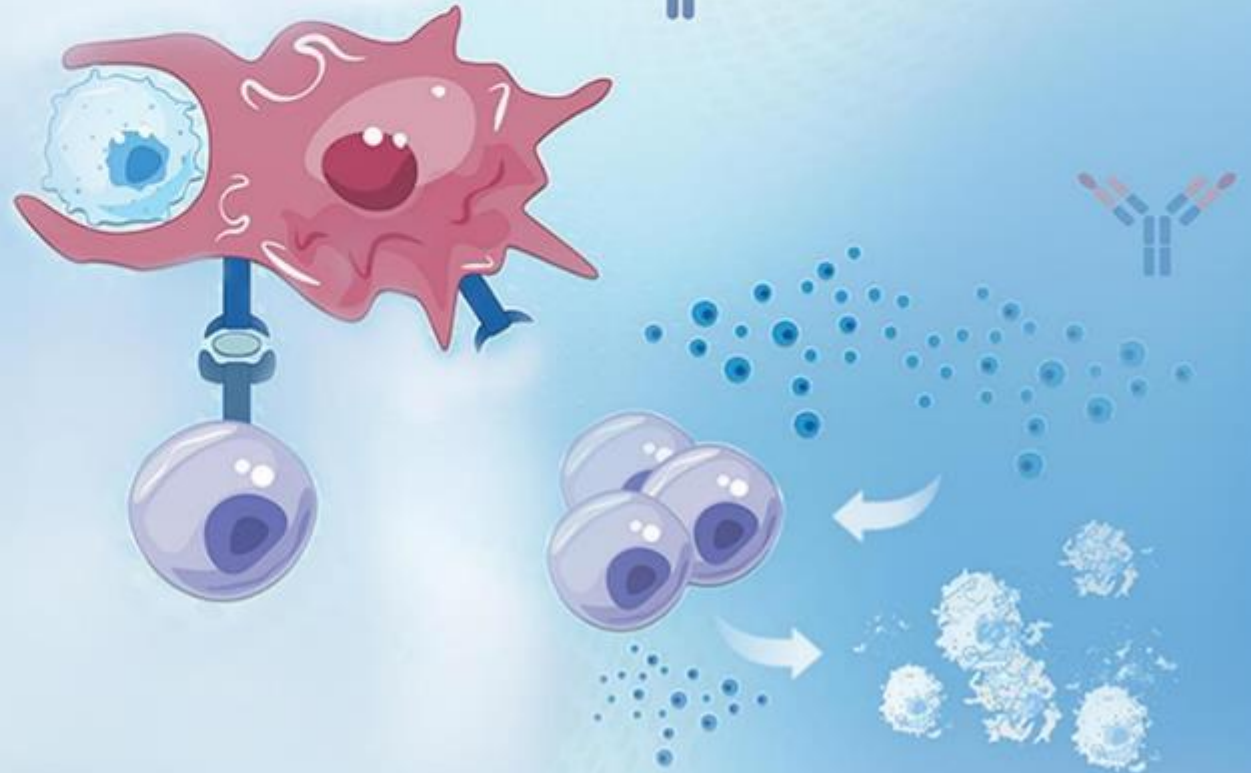




宜明昂科
ImmuneOnco

Corporate Presentation

March 2025



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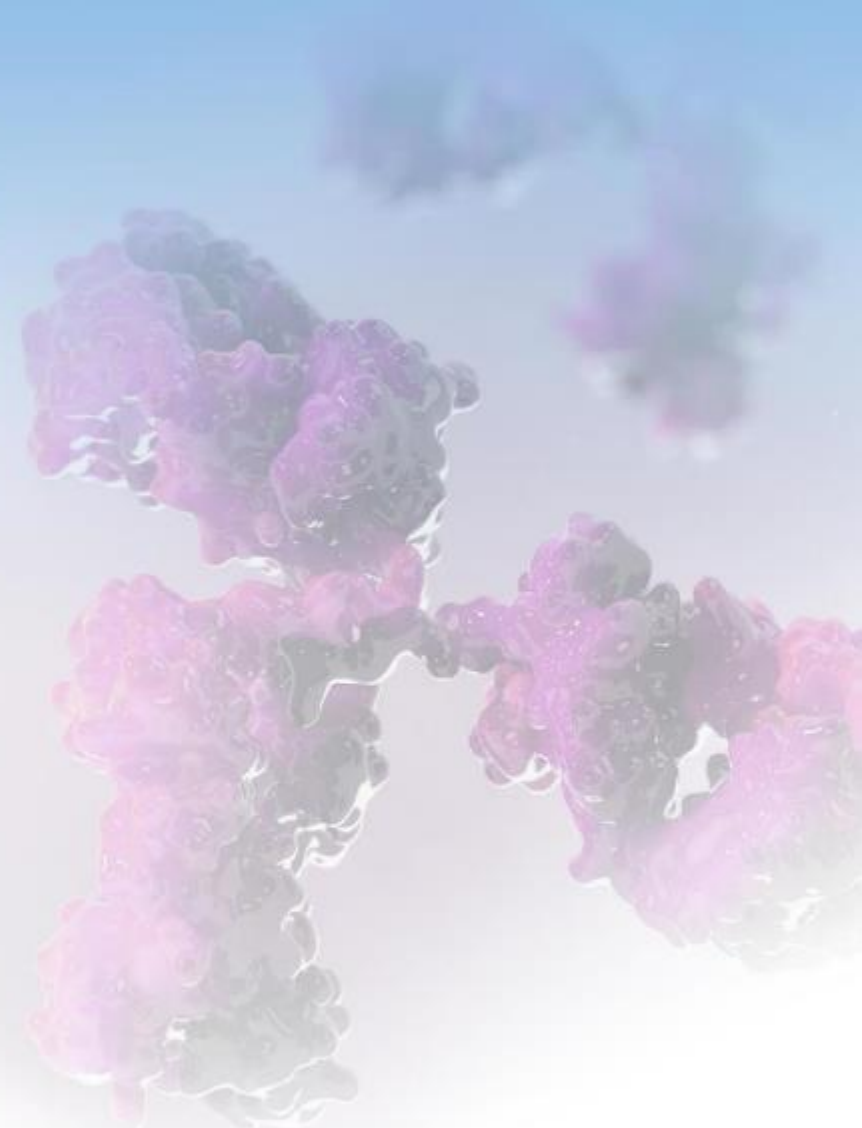
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SECTION 1

Company Overview



Key Milestones



- Steady team with **10+** years coordination



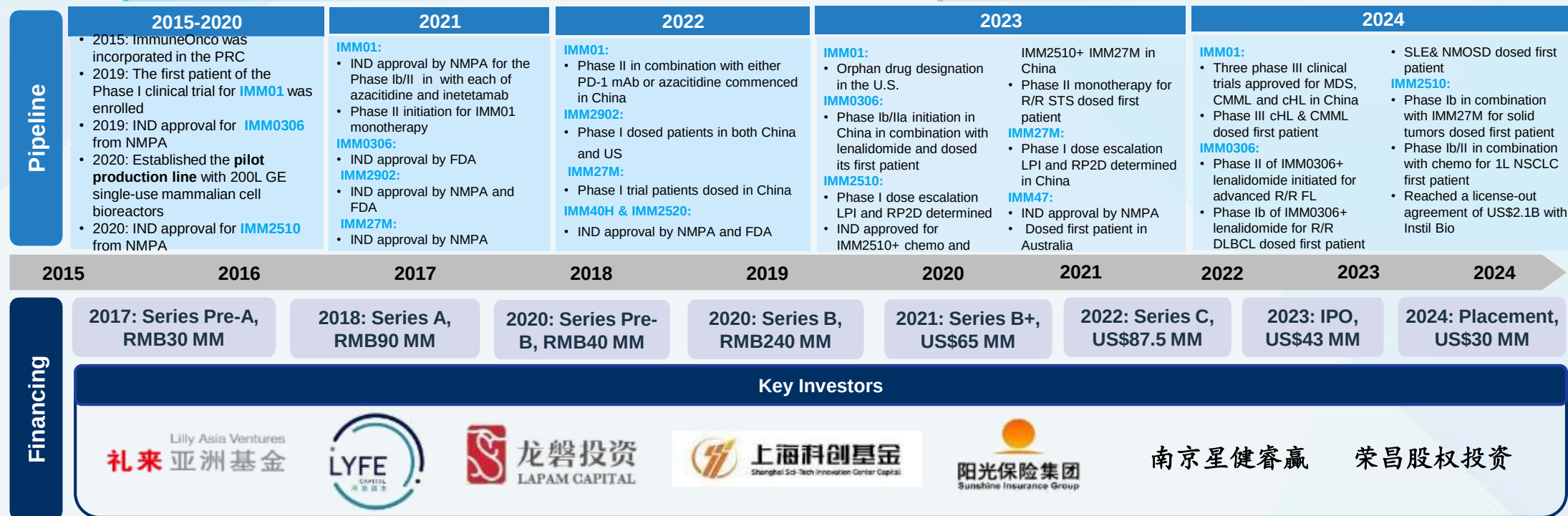
- 30** issued patents
- 26** pending patent applications



- 30** IND approvals from the NMPA and the FDA

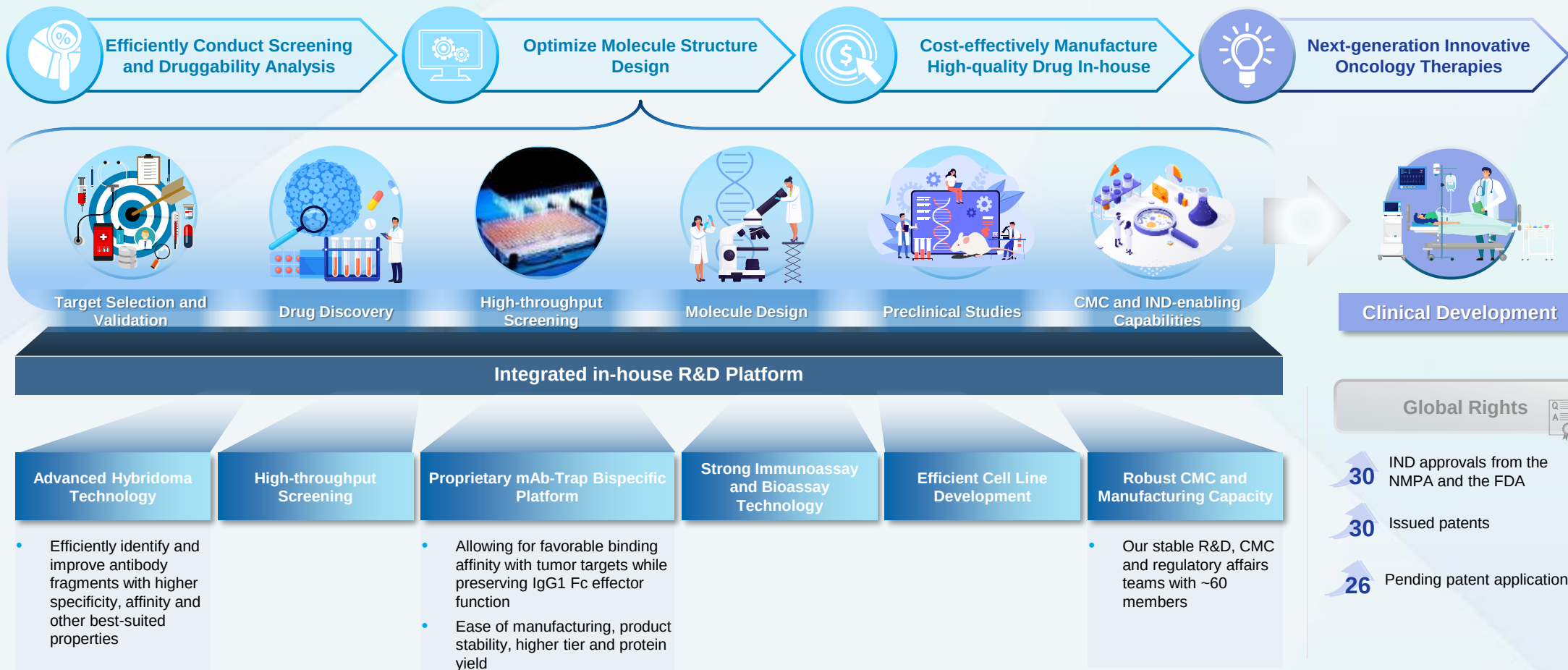


- 11** ongoing clinical programs



Total amount of fund raised: ~\$285MM

Integrated proprietary R&D platform



Pilot manufacturing: 200L/250L bioreactors

Comprehensive Pipeline Covering Oncology and non-Oncology Therapeutic Areas

Program ⁽¹⁾	Target (Modality)	Indication(s)	Discovery	Preclinical	IND/IND-Enabling	Phase Ia/I	Phase Ib/II	Phase III/ Pivotal	Partners	Current Status / Upcoming Milestone	Commercial Rights
IMM01 (timdarpaccept)											
IMM01 + Azacitidine	CD47 (SIRPα-Fc fusion protein)	MDS ⁽²⁾	China (NMPA)							Received Phase III approval from CDE in May 2024	Global
IMM01 + Azacitidine	CD47 (SIRPα-Fc fusion protein)	1L CMML	China (NMPA)							Received Phase III approval from CDE in June, FPI in November 2024	Global
IMM01 + Tislelizumab	CD47+PD-1	cHL ⁽³⁾	China (NMPA)							Received Phase III approval from CDE in April; FPI in July 2024	Global
IMM01 + IMM2510	CD47+VEGFxPD-L1	Solid Tumors	China (NMPA)							Received Phase Ib/II approval from CDE in March 2025	Global
IMM2510 (palverafusp alfa) Monotherapy	VEGFxPD-L1 (Bispecific)	Solid Tumors	China (NMPA)						InstilBio	Phase Ib/II commenced in November 2023 in China	Great China
IMM2510 + Chemo	VEGFxPD-L1 (Bispecific)	1L NSCLC	China (NMPA)						InstilBio	IND approved in China in November 2023, FPI in December 2024	Great China
IMM2510 + Chemo	VEGFxPD-L1 (Bispecific)	1L TNBC	China (NMPA)						InstilBio	IND approved in China in November 2023	Great China
IMM2510 + IMM27M	VEGFxPD-L1 (Bispecific) + CTLA-4	Solid Tumors	China (NMPA)						InstilBio	IND approved in China in October 2023, FPI in July 2024	Great China
IMM27M (tazlestobart)	CTLA-4 ADCC+ (mAb)	Solid tumors	China (NMPA)						InstilBio	Phase Ia completed in September 2023 in China, FPI for Phase Ib HR+ mBC in September 2024	Great China
IMM0306 (amulirafusp alfa) IMM0306 + Lenalidomide	CD47xCD20 (Bispecific)	R/R FL&MZL	China (NMPA)							Phase Ib/IIa commenced in June 2023 in China, LPI for FL cohort in December 2024	Global
IMM2520	CD47xPD-L1 (Bispecific)	Solid tumors	China (NMPA), US (FDA)							IND approved in China and the U.S. in Q4 2022; Phase I commenced in China in March 2023	Global
IMM0306 (amulirafusp alfa)	CD47xCD20 (Bispecific)	SLE	China(NMPA)							FPI in October 2024	Global
		NMOSDs	China(NMPA)							FPI in December 2024	Global
		LN	China(NMPA)							IND approved in China in December 2024	Global
IMM01 (timdarpaccept)	CD47 (SIRPα-Fc fusion protein)	Atherosclerosis								IND-enabling	Global
IMC-003 (IMM72)	ActRIIA (Fc-fusion protein)	PAH, Undisclosed	China(NMPA)							Pre-IND	Global
IMC-010 (IMM7220)	GLP-1xActRIIA (Bispecific)	Obesity (lose fat and build muscle)								In vivo efficacy study is ongoing	Global

Innate Immunity Targets

Innate and Adaptive Immunity Targets

Adaptive Immunity Targets

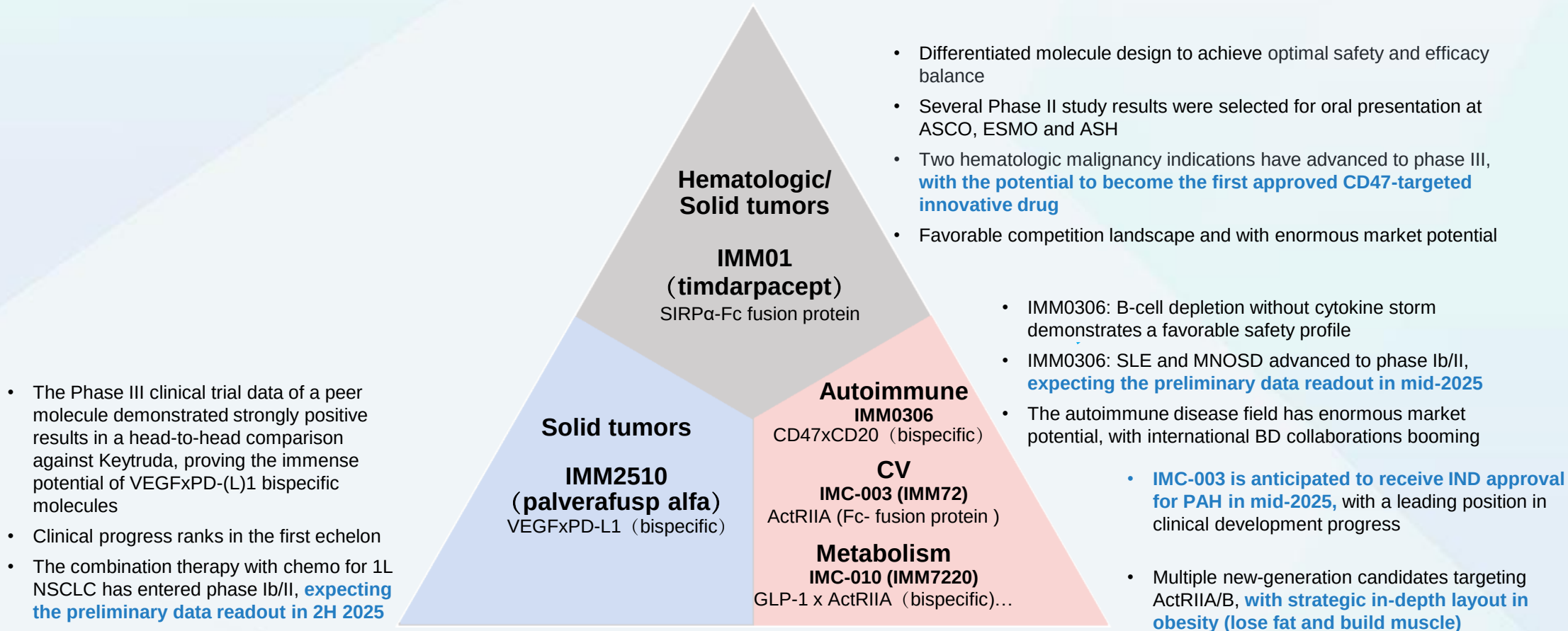
CV, autoimmune, metabolic disease

Notes:

- (1) All of the Company's clinical- and IND-stage drug candidates are classified as Category 1 innovative drugs, and preclinical- and discovery-stage drug candidates are expected to be classified as Category 1 innovative drugs, in accordance with relevant laws and regulation in China
 (2) The trial is mainly designed to target the first-line treatment of higher-risk MDS (patients who fall into higher-risk group categories in the original or revised International Prognostic Scoring System).
 (3) This combination of IMM01 and tislelizumab targets prior PD-(L) 1-refractory cHL.

Three Strategic Product Matrices Support Future Growth

We have matured proprietary R&D platform and comprehensive innovation pipeline portfolio





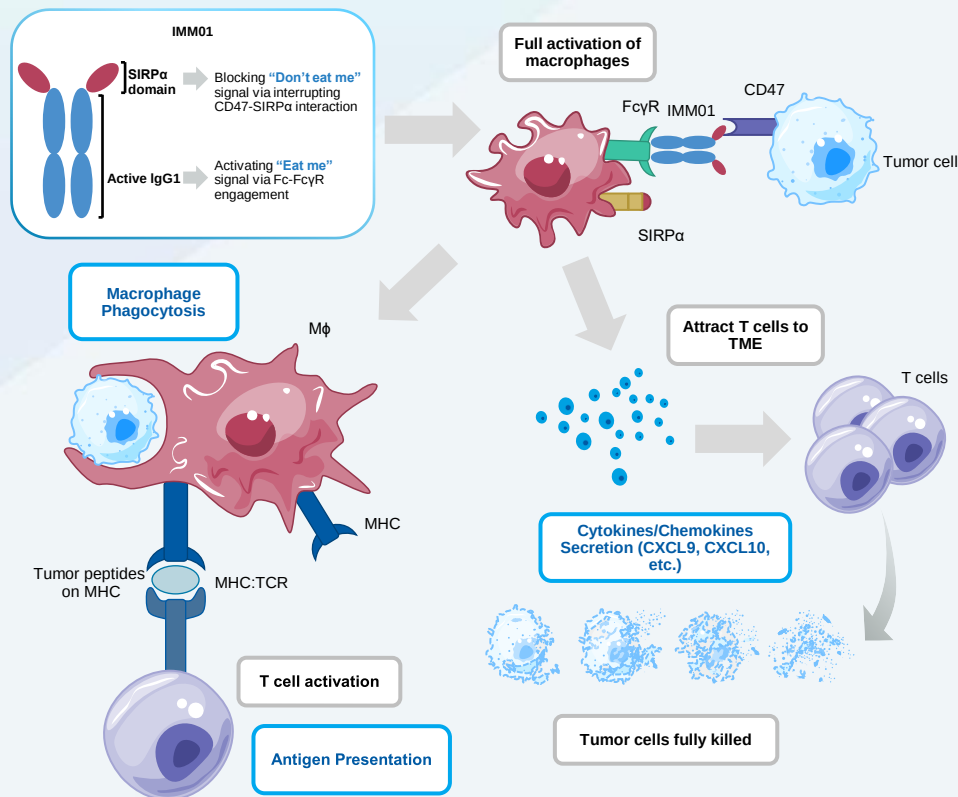
SECTION 2

Major Oncology Programs



IMM01(timdarpacept)

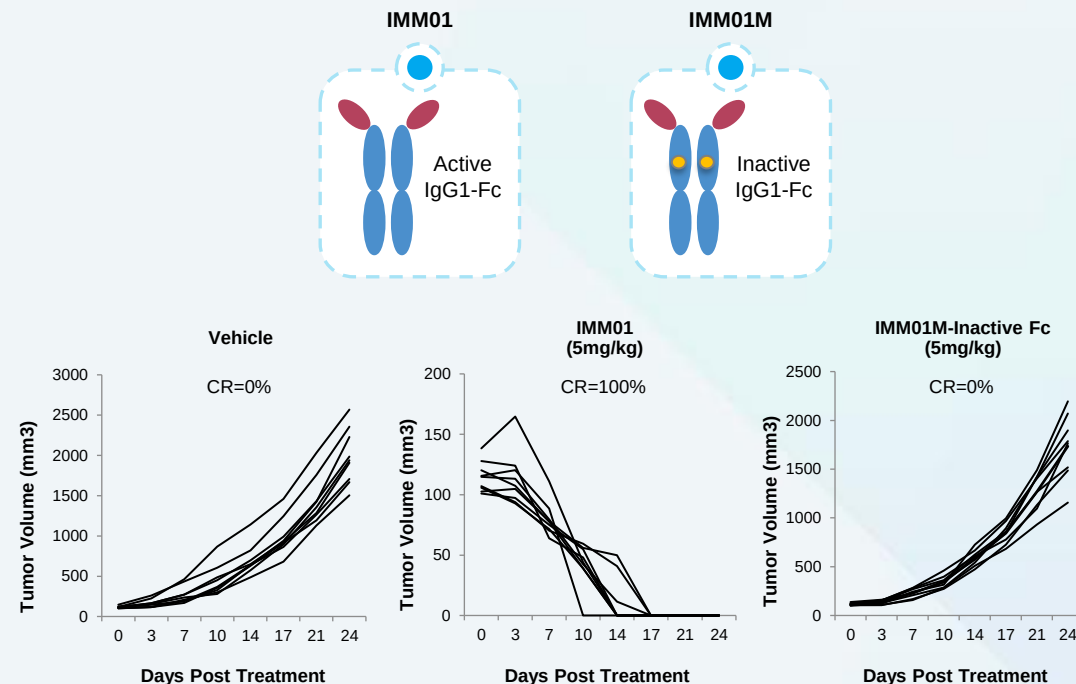
Overview and Competitive Advantage of IMM01(Timdarpacept)



Notes:
MHC refers to major histocompatibility complex.

Source: Company Data

In Vivo Efficacy of IMM01 is Dependent on Effective Fc Function (HL-60 xenograft model)



IMM01(timdarpacept)

Phase I Clinical Trial Results of IMM01 Monotherapy

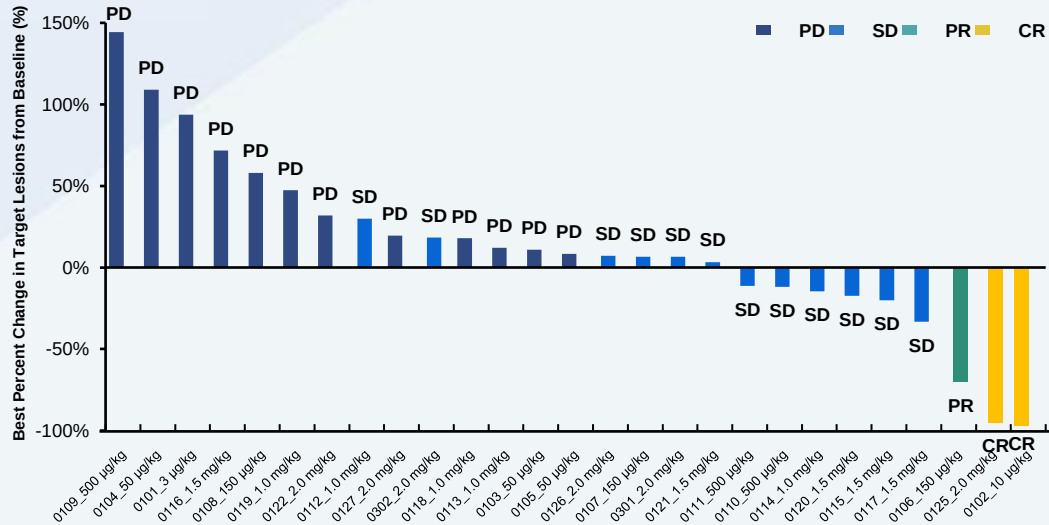


One of the only two companies to have observed **CR in monotherapy** clinical trials with a **well tolerated safety profile**



Potent Antitumor Activity and Encouraging Preliminary Clinical Efficacy

Response Observed in Patients Treated with IMM01 Monotherapy

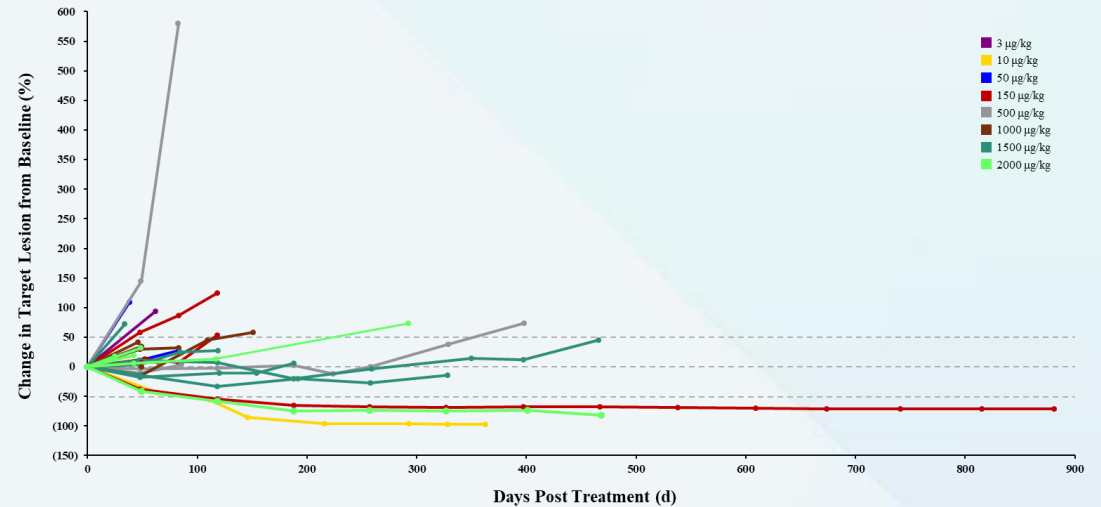


Patients

Note: The colors of bars represent the best overall changes in size of target tumor lesions among 27 evaluable patients in the Phase I monotherapy study

Source: Company Data, as of December 14, 2022

Duration of Response in Patients Treated with IMM01 Monotherapy



Among 27 evaluable patients receiving **0.003 mg/kg to 2.0 mg/kg** dosage, two patient reached complete response (**2 CRs**), one reached partial response (**1 PR**), and 13 reached stable disease (**13 SDs**) (including **six cases** with **observed substantial tumor shrinkage**)

IMM01(timdarpacept)

Phase I Clinical Trial Results of IMM01 Monotherapy



Safety Results



Majority of TRAE is **grade 1 and 2**



Grade 3 and above TRAE mainly include **Leukopenia, Thrombocytopenia, Anemia, Neutropenia**, with the highest rate of occurrence as **14% (4/29)**

Treatment-related adverse event (n=29)	ALL n (%)	≥Gr 3 n (%)
Positive of Anti erythrocyte antibody	17 (59)	
Leukopenia	16 (55)	2 (7)
Hemolysis	15 (52)	
Infusion related reaction	15 (52)	
Thrombocytopenia	13 (45)	3 (10)
Hypertriglyceridemia	13 (45)	
Anemia	13 (45)	4 (14)
Neutropenia	12 (41)	1 (3)
Neutrocytosis	12 (41)	
Alkaline phosphatase increased	8 (28)	
Leukocytosis	8 (28)	
Hyperbilirubinemia	7 (24)	
Hypercholesteremia	6 (21)	
Fever	5 (17)	
Proteinuria	5 (17)	
ALT increased	4 (14)	
GGT increased	3 (10)	
Hyperuricemia	3 (10)	
Hypothyroidism	3 (10)	
AST increased	4 (14)	

Notes:

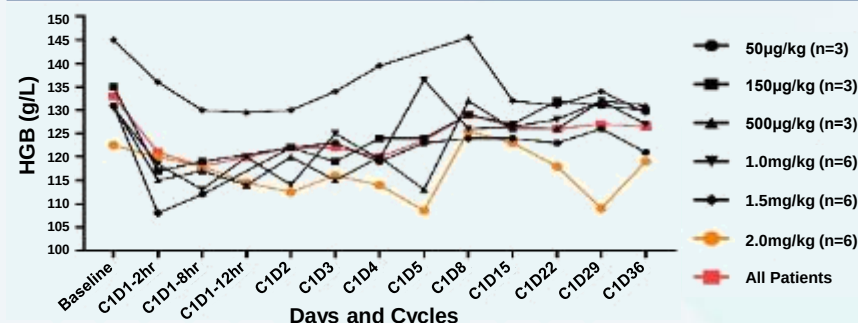
1. TRAE above 10% is presented
2. IMM01 is generally safe and well tolerated in 29 patients
3. Majority of TRAEs were grade 1 and 2
4. Grade 3 and above TRAEs mainly include Leukopenia, Thrombocytopenia, Anemia, Neutropenia, with the highest rate of occurrence as 14% (4/29)

Source: Company Data



The impact on hemoglobin or platelet is **transient and insignificant** following the administration of IMM01.

HGB Changes Following Single-dose and Cycle 1 by Cohort

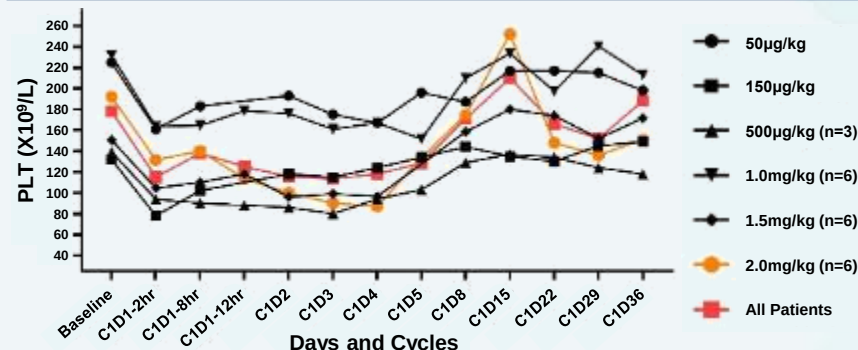


Note: Dosing days are C1D1, C1D8, C1D15, C1D22, C1D29, C1D36.



Although a transient decrease of hemoglobin was observed at 8 to 24 hours after the first dosing, it would generally get back to normal level between day 2 and 4.

PLT Following Single-dose and Cycle 1 by Cohort



Note: Dosing days are C1D1, C1D8, C1D15, C1D22, C1D29, C1D36.

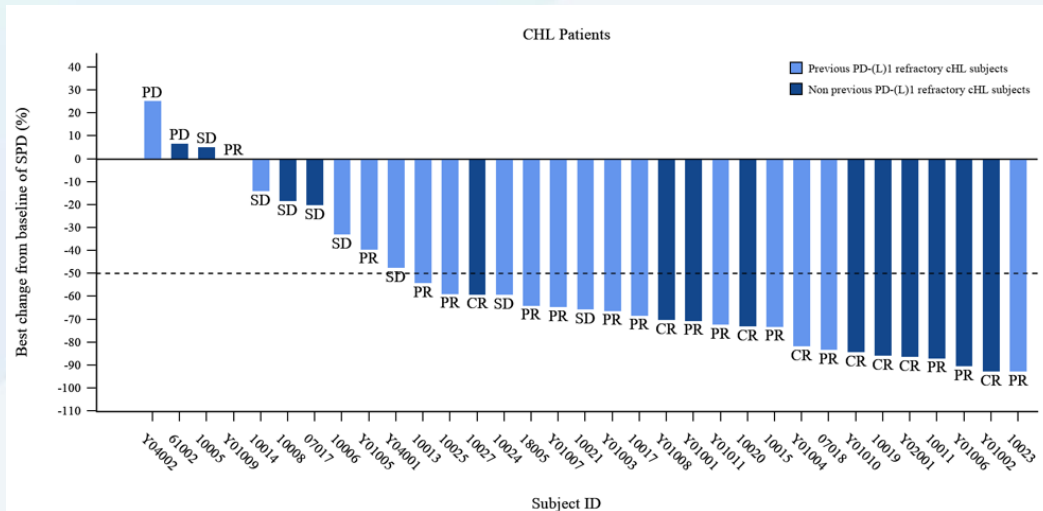


Transient decrease in platelet was also observed at 2 hours after the first dosing, but it generally returned to normal level after 5 days.

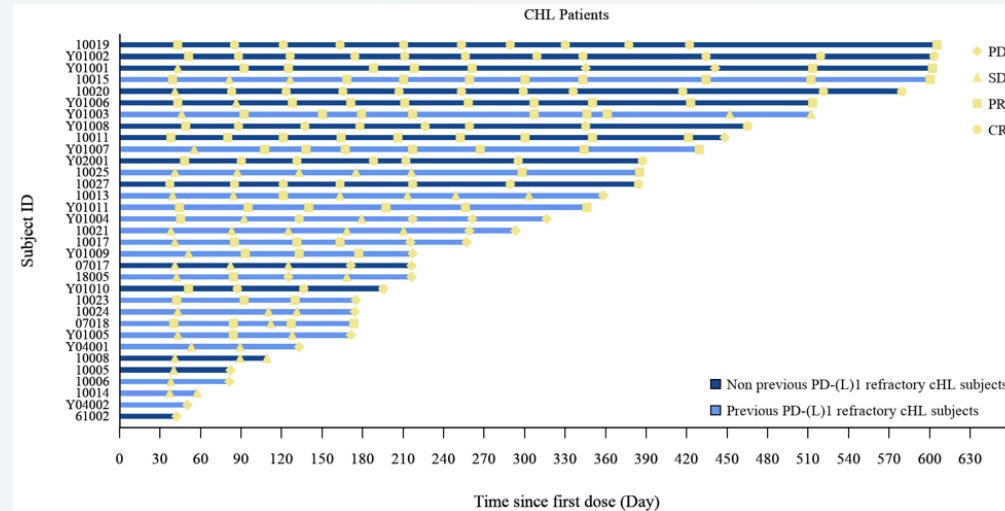
IMM01 (timdarpaccept) + Tislelizumab (PD-1 mAb)

Phase II Efficacy in Prior Anti-PD-1 Failed R/R cHL

Best Percentage Change from Baseline in Target Lesion



Duration of Treatment and Response



Received approval from the NMPA for the protocol of the Phase III clinical trial of IMM01 in combination with tislelizumab versus physician's choice chemotherapy in prior PD-(L) 1-refractory cHL in April 2024. FPI reached in July 2024

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ESMO
GOOD SCIENCE
BETTER MEDICINE
BEST PRACTICE

ASH
SOCIETY OF
ALLOGENEIC
TRANSPLANTATION

Oral Presentation

Source: Company Data; The clinical data is as of Dec 31st, 2024

Best Overall Response n (%)	R/R cHL (N=33)
ORR	22 (69.7)
DCR	31 (93.9)
CR	8 (24.2)
PR	15 (45.5)
SD	8 (24.3)
PD	2 (6.1)

IMM01 (timdarpaccept) + Tislelizumab (PD-1 mAb)

Phase II: Superior Efficacy in Anti-PD-1 Failed R/R cHL

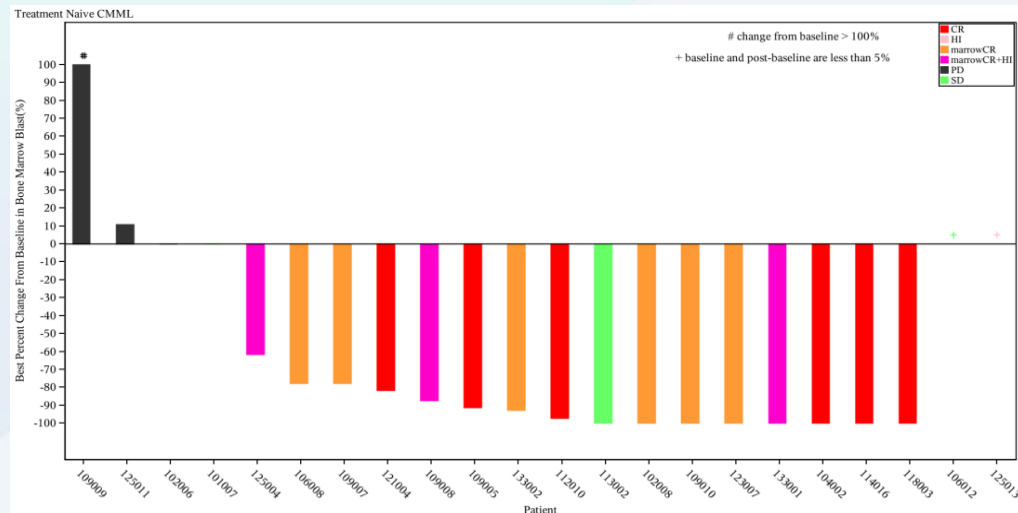
	Timdarpaccept (SIRPα-Fc) + Tislelizumab (PD-1)	Favezelimab (Anti-LAG-3) + Pembrolizumab ¹	Tifcemalimab (Anti-BTLA) + Toripalimab (PD-1) ²
N	33	34	34
ORR	69.7%	29%	35.3%
CR	24.2%	9%	0%
Status	Phase III started in Jul 2024 to treat PD-(L)1 refractory cHL	Phase III of the coformulated two drugs started in Oct 2022 Stopped in Dec 2024	Phase III started in Dec 2023 to treat R/R cHL
Study Geography	China	China + International	China

Source:

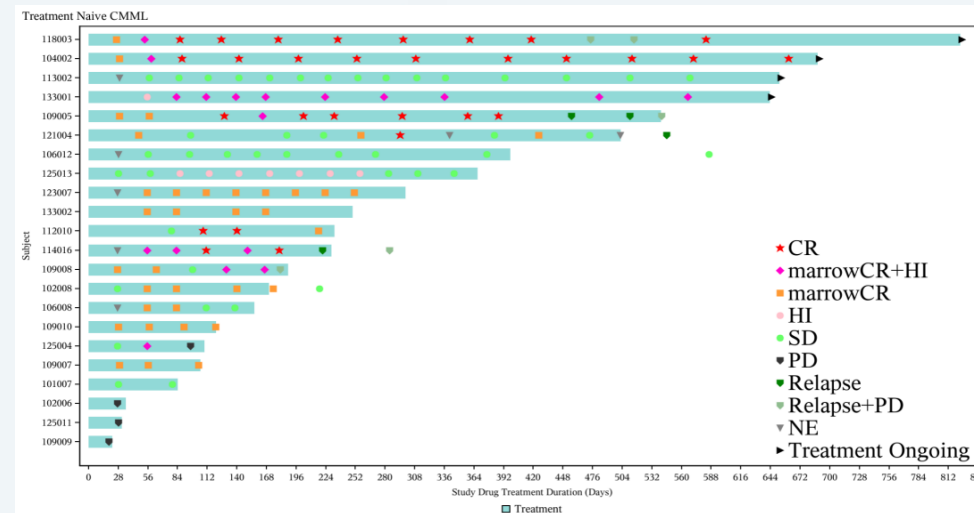
1. Timmerman et al. Blood (2022) 140 (Supplement 1): 768–770.
2. Song et al. Blood (2023) 142 (Supplement 1): 4458. Hodgkin Lymphoma. Histopathologically, 95% of HL cases are classified as cHL.”- Momotow et al. J. Clin. Med. 2021, 10(5), 1125
Company Data; The clinical data is as of Dec 31st , 2024

IMM01 (timdarpaccept) + Azacitidine in 1L CMML (Phase II)

Best Percent Change from Baseline in the Blast Cells in the Bone Marrow



Duration of Treatment and Response



Phase III study of IMM01 (Timdarpaccept) in combination with azacitidine in patients with newly diagnosed CMML was approved by NMPA in June 2024, FPI in November 2024



Oral Presentation

Notes: ORR = Overall Response Rate, CR = Complete Response, mCR = Marrow Complete Response, HI = Hematological Improvement

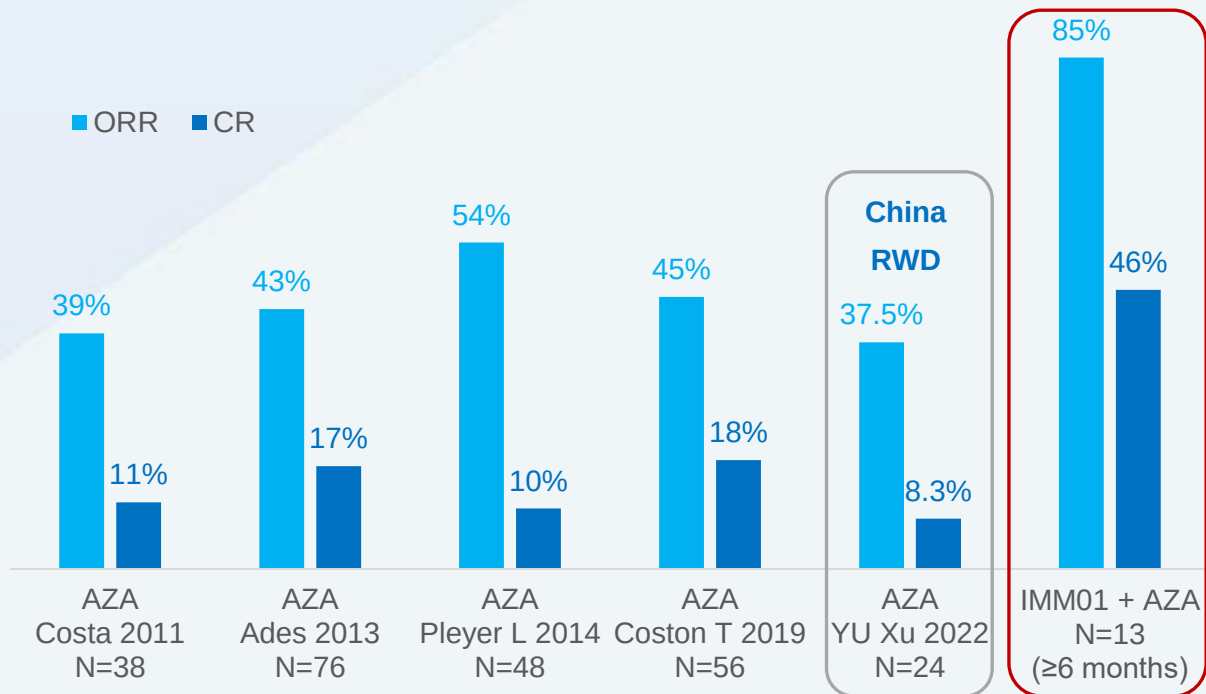
Source: Company Data; The clinical data is as of Dec 31st, 2024

Best Overall Response, n (%)	1L CMML (N=22)	≥4 months (N=16)	≥6 months (N=13)
ORR	16 (72.7%)	14 (87.5%)	11 (84.6%)
CR	6 (27.3%)	6 (37.5%)	6 (46.2%)
mCR + HI	3 (13.6%)	2 (12.5%)	2 (15.4%)
mCR alone	6 (27.3%)	5 (31.3%)	2 (15.4%)
HI	1 (4.5%)	1 (6.3%)	1 (7.7%)

IMM01 (timdarpaccept) + Azacitidine in 1L CMML

Comparison in Treating 1L CMML

Response of Major Clinical Studies in CMML



- As indicated by the graph, the ORR and CR rates range from 37% to 54% and 8% to 18% respectively in major clinical trials of azacitidine in CMML based on historical data.
- Particularly, real-world data on efficacy and safety of azacitidine therapy in 24 patients with CMML from a multicenter, retrospective study in **China** published in July 2022 **showed an ORR of 37.5% with a CR rate and a mCR/HI rate of 8.3% and 20.8%, respectively**. In contrast, in our Phase II trial for the combination of IMM01 and azacitidine, among the 13 evaluable patients (≥6 months) with 1L CMML, six reached complete response (**6 CRs**), four reached marrow complete response with two hematological improvement (**2 mCRs + HI and 2 mCRs alone**), and one reached hematological improvement alone (**1 HI alone**), **resulting in an ORR of 84.6% and a CR rate of 46.2%.**

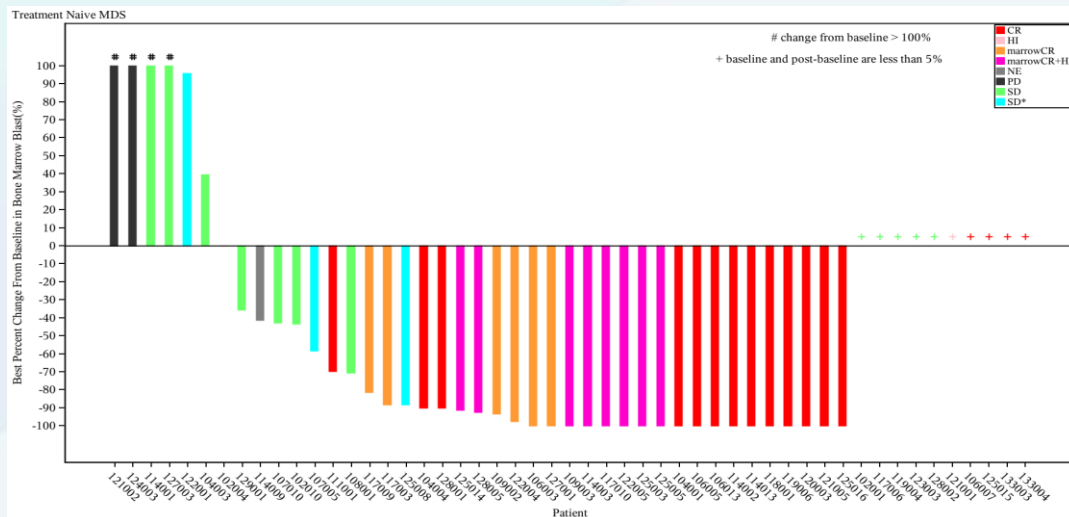
Notes:

- ORR refers to overall response rate; CR refers to complete response.
- There were no head-to-head comparison clinical trials conducted between these drugs. The results of clinical trials of a drug cannot be directly compared to that of another drug and may not be representative of the overall data.

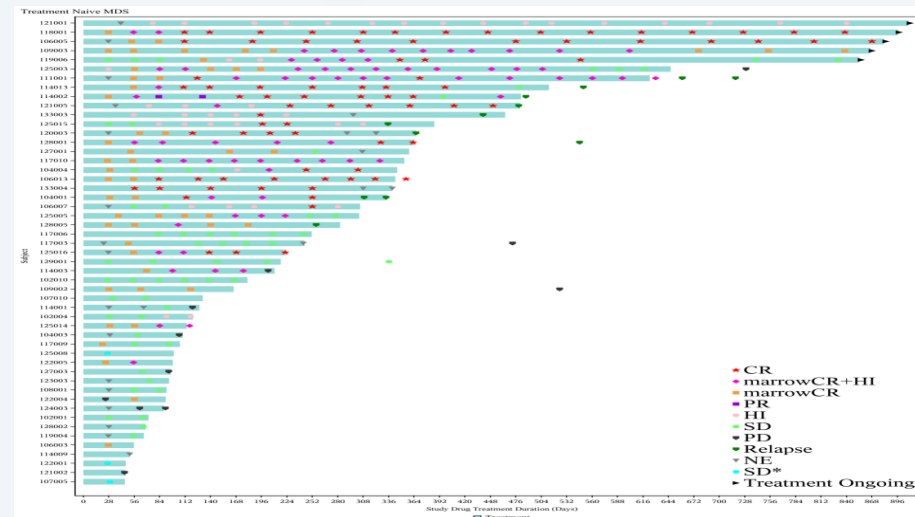
Source: Literature Review; Company Data, the clinical data is as of Dec 31st, 2024

IMM01 (timdarpaccept) + Azacitidine in 1L MDS (Phase II)

Best Percentage Change from Baseline in the Blast Cells in the Bone Marrow (%)



Duration of Treatment and Response



Phase III study of IMM01 in combination with azacitidine in patients with newly diagnosed higher-risk MDS was approved by NMPA in May 2024

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Best Overall Response n (%)	1L MDS (N=51)	≥4 months (N=34)	≥6 months (N=29)
ORR	33 (64.7%)	29 (85.3%)	26 (89.7%)
DCR	45 (88.2%)	34 (100%)	29 (100%)
CR	17 (33.3%)	17 (50.0%)	17 (58.6%)
mCR+HI	8 (15.7%)	7 (20.6%)	6 (20.7%)
mCR alone	6 (11.8%)	3 (8.8%)	2 (6.9%)
HI	2 (3.9%)	2 (5.9%)	1 (3.4%)
SD	12 (23.5%)	5 (14.7%)	3 (10.3%)

IMM01 (timdarpaccept) + Azacitidine

Comparison: Safety results

Magrolimab + AZA vs AZA alone

TRAE	MDS Ib Magrolimab + AZA (N=95)		AZA-001 MRCT AZA alone (N=175)	
	All grades, N(%)	≥Grade 3, N(%)	All grades, N(%)	≥Grade 3, N(%)
Anemia	49 (51.6%)	45 (47.4%)	90 (51.4%)	24 (13.7%)
Leukopenia	28 (29.5%)	28 (29.5%)	32 (18.2%)	26 (14.9%)
Neutropenia	45 (47.4%)	44 (46.3%)	115 (65.7%)	107 (61.1%)
Febrile neutropenia	29 (30.5%)	27 (28.4%)	24 (13.7%)	22 (12.6%)
Thrombocytopenia	52 (54.7%)	44 (46.3%)	122 (69.7%)	102 (58.3%)

Compared to the trial of AZA alone, **significant higher rates of occurrence of some TRAEs** (such as anemia, leukopenia and febrile neutropenia) were observed in the clinical trial for the combination of Magrolimab and AZA.

IMM01 + AZA vs AZA alone

TRAE	IMM01-02 Study – MDS Cohort IMM01 + AZA (N=57)		China MDS-002 Single-arm Study AZA alone (N=72)	
	All grades, N(%)	≥Grade 3, N(%)	All grades, N(%)	≥Grade 3, N(%)
Anemia	27 (47.4%)	25 (43.9%)	38 (52.8%)	35 (48.6%)
Neutropenia	38 (66.7%)	38 (66.7%)	48 (66.7%)	48 (66.7%)
Thrombocytopenia	41 (71.9%)	38 (66.7%)	52 (72.2%)	50 (69.4%)

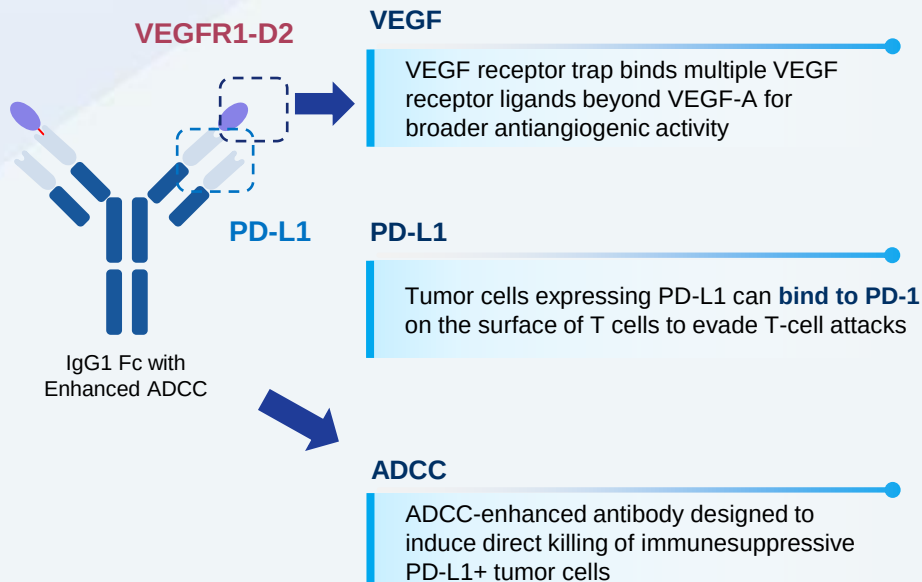
Compared to the trial of AZA alone, **similar rates of occurrence of TRAEs** were observed in our phase II trial for the combination of IMM01 and AZA.

IMM2510 (palverafusp alfa) (VEGF × PD-L1)

A bsAb with the mAb-Trap Structure Targeting VEGF and PD-L1

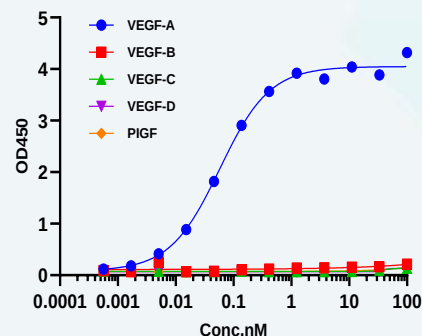
IMM2510 - Target Introduction and Molecule Structure

IMM2510 Molecule Structure

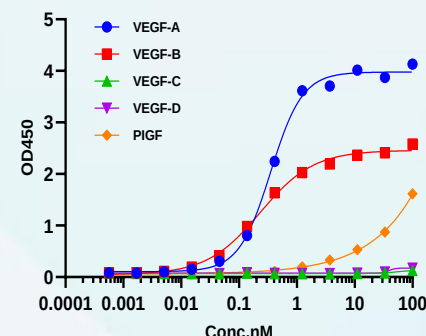


IMM2510 binds multiple VEGF receptor ligands

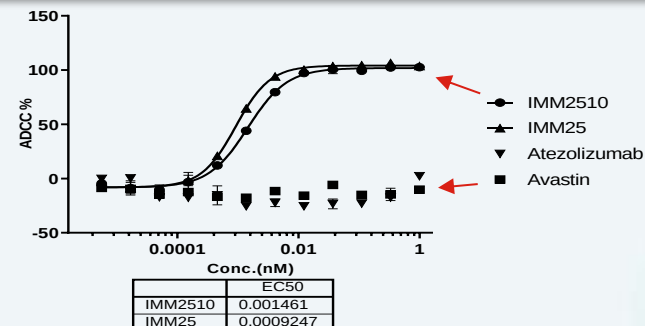
Avastin binding to various VEGFs



IMM2510 binding to various VEGFs



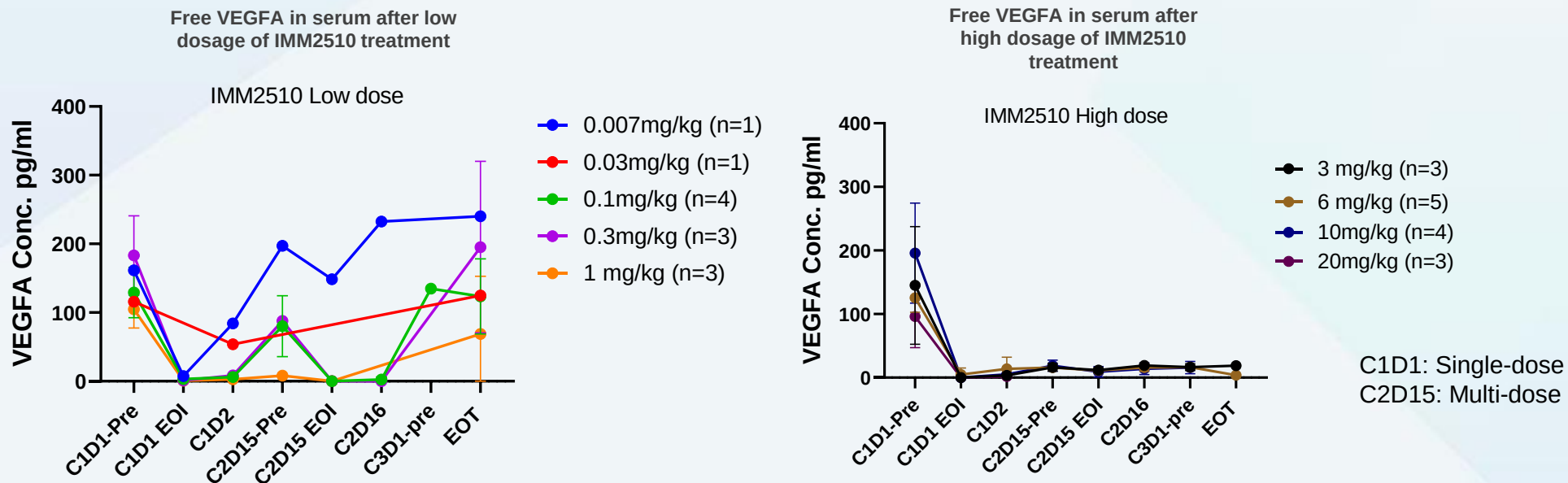
IMM2510 has enhanced ADCC activity



IMM2510 (palverafusp alfa) (VEGF × PD-L1)

IMM2510 at Doses of 3.0 mg/kg or Greater, Achieved Complete Blockade of Circulating VEGF-A

PD Analysis

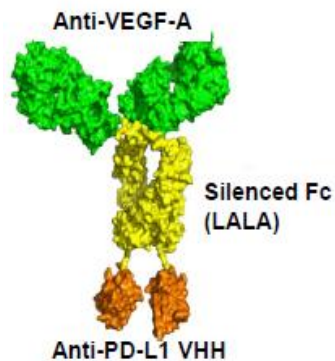
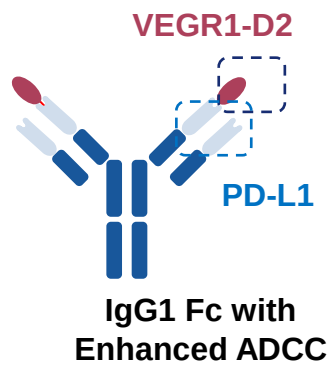


In total, serum samples from 27 patients were subjected to a validated anti-human VEGF-A assessment using the U-PLEX Human VEGF-A Assay kit.

IMM2510 (palverafusp alfa) (VEGF × PD-L1)

Key Competitor Landscape

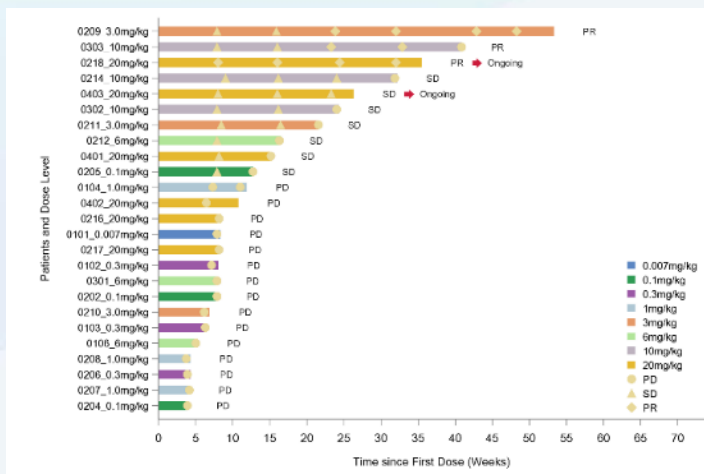
	IMM2510	PM8002	AK112
VEGF binding	VEGF-A, VEGF-B, PlGF	VEGF-A	VEGF-A
PD-1 or PD-L1	PD-L1	PD-L1	PD-1
ADCC	Enhanced ADCC	None	None



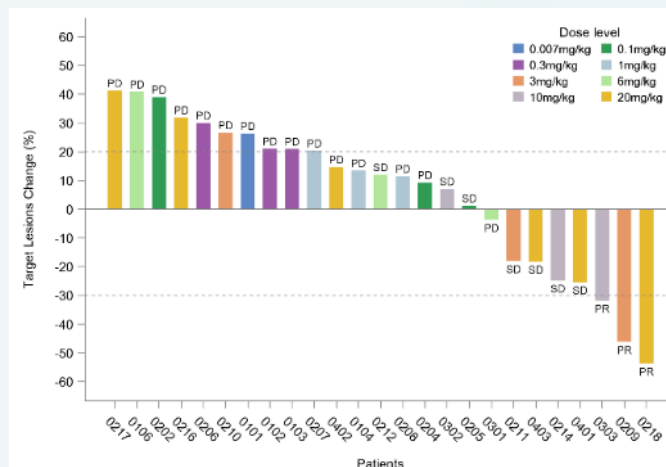
IMM2510 (palverafusp alfa) (VEGF × PD-L1)

Phase Ia: Efficacy Summary in advanced solid tumors

Duration of Treatment and Response



Best Percentage Change from Baseline in Target Lesion



- As of Dec 21, 2023 (CSR report date) ORR 12.0% (3 PR), DCR 40.0% (3 PR+7 SD), based on 25 evaluable patients in phase Ia.
- 3 patients had confirmed PR:
 - 1 patient with sq-NSCLC (onco-driver gene negative, previous IO treatment failure) at 3 mg/kg with tumor shrinkage 46%, and the PFS was 11.1+ months (censoring to data deadline due to no disease progression);
 - 1 patient with sq-NSCLC at 10 mg/kg with tumor shrinkage about 32%, and the PFS was 9.4 months;
 - 1 patient with thymus adeno-squamous carcinoma (PD-L1 CPS 80) at 20 mg/kg with tumor shrinkage over 53%, and the PFS was 7.4+ months (censoring to data deadline due to no disease progression).
- 7 patients evaluated SD and 4 of them had over 15% decreased tumor burden (1 cervical cancer at 3 mg/kg, 2 non-sq NSCLC at 10 and 20 mg/kg respectively, 1 ovarian cancer at 20 mg/kg).

IMM2510 (palverafusp alfa) (VEGF × PD-L1)

Global Collaboration

On August 1, 2024, we reached a license and collaboration agreement with Axion Bio, Inc. (a wholly-owned subsidiary of Instil Bio (TIL US)) (formerly known as SynBioTx Inc.), pursuant to which Axion will in-license the global rights (outside the Greater China region) to our proprietary PD-L1xVEGF bispecific molecule IMM2510, as well as our next-generation anti-CTLA-4 antibody (ADCC+) IMM27M.

We will receive an upfront payment and potential near-term payments of up to **US\$50 million** as well as potential additional development, regulatory, and commercial milestones payments of up to **US\$2.1 billion**, plus single digit to low double-digit percentage royalties on global (outside the Greater China region) net sales.

We have received **US\$15 million** as of December 31, 2024



Developing One Owned Patent Family



- 1 issued patent in each of the U.S. and Japan;
- 1 issued patent in the PRC
- 1 pending patent application in each of Europe and the U.S.

Synergistic effect validated by approved anti-PD-(L)1 and anti-VEGF combo

	 PD-L1	 VEGF	 PD-(L)1 Combo ¹
Molecule	  		
IL Treatment	UC, SCLC, NSCLC	CRC, NSCLC	RCC, HCC, NSCLC
Others	NSCLC, HNSCC, Melanoma HCC, RCC, UC, HL	GBM, CRC, NSCLC, RCC, OC, CC	EAC, CC

IMM2510 (palverafusp alfa) (VEGF × PD-L1)

Anticipated Catalysts in 2025

Dec 2024

1H 2025

2H 2025

- Phase Ib/II trial of IMM2510+ chemotherapy in 1L NSCLC FPI (China)
- Speed up the enrollment of 1L NSCLC patients in Phase Ib/II trial of IMM2510 + chemotherapy (China)
- Initial clinical data from Phase Ib/II trial of IMM2510+chemotherapy in 1L NSCLC (China)
- Initiation of Phase Ib/II trial of IMM2510(AXN2510)+ chemotherapy in 1L NSCLC subject to regulatory approval (US)

IMM27M (tazlestobart) (CTLA-4 ADCC+)

A CTLA-4 mAb with Enhanced ADCC Activity



IMM27M - Mechanism of Action and Limitations of Approved Molecule

IMM27M Molecule Structure



Engineered IgG1 CTLA-4 mAb with Enhanced ADCC



Blocking the interaction between CTLA-4 and CD80/CD86, and thus enhancing immune responses of T cells to tumor antigens



Inducing enhanced immune responses targeting CTLA-4 **overexpressed T_{reg} cells**



Promoting T_{reg} **depletion**, thus improving T-cell antitumor response to kill tumor cells

Currently Approved CTLA-4 Antibody with Unmodified Fc:



Limited efficacy



High dosage to achieve desirable efficacy



Serious safety issues



Clinical Development Plan

Jun 2022

Mar 2023

Sept 2023

July 2024

Phase I mono

IMM27M+PD-1
(advanced solid tumors)
IND approval for Ph Ib/II

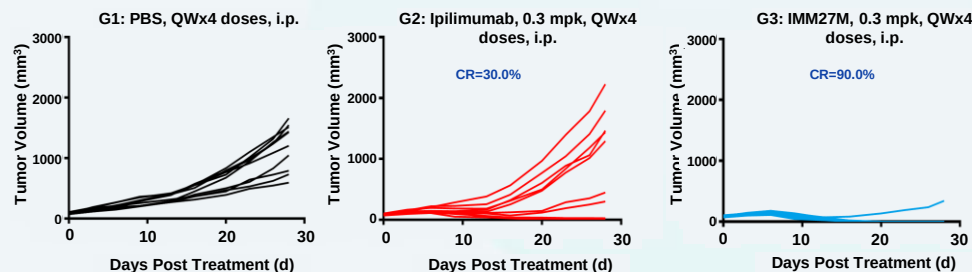
Phase I mono
completed and confirmed RP2D

IMM2510 +
IMM27M FPI

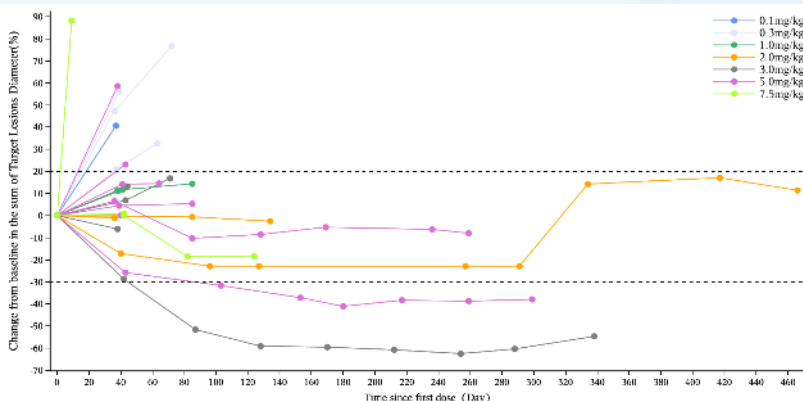


Stronger In Vivo Antitumor Effects and Preliminary Ph1 data

Efficacy Study in Colon Cancer (MC38) Syngeneic Mouse Model



Duration of Treatment and Best Response in Phase I



Preliminary efficacy:

2 confirmed PR and 3 SD with tumor shrinkage

Source: Company Data; The clinical data is as of Dec 31st, 2024

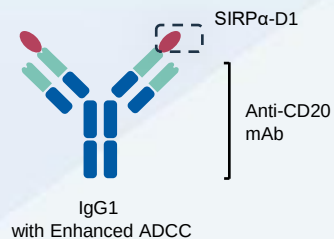
IMM0306 (amulirafusp alfa) (CD47×CD20)

1st CD47 and CD20 Dual-targeting Bispecific to Enter into the Clinical Stage Globally



Overview

IMM0306 Molecule Structure



Full macrophage activation

Improved ADCP and ADCC activity

Improved effectiveness for treating patients predominantly expressing FcγRIIIA-158F polymorphism that is less sensitive to CD20 antibody treatment

Market Opportunities and Competition



Unmet needs of R/R B-NHL treatment:

- ✓ CD20 antibody combined with chemotherapy are recommended for 1L & later line treatment
- ✓ However, **approximately 50% of B-NHL patients will eventually relapse**



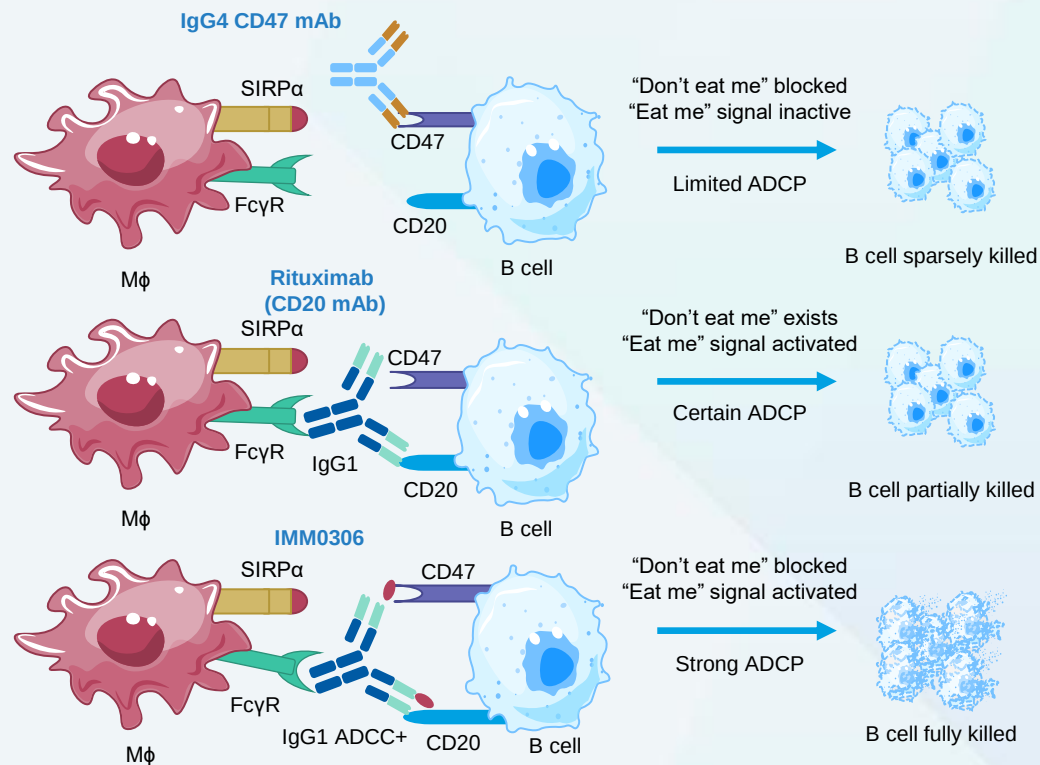
2 CD47×CD20 bispecific antibodies/fusion proteins under development globally
Among them, IMM0306 is the **1st** to enter into a clinical trial



Have great potential in addressing the **unmet needs of R/R B-NHL treatment**



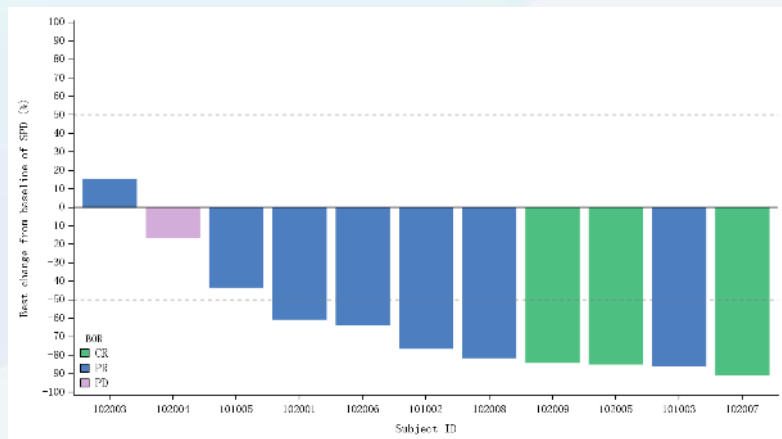
Mechanism of Action



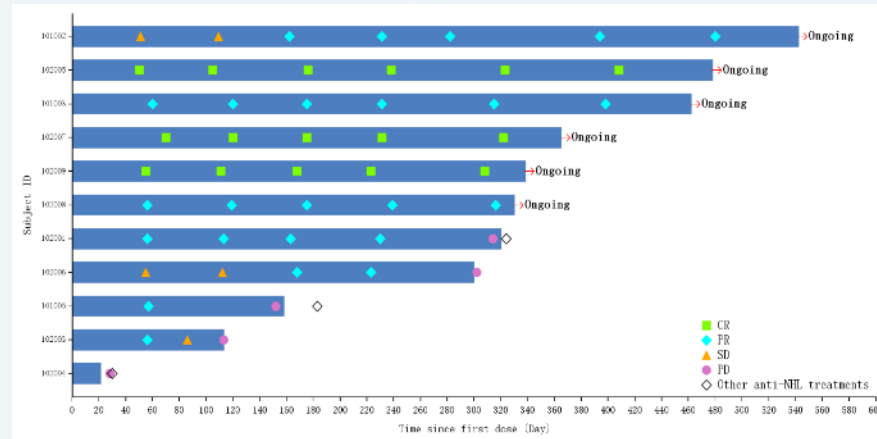
IMM0306 (amulirafusp alfa) (CD47×CD20)

1st CD47 and CD20 Dual-targeting Bispecific to Enter the Clinical Stage Globally

Best Percentage Change from Baseline in Target Lesion in Phase Ib



Duration of Treatment and Response in Phase Ib



Developing In-house and Own its IP and Commercial Rights



5 issued patents in China, Japan, Europe (validated in the ES, CH, DE, FR, GB, IT) and the U.S.

IMM0306 + Lenalidomide Phase Ib

Best Overall Response n (%)	Efficacy Evaluable (N=11)
ORR	10 (90.9)
CR	3 (27.3)
PR	7 (63.6)
PD	1 (9.1)

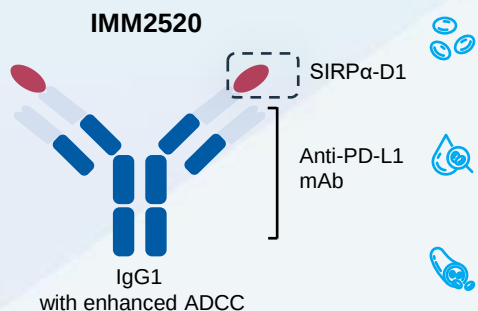
Source: Company Data; The clinical data is as of Dec 31st, 2024

Note: the data of Phase IIa R/R FL will be presented at ASCO 2025

IMM2520 (CD47×PD-L1)



Overview



A CD47 and PD-L1 dual-targeting bispecific molecule for the treatment of solid tumors

Unique structure to **avoid RBC binding**

Engineered ADCC-enhanced IgG1 Fc fragment to **fully activate macrophages** and **induce enhanced ADCC and ADCC activity**



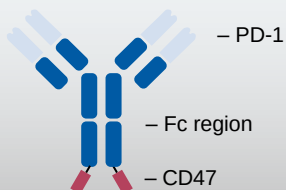
Competition Landscape

Other 9 CD47 and PD-1/PD-L1 bispecific molecules under clinical development

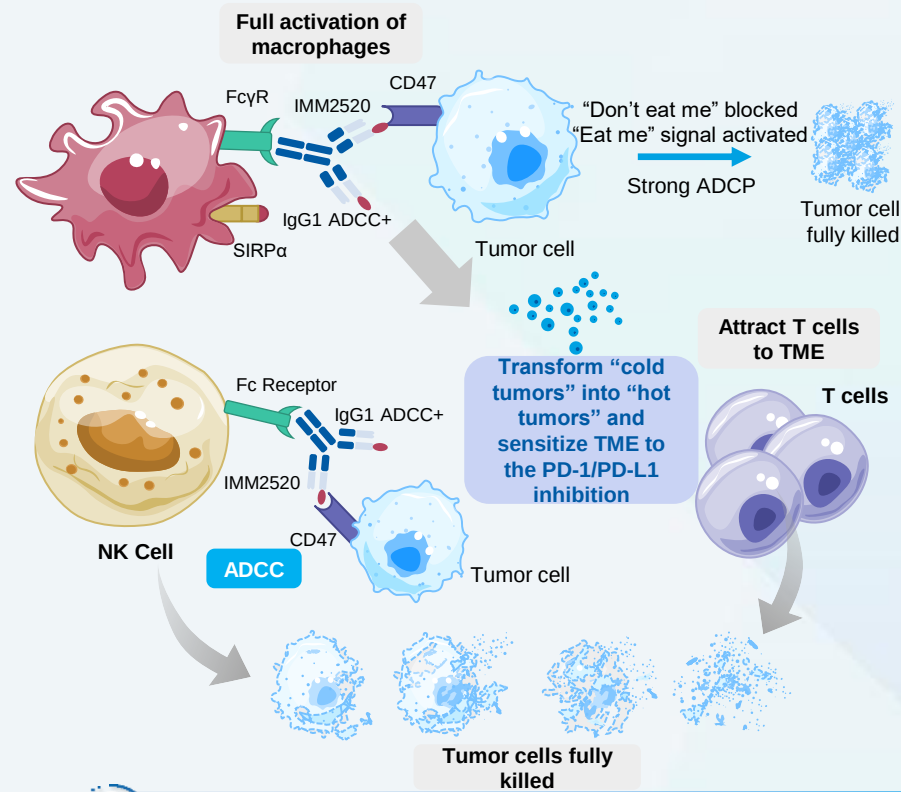


- ✓ Bispecific molecule formats: certain molecules connect the CD47-binding to the Fc end, which could disrupt immune activation resulted from Fc-FcγR engagement
- ✓ IgG4 Fc: several molecules resort to an IgG4 Fc region with weak FcγR engagement

HX009 (Hans Bio)



Mechanism of Action



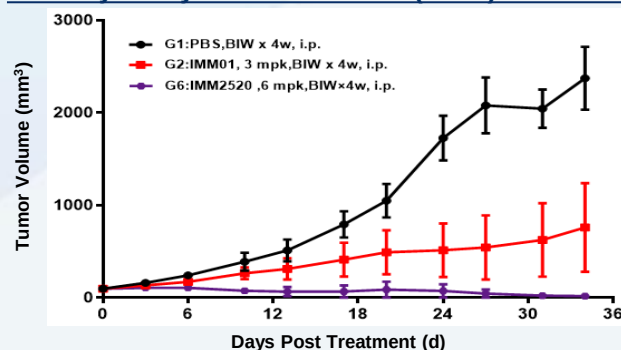
Due to the crosstalk among macrophages, NK cells and T cells, IMM2520 is able to unleash significant synergistic effects

IMM2520 (CD47×PD-L1)



Preclinical Results

Efficacy Study in Colon Cancer (CT26) Mouse Model ⁽¹⁾



Note:

1. IMM2505 is a first-generation CD47 and PD-L1 bispecific molecule internally developed by us; (2) Six mice per group were used in this study
Source: Company data



IMM2520 has also demonstrated a **favorable safety profile**. Its engineered CD47-binding domain shows no binding activity with human RBCs *in vitro*.

Developing In-house and Own its IP and Commercial Rights



1 issued patent in Japan

1 issued patent in PRC

1 issued patent in the U.S.

Several pending patent applications in Europe, the U.S. Korea and Brazil



Market Opportunities and Clinical Development Plan

Opportunities

A huge market potential for IMM2520



- ✓ A wide range of cancer indications with high macrophage infiltration
- ✓ Only about 10% to 25% of patients across almost all major cancer types respond to PD-1/PD-L1 inhibitor monotherapy, including but not limited to **NSCLC, SCLC, CRC, GC, HNSCC, HCC, ESCC, OC, prostate cancer, and pancreatic cancer**

Clinical Development Plan

Have obtained IND approvals from the NMPA in November 2022 and from the FDA in December 2022; Phase I commenced in China in March 2023. Expect to complete this trial in 2024.



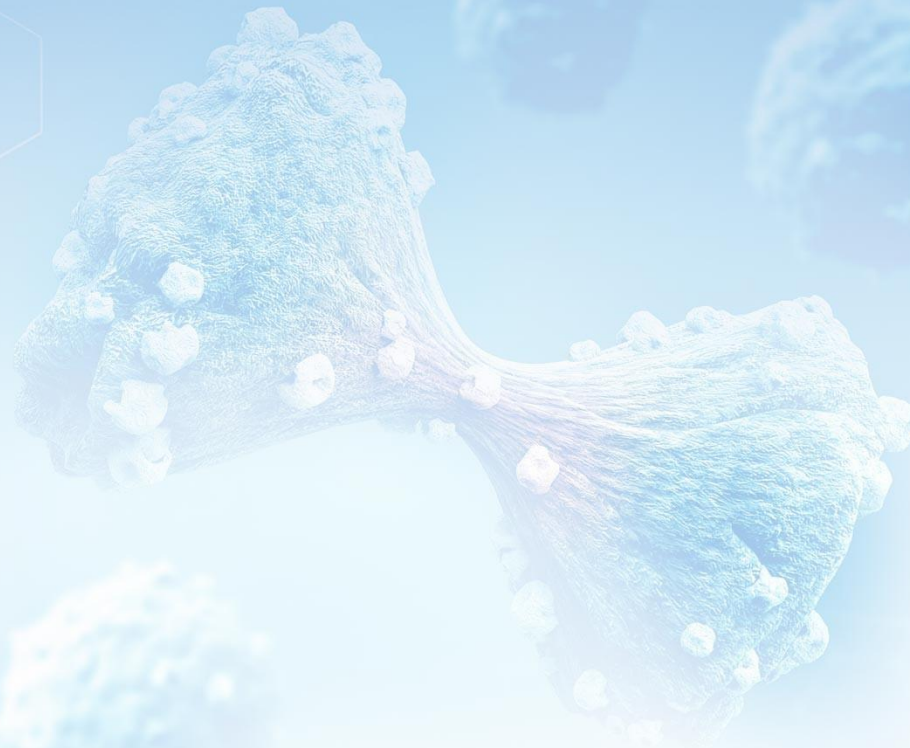
Phase I Preliminary Efficacy

As of December 31, 2024, 26 patients have been enrolled and dosed. The preliminary data has demonstrated that IMM2520 is safe and well tolerated. One PR and two SDs with tumor shrinkage over 10% were achieved. The patient had PR was diagnosed as small cell lung cancer who failed for immunotherapy.



SECTION 3

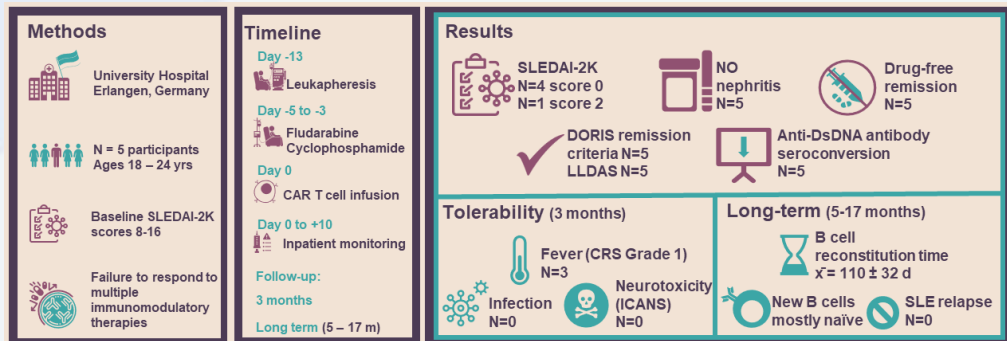
Non-Oncology Programs



IMM0306 (amulirafusp alfa) (CD47xCD20/mAb-Trap)

B-cell depletion was observed in IMM0306 clinical studies, presents a strong potential in the treatments of autoimmune diseases

A study conducted by Dr. Georg Schett at the University of Erlangen-Nuremberg showed that **deep depletion of B cells** was observed following CD19+ CAR-T treatment in 15 patients, including 8 with systemic lupus erythematosus (SLE), 3 with idiopathic inflammatory myopathies (IIM), and 4 with multiple sclerosis (MS). All patients achieved drug-free remission after the reappearance of B cells, and there were no relapses reported during the 2-year follow-up period.

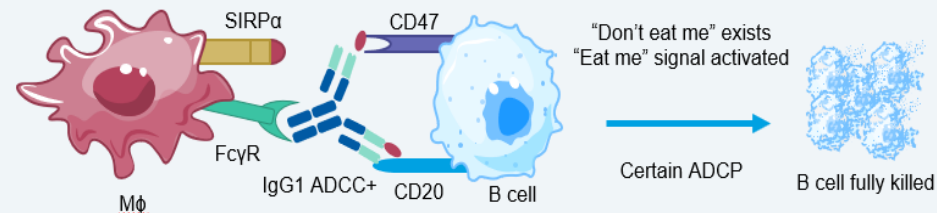


RITUXAN® (rituximab, CD20) was approved by FDA in 2006 for the treatment of **rheumatoid arthritis (RA)**;

 **BRIUMVI™ (Ublituximab, CD20)** was approved by FDA in 2022 for the treatment of **multiple sclerosis (MS)**;

B-cell depletion therapies (BCDTs) are widely used in the treatments of autoimmune diseases.

Mechanism of Action

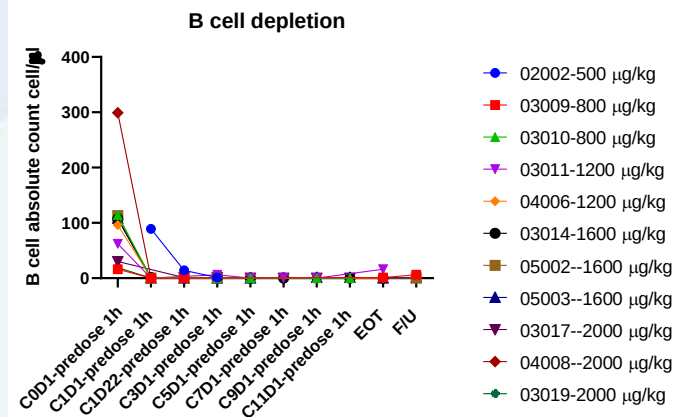


	IMM0306	SIRPα-Fc	CD47 mAb IgG4	Rituximab
ADCP	+++	+++	+	++
ADCC	+++	+	+	++
CDC	++	No	N/A	+++
Induction of hemagglutination	No	No	Yes	Not relevant

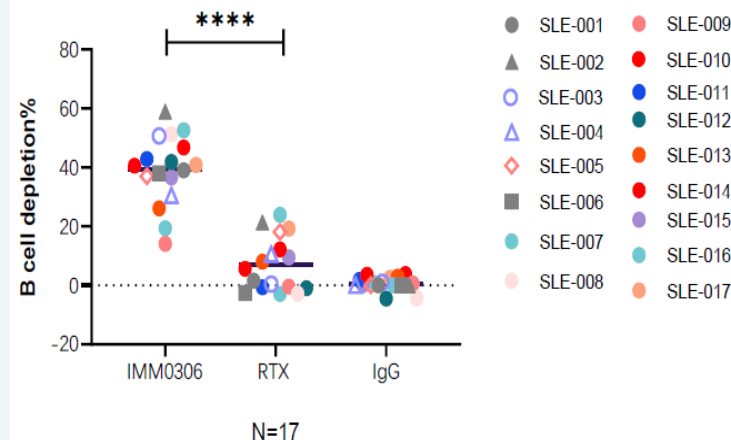
IMM0306 (amulirafusp alfa) (CD47xCD20/mAb-Trap)



Peripheral B cell depletion by IMM0306 was observed in a wide range of clinical dose



Stronger B cell depletion capacity than rituximab

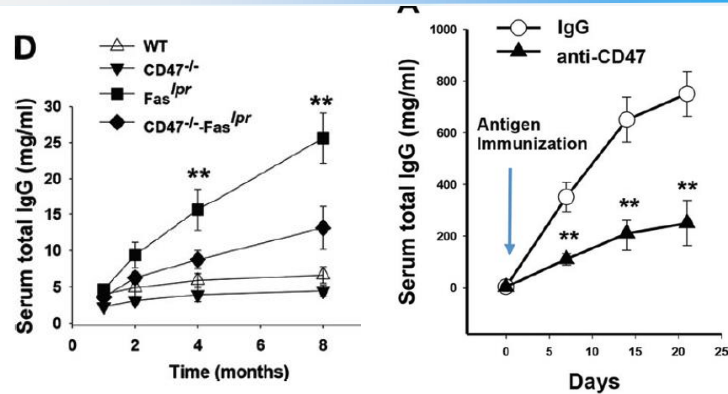


Blood samples from 17 patients with SLE were respectively incubated for 72 hrs with IMM0306 ($1\mu\text{g/ml}$), Rituximab (RTX) ($1\mu\text{g/ml}$), or IgG control ($1\mu\text{g/ml}$). B cell depletion was analyzed by staining for CD19 and monitored by FACS analysis.

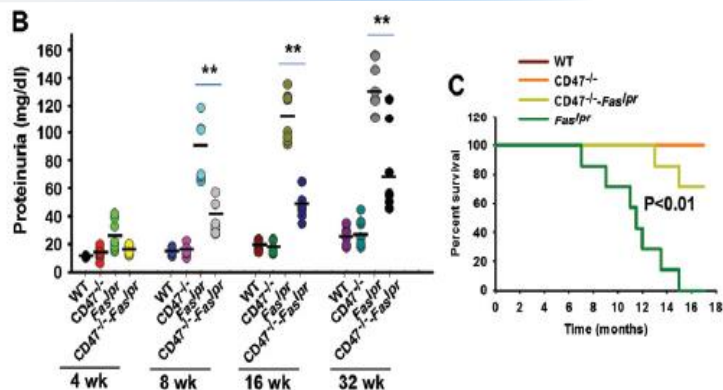
IMM0306 (amulirafusp alfa) (CD47xCD20/mAb-Trap)

CD47 contributes to pathogenesis of lupus nephritis

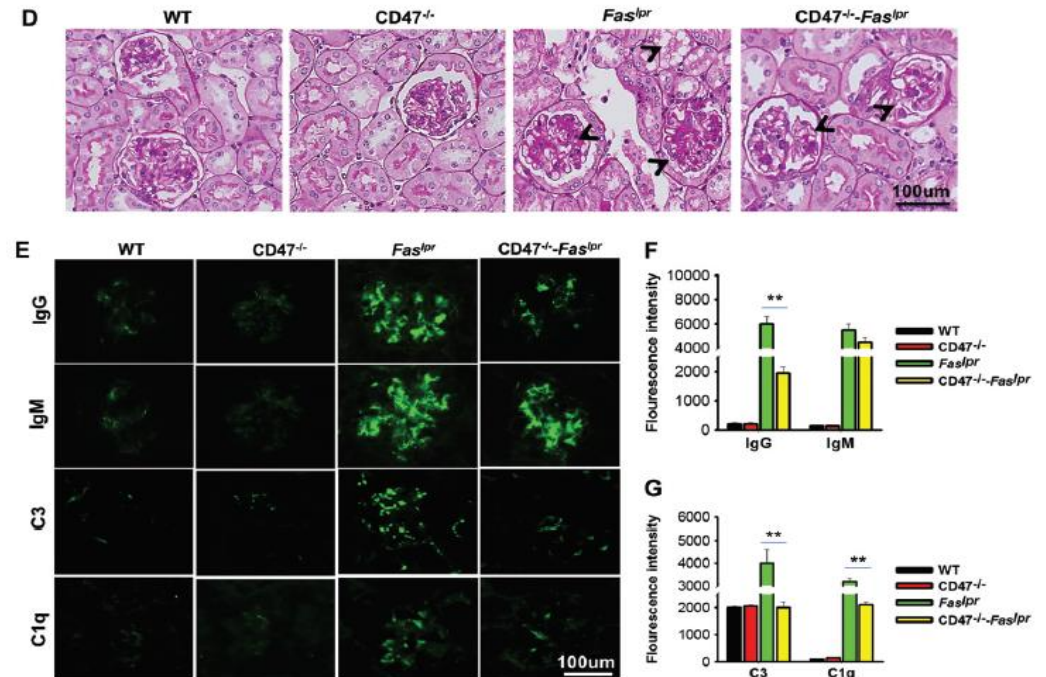
Knockout of CD47 reduces IgG levels and improves lupus nephritis



CD47 knockout in Fas^{lpr} LN disease model resulted in decreased proteinuria levels and prolonged survival

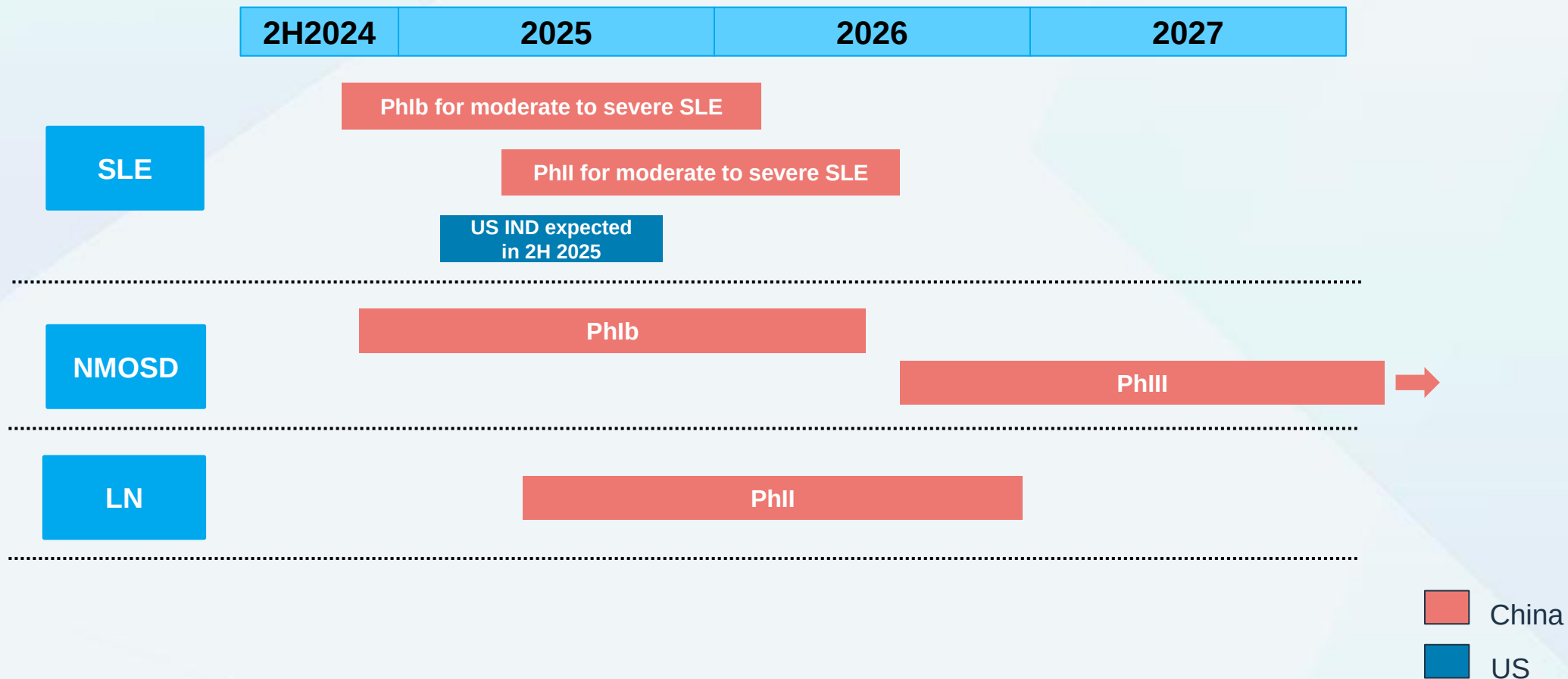


CD47 knockout in Fas^{lpr} LN disease model resulted in remission of glomerular base membrane thickening and significantly reduced autoantibodies and complement deposition



IMM0306 (amulirafusp alfa) (CD47xCD20/mAb-Trap)

Potential Global Development Plan



IMM0306 (amulirafusp alfa) (CD47xCD20/mAb-Trap)

Since 2024, the global business development of innovative BsAb and TsAb in the autoimmune field has been booming

Product	Licenser	Licensee	Upfront and milestone payment	Time	Clinical trial progress
DR-0201 (CD20-directed BsAb MCE ¹)	Dren Bio	Sanofi	Upfront payment of \$600 million+ milestone payment of \$1.3 billion	2025.3	PhI study in B-NHL patients and is expanding into various autoimmune indications
CN201 (CD3×CD19 BsAb)	Curon Biopharma	MSD	Upfront payment of \$700 million+ milestone payment of \$600 million	Aug 2024	R/R NHL: PhI; R/R ALL: PhIb/II Autoimmune indications have not yet entered the clinical stage
CMG1A46 (CD3×CD19× CD20 TsAb)	Chimagen Biosciences	GSK	Upfront payment of \$300 million+ milestone payment of \$550 million	Oct 2024	Hematologic malignancies: PhI/II GSK plans to initiate a PhI trial for lupus in 1H 2025
GB261 (CD20×CD3 BsAb)	Genor Bio	TRC 2004	A double digit million US dollars upfront payment+ up to \$443 million in milestone payments	Aug 2024	Completed PhI/II B-NHL (DLBCL&FL) Autoimmune indications have not yet entered the clinical stage
CM336 (BCMA×CD3 BsAb)	Keymed Biosciences	Platina	Upfront and near-term payment of \$16 million+ up to \$610 million in milestone payments	Nov 2024	R/R MM:PhI/II Platina plans to initiate a PhI trial for the first autoimmune indication in 1H 2025
EMB-06 (BCMA×CD3 BsAb)	EpimAb Biotherapeutics	Vignette Bio	Upfront payment of \$60 million in cash and equity +up to \$575 million in milestone payments	Sep 2024	R/R MM: PhI/II Autoimmune indications have not yet entered the clinical stage
LBL-051 (CD3 × BCMA × CD19 TsAb)	Leads Biolabs	Oblenio	Upfront and near-term payment of \$35 million +up to \$579 million in milestone payments	Nov 2024	IND enabling

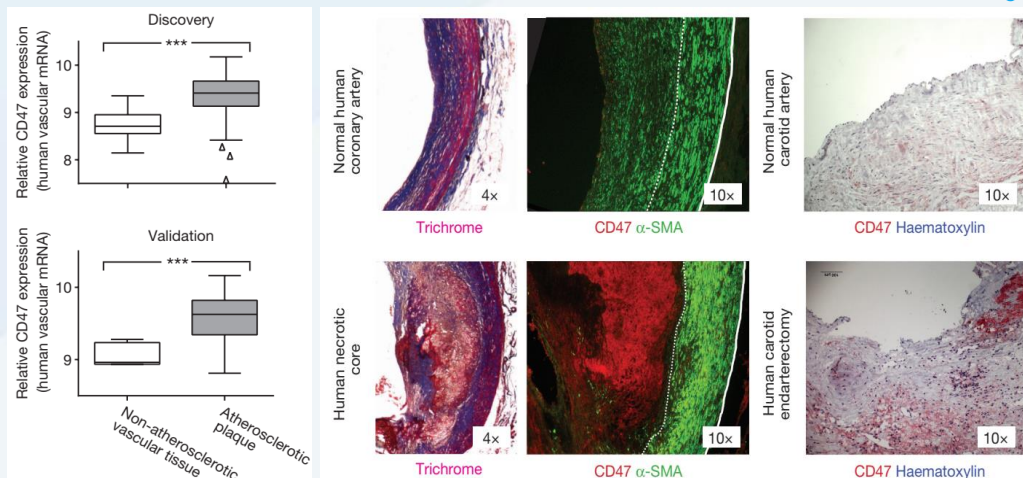
Note: PhIb enrollment for IMM0306 in SLE was initiated in Oct 2024 and preliminary data will be disclosed by mid-this year. PhIb enrollment for NMOSD began in Dec 2024. PhIIa enrollment for R/R FL has been completed, and the data will be presented at ASCO 2025

¹ MCE-myeloid cell engager

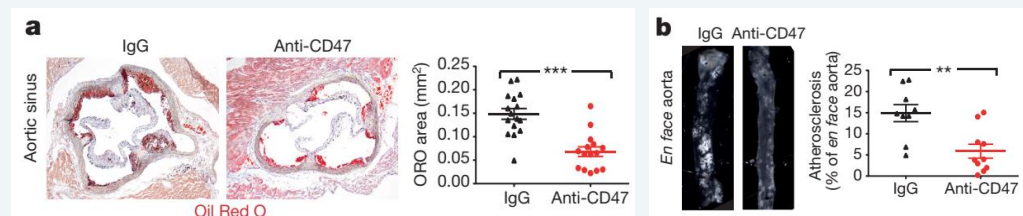
IMM01(timdarpacept)

Our CD47-targeted IMM01 presents a strong potential in treating atherosclerosis

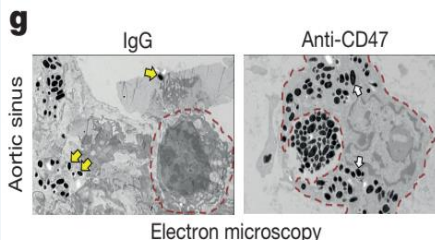
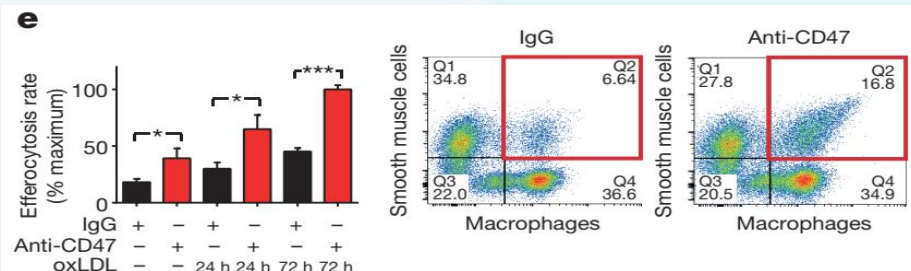
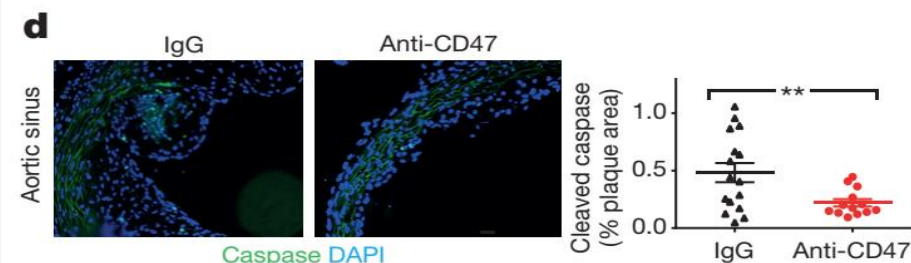
 CD47 is highly expressed in human atherosclerotic plaque



 Shrinkage of atherosclerotic plaque was observed in rat model by blocking the CD47/SIRPα signaling pathway



 By blocking the CD47 signal, macrophages can phagocytose the atherosclerotic plaque in rat vessel



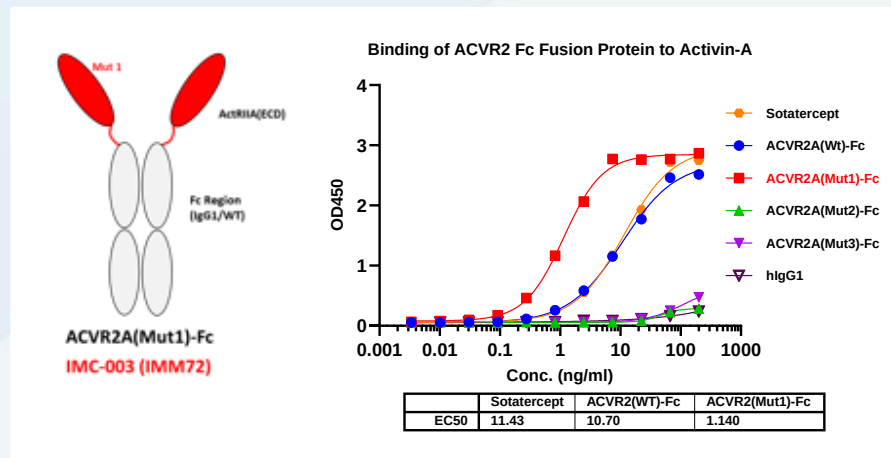
 **BITTERROOT BIO**

- Bitterroot Bio has one CD47/SIRPα that was developed for atherosclerosis
- Bitterroot Bio announced the completion of \$145 million round A funding in June 2023
- It was co-founded by Irv Weissman, Nick Leeper, John C. Martin and Lou Lange

IMC-003 (IMM72, ActRIIA/Fc-fusion)

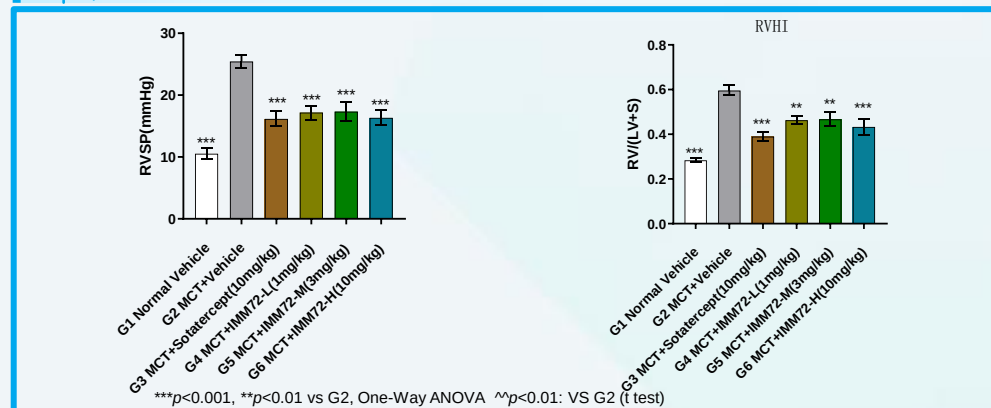
Preclinical Results

Compared to Sotatercept, IMC-003 has stronger binding and blocking capacity

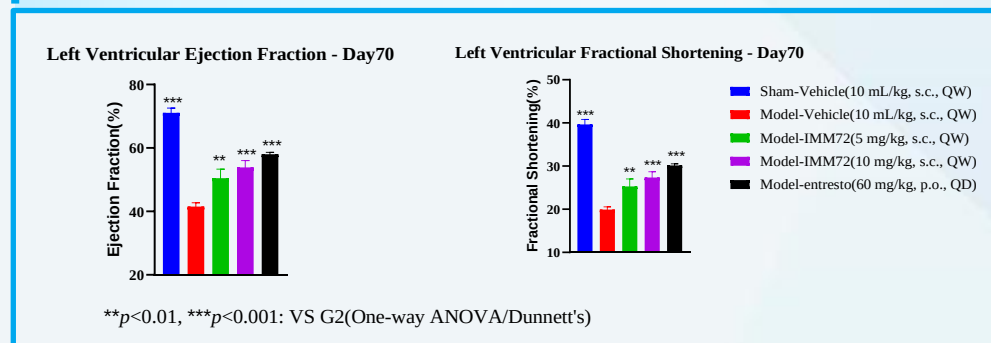


	IMC-003 (IMM72)	Sotatercept
Company	ImmuneOnco	MSD
Structure	ACVR2A-Fc (point mutation)	ACVR2A-Fc
Affinity	Comparable	Comparable
Binding (ELISA)	Stronger (≥7 times)	Medium
Blocking	Stronger	Medium
In vivo efficacy	Stronger	Medium

IMC-003 exhibits good efficacy in MCT induced PAH model



IMC-003 exhibits good efficacy in a TAC model of heart failure



IMC-003 (IMM72, ActRIIA/Fc-fusion)

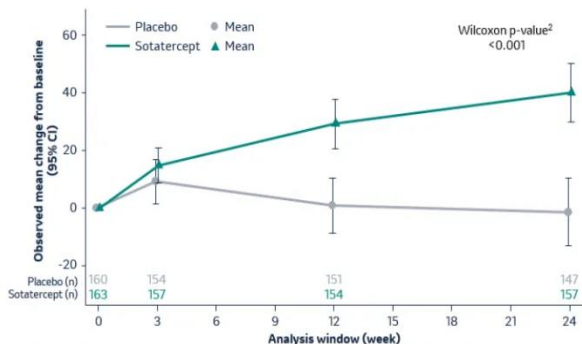
Pulmonary Arterial Hypertension (PAH) Market Potential



Sotatercept is the only approved drug that can reverse disease progression

STELLAR: sotatercept significantly improve 6-minute walk distance at week 24

Primary endpoint: Change from baseline in 6MWD at week 24¹



Statistically significant and clinically meaningful improvement in 6MWD by 40.8 meters³



The global PAH market size reached USD 7.3 billion in 2022 and is expected to hit around USD 12.18 billion by 2032

PRECEDENCE
RESEARCH

PULMONARY ARTERIAL HYPERTENSION MARKET SIZE 2022 TO 2032 (USD BILLION)

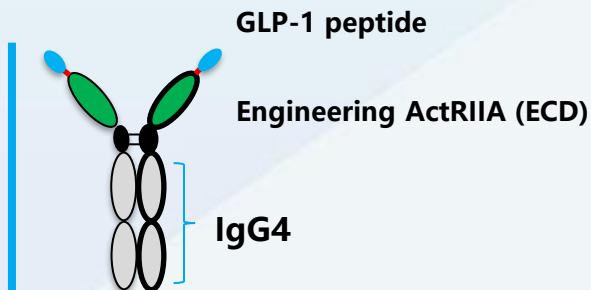


Source: www.precedenceresearch.com

- Sotatercept (brand name: WINREVAIR) was approved for marketing by the FDA on March 26, 2024, and achieved strong sales of **\$419 million** in 2024
- IMC-003 has completed pre-IND communication and is expected to receive IND approval in June 2025 from the CDE, making it the fastest progressing innovative molecule with the same target for the treatment of PAH in China, aside from sotatercept (currently in BLA stage)

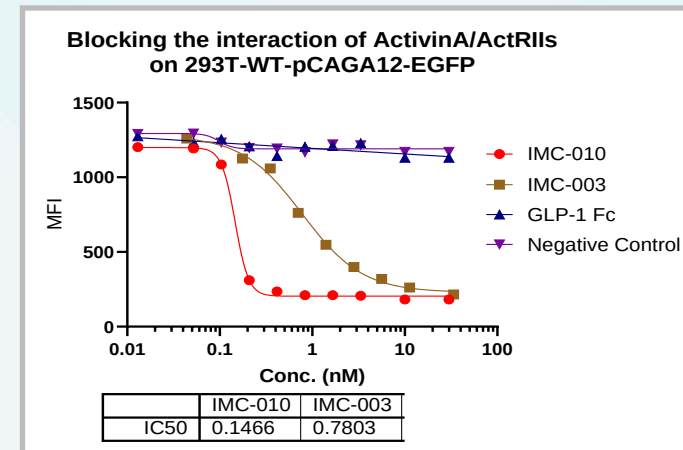
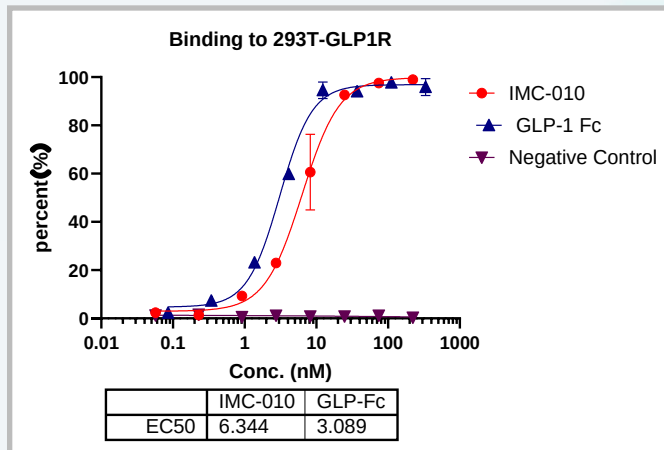
IMC-010 (IMM7220, GLP-1x ActRIIA Fc-fusion protein)

A Bispecific molecule Targeting GLP-1 and ActRIIA with Global First-in-Class Potential



- **IMC-010 (IMM7220)** is expected for the better treatments of Metabolic decrease, by targeting both **GLP-1** and **ActivinA/ActRIIs signaling pathway**. We are proceeding with in vivo efficacy study.
- **IMM7220's** blocking activity for Activin A/ActRIIs pathways is enhanced to around 5 folds over that of **IMM72**.

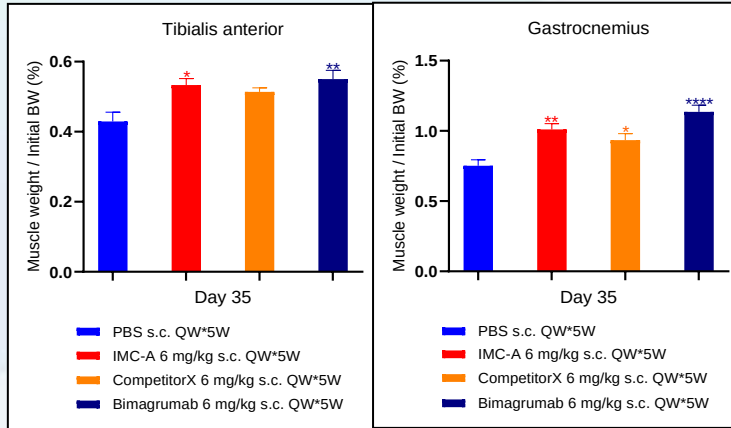
Activity



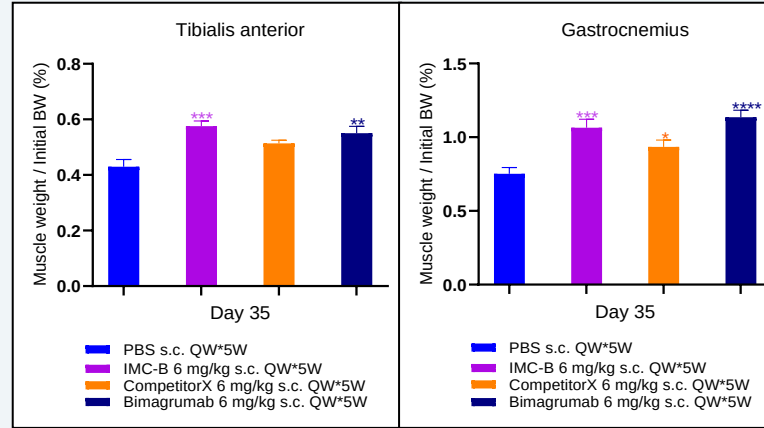
Innovative Molecule Matrix Targeting ActRIIA/B

In CB17-SCID mouse model, our candidates showed significant increase in muscle mass after once-weekly administration for 5 weeks

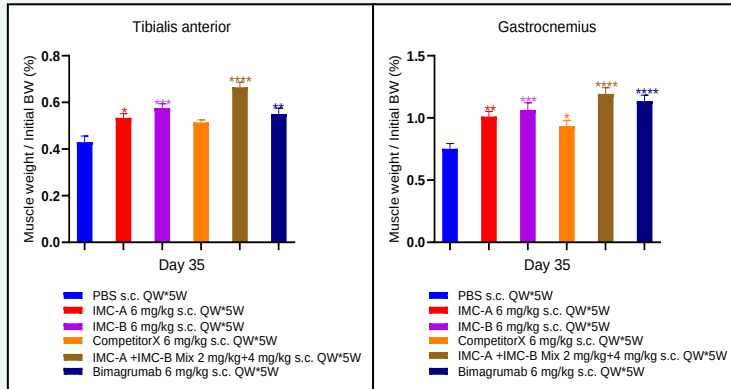
Candidate A's efficacy was better than competitorX



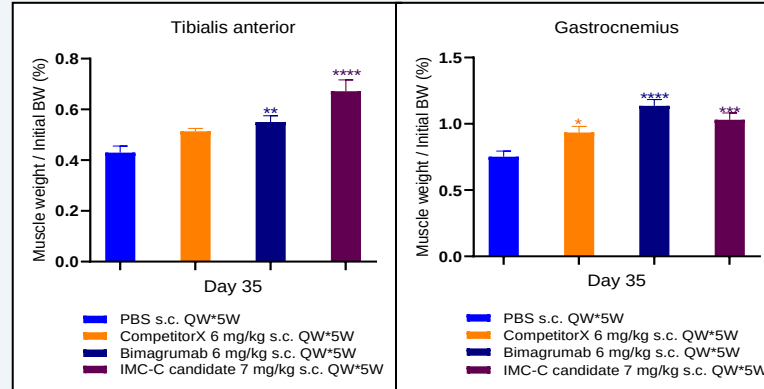
Candidate B's efficacy was superior to competitorX and comparable to bimagrumbab



Combo of candidate A and B exhibits the optimal efficacy



Candidate C can significantly increase muscle weight



a, Mean $\pm$ SEM; N=6.

b, p value was calculated based on different groups of muscle mass using vehicle group as the control by T-Test. *p<0.05; **p<0.01; ***p<0.001; ****p<0.0001.

IMC-A, IMC-B, IMC-C represents our candidate A(mAb), candidate B(mAb) and candidate C (BsAb) respectively.

IMC-010 (IMM7220, GLP-1x ActRIIA Fc-fusion protein)

ActRII biology in reducing fat mass while preserving muscle mass

ActRII biology in adipose tissue



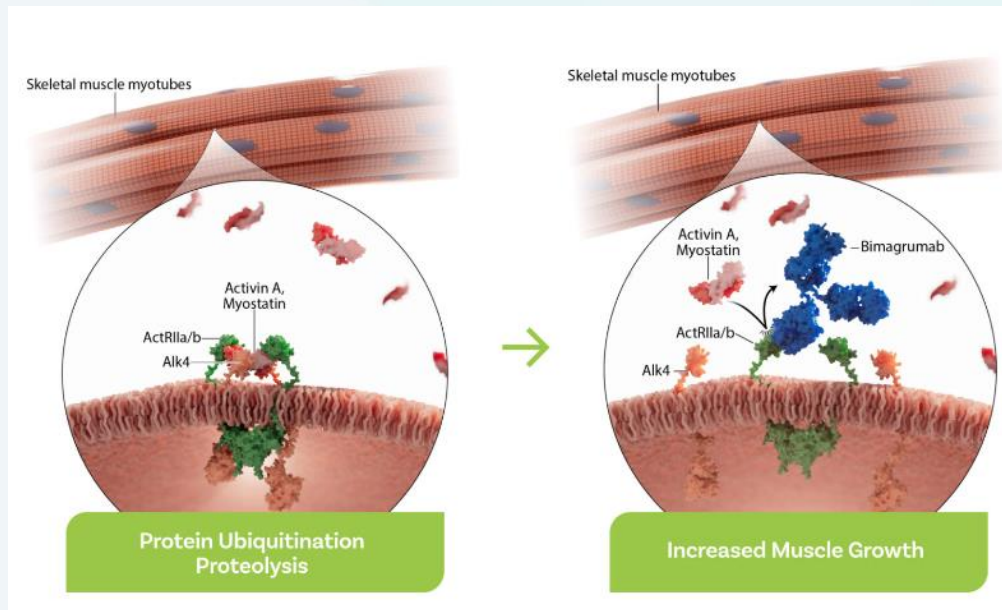
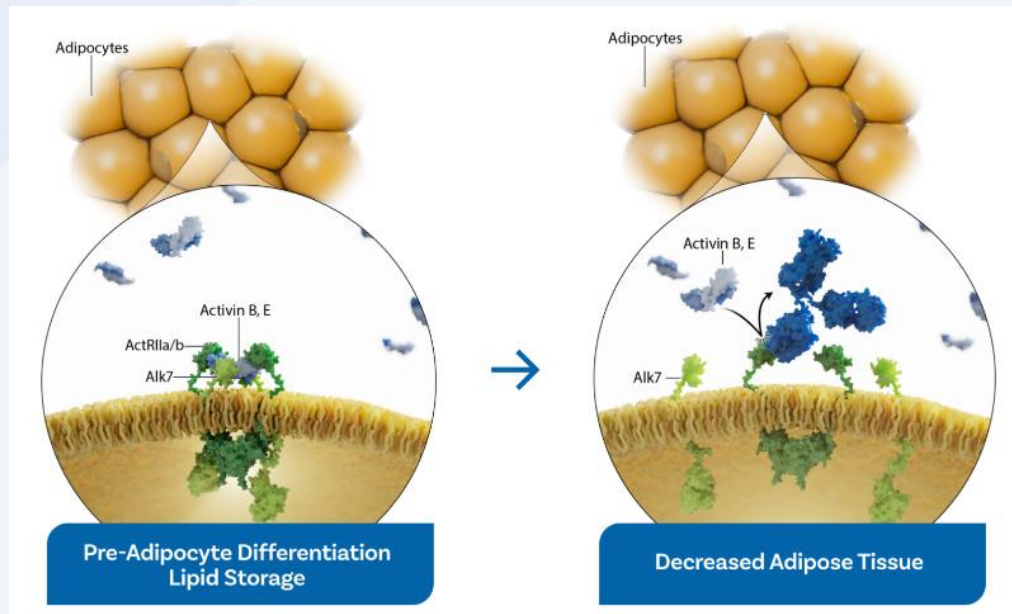
Activin signaling via ActRII receptors directly promotes lipid storage, acting as a key driver of visceral fat accumulation and obesity

By blocking ActRII signaling in adipose cells, can mobilize and metabolize fat.

ActRII biology in muscle tissue

Signaling via ActRII receptors inhibits muscle growth and promotes atrophy.

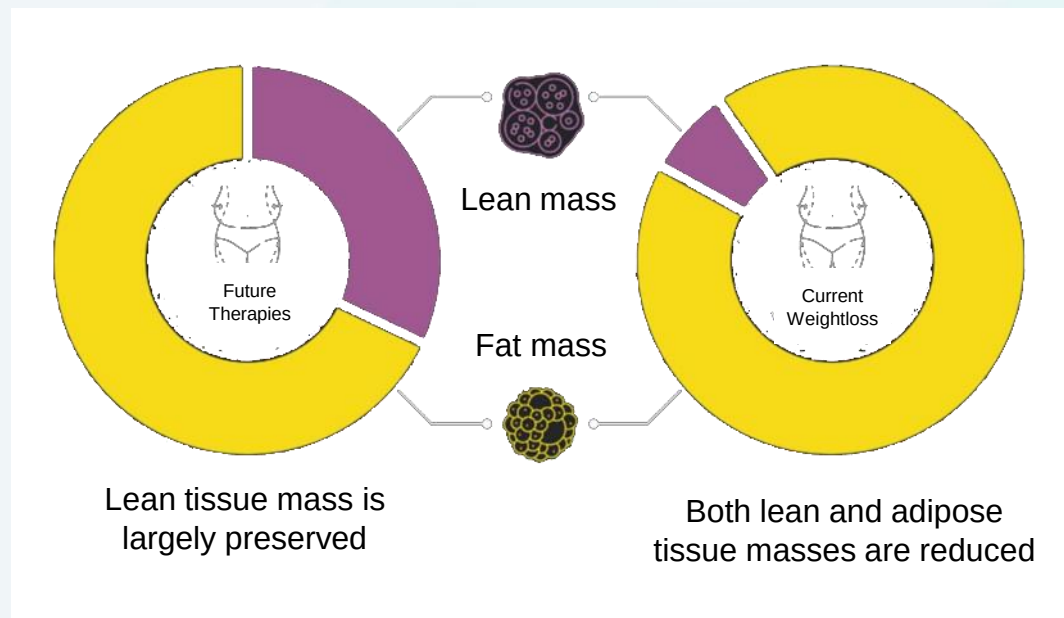
Blocking activin signaling in skeletal muscles inhibits this atrophy and can promote increases in muscle mass, helping patients with obesity improve body composition and metabolism while losing fat.



IMC-010 (IMM7220, GLP-1x ActRIIA Fc-fusion protein)

Obesity market and future therapies

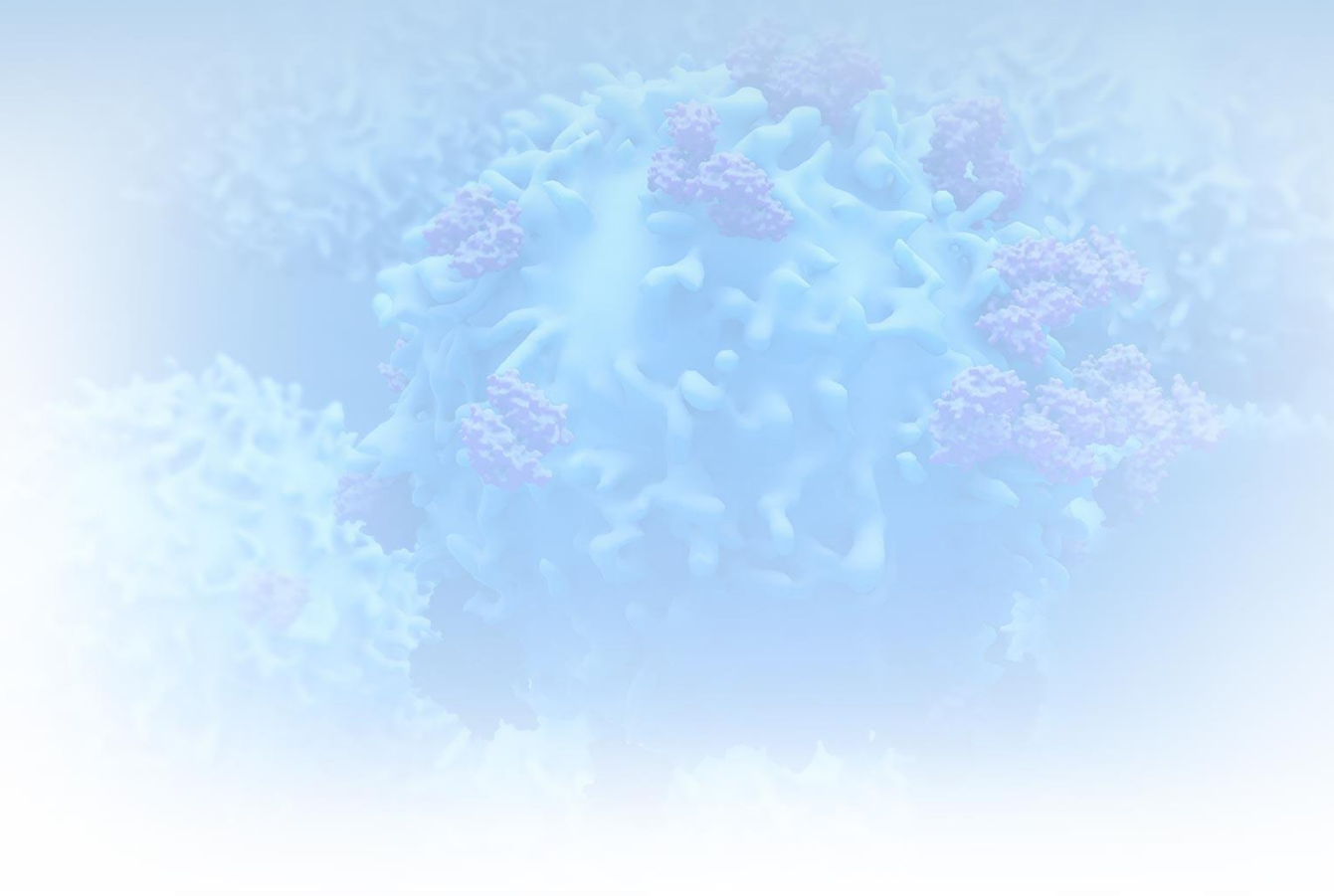
- Obesity market was valued at **\$140.3 billion** in 2023 and would reach to **\$351.8 billion** in 2033.
- Future therapies required adipose mass reducing but lean mass preserving.





SECTION 4

Financial Highlights

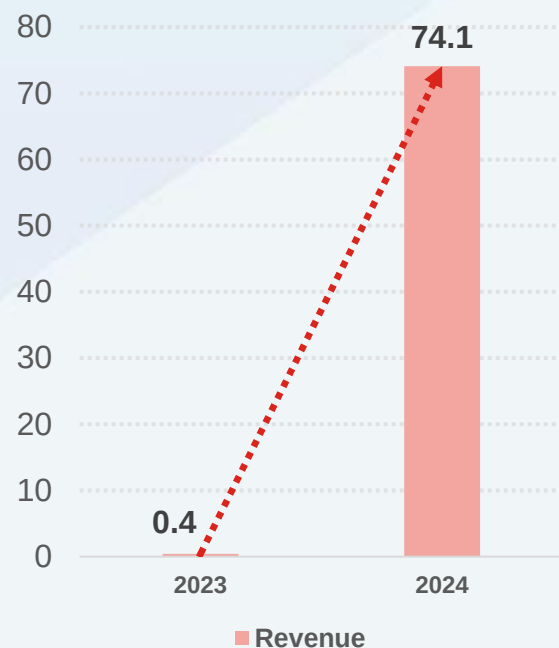


Financial Highlights

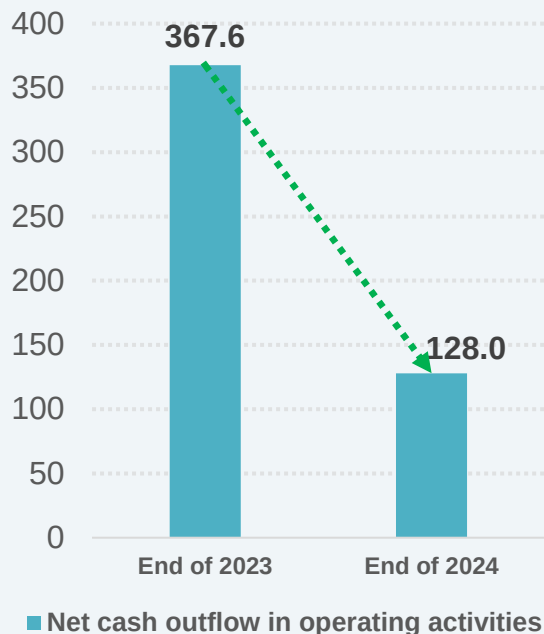


Our cash position increased to 752.1 million mainly due to the cash inflow of Out-licensing (RMB106.9mm) and the Placing (RMB212.3mm)

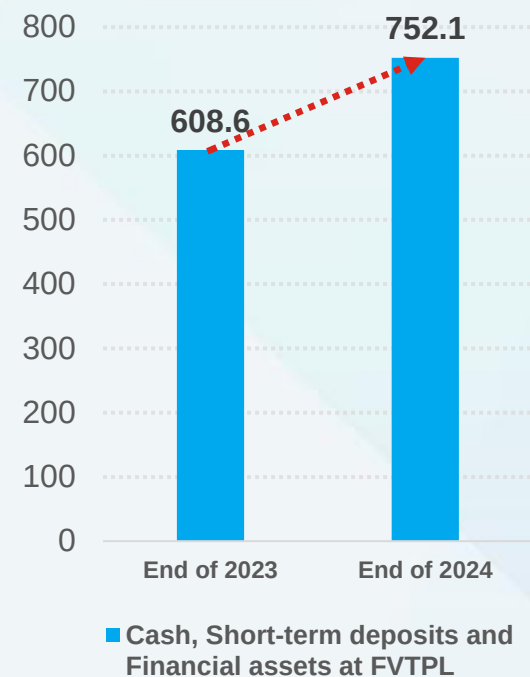
(RMB million)



(RMB million)



(RMB million)





APPENDIX :

Our Approach



Research Has Shown PD-1/PD-L1 Inhibitors Are Only Expected to be Effective in Hot Tumors, Corresponding to its Limited Monotherapy Response Rates, The Activation of Innate Immune Cells is Able to Attract T Cells into Tumor Microenvironment, Turning Cold Tumors to Hot Tumors, Significantly Improve the Response Rates of PD-1/PD-L1 Inhibitors

Type I

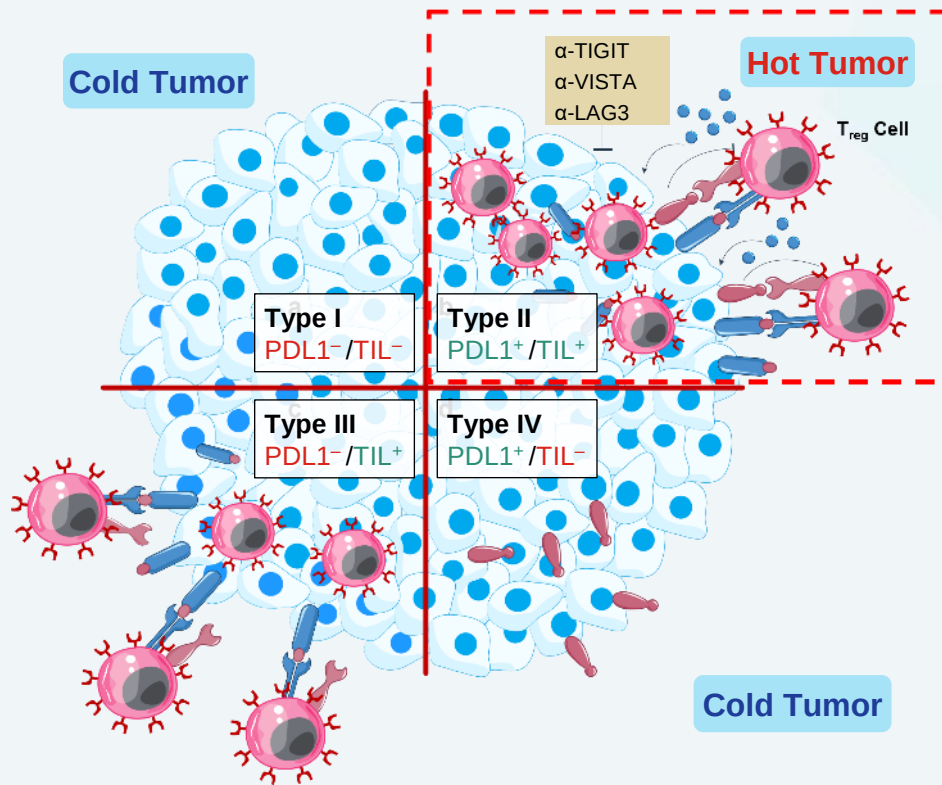
Lack of TILs in TME

Innate immune activation to induce inflammation and attract adaptive immune cells

Type III

Dysfunctional TILs activation

Activation of antigen specific T cells through antigen presenting cells



Type II

Overregulation of activated TILs

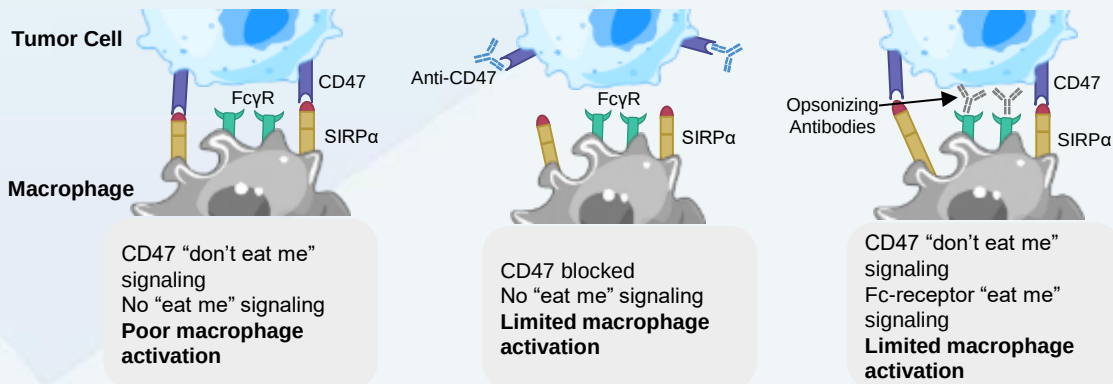
Type IV

Lack of TILs in TME

Innate immune activation to induce inflammation and attract adaptive immune cells

Scientifically and structurally differentiated molecule design based on our “drug-by-design (DbD)” concept to achieve potent efficacy and favorable safety

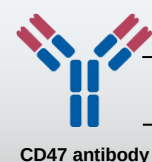
Mechanism of Action in the CD47-SIRP α Signaling Pathway



Guided by the DbD concept, our **differentiated molecule design** tackles scientific barriers presented by the selected immune checkpoints, leading to an **optimized safety and efficacy profile**

How Our Differentiated Design Improves Safety and Efficacy

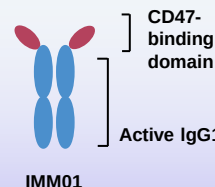
The safety concerns around CD47 pose considerable challenge



CD47 antibodies inevitably bind with RBCs, generating issues including **severe blood toxicity**, **antigenic sink**, and **decreased potency**

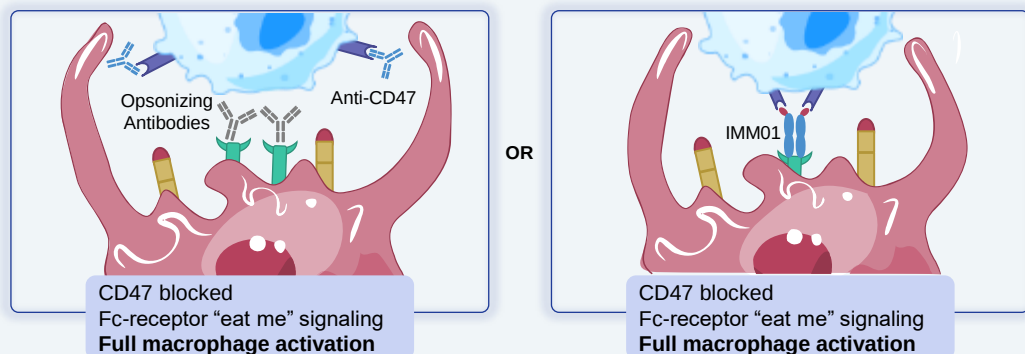
Most CD47 antibodies resort to an **IgG4 Fc** with **weak FcγR engagement**, unable to deliver the “eat me” signal

Our differentiated design allows full macrophage activation



Engineered CD47-binding domain with **no RBC binding in vitro**; Modification of deglycosylation of the binding domain **mitigates immunogenicity**

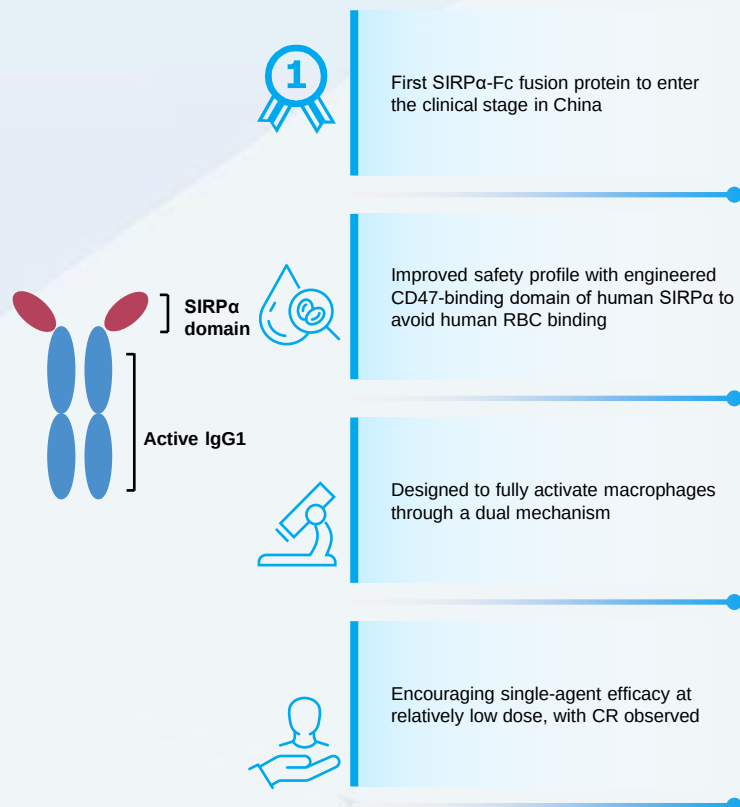
No RBC binding enables usage of **potent IgG1 Fc**



Overview and Competitive Advantage of IMM01 (Timdarpaccept)



Overview

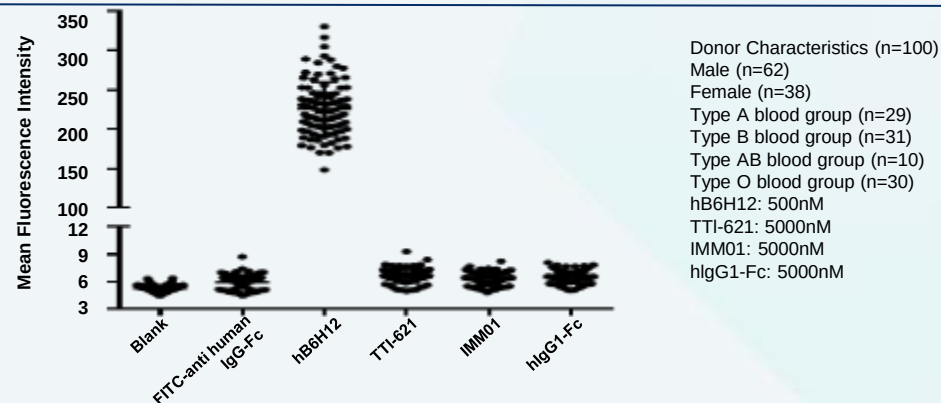


Source: Company Data



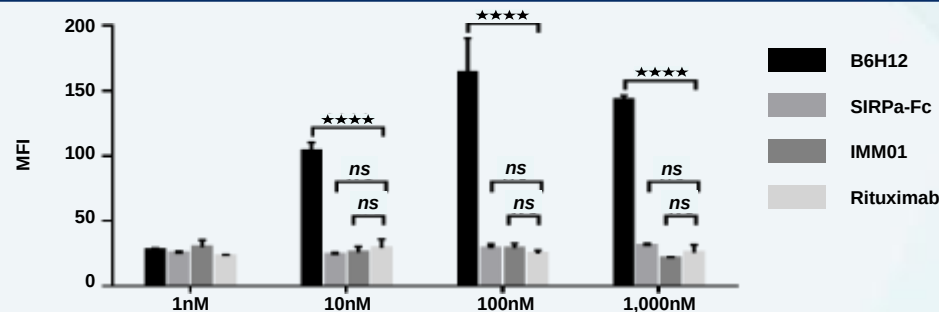
Competitive Advantage of IMM01 Monotherapy - Safety

Human RBC Binding Analysis of IMM01



Notes: B6H12 is a CD47-based antibody that serves as the control.

Phagocytosis Against Human RBC

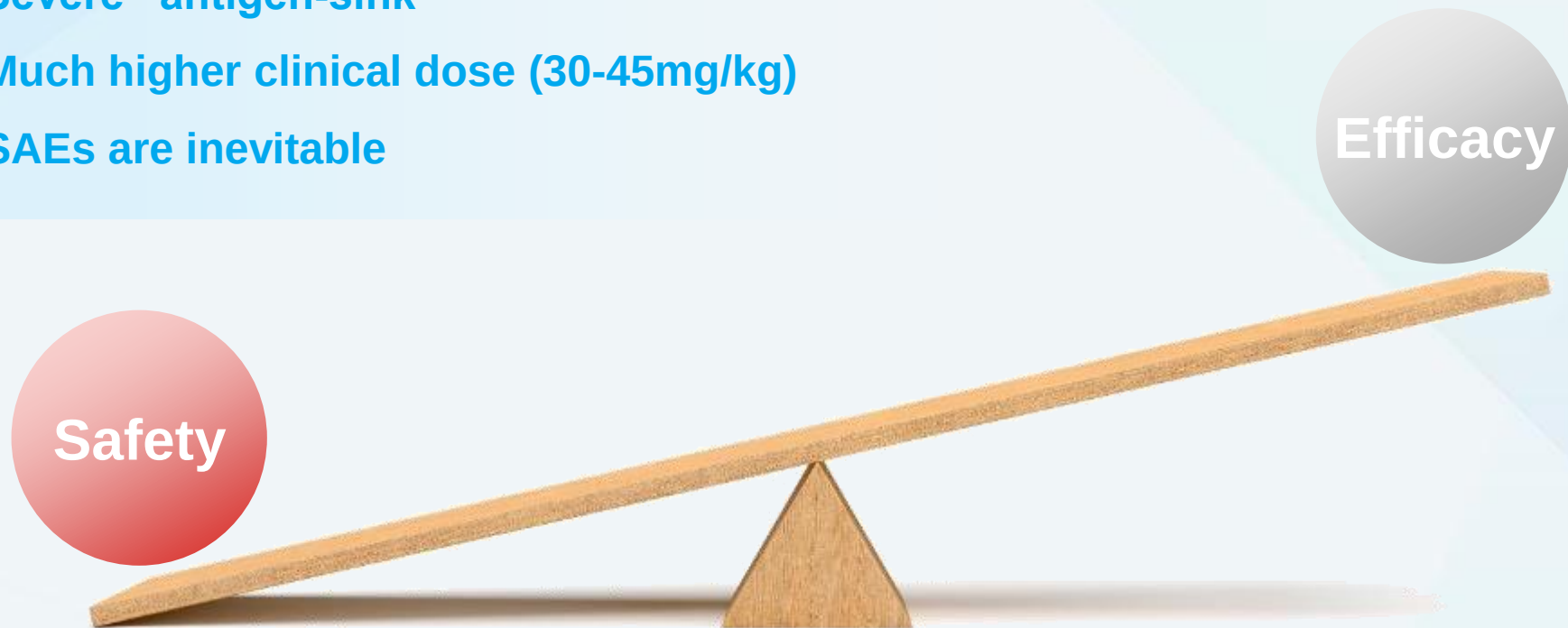


Notes: B6H12 is a CD47-based antibody that serves as the control.

Challenges for CD47-Targeted Drug Development

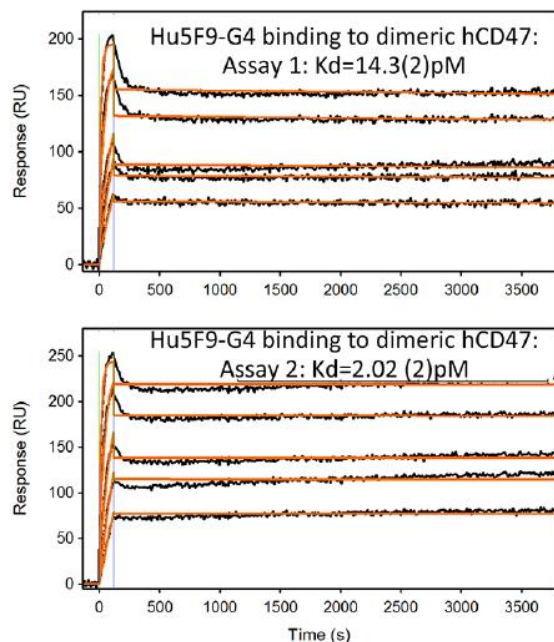
CD47 Antibody

- Target affinity is too high
- Severe “antigen-sink”
- Much higher clinical dose (30-45mg/kg)
- SAEs are inevitable



Magrolimab Has Very High Target Affinity and RBC Binding Activity

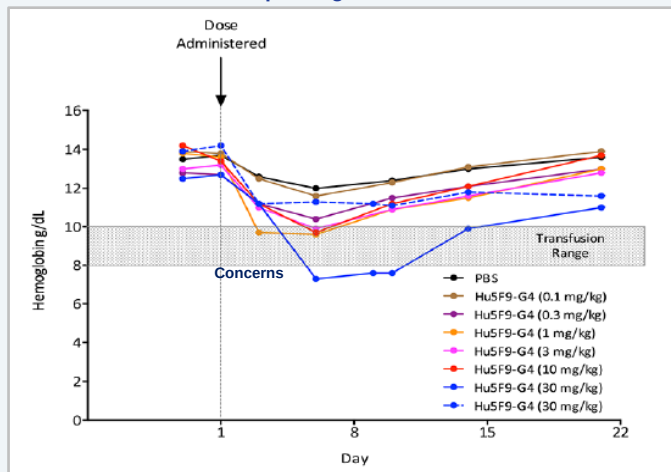
Target affinity assay



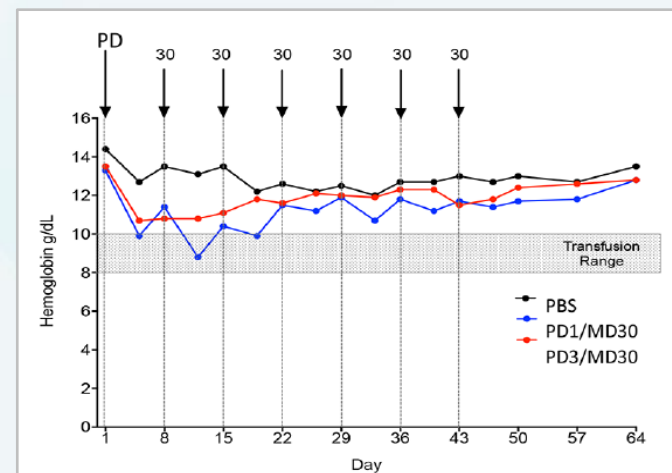
Magrolimab: $K_D = 2-14.3\text{pM}$

Timdarpaccept (IMM01): $K_D = \sim 3\text{nM}$

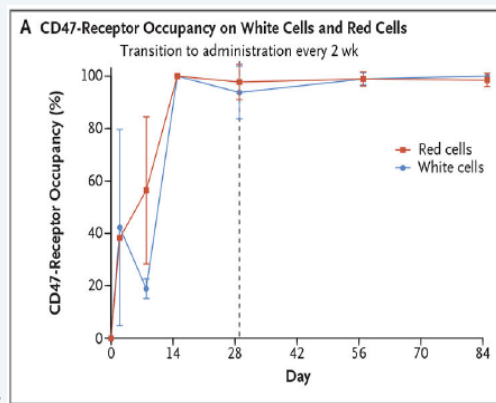
Without priming dose



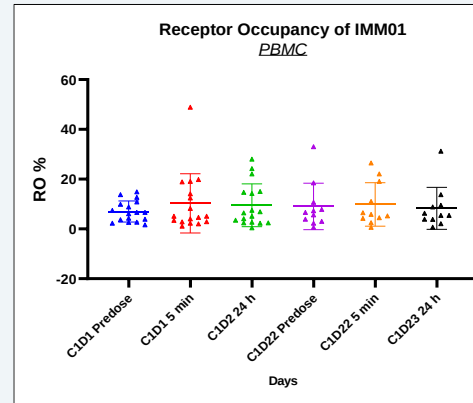
With priming dose (1mpk, 3mpk)



Magrolimab Receptor Occupancy (RO)



IMM01 Receptor Occupancy (RO)



Concerns

- Bind to RBC, leading to hemolysis
- Too high target affinity, causing severe “antigen sink”
- High clinical dose is required due to the “antigen sink”
- High clinical dose will inevitably results in severe adverse event (SAE)



Thank you!

