Zenas BioPharma

Zenas BioPharma

Enabling patients with autoimmune diseases to reimagine life

Corporate Presentation

October 2026



Disclaimer

FORWARD-LOOKING STATEMENTS: This presentation contains "forward-looking statements." In some cases, forward-looking statements can be identified by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations, and assumptions. Forward-looking statements include, but are not limited to, statements regarding our product candidates, including the timing, progress and results of preclinical studies and clinical trials, including the timing and results from the SunStone trial in SLE and, if successful, initiation of Phase 3 trial; the timing of reporting ZB021 Phase 1 data and, if successful, the timing of initiation and reporting Phase 1 data in patients; subject to IND clearance, the timing of initiation of Phase 1 studies of ZB022 and ZB014 and reporting data in 2027; the anticipated timing or likelihood of regulatory submissions and approvals, including the timing of and potential approval of obexelimab in IgG4-RD; the therapeutic potential of our product candidates; our expectations regarding the potential commercial opportunities, estimated market size of our product candidates, the estimated disease prevalence and diagnosed patient population, including obexelimab in IgG4-RD; the potential competition for our product candidates; the potential commercial attributes and opportunities for our product candidates, including the potential for obexelimab to build a rheumatology franchise, the potential for obexelimab to be a front-line or preferred treatment option, the potential for obexelimab to be a differentiated treatment option, the potential for obexelimab to provide a safe and effective option for long-term maintenance treatment, and the potential to pause obexelimab for vaccinations or management of illness; the potential for oral therapies to match the safety and efficacy of established biologics; our launch planning, including the size and timing for hiring of commercial field personnel; and our strategy and planned or anticipated future operations, financial performance, projected costs and capital expenditures, and the Company's cash guidance, including the ability to fund operations into 2029.

The forward-looking statements in this presentation are subject to a number of known and unknown risks, uncertainties and assumptions that could cause actual results to differ materially from those expressed or implied by the forward-looking statements, including, but not limited to: our limited operating history, incurrence of substantial losses since our inception and anticipation of incurring substantial and increasing losses for the foreseeable future; the sufficiency of our existing cash to fund our operations, and our ability to borrow under our credit agreement; the risk that our indebtedness could adversely affect our financial condition or restrict our future operations; the uncertainty of clinical development, including the initiation, timing, progress, results and cost of our clinical trials and our ability to enroll patients at the pace we project; our ability to obtain regulatory approval for our product candidates and, if approved, to commercialize them, including the effects of any label restrictions, coverage and reimbursement decisions and healthcare reform; risks related to the manufacturing of our product candidates and the risk that our third-party manufacturers may encounter difficulties in production; risks related to the operations of our suppliers, many of which are located outside of the United States, including our sole contract manufacturers for obexelimab, orelabrutinib and ZB021, all of which are located in China; our reliance on third parties to conduct our preclinical studies and clinical trials; our ability to obtain and maintain sufficient intellectual property protection for our product candidates; our ability to realize the benefits of our current or future collaborations or licensing arrangements; our compliance with our license obligations; potential competition, including from large and specialty pharmaceutical and biotechnology companies; significant political, trade and regulatory developments, including changes in relations between the U.S. and China; general economic, geopolitical and market conditions, including inflation and tariffs, and other risks and uncertainties described in the section "Risk Factors" in the Company's most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q and subsequent reports filed with the Securities and Exchange Commission. Because these statements are inherently uncertain, you should not place undue reliance on them. The forward-looking statements in this presentation represent our views as of the date of this presentation. Neither we, nor our affiliates, advisors, or representatives, undertake any obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this presentation.

MARKET AND INDUSTRY DATA: Unless otherwise indicated, market and industry data contained in this presentation, including potential commercial opportunities, is based on our management's estimates and research, as well as industry and general publications and research and studies conducted by third parties. We have not independently verified the accuracy or completeness of this information. This data involves a number of assumptions and limitations and the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors.

COPYRIGHTS AND TRADEMARKS: All copyrights and trademarks used herein are the property of their respective owners.

Zenas BioPharma

Accomplished Executive Team

Extensive experience developing and commercializing biopharmaceuticals



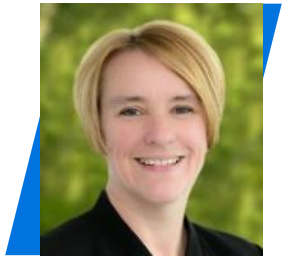
Lonnie Moulder
Chief Executive Officer & Chairman



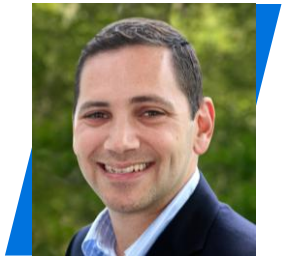
Joe Farmer
President & Chief Operating Officer



Lisa von Moltke, M.D.
Head of R&D & Chief Medical Officer



Haley Laken, Ph.D.
Chief Scientific Officer



Jerald Korn
Chief Legal and Strategy Officer



Heinrich Schlieker
Chief Technical Officer



Caroline Chevalier
Chief Administrative Officer

Deep experience across numerous biotech and pharmaceutical companies

70+ IND filings | **30+** BLA/NDA filings | **30+** Commercial product launches

TESARO · CUBIST PHARMACEUTICALS · GSK · Alkermes · genzyme · deciphera a member of ONO PHARMA · MGi PHARMA · Kaleido

Pfizer · Wyeth · Eisai · SERES THERAPEUTICS · Takeda MILLENNIUM THE TAKEDA ONCOLOGY COMPANY · sanofi · Abraxis BioScience · Roche · Sage Therapeutics

Zenas BioPharma

Zenas BioPharma

Advancing a Portfolio of Potentially Best-in-Class I&I Product Candidates



Positioned to become a multi-franchise, fully-integrated, commercial-stage biopharmaceutical company

2026

- ✓ **BLA accepted by FDA; May 2027 PDUFA date for obexelimab in IgG4-RD**
- ✓ **Two late-stage franchise programs for four I&I indications**
- ✓ **Early-stage programs with best-in-class potential**
- ✓ **Experienced team with strong track record of success**
- ✓ **Global development and commercialization capabilities**
- ✓ **Cash runway into 2029; capitalized to commercialize and advance pipeline**



2031

- ✓ **Potential approval of three[1] potentially best-in-class franchise molecules across five I&I indications**
- ✓ **Global commercial presence in indications representing markets of >$30B[2]**

[1] Obexelimab, orelabrutinib, and ZB021; [2] Company estimate based on published reports and disease prevalence and pricing of advanced therapies within indications that include IgG4-RD, SLE, PPMS, naSPMS

Zenas BioPharma

A rheumatology and neuroimmunology portfolio with recognized regulatory paths and significant commercial potential

Compound	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Territory
Obexelimab (anti-CD19 and FcγRIIb bifunctional mAb)	IgG4-RD				May 27th PDUFA date; positive Phase 3 INDIGO trial[1]	Global excluding BMS territories[2]
	RMS			Phase 2 MoonStone trial met primary endpoint		
	SLE			Phase 2 SunStone trial data expected in 4Q 2026		
Orelabrutinib (BTK inhibitor)	PPMS				Phase 3 Primrose trial ongoing	Global
	naSPMS				Phase 3 Monarch trial ongoing	
ZB021 (Oral IL-17AA/AF inhibitor)	I&I		Clinical data expected in 4Q 2026			Global excluding China & SE Asia[3]
ZB022 (Brain-penetrant TYK2 inhibitor)	I&I		Clinical data expected 2027			Global
ZB014 (half-life extended CD19 and FcγRIIb mAb)	I&I		Clinical data expected 2027			Global

Multiple clinical and regulatory milestones throughout remainder of 2026 and in 2027

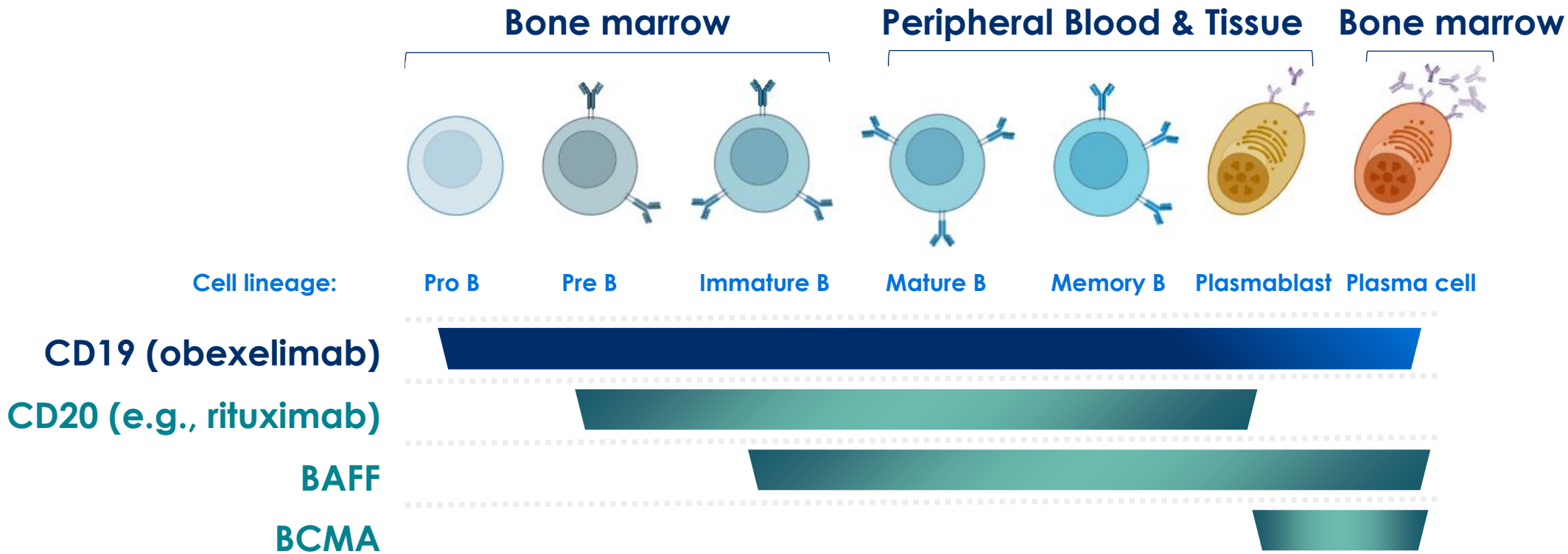
[1] MAA submitted to EMA; [2] Bristol Myers Squibb & Co. holds exclusive development and commercialization rights for obexelimab in JPN, SK, TWN, HK, SGP, AUS; [3] InnoCare territories

Zenas BioPharma

Obexelimab: a Potential I&I Franchise Molecule



Targeting CD19 and FcγRIIb provides broad coverage of B cell lineage



CD19 broadly **expressed across B cell lineage**, including **pro-B cells**, **pre-B cells**, **B cells**, **plasmablasts** and select **plasma cells**[1]

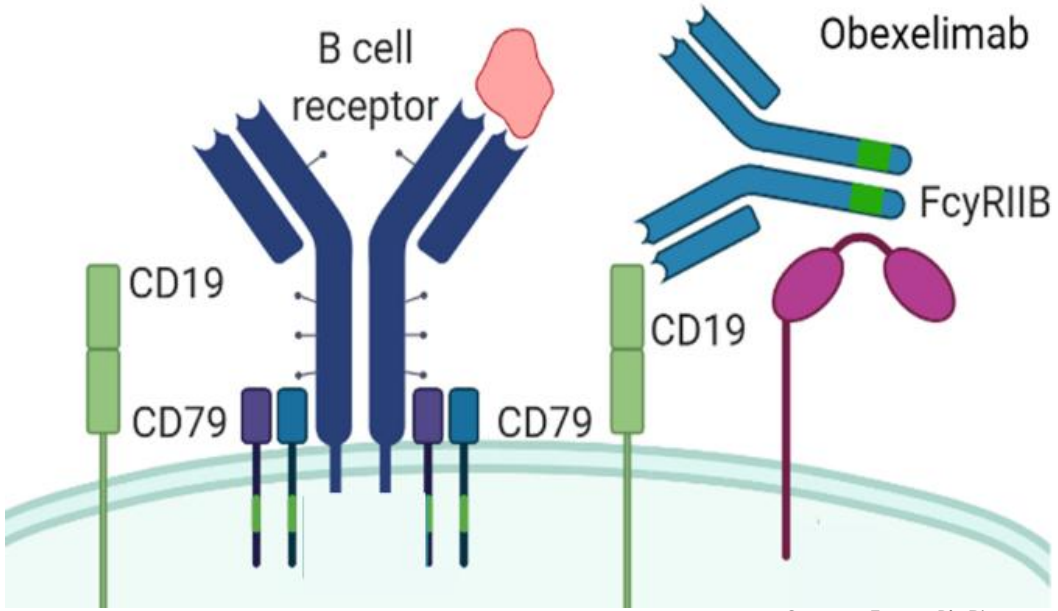
[1]Abeles et al. 2024; Verbeek et al. 2019; BAFF = B-cell activating factor; BCMA = B-cell maturation antigen

Zenas BioPharma

Obexelimab is a differentiated B cell targeted therapy with a novel bifunctional MoA

Obexelimab's **co-engagement** of CD19 and FcγRIIb designed to result in an **inhibition of B cells**, rather than effector cell-dependent depletion[1-5]

- FcγRIIb engagement **mimics the natural inhibitory signaling triggered by antigen-antibody** complexes
- Fc engineered to increase FcγRIIb affinity **~230-fold vs. native IgG1**[1]
- **Avoids ADCC / CDC-mediated depletion** with activity independent of immune effector cell presence[2]
- **Potent inhibition of B cell** antibody production, proliferation, cytokine secretion, and antigen presentation to T cells[1-4]
- **Persistent inhibitory activity** in blood and **within tissues**[5]
- Subcutaneous **dosing regimen selected for optimal pharmacokinetic and clinical activity**



Source: Zenas BioPharma

[1] Chu et al. 2008 & Zenas data on file; [2] Horton et al. 2011 & Zenas Zenas data on file; [3] Szili et al. 2014; [4] Morelli et al. 2025; [5] Chu et al. 2021

Zenas BioPharma

Targeting CD19 and FcγRIIb has the potential to build a rheumatology franchise

Compound	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Next Milestone	Partnerships[2,3]
Obexelimab[1] (CD19 and FcγRIIb bifunctional mAb)	IgG4-RD	**Phase 3 INDIGO trial primary endpoint and key secondary endpoints met**				**BLA decision by the FDA** expected by May 2027[4] **MAA submitted to EMA**	Bristol Myers Squibb™ ROYALTY PHARMA
	RMS			**Phase 2 MoonStone 12-week primary endpoint met; 24-week data reported**		**Completion of open-label extension**	
	SLE			**Phase 2 SunStone trial enrollment complete**		**Topline results for overall & biomarker populations** expected Q4 2026	
ZB014 (half-life extended CD19 and FcγRIIb mAb)	I&I	**IND enabling ongoing**				**Phase 1 data expected in 2027**	

[1] Zenas acquired exclusive worldwide rights to obexelimab from Xencor, Inc. [2] Bristol Myers Squibb & Co. holds exclusive development and commercialization rights for obexelimab in JPN, SK, TWN, HK, SGP, AUS. [3] Royalty Pharma 2025 agreement for up to $300 million total investment with $75 million payment upfront and potential for additional payments contingent on achievement IgG4-RD and SLE regulatory and commercial milestones. Royalty Pharma entitled to a 5.5% royalty on worldwide net sales of obexelimab; BLA accepted for review by FDA in August 2026 and granted May 27, 2027, PDUFA date.

Zenas BioPharma

Zenas BioPharma

IgG4-RD – Disease Overview & Current Treatment Landscape



IgG4-RD is a debilitating chronic fibro-inflammatory disease often affecting multiple organs potentially resulting in irreversible damage

Disease Overview:

- Patients present with **single or multi-organ involvement** and a progressive increase in new or worsening disease flares[1]
- Early inflammatory disease progresses to a fibrotic stage, leading to **irreversible tissue damage and organ failure**[1]

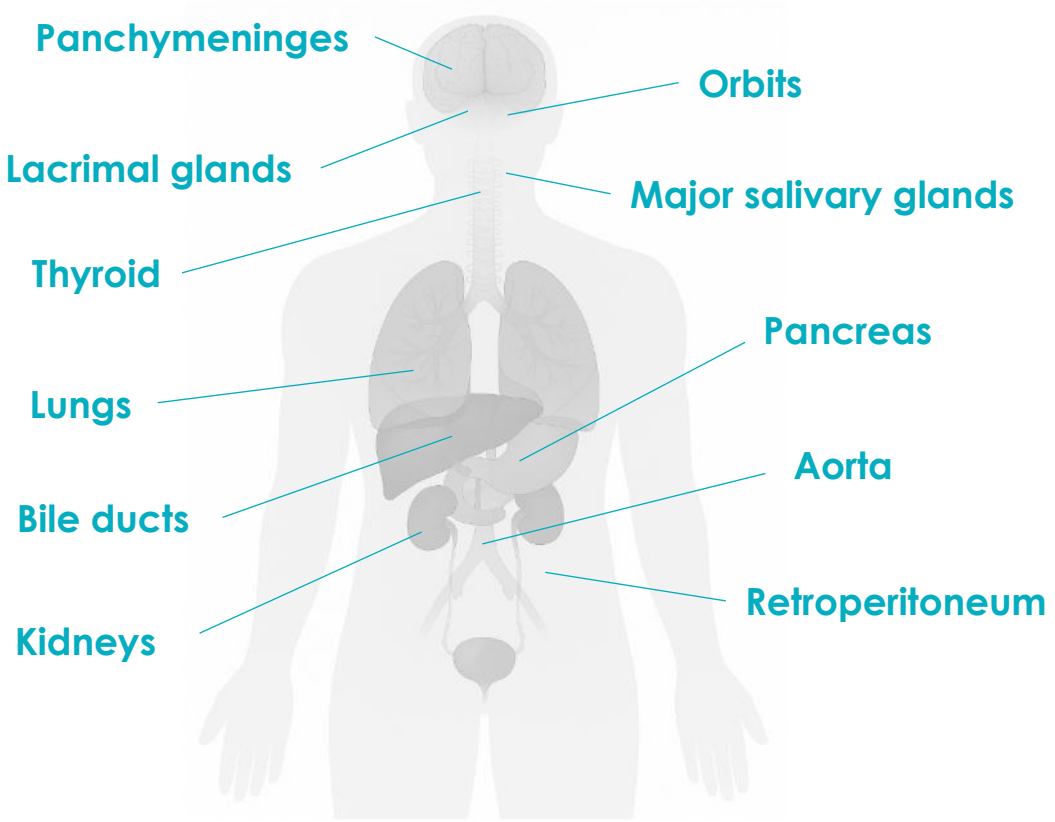
Pathophysiology:

- **Driven by expansion of CD19+ and IgG4+ B cells and plasmablasts** with significant tissue infiltration
  - Inflammatory cytokines and T cell activation through antigen presentation further exacerbate inflammation & fibrosis

Patient Population:

- IgG4-RD **affects approximately 30,000 to 40,000 people** in the U.S. with similar global prevalence[2]

IgG4-RD: Most common organs affected



[1] Perugino *et al.* 2020. Zhang & Stone 2019. Mattoo et al. 2014. UpToDate; [2] Wallace et al 2023 and Zenas BioPharma research

Zenas BioPharma

Current IgG4-RD treatment landscape and unmet need

Current Treatments:

Glucocorticoids (GCs)	Toxicity with chronic use
B-Cell Depleters (Anti-CD19 or -20 mAbs)	Immune compromise with infection risk
Disease-Modifying Antirheumatic Drugs (DMARDs)	Only modest efficacy and toxicities

Current SOC have **limitations** that make chronic therapy difficult

Unmet Need

Patients need a convenient, reversible, effective therapy for chronic use and safe and effective long-term disease management

94% of surveyed physicians agree that IgG4-RD is a disease that requires proactive maintenance treatment.[1]

IgG4-RD is a **chronic disease** that requires **chronic therapy**

1 ATU Survey (n=102), 2025.

Novel treatment strategies are needed for IgG4-RD

- As a chronic progressive and debilitating disease, **most patients require safe, effective, and convenient treatment options for long-term disease management**
- **Glucocorticoids,** while effective, **are associated with cumulative toxicity** and are unsuitable for long-term use

- **B cell–depletion** is effective but **has limitations** which become more pronounced with long-term use including:
  - ⚠ **Prolonged immunosuppression**
  - ⚠ **Hypogammaglobulinemia**
  - ⚠ **Increased risk of infections**
  - ⚠ **Impaired vaccine response**
  - ⚠ **Intravenous administration and infusion-related reactions**

Zenas BioPharma

Obexelimab for IgG4-RD

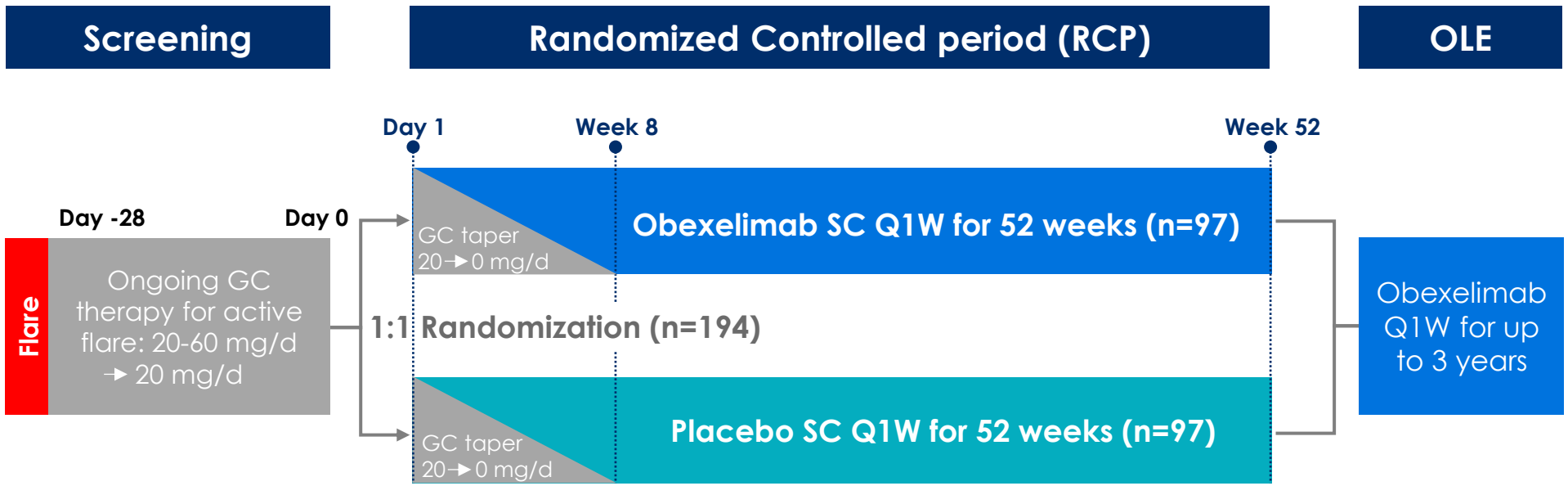


INDIGO: A Double-blind, randomized, placebo-controlled trial to evaluate the efficacy and safety of obexelimab treatment for IgG4-RD

Indigo study

Inclusion
- Adults with IgG4-RD (ACR/EULAR-confirmed)
- Active disease **requiring** GC initiation/escalation

Exclusion
- Active infection
- Recent biologics or B-cell depletion
- High-dose steroids (>60 mg/day)



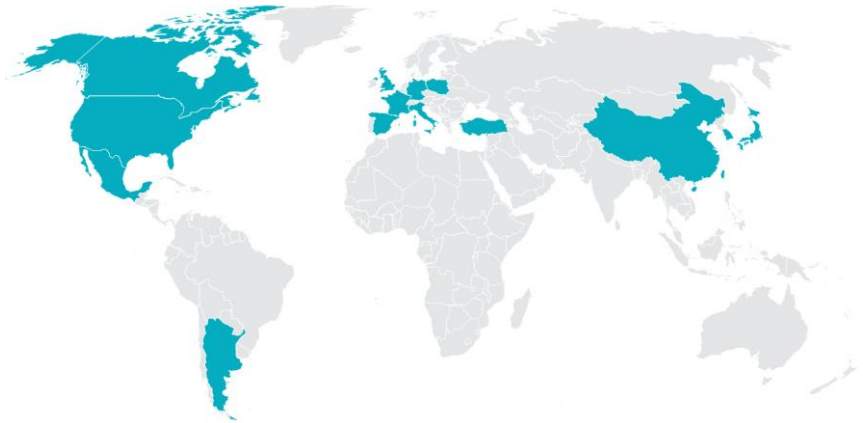
- **Primary endpoint: time to disease flare through week 52***
- Key secondary endpoints include time to investigator assessed flare, 52-week flare rate, complete remission rate, rescue medication use

Trial identifier: NCT05662241; GC = glucocorticoids; Q1W = once weekly; SC = subcutaneous; OLE = open label extension period. All patients remaining on study are receiving obexelimab in the OLE; * The: primary endpoint was defined as, time to first investigator- and adjudication committee-determined flare requiring initiation of rescue therapy (glucocorticoid-based treatments)

Zenas BioPharma

INDIGO enrolled 194 patients at 114 sites across 15 countries representing a global IgG4-RD population

Enrollment Countries

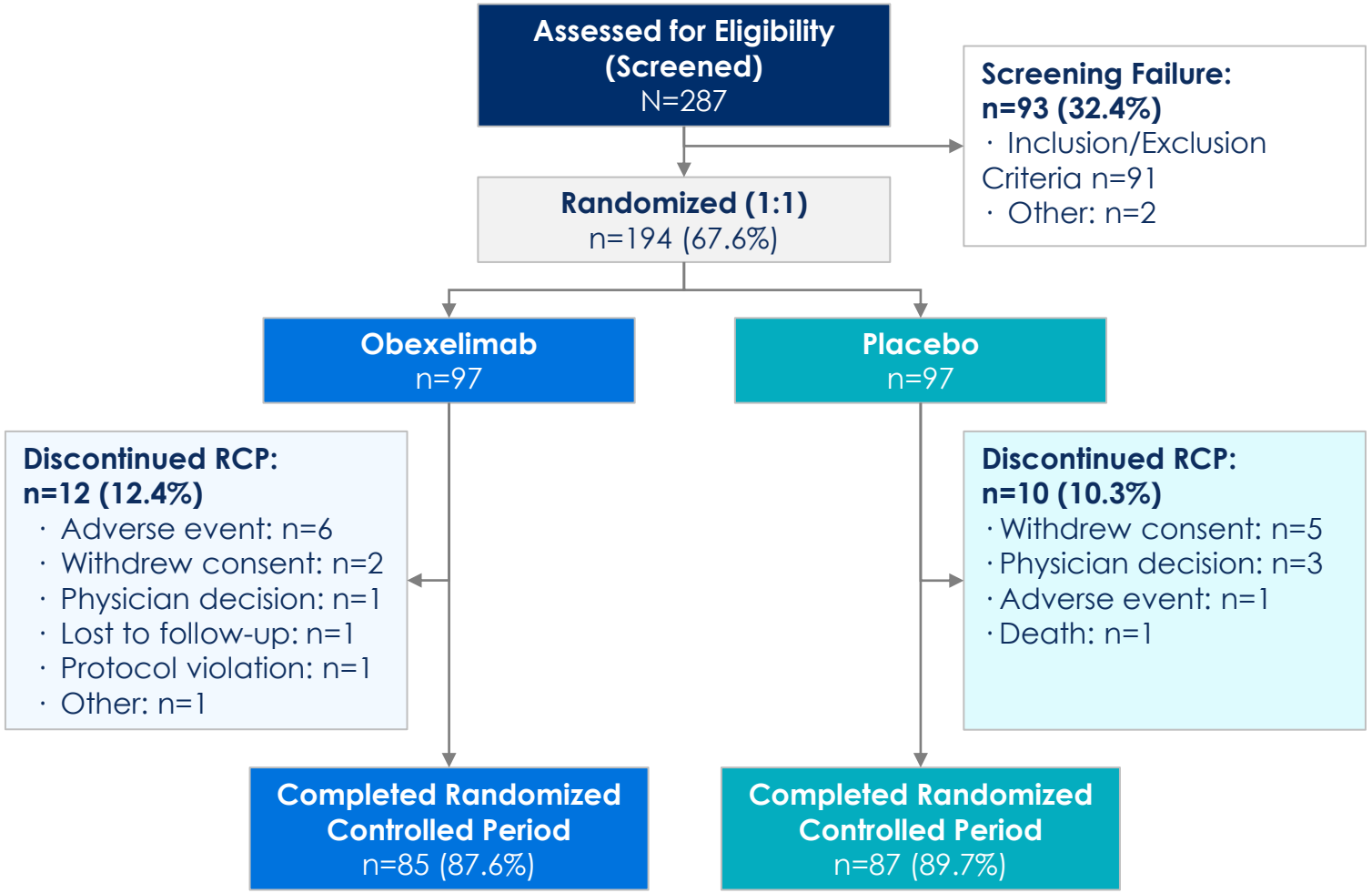


EAST ASIA
- China
- Japan
- Rep. of Korea
- Taiwan

N. AMERICA
- Canada
- United States

LATIN AMERICA
- Argentina
- Mexico

EUROPE
- France
- Germany
- Italy
- Poland
- Spain
- Turkey
- United Kingdom



INDIGO is the largest clinical trial ever conducted for IgG4-RD

Zenas BioPharma

INDIGO baseline demographics were well balanced across both arms

Characteristic	Obexelimab (N=97)	Placebo (N=97)
Age — yr	**59.6 ± 13.4**	**58.7 ± 12.0**
Male sex, n (%)	**65** (67.0)	**64** (66.0)
Race, n (%)		
Asian	**59** (60.8)	**51** (52.6)
White	**27** (27.8)	**39** (40.2)
Other	**11** (11.3)	**7** (7.2)
Region, n (%)		
Asia	**51** (52.6)	**48** (49.5)
US/Canada	**24** (24.7)	**16** (16.5)
Europe	**19** (19.6)	**28** (28.9)
Latin America	**3** (3.1)	**5** (5.2)

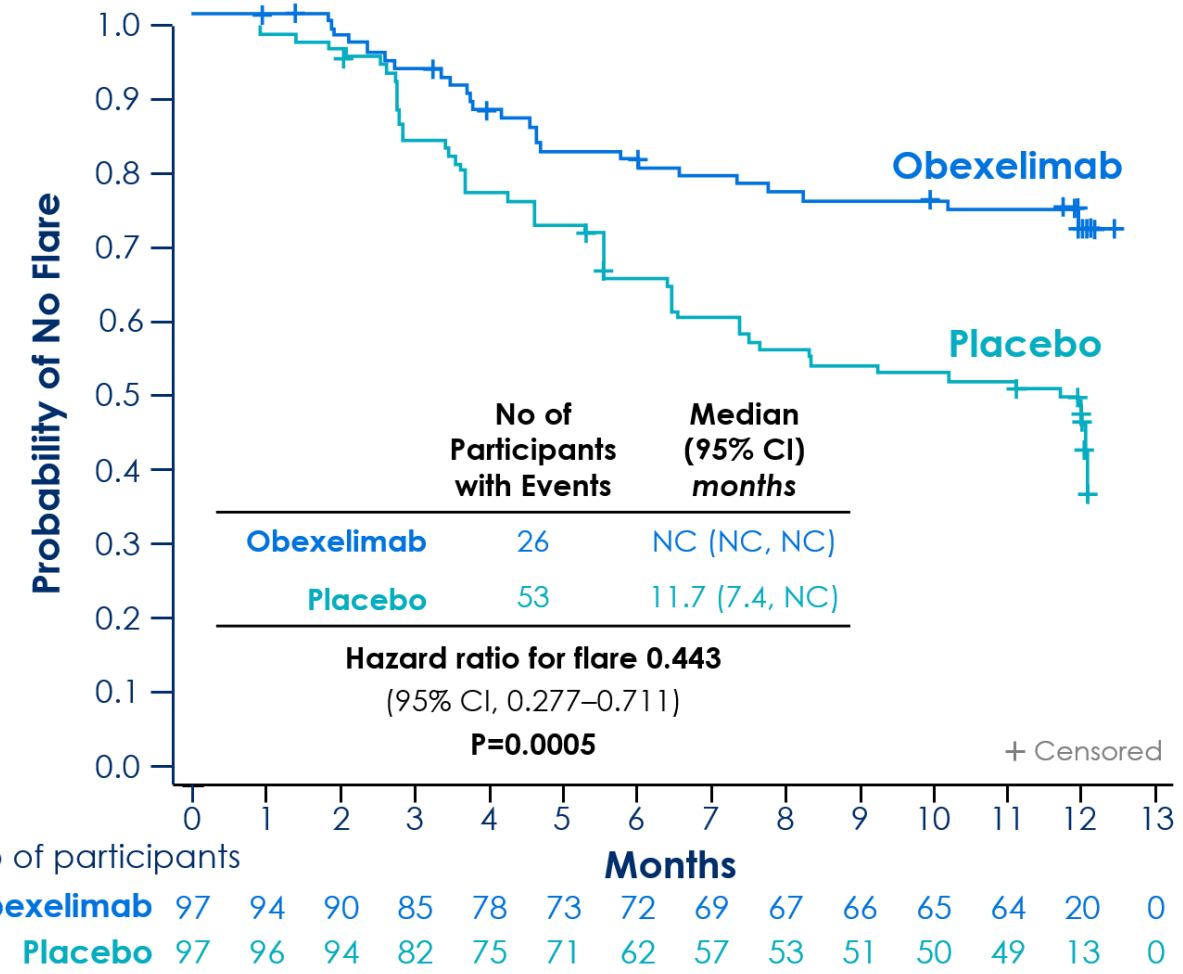
INDIGO clinical characteristics were well balanced across both arms

Characteristic	Obexelimab (N=97)	Placebo (N=97)
IgG4-related disease manifestation		
Recurrent — no. (%)	**64** (66.0)	**65** (67.0)
Newly diagnosed — no. (%)	**33** (34.0)	**32** (33.0)
Number of organs involved — no. (%)		
1	**6** (6.2)	**7** (7.2)
2–4	**59** (60.8)	**58** (59.8)
>4	**32** (33.0)	**32** (33.0)
Most commonly affected organs — no. (%)		
Salivary gland	**60** (61.9)	**66** (68.0)
Lacrimal gland	**54** (55.7)	**49** (50.5)
Pancreas	**45** (46.4)	**46** (47.4)
Lymph nodes	**41** (42.3)	**46** (47.4)
Disease duration — yr[1]	**3.1 ± 4.2**	**2.5 ± 3.2**
Median ACR–EULAR score (IQR)¶	**38.0** (30.0–45.0)	**38.0** (31.0–44.0)
Prior rituximab use — no. (%)	**12** (12.4)	**11** (11.3)

[1] Disease duration is defined as the time between the date of diagnosis of IgG4-related disease (as reported by the investigator) and the screening visit.

INDIGO primary endpoint, reduction in risk of disease flare, was met with high statistical significance

- **Obexelimab reduced the risk of IgG4-RD disease flare by 56%** compared to placebo
  - ➢ **73% of obexelimab patients were free of flares** (71 out of 97 patients)
  - ➢ Flares occurred in 26 patients (26.8%) on obexelimab and 53 (54.6%) on placebo



HR = Hazard Ratio; CI = Confidence Interval; The: primary endpoint was time to first investigator- and adjudication committee-determined flare requiring initiation of rescue therapy

Zenas BioPharma

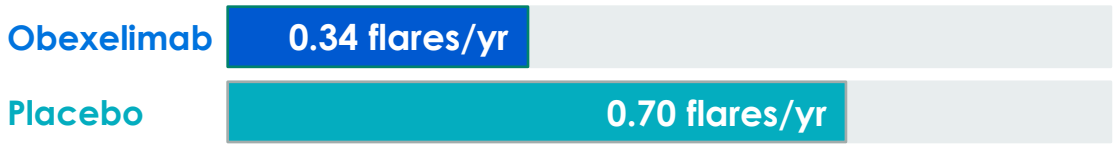
Obexelimab achieved all four key secondary endpoints with high statistical significance

Time to first investigator-determined flare (patients with ≥1 flare)



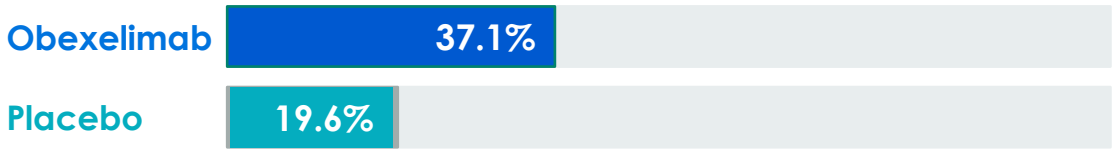
HR 0.41 (95% CI 0.26–0.66) P=0.0001

Annualized rate of adjudicated flares requiring rescue therapy



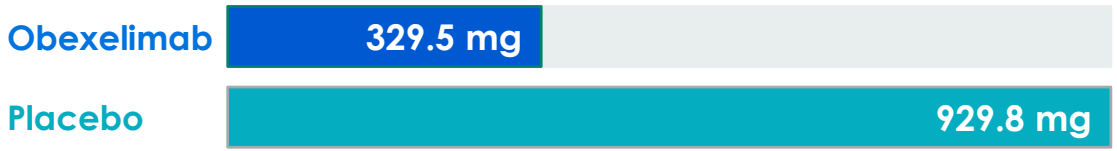
Rate ratio 0.48 (95% CI 0.32–0.74) P=0.0008

Patients achieving complete remission at Week 52



+17.7 pp risk difference P=0.0049

Cumulative glucocorticoid rescue dose through Week 52[1]



−600 mg difference (65% less exposure) P=0.0042

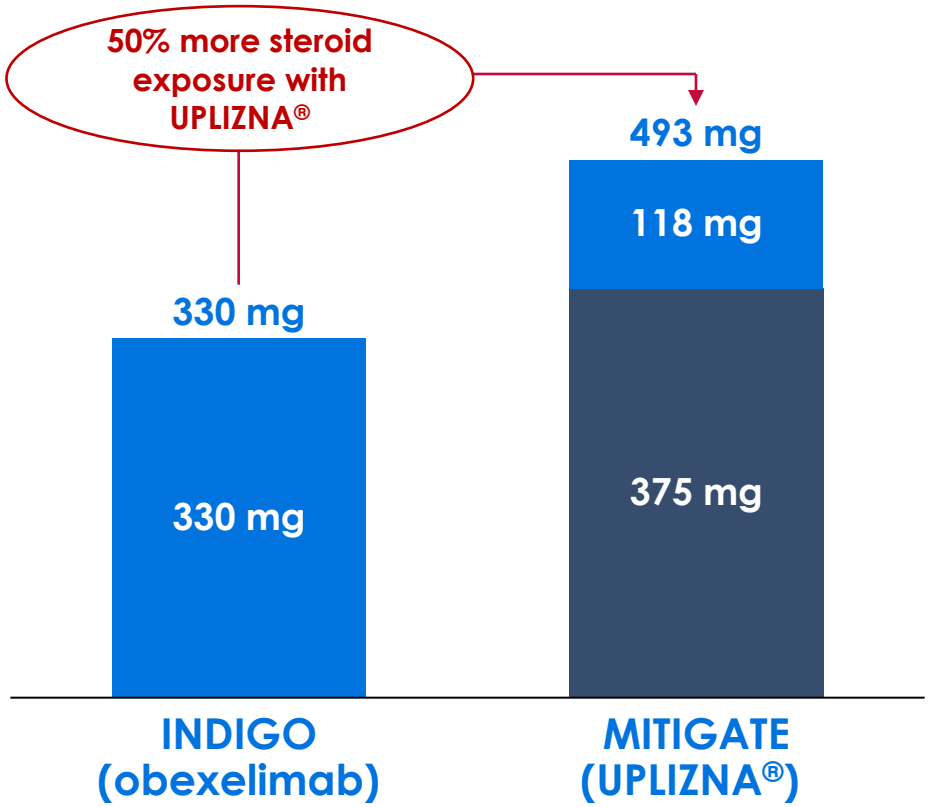
INDIGO efficacy outcomes consistently demonstrated reductions in disease activity, flare burden, and glucocorticoid use with obexelimab across multiple endpoints

[1] GC exposure shown reflects rescue treatment for flare management; obexelimab was not administered with routine GC prophylaxis for hypersensitivity

Zenas BioPharma

Average per-patient steroid exposure in INDIGO and MITIGATE

Total Prednisone or Equivalent use During RCP



Rescue GC use[2]
GC use as infusion premedication

- **In MITIGATE, 100% of patients were exposed to at least 375 mg of steroids regardless of disease activity[1]**
- **In INDIGO, only 23% of patients were exposed to steroids as rescue therapy[2]**

[1] Per protocol, MITIGATE required premedication with 100 mg IV methylprednisolone (or equivalent corticosteroid) prior to each infusion, patients received three infusions in the 52-week RCP. 1 mg methylprednisolone is equivalent to ~1.25 mg of prednisone or 375 mgs total across three doses

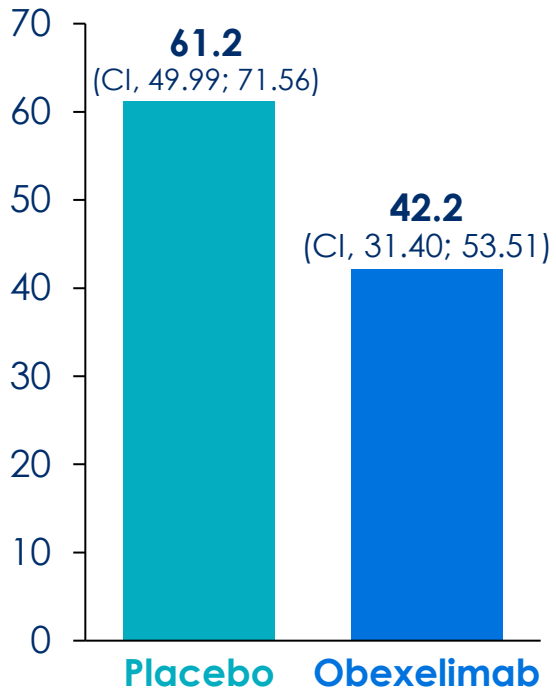
[2] For both trials, rescue therapy only includes GC use to treat active IgG4-RD (flare) and does not include use during the 8-week steroid taper period or to treat other conditions; obexelimab was not administered with routine GC prophylaxis for hypersensitivity prior to dosing

Abbreviations: GC = glucocorticoid (prednisone or equivalent); RCP = Randomized Controlled Period; No head-to-head studies were run and numerical comparisons may be impacted due to differences in GC regimens

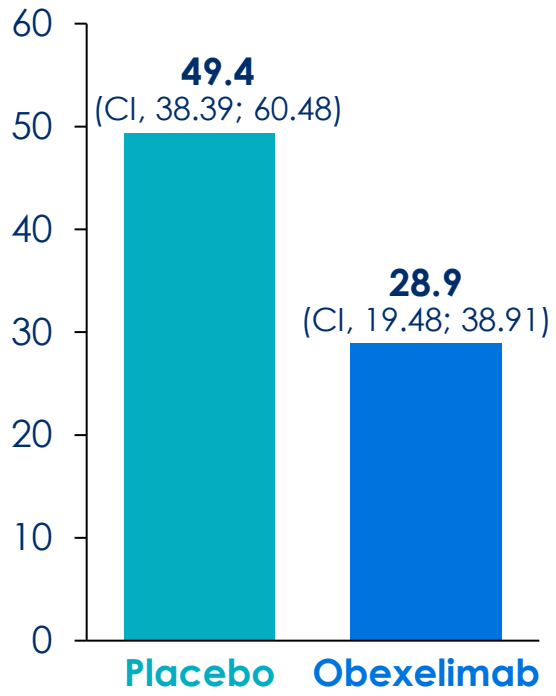
Obexelimab was associated with less accumulated glucocorticoid toxicity at week 52

Glucocorticoid Toxicity Index - Cumulative Worsening Score (GTI-CWS) measures domain-based cumulative worsening in glucocorticoid-related toxicity over time[1]

Percent of Patients With ≥20 Point GTI-CWS at Week 52



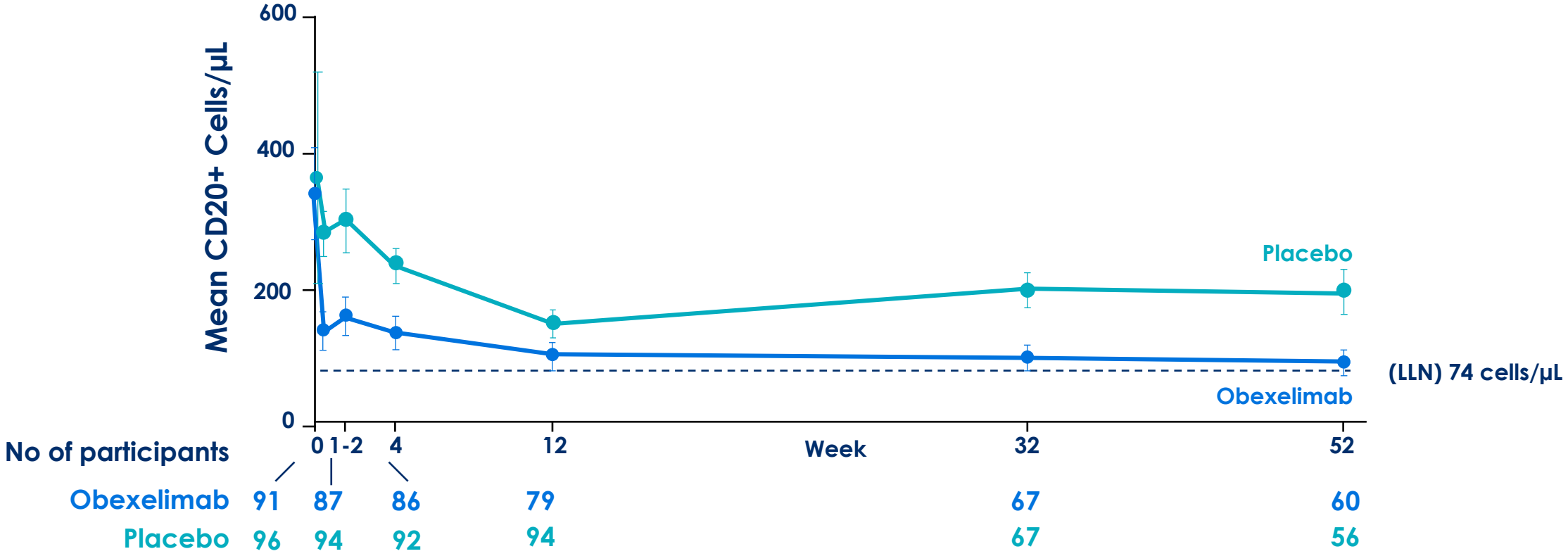
Percent of Patients With ≥30 Point GTI-CWS at Week 52



[1]GTI Domains include Body Mass Index, Blood Pressure, Glucose Metabolism, Lipid Metabolism, Glucocorticoid Myopathy, Skin Toxicity, Neuropsychiatric Effects, and Infection

Zenas BioPharma

Circulating B cell levels remained above the lower limit of normal with obexelimab treatment



Maintenance of B cell levels above the lower limit of normal supports obexelimab's non-depleting inhibitory mechanism of action

Zenas BioPharma

The safety profile of obexelimab was consistent with placebo, with fewer serious and high-grade adverse events observed

Characteristic	Obexelimab (N=97)	Placebo (N=97)
Patients with ≥1 AE	**95** (97.9%)	**93** (95.9%)
Patients with ≥1 SAE	**10** (10.3%)	**18** (18.6%)
Patients with ≥1 Grade ≥3 AE	**11** (11.3%)	**23** (23.7%)
Patients with AE leading to discontinuation	**9** (9.3%)	**3** (3.1%)
Selected Treatment-emergent AEs (≥10 in either)		
Arthralgia	**19** (19.6%)	**11** (11.3%)
Nasopharyngitis	**18** (18.6%)	**14** (14.4%)
Upper respiratory infection	**15** (15.6%)	**22** (22.7%)
Insomnia	**13** (13.4%)	**10** (10.3%)
Back pain	**11** (11.3%)	**12** (12.4%)
Diarrhea	**11** (11.3%)	**6** (6.2%)
Adverse events of Special Interest		
Hypersensitivity (≥Grade 2)	**16** (16.5%)	**11** (11.3%)
Infections (≥Grade 3)	**2** (2.1%)	**4** (4.1%)
Malignancy	**3** (3.1%)[1]	**0**
Injection site reaction (≥Grade 2)	**2** (2.1%)	**1** (1.0%)

[1] All malignancies deemed unrelated to treatment: One renal cell carcinoma determined to be pre-existing before enrollment; One prostate cancer, for which there is no known increased risk with immunosuppression; One squamous cell carcinoma.

Zenas BioPharma

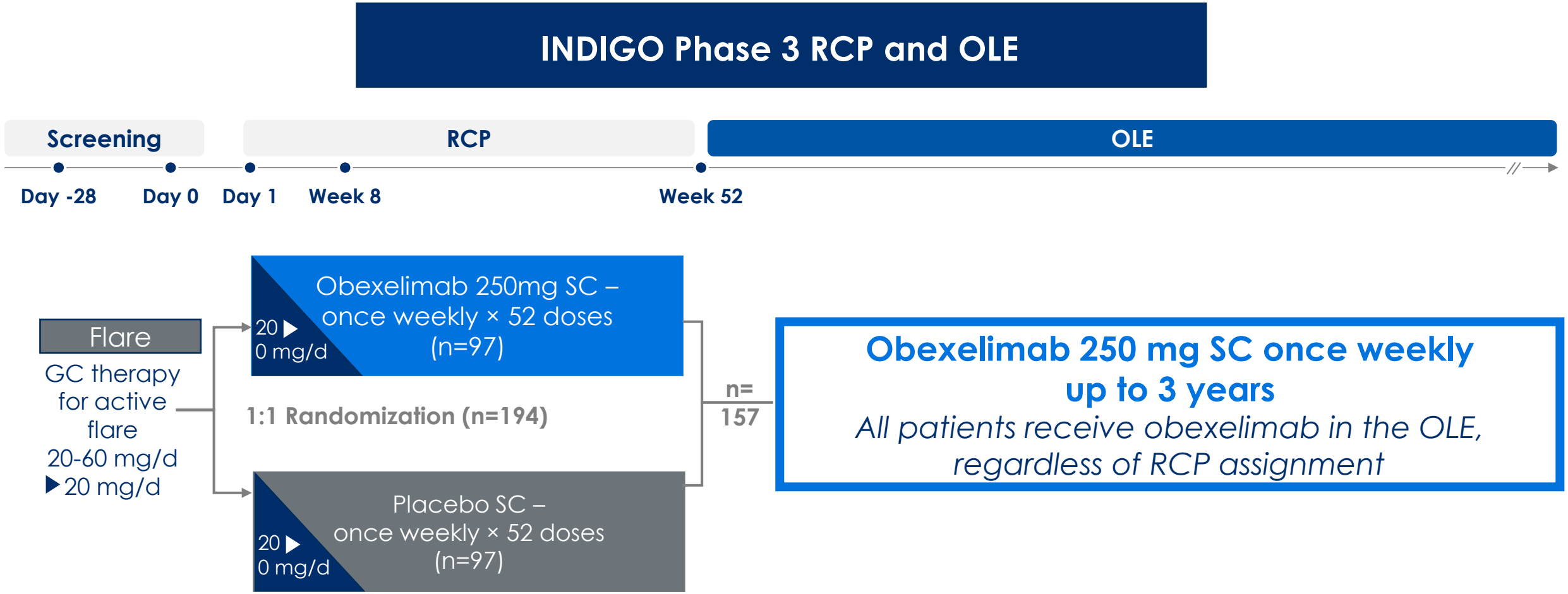
INDIGO trial conclusions

- Obexelimab significantly **reduced the risk of IgG4-RD flare requiring rescue therapy** vs. placebo through Week 52
- Obexelimab **reduced cumulative glucocorticoid rescue use** and was associated with less glucocorticoid toxicity worsening versus placebo
- Obexelimab was **generally well tolerated;** no new safety signals were identified
- INDIGO demonstrated that B-cell inhibition through CD19 and FcγRIIb co-engagement may present a **novel inhibitory treatment approach** for IgG4-RD
- INDIGO supports obexelimab as **a differentiated subcutaneous therapeutic approach** for IgG4-RD

INDIGO establishes the efficacy of obexelimab as a B-cell–inhibiting agent with a distinct mechanism of action for the potential treatment of IgG4-RD

GC = glucocorticoids

INDIGO Open-label Extension (OLE) evaluates longer-term disease control with obexelimab

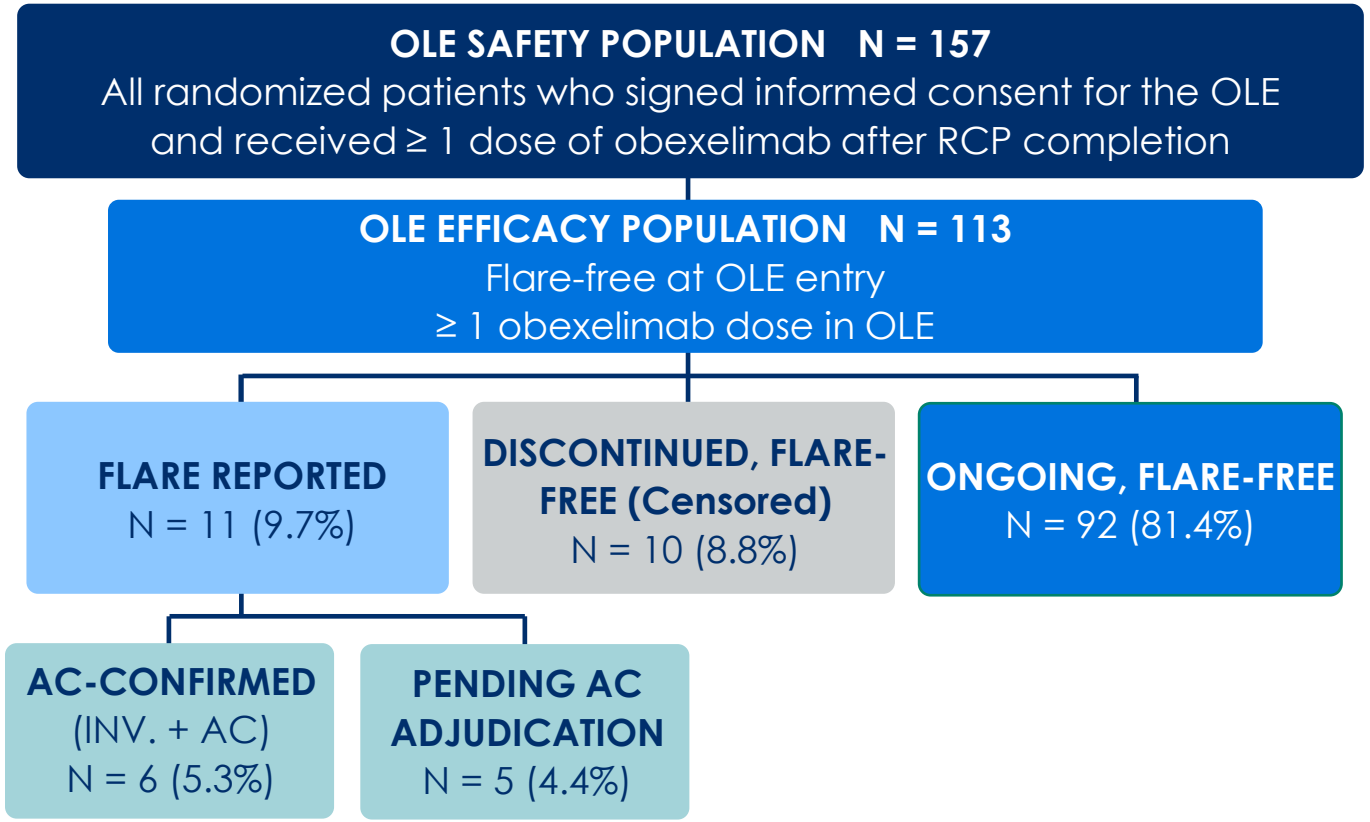


GC = glucocorticoids; q7d = every 7 days; SC = subcutaneous; RCP = Randomized Controlled Period; OLE = Open-Label Extension.

Zenas BioPharma

90.3% of patients did not have investigator-determined flares during the OLE

OLE Safety and Efficacy Population



90.3%

Without an Investigator-Determined Flare, as of the May 2026 data cut

- **94.7% did not have AC confirmed flare**
- 11/113 (9.7%) experienced investigator-determined flare, 6 of which were positively adjudicated at the time of data cut
- 92 patients remained in the OLE without an investigator-determined flare
- 12-month flare-free probability: 0.87 (95% CI, 0.77–0.93)

Data cut: 15-May-2026. flare= investigator determined flare. Discontinued= discontinued from treatment. Percentages for OLE Efficacy Population subgroups are of N = 113. "AC-Confirmed" = flares meeting the primary OLE efficacy endpoint definition (investigator- and AC-adjudicated). "Pending AC Adjudication" reflects the expected lag between investigator-reported flares and independent AC review inherent to an interim analysis of an ongoing study; these are not yet counted as events under the primary endpoint. 11 + 10 + 92 = 113 (OLE Efficacy Population). 113 + 44 = 157 (OLE Safety Population).

Zenas BioPharma

Low flare rates and limited glucocorticoid rescue were observed

No patient had more than 1 flare at the OLE data cut

	Number of flares	Unadjusted annualized flare rate
Investigator-determined flare	11	0.11 flares per year
Investigator- and AC-determined flare	6*	0.06 flares per year

92%

of patients received no GC rescue therapy (104/113)†

*Five additional investigator-reported flares were pending AC adjudication at data cut.
†Rescue medication data were pending entry for 3 patients at data cut.
Abbreviations: AC: adjudication committee; GC: glucocorticoid; OLE: open-label extension.
Reference: Stone JH, et al. Presented at the 6th International Symposium on IgG4-Related Disease (IgG4ward!); October 8-10, 2026. Abstract 86.

Zenas BioPharma

The OLE safety profile was consistent with the RCP

Obexelimab was generally well tolerated, with no new safety signals identified

	RCP Obexelimab (N=97)	RCP Placebo (N=97)	OLE (N=157)
Patients with ≥1 AE	95 (97.9%)	93 (95.9%)	135 (86.0%)
Patients with ≥1 SAE	10 (10.3%)	18 (18.6%)	11 (7.0%)
Patients with ≥1 Grade ≥3 AE	11 (11.3%)	23 (23.7%)	18 (11.5%)
Patients with AE leading to discontinuation of treatment	9 (9.3%)	3 (3.1%)	5 (3.2%)
Selected Treatment-emergent AEs (≥10 in either)			
Arthralgia	19 (19.6%)	11 (11.3%)	14 (8.9%)
Nasopharyngitis	18 (18.6%)	14 (14.4%)	19 (12.1%)
Upper respiratory infection	15 (15.6%)	22 (22.7%)	24 (15.3%)
Adverse events of Special Interest			
Hypersensitivity (≥Grade 2)	16 (16.5%)	11 (11.3%)	13 (8.3%)
Infections (≥Grade 3)	2 (2.1%)	4 (4.1%)	2 (1.3%)
Malignancy*	3 (3.1%)	0	4 (2.5%)
Injection site reaction (≥Grade 2)	2 (2.1%)	1 (1.0%)	0 (0.0%)

* 7 patients reported malignancies (3 RCP; 4 OLE); all were assessed as not treatment related. 2 had a history of the same malignancy; RCC was evident on baseline imaging, prostate cancer was preceded by PSA >3× ULN, and SCC was diagnosed 8 months after obexelimab discontinuation. An OLE nasal neoplasm was confirmed as a benign polyp and excluded.

Zenas BioPharma

Obexelimab: additional data

Glucocorticoid-associated toxicity data[1]

- Obexelimab significantly reduced cumulative glucocorticoid toxicity versus placebo at week 52
  - GTI Cumulative Worsening Score difference at week 52: -11.4; p=0.021
- Fewer patients receiving obexelimab reached clinical thresholds for cumulative glucocorticoid toxicity versus placebo.

Vaccine sub-study data[2]

- Vaccination during the treatment-free window:
  - 6 of 7 (86%) participants achieved serologic immunity to influenza
  - 4 of 4 (100%) participants achieved serologic immunity to COVID-19
- No disease flares were observed during the treatment-free vaccination window, lasting an average of 34.6 days.
- Participants (n=7) maintained pre-existing markers of immunity following long-term obexelimab treatment (71% for influenza and 50% for COVID-19).

[1] Phase 3 INDIGO trial sub-analysis; [2] Initial analyses from the ongoing sub-study of the INDIGO open-label extension; GTI = Glucocorticoid Toxicity Index (GTI)

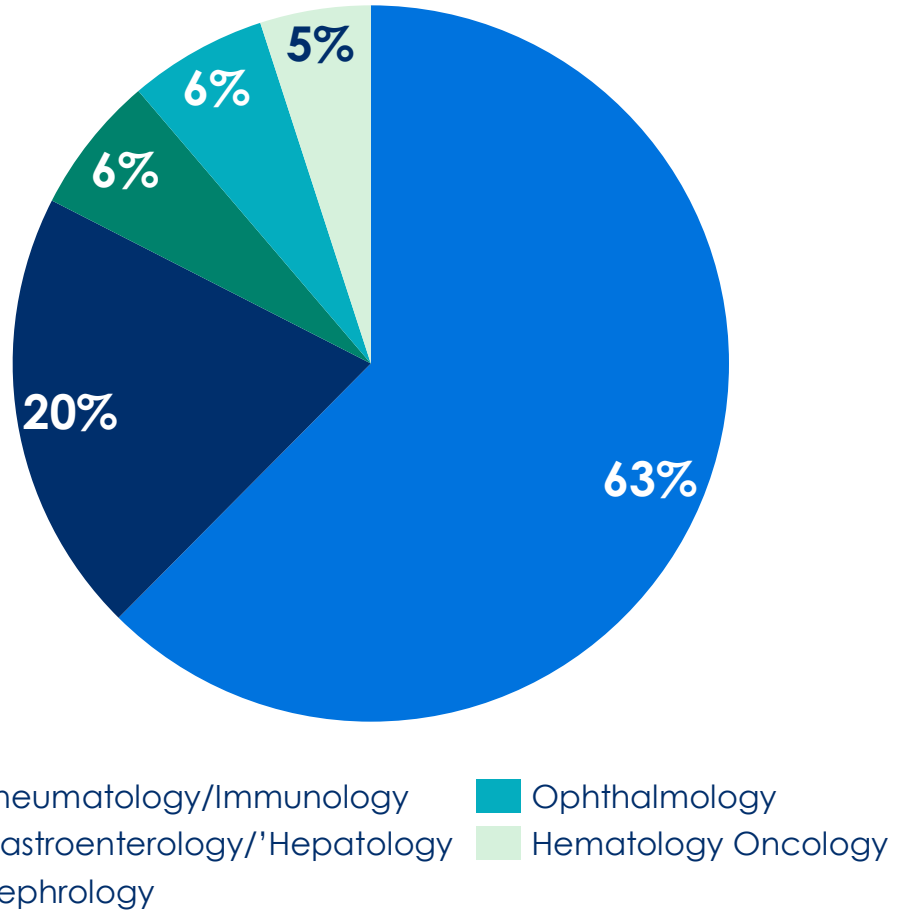
Zenas BioPharma

IgG4-RD Market Research



Survey of eighty U.S.-based IgG4-RD treating physicians assessed obexelimab based on INDIGO product profile

Specialty Representation



80 Survey Participants

- 69% Community based; 31% Academic-based
- Participants managed ~18 IgG4-RD patients over the past year
- Greater than 80% are currently receiving drug therapy

Product Profile Key Components

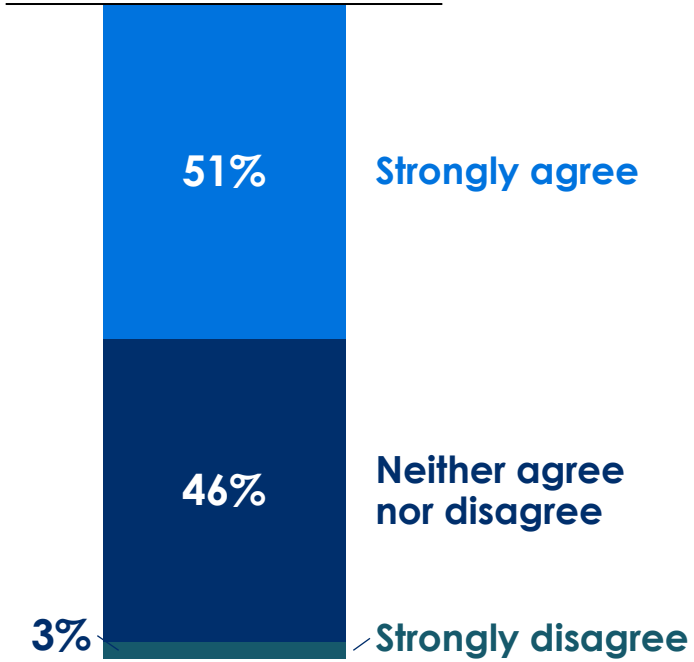
- Obexelimab deidentified as "Product X"
- Compared to placebo in randomized trial of 194 patients:
  - 56% reduction in risk of IgG4-RD flare (HR=0.443; p=0.0005), and 73% of patients flare-free through week 52
  - Superior complete remission rate (p=0049) and significant reduction in glucocorticoid use (p=0.0042)
  - Similar rates of SAEs, infections, and ISRs
  - Potential to pause treatment for vaccinations and treatment of intercurrent illness
- Self-administered, less than 10 second, weekly subcutaneous injection with an autoinjector pen

Source: Zenas market research 2026; SAE = Serious Adverse Event; ISR = Injection Site Reaction

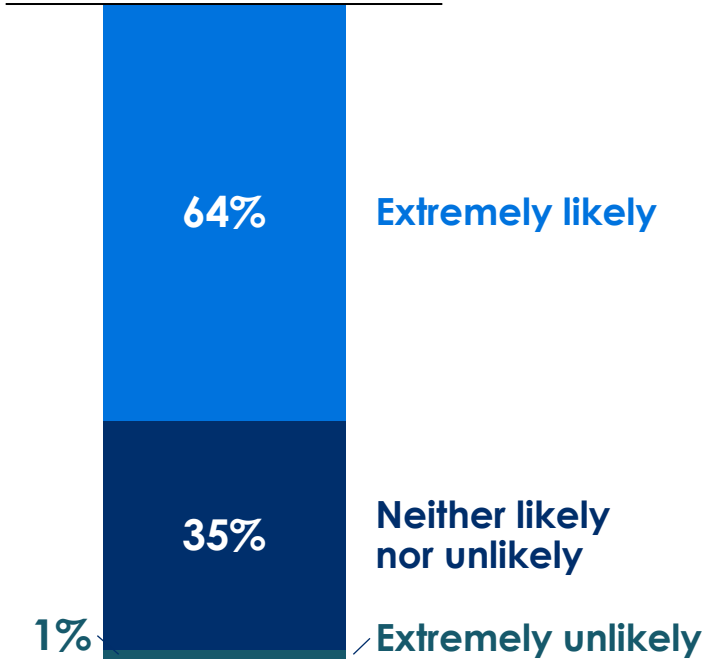
Zenas BioPharma

Majority of respondents see value in B cell inhibition over depletion and approximately two-thirds are extremely likely to prescribe obexelimab

See value in B cell inhibitor rather than a B cell depletor



Likelihood to Prescribe Obexelimab 3 Years From Now



A 47% share of biologics would be allocated to Obexelimab; consistent with prior market research

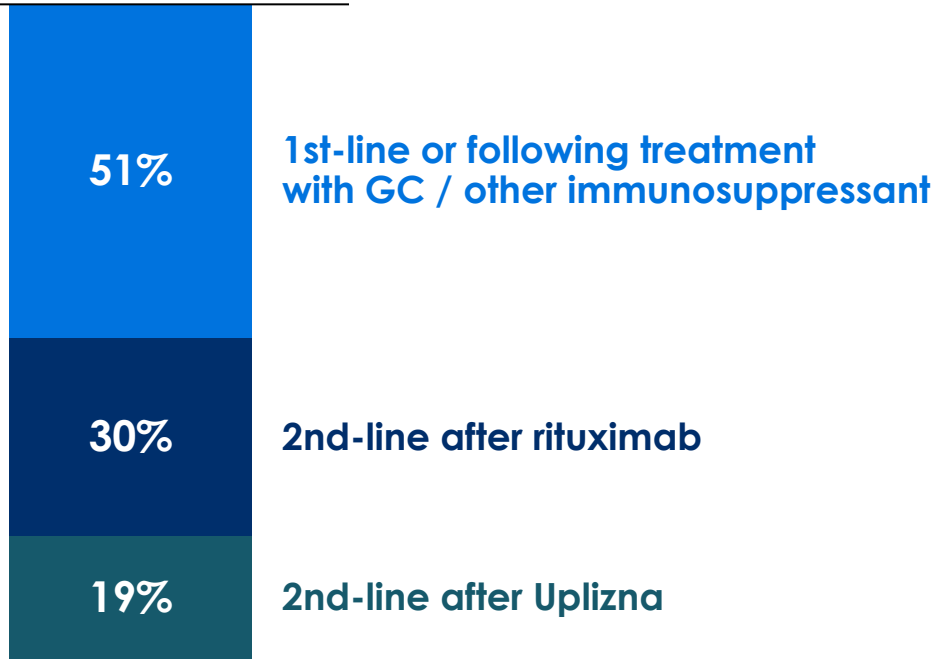
Source: Zenas market research 2026; Biologics include Obexelimab, Uplizna and Rituximab

Zenas BioPharma

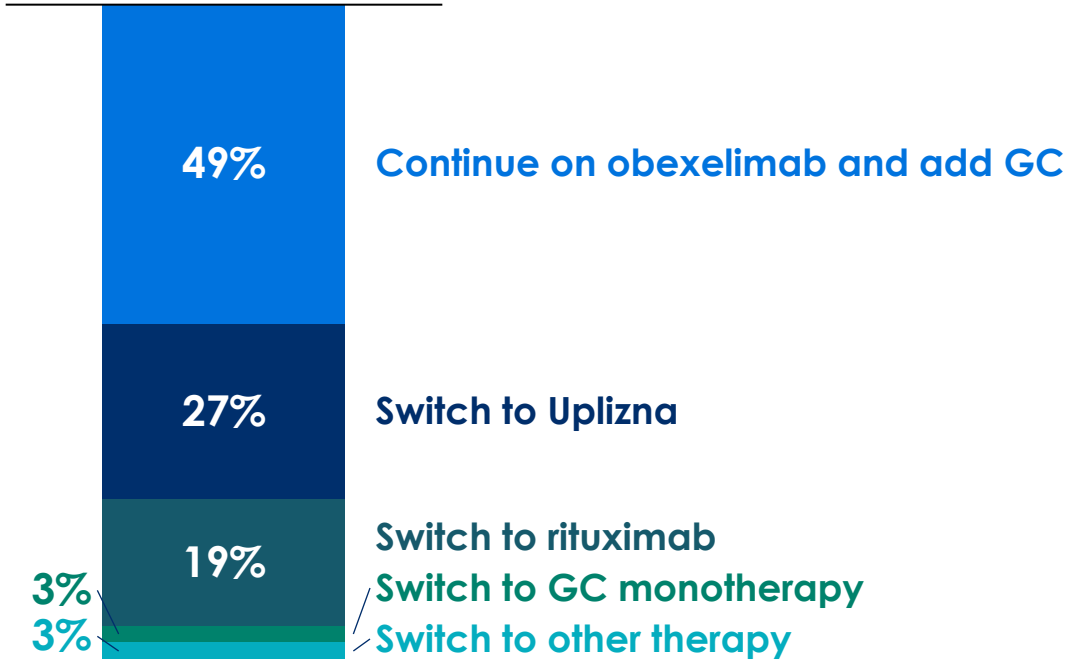
More respondents envision using obexelimab as a first-line therapy over other biologics for the overall IgG4-RD patient population

A majority of physicians would maintain patients on obexelimab after disease flare

Obexelimab Usage by Line of Therapy



Next Steps if Flare on Obexelimab

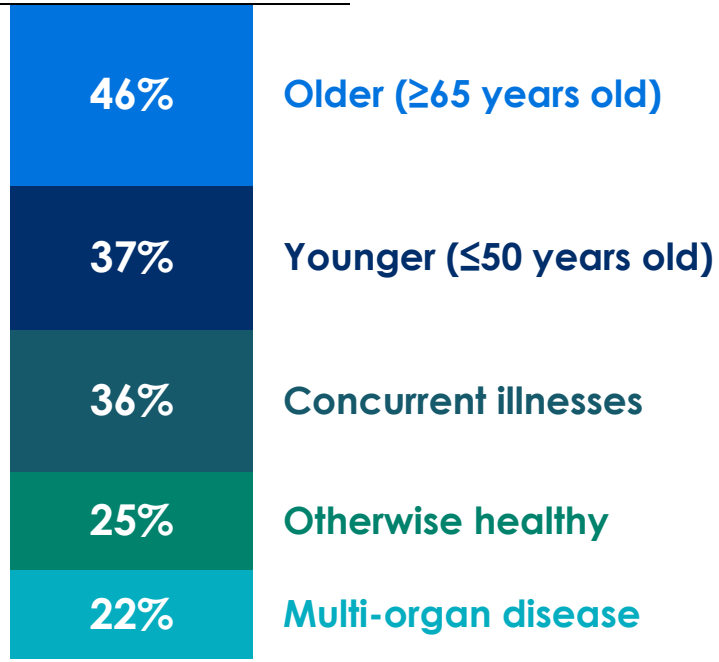


Note: GC = glucocorticoids; Other therapy category includes non-GC immunosuppressants; All therapies in line of therapy category +/- GC; Numbers may not add up to 100% due to rounding
Source: Zenas market research 2026

Zenas BioPharma

Obexelimab is the preferred therapy across all IgG4-RD patient segments

IgG4-RD Patient Type Classifications treated by survey participants



Obexelimab share of biologics ranged from 50%-55% across the various patient types

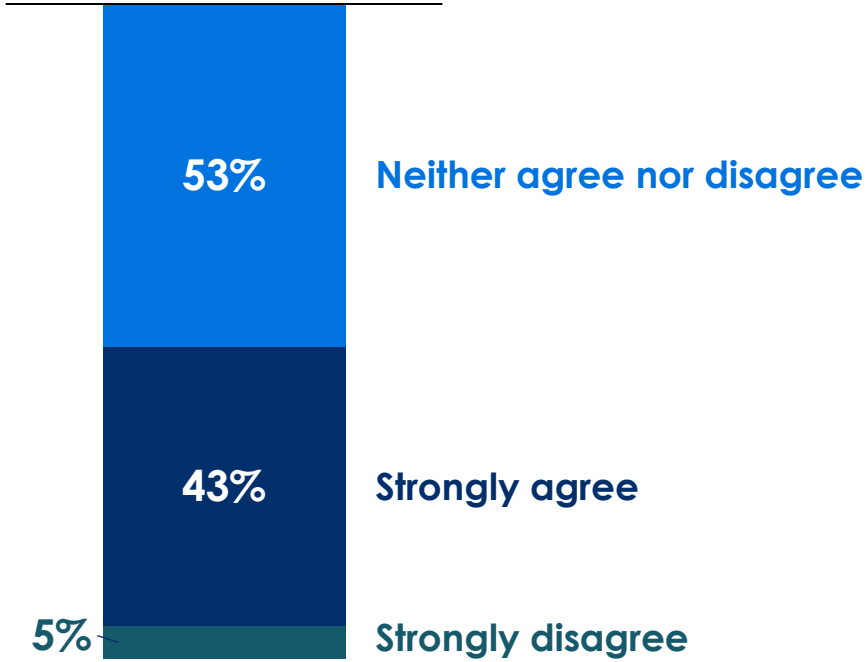
Note: Concurrent illnesses included diabetes, cardiovascular disease, respiratory ailments, infections; Numbers may not add up to 100% due to rounding
Source: Zenas market research 2026

Zenas BioPharma

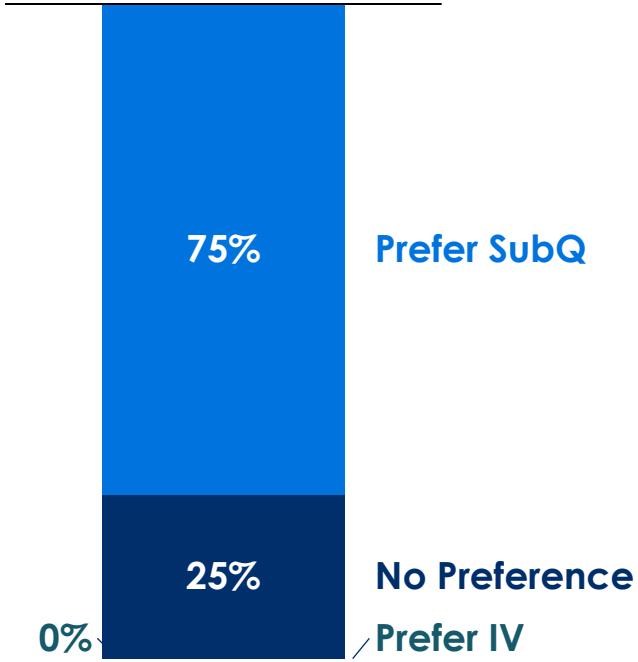
Weekly subcutaneous dosing positions obexelimab as a physician- and patient-preferred therapeutic option

Physicians and patients prefer subcutaneous administration over intravenous administration

Physician Preference for Weekly SubQ Vs. Q6M IV



IgG4-RD Patient RoA Treatment Preference (IV vs SubQ) (n=20)



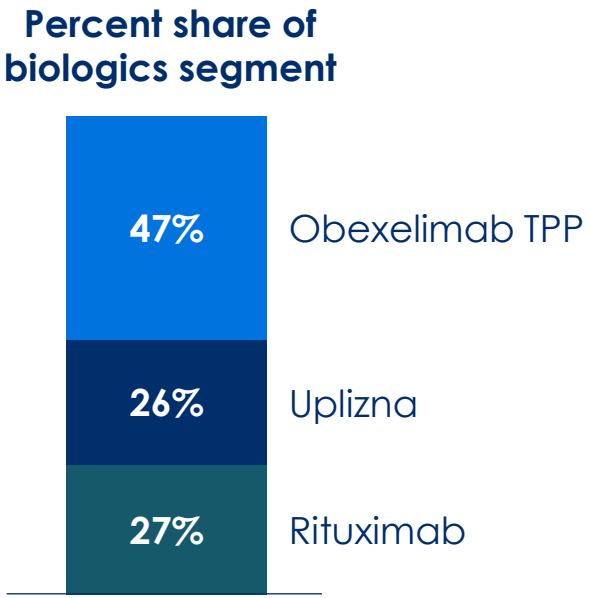
RoA = route of administration. Numbers may not add up to 100% due to rounding;
Source: Zenas market research 2026 and patient preference data from separate Zenas survey conducted with 20 U.S. IgG4-RD patients

Zenas BioPharma

Obexelimab share preference consistent with previous market research and supports the attractiveness of key obexelimab product attributes

In a previous survey of 161 U.S. and EU3 Healthcare Professionals (HCPs), obexelimab would capture > 45% of the total biologics segment

Global market research survey



Key reasons HCPs cited for choosing obexelimab:

- ✓ Self-administered SC weekly formulation with potential for robust and sustained disease control
- ✓ Inhibition versus long term B cell depletion is seen as advantageous for chronic treatment
- ✓ Potential to pause treatment for vaccination

Source: Zenas BioPharma Market Research 2025 (HCPs from US/DE/FR/IT); SC = Subcutaneous

Zenas BioPharma

IgG4-RD Commercial Approach



IgG4-RD, a substantial market opportunity

~30–40K

- estimated prevalent IgG4-RD cases in the U.S.[1]

~25K

- Diagnosed and treated U.S. patients[1]

~12.5K

- patients eligible for maintenance therapy[2]

$4 Billion

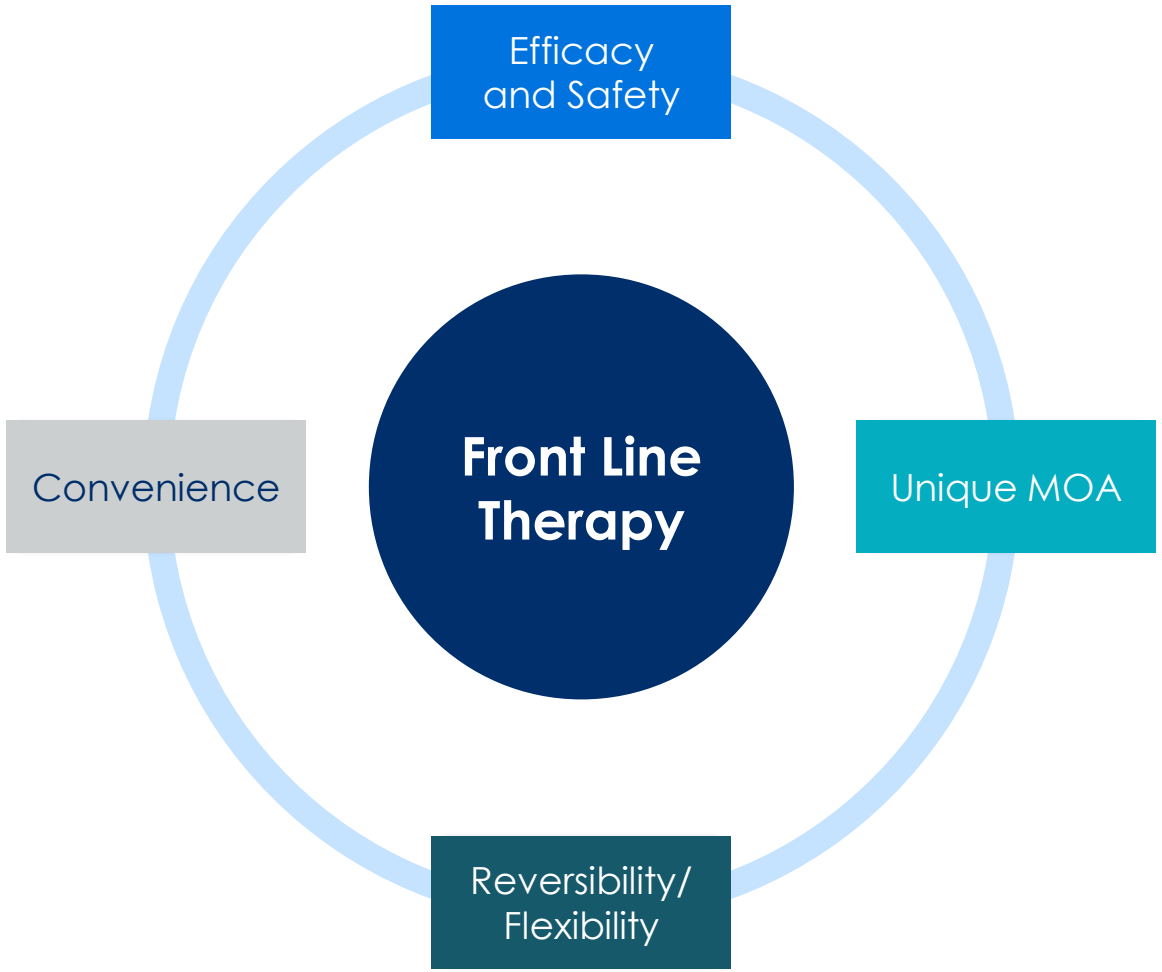
estimated U.S. commercial opportunity in IgG4-RD[3]

- Launch of first approved therapy supports the size of the opportunity
- Growth driven by increasing recognition, awareness, and the availability of effective therapies

Multiple precedents for rare diseases that evolved into large markets with the availability of effective therapies

[1] Company estimate based on Veeva claims data [2]Phase 3 trial data show ~55-60% untreated/placebo treated patients experience ≥1 IgG4-RD-related disease flares per year and based on KOL-feedback, these patients are eligible for maintenance therapy; [3]Company estimate based on disease prevalence and pricing of approved therapies within indication

Obexelimab would offer a new and differentiated approach to long-term disease management, if approved



Obexelimab will be positioned as the preferred **first line therapy** for the majority of patients

Opportunities for Obexelimab Initiation

Active Flares

1. Newly diagnosed patients experiencing a flare

2. Previously treated, not currently on therapy, experiencing a flare

Active Treatment

3. Patients currently treated with a biologic (UPLIZNA or rituximab) who see their physician prior to a 6 month infusion.

Zenas BioPharma

Three strategic imperatives define our launch plan

Shape the market

- Make proactive and chronic disease management the standard

Differentiate clearly

- B cell inhibition provides a unique MOA

Activate with discipline

- Build the conditions for fast, focused uptake

Focused and Launch-Ready Patient Engagement Strategy:

- Build the right engagement model
- Define the right patient moments
- Prioritize the right customers

Targeting strategy: ~7,100 target HCPs

UNIVERSE		TARGETING		DEPLOYMENT
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Define Eligible Universe	**Prioritize Eligible HCPs**	**Select HCPs**	**Assign Priority Targets**	**Size & Align the Field**
Establish the population of HCPs for consideration	Objectively prioritize the eligible universe	Determine the optimal HCP targets	Match HCP priority based on expected engagement	Translate targeting strategy into field deployment and territory design

Patient volume is the primary segmentation driver; biologic use and specialty refine prioritization.

Tier	HCPs	% of Patients	Defining criteria
Tier 1	~7,100	72%[1]	Highest volume treating HCPs, or highest biologic users
Tier 2			Next highest volume HCPs, or high/moderate biologic users
Tier 3			Moderate-volume treaters
Tier 4			Rheum/GE treaters with less volume, or single-patient biologic users

Total Tier 1–4 (field-facing targets): ~7,100 HCPs

Reach 72% of patients thru diagnosis, testing or treatment

GE - Gastroenterologists

[1] Company estimate based on proprietary claims-based internal research

Precision targeting to reach IgG4-RD prescribers

HCP Prioritization

~7,100

priority HCPs identified across key specialties

Rheumatologists represent highest priority targets

Account-Level Focus

91%[1]

of patient opportunity affiliated with **target accounts[2]**

Top 100 accounts concentrate 65%[1] of treated patient opportunity

Optimal Field Size

45

field reps required for full coverage

Deployed across five balanced regions to ensure consistent HCP coverage

Field sales force of 45 will cover >90% of patient opportunity at target accounts

[1] Company estimate based on proprietary internal claims-based research; [2]Target accounts defined as national-level top parent accounts affiliated with target HCPs;

Zenas BioPharma

Planning for comprehensive surround support for HCPs

A coordinated, cross-functional model that delivers consistent education and support at every HCP touchpoint

Strategic Engagement (6)

Aligns Commercial KOL strategy and builds trusted relationships that inform commercial strategy.

Field Sales Professionals (45)

Delivers approved clinical and product resources to increase understanding and appropriate utilization.



Nurse Educators (6)

In-depth, peer-to-peer disease-state and treatment education to advance understanding of IgG4-RD.

Market Access (14)

Supporting HCPs and patients as they navigate access & reimbursement.

HCP = Health Care Professional; RBD = Regional Business Director

One coordinated Zenas experience

Patient identified and prescription written → **Entry point:** HUB or direct to Specialty Pharmacy → **Benefits** verification and prior authorization support → **Affordability triage** QuickStart | Bridge Co-pay | Patient Assistance Program → **Dispense** through limited Specialty Pharmacy network → **Patient onboarding, education and ongoing support**

PATIENT + PROVIDER OFFICE

OFFICE ACCESS SUPPORT

Zenas Field Reimbursement Managers*

Ensure smooth and quick reimbursement education and support for patients and providers

CASE COORDINATION

HUB + selected Specialty Pharmacy

Patients enter HUB or Specialty Pharmacy for initial benefits verification and support / drug dispensed

PATIENT SUPPORT

HUB/Specialty Pharmacy nurse support

Provide patient onboarding and education / ongoing patient communication, including refill support

Zenas BioPharma

Zenas is prepared to launch

Experienced Team ready to
execute a **proven launch Playbook**

Launch ready ahead of **May PDUFA**

Well positioned and **well funded** to capitalize
on the **substantial opportunity in IgG4-RD**

Zenas BioPharma

Enabling patients with
autoimmune diseases
to reimagine life



Zenas BioPharma

Obexelimab for Systemic Lupus Erythematosus



Systemic Lupus Erythematous (SLE): A debilitating chronic autoimmune disease that attacks healthy tissue

Disease Overview:

- A **chronic autoimmune disease** with unpredictable flares in joints, skin, kidneys and other vital organs that **cause progressive organ damage**

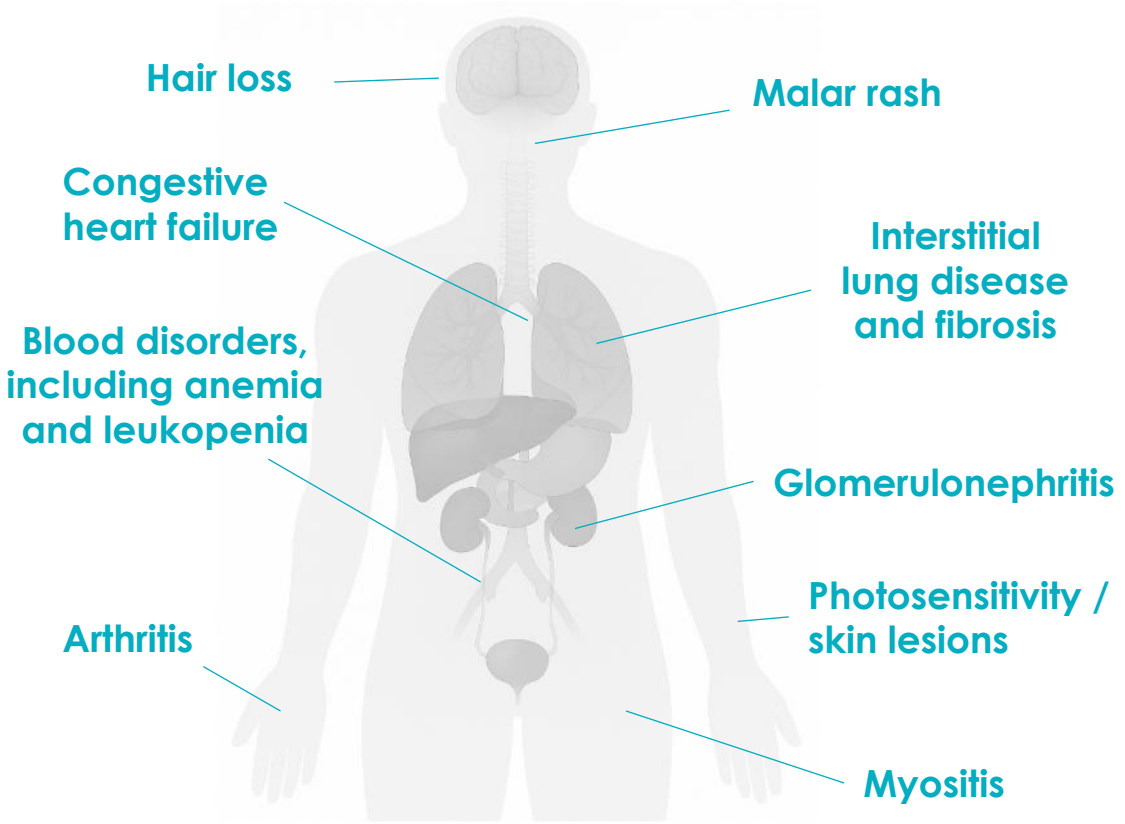
Pathophysiology:

- **B cell dysfunction** results in the production of autoantibodies toward cellular and nuclear components

Therapeutic Opportunity:

- **B-cell therapies proven effective** in clinical trials
- **Significant opportunity** remains for safe and effective therapies **for long-term disease management**
  - ➢ >80% of SLE patients are women diagnosed in their 30s and facing decades of treatment

SLE: common disease manifestations



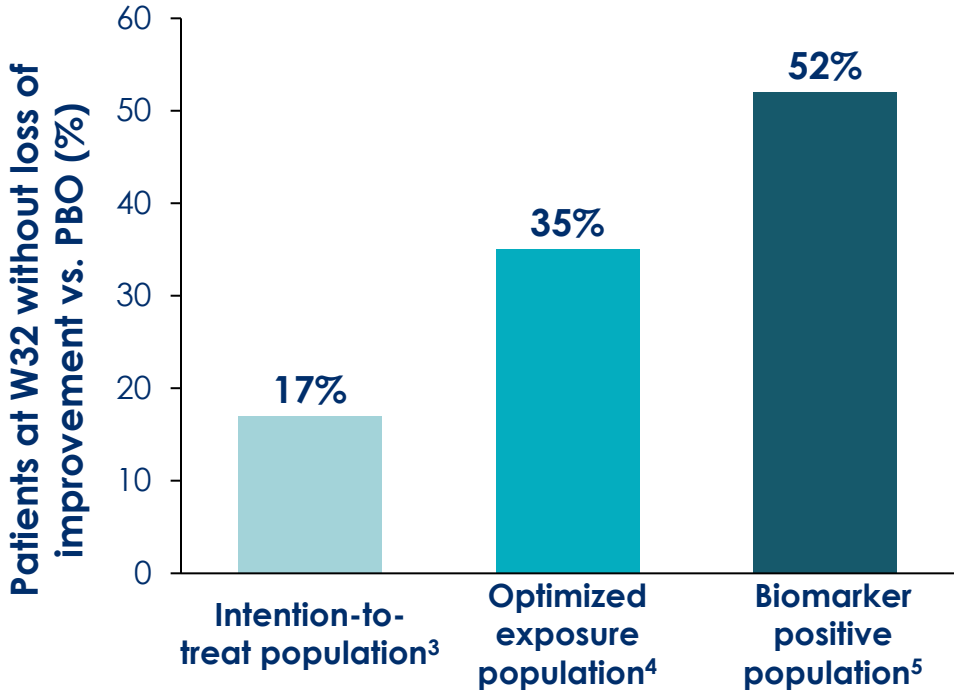
[1] Lupus Foundation of America

Zenas BioPharma

Clinical evidence supports obexelimab's differentiated mechanism of action in SLE

- **Two approved therapies** have modest effect sizes of 12–17% over placebo[1]
- **Direct B-cell inhibition** has the potential for **better outcomes than indirect modulation** (Benlysta®)[2]
- **Obexelimab proof of concept established** in previous Phase 2 SLE trial with IV dosing
- **Obexelimab's optimized subcutaneous dosing** confirmed in IgG4-RD and RMS clinical trials

Previous Phase 2 Trial of IV Obexelimab vs Placebo Q2W for 32 Weeks in Patients with SLE



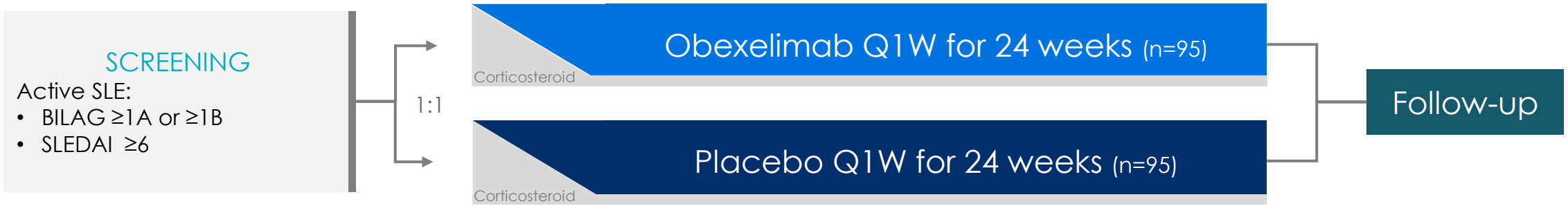
Direct CD19-based broad B-cell inhibition offers the potential for a safe and effective therapy for the long-term management of SLE patients

1 BENLYSTA® and SAPHNELO® SRI-4/BICLA assessments; [2] This conclusion is derived from different clinical trials at different points in time, with differences in trial design and patient populations. As a result, cross-trial comparisons cannot be made, and no head-to-head clinical trials have been conducted; [3] Defined as all randomized patients receiving at least one dose of study medication. n=52 obexelimab, n=52 placebo; [4] C_{trough} Quartiles 3 & 4 in efficacy evaluable analysis. n=22 obexelimab, n=42 placebo ; [5] Biomarker positive defined as patients in predefined lupus phenotypic gene expression clusters 3 & 6. n=13 obexelimab, n=14 placebo. Post-hoc analysis; Source: Merrill *et al.* 2023

Zenas BioPharma

Enrollment in Phase 2 SunStone SLE trial completed with topline data expected Q4 2026

- Designed to **confirm obexelimab activity** in overall and biomarker populations
- Incorporates **learnings** from previous Phase 2 trial **to increase probability of success**
  - Larger size with higher powering and optimized subcutaneous dosing to improve PK
  - Adjudication committee to assess eligibility and outcomes; strict corticosteroid tapering rules



- Design: randomized, double-blind, placebo-controlled
- **Primary Endpoint: reduction of SLE disease activity at week 24 by BICLA assessment**
  - Powered to detect ~20% difference between obexelimab and placebo
  - Primary endpoint to be assessed in overall and biomarker positive populations

BICLA = BILAG-Based Composite Lupus Assessment; biomarkers are exploratory and based on prior Phase 2 trial; Powering assumes a 30% response rate for placebo arm

Zenas BioPharma

SunStone data: guiding the path forward

Phase 2 SunStone Trial

mITT BICLA*	**mITT** SRI4
Biomarker + BICLA	**Biomarker +** SRI4

Phase 3 Trial Design

Patient Population
Overall (with Hierarchical analysis)

OR

Biomarker positive only

Primary Endpoint
BICLA or SRI4

The predictive biomarker positive population expands our potential for success in the Phase 2 trial, and provides additional paths forward for Phase 3

*Primary endpoint in the SunStone Phase 2 trial; mITT = modified intent to treat; SRI4 = Systemic Lupus Erythematosus Responder Index 4; BICLA = BILAG-Based Composite Lupus Assessment; biomarkers are exploratory and based on prior Phase 2 trial

SLE represents a significant and growing commercial opportunity in the U.S. alone

~125K Addressable SLE Patients

In U.S. alone representing a commercial market of

$8B+



~250K diagnosed cases of SLE in the U.S.

~175K SLE patients without lupus nephritis

~125K moderate-to-severe SLE patients

>35K potential patients positive for obexelimab biomarker[1]

~$2.5B 2025 revenue for two approved biologics in the U.S.; a minority of eligible patients receiving biologics

>$8B potential future U.S. market opportunity with growth driven by approval of more effective therapies

Source: GlobalData and Zenas analysis; [1] Estimated based on analysis in Merrill et al where ~38% of the evaluated patients were biomarker positive. Frequency of biomarker positive patients in SunStone will be determined during analysis of trial results

Zenas BioPharma

BTK: A Compelling Target for Progressive Multiple Sclerosis



naSPMS and PPMS have the highest unmet need across MS subtypes and limited therapeutic options

Subtype	**naSPMS** (~90K diagnosed patients in U.S.)[1,2]	**PPMS** (~60-100K diagnosed patients in U.S.)[1,3]
Clinical characteristics	Initially RRMS followed by steady increase in disability without relapses	Steady increase in disability without relapses / disease flares
FDA approved therapies	None[4]	One
Preferred treatments	RRMS treatments used off-label	Ocrevus approved but higher efficacy agents are desired
Unmet medical need	Therapies that prevent **disability progression**	More effective therapies that prevent **disability progression**

[1] National MS Society 2025, Wallin et al. 2019, Campbell et al 2014, Zenas BioPharma analysis; [2] Milliman et al 2019, Lo et al. 2022, Zenas BioPharma analysis; [3] National MS Society 2025, Zenas BioPharma analysis; [4] Cenrifki® (tolebrutinib) approved for non-relapsing SPMS in Europe; naSPMS = non-active Secondary Progressive MS; PPMS = Primary Progressive MS

Different subtypes of SPMS exist and patients with non-active disease have highest unmet medical needs

Secondary Progressive Multiple Sclerosis is an advanced manifestation of RMS where relapses become less frequent or stop but gradual worsening of disability occurs

Three subtypes of Secondary Progressive Multiple Sclerosis exist:

- Active SPMS:
  - Still shows occasional relapses or MRI activity
  - Most drugs approved for RMS including anti-CD20s are also approved for active SPMS
- Non-relapsing SPMS:
  - No clinical relapses but MRI may still show activity or new lesions
  - Patients have residual relapses/MRI activity – drugs approved for RMS may be somewhat effective
- **Non-active SPMS:** ***FDA identified population with highest unmet needs***
  - No new relapses and no MRI activity
  - Significantly stricter "progressive" classification than nrSPMS – naSPMS is a truly progressive disease
  - No drugs approved and drugs approved for RMS unlikely to be impactful given their peripheral-acting mechanism and lack of impact on compartmentalized inflammation

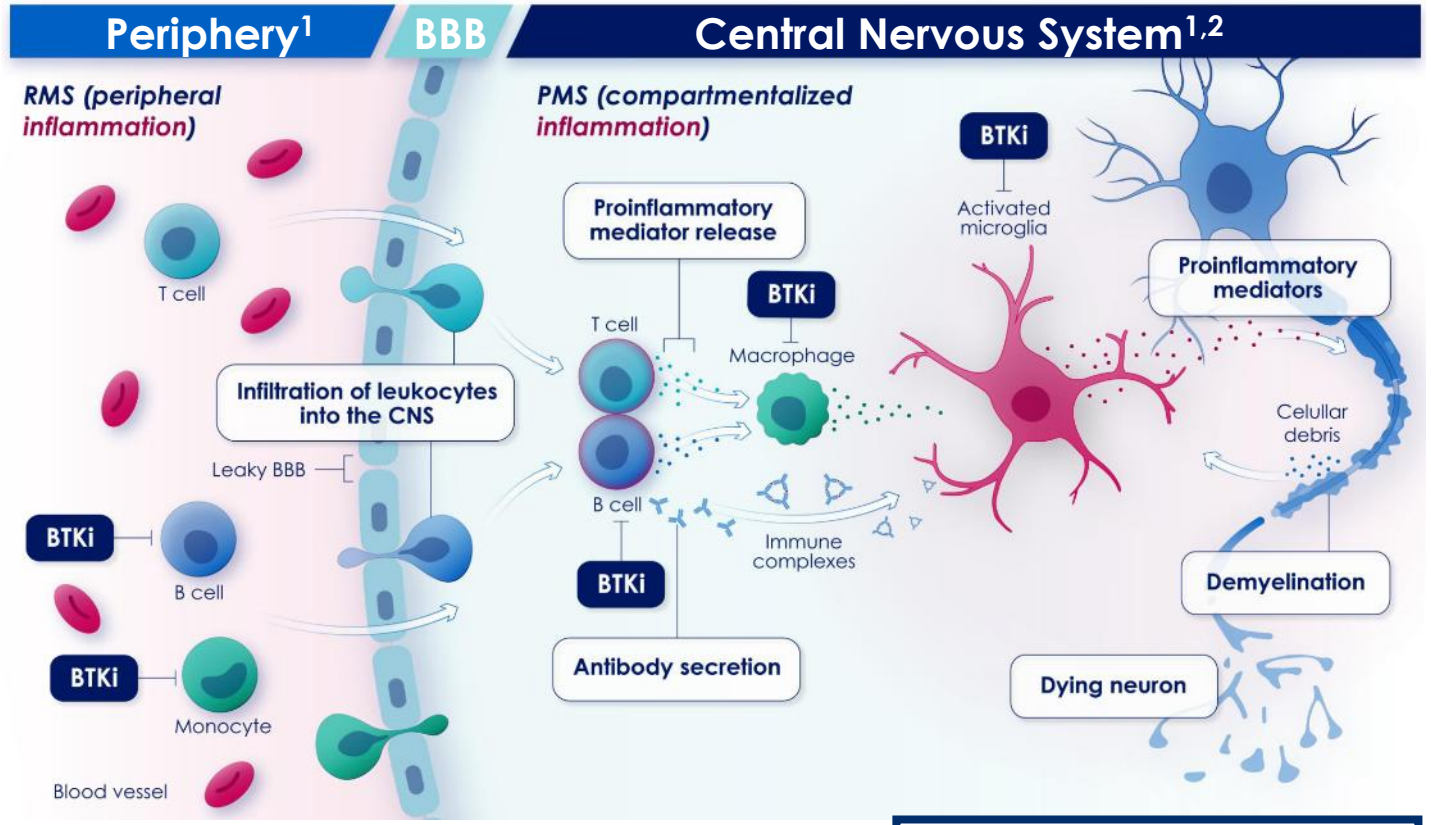
BTK is a validated target in MS with unique potential to address compartmentalized inflammation and disease progression

Significant unmet need in MS for:

- CNS-penetrant mechanisms that address **compartmentalized local inflammation** and directly impact the biology of progressive disease and **neurodegeneration**[3]

BTKi addresses underlying **biology of progressive disease**

- Impacts **peripherally and centrally** located pathogenic B cells and macrophages, and directly inhibits **microglia**
- **Peer BTKi program achieved primary endpoint in Phase 3 PPMS trial – a clearly defined progressive population**[4]



Peripheral → **Compartmentalized**

RMS (active inflammation) ⟷ (neurodegeneration) **PMS**

[1] Reich DS et al. NEJM 2018. [2] Gandhi R et al. 2010; [3] Saberi et al. 2023, Vong et al. 2022 Greenberg 2024, Krämer et al. 2023; [4] F. Hoffmann-La Roche press release November 9, 25; Image adapted from: Krämer et al. 2023; PMS = Progressive Multiple Sclerosis

Zenas BioPharma

Orelabrutinib is a potential best-in-class therapy for progressive MS, a disease with a significant commercial opportunity and only one approved therapy

- **No other BTKi programs advancing in both naSPMS and PPMS**
- **Orelabrutinib and remibrutinib are the only BTKi programs being developed for SPMS and are on similar timeline**
- **Orelabrutinib only B cell-directed therapy being developed specifically for naSPMS**
- **Successful Phase 3 fenebrutinib PPMS study validates BTKi central mechanism and differentiation within the BTKi class**

Late-stage Progressive MS Pipeline

Owner	Program	MoA	RoA	Indication(s)	
Zenas BioPharma	Orelabrutinib	BTKi	Oral QD	PPMS (ongoing)	naSPMS (ongoing)
Roche	Fenebrutinib	BTKi	Oral BID	PPMS (NDA under review)	N/A
NOVARTIS	Remibrutinib	BTKi	Oral BID	N/A	SPMS[1] (Initiated Q425)
sanofi	Frexalimab	CD40L	IV Q4W SC Q4W	N/A	nrSPMS (Initiated 4Q23)

CRL = Complete Response Letter; Tolebrutinib not included: failed to meet primary endpoint in PPMS and received CRL for non-relapsing SPMS (nrSPMS) NDA by FDA but approved for nrSPMS in Europe.

[1] Positive Phase 3 results in relapsing-remitting multiple sclerosis (RRMS)

Zenas BioPharma

Orelabrutinib: a Potentially Best-in-Class BTKi



Orelabrutinib's pharmacologic attributes impart best-in-class potential combining high selectivity and CNS penetrant activity

✓ **High selectivity** ✓ **High CNS penetration** ✓ **Low IC_{90}** ✓ **Highest CNS conc. to IC_{90} ratio**

	Orelabrutinib	**Fenebrutinib**	**Remibrutinib**	**Tolebrutinib**
Binding / dosing[1]	Covalent / 80mg QD	Non-covalent / 200mg BID	Covalent / 100mg BID **(Approved dose of 25mg BID for CSU)**	Covalent / 60mg QD **(Highly Variable PK; CV ~60%)**
Selectivity[2] (scanMAX (Eurofins) kinome scan at 1µM)				
CNS concentration[3]	**16.7**	**43.1**	**0.783**	**~ 0.3 to1**
Potency[4] (IC_{90})	**3.5**	**41.3**	**5.9**	**3.1**
CNS concentration to IC_{90} ratio	**~5**	**~1**	**~0.2**	**~0.3**

[1] InnoCare Pharma, Sanofi, and Roche published reports; [2] Darragh et al. 2025; [3] Orelabrutinib: Data on file; Tolebrutinib: calculated from Cabanis et al. 2024; Fenebrutinib: American Academy of Neurology Annual Meeting 2024. Remibrutinib: Lefevre et al ECTRIMS 2024; [4] Orelabrutinib: Data on file; Tolebrutinib and fenebrutinib: Turner et al. 2024. Remibrutinib: Angst et al. 2020 (IC_{90} estimated from IC_{50}); Notes: Orelabrutinib 80 mg data inferred from 150 mg dosing; Potency based on kinase activity; Based on comparisons of published data for tolebrutinib, fenebrutinib and remibrutinib, no head-to-head comparison studies were conducted

Zenas BioPharma

Orelabrutinib Phase 2 RRMS trial

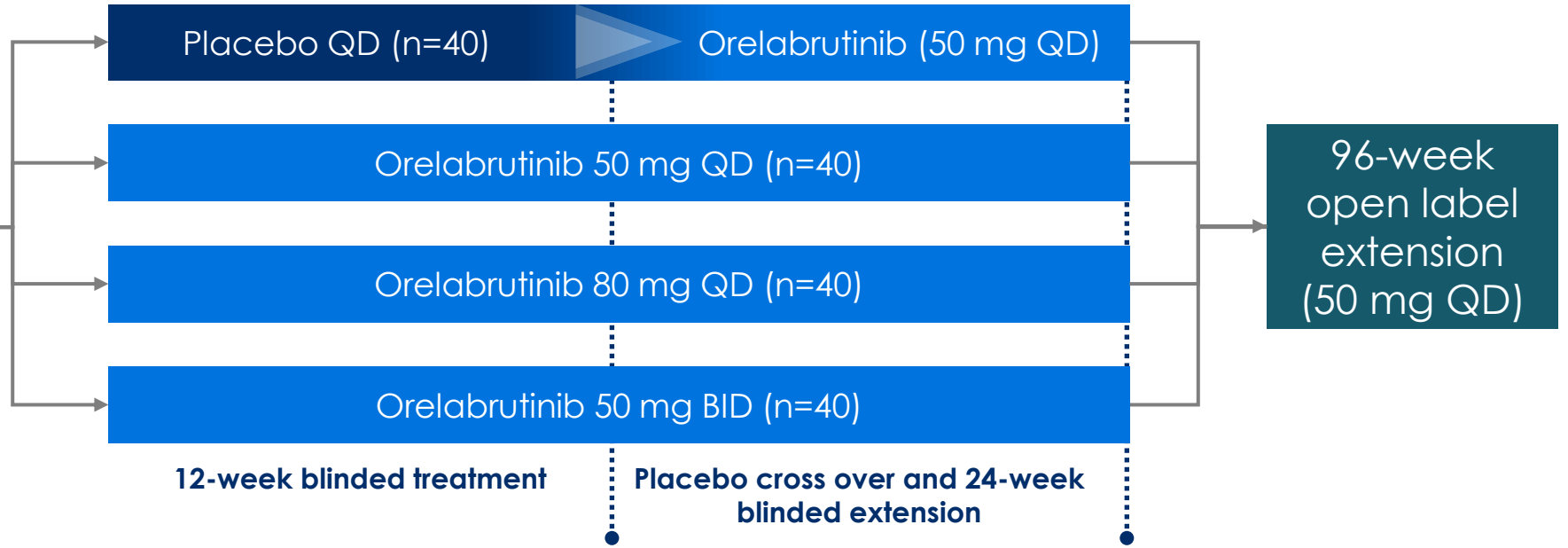
Standard design with MRI measurements and highly predictive of successful outcome in large randomized trials

SCREENING

Diagnosis of relapsing remitting MS:

- Age 18-55 years
- Diagnosis of relapsing-remitting MS
- EDSS score ≤ 5.5
- Neurological stable for ≥ 30 days
- ≥1 relapses within 2 years with
  - ≥1 relapse within the last year
  - ≥1 Gd+ T1 lesion within 6 months

1:1:1:1 Randomization



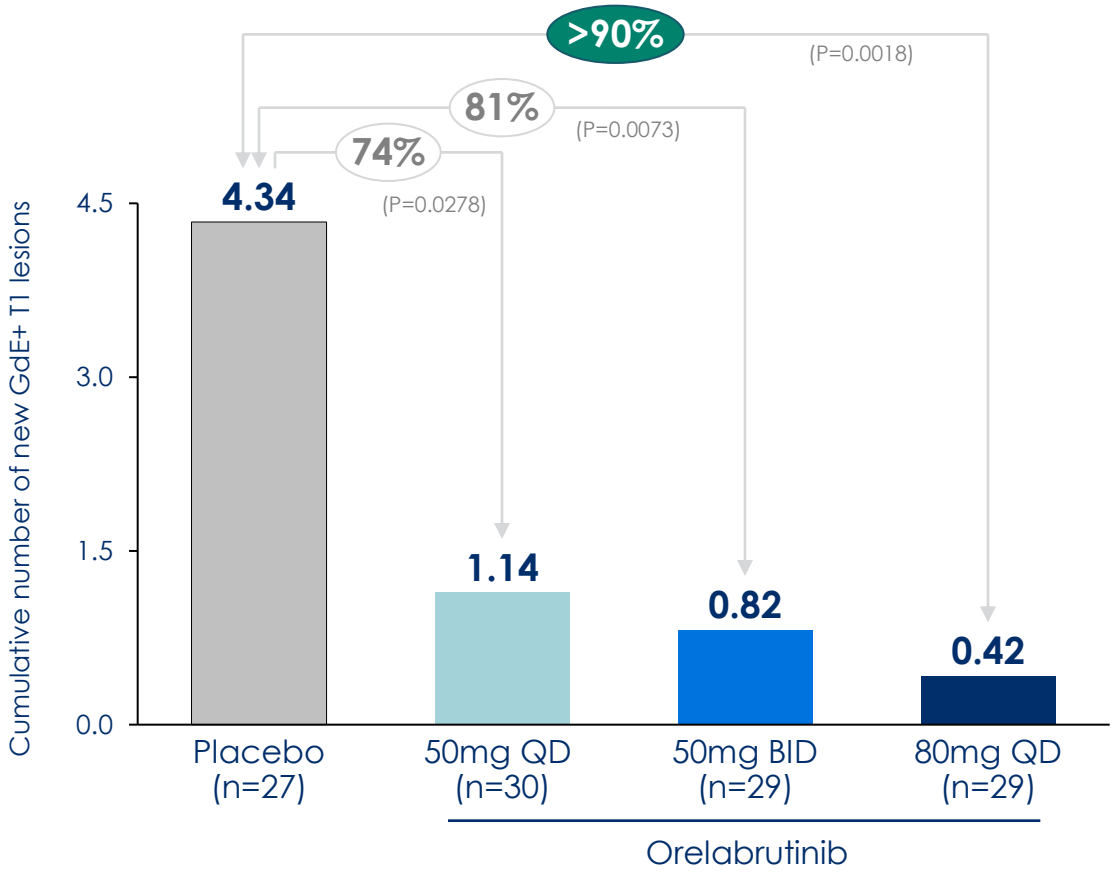
Phase 2 RRMS Trial Summary:

- Design: double-blind, randomized, placebo-controlled with placebo crossover at week 12
- Treatment: Three different doses of orelabrutinib vs. placebo control through week 12
- **Primary endpoint:** MRI endpoint assessing number of new T1 Gd-enhancing lesions at week 12
- **Secondary endpoints:** through 24-week blinded extension included T1 Gd-enhancing lesions and new or enlarging T2 lesions at weeks 12, 16, 20, and 24 and safety

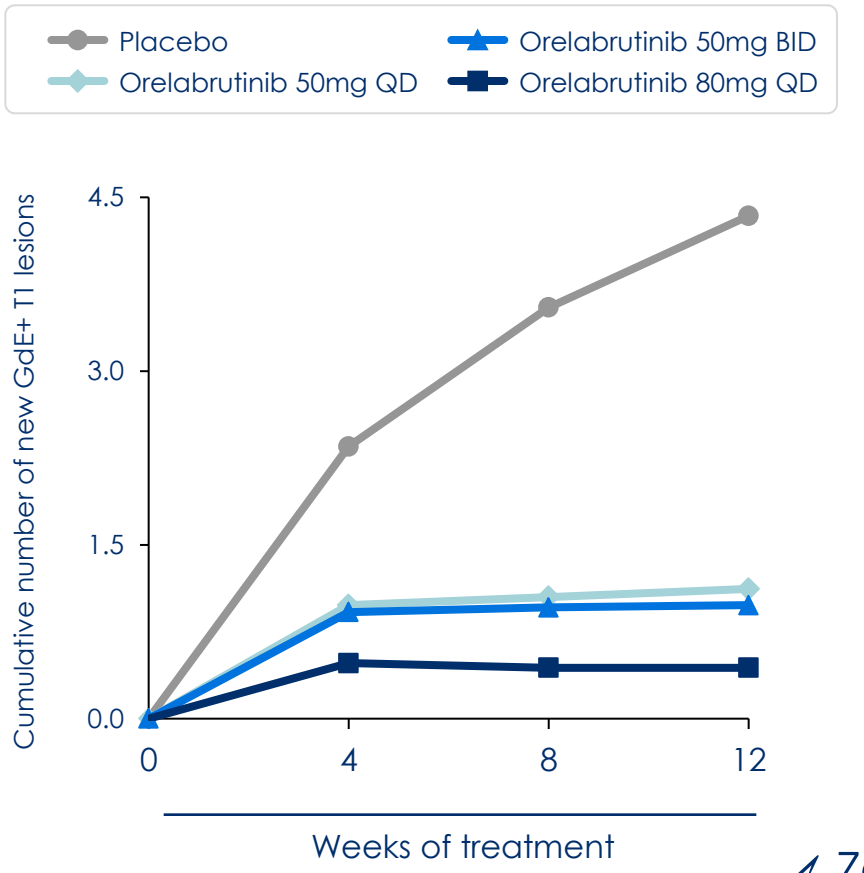
Source: Xu *et al.* ACTRIMS Forum 2025

Orelabrutinib treatment resulted in a rapid and deep reduction in new GdE+ T1 lesions across all evaluated doses

Significant reduction in new GdE+ T1 lesions observed for all orelabrutinib doses at week 12 (primary endpoint)



Meaningful and sustained reduction in new GdE+ T1 lesions observed as early as week 4

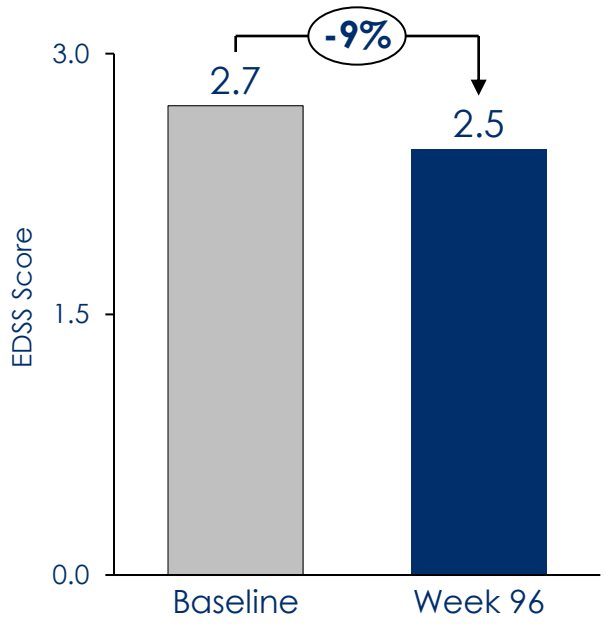


Source: Xu *et al.* ACTRIMS Forum 2025

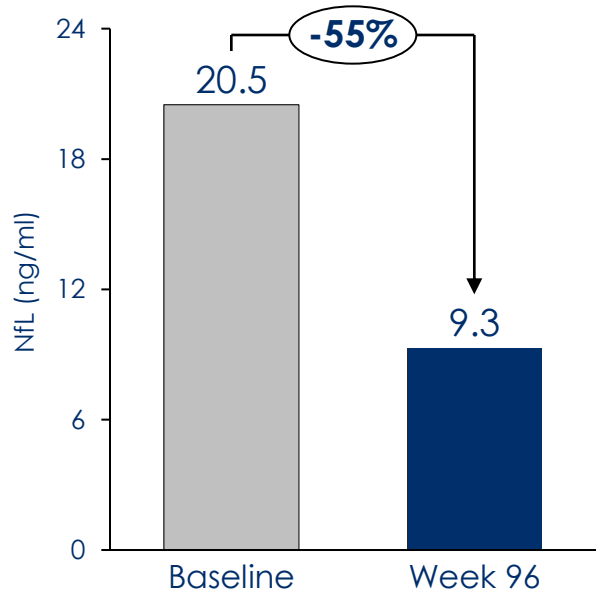
Zenas BioPharma

Orelabrutinib data out to 96-week support sustained clinical activity and potential impact on disability progression

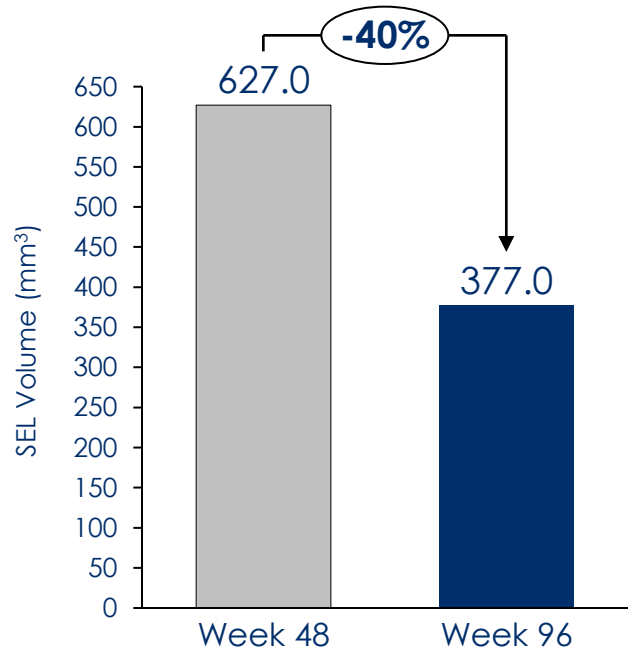
EDSS Score: Indicative of neurological disability and disease progression



Serum NfL: Indicative of disease activity and progression



SEL Volume: Indicative of smoldering disease and progression



Data shown for 80 mg QD dose (switched to 50mg QD dose, week 24 through 96 for OLE, n=36-37)

NfL = Neurofilament Light chain; EDSS = Expanded Disability Status Scale; SEL = Slowly Expanding Lesions; Source: Data on file

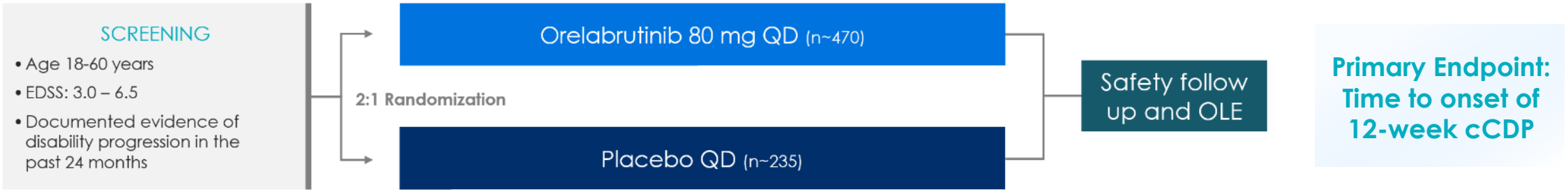
Zenas BioPharma

Orelabrutinib was generally well tolerated with safety in-line with other BTKi in development for MS

- Safety of orelabrutinib (n=118) vs. placebo (n=40) during the 12-week RCP
  - Serious TEAEs: 2% vs. 0%
  - Liver-related TEAEs: 10% vs. 7.5%
    - Occurred primarily in the first eight weeks of treatment, most were present as lab abnormalities only without clinical symptoms
- Orelabrutinib was placed on partial clinical hold by FDA (but not EMA) for studies in RRMS after 2 cases of DILI meeting Hy's Law criteria
- For high unmet need for progressive MS development, **FDA has cleared protocols** to proceed with risk mitigation including weekly LFTs and stopping rules
- Ocrevus (ocrelizumab) and multiple oral therapies for MS are also associated with elevated LFTs

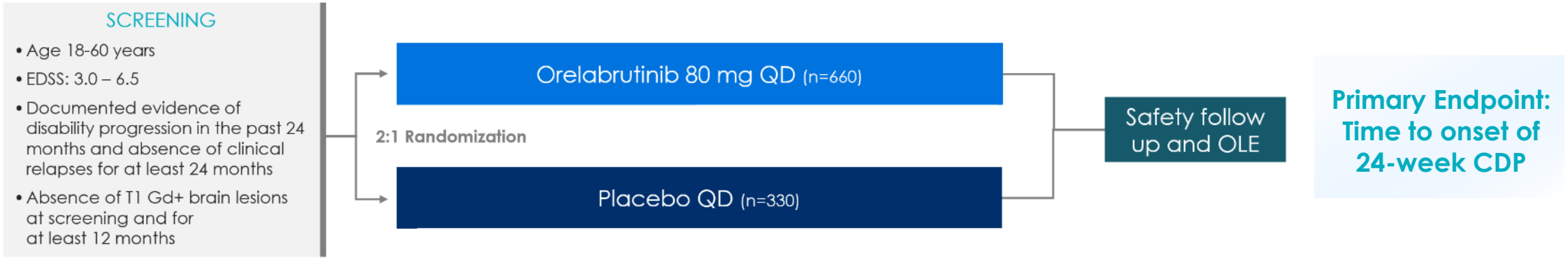
Orelabrutinib Phase 3 protocols cleared with FDA and positive EMA Scientific Advice

PPMS Study Design; trial initiated in U.S.



A total of 355 events would yield approximately 90% power to detect the superiority of orelabrutinib over placebo

non-active SPMS Study Design; trial initiated in U.S.



A total of 332 events would yield approximately 88% power to detect the superiority of orelabrutinib over placebo

Zenas BioPharma

Growing global MS market expected to reach >$30B by 2030 with naSPMS and PPMS expected to represent >$12B+

>150K Patients

with naSPMS and PPMS in U.S. alone representing a commercial market[1] of

$12B+



~640K diagnosed cases of MS in the U.S.[1]

↓

~150-185K diagnosed cases of naSPMS and PPMS[2]

↓

~100-130K naSPMS and PPMS patients receiving disease modifying therapies (DMT)

↓

Current naSPMS and PPMS commercial opportunity in the U.S. projected to be >$12B+[3]

Significant growth potential driven by increased diagnosis and DMT use with approval of effective therapies that impact disability progression

[1] National MS Society 2025, Wallin et al 2019, Campbell et al 2014, Zenas BioPharma analysis; [2] Milliman et al 2019, Lo et al. 2022, National MS Society 2025, Zenas BioPharma analysis projected 2030 revenes; [3] Zenas estimate based on reported prevalence and current pricing of B cell therapies approved for MS

Zenas BioPharma

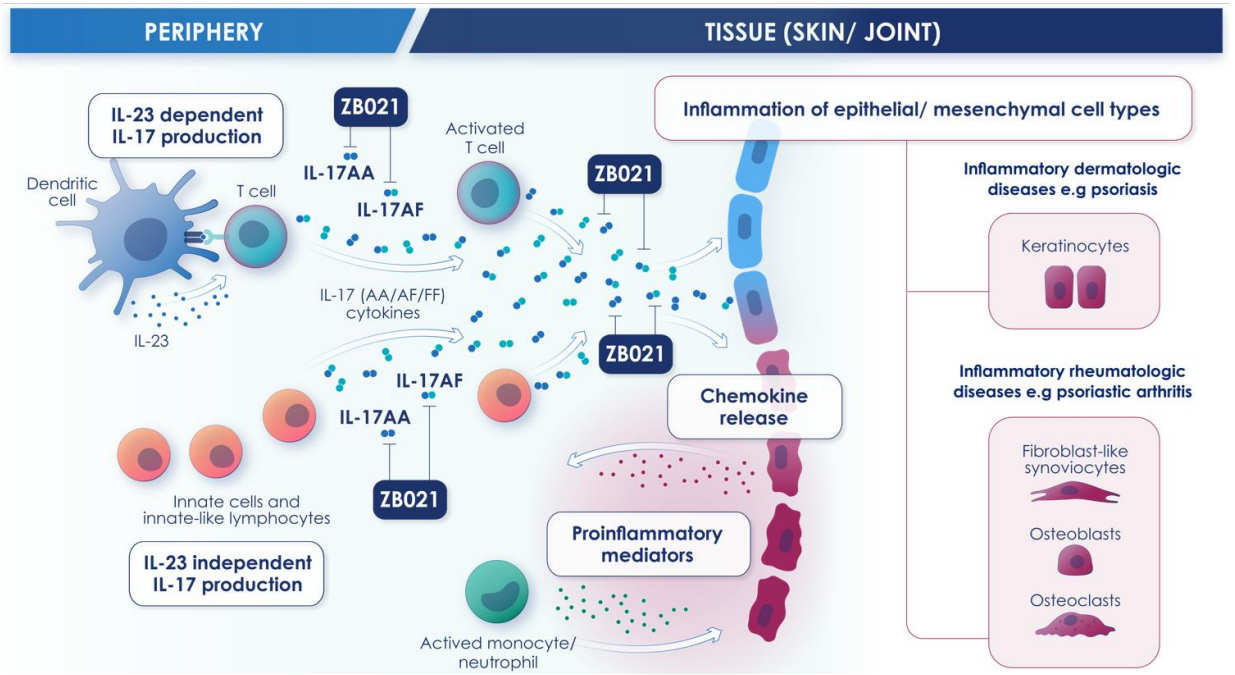
ZB021: An Oral IL-17 AA/AF Inhibitor With Best-in-Class Potential



ZB021 is an oral IL-17 AA/AF inhibitor with significant opportunity in multiple inflammatory and autoimmune indications

IL-17 is a well-validated target for numerous dermatologic and rheumatologic diseases

- Focal point for **acute and chronic inflammation** in skin and joint-related diseases
  - Several upstream cytokines including IL-23 promote Th17 cells and innate-like lymphocytes to secrete **IL-17 as the primary driver of the inflammatory processes**
  - Cytokines, chemokines and other proinflammatory mediators can cause **dysfunction of cells in tissues**
  - Strong **clinical confirmation of role in pathogenesis** of multiple autoimmune and inflammatory diseases
  - Drug development to-date **focused on biologics**



Growing interest in small molecules against targets established by biologics

- Recent positive data and FDA approval of an oral IL-23 program for plaque psoriasis provides evidence that **oral therapies can match the safety and efficacy of established biologics**

Zenas BioPharma

The IL-17 market is substantial and growing

Multiple **biologic approvals validate IL-17** as a target for autoimmune and inflammatory diseases

- Three biologics are **approved for six indications** in rheumatology and dermatology

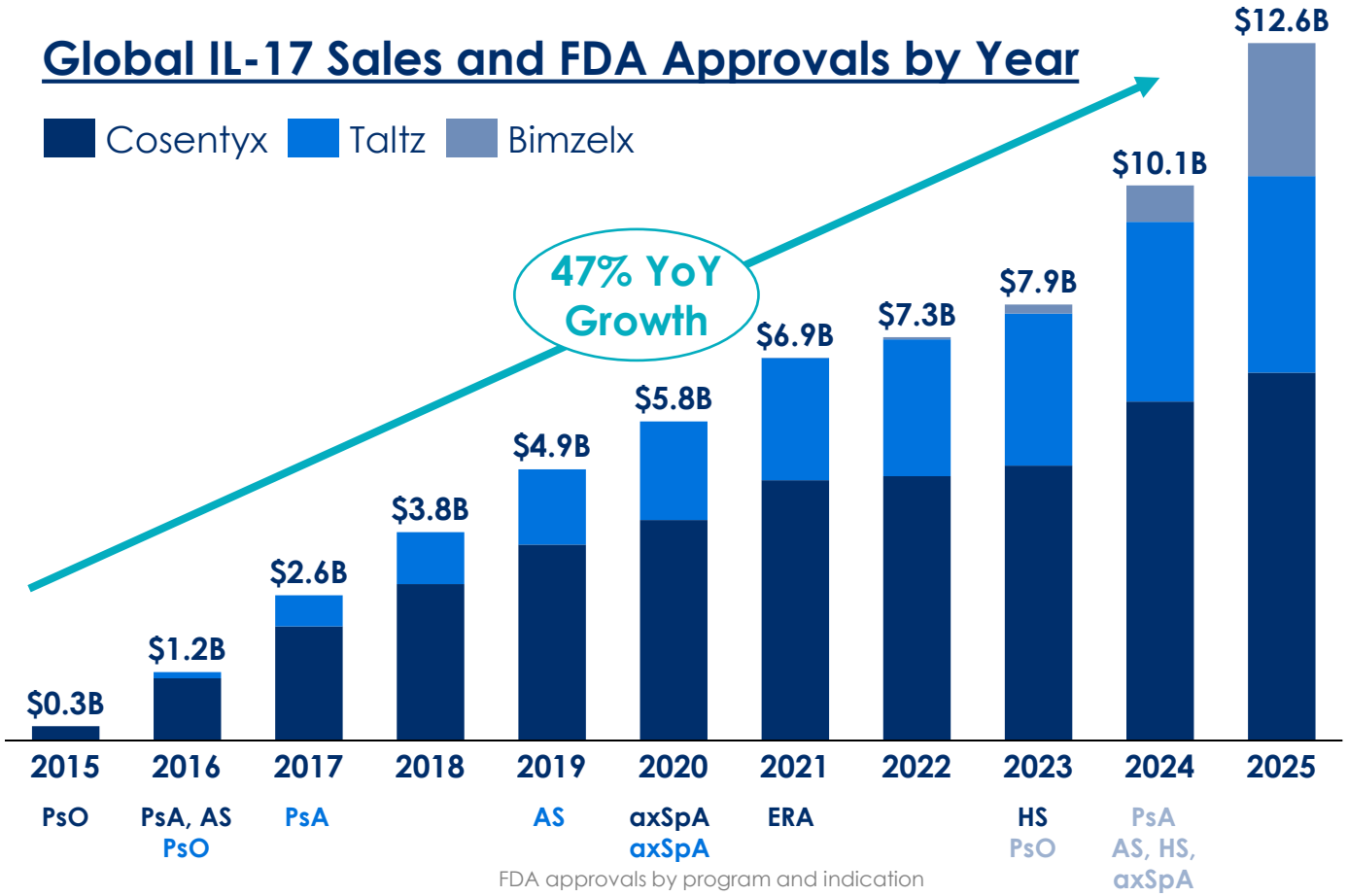
IL-17 currently represents a **$12.6B global market**

- **Market growth** driven by new entrants; **further expansion expected** to be driven by additional launches and approvals for new indications

Strong **patient preference for oral therapies** highlights unmet need within IL-17 class

- No oral IL-17 agents are later than Phase 2

Global IL-17 Sales and FDA Approvals by Year



FDA approvals by program and indication

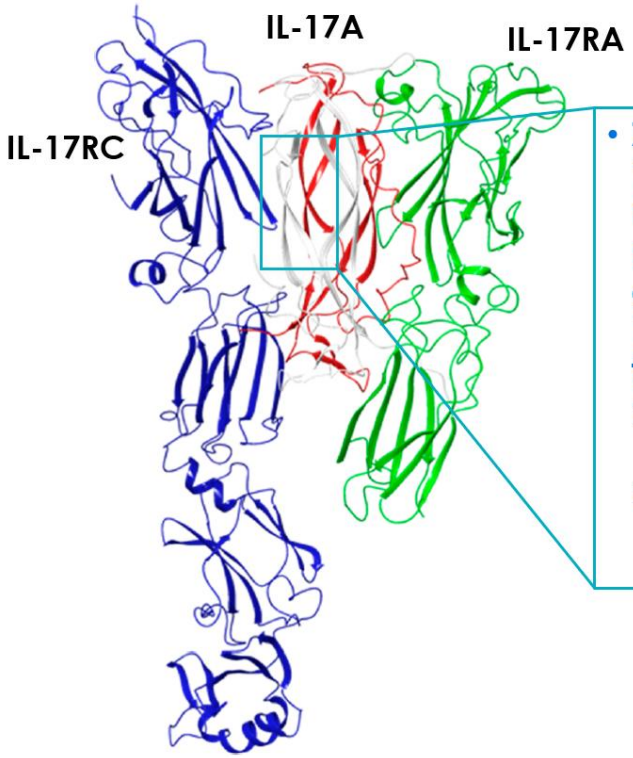
ZB021: a differentiated approach to targeting IL-17 with potential for biologic-like efficacy combined with improved access, compliance and patient convenience

Sales analysis based on Company filings and GlobalData analysis; PsA = psoriatic arthritis; AS = ankylosing spondylitis; nr-axSpA = non-radiographic axial spondyloarthritis; ERA = enthesitis-related arthritis; HS = hidradenitis suppurativa. Additional indications approved within diseases (e.g., pediatric)

IL-17AA/AF is a proven therapeutic approach balancing safety with strong disease control across multiple indications

High ZB021 potency observed *in vitro*

Target engagement	**IL-17–IL17RA binding inhibition**	**2.6 ± 1.7 nM**
Functional inhibition	**IL-17 signaling inhibition**	**AA: 6.5 ± 3.1 nM** **AF: 18.4 ± 16.2 nM**
Disease-relevant activity	**IL-17 signaling inhibition from Th17 supernatant**	**2.8 ± 2.4 nM**



- **ZB021 binding at IL-17AA or IL-17AF monomer interface[1] prevents IL-17AA/AF engagement with IL-17RA potentially through:**
  - Allosteric inhibition of IL-17RA binding
  - Steric blockade of cytokine/receptor interaction

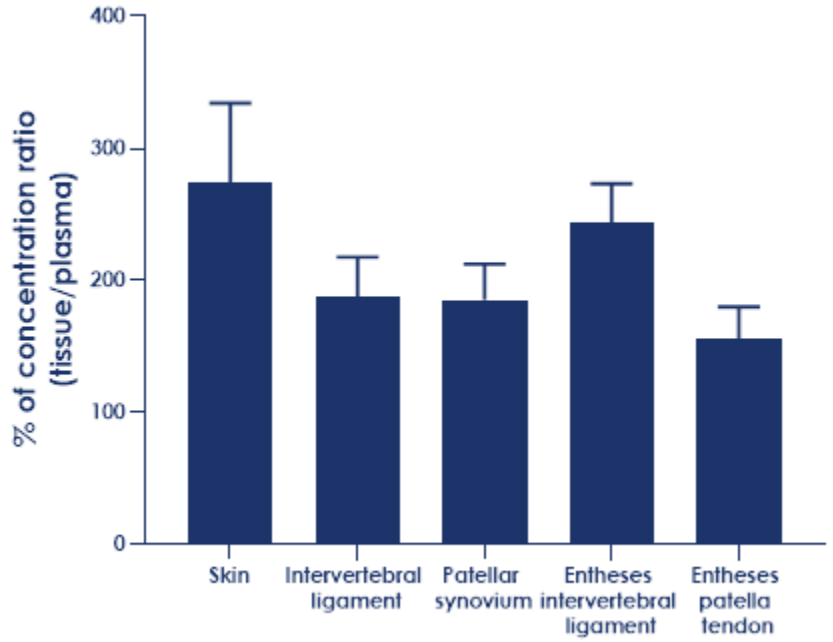
Based on approved products, IL-17AA/AF inhibition demonstrates strong clinical activity while avoiding safety risks observed with IL-17FF inhibition[2]

All inhibition data are IC_{50} values; [1] Andrews *et al.* J Med Chem 2022; PDB ID: 4HSA and 6HG4; [1]Based on in silico structural modeling; [2] Clinical claims based on data for other programs, no head-to-head studies have been conducted; Safety claims based on USPI comparisons for Cosentyx®, Taltz®, and Bimzelx®; Per Bimzelx® USPI, a causal association between treatment with Bimzelx® and increased risk of suicidal ideation and behavior has not been definitively established.

Zenas BioPharma

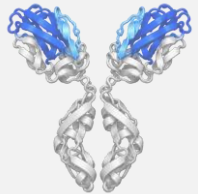
ZB021 properties support potential differentiation

ZB021 distributes into tissues at concentrations similar to or exceeding plasma concentrations in the mini pig



10 mg/kg ZB021 was administered to mini pigs orally for 5 days. On day 5, terminal plasma and tissue samples were collected at 4 or 24 hrs (N=3/time point), and ZB021 concentrations were measured by LC/MS/MS. Data shown is at 24 hours

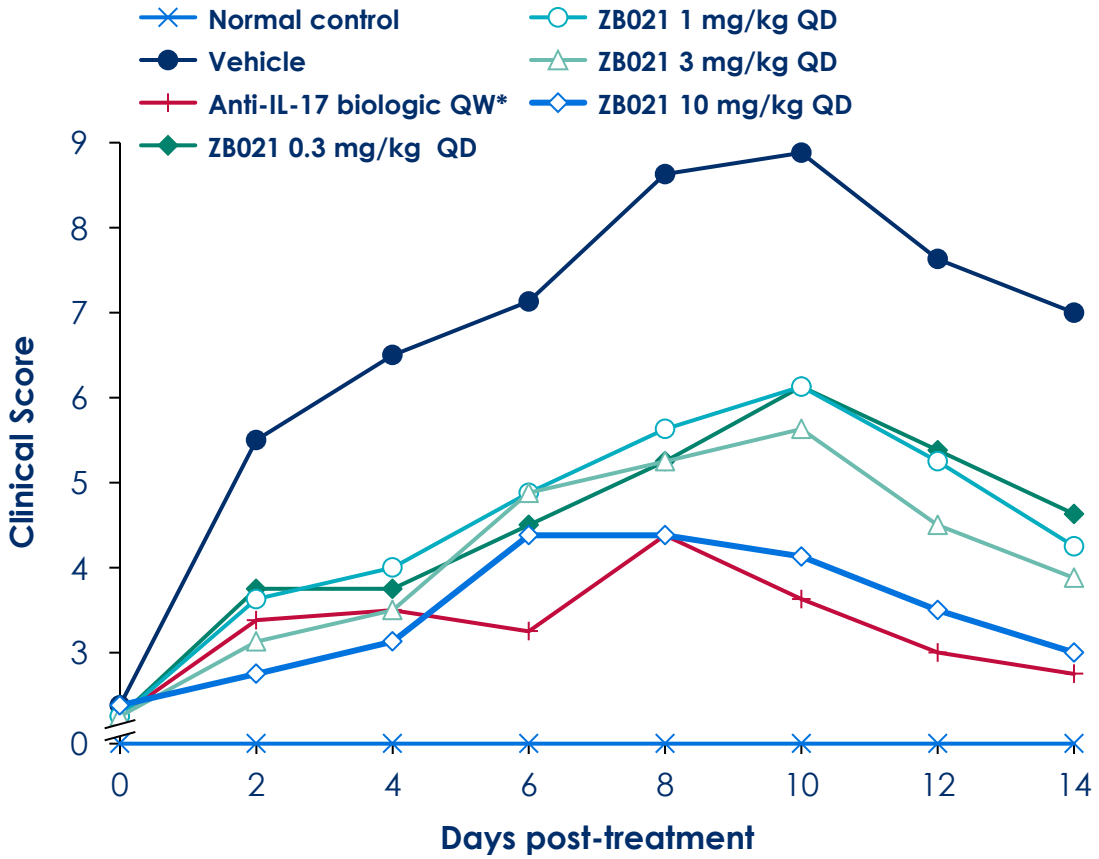
High oral bioavailability and tissue penetration of ZB021 hypothesized to result in local inhibition of IL-17

		Molecule size	Oral bioavailability	Tissue penetrance
ZB021		*~0.6 kDa Reference (1×)*	High	High
Peptide inhibitor		*~1.5-7 kDa ~12× Larger*	Low	High
Affibody		*~6-19 kDa ~10-31× Larger*	N/A	Mod.
Nanobody		*~15-40 kDa ~25-65× Larger*	N/A	Mod.
Monoclonal antibody (IgG)		*~150 kDa ~250× Larger*	N/A	Low

Zenas BioPharma

The ZB021 biologic-matching preclinical activity combined with favorable ADME properties support best-in-class potential

Robust efficacy demonstrated: comparable activity *in vivo* to a reference anti-IL-17 biologic in rat CIA model



Strong preclinical ADME properties support best in class oral IL-17 potential

Low clearance observed in multiple species



High metabolic stability in liver microsomes

High oral bioavailability observed in multiple species; *~80% in non-human primates*

* CJM112: a fully human anti-IL-17A antibody with 10-fold higher affinity to IL-17A and greater than 200-fold higher affinity to IL-17AF than Cosentyx® (secukinumab) and with similar affinity to both human IL-17A and IL17AF

Zenas BioPharma

ZB021 development program designed for rapid dose evaluation and to establish proof-of-concept in patients

Multiple Ascending Dose (n=8 per dose*)
Daily for 7 days

Single Ascending Dose (n=8 per dose*)

Phase 1 objectives:

- Primary
  - **Safety and tolerability** of single dose or multiple dose oral ZB021 in healthy participants
- Secondary
  - **Evaluate PK** characteristics
  - Compare safety, tolerability and PK under **fed and fasted** conditions

Study population: healthy participants (*6 active, 2 placebo)

Study explores the maximum clinically safe dose

Proof of Concept Study in Patients at 2 Dose Levels

Evaluate efficacy and PD biomarkers

Dose selection:

Safely and consistently achieve drug concentrations ($C_{average}$[1]) exceeding IC_{90}

Informing dose selection:

- ZB021 **$C_{average}$ based on once daily dosing**
- IC_{90} characterized with primary human cells
- **Tissue penetration** in relevant tissues

[1] Liu et al. Clin Rev Allergy Immunol. 2026

Zenas BioPharma

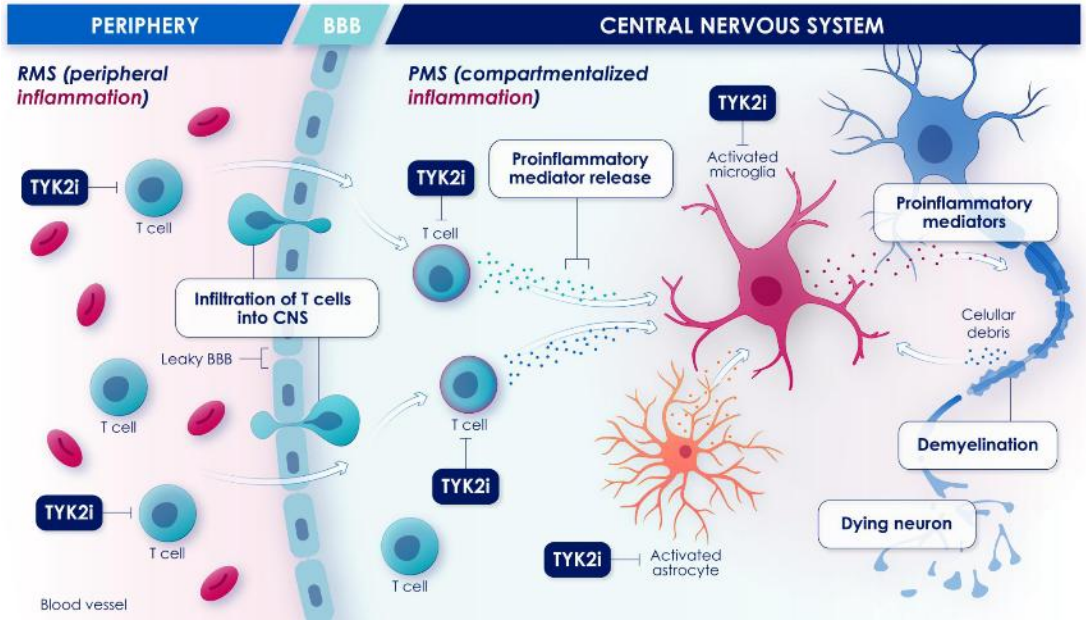
ZB022: A Brain Penetrant TYK2 Inhibitor With Best-in-Class Potential



ZB022: a brain-penetrant TYK2 inhibitor with substantial opportunity in neuroinflammatory and neurodegenerative diseases

TYK2 is a well-established mechanism across a range of autoimmune diseases

- Brain penetrant molecules may provide opportunity to extend benefit to neurological diseases
  - Increasing evidence implicating **TYK2's role in neuroinflammatory and neurodegenerative diseases**
  - Partial loss-of-function variants protect against various autoimmune diseases including MS
  - TYK2 shown to stabilize tau in Alzheimer's disease



ZB022: a brain-penetrant TYK2 inhibitor with best-in-class potential

- Complementary mechanism to **expand upon potential neurology franchise** led by orelabrutinib
  - **Allosteric JH2 inhibition** improves selectivity and specificity
  - **Favorable PK/PD** observed in preclinical studies
  - **High activity** in preclinical neurological disease model
- IND enabling studies ongoing

Zenas BioPharma

Zenas BioPharma

Zenas BioPharma

Enabling patients with autoimmune diseases to reimagine life

