] from baseline in DAS28-CRP at Week 12 was -2.17 [-2.60, -1.74] points, compared to -1.61 [-2.04, -1.17] points in placebo recipients (n=26), (LS Mean Difference = -0.57, p=0.0470)

In the abiprubart 5 mg/kg SC biweekly dosing group (n=25), LS mean change [95% CI] from baseline in DAS28-CRP at Week 12 was -1.96 [-2.40, -1.52] points, compared to -1.61 [-2.04, -1.17] points in placebo recipients (n=26), (LS Mean Difference = -0.36, p=0.2124)

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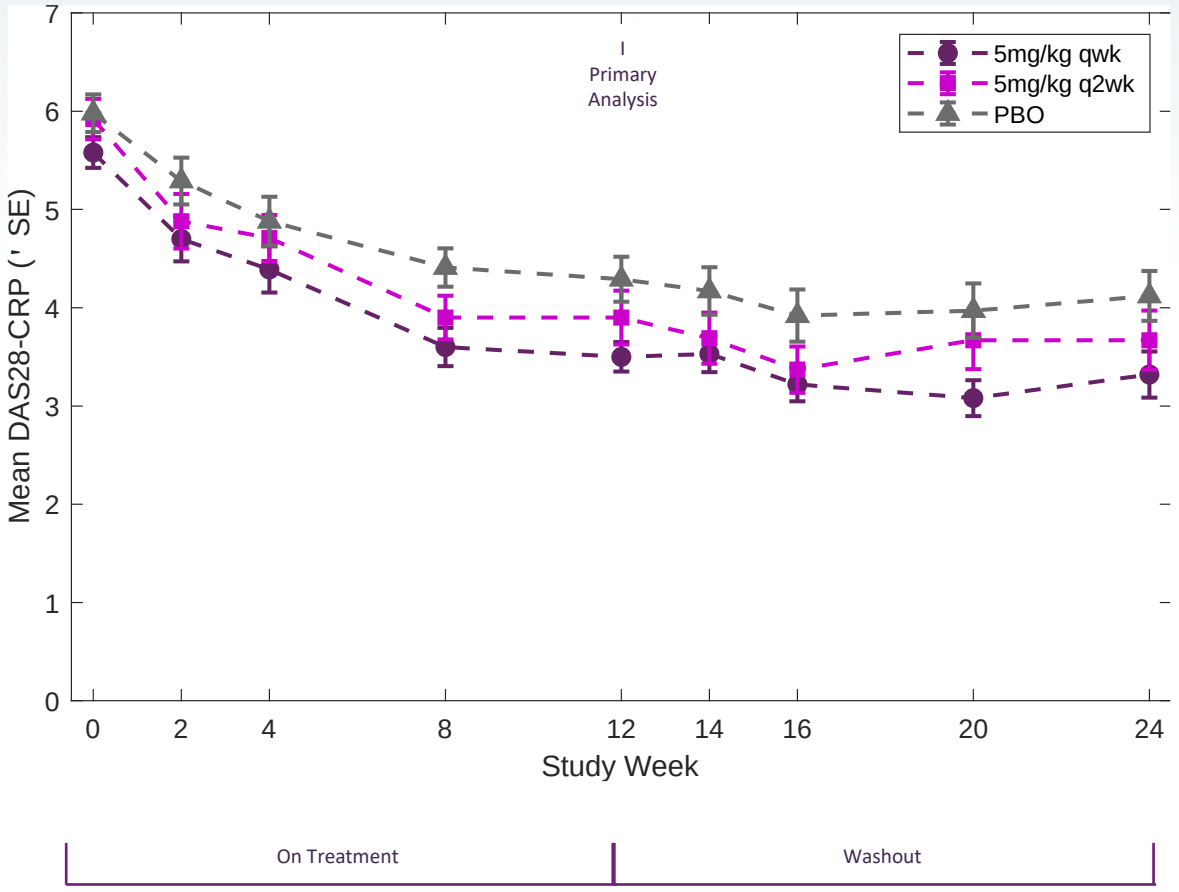
1) Final data; 2) Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint)

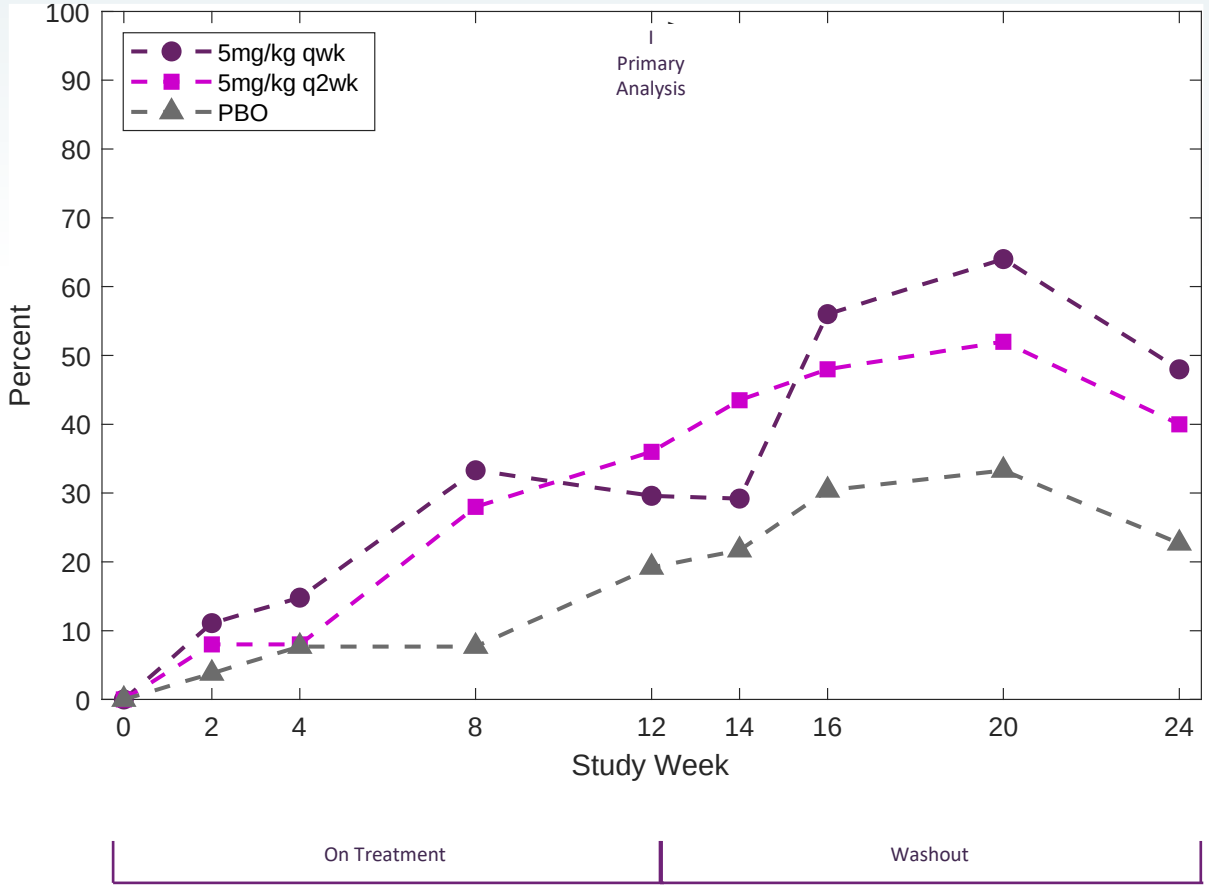
DAS28-CRP = Disease Activity Score of 28 Joints Using C-reactive Protein; SC = Subcutaneous; LS = Least Squares; CI = Confidence Interval

DAS28-CRP Scores Over Time (Cohort 3)[1]

DAS28-CRP Score Through Week 24



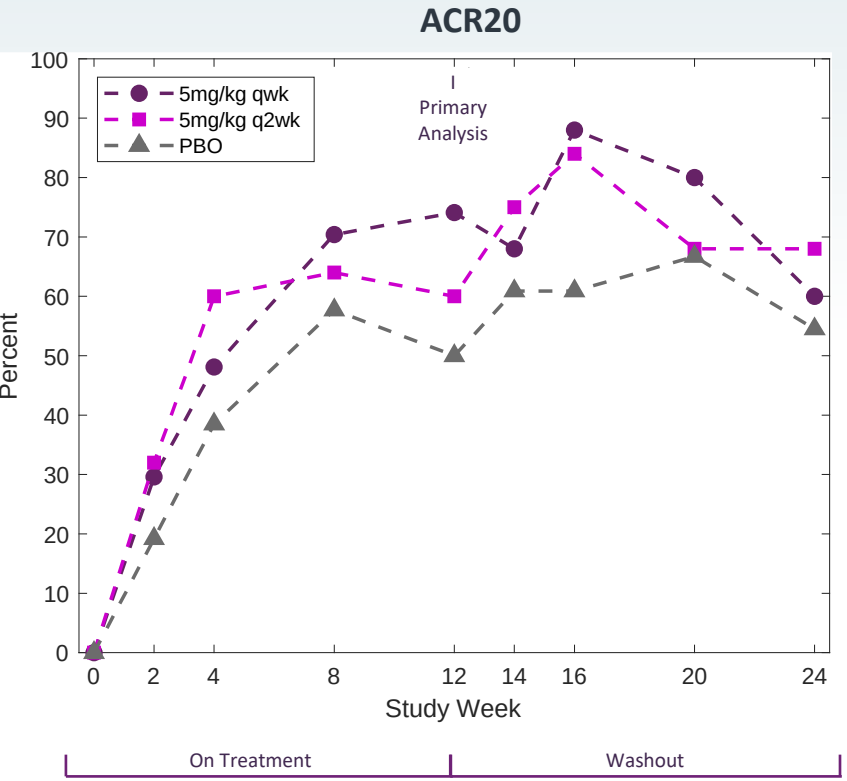
Patients Achieving DAS28 Low Disease Activity or Remission

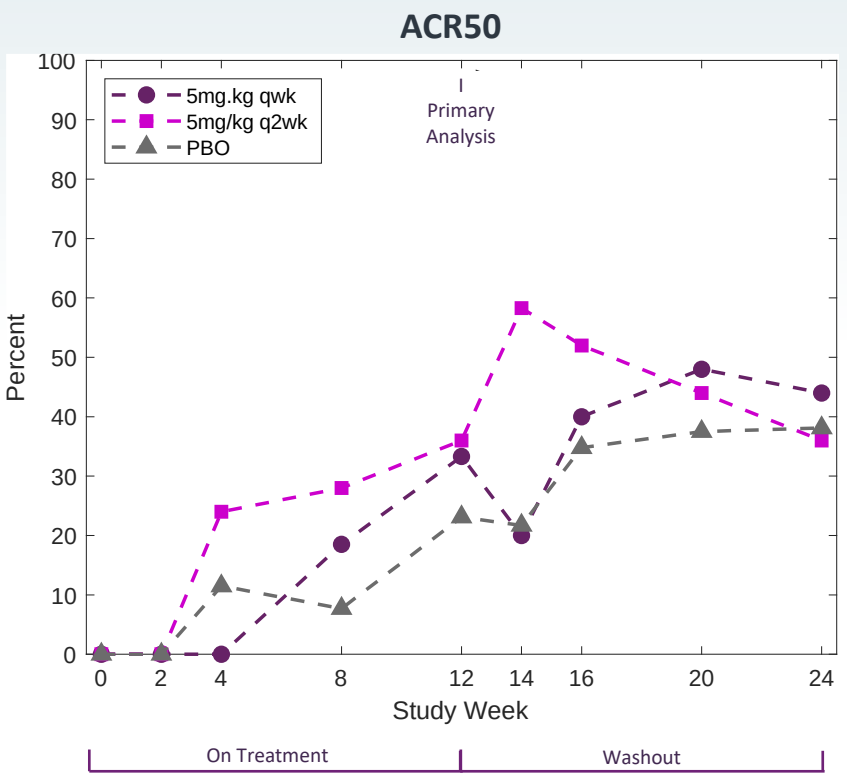


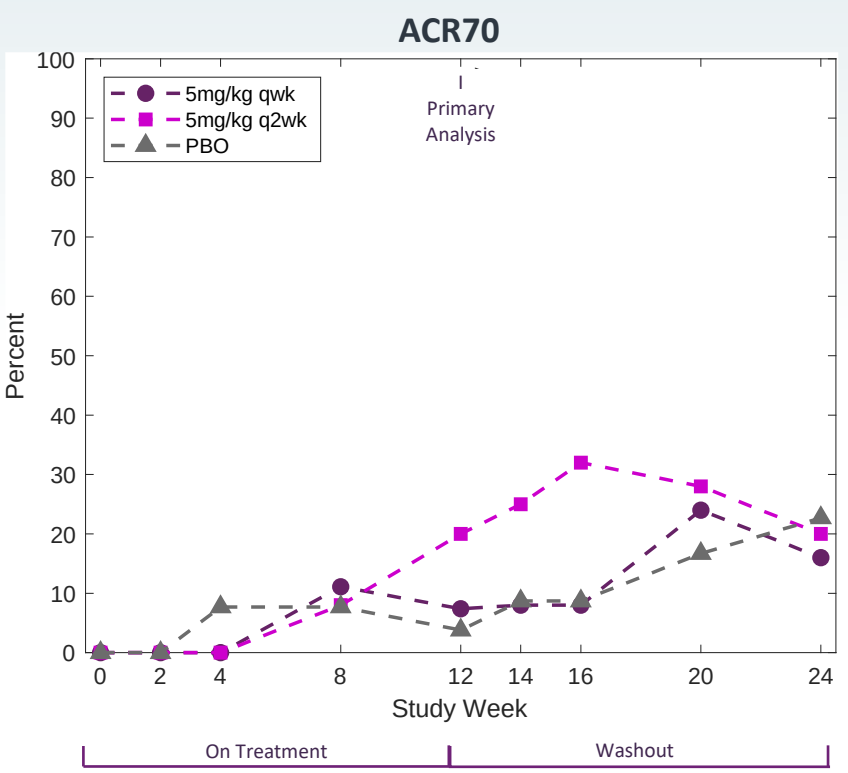
1) Final data; Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint)

DAS28-CRP = Disease Activity Score of 28 Joints Using C-reactive Protein; Low Disease Activity = patients achieving DAS28-CRP low disease activity (≥2.6 and < 3.2); Remission = patients achieving DAS28-CRP remission (< 2.6)

ACR Responders Over Time (Cohort 3)[1]







1) Final data; Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint)
ACR20 = a composite measure defined as an improvement of 20% in the number of tender and swollen joints and a 20% improvement in three of the following five criteria: patient global assessment, physician global assessment, functional ability measure [most often Health Assessment Questionnaire (HAQ)], visual analog pain scale, and erythrocyte sedimentation rate or C-reactive protein (CRP); ACR50 and ACR70 = the same instruments as ACR20 with improvement levels defined as 50% and 70%, respectively, versus 20% for ACR20.

Abiprubart was Well-Tolerated in Phase 2 RA Trial (Cohort 3 Data)[1]

Category[2]	Abiprubart 5 mg/kg SC qwk (n=27)	Abiprubart 5 mg/kg SC q2wk (n=25)	Placebo (n=26)
Treatment Emergent Adverse Events (TEAEs)[3]	44.4 (n=12)	24.0 (n=6)	30.8 (n=8)
Drug Related TEAE[4]	7.4 (n=2)	8.0 (n=2)	7.7 (n=2)
TEAEs by Maximum severity[5]	44.4 (n=12)	24.0 (n=6)	30.8 (n=8)
Mild	29.6 (n=8)	12.0 (n=3)	15.4 (n=4)
Moderate	14.8 (n=4)	12.0 (n=3)	15.4 (n=4)
Severe	0	0	0
Potentially Life Threatening	0	0	0
Fatal	0	0	0
Serious TEAEs (SAE)	3.7 (n=1)[5]	0	3.8(n=1)
Drug-Related SAEs[3]	0	0	0
TEAEs Leading to Death	0	0	0
TEAEs Leading to Dose Interruption	3.7 (n=1)	0	3.8 (n=1)
TEAEs Leading to Treatment Discontinuation	0	0	0
TEAEs of Special Interest	0	4.0 (n=1)	0
Injection Site Reaction	3.7 (n=1)	4.0 (n=1)	0

1) Safety Population: All randomized subjects who received at least one dose of study drug; 2) all categories are represented in percentages; 3) Defined as any event not present before exposure to study drug or any event already present that worsens in either intensity or frequency after exposure to study drug during treatment period; 4) Definitely related or possibly related, as assessed by the investigator; 5) Each subject has only been represented with the maximum severity; 5) Monaural deafness at Week 12, not related, resolved with pulse-dose steroids

Baseline Demographics (Cohort 4)[1]

	Abiprubart 400 mg SC q4wk (n=31)	Placebo (n=20)	Total (n=51)
Mean Age (Years)	58.8	58.3	58.6
Sex % (Male/Female)	19.4/80.6	25.0/75.0	21.6/78.4
Race			
White %; (n)	83.9 (n=26)	85.0 (n=17)	84.3 (n=43)
Black or African American %; (n)	9.7 (n=3)	5.0 (n=1)	7.8 (n=4)
Asian %; (n)	6.5 (n=2)	10.0 (n=2)	7.8 (n=4)
Country			
United States %; (n)	32.3(n=10)	20.0 (n=4)	27.5 (n=14)
Bulgaria %; (n)	6.5 (n=2)	0	3.9 (n=2)
Czechia %; (n)	16.1 (n=5)	20.0 (n=4)	17.6 (n=9)
Georgia %; (n)	9.7 (n=3)	15.0 (n=3)	11.8 (n=6)
Hungary %; (n)	22.6 (n=7)	15.0 (n=3)	19.6 (n=10)
Poland %; (n)	3.2 (n=1)	5.0 (n=1)	3.9 (n=2)
South Africa %; (n)	9.7 (n=3)	25.0 (n=5)	15.7 (n=8)

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1) Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); the Phase 2 study of abiprubart in rheumatoid arthritis is ongoing, this topline analysis includes all patients having reached Week 12, and follow-up to Week 24 is ongoing;

Baseline Disease Characteristics: Balanced Across Treatment Arms (Cohort 4)[1]

	Abiprubart 400 mg SC q4wk (n=31)	Placebo (n=20)	Total (n=51)
DAS28-CRP Score			
DAS28-CRP[2]	5.65	5.89	5.75
Tender Joint Count-28[2]	13.6	15.2	14.2
Swollen joints-28[2]	9.30	11.9	10.30
Patient Global Assessment[2]	6.88	6.59	6.77
C-Reactive Protein (mg/L)[2]	22.65	22.75	22.69
Mean Duration of Rheumatoid Arthritis (years)	11.70	10.77	11.34
Rheumatoid factor (IU/mL)[2]	117.43	210.57	153.96
Anti-Cyclic Citrullinated Peptide %; (n)			
Positive	74.2 (n=23)	85.0 (n=17)	78.4 (n=40)
Negative	25.8 (n=8)	15.0 (n=3)	21.6 (n=11)
Intermediate	0	0	0

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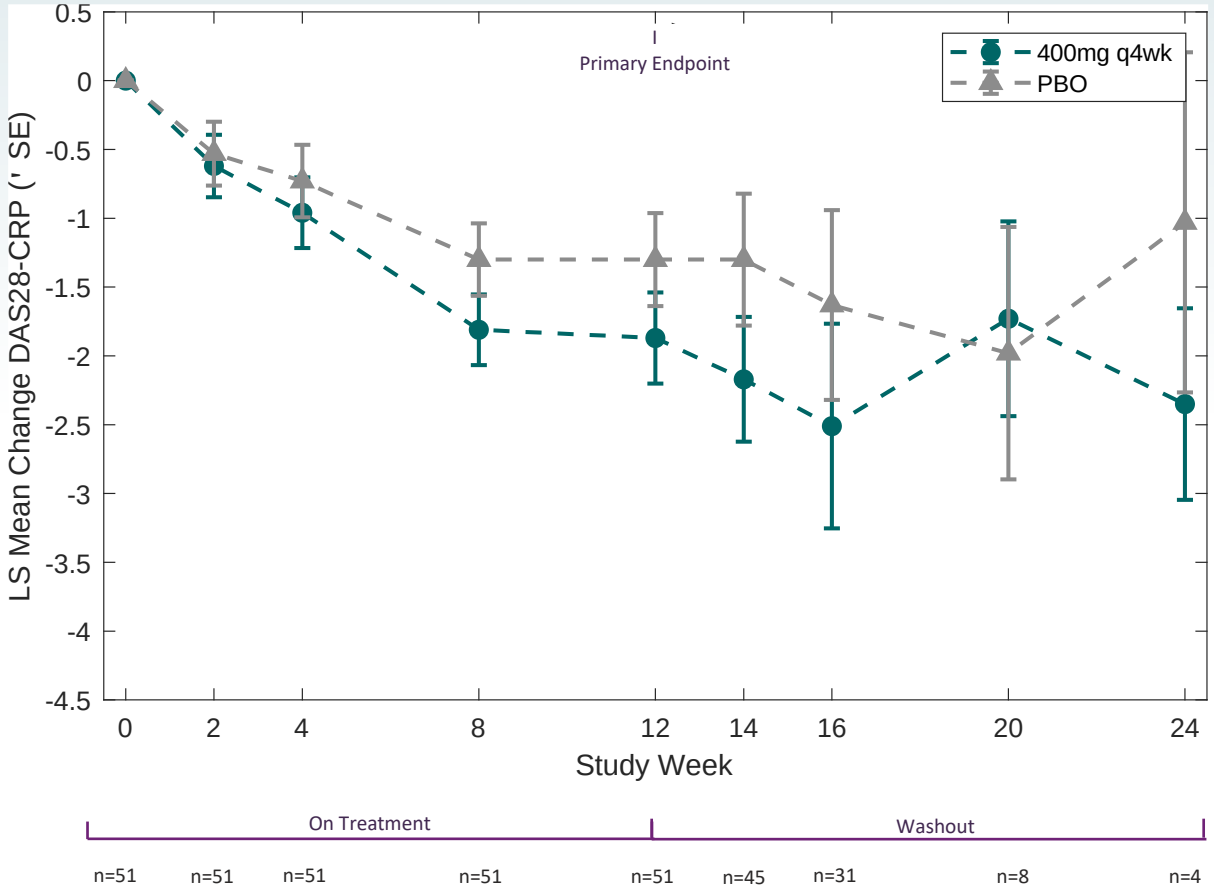
1) Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); the Phase 2 study of abiprubart in rheumatoid arthritis is ongoing, this topline analysis includes all patients having reached Week 12, and follow-up to Week 24 is ongoing; 2) Mean

DAS28-CRP Scores Over Time (Cohort 4)[1]

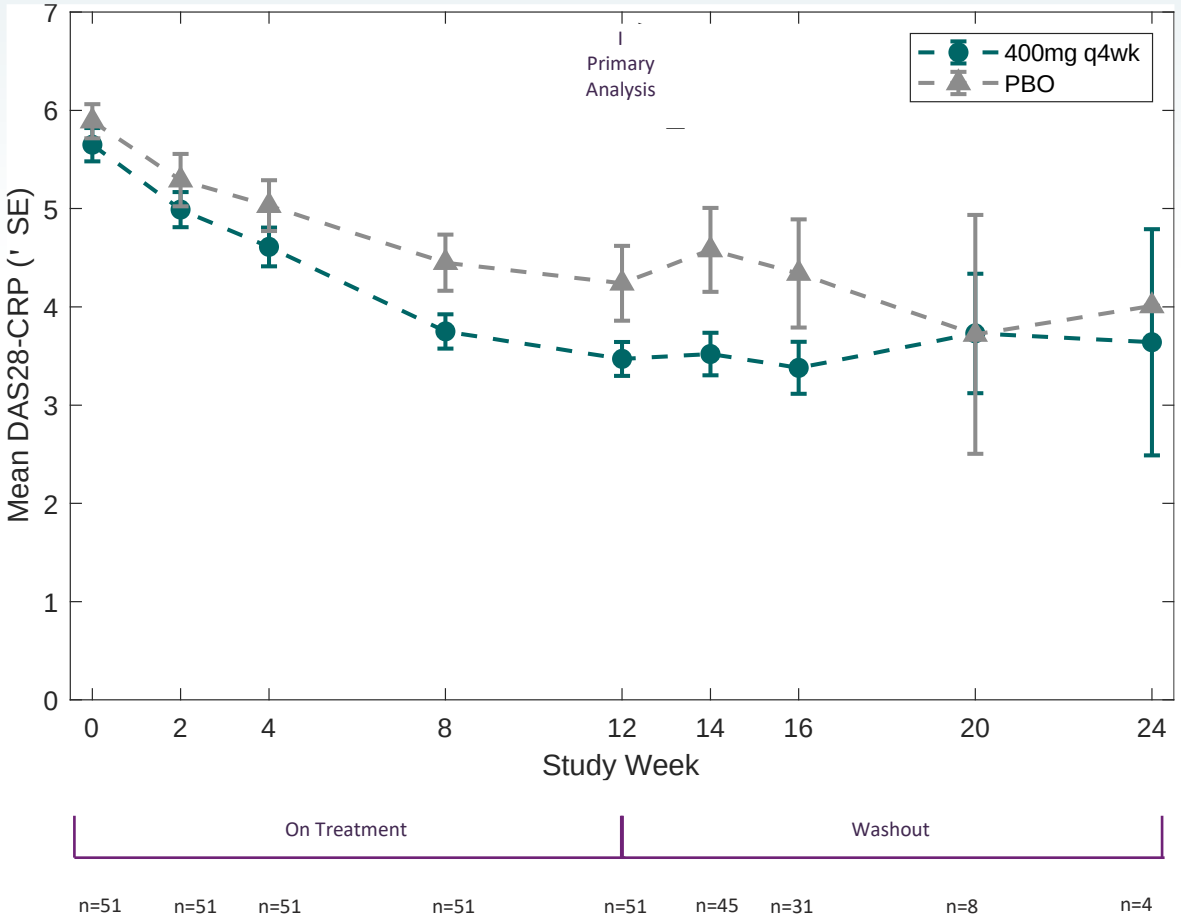


In the abiprubart 400 mg SC monthly dose group (n=31), the LS mean change [95% CI] from baseline in DAS28-CRP at Week 12 was -1.87 [-2.54, -1.21] points, compared to -1.30 [-1.98, -0.62] points in placebo recipients (n=20), (LS Mean Difference = -0.58, p=0.109)

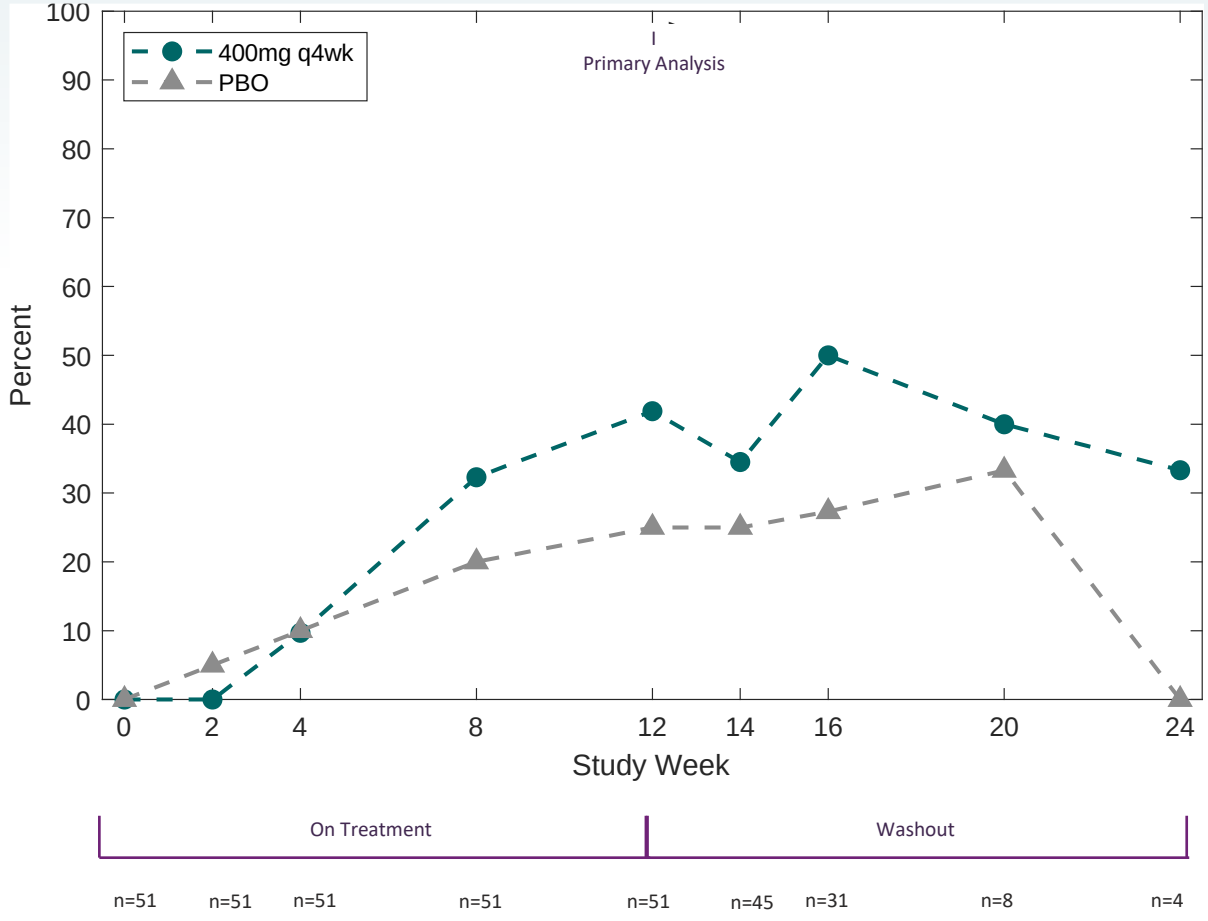
1) Topline data; Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); the Phase 2 study of abiprubart in rheumatoid arthritis is ongoing, this topline analysis includes all patients having reached Week 12, and follow-up to Week 24 is ongoing

DAS28-CRP Scores Over Time (Cohort 4)[1]

DAS28-CRP Score Through Week 24



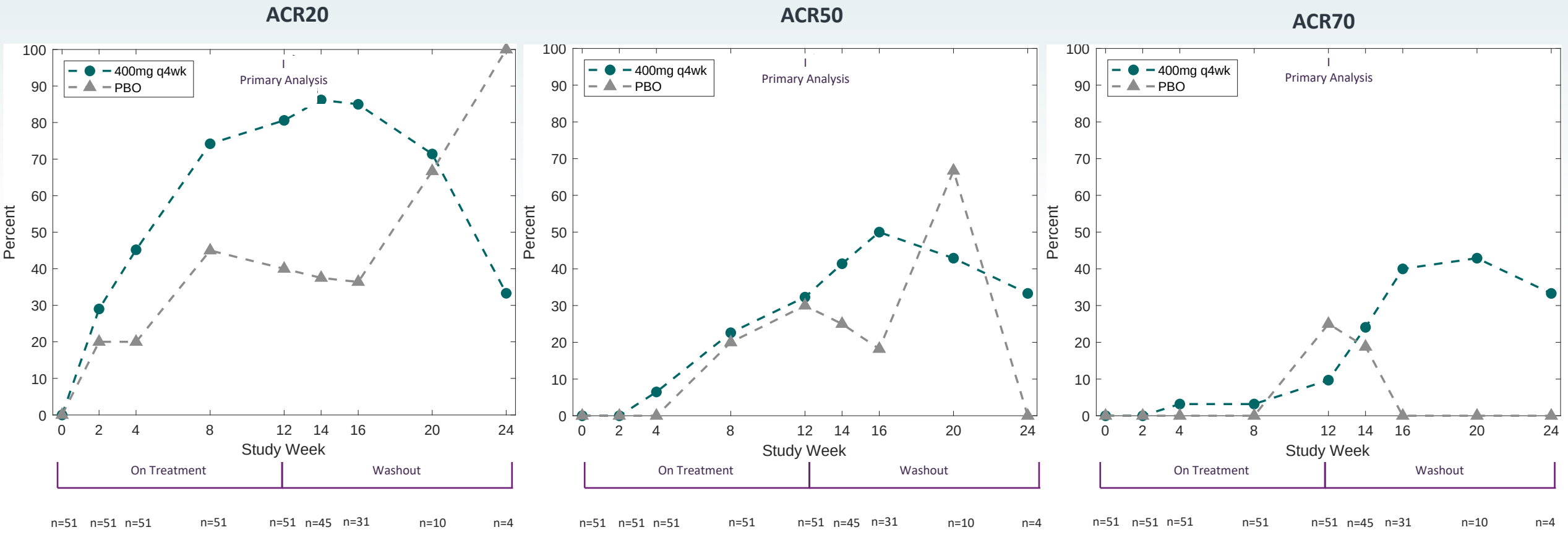
Patients Achieving DAS28 Low Disease Activity or Remission



1) Topline data; Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); the Phase 2 study of abiprubart in rheumatoid arthritis is ongoing, this topline analysis includes all patients having reached Week 12, and follow-up to Week 24 is ongoing

DAS28-CRP = Disease Activity Score of 28 Joints Using C-reactive Protein; Low Disease Activity = patients achieving DAS28-CRP low disease activity (≥2.6 and < 3.2); Remission = patients achieving DAS28-CRP remission (< 2.6)

ACR Responders Over Time (Cohort 4)[1]



1) Topline data; Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); the Phase 2 study of abiprubart in rheumatoid arthritis is ongoing, this topline analysis includes all patients having reached Week 12, and follow-up to Week 24 is ongoing
ACR20 = a composite measure defined as an improvement of 20% in the number of tender and swollen joints and a 20% improvement in three of the following five criteria: patient global assessment, physician global assessment, functional ability measure [most often Health Assessment Questionnaire (HAQ)], visual analog pain scale, and erythrocyte sedimentation rate or C-reactive protein (CRP); ACR50 and ACR70 = the same instruments as ACR20 with improvement levels defined as 50% and 70%, respectively, versus 20% for ACR20.

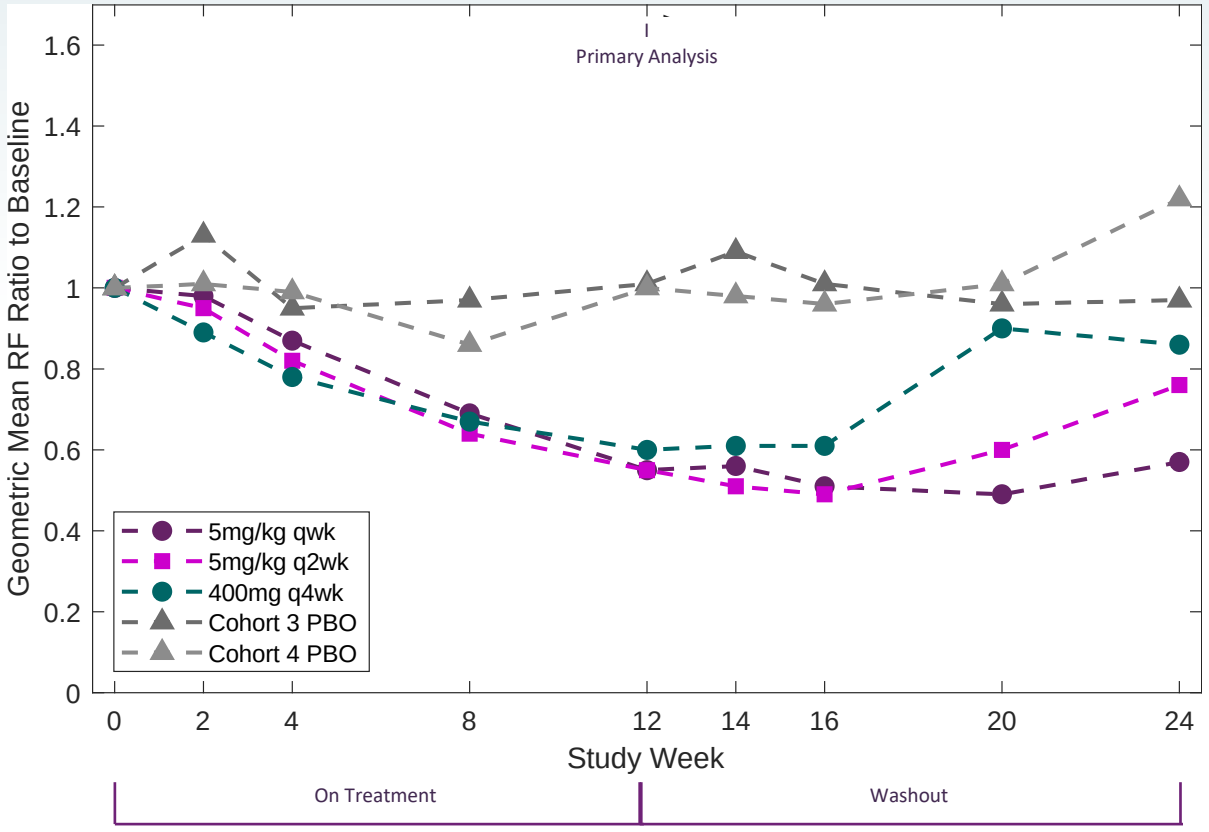
Abiprubart was Well-Tolerated in Phase 2 RA Trial (Cohort 4 Data)[1]

Category[2]	Abiprubart 400mg SC q4wk (n=31)	Placebo (n=20)
Treatment Emergent Adverse Events (TEAEs)[3]	25.8 (n=8)	40.0 (n=8)
Drug Related TEAE[4]	9.7 (n=3)	5.0 (n=1)
TEAEs by Maximum severity[5]	25.8 (n=8)	40.0 (n=8)
Mild	12.9 (n=4)	25.0 (n=5)
Moderate	12.9 (n=4)	15.0 (n=3)
Severe	0	0
Potentially Life Threatening	0	0
Fatal	0	0
Serious TEAEs (SAE)	0	0
Drug-Related SAEs[3]	0	0
TEAEs Leading to Death	0	0
TEAEs Leading to Dose Interruption	0	0
TEAEs Leading to Treatment Discontinuation	3.2 (n=1)	5.0 (n=1)
TEAEs of Special Interest	0	0
Injection Site Reaction	6.5 (n=2)	0

1) Safety Population: All randomized subjects who received at least one dose of study drug; 2) all categories are represented in percentages; 3) Defined as any event not present before exposure to study drug or any event already present that worsens in either intensity or frequency after exposure to study drug during treatment period; 4) Definitely related or possibly related, as assessed by the investigator; 5) Each subject has only been represented with the maximum severity; 5) Monaural deafness at Week 12, not related, resolved with pulse-dose steroids

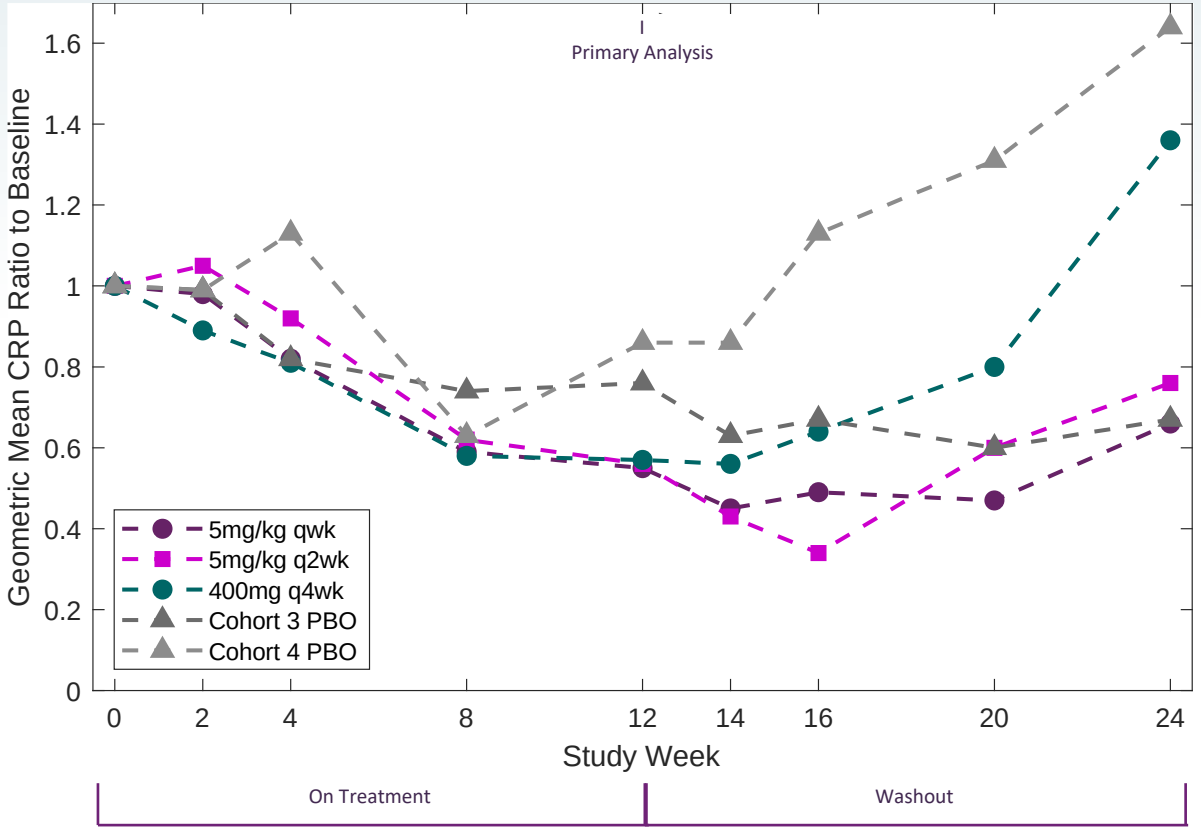
Abiprubart Significantly Reduced Disease-Related Inflammatory Markers (Cohorts 3 & 4)[1]

Rheumatoid Factor
Geometric Mean Ratio to Baseline[2]



Cohort 3 n's	n=78	n=78	n=78	n=78	n=70	n=74	n=74	n=72
Cohort 4 n's	n=51	n=51	n=50	n=47	n=45	n=31	n=11	n=4

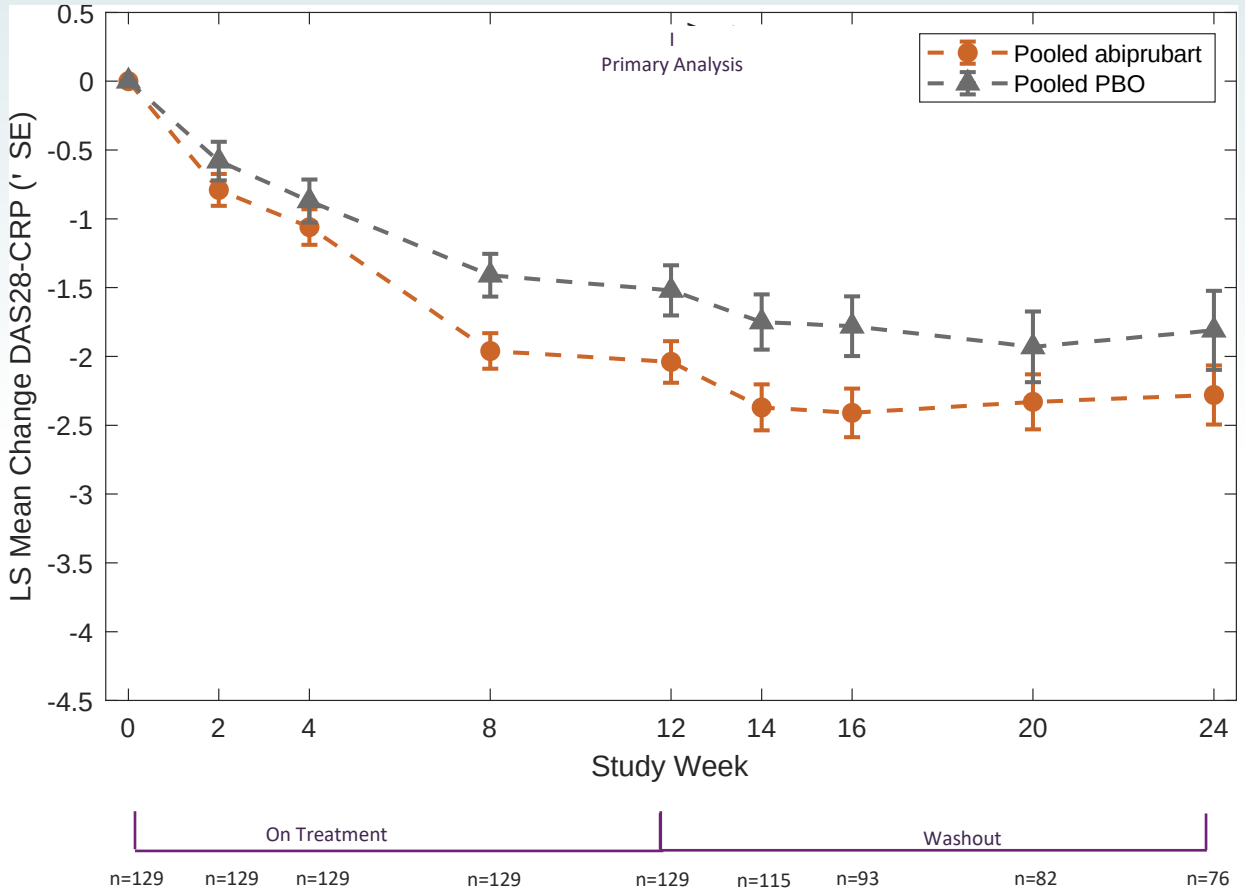
C-Reactive Protein
Geometric Mean Ratio to Baseline



Cohort 3 n's	n=78	n=78	n=78	n=78	n=70	n=74	n=74	n=72
Cohort 4 n's	n=51	n=51	n=50	n=47	n=45	n=31	n=11	n=4

1) Modified Intention to Treat (mITT) analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint); 2) In both Cohort 3 abiprubart dose groups (5 mg/kg SC weekly and 5 mg/kg SC biweekly) ($p<0.0001$); in the Cohort 4 abiprubart dose group (400 mg SC monthly) ($p=0.0003$).

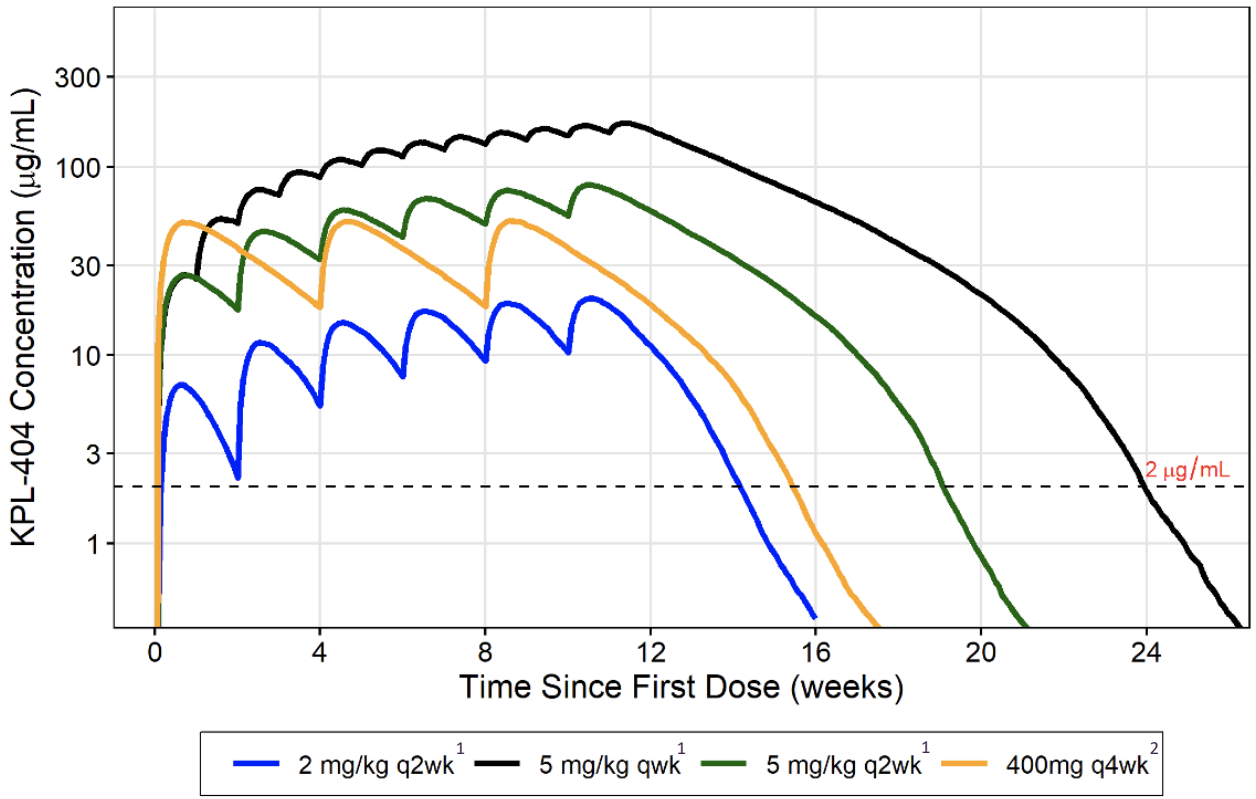
DAS28-CRP Scores Over Time in Pooled Abiprubart and Placebo Groups (Cohorts 3 & 4)[1]



In the pooled abiprubart group (n=83), the LS mean change [95% CI] from baseline in DAS28-CRP at Week 12 was -2.04 [-2.34, -1.74] points, compared to -1.52 [-1.88, -1.16] points in placebo recipients (n=46), (LS Mean Difference = -0.52, nominal p=0.010)

1) Modified Intention to Treat (mITT) post-hoc analysis population (all randomized subjects who received at least one dose of study drug and had a baseline assessment and at least one post-baseline assessment for the primary efficacy endpoint)

PK-Modeling From the Phase 2 Rheumatoid Arthritis Trial (Cohorts 1-4)



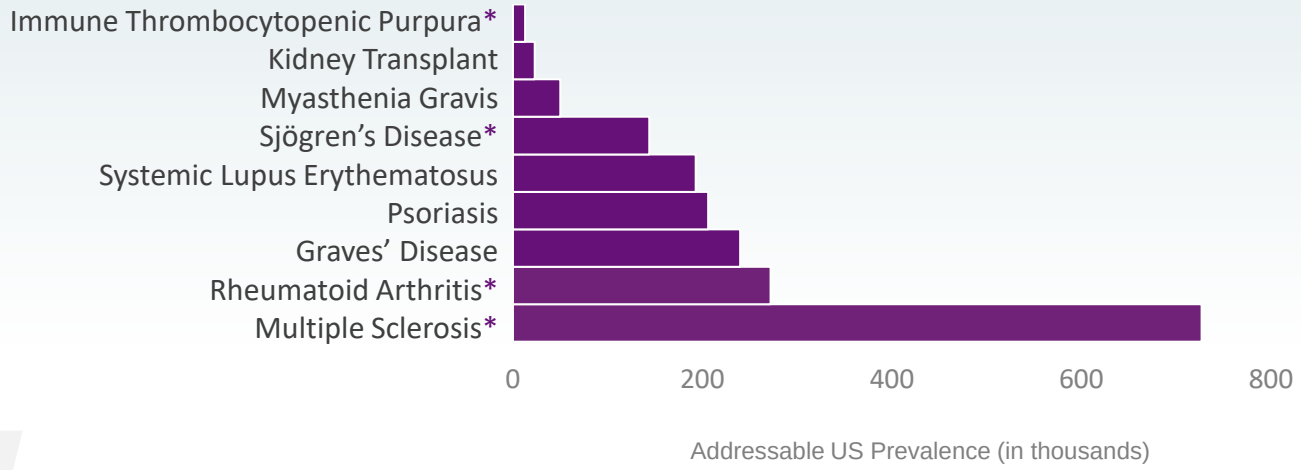
Complete RO & TDAR Suppression

Modeling data generated based on PK data from Cohorts 1-4 of the abiprubart Phase 2 trial in rheumatoid arthritis as well as Phase 1 data from healthy volunteers

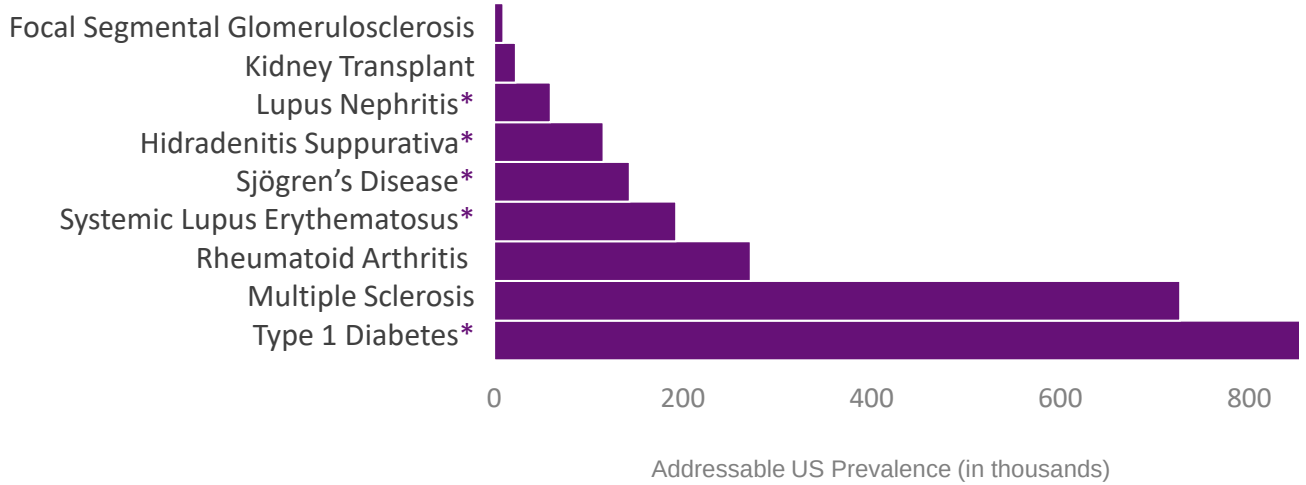
1) All doses are subcutaneous; 2) The Cohort 4 abiprubart 400mg SC q4wk group includes a 600mg loading dose on Day 1
RO = receptor occupancy; TDAR = T-Cell Dependent Antibody Response

CD40/CD154 Interaction Has Been Implicated in a Range of Autoimmune Diseases

Indications with Published Data



Indications with Pending Data & Trials Ongoing



INDICATION SELECTION CRITERIA

- Robust data or proof-of-concept supporting mechanism
- Differentiation vs. competitors
- Commercial attractiveness

*Indications evaluated with subcutaneous administration

Sources: 2019 numbers: https://unos.org/data/transplant-trends/; Hunter et al. Prevalence of rheumatoid arthritis in the United States adult population in healthcare claims databases, 2004-2014; Rheumatol Int. 2017 Sep;37(9):1551-1557; Overall Prevalence: Maciel et al, Arthritis Care Res (Hoboken) 2017; Qin et al, Ann Rheum Dis 2015; UpToDate; Baldini et al. Prevalence of Severe Extra-Glandular Manifestations in a Large Cohort of Patients with Primary Sjögren's Syndrome; 2012 ACR/ARHP Annual Meeting, ABSTRACT NUMBER: 2185; Wallin et al. The prevalence of MS in the United States A population-based estimate using health claims data, Neurology, March 5, 2019; Somers et al.; Prevalence of Systemic Lupus Erythematosus in the United States: Preliminary Estimates from a Meta-Analysis of the Centers for Disease Control and Prevention Lupus Registries; 2019 ACR/ARP Annual Meeting ABSTRACT NUMBER: 2886; Garg et al. JAMA Dermatol. 2017;153(8):760-764. doi:10.1001/jamadermatol.2017.0201 Sex- and Age-Adjusted Population Analysis of Prevalence Estimates for Hidradenitis Suppurativa in the United States; MayoClinic.org; Yale J Biol Med. 2013 Jun; 86(2): 255–260. N Engl J Med 2016;375:2570-81; https://www.diabetesresearch.org/diabetes-statistics; Nephcure.org; Kitiyakara C, Eggers P, Kopp JB. Twenty-one-year trend in ESRD due to focal segmental glomerulosclerosis in the United States. Am J Kidney Dis. 2004 Nov;44(5):815-25; Rachakonda et al. J Am Acad Dermatol . 2014 Mar;70(3):512-6. doi: 10.1016/j.jaad.2013.11.013. Epub 2014 Jan 2. Psoriasis prevalence among adults in the United States; Yeung et al. Psoriasis severity and the prevalence of major medical co-morbidities: a population-based study; JAMA Dermatol. 2013 Oct 1; 149(10): 1173–1179; Hoover et al. Kidney Int. 2016 Sep; 90(3): 487–492. Insights into the Epidemiology and Management of Lupus Nephritis from the U.S. Rheumatologist's Perspective.

Financials
First Quarter 2024

First Quarter 2024 Financial Results

Income Statement	Three Months Ended March 31,	
	2024	2023
Product Revenue	$78.9M	$42.7M
License and Collaboration Revenue	$1.0M	$5.7M
Total Revenue	**$79.9M**	**$48.3M**
Cost of Goods Sold	$10.6M	$7.0M
Collaboration Expenses	$20.8M	$8.3M
Research and Development	$26.3M	$15.2M
Selling, General and Administrative	$38.7M	$29.0M
Total Operating Expenses	**$96.4M**	**$59.5M**
Income Tax Benefit (Provision)	**($3.4M)**	**($2.9M)**
Net Income (Loss)	**($17.7M)**	**($12.3M)**

Collaboration Expenses[1]	Three Months Ended March 31,	
	2024	2023
ARCALYST Net Sales	**$78.9M**	**$42.7M**
Profit Split-Eligible Cost of Goods Sold[2]	($10.3M)	($6.8M)
Commercial, Marketing, Regulatory and Other Expenses	($28.4M)	($19.3M)
ARCALYST Collaboration Operating Profit	**$40.2M**	**$16.6M**
ARCALYST Collaboration Expense[1]	$20.1M	$8.3M
ARCALYST Out-Licensing[3]	$0.7M	$0.0M
Total Collaboration Expenses	**$20.8M**	**$8.3M**

Balance Sheet	March 31, 2024	December 31, 2023
Cash, Cash Equivalents and Short-term Investments	**$213.6M**	**$206.4M**

Expect operating plan to remain cash flow positive on an annual basis

1) Subject to the terms of the definitive agreements between Kiniksa and Regeneron; 50% of ARCALYST Collaboration Operating Profit
2) Profit Split-Eligible Cost of Goods Sold = total cost of goods sold - amortization of Regeneron milestone payment
3) Revenue associated with ARCALYST Out-Licensing is included in Licensing and Collaboration Revenue

Appendix Out-Licensing Agreements

Out-Licensing Agreements

Partnership with Huadong Medicine Gives Kiniksa Opportunity to Expand Footprint into Asia Pacific Region (Excluding Japan)

- In February 2022, Kiniksa announced a strategic collaboration with Huadong to develop and commercialize ARCALYST and mavrilimumab in Greater China, South Korea, Australia and 18 other countries, excluding Japan
- Kiniksa received a $22M upfront payment and is eligible to receive up to approximately $640M in specified development, regulatory and sales-based milestone along with tiered royalty payments
- Collaboration provided non-dilutive capital, cost-sharing, and additional resources to help accelerate development and commercialization efforts

License Agreement with Roche Genentech for Global Rights to Develop and Commercialize Vixarelimab

- Kiniksa has received $100 million in upfront and near-term payments:
  - $80 million, which was received following the transaction's closing in Q3 2022
  - $20 million, which was received following Kiniksa's last delivery of certain drug supplies to Genentech in Q1 2023
- Kiniksa is eligible to receive up to approximately $600 million in certain clinical, regulatory, and sales-based milestones, before fulfilling upstream financial obligations, of which approximately $575 million remains
- Kiniksa is also eligible to receive royalties on annual net sales ranging from low-double digits to mid-teens, before fulfilling upstream financial obligations
- Proceeds from the transaction to help grow cardiovascular franchise and build autoimmune franchise

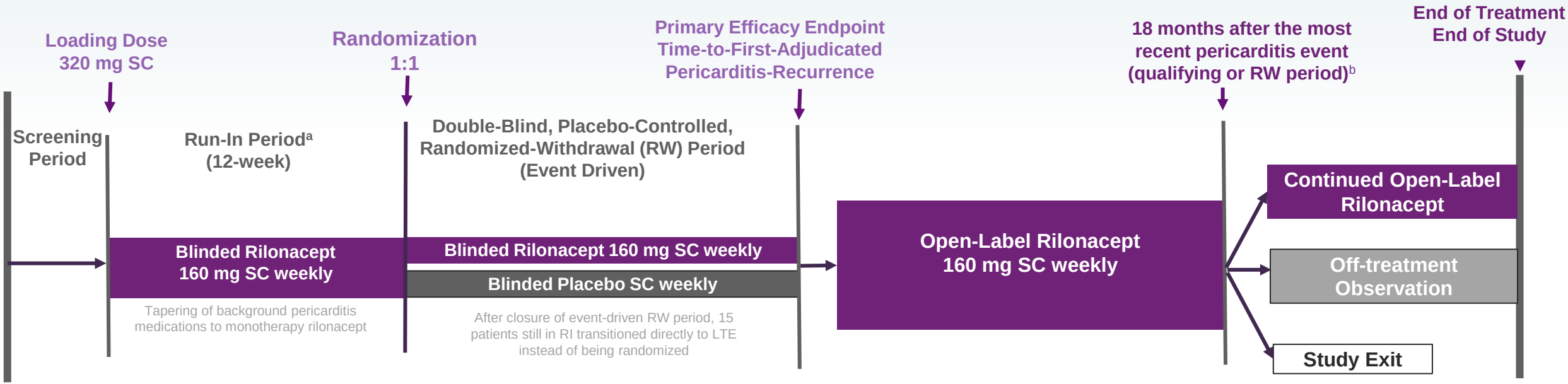
Appendix
ARCALYST (rilonacept)

RHAPSODY Design

Event-Driven Pivotal Study

Median rilonacept treatment duration prior to the LTE (RI+RW) was 9 months (range, 3-14)

Long-Term Extension (LTE) (up to 24 months)



[a] The duration of the run-in period was concealed from patients, so that they were blinded to the timing of randomization

[b] For each patient in the LTE, **a decision was made 18 months after the most recent pericarditis recurrence (Qualifying or RW period)** based on clinical status and one of the following actions was taken at the investigator's discretion:

- Continue rilonacept on-study

OR

- Suspend rilonacept treatment and remain on-study for observation (rilonacept rescue for recurrence allowed)

OR

- Discontinue the LTE completely (no further observation)

KINIKSA

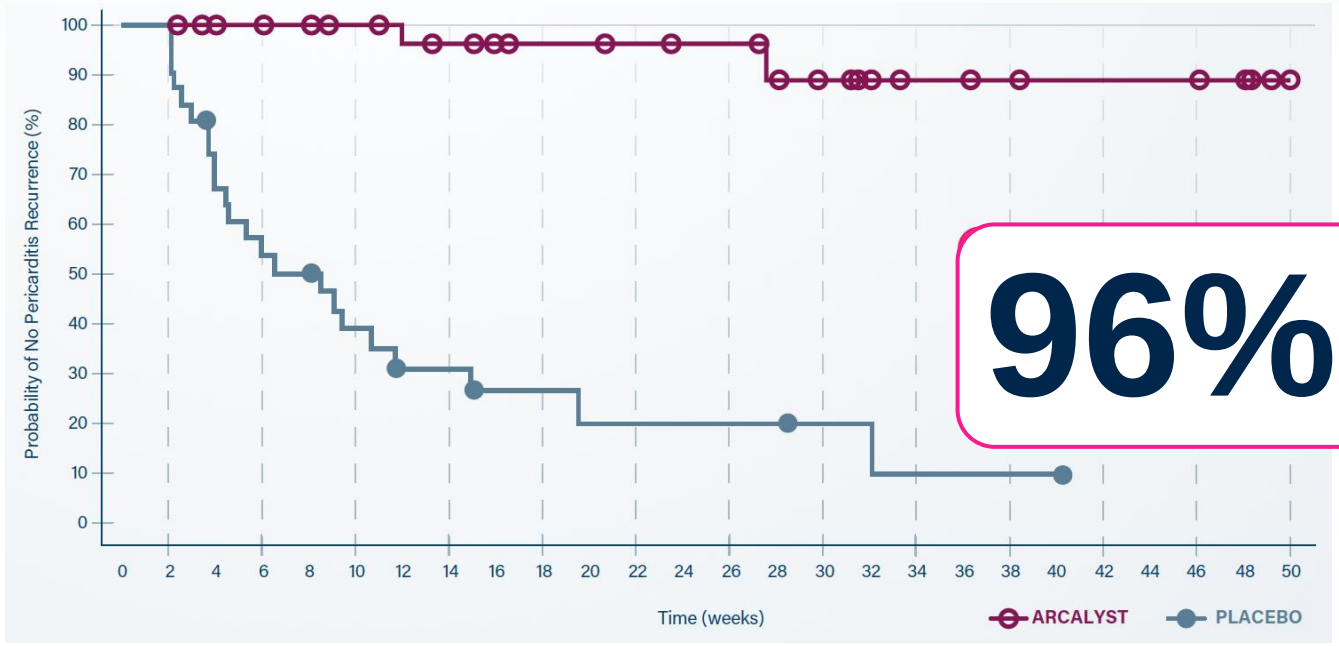
Adapted from: Imazio M, Klein AL, et al. Prolonged Rilonacept Treatment in Rhapsody Long-term Extension Provided Persistent Reduction of Pericarditis Recurrence Risk. Poster 2223 (Presented at AHA Scientific Sessions 2022)

96% Reduction in Risk of Pericarditis Recurrence

Pivotal Phase 3 RHAPSODY Data

ARCALYST reduced the risk of pericarditis recurrence

The primary efficacy endpoint was time to first adjudicated pericarditis recurrence in the randomized withdrawal period.



The median time to recurrence on ARCALYST could not be estimated due to the low number of recurrences

- 2 of 30 of patients treated with ARCALYST had a recurrence
- The 2 pericarditis recurrences with ARCALYST occurred during temporary interruptions of 1 to 3 doses of ARCALYST

96%

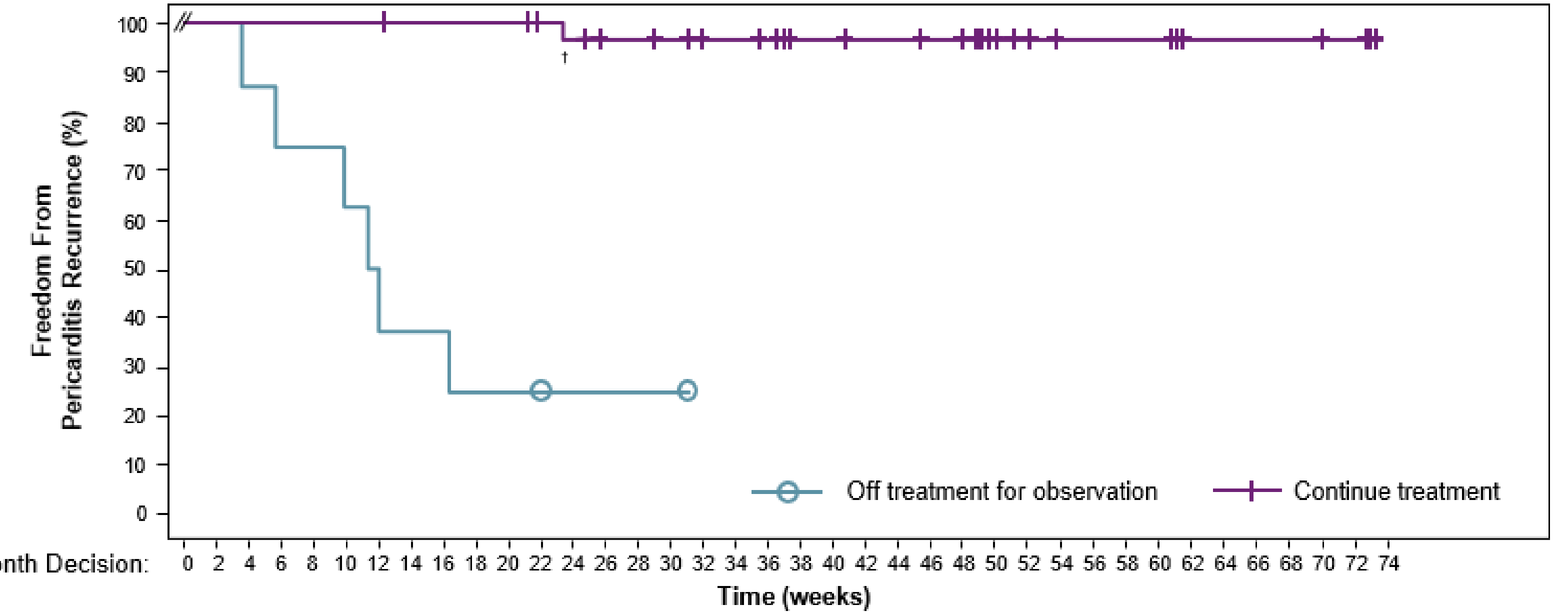
reduction in the risk of recurrent pericarditis
(hazard ratio: 0.04; *p*<0.0001)

The median time to recurrence on placebo was 8.6 weeks (95% CI: 4.0, 11.7)

- 74% (23 of 31) of patients treated with placebo experienced a recurrence at the time that the event-driven portion of the trial was closed
- Consistent with the expected washout pharmacokinetics of once-weekly ARCALYST at steady state

Klein AL, Imazio M, Cremer P, et al. Phase 3 trial of interleukin-1 trap rilonacept in recurrent pericarditis. N Engl J Med. 2021;384(1):31-41.
ARCALYST (rilonacept) prescribing information 2021

RHAPSODY Long-Term Extension Data Demonstrated Rilonacept Treatment Beyond 18 Months Resulted in Continued Treatment Response[1]



Week after 18-Month Decision	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74
Continued Rilonacept Treatment, Patients at Risk, n	33	33	33	33	33	33	33	32	32	32	32	30	29	27	27	25	24	23	22	18	18	17	17	16	16	11	9	7	7	7	7	4	4	4	4	4	3	0
Off Treatment for Observation, Patients at Risk, n	8	8	7	6	6	6	4	3	3	2	2	2	1	1	1	1	0																					

†The patient with a recurrence at 23.4 weeks had interrupted rilonacept treatment ~4 weeks prior.

Hazard ratio = 0.02
Log-rank P<0.0001
Risk reduction = 98%

	N	Patients with Recurrence,[a] n (%)	Weeks to Recurrence,[a] Median (95% CI)
Continued rilonacept treatment	33	1 (3)	NE (NE–NE)
Off treatment for observation	8	6 (75)	11.8 (3.7–NE)

[a]After 18-month decision.
CI, confidence interval; NE, not estimable.

KINIKSA

1) Imazio M, Klein AL, et al. Prolonged Rilonacept Treatment in Rhapsody Long-term Extension Provided Persistent Reduction of Pericarditis Recurrence Risk. Poster 2223 (Presented at AHA Scientific Sessions 2022)

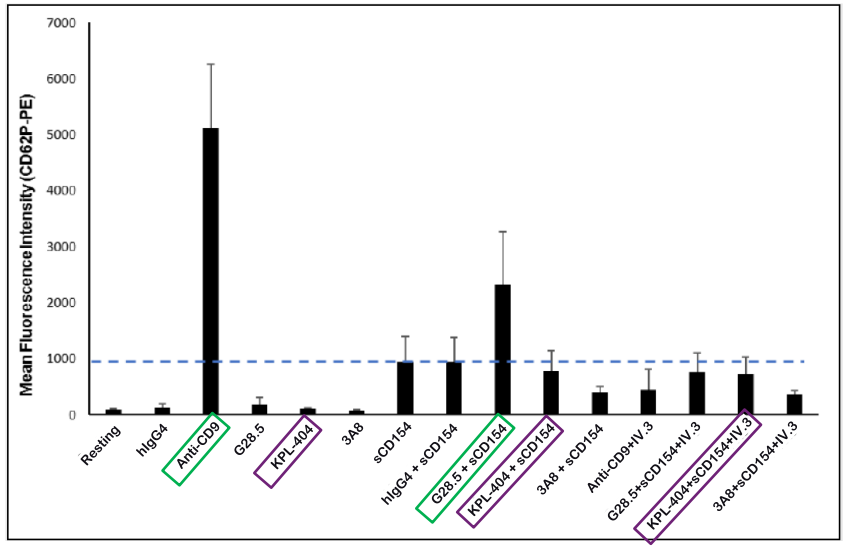
Appendix
Abiprubart

Abiprubart Does Not Cause Platelet Activation or Aggregation *in vitro*

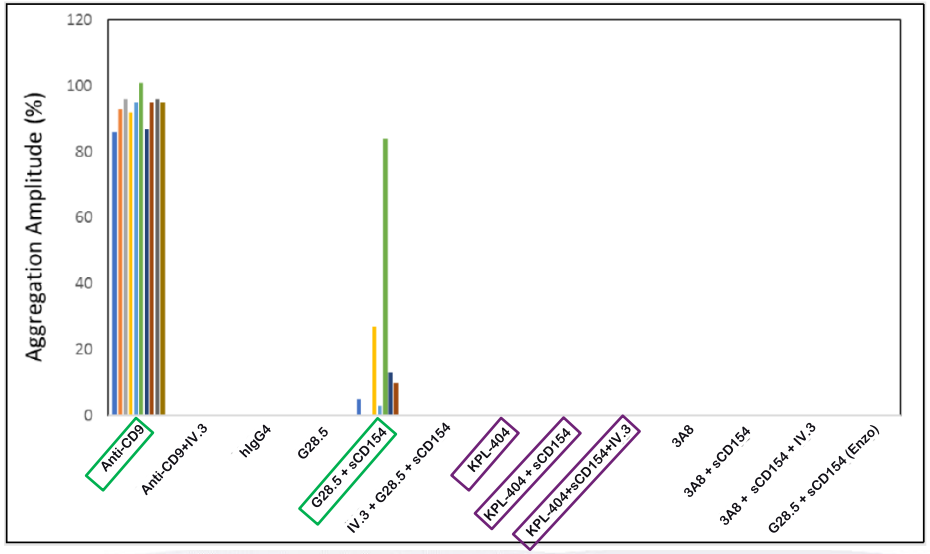
- At least three first-generation IgG1 anti-CD154 mAbs* were associated with thromboembolic events in humans and NHPs[1]
- **Mechanism:** Activation of platelets through cross-linking mediated by IgG-Fc/FcγRIIa interaction
  - Platelet activation observed *in vivo* with anti-CD154 mAbs with active Fc region
  - Platelet activation *in vitro* by anti-CD40 mAbs requires presence of sCD154 and active Fc region
  - Absence of an active Fc-region prevents platelet activation[1,2]

Abiprubart did not cause upregulation of the cell-surface platelet activation marker CD62P
Abiprubart did not induce platelet aggregation in the presence (or absence) of soluble CD154[3]

Abiprubart Alone and in Combination with sCD154 does not increase CD62P Expression on the Platelet Surface



Abiprubart Alone and in Combination with sCD154 does not increase Platelet Aggregation Amplitude (%)



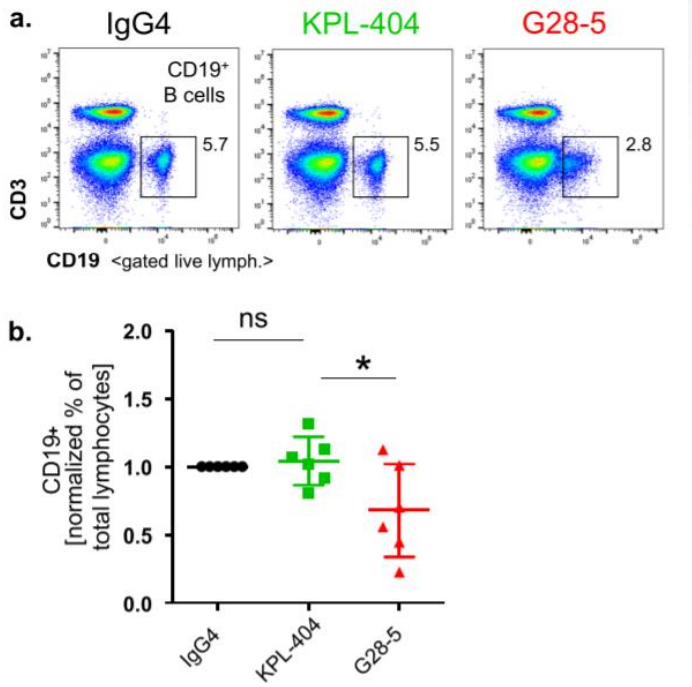
Positive controls:
- G28.5: anti-CD40 mAb – causes sCD40L-dependent platelet activation (Langer et al., Thromb Haemost 2005; 93(06): 1137-1146)
- Anti-CD9: mAb– causes sCD40L-independent platelet activation
- IV.3 - anti-FcγRIIa antibody

*ruplizumab/hu5c8, toralizumab/IDEC-131, ABI793

Sources: 1) Law & Grewal, Advances in Experimental Medicine and Biology, vol 647. Springer; 2) Shock et al., Arthritis Research & Therapy 17, Article Number: 234 (2015); 3) KNSA in-house data

Abiprubart Does Not Reduce B cell Numbers, Activate B Cells, or Induce B Cell Proliferation *in vitro*

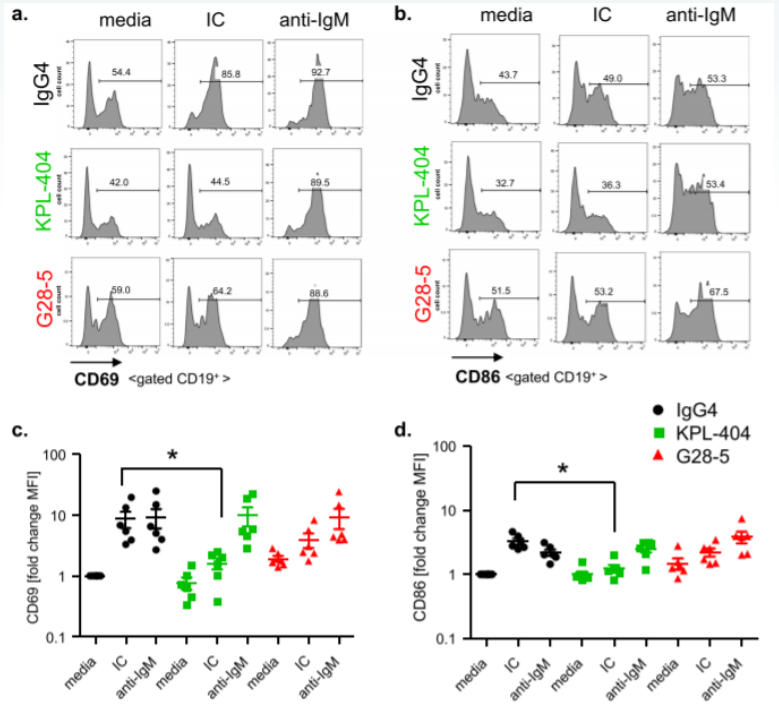
Abiprubart does not reduce B cell numbers in activated PBMCs *in vitro*



G28.5: agonistic aCD40 mAb

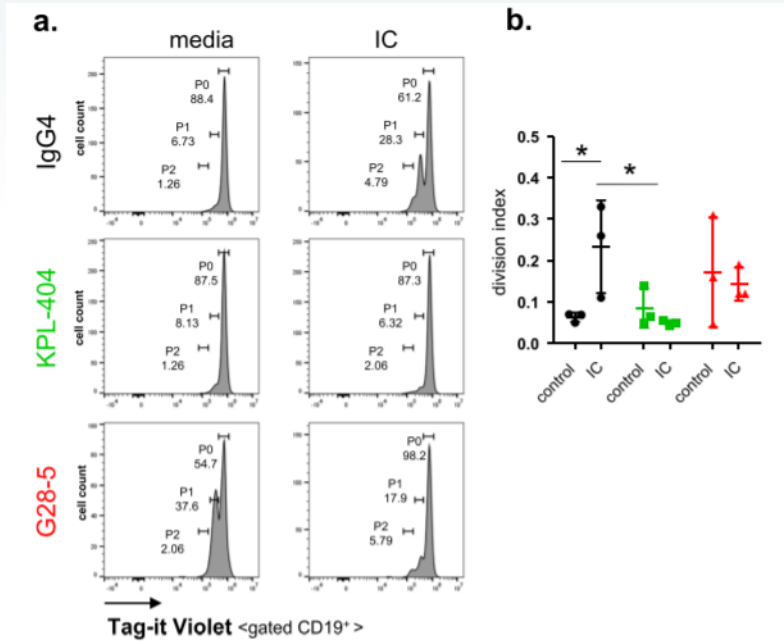
PBMCs were cultured in the presence of 10 µg/ml IgG4 isotype control or anti-CD40 Abs Abiprubart, or the agonistic aCD40 mAb, G28-5 (16–18 h of cell culture)

Abiprubart does not induce B cell activation



PBMCs were cultured in the presence of 10 µg/ml IgG4 isotype control or anti-CD40 Abs Abiprubart, or G28-5 (16–18 h of cell culture). Cells were left unstimulated (media control) or stimulated with CD3/CD28 cross-linker IC or F(ab')2 goat anti-human IgM (anti-IgM)

Abiprubart does not induce B cell proliferation *in vitro*

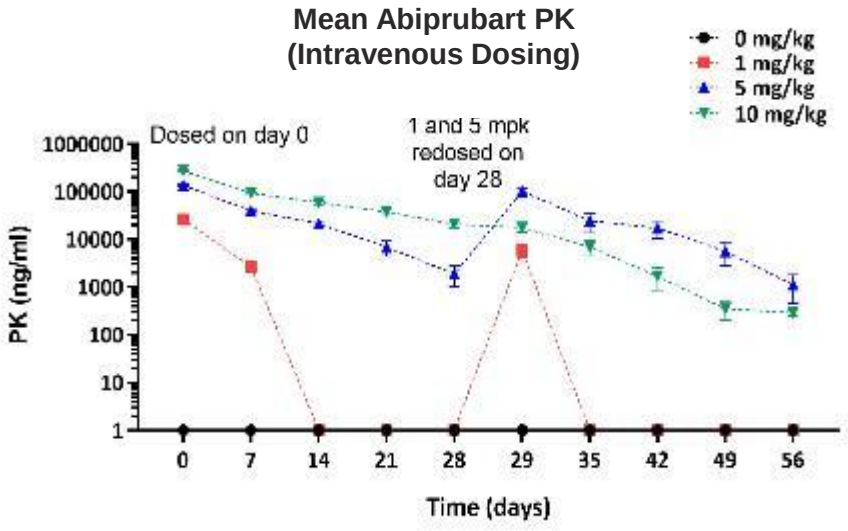


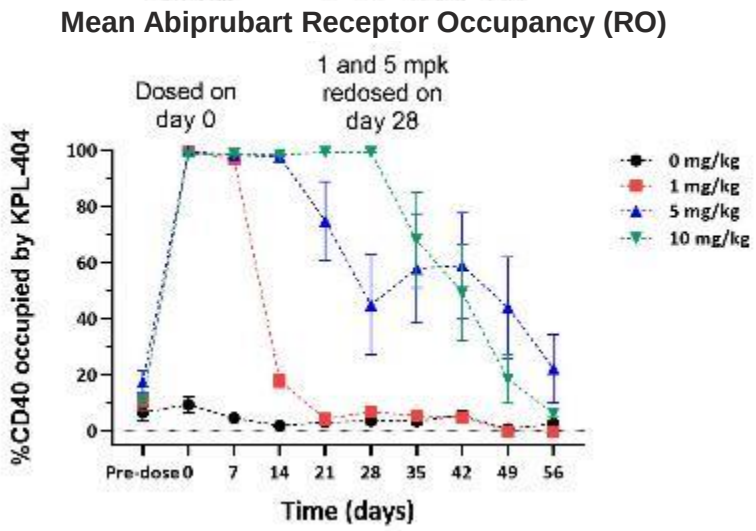
PBMCs were labeled with a cell proliferation tracker dye (Tag-it Violet) and cultured for 5 days in the presence of 10 µg/ml IgG4 isotype control Ab or anti-CD40 Abs—Abiprubart and G28-5. Cells were left untreated (media control) or stimulated with anti-CD3/CD28 cross-linking reagent ImmunoCult (IC)

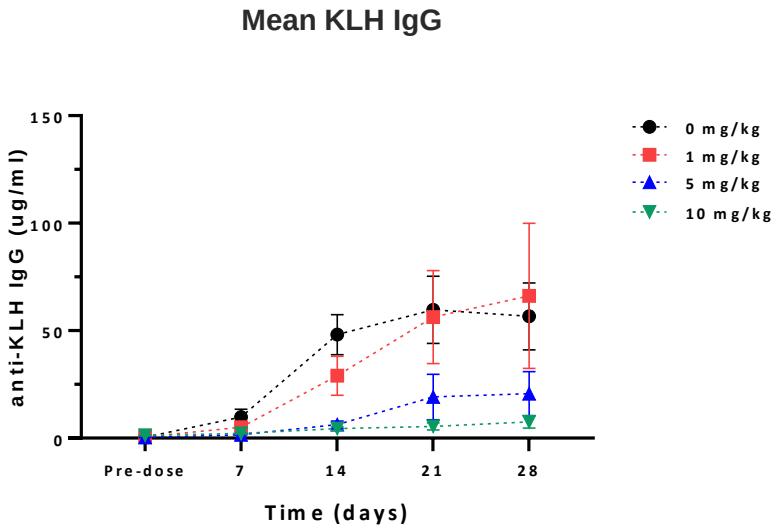
KINIKSA

*Marken et al, Arthritis Res Ther. 2021 Jan 21;23(1):36. doi: 10.1186/s13075-021-02425-x.

Abiprubart Demonstrated Prolonged Suppression of TDAR Response in a Non-Human Primate Model







Showed linear pharmacokinetic profile with low variability between non-human primate subjects (n=7)

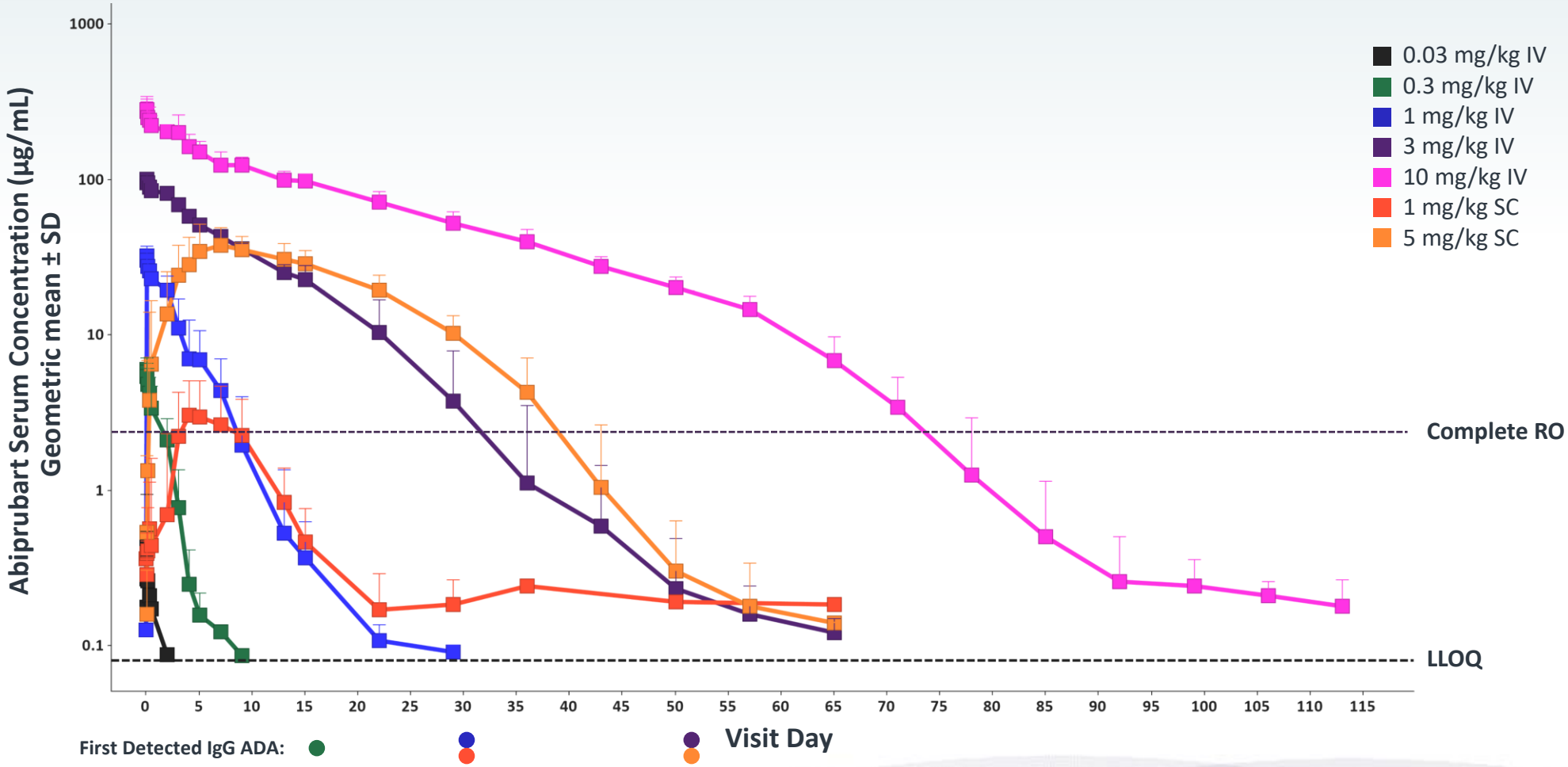
Abiprubart achieved 100% receptor occupancy for 2 weeks in all animals at 5mg/kg and 4 weeks in all animals at 10mg/kg

Complete suppression of primary T-cell dependent antigen response correlated with 100% receptor occupancy

Source: Muralidharan et al. Preclinical immunopharmacologic assessment of KPL-404, a novel, humanized, non-depleting antagonistic anti-CD40 monoclonal antibody. J Pharmacol Exp Ther. 2022, 381(1):12-21
TDAR = T-cell dependent antibody response; KLH = keyhole limpet hemocyanin

Final Data from Abiprubart Single-Ascending-Dose Phase 1 Study

Pharmacokinetic profiles for abiprubart

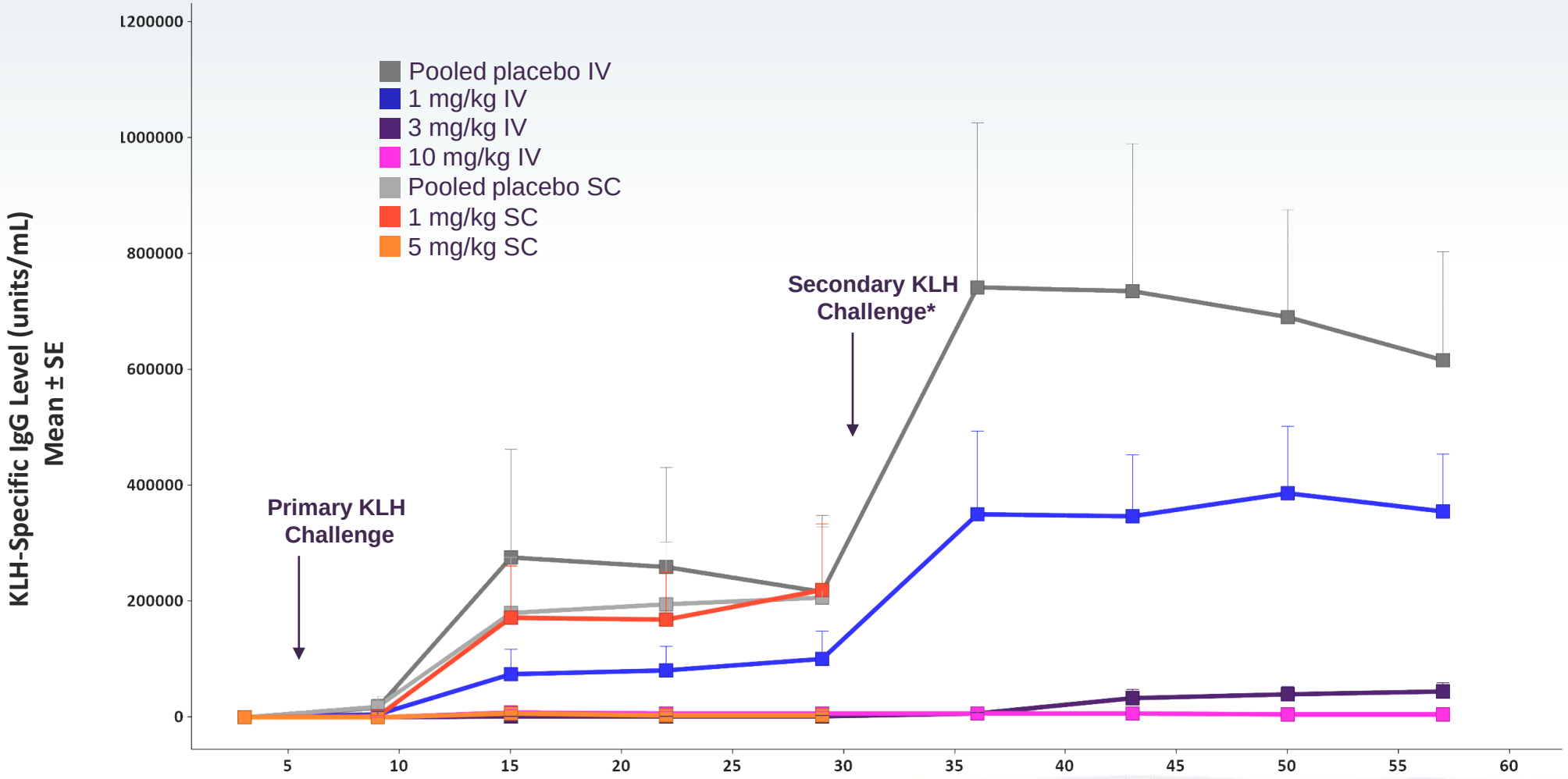


Source: Samant M, Ziemniak J, Paolini JF. First-in-Human Phase 1 Randomized Trial with the Anti-CD40 Monoclonal Antibody KPL-404: Safety, Tolerability, Receptor Occupancy, and Suppression of T-Cell-Dependent Antibody Response. J Pharmacol Exp Ther. 2023 Dec;387(3):306-314.

SD = standard deviation (upward bars depicted); IV = intravenous; SC = subcutaneous; LLOQ = lower limit of quantitation; ADA = anti-drug antibody

Final Data from Abiprubart Single-Ascending-Dose Phase 1 Study

T-Cell Dependent Antibody Response (TDAR) for KLH antigen challenge



***Only IV cohorts were rechallenged with KLH on day 29**

Source: Samant M, Ziemniak J, Paolini JF. First-in-Human Phase 1 Randomized Trial with the Anti-CD40 Monoclonal Antibody KPL-404: Safety, Tolerability, Receptor Occupancy, and Suppression of T-Cell-Dependent Antibody Response. J Pharmacol Exp Ther. 2023 Dec;387(3):306-314.

KLH = keyhole limpet hemocyanin

Corporate Presentation

APRIL 2024