OSE IMMUNO THERAPEUTICS

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

January 2023

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Our Vision

Breaking through the therapeutic ceiling

with first-in-class immunotherapies

OSE Immunotherapeutics' **strategic foundations**

Fully integrated biotech company

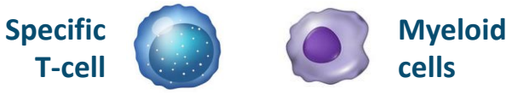
- Mastering complex biology combined with strong pharmaceutical & clinical development expertise
- 65+ qualified employees (30+ PhDs/MDs)

Diversified first-in-class product pipeline

From Phase 1 to Phase 3, in monotherapy or in combination, in multiple indications

Multi-Platforms

Innovation research engines to deliver next-generation first-in-class immunotherapeutics targeting



Collaborations with strategic leaders

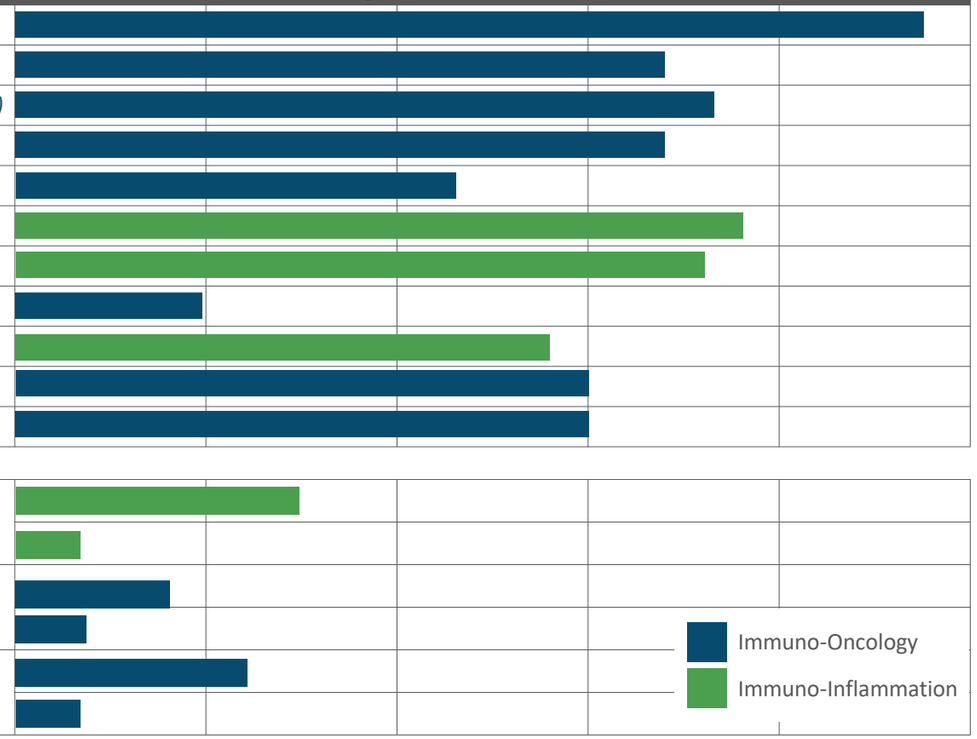
Building a sustainable business with strategic, industry & academic partners

Boehringer Ingelheim · SERVIER moved by you · Veloxis PHARMACEUTICALS an Asahi Kasei company

OSE Immunotherapeutics **pipeline**

Combining a clinical portfolio of first-in-class assets with unique, highly productive R&D platforms

		Product candidate	Targets	Indication
Clinical	Proprietary	**Tedopi®**	Neoepitopes Vaccine	NSCLC Mono post-ICI
				NSCLC Combo 2L post-ICI *(IIS)*
				PDAC Combo maintenance *(IIS)*
				OC Mono or Combo *(IIS)*
		OSE-279	Anti-PD-1	Solid tumors, lymphomas
	Partnered	**OSE-127/S95011** lusvertikimab (SERVIER)	Anti-IL7R	Sjögren's syndrome
				UC
				ALL
		FR-104/VEL-101 (Veloxis)	Anti-CD28	Kidney Transplant
		OSE-172/BI 765063 (Boehringer Ingelheim)	Anti-SIRPα	HNSCC 2L and HCC 1L/2L
				MSS Endometrial / MSS CRC
Myeloid platform	Proprietary	**OSE-230** & Future undisclosed targets (field resolution)	ChemR23 agonist mAb	Inflammation diseases
		Myeloid Checkpoint & Future undisclosed targets (field CLEC)	Anti-CLEC-1	Immuno-Oncology
BiCKI platform		**BiCKI® IL-7v** & Next undisclosed BiCKI	PD1 x IL-7 bsAb	Immuno-Oncology



ALL: acute lymphoblastic leukemia. **CRC:** colorectal cancer. **HNSCC:** head and neck squamous cell carcinoma. **MSS:** microsatellite stable cancer. **NSCLC:** non small cell lung cancer. **OC:** ovarian cancer **PDAC:** pancreatic ductal adenocarcinoma. **UC:** ulcerative colitis. **IIS:** Investigator Initiated Study. **IND:** Investigational New Drug Application.

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

Over €1.6bn in potential milestones; €121m* already received since 2016

Immuno-Oncology | Immuno-Inflammation | Potential | Received

OSE-172/BI 765063
HNSCC and HCC
MSS Endometrial / MSS CRC

Boehringer Ingelheim

€65.3m received

Up to **€1.1bn** in milestones

+ High-single digit to low teens royalties on Global Sales

FR-104/VEL-101
Kidney transplant

Veloxis PHARMACEUTICALS
an Asahi Kasei company

€13.9m received

Up to **€315m** in milestones

+ Tiered royalties on Global Sales

OSE-127/S95011
Sjögren's syndrome / Ulcerative Colitis

SERVIER
moved by you

€30m received

Up to **€272m** in milestones

+ Low teens royalties on Global Sales

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* Including upfront, milestones and reinvoiced R&D costs & J&J in 2016

An experienced executive leadership committee supported by an expert team

Nicolas Poirier, PhD
CEO, CSO

- 15+ years experience in biotech/immunotherapy
- Advanced 5 novel therapies to clinic
- 4 pharma deals
- Global Management, INSEAD

Anne-Laure Autret-Cornet
Chief Financial Officer

- 15+ years experience in Finance / Biotech
- Graduated from ESSCA Management school
- Corporate Finance, HEC

Dominique Costantini, MD
Chief Development & Strategy

- 30+ years in product development/ marketing
- Chairwoman, Co-founder
- IPO completion in 2015

Jean-Pascal Conduzorgues
Chief Pharmaceutical Officer & QP

- 30+ years in pharmaceutical development
- Large experience as a qualified person (QP)
- PharmD

Sophie Fay
Chief External Affairs

- 15+ years leadership experience in Pharma/Biotech
- Corporate strategy, Access Go to Market
- MBA, ESSEC

Aurore Morello, PhD
Head of Research

- 13+ years experience in Immunotherapy
- International Post-doctoral Fellowship (MSKCC, NYC)

Silvia Comis, MD
Head of Clinical

- 30+ years experience in Pharma
- Previously Senior Medical Director IQVIA, and European Head of Early Products Medical Affairs in oncology at Novartis

Jean-Jacques Mention, PhD
Dir. Scientific Business Development

- 15+ years of Research in Immunology at King's College London, Institut Pasteur
- 7+ years experience in Business Development

Thomas Guillot, PharmD
Dir. Investor Relations

- 8+ years experience in sell-side research and ECM raising more than EUR 300m
- PharmD and MBA, ESSEC

Our creative business model to produce sustained value

Drive near-term value with Tedopi®

- Expand **Early Access** use in NSCLC 3L
- Confirmatory **pivotal Phase 3** NSCLC 2L monotherapy
- **Extend indications** potential in combination

Advance our First-In-Class R&D Pipeline & Platforms

- **Myeloid Checkpoint** platform
  Solid & Hematological tumors (CLEC-1)
- **Pro-Resolutive mAb** platform
  Chronic Inflammation (ChemR23, …)
- **Anti-PD1 Bispecific BiCKI®** platform
  Solid tumors (BiCKI®-IL-7v, …)

Build a sustainable business through partnerships

- OSE-172/BI 765063 – **Boehringer**
  Solid tumors (HNSCC, HCC, …)
- OSE-127/S95011 – **Servier**
  Chronic Inflammation (Sjögren, UC)
- FR104/VEL-101 – **Veloxis**
  Transplantation (Kidney)

Our plan to build a leading immunotherapy company

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First-in-class strategy

- **Position Tedopi® as the best treatment option after ICI-failure in cancer patients**
- **Leverage the clinical advantage of anti-SIRPα in the DON'T Eat Me landscape in solid tumors**
- **Demonstrate lusvertikimab (OSE-127/S95011) clinical activity through 2 ongoing Phase-2 programs in UC & Sjögren's syndrome**
- **Confirm FR-104/VEL-101 benefit as maintenance therapy in kidney transplantation**
- **Advance proprietary early-stage assets from our research platforms**
- **3 pre-IND programs to enter the clinic in 2023-25**

Multiple short-term anticipated catalysts

2023

Readouts
- **TEDOPI®**
  Regulatory update (Europe, US)
- **OSE-127/S95011**
  Phase 2 trial in Sjögren
  Phase 2 trial in UC
- **OSE-172/BI 765063**
  Phase 1/2 update

Progress
- **TEDOPI®**
  Phase 3 start in NSCLC 2L
- **FR104/VEL-101**
  Phase 2 start in Kidney Tx
- **OSE-230**
  IND

2024

Readouts
- **TEDOPI®**
  Phases 2 combination update
- **OSE-172/BI 765063**
  Phase 1/2 update
- **OSE-279**
  Phase 1/2 update
- **FR104/VEL-101**
  Phase 1/2 in Kidney Transplantation

Progress
- **OSE-127/S95011**
  Phase 3 start
  Phase 1/2 acute Leukemia
- **OSE-172/BI 765063**
  Phase 2 start
- **OSE-230**
  Phase 1 start
- **BiCKI-IL7v**
  IND

2025-2026

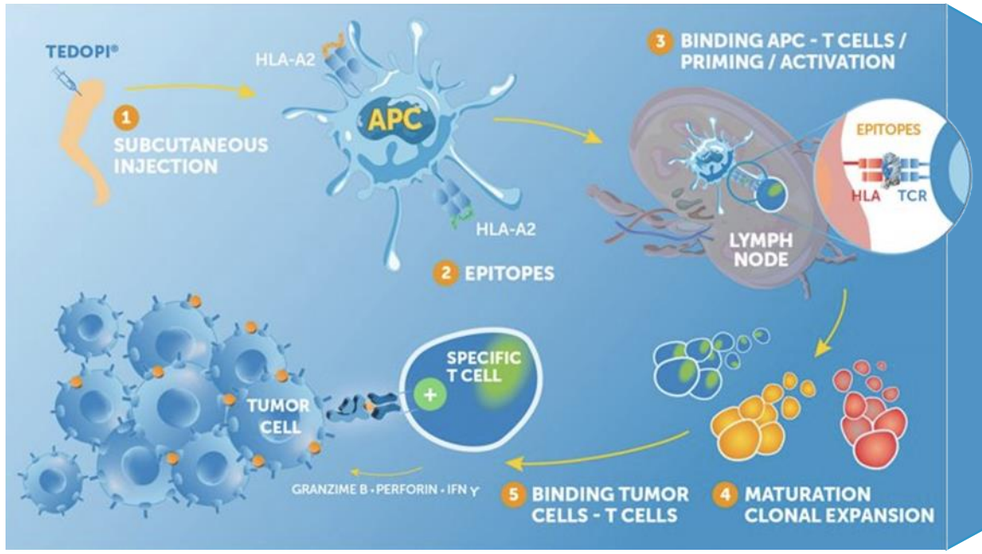
Readouts
- **TEDOPI®**
  Phase 3 trial in NSCLC 2L
- **OSE-127/S95011**
  Phase 1/2 acute Leukemia update
- **OSE-172/BI 765063**
  Phase 2 update
- **FR104/VEL-101**
  Phase 2 in Kidney Transplantation
- **OSE-230**
  Phase 1
- **BiCKI-IL7v**
  Phase 1/2 update

Progress
- **OSE-279**
  Phase 2/3 start niche indication
- **CLEC-1**
  IND
- **New R&D programs/platforms**

TEDOPI®

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

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



- **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)

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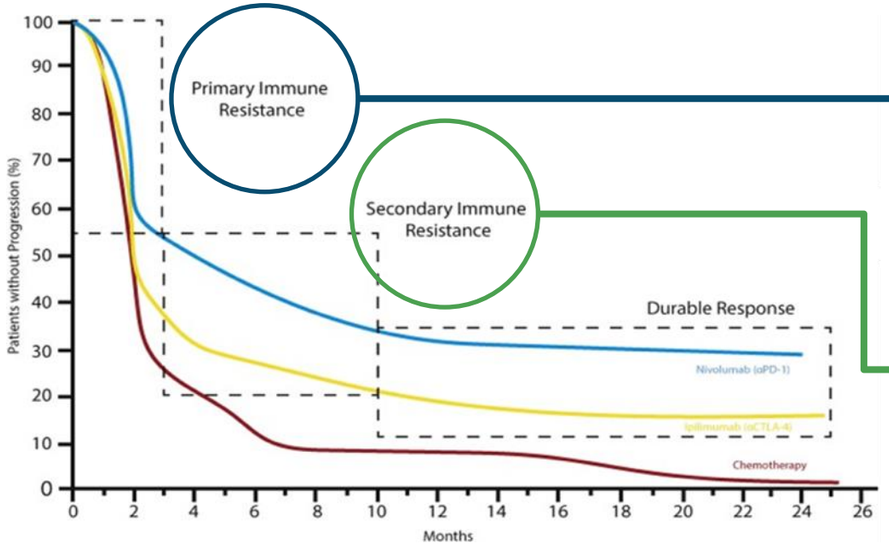
1: *OSE Immunotherapeutics Receives New European Patent*

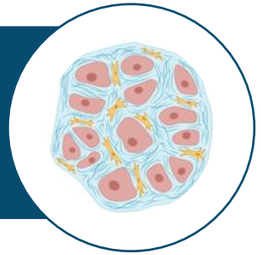
Tedopi® is a **novel cancer vaccine** with a strong biological rationale in post-ICI **secondary resistance**

Shifting paradigms with cancer vaccine immunotherapy



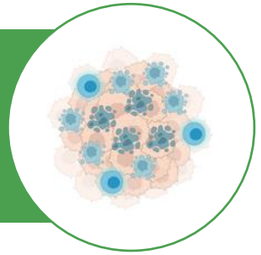
Primary (intrinsic) resistance
Patients who do not respond to ICIs with a rapid disease progression
→ **Immune refractory tumors**

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.

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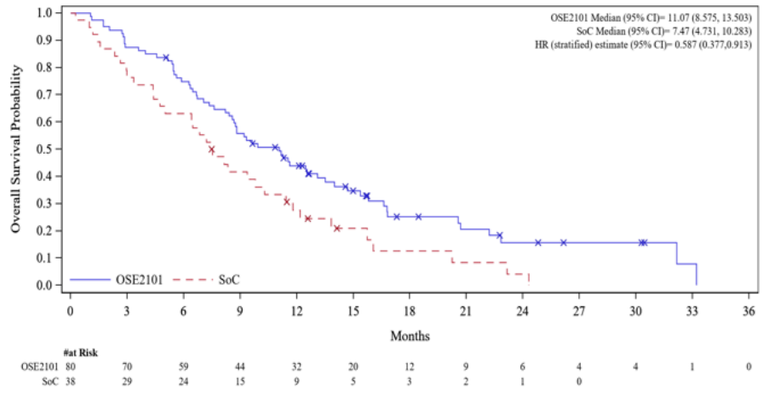
Figure: Schoenfeld AJ, Hellman MD. Cancer Cell 2020. Baxter MA, et al Br J Cancer 2021. **1:** After at least 12 weeks of ICI treatment in monotherapy (Task force SITC 2020 - Kluger H et al 2020).
ICI: immune checkpoint inhibitor. **TILs:** Tumor-infiltrating lymphocytes.

Clinically meaningful benefit of Tedopi® in monotherapy in NSCLC secondary resistance post-ICI

First randomized Phase 3, in this setting, with positive results vs. standard of care (SOC)

Overall Survival in PoI[1]

with 2d resistance in sequential chemotherapy-ICI



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

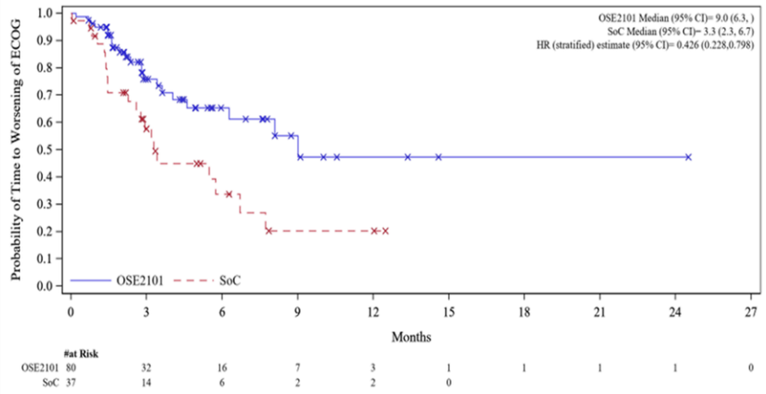
Delta OS:
3.6 months
Tedopi® 11.1 months
vs
SoC 7.5 months

HR 0.59 /
p-value=0.017

Time to worsening ECOG PS ≥ 2 in PoI[2]

delay from randomization to earliest ECOG PS ≥ 2

2022 ASCO ANNUAL MEETING
ADVANCING EQUITABLE CANCER CARE THROUGH INNOVATION



Time to worsening ECOG PS ≥ 2
Tedopi® 9.0 months
vs
SoC 3.3 months

HR 0.43 /
p-value < 0.01

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1: OSE Immunotherapeutics Presented Positive Final Results of Tedopi® Phase 3 **2:** Four Poster Presentations at 2022 ASCO Annual Meeting

B Besse et al; #47LBA ESMO 2021 -Annals of Oncology (2021). Cut-off 15JAN2021; median follow-up 25 months.

PoI: Population of Interest (secondary resistance to ICIs defined as >12 weeks under ICI treatment) **SoC:** Standard of care. **OS:** Overall survival. **HR:** Hazard ratio. **CI:** Confidence interval. **ICI:** Immune Checkpoint Inhibitor

Tedopi® demonstrated better safety and quality of life profile

in patients with secondary resistant to ICI vs chemotherapy

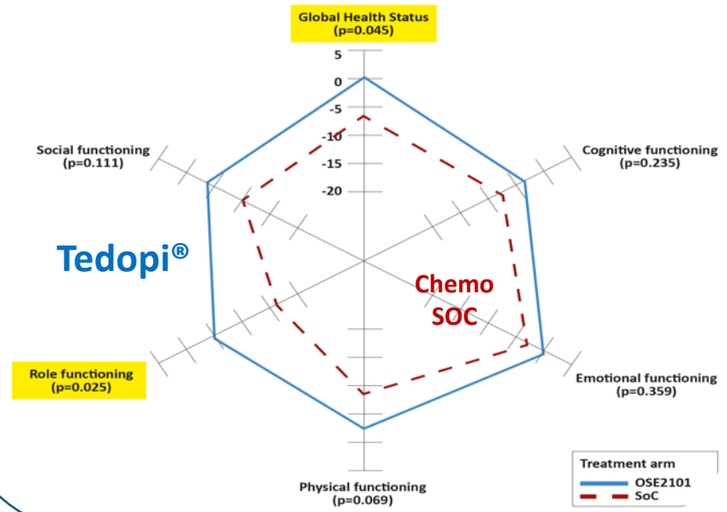
Significantly safer than SOC[1]

	Arm A Tedopi® (N=79)		Arm B SoC (N=37)	
Number of patients with at least one AE	All N (%)	Related N (%)	All N (%)	Related N (%)
All AE	76 (96)	60 (76)	37 (100)	29 (78)
Severe G3-5 AE	**28 (35)[2]**	**9 (11)[2]**	**24 (65)[2]**	**13 (35)[2]**
Fatal G5 AE	4 (5)	0 (0)	5 (14)	0 (0)
Serious AE	26 (33)	9 (11)	18 (49)	3 (8)
AE leading to permanent discontinuation	2 (3)	0 (0)	4 (11)	0 (0)

Quality of life (EORTC QLQ-LC13)[3]

PARIS 2022 ESMO congress

Better Patient reported Outcomes for Global Health Status, Role Functioning, Physical Functioning vs SoC



Positive Net Treatment Benefit vs SOC: P=0.032

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1: B Besse et al; #47LBA ESMO 2021 in Annals of Oncology (2021) 32 (suppl_5): S1283-S1346. 0.1016/annonc/annonc741 median follow-up 25 months
2: p< 0.001
3: B Besse et al; #9094 ASCO 2022 - Quality of Life (QoL) of OSE2101 in HLA-A2+ Non-Small Cell Lung Cancer (NSCLC) patients

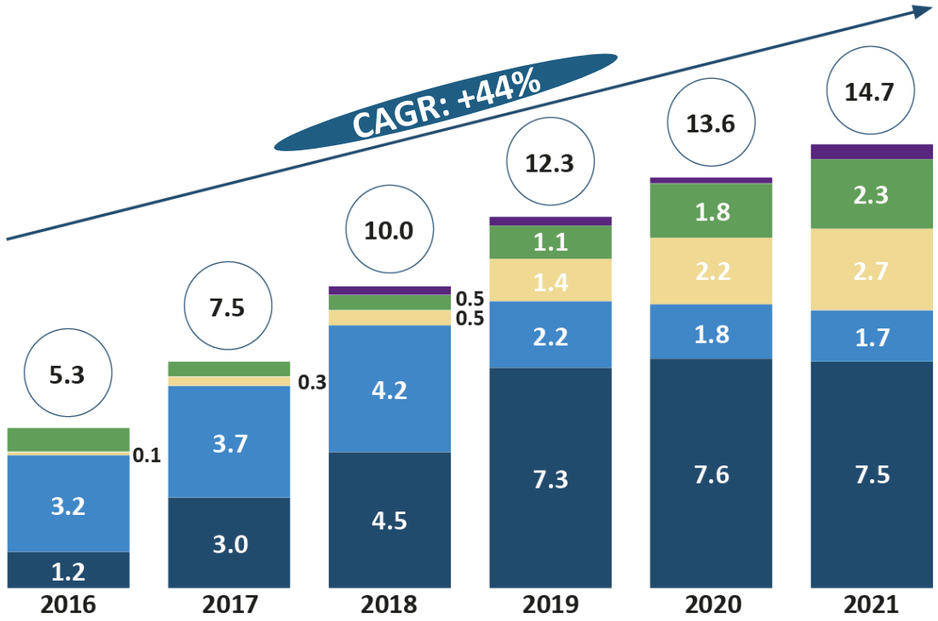
Position Tedopi® as the best treatment option after ICI-failure in cancer patients

OBJECTIVES

- Early access and compassionate use evaluation
- FDA/EMA discussion on optimal regulatory paths for potential approval in NSCLC after ICI-failure (confirmatory pivotal Phase-3: Atalante-2)
- Additional Phase-2 clinical trials in combination (NSCLC, Pancreatic, Ovarian)

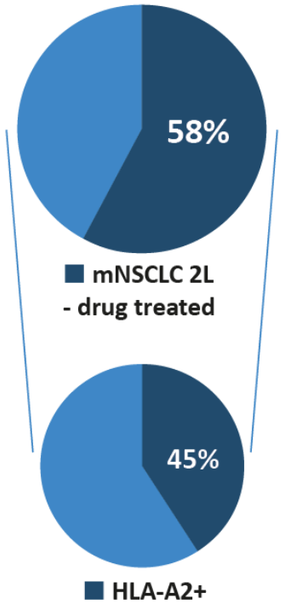
Target population estimated at **100k patients/year** in NSCLC post-ICI (2nd line)

PD-(L)1 NSCLC market is growing (US$bn)[1]



LIBTAYO® (cemiplimab-rwlc) Injection 350 mg
IMFINZI® durvalumab Injection for Intravenous Use 50 mg/mL
TECENTRIQ® atezolizumab
OPDIVO® (nivolumab)
KEYTRUDA® (pembrolizumab) Injection 100 mg

Expending the potential in 2L post-ICI in G7 years



- Lung cancer is the leading cause of cancer mortality worldwide, accounting for about 1.8m deaths each year.[2]
- NSCLC is the most common type of lung cancer, accounting for 85% of all lung cancers.[3]
- ~60% of 1L patients progress within 18 months.
- ~70% of patients receive 2L in Western Countries.
- HLA-A2 phenotype in about 45% of the population.

1: EvaluatePharma - OSE Internal analysis based on publicly available data. **2:** World Health Organization. Globocan 2020 Fact Sheet. Available at: https://gco.iarc.fr/today/data/factsheets/populations/900-world-fact-sheets.pdf. Accessed November 2022. **3:** https://www.cancer.org/cancer/lung-cancer/about/what-is.html. Accessed November 2022

Tedopi® delivers important clinical benefits vs competition

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

Company	OSE IMMUNO THERAPEUTICS	MIRATI THERAPEUTICS	Roche / IPSEN / EXELIXIS	MERCK / Eisai	gsk	AstraZeneca / Daiichi-Sankyo	SANOFI	abbvie
Target	**Multi-epitopes vaccine**	TKIs			Immunotherapy	ADC		
					TIM-3	TROP2	CEACAM5	c-MET
Current Study	**ATALANTE-1**	MRTX-500	CONTACT-01	LEAP-008	COSTAR Lung	Tropion-LUNG1	CARMEN-LC03	NCT04928846
n	**118 (secondary resistant)**	500	350	405	250	590	554	698
Therapy	**Tedopi® vs docetaxel**	Sitra + Opdivo vs. docetaxel	Cabo+Tecentriq vs. docetaxel	Lenvi + Keytruda vs. docetaxel	Cobolimab + Jemperli vs. docetaxel	datopotamab deruxtecan vs docetaxel	SAR408701 vs. docetaxel	Telisotuzumab Vedotin vs. Docetaxel
Primary endpoints	**OS**	OS	OS	PFS and OS	OS and ORR	PFS and OS	PFS and OS	PFS and OS
Initiation	**2017**	Q3 2019	Q3 2020	Q2 2019	Dec 2020	Q4 2020	Q1 2020	Q1 2022
Read-out	**2022**	2023 (delayed)	**Failed**	2023 (Achieved LPI)	2024+	H2 2022	2023e	2025e
		Efficacy/safety data from early-stage trials in NSCLC post-ICI						
- Design	**Active comparator (vs. docetaxel)**	**No active comparator**						
- mOS (months)	**11.1 (8.6 Sq & 12.5 non-Sq)**	Phase II: 14.9 (non-Sq)	Phase II: 13.8 (non-Sq)	n.a.	n.a.	n.a.	n.a.	n.a.
- TEAEs G3/4	**11%**	**66%**	**53%**	**48%**	**n.a.**	**30-58%**	**51%**	**44%**
Source	**B.Besse et al, ESMO 21**	Leal, et al ESMO 2021	Neal et al, ASCO 2022	Taylor et al, J. Clin. Oncol. 38, 1154–1163.	Davar et al, SITC 2018	Garon et al, WCLC 2021	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 in NSCLC, PDAC and OC

Phase 2 ISS trials in combination with immunotherapy or chemotherapy treatments

2nd line post-ICI

CombiTED[1] – NSCLC
in combination with nivolumab or docetaxel

- 3 groups (n=105)
  - Tedopi® plus docetaxel
  - Tedopi® plus nivolumab
  - docetaxel alone
- In 2nd line treatment in metastatic NSCLC, after 1st line chemo-immunotherapy

Study Sponsor FoRT

Maintenance treatment after standard treatment

TEDOVA[2] – Ovarian cancer
in combination with pembrolizumab

- 3 groups (n= 180)
  - Tedopi® monotherapy
  - Tedopi® in combination with pembrolizumab
  - Best supportive care
- Maintenance treatment in platinum-sensitive recurrent OC patients

Study Sponsor ARCAGY GINECO ENGOT European Network of Gynaecological Oncological Trial groups

TEDOPaM[3] – Pancreatic cancer
in combination with FOLFIRI

- 2 groups (n=106)
  - Tedopi® plus FOLFIRI
  - FOLFIRI
- Maintenance treatment in advanced or metastatic PDAC with no progression after 8 cycles of FOLFIRINOX
- Initial positive data presented at ASCO'22
  - Maintenance with Tedopi® monotherapy showed a favorable safety profile and encouraging time to failure of strategy

Study Sponsor GERCOR

1 - NCT04884282 Abstract #TPS9140: Combi-TED: A Multicenter, Phase II, Open Label, Randomized
2 - NCT04713514 TEDOVA/GINECO-OV244b/ENGOT-ov58 trial: Neo-epitope based vaccine OSE2101 alone
3 - NCT03806309 A randomized non-comparative phase II study of maintenance OSE2101 vaccine alone or in combination with nivolumab (nivo), or FOLFIRI after induction with

OSE-279: Proprietary PD1 - Value generator

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

Phase 1/2 in solid tumors, lymphomas

Potential of combo with internal asset

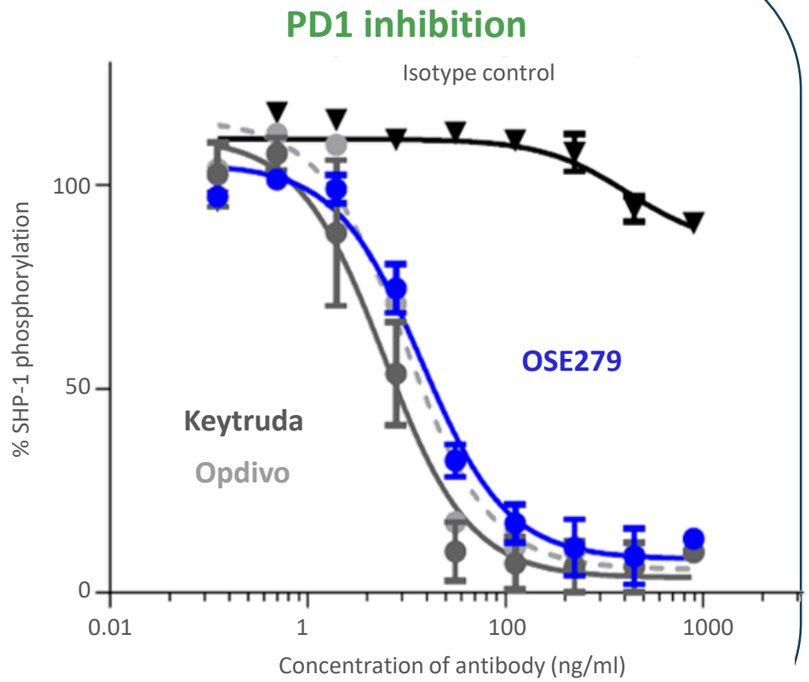
- Evaluate OSE-279 in combination with in-house molecules to obtain proprietary treatment options
- Tedopi®, CLEC-1

Potential for partnership with biotech/biopharma in combo with external assets

Backbone of the BiCKI® platform

- Develop first-in-class monovalent bispecific antibodies from our proprietary bispecific platform BiCKI® using OSE-279 as backbone therapy

Obtain marketing approvals in orphan indications with strong unmet medical needs



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OSE Immunotherapeutics Receives First Notice of Allowance for a US Patent Covering Anti-PD1 Monoclonal Antibody OSE-279 And its Use in Cancer Treatment

Our Innovative Discovery Engines

Designed to deliver next generation first-in-class immunotherapies

Mastering complex biology - Two drug discovery platforms

Fit for purpose design
- Engineered proteins
- Engineered antibodies
- Multi-specific / multi-functional therapeutics

Flexible targeting
- Ligands / receptors
- Myeloid lineage
- Leucocyte lineage
- GPCRs

Tunable pharmacology
- Antagonists / inhibitors
- Agonists / activator
- Modulators (cytokines, co-stimulatory, co-inhibitory)

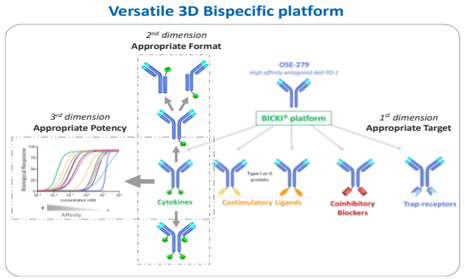
Myeloid platform

Myeloid Checkpoint
- **Releasing the potential of innate immunity**
- CLEC-1 program: LEAD selection

Pro-resolutive mAb
- **Triggering Resolution of inflammation**
- OSE-230 Pre-IND program

BiCKI® Platform

Anti-PD1 bispecifics
- **Tumor-specific T cells rejuveneting**
- First candidate BiCKI®-IL-7v

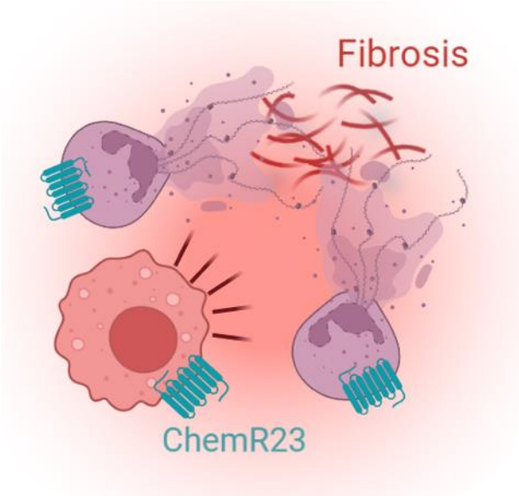


OSE-230 - Resolving inflammation is an active immune process

Pro-resolutive mAb

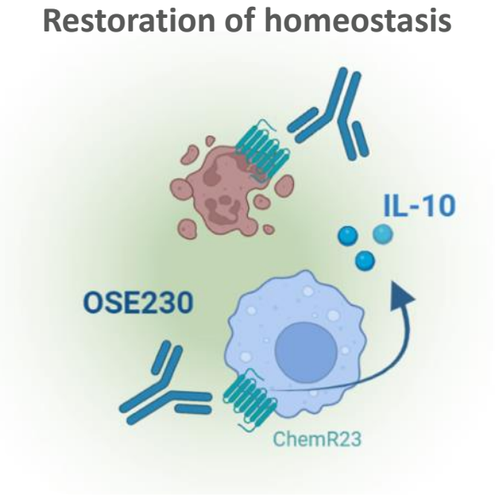
During chronic inflammation

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



With ChemR23 agonistic mAbs

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



First-in-class pre-IND candidate

Published in Science Advances AAAS

OSE IMMUNO THERAPEUTICS

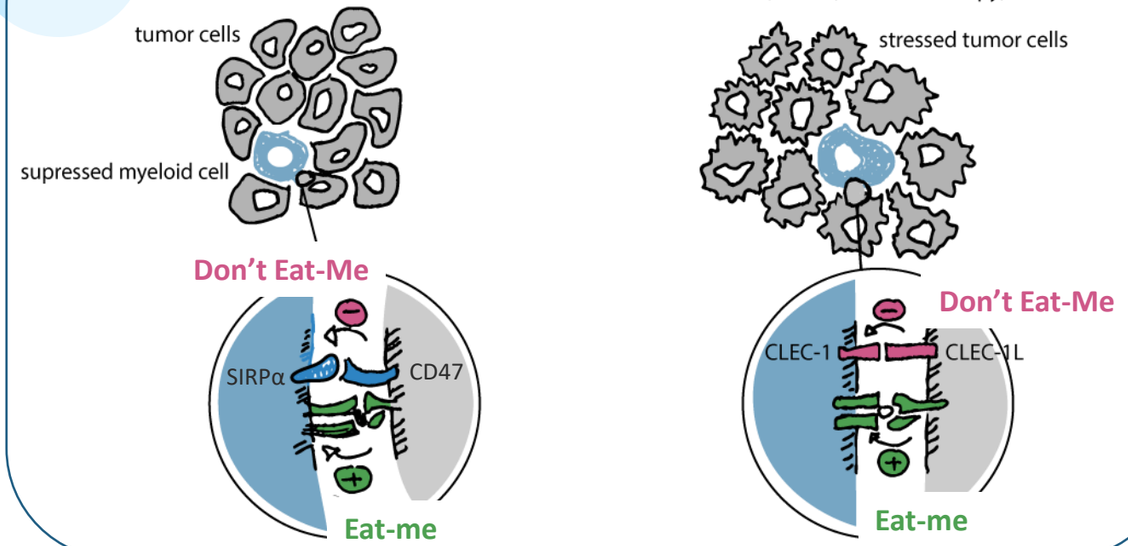
Trilleaud et al; Science advances 2021

CLEC-1 - Another way to not get eaten

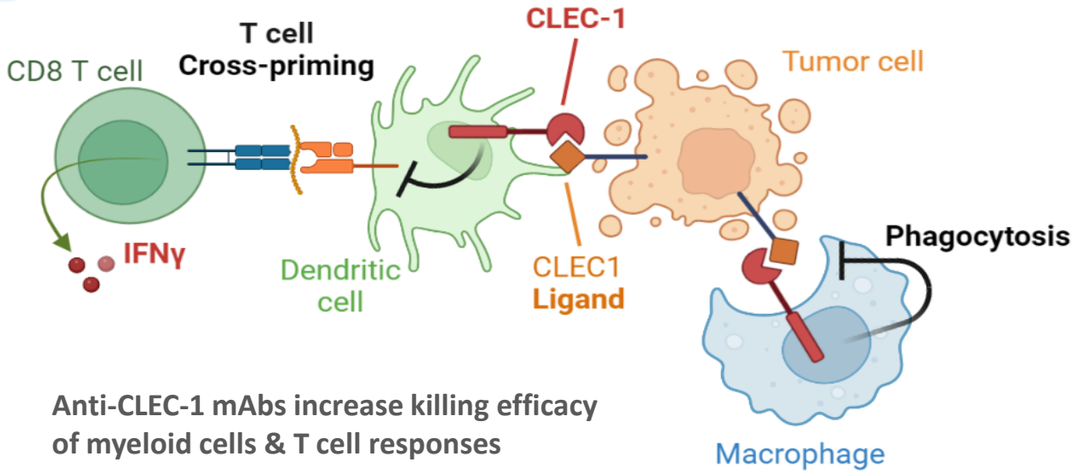
Blocking myeloid immune checkpoint from delivering another “Don’t-eat-me” signal

Myeloid checkpoint

Tumor homeostasis



CLEC-1 mAbs disrupt tumor homeostasis[2]



Anti-CLEC-1 mAbs increase killing efficacy of myeloid cells & T cell responses

First-in-class preclinical LEAD validation[1]

Published in Science Advances AAAS

OSE IMMUNOTHERAPEUTICS

Drouin et al, Science Advance 2022
1: A new protection covering CLEC-1 antagonists until 2037
2: OSE Immunotherapeutics Presented the First Positive Preclinical Efficacy Data on CLEC-1, a Novel Myeloid Immune Checkpoint Target For Cancer Immunotherapy

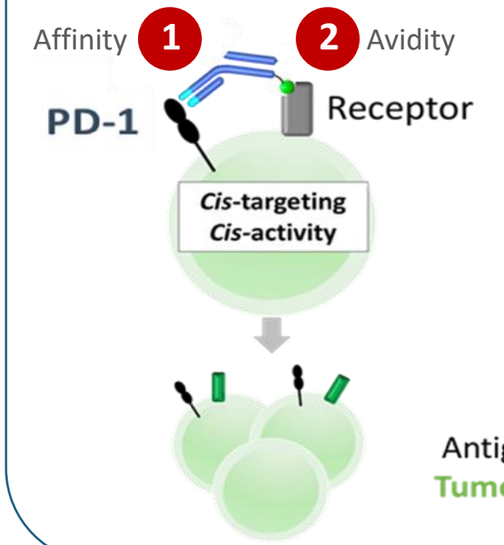
Next-generation anti-PD1 bispecifics

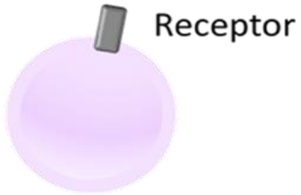
Improving the quality of tumor-specific T-cell responses both in TME & Lymph Nodes

Anti-PD1 bispecifics

Targeting the RIGHT T-cells…

Selective targeting of Tumor-specific PD-1+ T cells





Non experienced
NaîveT cells

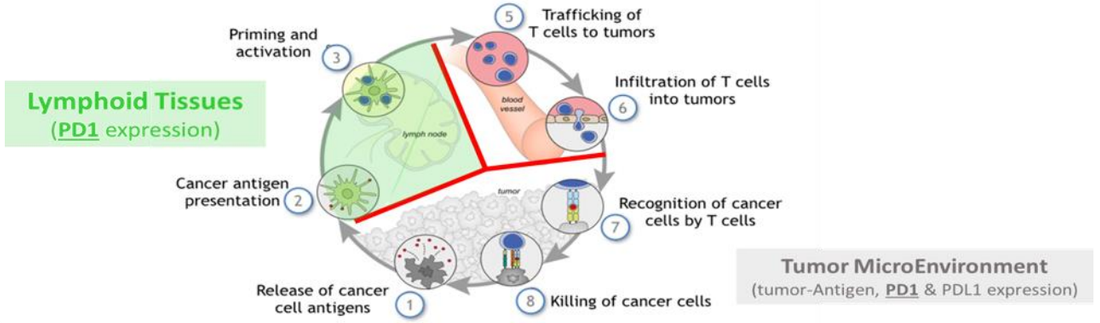
Antigen experienced
Tumor specific T cells

↗ Survival, Migration

↘ Exhaustion, Immunosuppression

…at the right place

Selective Biodistribution in TME + Lymphoid tissues



BiCKI®-IL-7v* first pre-IND candidate presented at AACR 2022*

OSE IMMUNOTHERAPEUTICS

OSE Immunotherapeutics Invited to Present Preclinical Data on its PD-1/IL-7 Bifunctional Program BiCKI®-IL-7 Cancer Immunotherapy (AACR 2022, Morello et al)

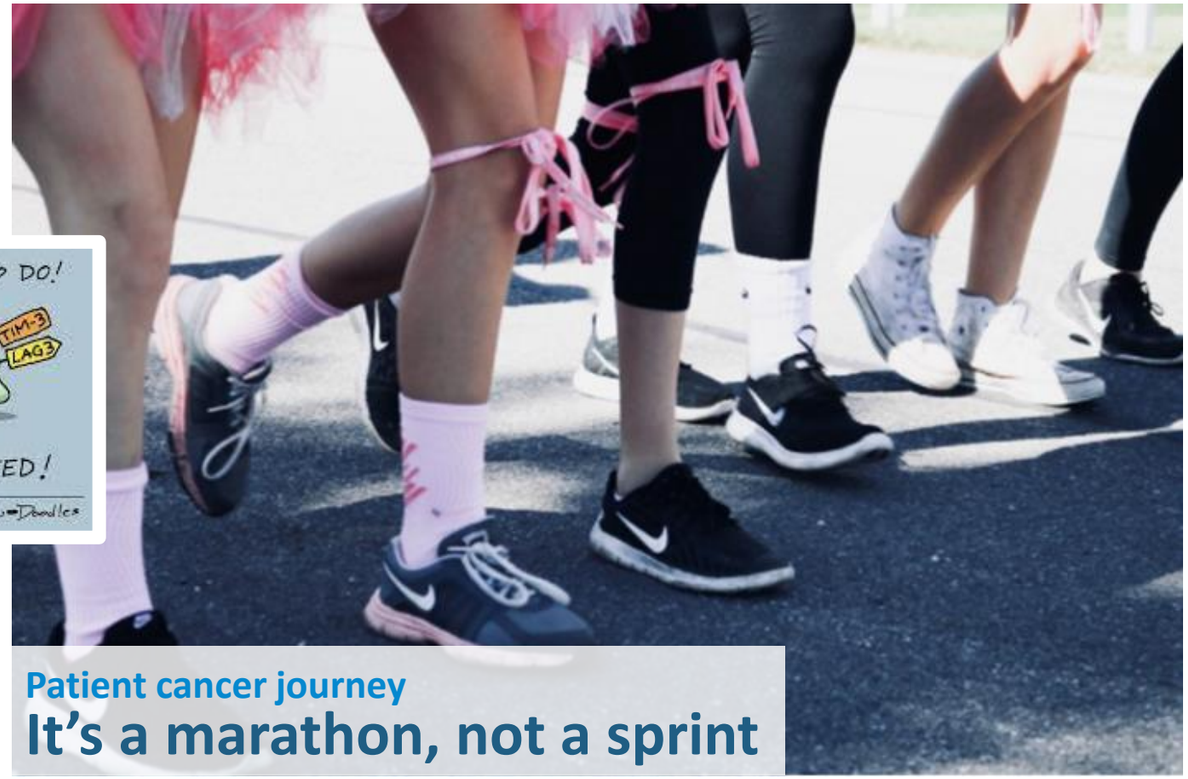
What's wrong with previous cytokine approaches?

Success takes time - it's a marathon, not a sprint

Anti-PD1/IL7 bispecifics

IL2/IL15
Sprinters legs

IL7
Marathon runners legs



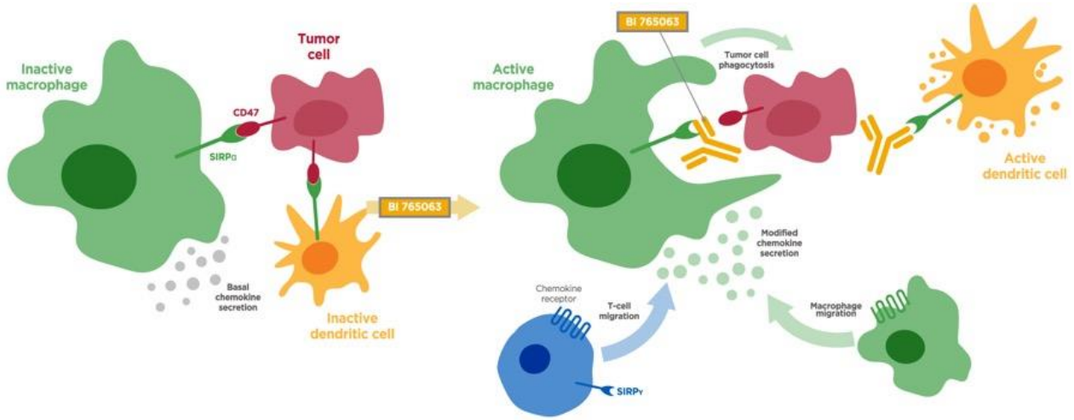
Patient cancer journey
It's a marathon, not a sprint

Partnered clinical programs

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

- Infiltrating **myeloid cells promote 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.

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.

Clinical development overview

Most advanced clinically-tested SIRPα

Boehringer Ingelheim

	Dose Escalation		Ongoing Accrual Expansion Studies		
Trial number	NCT03990233			NCT04653142	NCT05249426[3]
Phase	Ia	Ia	Ib	Ib	Ib
N	50	18	40	36	150
Treatment	OSE-172	OSE-172 + ezabenlimab	OSE-172 + ezabenlimab	OSE-172 +/- ezabenlimab	OSE-172 + ezabenlimab ± chemotherapy, cetuximab or VEGF/Ang2 inhibitor
Patient population	Solid tumors		MSS CRC (n=30) MSS endometrial (n=10)	Solid tumors	HNSCC HCC
Region					

Key takeaways from dose escalation

- **Safety**
  No hematotoxicity reported, no DLTs, MTD not reached[1,2]
- **Efficacy**
  - 1 PR in HCC, 45% clinical benefit rate as a single agent[1]
  - 3 PRs in MSS endometrial cancer and CRC in combination with a checkpoint inhibitor[2]

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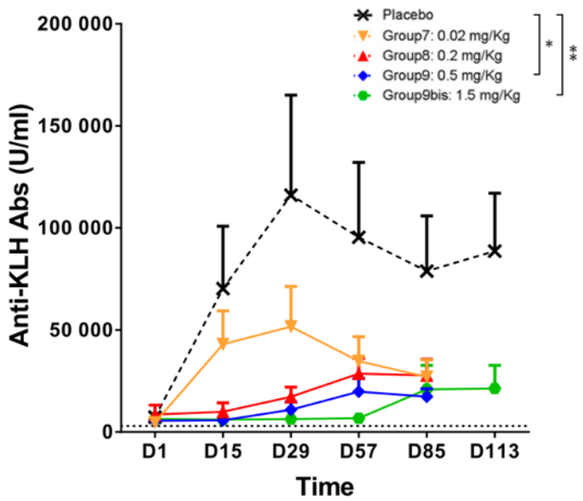
MSS: Microsatellite stable. **HNSCC:** Head and Neck Squamous Cell Carcinoma. **CRC:** Colorectal Cancer. **1:** Champiat S, et al. J Clin Oncol 2021;39(Suppl15) #2623. **2:** Kotecki N. et al. ESMO 2021; #983. **3:** Boehringer Ingelheim and OSE Immunotherapeutics Announce First Patient Dosed in a Phase 1 Expansion Trial of SIRPα Antagonist Monoclonal Antibody BI 765063, Targeting Myeloid Cells in Immuno-Oncology Initiation of the Phase 1 clinical expansion trial triggers a €10 million milestone payment from Boehringer Ingelheim to OSE Immunotherapeutics

FR-104/VEL-101
CD28 antagonist in transplantation

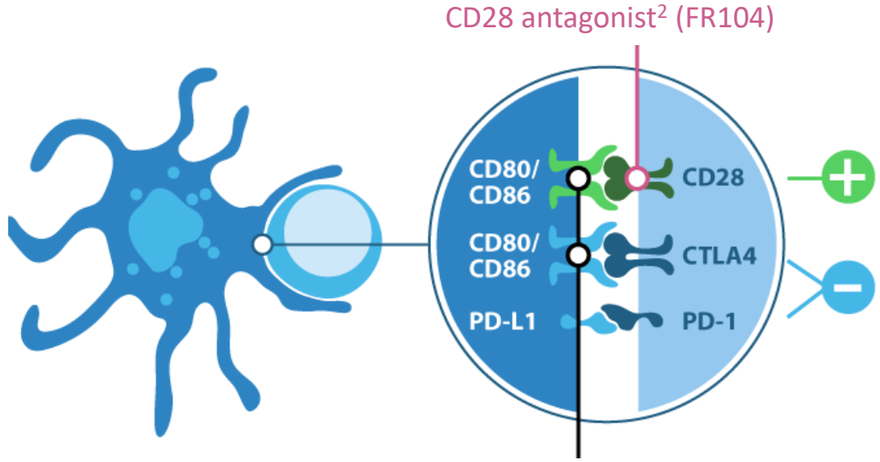
Veloxis PHARMACEUTICALS
an Asahi Kasei company

Phase 1 results: Selective CD28 antagonist FR-104 persistently reduces antibody responses



- **Good safety**[1] - demonstrated
  - Absence of clinical or biological events
  - No change in total lymphocyte counts
- No cytokine elevation
- Controls model IgG (anti-KLH) response for up to 57 days
- Controls T follicular helper and IgG responses
- Tfh cells correlated with autoimmune diseases activity

Ongoing Phase 1 / 2 trial in kidney transplantation



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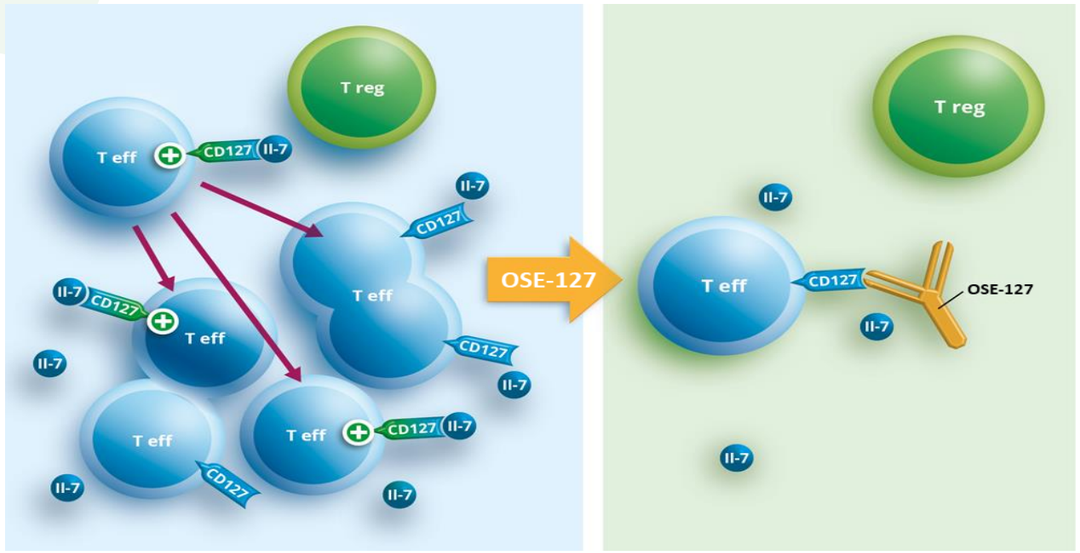
1: Poirier N. et al, Journal of Immunol, (2016), doi: 10.4049/jimmunol.1601538. **2:** Watkins, BK et al. J Clin Invest. 2018

OSE-127/S95011 - Differentiated MoA as full IL-7 receptor antagonist

License option to Servier after Phase 2

Tackling the fuel of memory T-lymphocytes while sparing Tregs



A differentiated and highly qualified candidate

- IL7 produced by inflamed tissues sustain **T-cell survival and chronicity**
- IL7R pathway overexpression in anti-TNF non-responders[1]
- Lusvertikimab, first non-internalizing (fully antagonist) anti-IL7R mAb[2]
- Good safety, PK/PD profile in Phase 1[3], no cytokine release, confirmed target-engagement
- **Most advanced** IL-7R antagonist in clinic
- High preclinical activity in acute leukemia (T and B-ALL)[4] **ASH Merit Award**
- **On-going Phase-2 studies in UC and primary Sjögren's Syndrome**

1: Belarif et al. JCI 2019. **2:** Belarif et al. Nature Communication (2018). **3:** Poirier et al. In revision. **4:** https://www.ose-immuno.com/wp-content/uploads/2022/11/EN_221103_ASH_OSE-127.pdf

Summary

Investment Highlights

Compelling product

Promising clinical data from the lead asset Tedopi®
- Met primary overall survival endpoint in monotherapy in PoI pivotal NSCLC post-ICI study
- Significant better Safety profile & Quality of Life with positive Net Treatment Benefit versus SOC

Large market opportunities

Focus on multi-billion $ markets
- **I/O:** NSCLC (2L, 3L), HCC (1L, 2L), HNSCC (2L)
- **I&I:** IBD (Ulcerative colitis), Sjögren syndrome, Kidney Transplantation

Strong pharma partnerships

Sustainable business through multi-partnerships Strategy
>€1.6bn milestones: Boehringer Ingelheim, Servier, Veloxis

Long duration IP portfolio

IP extends to 2040's
I/O: Tedopi® (>2038), OSE-172 (>2037), OSE-279 (>2039), CLEC-1 (>2040) **I&I:** OSE-127 (>2037), FR104 (>2035), OSE-230 (>2040)

Multiple upcoming catalysts

Multiple key clinical and regulatory milestones expected in next 18 months
- **Tedopi®:** FDA/EMA regulatory update, preparing confirmatory pivotal NSCLC 2L, Phase 2 combination trials
- **Lusvertikimab (OSE-127):** Top-line results in Phase 2 trials (Sjögren syndrome, Ulcerative Colitis)
- **OSE-172/BI 765063:** Phase 1b results update in solid tumors
- **VEL-101/FR104:** preparing Phase 2 in Kidney Transplantation

OSE IMMUNO THERAPEUTICS

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

Immuno-Oncology & Immuno-Inflammation

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