OSE IMMUNO THERAPEUTICS

Breaking Through the Therapeutic Ceiling with First-In-Class Immunotherapies

October 2025

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Investment highlights

Compelling portfolio of late-stage, OSE-owned programs

Tedopi®, is a potential first-to-market oncology vaccine, currently in pivotal Phase 3 study
Lusvertikimab, an anti-IL7R antibody, represents a first-in-class and best-in-class program across a range of I&I indications including IBD, with positive Phase 2 proof-of-concept data in UC

Large market opportunities

Focus on multi-billion $ markets

- **I&I: Ulcerative colitis** (IBD), Cardiovascular-Renal-Metabolic diseases (MASH), Kidney Transplantation
- **I/O: NSCLC** (2L, 3L), PDAC, HNSCC (2L)

Multiple near-term value inflection catalysts

Multiple key clinical and regulatory milestones expected in near term

- **Tedopi®:** Confirmatory pivotal Phase 3 NSCLC 2L and combination Phase 2 readouts (OC, NSCLC)
- **Lusvertikimab :** Phase 2b initiation and subcutaneous formulation development
- **BI 770371:** Phase 1b results in solid tumors + Phase 2a results in MASH
- **Pegrizeprument (FR104):** Phase 2 initiation in Kidney Transplantation
- **ABBV-230 (OSE-230):** Phase 1 initiation

Strong Pharma partnerships

Sustainable business through multi-partnership strategy
> €2.1bn milestones (+€60m potential milestones over the next 4 years)**:** AbbVie, Boehringer Ingelheim, Veloxis

Long duration IP portfolio

IP extends to 2040s
I&I: OSE-127 (>2037), FR104 (>2035), ABBV-230 (>2040) **I/O:** Tedopi® (>2038), BI770371 (>2037), OSE-279 (>2039)

Financial position

Cash runway until the beginning of Q4 2026
Cash position at **€41.6 million** as of June 30, 2025, providing financial visibility until the beginning of Q4 2026*

*Should one of the anticipated milestones be received in 2026, the cash runway would be extended to at least Q1 2027, as previously communicated.

An experienced executive leadership team

Marc Le Bozec
Interim Chief Executive Officer

- Currently supports numerous biotech companies as an advisor, board member and investor
- Previously created and managed two biotech investment funds within Financière Arbevel
- Previously CEO of Cellectis
- Graduated from HEC
- Previous companies:

cellectis EDITING LIFE
MONTPENSIER ARBEVEL

Nicolas Poirier, PhD
Chief Scientific Officer

- 20+ years of experience in Immunotherapy
- Advanced 6 novel immunotherapies to clinic, ultimately leading to six pharma deals
- Global management & finance education (INSEAD, HEC)
- Previous companies:

Effimune
Inserm

Thomas Gidoin
Chief Financial Officer

- 15+ years in pharma / biotech
- 10+ years as CFO in both private and public biotechs, Euronext and Nasdaq IPOs
- Msc in international finance, Msc in international management
- Previous companies:

EY
IPSEN Innovation for patient care
dbv technologies
GenSight BIOLOGICS

Sonya Montgomery, ND
Chief Development Officer

- 20+ years of experience in pharma / biotech
- Global management, portfolio strategy, translational, clinical and regulatory leadership roles (CMO, Head of clinical development) from discovery through registration
- Previous companies:

Pfizer
GYROSCOPE
evox
Transition Therapeutics
relypsa
Vasogen
ProQR

Silvia Comis, MD
Chief Clinical Research Officer

- 30+ years of pharma experience
- Previously held positions of Senior Medical Director and European Head of Early Products Medical Affairs in Oncology
- Certified pharmacologist and endocrinologist
- Previous companies:

IQVIA
NOVARTIS

Jean-Jacques Mention, PhD
Chief Business Officer

- 15+ years of academic research in Immunology and virology at Necker-Enfants Malades Hospital, King's College of London & Institut Pasteur of Paris
- 10 years' experience in BD and innovation
- Achieved four major pharma business deals for OSE
- Previous companies:

AXENIS
INSTITUT PASTEUR
King's College London

Fiona Olivier
Chief Corporate Affairs & Investor Relations Officer

- 30+ years in international communications, public affairs and patient engagement
- Degree in communications & Master in Public Affairs
- Previous companies:

sanofi
abbvie
Abbott
GSK

Aurore Morello, PhD
Head of Research

- 10+ years in Immunotherapy research (mAb, bispecific, CAR-T)
- International researcher fellowship (MSK, NY)
- Previous company :

Memorial Sloan Kettering Cancer Center

Clinical Pipeline

Combining a clinical portfolio of first-in-class immunotherapies and diversified assets in IO and I&I

I&I

Product candidate	Target	Indication	Research	IND-enabling	Phase Ia/Ib	Phase II	Phase III
OSE-127 *Lusvertikimab*	Anti-IL-7R	**Ulcerative Colitis**					**Positive Results**
BI 770371	Anti-SIRPα (Boehringer Ingelheim)	MASH					
Pegrizeprument (FR104)	Anti-CD28 (Veloxis)	Kidney Transplantation					
ABBV-230	Anti-ChemR23 (abbvie)	Chronic Inflammation					
OSE-220 *Pro-Resolutive mAbs*	Undisclosed GPCR Agonist	Chronic Inflammation					

Upcoming Milestones

Complete data
Strategic update
Phase 2a update
Phase 2 start
Phase 1 start
Preclinical update

I-O

Product candidate	Target	Indication	Research	IND-enabling	Phase Ia/Ib	Phase II	Phase III
Tedopi® (OSE-2101)	Neoepitopes immunotherapy	NSCLC Mono post-ICI 2L					Pivotal Phase 3 (EU/US)
		Pancreas cancer Combo *(IIS)*					**Positive Results**
		Ovarian cancer combo *(IIS)*					
		NSCLC Combo 2L *(IIS)*					
		NSCLC 1L combo OSE-279					
BI 770371	Anti-SIRPα (Boehringer Ingelheim)	Solid tumors (HNSCC)					
IL-7R CAR-T	IL-7R CAR-T (Memorial Sloan Kettering Cancer Center)	IL-7R+ tumors					
Anti-PD1/cytokine	Undisclosed (Boehringer Ingelheim)	Solid tumors					

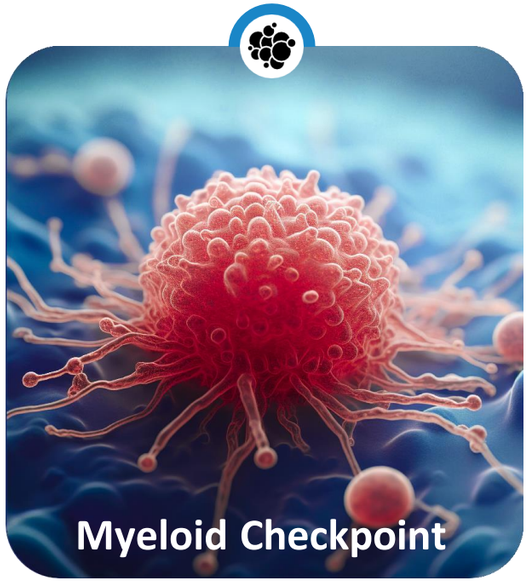
Upcoming Milestones

Phase 3 update
Phase 2 presentation
Phase 2 readout H1-2026
Phase 2 readout H2-2026
Phase 1b combo data
Phase 1b results
IND
Preclinical update

NSCLC: Non-Small Cell Lung Cancer; **PDAC:** Pancreatic Ductal AdenoCarcinoma; **OC:** Ovarian Cancer; **ALL:** Acute Lymphoblastic Leukemia. **UC:** Ulcerative Colitis.
IND: Investigational New Drug Application.

Research platforms

Extra(not) Ordinary Research PowerHouse



- Anti-SIRPα
- Anti-CLEC-1 mAbs

- Anti-PD1/cytokine
- Cis-Demasking technology

- Anti-ChemR23
- Undisclosed new pro-resolutive GPCRs

- IL-35 mRNA
- Undisclosed programs

Partnered Asset

Strategic partners provide industry-leading clinical support & strong financial foundations

Over €2.1bn in potential milestones; €219m* already received

Immuno-Oncology
Immuno-Inflammation
Potential
Received

BI 770371
+ anti-PD1/cytokine
Solid tumors & Metabolic Diseases

Boehringer Ingelheim

Up to **€1.1bn**

€104m received

+ Tiered royalties
on Global Sales

ABBV-230
Chronic Inflammation

abbvie

Up to **$713m**

$48m upfront

+ Tiered royalties
on Global net Sales

Pegrizeprument
(FR104)
Kidney Transplant

Veloxis PHARMACEUTICALS
an Asahi Kasei company

Up to **€315m**

€13.9m received

+ Tiered royalties
on Global Sales

* Including upfront, milestones and reinvoiced R&D costs + previous license agreement with J&J and Servier

Key potential catalysts*

Readouts

- **Lusvertikimab**
  - ✓ Full data set Phase 2 induction UC results
  - ✓ Extension period Phase 2 UC results
  - ✓ Biomarkers Phase 2 UC results
- **Tedopi®**
  - ✓ Phase 2 PDAC results presentation
- **BI 770371 *(partnered)**
  - ✓ Phase 1b results in solid tumors

Progress

- **Tedopi®**
  - Phase 3 NSCLC 2L update
  - ✓ Phase 2 combination completion
- **Lusvertikimab**
  - Development update
- **Pegrizeprument (FR104) *(partnered)**
  - Phase 2 start in Kidney Tx
- **ABBV-230 *(partnered)**
  - Phase 1 initiation

Readouts

- **Tedopi®**
  - Phase 3 results in NSCLC 2L
  - Phase 2 combination results
- **Lusvertikimab**
  - New study results
- **BI 770371 *(partnered)***
  - Phase 1b onco + Phase 2 MASH results
- **Pegrizeprument (FR104) *(partnered)***
  - Phase 2 results in Kidney Transplantation
- **ABBV-230 *(partnered)***
  - Phase 1 results + Phase 2 results

Progress

- **Undisclosed internal Programs**
  - IND/Phase 1
- **New Research programs/platforms**
  - New partnering opportunities

2025

2026-2027

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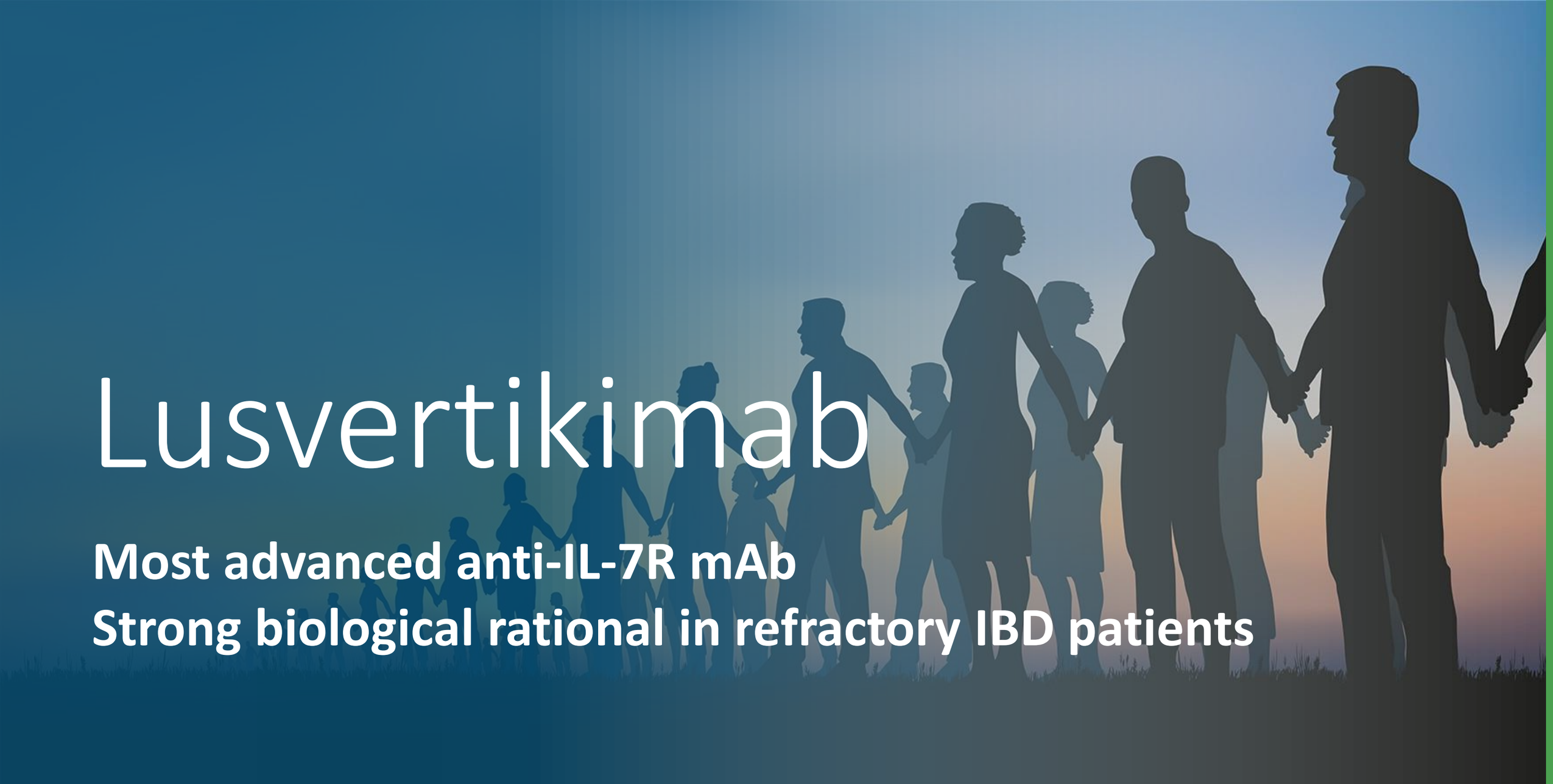
* Best estimate from the Management - not binding

Proprietary clinical programs



Lusvertikimab

Most advanced anti-IL-7R mAb

Strong biological rational in refractory IBD patients

IL-7 fuels chronic inflammation in tissues

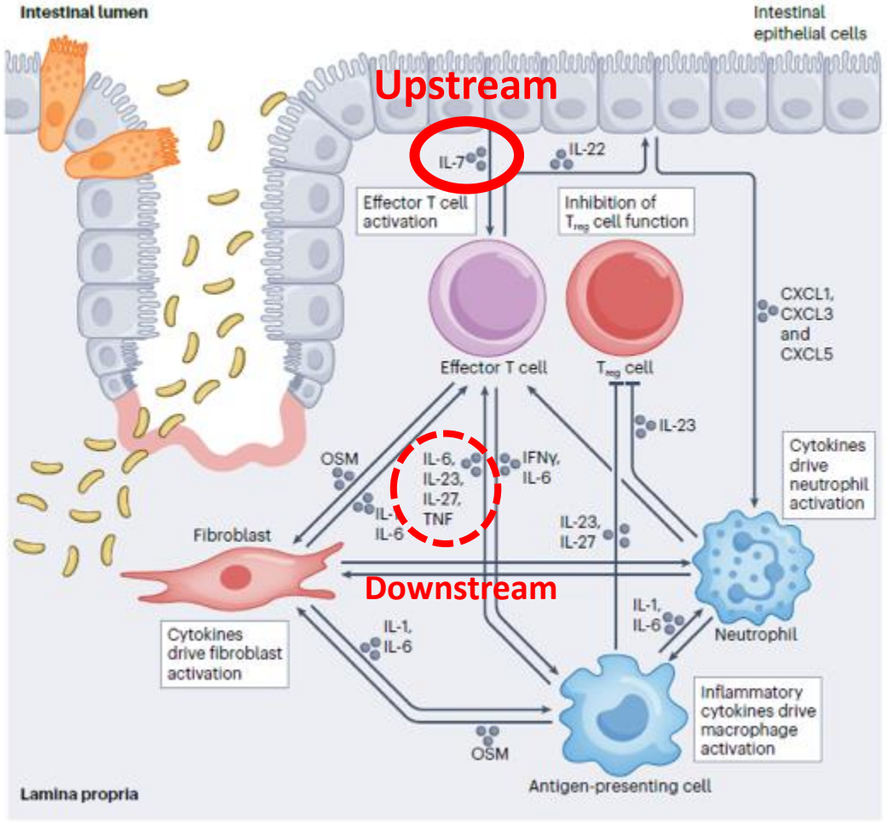
Upstream mechanism of resistance in hyper-inflammation

Recent evidence suggests the presence of highly pro-inflammatory — or 'angry' — cells in the intestinal mucosa in inflammatory bowel disease (IBD) that drive molecular resistance to anti-cytokine therapy (such as anti-TNF and anti-IL-12/IL-23 therapies).

'Intestinal epithelial cells (IECs) produce cytokines such as **IL-7** to activate effector T cells and can produce chemokines such as CXCL1, CXCL3 and CXCL5 to induce neutrophil recruitment and activation.'

Pr. Neurath, ***Nature Review Immunology 2024***

Intervening upstream at the IL-7 receptor will prevent molecular signalling transmission by IL-7 through the JAK/STAT5 pathway, while sparing Tregs

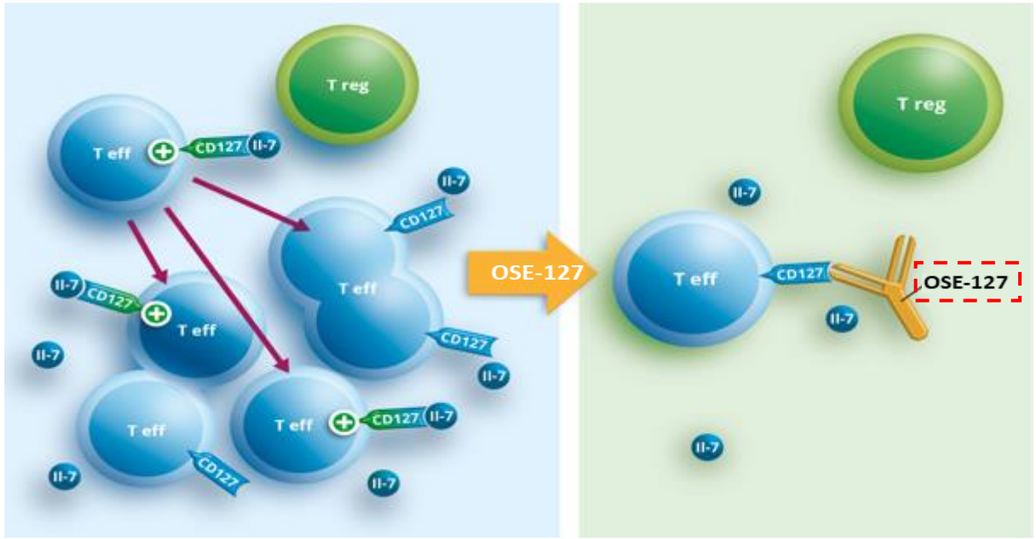


Neurath M. **Nature Review Immunology 2024**

Lusvertikimab / OSE-127

Pure IL-7 receptor antagonist mAb

Tackling the fuel of memory T-lymphocytes while sparing Tregs



A differentiated IL7R antagonist with positive Phase 2 data in hand

- IL-7 produced by inflamed tissues sustains **T-cell survival and chronicity**, **drives Th1 and Th17** T cell differentiation
- IL-7R pathway is overexpressed in bio-refractory IBD patients[1,2]
- High preclinical efficacy in combination[2]
- Lusvertikimab, first non-internalizing pure antagonist anti-IL-7R mAb[3] – no antagonist activity on TSLP
- Good safety, PK/PD profile in Phase 1[4], no cytokine release, confirmed target-engagement
- **Positive Phase 2 study in UC results released in Q1 & Q2 2025**[5]

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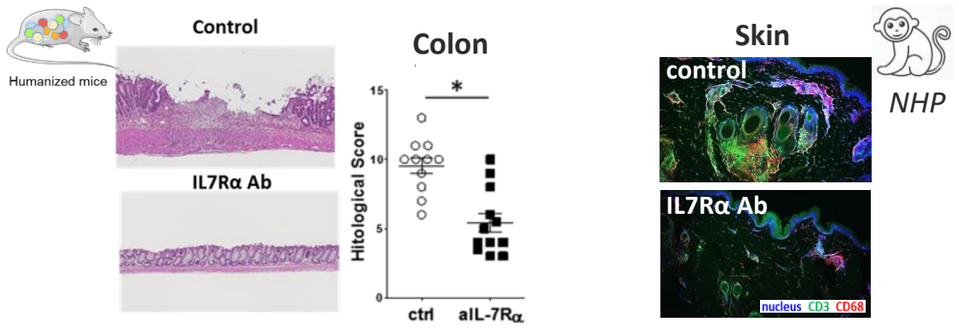
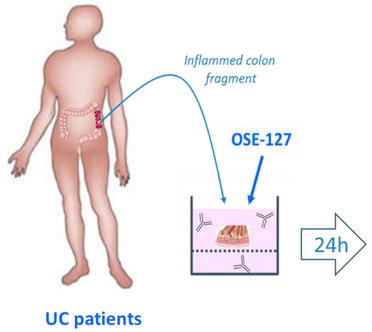
1: Belarif et al. JCI 2019. 2: Poirier, ECCO 2025. 3: Belarif et al. Nature Communication 2018. 4: Poirier et al. Journal of Immunology 2023. 5: Bourreille et al. ECCO2025 & DDW2025

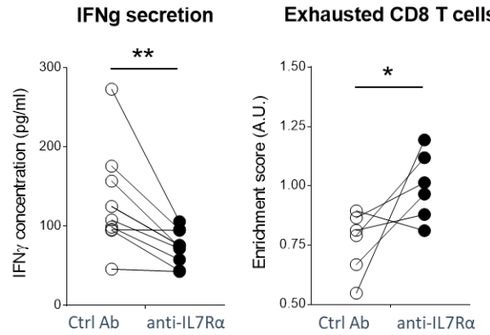
Preclinical & translational research of IL-7 in IBD

High preclinical efficacy *in-vivo* and *ex-vivo* + high target expression in diseased tissues

High preclinical efficacy in different models

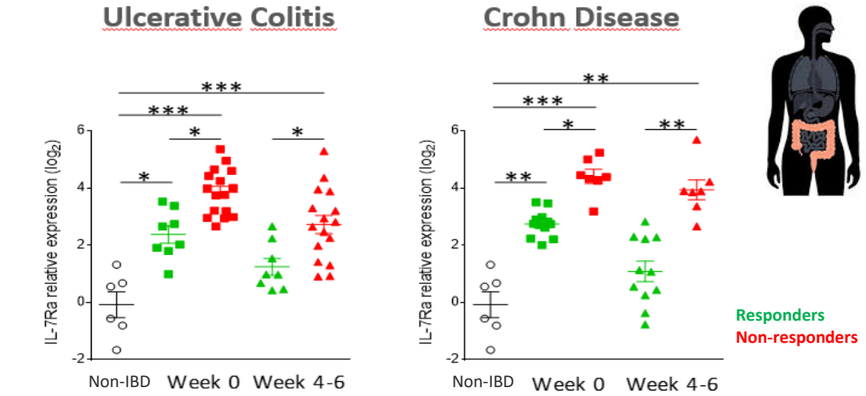


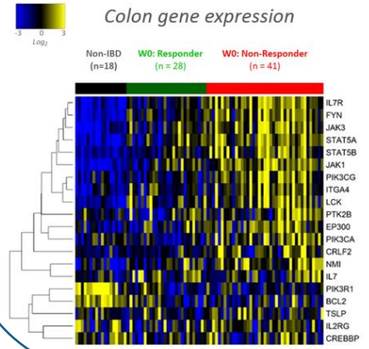


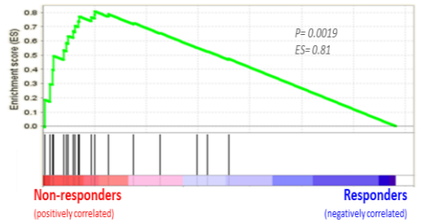


Mucosal IL7R pathway over-expression in IBD

High correlation with SOC unresponsiveness







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Belarif et al. Nature Com 2018

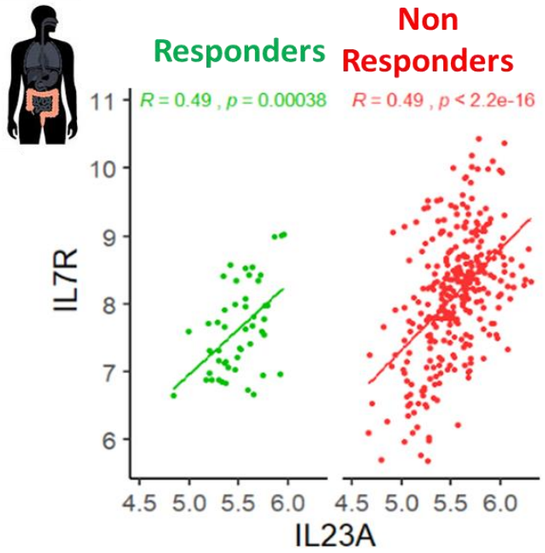
nature COMMUNICATIONS

Belarif et al. JCI 2019

JCI The Journal of Clinical Investigation

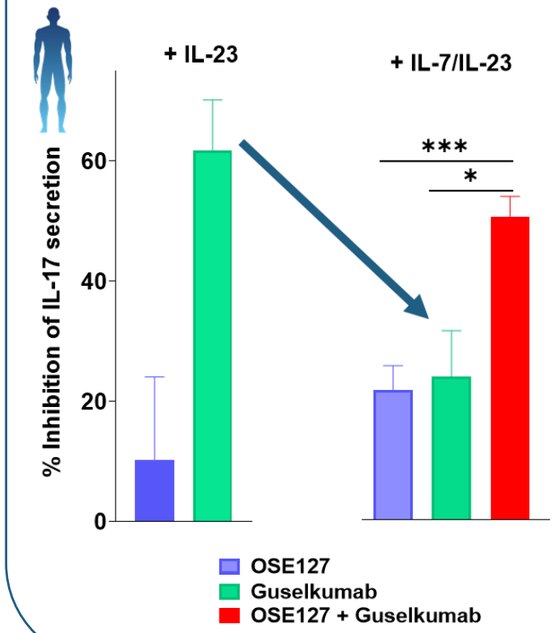
Anti-IL-7R + IL-12/23 combination preclinical & translational rationale

IL-7R and IL-23 cytokine mucosal over-expression in Ustekinumab UC patients



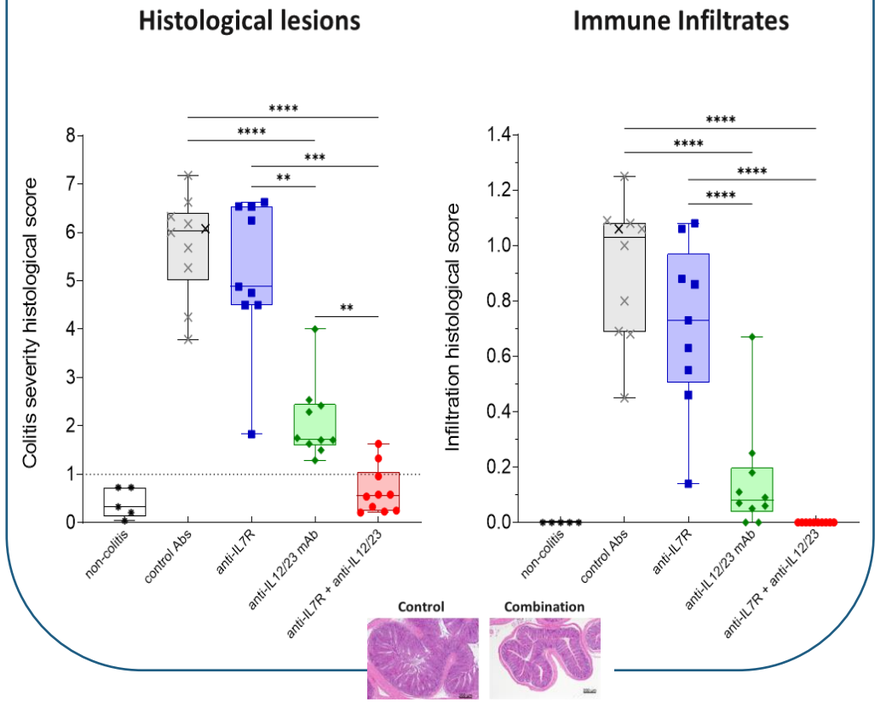
UC colon transcriptomic analysis (GSE206285)

IL-7 drives IL-23 antagonist resistance



<u>In-vitro model</u>: naïve human primary Th17 cells differentiation

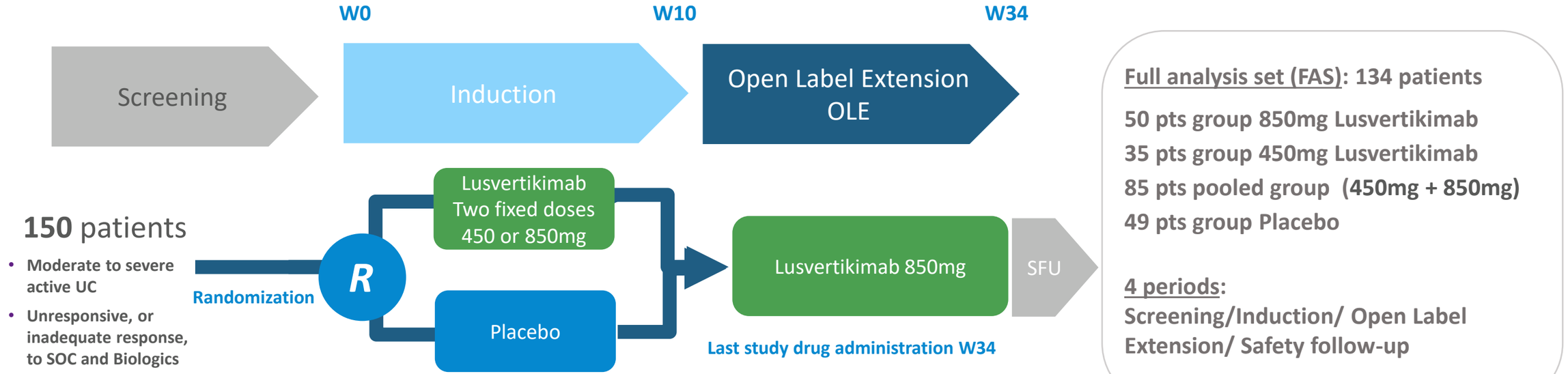
IL-7R + IL-12/23 blockade synergizes to induce complete mucosal healing in chronic colitis



<u>In-vivo model</u>: mouse chronic colitis T-cell transfer model (Epistem)

CoTikiS phase 2 randomized study of Lusvertikimab

Moderate-to-severe ulcerative colitis



Multi-center, European, randomized, double-blind, placebo-controlled, parallel-group Phase 2 study in patients with moderate to severe active UC

Induction: Lusvertikimab 450 mg/ Lusvertikimab 850 mg/ Placebo: IV infusions at Week 0, Week 2, Week 6. **Analysis at Week 10**

Open Label Extension: At Week 10, additional infusions for all patients at 850 mg every 4 weeks for 6 months (W10, 14, 18, 22, 26, 30, 34)

Patients included with a rectal bleeding score ≥ 1, a stool frequency score ≥ 1 and an endoscopic sub-score ≥ 2

IBD clinical Advisory Board, and what they say

“These data suggest that Lusvertikimab has the potential to be a game-changer, either as a monotherapy or in combination. Some additional exploration to understand best dosing will be valuable."

Vipul Jairath
London, Canada

Schulich MEDICINE & DENTISTRY

“The trial was well-conducted, with robust data and a low placebo rate. This is very encouraging endoscopic data for such an early stage of development. The potential for Lusvertikimab in the treatment landscape is therefore very promising. Further studies and strategic planning are needed to realize its full potential.”

Laurent Peyrin-Biroulet
Nancy, France

CHRU NANCY

"We have a new mode of action in UC with a strong safety profile. These full Phase 2 clinical induction results provide strong efficacy data for Lusvertikimab in UC, particularly highlighting the meaningful achievement in the key endpoints of endoscopic remission and histological improvement after only 10 weeks of treatment. The latest data showing high histo-endoscopic mucosal improvement (HEMI) and mucosal healing rates represent a strong signal of efficacy”

Arnaud Bourreille
Nantes, France

CHU NANTES

" There is little true innovation in our field. Given the promising results, Lusvertikimab could play a significant role, particularly in treating refractory patients.”

Silvio Danese
Milan, Italy

UniSR Università Vita-Salute San Raffaele

"Lusvertikimab has been shown to significantly decrease FCP, an objective inflammatory biomarker most commonly used in clinical practice to monitor treatment response in patients with ulcerative colitis. These data confirm the overall results of the primary and secondary endpoints from the CoTikiS study, highlighting the potential of Lusvertikimab as an efficacious therapy for all UC patients, also by normalising increased baseline FCP values."

Walter Reinisch
Vienna, Austria

MEDICAL UNIVERSITY OF VIENNA

Bruce Sands
New-York , USA

Mount Sinai

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CoTikiS - demographics and disease characteristics

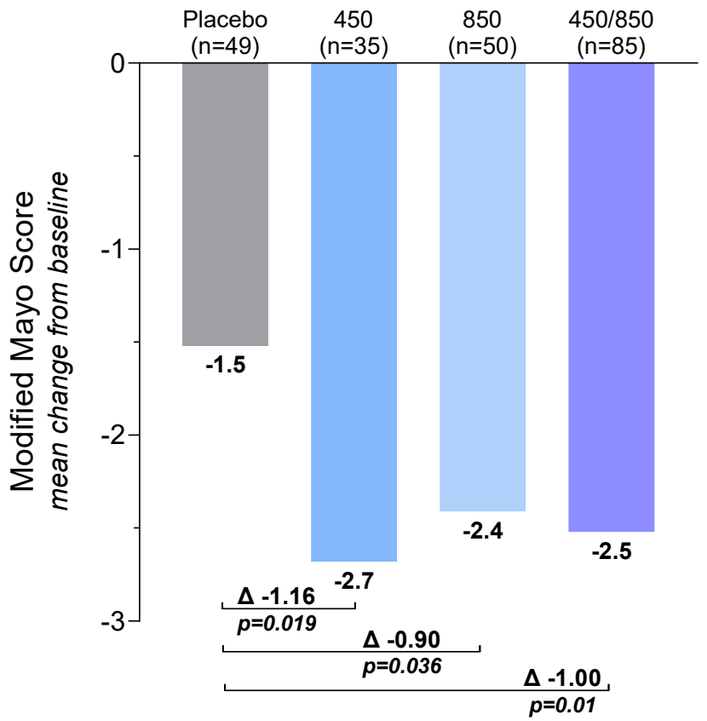
850 mg group slightly more severe disease than 450 mg and/or placebo groups

	Placebo (n=49)	450 mg (n=35)	850 mg (n=50)	Total (n=134)
Age: mean (SD)	42.7 (15.9)	38.8 (10.5)	42.5 (15.1)	41.6 (14.4)
Sex: male	28 (57.1%)	22 (62.9%)	27 (54.0%)	77 (57.5%)
Weight (kg) mean (SD)	75.3 (15.2)	72.8 (16.2)	71.5 (18.0)	73.2 (16.5)
Never smoker	39 (79.6%)	25 (71.4%)	43 (86.0%)	107 (79.9%)
Never alcohol consumption	34 (69.4%)	25 (71.4%)	40 (80.0%)	99 (73.9%)
Region: EU Country	22 (44.9%)	8 (22.9%)	22 (44.0%)	52 (38.8%)
UC duration (years) mean (SD)	8.2 (7.5)	7.2 (6.5)	9.3 (8.6)	8.4 (7.7)
Previous exposure to biologics	**19 (38.8%)**	**5 (14.3%)**	**19 (38.0%)**	**43 (32.1%)**
Previous biologics: 2+	*11 (57.9%)*	*2 (40%)*	*13 (68.8%)*	*26 (60.4%)*
Previous biologics: 3+	*5 (26.3%)*	*0 (0%)*	*6 (31.5%)*	*11 (25.6%)*
Concomitant use of steroids	23 (46.9%)	18 (51.4%)	25 (50.0%)	66 (49.3%)
Modified mayo score (mMS) Mean (SD)	6.6 (1.2)	6.0 (1.4)	6.5 (1.0)	6.4 (1.2)
Category of mMS				
5-6	21 (42.9%)	17 (48.6%)	25 (50.0%)	63 (47.0%)
7-9	**26 (53.1%)**	**13 (37.1%)**	**25 (50.0%)**	**64 (47.8%)**
Endoscopic subscore mean (SD)	2.5 (0.5)	2.4 (0.5)	2.6 (0.5)	2.5 (0.5)
Category of endoscopic subscore: 3	**26 (53.1%)**	**15 (42.9%)**	**32 (64.0%)**	**73 (54.5%)**
C-Reactive protein (mg/L) Mean (SD)	8.6 (13.6)	9.4 (16.7)	11.2 (18.1)	9.8 (16.1)
Serum albumin (g/L) Mean (SD)	42.3 (4.4)	42.6 (4.5)	40.8 (5.4)	41.8 (4.9)
FCP (μg/g) mean (SD)	1459.5 (1865.0)	1088.0 (1600.5)	1191.8 (1603.3)	1261.6 (1696.7)

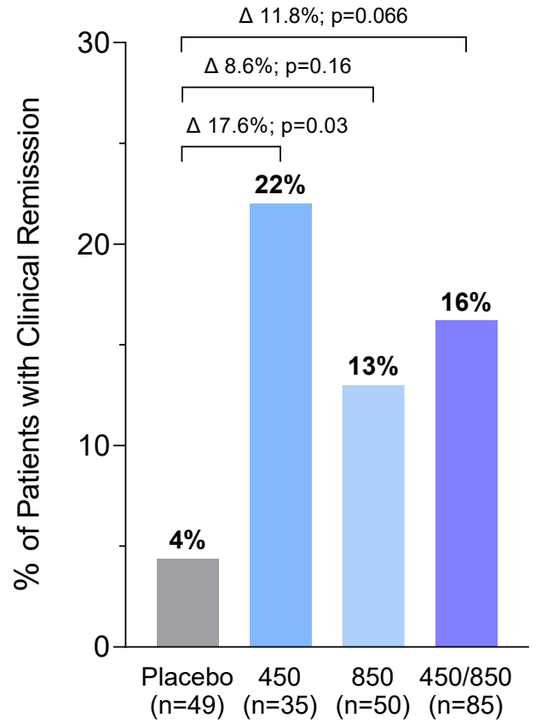
Clinical induction results at week 10

Clinically and statistically meaningful outcomes in the Lusvertikimab-treated groups

<u>Primary Endpoint</u>: Modified Mayo Score Improvement (MMS)*µ at W10



Clinical Remission at W10



clinical remission: MMS ≤2 with no subscore >1 and a RB 0, SF ≤ 1, MES 0 or 1

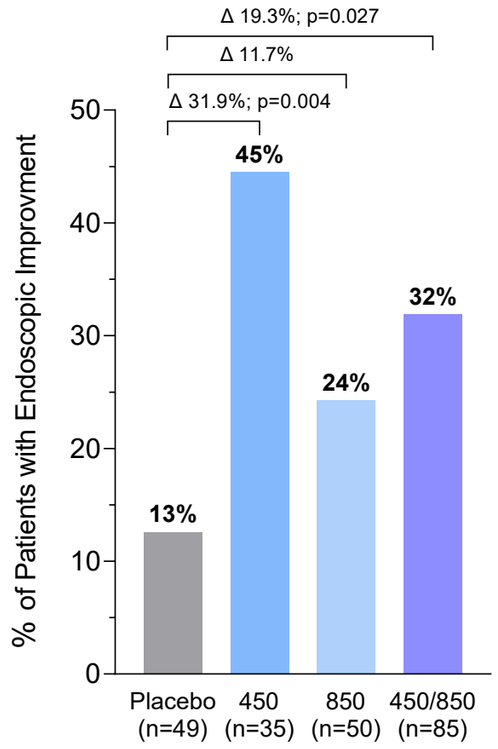
*__MMS Improvement__ defined on mean change at Wk 10 from baseline on the 3 subscores: rectal bleeding, stool frequency, endoscopic (central reading)

µ Least Square Mean Difference between Lusvertikimab and placebo= difference between groups of the Mean change in MMS between baseline and W10

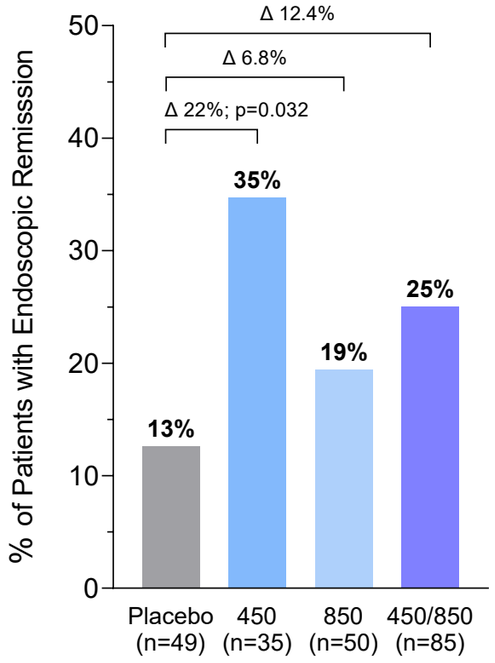
Clinical induction results at week 10

Clinically meaningful and significant endoscopic improvement and remission

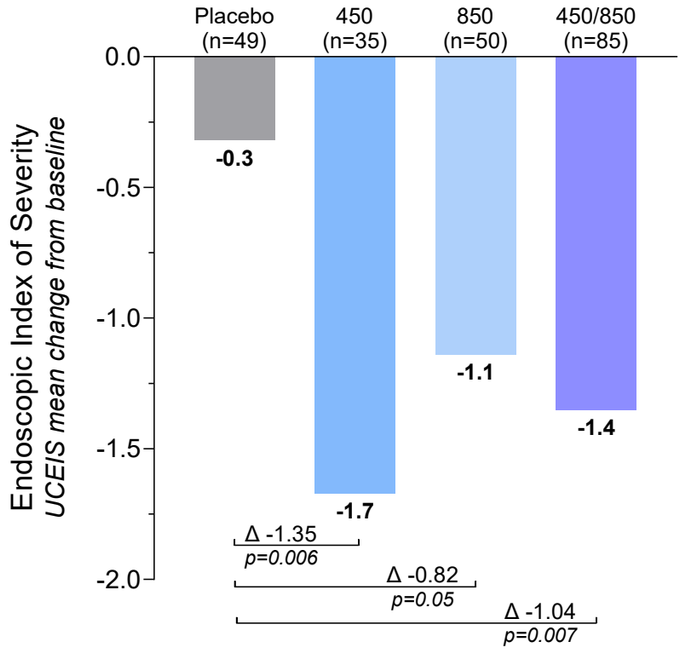
Endoscopic Improvement* at W10



Endoscopic Remission** at W10



UC Endoscopic Index of Severity UCEIS*** change from baseline at W10



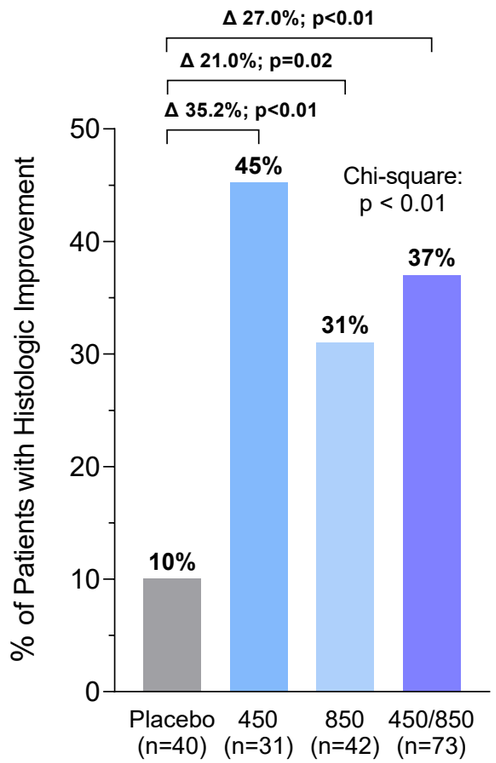
OSE IMMUNO THERAPEUTICS

*Endoscopic Remission = endoscopic Mayo score = 0 / ** Endoscopic Improvement: endoscopic Mayo score ≤ 1 point /
*** UCEIS: index of severity measured by three disease severity subscores: vascular pattern: 0 to 2 / Bleeding: 0 to 3/ /Erosions-ulcerations 0 to 3

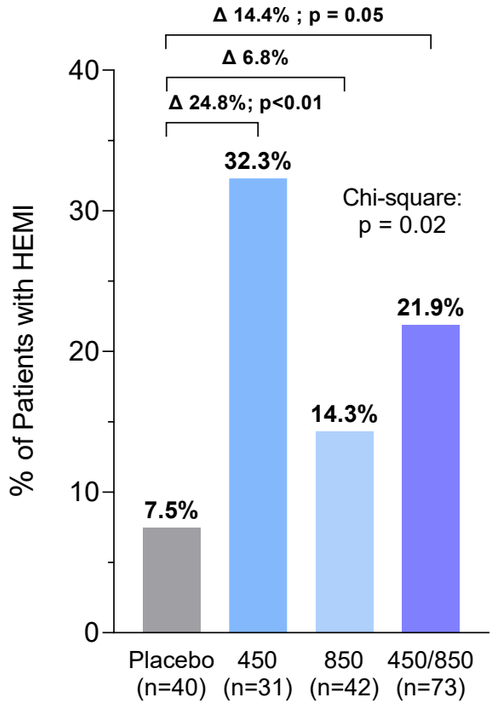
Clinical induction results at week 10

Clinically meaningful and significant histological and histo-endoscopic mucosal improvement

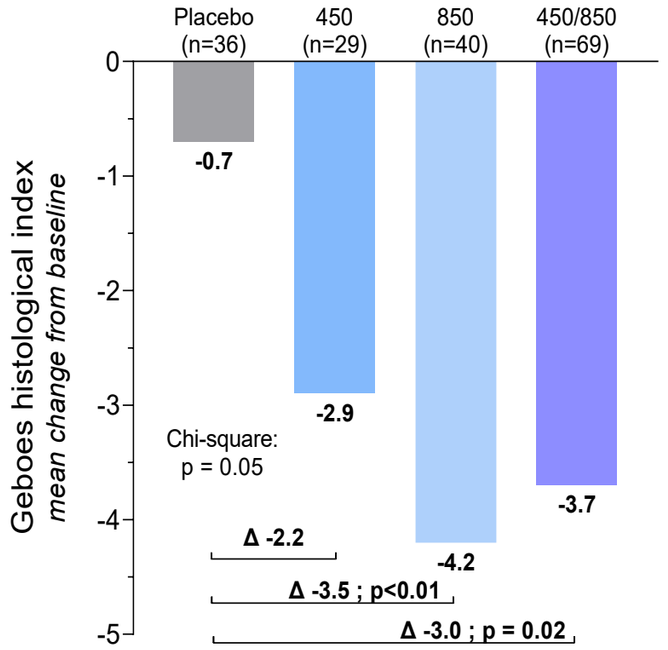
Histological Improvement at W10*



Histo-Endoscopic Mucosal Improvement (HEMI) at W10**



Histological Geboes index change from baseline at W10



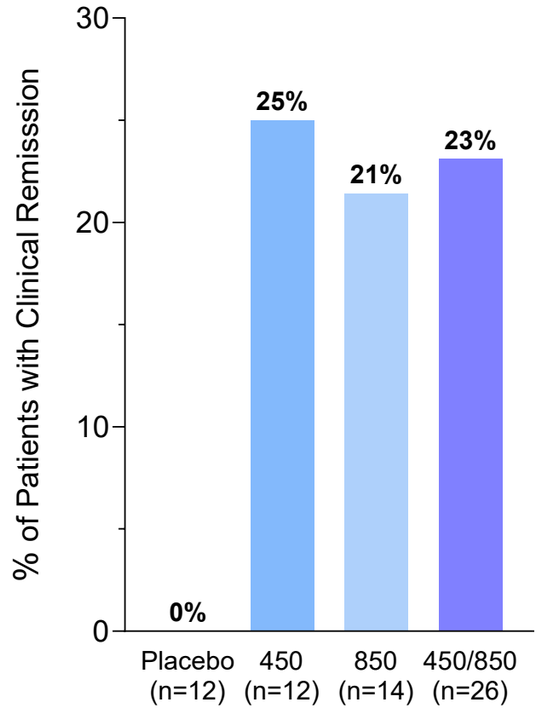
OSE IMMUNO THERAPEUTICS

* Histological Improvement: Nancy histological index (NHI) ≤ 1

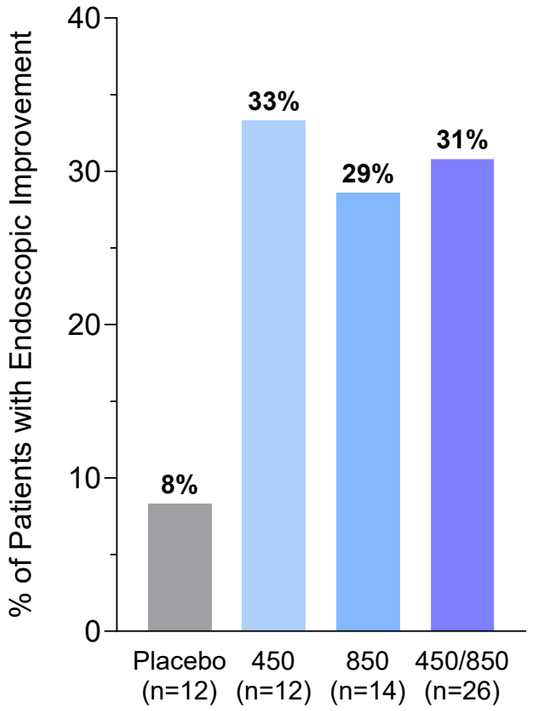
** Histo-endoscopic mucosal Improvement (HEMI): NHI ≤ 1 + MES ≤ 1

Subgroup analysis: bio-naïve, baseline endoscopic score = 3

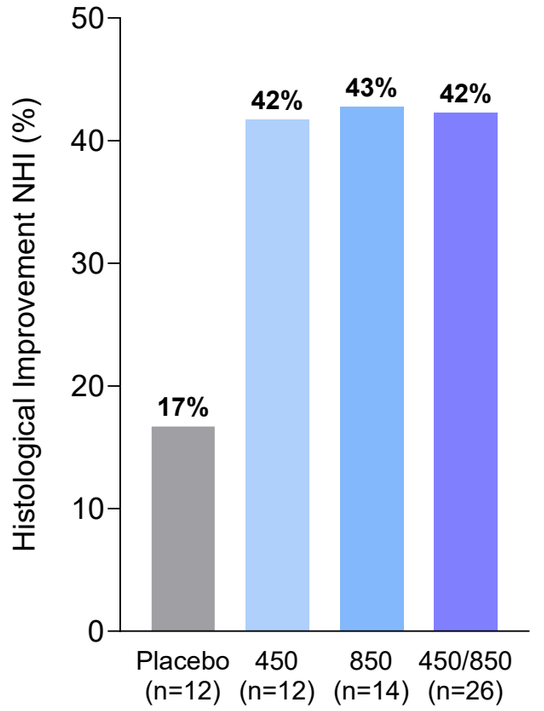
Clinical Remission at W10



Endoscopic Improvement at W10



Histological Improvement at W10

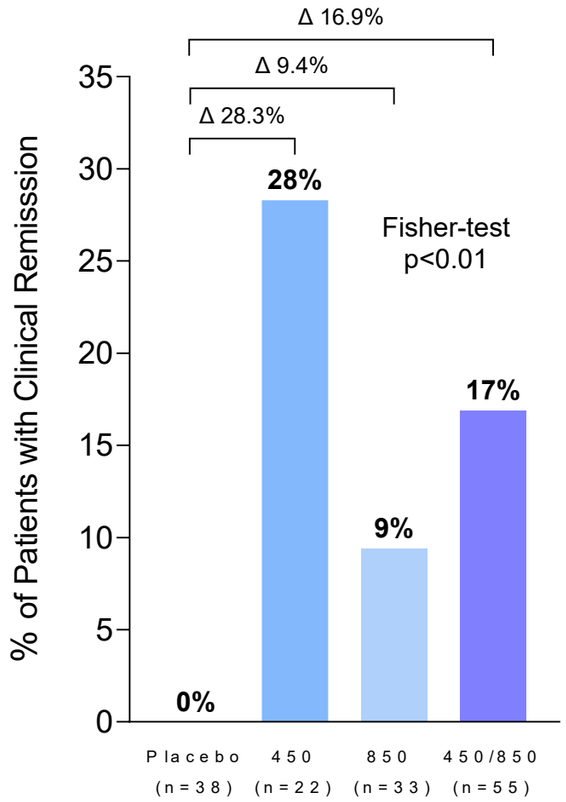


Clinical Remission defined by a modified Mayo score of ≤ 2 points with no individual sub-score of > 1 point and a rectal bleeding at 0
Endoscopic Improvement = endoscopic Mayo score ≤ 1 ; **Histological Improvement:** Nancy Histological Index (NHI) ≤ 1

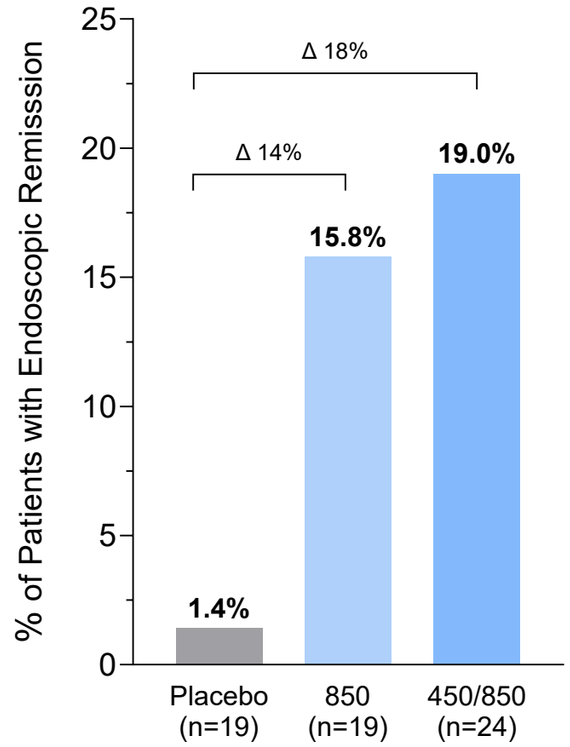
Subgroup analysis: clinical induction at week 10

Lusvertikimab induced clinical and endoscopic remission in high disease activity & biologics-experienced populations

Patients with high baseline FCP
(Fecal Calprotectin >250µg/g)

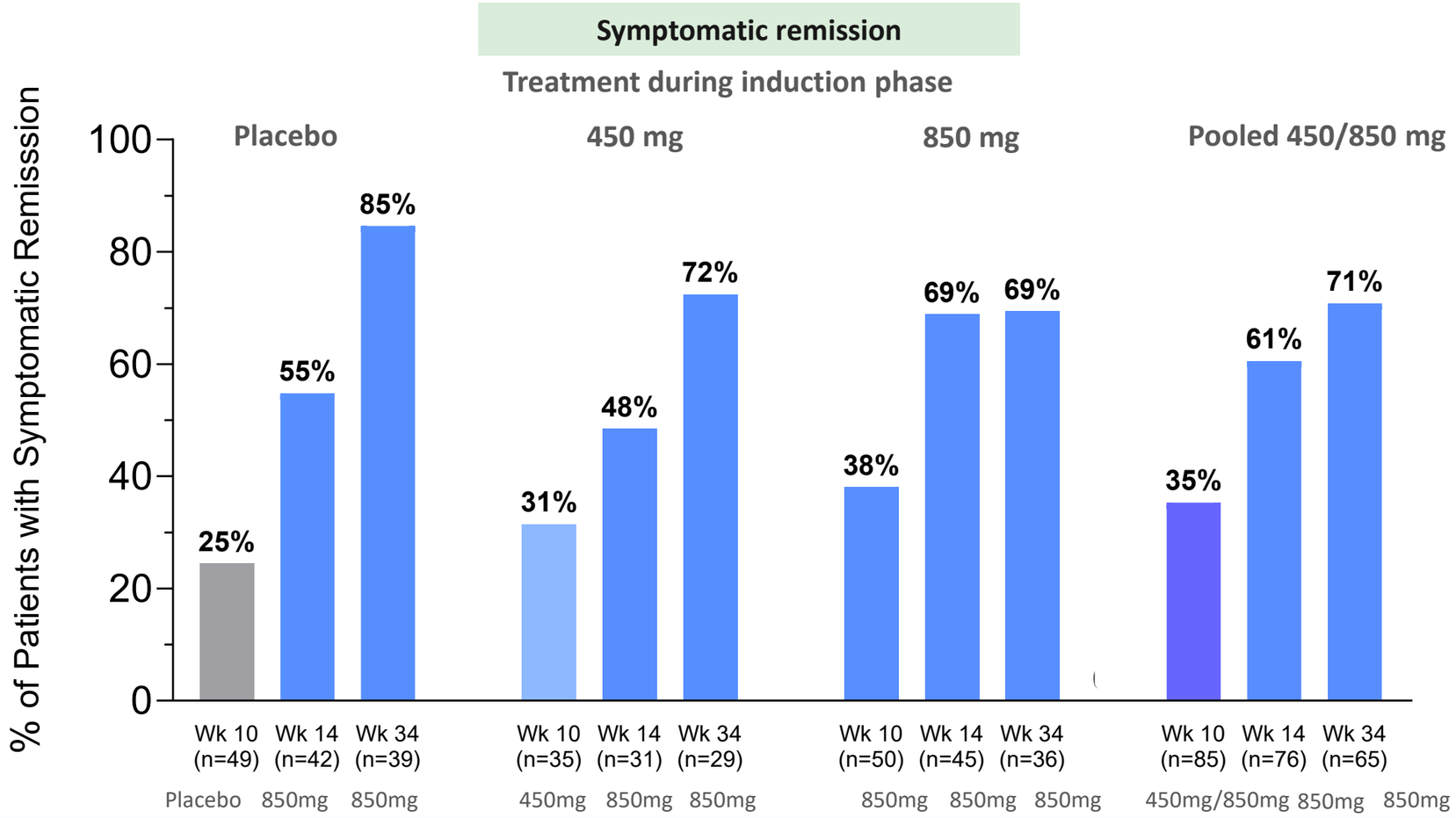


Patients with previous exposure to biologics



PRO2 results in the open label extension (OLE)

Symptomatic remission rates improved for all groups, with 850 mg induction dose group plateauing earlier in the OLE



All patients received 850 mg every 4 weeks from week 10 through 34

*Symptomatic remission defined as patients with PRO2 ≤ 1 and RBS=0

OSE IMMUNO THERAPEUTICS

Safety in induction phase

	Placebo (N=49) N(%) [E]	450 mg (N=36) N(%) [E]	850 mg (N=51) N(%) [E]	Total (N=136) N(%) [E]
At least one TEAE	16 (32.7) [29]	17 (47.2) [33]	20 (39.2) [42]	53 (39.0) [104]
At least one TEAE related to study treatment	1 (2.0) [1]	3 (8.3) [4]	4 (7.8) [14]	8 (5.9) [19]
At least one serious TEAE	3 (6.1) [3]	2 (5.6) [3]	2 (3.9) [3]	7 (5.1) [9]
At least one serious TEAE related to study treatment	—	1 (2.8) [1]	—	1 (0.7) [1]
At least one severe TEAE	2 (4.1) [2]	1 (2.8) [2]	—	3 (2.2) [4]
At least one severe TEAE related to study treatment	—	1 (2.8) [1]	—	1 (0.7) [1]
At least one related TEAE leading to death	—	—	—	—
At least one TEAE leading to drug withdrawal	3 (6.1) [3]	2 (5.6) [3]	—	5 (3.7) [6]
At least one TEAE leading to drug interruption	2 (4.1) [2]	1 (2.8) [1]	—	3 (2.2) [3]
At least one TEAE leading to study discontinuation	3 (6.1) [3]	2 (5.6) [3]	—	5 (3.7) [6]
At least one AESI	6 (12.2) [7]	7 (19.4) [7]	9 (17.6) [10]	22 (16.2) [24]
At least one infection	6 (12.2) [7]	5 (13.9) [5]	7 (13.7) [8]	18 (13.2) [20]
At least one lymphopenia < 500 10^6/L	—	2 (5.6) [2]	2 (3.9) [2]	4 (2.9) [4]

Lusvertikimab was well tolerated with an acceptable safety profile

Lymphopenia was transient, not associated with a higher rate or severity of infection, was more frequent in patients treated with corticosteroids or with baseline values <1*10^9/L and did not lead to treatment discontinuation

N: number of patients with the event - [E]: number of events

CoTikiS Phase 2 study of Lusvertikimab highlights

- **Lusvertikimab demonstrated high clinical, endoscopic, and histological efficacy vs placebo at week 10 at both 450 and 850mg doses in moderate to severe UC patients**
- **89% of the CoTikiS patients entered the open label extension phase and 87% of them completed**
- **UC symptoms continued to improve in both the 450 mg and 850 mg dose groups through week 14**
- **Symptomatic remission was maintained in >90% of the responders at W10 (100% with high dose) Among non-responders at W10, 69% experienced symptomatic remission at W34 following 24 weeks of treatment with 850 mg Lusvertikimab**
- **Lusvertikimab was safe and well tolerated; no increase in rate or severity of infection observed**

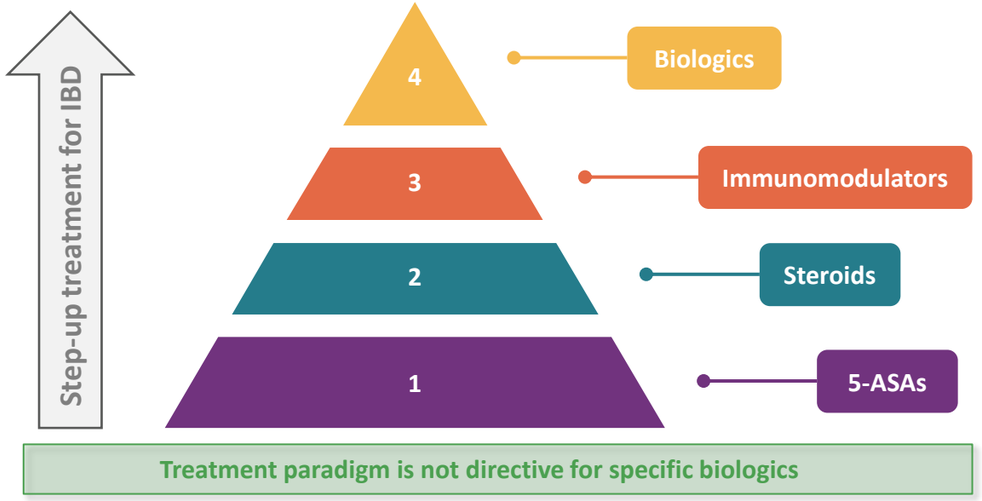
Market opportunity for UC supports multiple players

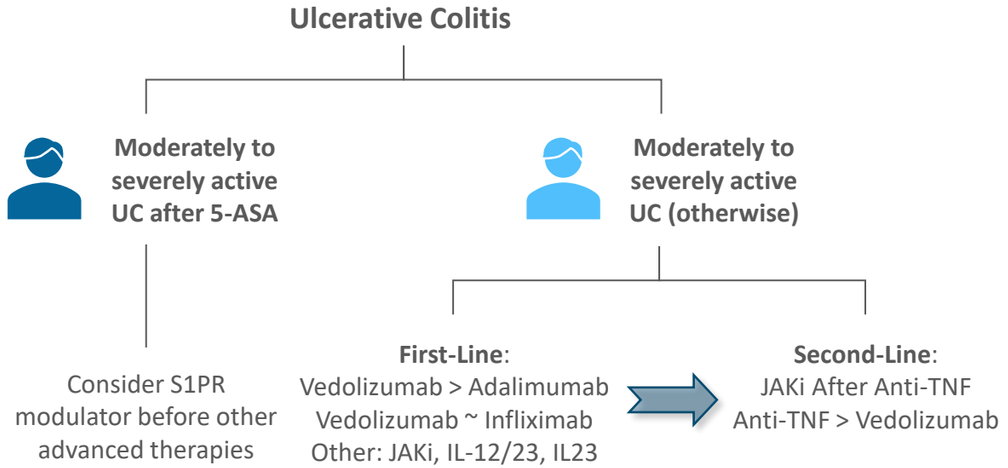
Background, epidemiology & market opportunity

- Chronic disabling bowel disease characterised by **inflammation of the colon & rectum**, with continuous and non-transmural involvement
- It generally begins in young adulthood and lasts throughout life, with significant impacts on quality of life
- Treatment goals focus on controlling disease & improving patient outcomes
- Affects **~1.5M in NA & 5M globally**, with **annual incidence 15:100,000**[1]
- Market size of **$7.3B** and growing at a **4% CAGR**

Unmet need & positioning in the UC market

- Despite new agents targeting inflammatory pathways (e.g. anti-TL1-As), only **~20-30%** of UC patients **achieve remission on 1st treatment** and < 50% of these maintain remission[1]
- A range of approaches are required for this **heterogeneous disease**, which **Lusvertikimab**, a first-in-class anti-IL-7R, **shows potential to address**
- Predictive biomarker data from CoTikiS **supports a precision medicine approach** for a targeted segment of the population
- **Lusvertikimab is differentiated on safety**; no signals of increased risk of infections, PML, CV issues or macular edema as observed in approved therapies



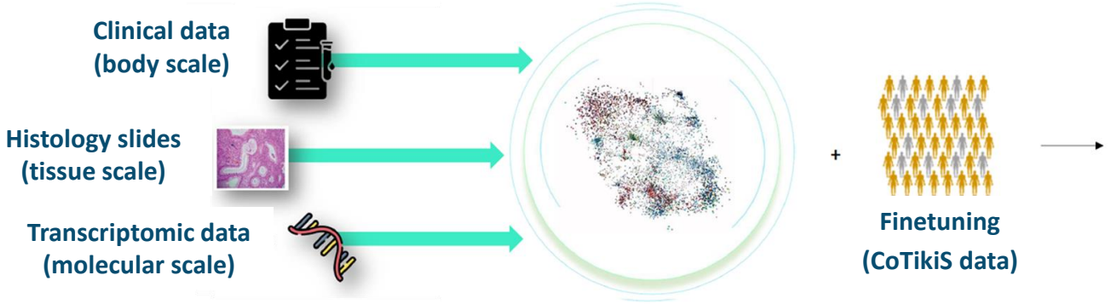


1: Yanofsky. *Journal of the Canadian Association of Gastroenterology*, 2025, 8, S6–S14; Le Berre *et al*. *The Lancet*, Vol 402, Issue 10401, 571 - 584

Potential for highly sensitive and specific prediction* of clinical remission

Biomarker-positive population represents ~30% of CoTikiS cohort

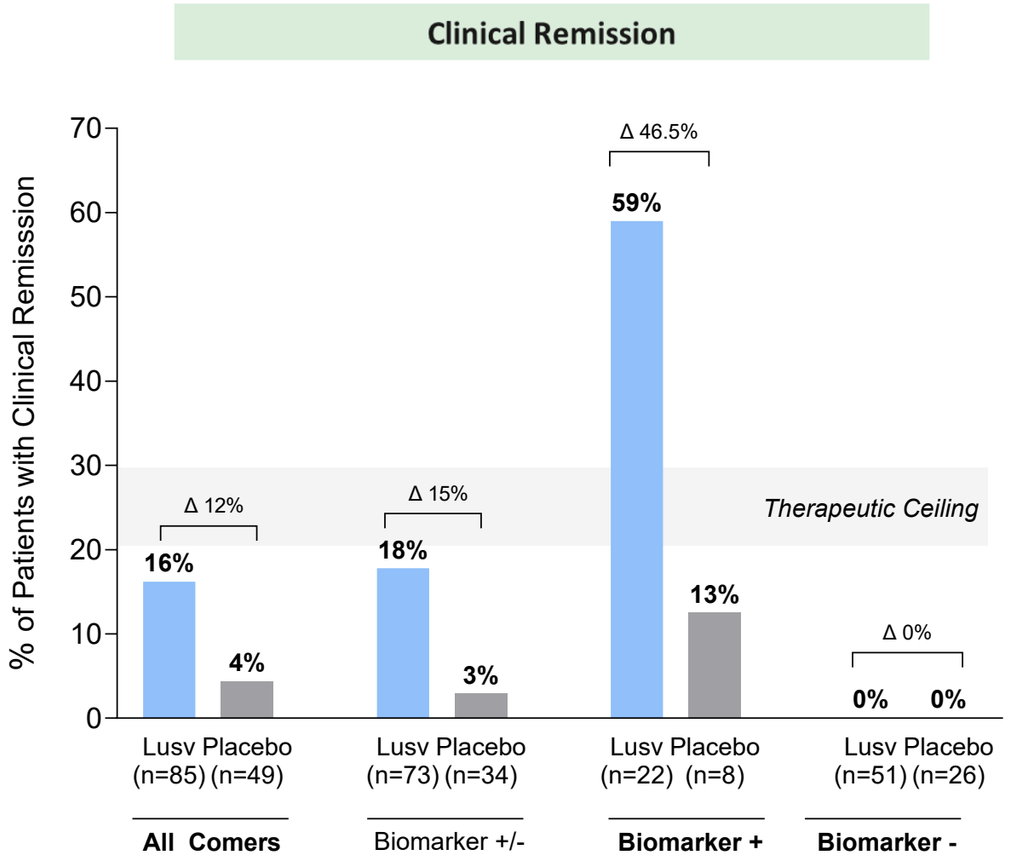
AI-powered precision medicine



Machine learning platform

Foundation model built with dedicated inflammatory disease

- Pre-trained with data from millions of patients: clinical, transcriptomic & histology = **knowledge network**

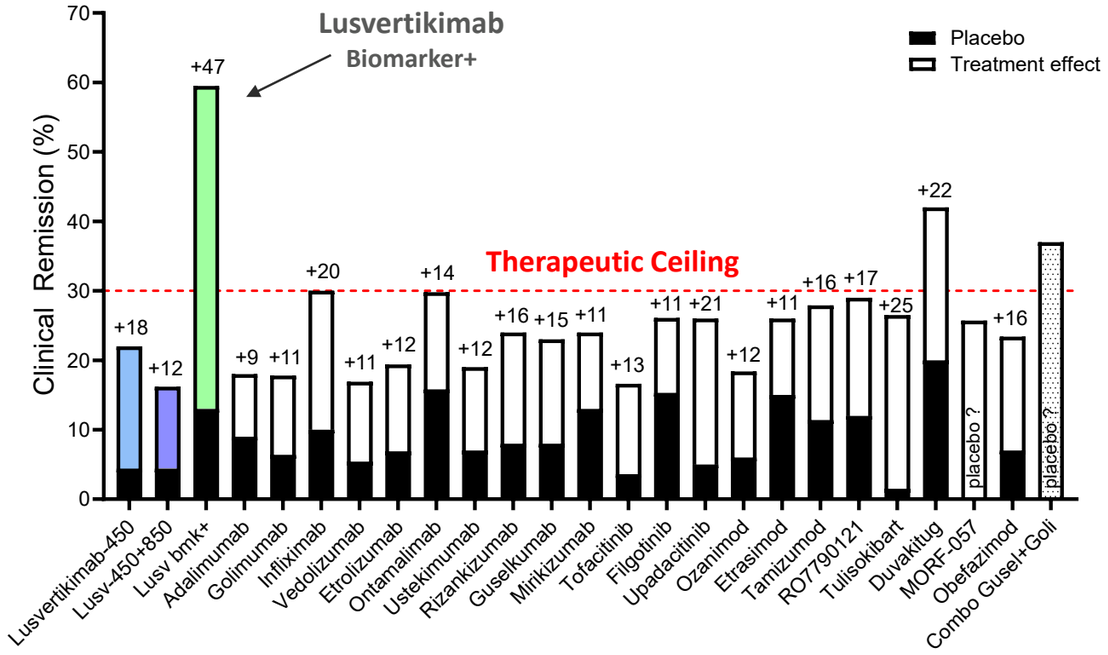


Composite IL7R axis biomarker identified with fine-tuning on CoTikiS phase 2

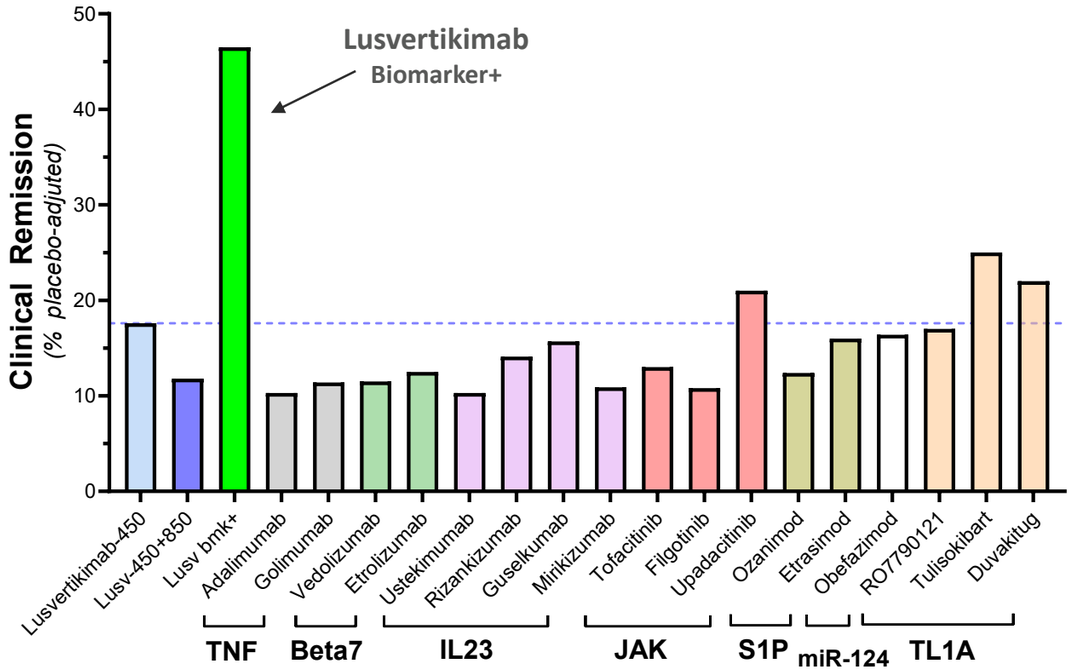
Lusvertikimab in the context of the therapeutic ceiling & competitive landscape*

In the CoTikiS biomarker-positive population (~30% of UC population)

Clinical Remission

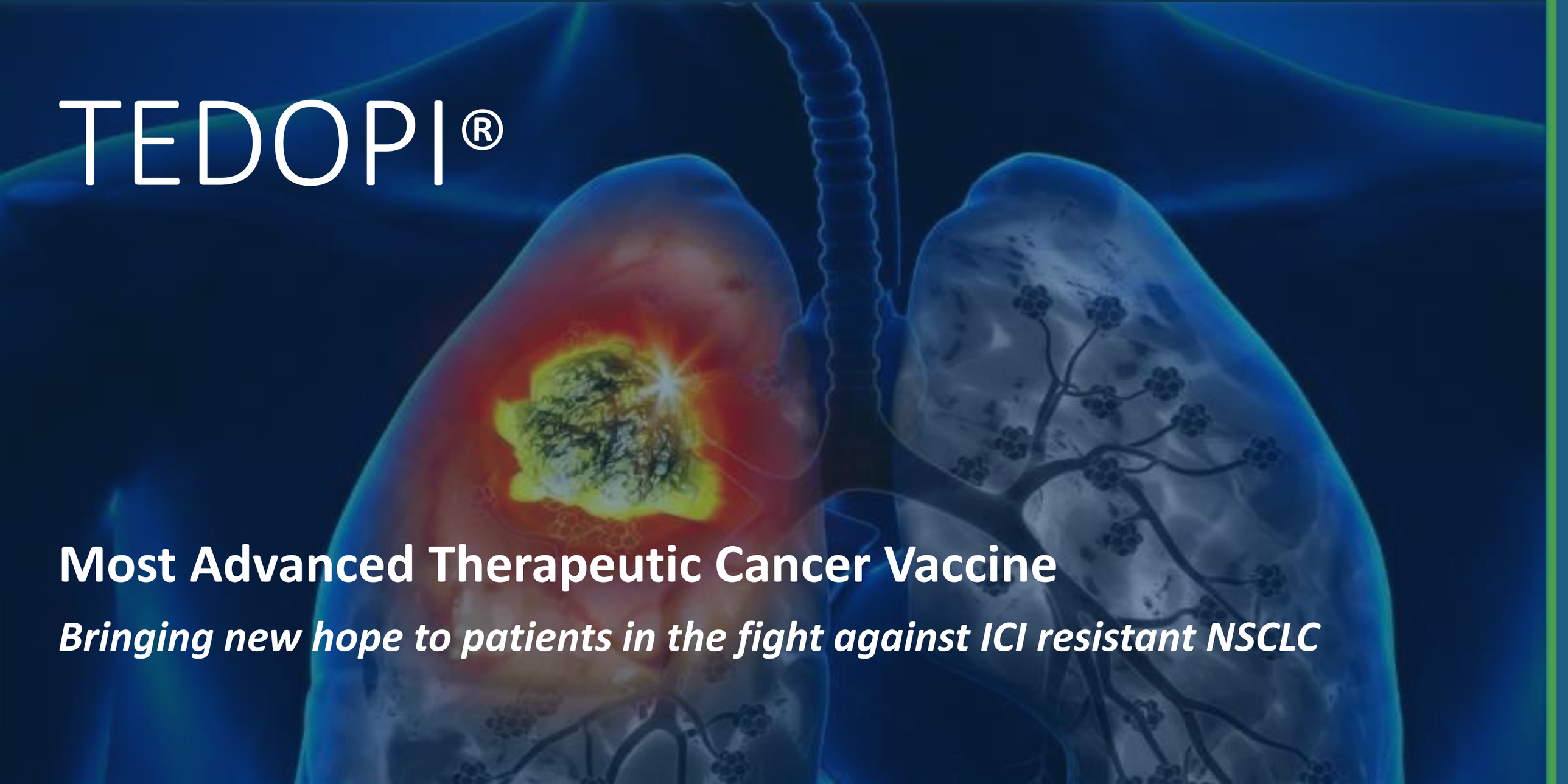


Clinical Remission (Placebo-adjusted)



*Based on placebo-adjusted Induction Phase 2b/3 results, not head-to-head comparison

TEDOPI®

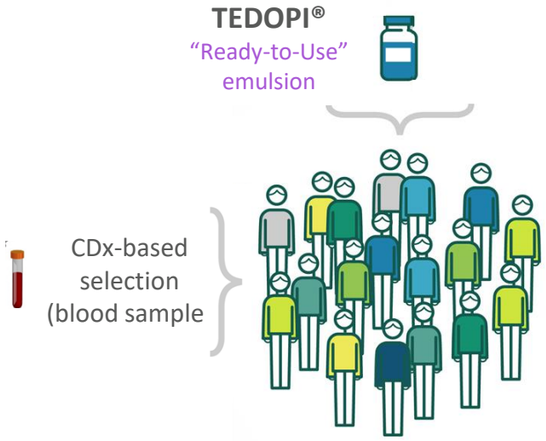


Most Advanced Therapeutic Cancer Vaccine

Bringing new hope to patients in the fight against ICI resistant NSCLC

Personalized vs *Off-the-Shelf* cancer vaccines

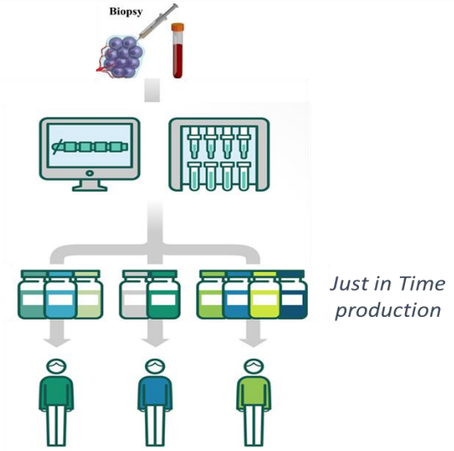
Neoepitope cancer vaccine
= Precision Medicine
-> Off-the-Shelf



Homogeneous HLA-A2+ population (~45%)
Strong CD8+ CTL responses

Positive data to extend survival in metastatic disease
(randomized Phase III NSCLC)

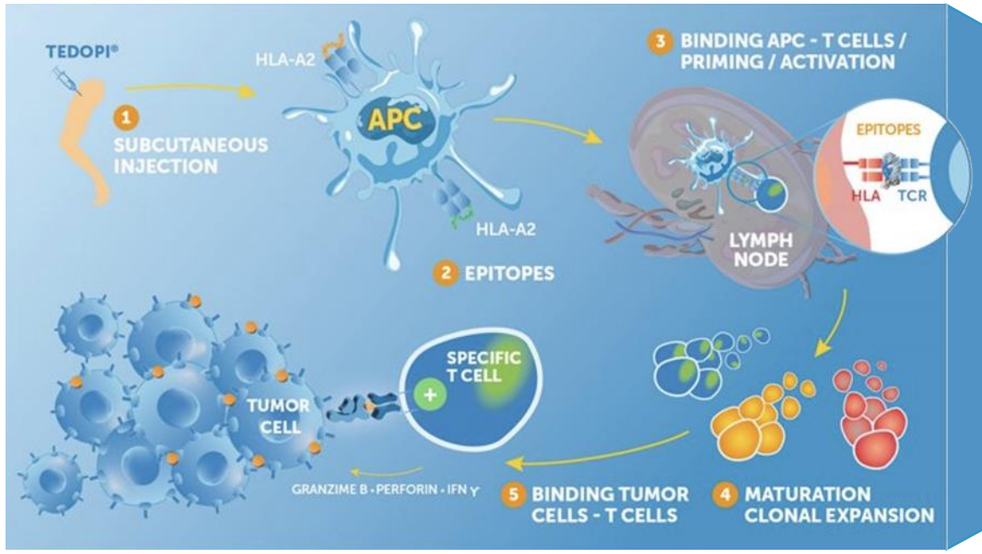
Neoantigen cancer vaccine
= Personalized Medicine
-> Custom



Cons: Tumor biopsy, **Cost**, Time
Epitope prediction robustness
Variable responses/immunogenicity

Adjuvant treatment at early stage to prevent tumor relapse
(non-randomized phases I/II to date)

An immunotherapy activating specific T-cells to revive anti-tumor response



Most advanced Cancer Vaccine in clinical development

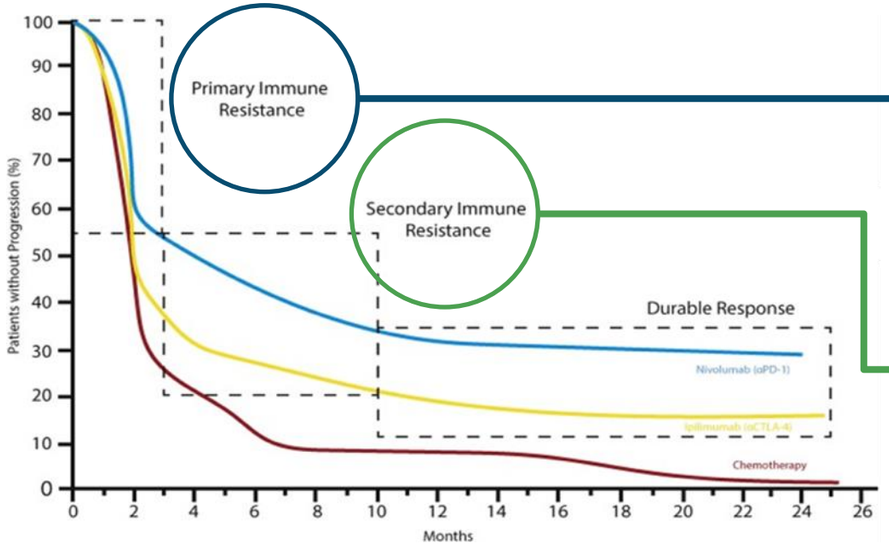
- **Unique** combination of **neoepitopes**: small peptides deriving from **tumor specific** antigens* expressed in various cancers
- Strong **binding to HLA-A2** receptor (45% population)
- Direct activation of tumor specific T-cells **differs from checkpoint inhibitors** releasing the break of immune response

Proprietary combination (9 **optimized neoepitopes** + 1 epitope giving universal T helper response)	Induces early T cell **memory** responses + **Migration** in tissues	**Ready to Use** **subcutaneous** formulation with Q3W injection	**Orphan Drug** Designation (FDA) **>1,000 injection** in clinical trials	Strong IP position until **2038**[1] (US / EU / Asia)

1: *OSE Immunotherapeutics Receives New European Patent*

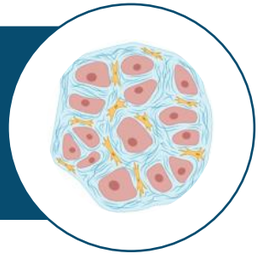
Tedopi® is a novel cancer vaccine with a strong biological rational in post-ICI secondary resistance

Shifting paradigms with cancer vaccine immunotherapy



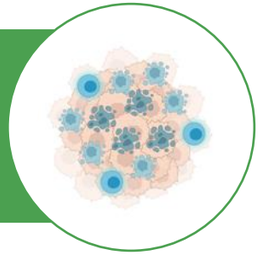
Primary (intrinsic) resistance
Patients who do not respond to ICIs with a rapid disease progression
→ **Immune refractory tumors**

No T-cell refractory tumors



Secondary (acquired) resistance[1]
Patients who have a period of initial ICI therapy benefit followed by disease progression
→ **Immuno-sensitive tumors**

T-cell exhausted & dying



Tedopi® has the **potential to rejuvenate & refresh specific TILs** in immuno-sensitive tumors.
Neoepitope-specific T cells have tumor killing potential and limited side effects.

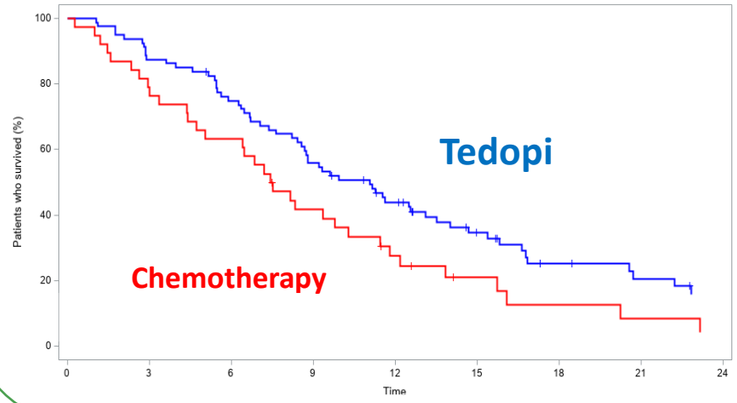
Figure: Schoenfeld AJ, Hellman MD. Cancer Cell 2020. Baxter MA, et al Br J Cancer 2021. **1:** After at least 12 weeks of ICI treatment in monotherapy (Task force SITC 2020 - Kluger H et al 2020).
ICI: immune checkpoint inhibitor. **TILs:** Tumor-infiltrating lymphocytes.

Clinically meaningful benefit of Tedopi® in 3rd line NSCLC

Randomized Phase 3 with positive results vs. standard of care (SOC)

Overall Survival

secondary resistance post anti-PD(L)1



OS rate at 12 months
44%
in **Tedopi®** vs.
27.5%
in SoC

Delta OS: **3.6** months

Tedopi® 11.1 months
vs
SoC 7.5 months

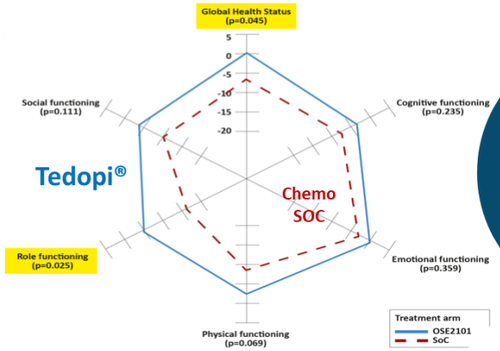
HR 0.59 /
p-value=0.017

Risk of Death reduced by 41% *versus chemo.*

Significantly safer than Chemo.

11% *vs* **35%** *grade 3-5 AEs*

Better Quality of Life



Positive Net Treatment Benefit vs SOC: P=0.032

OSE IMMUNO THERAPEUTICS

Besse et al. Annals of Oncology 2023

ANNALS OF ONCOLOGY
driving innovation in oncology

Tedopi® in NSCLC : ARTEMIA study

KEY ELIGIBILITY CRITERIA

- HLA-A2+
- Metastatic squamous & non-squamous NSCLC without actionable mutations
- In 2d line treatment after 1st-line CT- immune checkpoint inhibitor (ICI) with secondary resistance to ICI
- ECOG PS 0 to 1
- No brain metastasis or previously treated brain metastasis

R 2:1

ARM A
Tedopi® (n=242)
Q3W for 6 subcut. inj.,
then Q8W until end Year 1,
then Q12W up to end Year 2
Until loss of clinical benefit

ARM B
Docetaxel (n=121)
Q3W iv infusion
Until loss of clinical benefit

Stratification
- Histology (squamous vs non-squamous)
- ECOG PS (0 vs 1)

PRIMARY ENDPOINT:
Overall Survival*

SECONDARY ENDPOINTS:
- PRO : QLQ-C30 Physical functioning, Role functioning & Global Health Score
- Time to ECOG deterioration (PS >2)

*Final analysis with 269 death-events in 363 patients assuming a hazard ratio of 0.70 (power 80%, 2-sided log-rank test at 5%) with an interim futility analysis after 107 events

HLA: Human leukocyte antigen; NSCLC: Non-small cell lung cancer; SoC: Standard of care; CT: chemotherapy; ICI=Immune checkpoint inhibitors; ECOG PS: Eastern Cooperative Oncology Group Performance Status; PD: Progressive disease; subcut: subcutaneous; inj: injection; iv: intravenous, QLQ-C30: Quality of life questionnaire-core30

Protocol V2.0 on 14-MAR-24 (US, Canada) , 2.1 on 11-JUN-24 (UK), 2.3 on 23-AUG-24 (EU)

Tedopi® answers to real medical need in NSCLC

Tedopi® has the potential to become the new standard for recurrent patients in 2L NSCLC presenting HLA-A2 phenotype

LUNG CANCER : High prevalence, mortality and unmet need - worldwide

- Highest mortality among 36 cancer types and 2nd most frequently diagnosed cancer type (based on data collected from 185 countries)*
- About 2,206,771 new cases of lung cancer diagnosed (11,4% of all cancers) and 1,796,144 deaths from lung cancer (18%)*
- The mortality is associated with a high degree of malignancy and late diagnosis. More than 65.33% of men diagnosed with lung cancer are in stage III-IV
- Majority of NSCLC patients without actionable mutation are treated with immune checkpoint inhibitors (ICI) as 1st line of treatment.

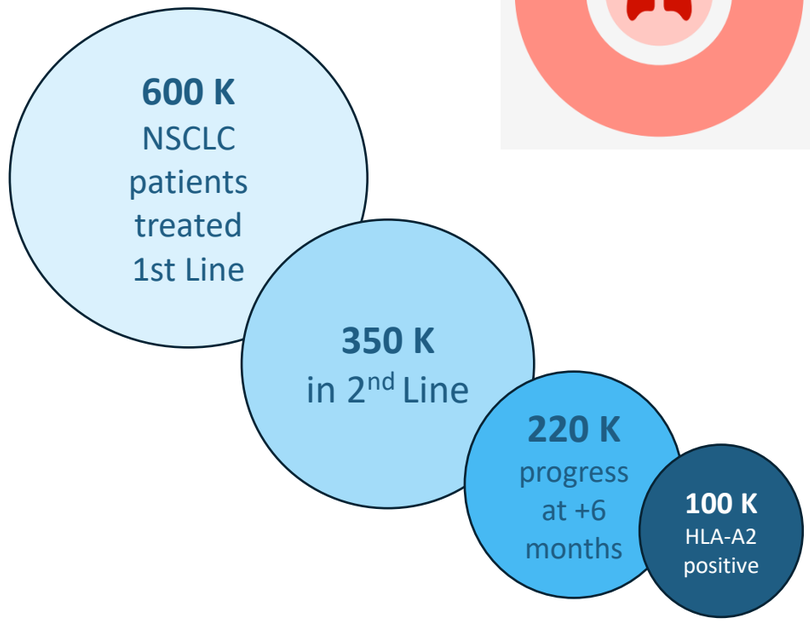
Treatment paradigm in NSCLC with no driver mutation

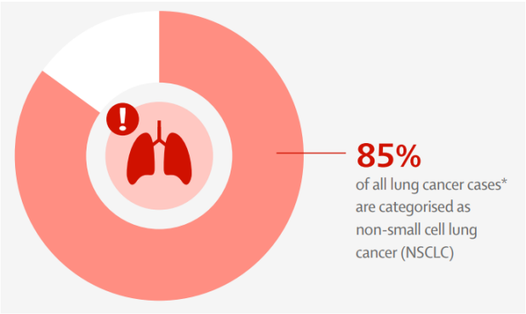
- L1 : treatment anti-PD(L)1 based with/w/out chemotherapy
- L2 : docetaxel remains standard with its limited efficacy and toxicity

Opportunity for Tedopi®

- Great opportunity for new standard without chemotherapy in a remaining high medical need after 1st line of treatment
- HLA-A2 patients represent about 45% of the patients

Incidence of advanced NSCLC in the US/EU5/Japan + China**





* Bray, F et al. CA Cancer J. Clin. 2018; Sung, H et al. CA Cancer J. Clin. 2021; Rodak, O et al Cancers 2021 **Datamonitor projection in 2030

Tedopi® delivers important clinical benefits vs competition

Better Safety profile and QoL in current landscape of late-stage drug development post CT-IO

Company	OSE IMMUNO THERAPEUTICS	MIRATI THERAPEUTICS	Roche / EXELIXIS / IPSEN	MERCK / Eisai	gsk	BIONTECH / OncoC4	AstraZeneca / Daiichi-Sankyo	GILEAD	SANOFI	abbvie
Target	**Multi-epitopes vaccine**	**TKIs (anti-angiogenic)**			**Checkpoint Inhibitors**		**ADCs**			
					TIM-3	CTLA-4	TROP2	TROP2	CEACAM5	c-MET
Current Study	**ATALANTE-1**	SAPPHIRE	CONTACT-01	LEAP-008	COSTAR Lung	PRESERVE-003	Tropion-LUNG1	EVOKE-01	CARMEN-LC03	NCT04928846
n	**219** **118 (secondary resistant)**	500	350	405	750	600	604	580	554	698
Therapy	**Tedopi® vs docetaxel**	Sitra + Opdivo vs. docetaxel	Cabo+Tecentriq vs. docetaxel	Lenva + Keytruda vs. docetaxel	Cobolimab + Jemperli vs. docetaxel	Gostistobart vs. docetaxel	datopotamab deruxtecan vs docetaxel	Sacituzumab Govitecan-hziy vs docetaxel	SAR408701 vs. docetaxel	Telisotuzumab Vedotin vs. Docetaxel
Primary endpoints	**OS**	OS	OS	PFS and OS	OS	OS	PFS and OS	OS	PFS and OS	PFS and OS
Initiation	**2017**	Q3 2019	Q3 2020	Q2 2019	Dec 2020	Q2 2023	Q4 2020	Q4 2021	Q1 2020	Q1 2022
Read-out	**2022**	**Failed**	**Failed**	**Failed**	Q2 2025	Q2 2026	**Failed**	**Failed**	**Failed**	Q1 2028
		Safety data from early-stage trials in NSCLC post-ICI								
- TEAEs G3/4	**11%**	**53%**	**39%**	**78%**	n.a.	**43%**	**25-30%**	**> 50%**	**36%**	**36%**
Source	**Besse et al. 2023**	Borghaei et al, Annals Oncol 2023	Neal et al, ASCO 2022	Taylor et al, J. Clin. Oncol. 38, 1154–1163.	Davar et al, SITC 2018	He et al, ASCO 2023	ESMO 2023 WCLC 2024	ASCO 2024	Gazzah et al, ASCO 2020	Camidge DR, et al. WCLC 2021

1 - OSE internal analysis based on publicly available information. **2** - World Health Organization. Globocan 2020 Fact Sheet. Available at: https://gco.iarc.fr/today/data/factsheets/populations/900-world-fact-sheets.pdf. Accessed December 2021. OSE Internal analysis based on publicly available data. Note: No direct head-to-head data available. Caution advised when comparing across studies

Further additional potential clinical value in combination NSCLC, PDAC and OC

Phase 2 ISS trials in combination with immunotherapy or chemotherapy treatments

2nd line post 1st line chemo IO

CombiTED - NSCLC
In combination with nivolumab

Tedopi® Plus Docetaxel or Tedopi Plus Nivolumab as 2nd line Therapy in Metastatic NSCLC failing standard 1st line Chemo-immunotherapy[1]

Sponsored by FoRT
PI: Federico CAPPUZZO
(Roma Cancer Institute)
Italy /Spain/ France

FoRT

Recruitment completed Q3 2025

Readout expected H2 2026

Maintenance setting post standard of care

TEDOVA - Ovarian Cancer
In combination with pembrolizumab

Tedopi® Alone or in Combination With Pembrolizumab vs Best Supportive Care as Maintenance in Patients with Platinum-Sensitive Recurrent Ovarian Cancer[2]

Sponsored by ARCAGY-GINECO
PI: Alexandra LEARY
(Gustave Roussy Institute)
France/ Germany/ Belgium

ARCAGY - GINECO

Recruitment completed Q4 2024

Readout expected in Q2 2026

TEDOPaM - Pancreatic Cancer
In combination with FOLFIRI

Tedopi® plus FOLFIRI vs FOLFIRI as Maintenance Treatment in Controlled Advanced or Metastatic Pancreatic Ductal Adenocarcinoma after 8 Cycles of Folfirinox[3]

Sponsored by GERCOR PRODIGE
PI: Cindy NEUZILLET
(Curie Institute, France)

GERCOR

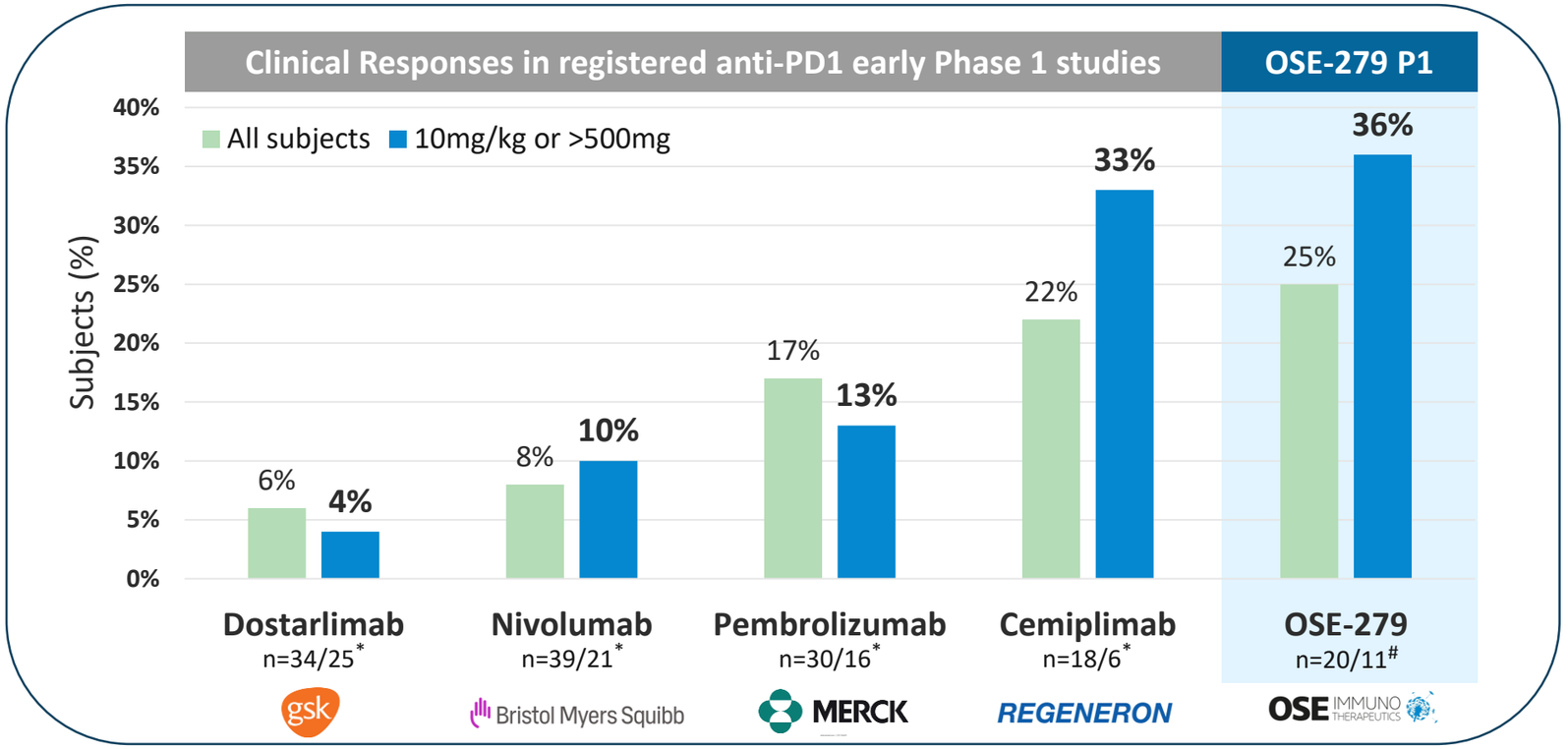
Positive Topline Result with primary endpoint met (ASCO 2025)

1 - NCT04884282 105 Patients planned
2 - NCT04713514 180 Patients - Recruitment completed
3 - NCT03806309 107 patients - Detailed results at upcoming medical congresses

OSE-279: Proprietary anti-PD1 mAb

High affinity PD-1 antibody, recent patent granted in US, Europe, China, Japan

- Potential of combo with internal asset
- Potential for partnership with biotech/biopharma in combo with external assets
- Potential future marketing approvals in orphan indications with strong unmet medical needs



Not a head-to-head comparison. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across trials.
For illustrative purposes only.

OSE IMMUNO THERAPEUTICS

* Patnaik et al. Cancer Chem & Pharm 2021; Brahmer et al. JCO 2010; Patnaik et al. Clin Cancer Res 2015; Papadopoulos et al. Clin Cancer Res 2020
# Robert et al. ESMO-TAT 2024

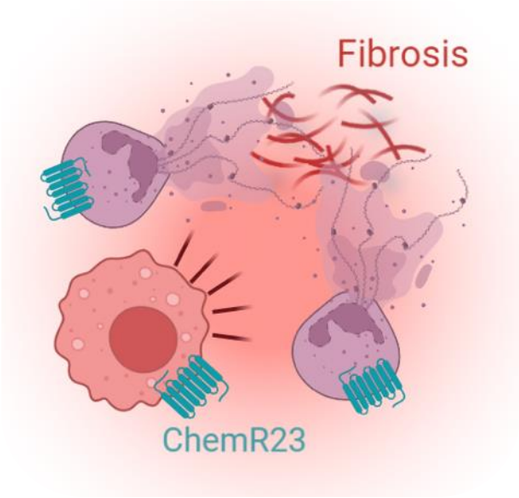
Partnered clinical programs

ABBV-230 - Resolving inflammation is an active immune process

abbvie

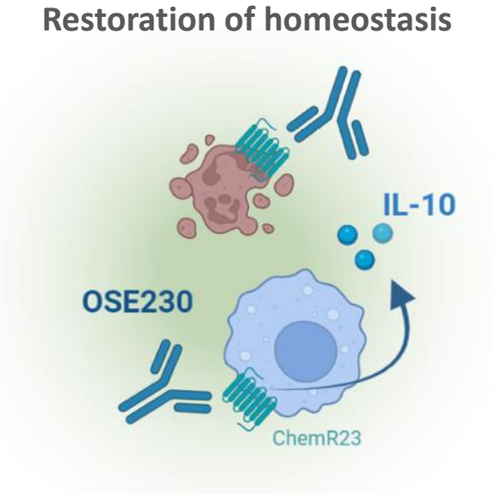
During chronic inflammation

Dying neutrophils **send out inflammatory signals (e.g. NETosis)** that are important in maintaining chronic inflammation & fibrosis



With ChemR23 agonistic mAbs

ABBV-230 limits recruitment, survival & NETosis of inflammatory neutrophils & reprograms macrophages, **removing further chronic inflammatory signals**



Potential First-in-class pre-IND candidate

Published in Science Advances AAAS

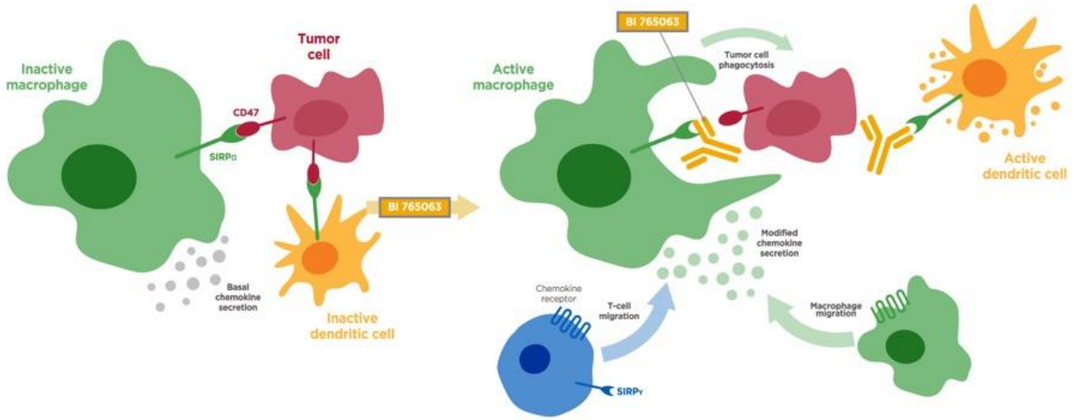
Trilleaud et a. Science Advances 2021; Poirier N. PEGS 2022

SIRPα inhibition may have a synergistic antitumour effect when combined with ICIs

Boehringer Ingelheim

- Infiltrating **myeloid cells promotes immune evasion**, and this has generated interest in **myeloid-immune targets**[1,2]
  - The CD47–SIRPα interaction transduces inhibitory signals on macrophages and other myeloid cells[2]
- Preclinical studies have indicated that **CD47 or SIRPα blockade in combination with ICIs** may have a synergistic antitumour effect[3]

The use of SIRPα antagonists to enhance antitumour immunity is currently being explored[4]



	Anti-CD47	Anti-SIRPα	
Broad/restricted expression	Broad	Restricted to cells of the myeloid lineage	Limited **side effects** expected and less frequent dosing
Safety signals	Acute anemia, Thrombocytopenia	**No hematotoxicity**	Higher therapeutic window expected
Interaction CD47/SIRPγ	**Inhibit human T cells**	OSE-172 is SIRPα specific	Favors T cell responses in solid tumors

CD: cluster of differentiation; ICI: immune checkpoint inhibitor; SIRPα: signal regulatory protein-α.

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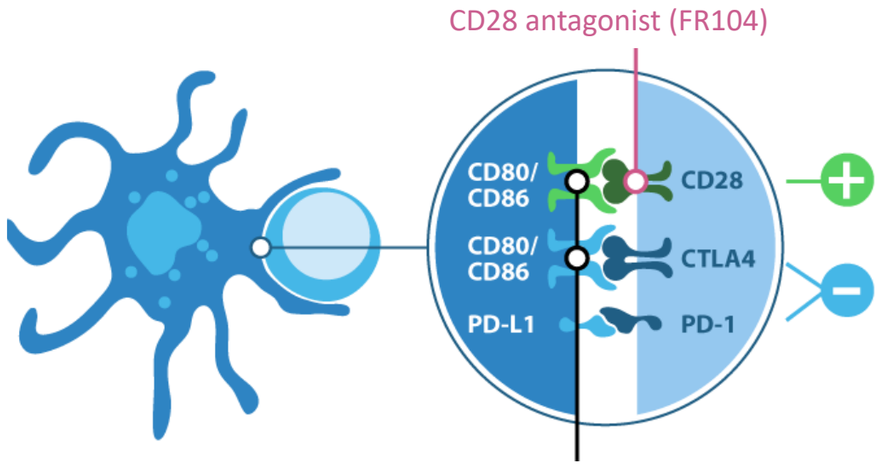
1: Khair DO, et al. Front Immunocol 2019;10:453; **2:** Weiskopf K, et al. Eur J Cancer 2017;76:100-9; **3:** Murata Y, et al. Cancer Sci 2018;109(8):2349-57; **4:** Boehringer Ingelheim. Data on file.

Pegrizeprument (FR104)
CD28 antagonist in organ transplantation

Veloxis PHARMACEUTICALS
an Asahi Kasei company

Selective CD28 antagonist mAb in Kidney Transplantation



Ambitious Partnership & Development Plan with Veloxis

- **Veloxis** is a global leader in transplantation with leading product Envarsus XR (tacrolimus) realizing **c. USD 140m**[1] turnover; Joined **Asahi Kasei** in FY2019[2], a **USD 17bn** annual turnover conglomerate with healthcare representing 17% of sales

- **Strong Preclinical data in Kidney & Cardiac transplantation + GVHD**[3,4,5]
- **Positive Phase 1/2 in kidney transplantation** (intravenous)[6]
- **Positive Phase 1 subcutaneous**[7]

Phase 2 in kidney transplantation (subcutaneous) under preparation by Veloxis

OSE IMMUNO THERAPEUTICS

1 – https://www.asahi-kasei.com/ir/library/presentation/pdf/211005.pdf
2 – https://www.asahikasei.com/ir/library/presentation/pdf/191125eng.pdf
3 – Poirier et al. Science Transl. Medicine 2010
4 – Poirier et al. Am J Transplant 2015
5 - Watkins et al. Journal of Clinical Investigation 2018
6 - PR OSE of June 5th, 2024: Presentation at the 2024 ATC
7 - PR Veloxis of May 30th, 2024: Presentation at the 2024 ATC

Governance

A **Board of Directors** combining international expertise in medicines development, industry & finance, and experience in listed biotech companies

Markus Cappel
Chairman

- 30+ years in biotechnology
- Global experience in product devt, commercialization (ChemoCentryx)
- Experience in acquisitions, strategic alliances and fundraisings
- MBA Harvard Business School, PhD in Pharmaceutical Sciences from J.W. Goethe University in Germany

Pascale Briand
Independent Director

- Head of the first French National Cancer Plan (2003-2007)
- Former Director of the French Food Safety Agency (ANSES) and a former Director of the National Research Agency (ANR)
- Locally elected official in Loire-Atlantique (since 2004)
- Medical doctor, PhD in biochemistry specialized in genetics

Jonathan Cool
Independent Director

- +35 years biotech, biopharma, medical devices, materials sciences
- Founder, management, board level at early-stage companies (e.g., Human Genome Sciences, Molecular Devices, Gene Networks, Immunicon)
- CEO of Ultra High Materials
- MBA Harvard Business School, BA Stanford University

Marc Le Bozec
Independent Director

- Currently supports numerous biotech companies as an advisor, board member, and investor
- Previously created and managed two biotech investment funds within Financière Arbevel
- Previously CEO of Cellectis
- Graduated from HEC

Caroline Mary
Director representing employee shareholders

- 19 years at OSE Immunotherapeutics (Tcl Pharma / Effimune renamed OSE in 2016)
- Head of the research laboratory
- Director of Antibody Engineering & Discovery
- Conducted several preclinical programs incl. currently partnered products
- Master's degree in Biology

Shihong Nicolaou
Independent Director

- Advisor in Intellectual Property at NPS consulting, TPLG and Larta Institute
- Directed and managed intellectual property portfolio at OIC from the University of California (San Diego)
- Extensive R&D experience in biotech and pharma industry (Agouron, Warner-Lambert, and Pfizer)
- PhD in Pharmaceutical Chemistry from the University of Kansas

Alexis Peyroles
Independent Director

- CEO of BetaGlue Therapeutics S.p.a.
- Co-founder of Inside Therapeutics and co-founder of OWL Lifesciences
- Previously CEO of OSE Immunotherapeutics, COO of Cherry Biotech
- Graduated from EDHEC, Executive MBA from Imperial College London

International research Scientific Advisory Board (research SAB) - renowned experts in IO and I&I

UNIVERSITÉ PARIS DESCARTES

Wolf-Hervé Fridman, MD

Chairman of the SAB, Professor Emeritus of Immunology at the Université de Paris, France

Mount Sinai

Myriam Merad, MD, PhD

Director of the Precision Immunology Institute at Mount Sinai School of Medicine in New York and Director of the Mount Sinai Human Immune Monitoring Center (HIMC)

HARVARD UNIVERSITY

Charles N. Serhan, PhD, DSc

Professor of Anaesthesia (Biochemistry and Molecular Pharmacology) at Harvard Medical School, Professor of Oral Medicine, Infection and Immunity at Harvard School of Dental Medicine

THE UNIVERSITY OF TEXAS MD Anderson Cancer Center

Jennifer Wargo, MD, M.M.Sc

Professor of Genomic Medicine & Surgical Oncology, UT MD Anderson Cancer Center

cnrs Ciml IMMUNOLOGY

Bernard Malissen, PhD

Group Leader at Centre d'Immunologie de Marseille-Luminy and Founding-Director of Center for Immunophenomics, Marseille, France

Inserm La science pour la santé From science to health CR2TI UMR 1064

Sophie Brouard, PhD

Immunologist and Director in Veterinary Sciences, Director of Research at the Institut National de la Santé et Recherche Médicale (Inserm, National Institute for Health and Medical Research) in Nantes

OSE IMMUNO THERAPEUTICS

Breaking through the therapeutic ceiling with first-in-class immunotherapies

Immuno-Oncology & Immuno-Inflammation

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