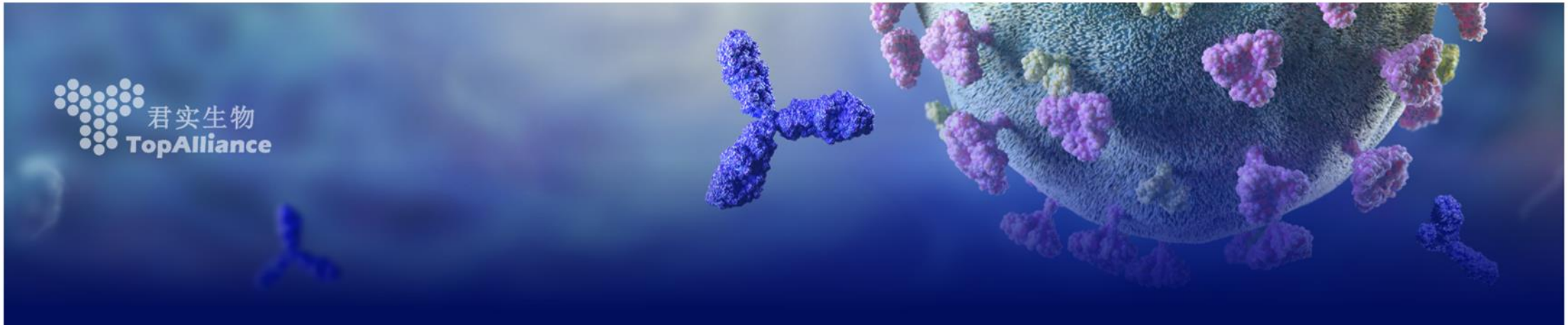
2020 Annual Results

Shanghai Junshi Biosciences Co., Ltd.

31st March 2021



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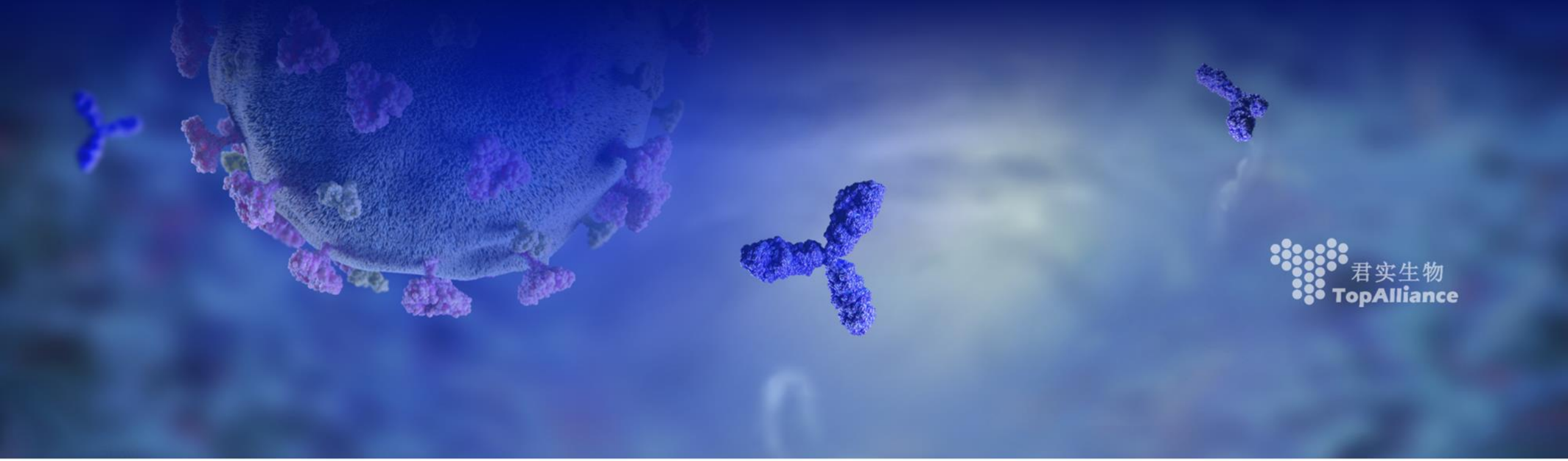


PART1: Business Highlights

Our mission is to provide patients with treatment options that work better and cost less

Key Highlights

Growing Revenue, Adequate Cash Flow, Strong R&D

- Total **operating revenue** in 2020: **RMB 1.595 billion (+106%)**
- R&D expenses: **RMB 1.78 billion (+88%)**
- Total comprehensive expense: **RMB 1.688 billion (+128%)**
- Cash from financing activities: **RMB 4.4 billion** (mainly attributable to the listing on the SSE STAR Market)

Pipeline Expansion, Core Products Commercialization

- **30** Drug Candidates, including **28** innovative drugs, **2** biosimilars, covering **5** major therapeutic areas
- **Core Products Commercialization**
  - **TUOYI® (Toripalimab)**
    - ✓ **Included in NRDL**
    - ✓ **Granted Coherus an exclusive license in the U.S. and Canada**
    - ✓ **Granted AstraZeneca part of the promotion right in mainland China**

  - **JS016 licensed-out to LLY, approved by FDA EUA and purchased by the US government**

Capital Markets

- On July 15 2020, the Company was listed on the **SSE STAR market**, stock code: 688180. The net proceeds is RMB **4.497** billion
- The "B" marker ceased to be affixed to the Company's stock name and stock short name from 15 July 2020
- The Company's A shares and H shares were included in **the Stock Connect Southbound Trading** from February 18 2021
- The Company's H shares were included in **the Hang Seng Composite Index, the Hang Seng SmallCap Index, the Hang Seng Healthcare Index, the Hang Seng Stock Connect Hong Kong Index and the Hang Seng Stock Connect Hong Kong MidCap & SmallCap Index** from March 15 2021
- The Company's A shares were included in the **STAR 50 index** from March 15 2021

Global Business Development

- In May 2020, the company collaborated with **Lilly** to develop and commercialize potential COVID-19 antibody therapy, and Lilly was granted an exclusive license of **JS016** outside Greater China
- In Jul 2020, the company collaborated with **Revitope** on R&D of the next-generation of T-cell engaging cancer immunotherapies **(PrecisionGATE™)**
- In Aug 2020, the company obtained a worldwide license for **IL-2** drug from **Leto Laboratories**
- In Sep 2020, the company co-developed with **IMPACT** for **PARP inhibitor** by setting up a JV
- In Sep 2020, the company in-licensed 4 drug candidates **(XPO1/AuroraA/ EGFR exon 20/ EGFR 4th Gen)** from **Wigen Biomedicine**
- In Sep 2020, the company in-licensed **CD39 drug** from **Beijing Eirene** in greater China through setting up a JV
- In Feb 2021, the company granted **Coherus** an exclusive license of **JS001** in the U.S. and Canada
- In Feb 2021, the company granted **AstraZeneca** part of the promotion right of **JS001** in mainland China

Robust Pipeline —— JS001: Toripalimab, PD-1

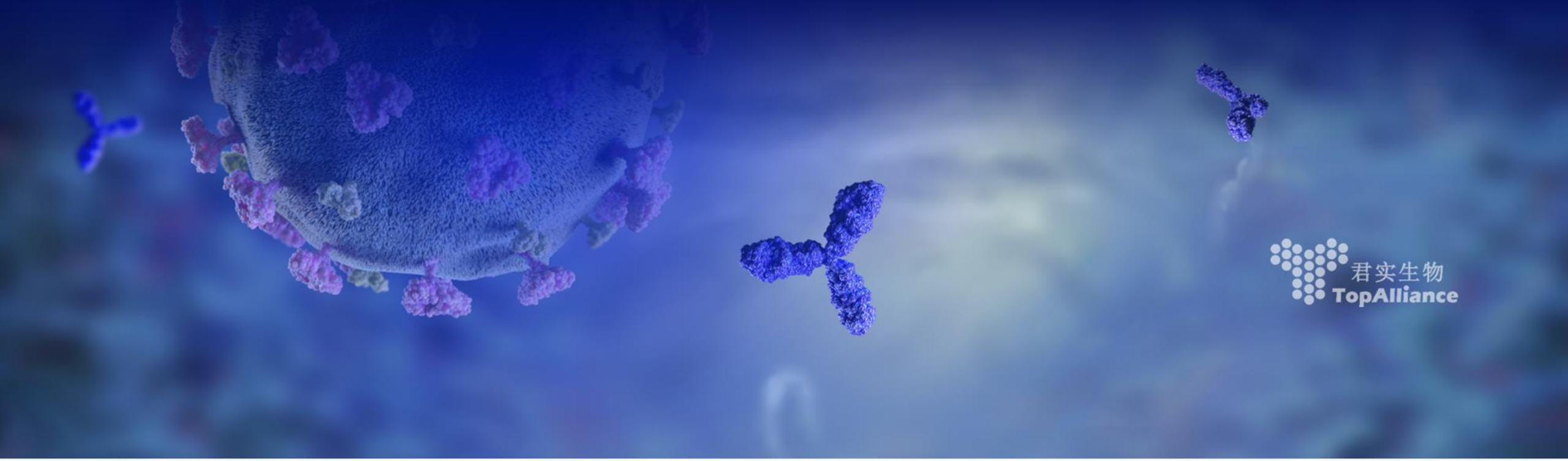
	Medicine Codes	Clinical Trial Number	Indications	Pre Clinical / Phase I / Phase II / Phase III / NDA	Locations	Note
Oncology	JS001 Toripalimab	NCT03013101	Melanoma (2L, mono)	Approved on 17 December 2018	China	NDA approved
		NCT02915432	Nasopharyngeal carcinoma (3L, mono)	NDA approved by NMPA in February 2021, and BLA submitted to FDA	China	FDA BTD and ODD
		NCT03581786	Nasopharyngeal carcinoma (1L, combo with chemo)	NDA Accepted	Global	
		NCT03113266	Urothelial carcinoma (2L, mono)	NDA Accepted	China	Received Priority Review
		NCT03856411	EGFR negative NSCLC (1L, combo with chemo)	Pivotal registered clinical trial	China	Met primary endpoint (interim)
		NCT03924050	EGFR mutated TKI failed NSCLC (combo with chemo)	Pivotal registered clinical trial	China	
		NCT04772287	NSCLC (neoadjuvant)	Pivotal registered clinical trial	China	
		NCT04012606	SCLC (1L, combo with chemo)	Pivotal registered clinical trial	China	
		NCT03829969	ESCC (1L, combo with chemo)	Pivotal registered clinical trial	China	
		/	ESCC (neoadjuvant)	Pivotal registered clinical trial	China	
		NCT03430297	Melanoma (1L, mono)	Pivotal registered clinical trial	China	
		NCT04085276	TNBC (combo with albumin-bound paclitaxel)	Pivotal registered clinical trial	China	
		NCT04523493	HCC (1L, combo with lenvatinib)	Pivotal registered clinical trial	Global	
		NCT04723004	HCC (1L, combo with bevacizumab)	Pivotal registered clinical trial	Global	
		NCT03859128	HCC (adjuvant)	Pivotal registered clinical trial	China	
		NCT02915432	Gastric carcinoma (3L, mono)	Pivotal registered clinical trial	China	
		NCT04394975	Renal cell carcinoma (1L, combo with axitinib)	Pivotal registered clinical trial	China	
		NCT04568304	Urothelial carcinoma (1L, PD-L1+)	Pivotal registered clinical trial	Global	
		/	Mucosal melanoma (combo with axitinib)		U.S.	FDA FTD ODD ; NMPA BTD
		NCT03474640	Sarcoma		U.S.	FDA ODD

Other R&D Pipelines Covering a Wide Range of Therapeutic Areas: Clinical-stage Projects

	Medicine Codes	Targets	Indications	Origins	Locations
Oncology	JS003	PD-L1	Solid tumors	In house	China
	JS004 (TAB004)	BTLA	Melanoma, Lung carcinoma, Lymphoma, etc.	In house	U.S.
			Melanoma, Lung carcinoma, Lymphoma, etc.		China
	JS006 (TAB006)	TIGIT	Solid tumors	In house	U.S.
			Solid tumors		China
	JS007	CTLA-4	Lung carcinoma, Melanoma,	In house	China
	JS101	Pan-CDK	Breast cancer, etc.	In house	China
	JS108	TROP2	TNBC, SCLC, Pancreatic cancer	Co-development	China
	JS109	PARP	OC (1L maintenance)	Co-development	China
			BRCA-mutated OC (3L)		
	JS110	XPO1	Multiple myeloma, etc.	Co-development	China
	JS111	EGFR exon 20	NSCLC	Co-development	China
	JS201	PD-1/TGF-β	Solid tumors	In house	China
	JS501 (Bevacizumab)	VEGF	NSCLC, Colorectal cancer	Co-development	China
Metabolic	JS002 (Ongericimab)	PCSK9	Hyperlipidemia	In house	China
	JS103	Uricase	Hyperuricacidemia, Gout	In house	China
Auto-immunity	UBP1211 (Adalimumab)	TNF-α	Rheumatoid arthritis, Ankylosing spondylitis, Psoriasis arthritis	Co-development	China
	JS005	IL-17A	Psoriatic, Ankylosing spondylitis	In house	China
	UBP1213	BLyS	Systemic Lupus erythematosus	In house	China
Infectious disease	JS016 (Etesevimab)	S protein	COVID-19	Co-development	U.S.
				Co-development	China

Other R&D Pipelines Covering a Wide Range of Therapeutic Areas: Early-stage Projects

	Medicine Codes	Targets	Indications	Origins	Commercial Rights
Oncology	**JS009**	CD112R/ PVRIG	Solid tumors	In house	Global
	JS011	(Undisclosed)	(Undisclosed)	In house	Global
	JS012	(Undisclosed)	(Undisclosed)	In house	Global
	JS014	IL-21	Solid tumors	100% Rights in-licensing	China
	JS018	IL-2	Solid tumors	100% Rights in-licensing	Global
	JS019	CD39	Solid tumors	50% Rights in-licensing	China
	JS104	Pan-CDK	Breast cancer, etc.	50% Rights in-licensing	Global
	JS105	PI3K-α	Breast cancer, Kidney cancer, etc.	50% Rights in-licensing	Global
	JS112	Aurora A	SCLC	50% Rights in-licensing	Global
	JS113	EGFR 4th Gen	NSCLC	50% Rights in-licensing	Global
Metabolic	**JS008**	(Undisclosed)	(Undisclosed)	In house	Global
Neurologic	**JS010**	CGRP	Migraine	In house	Global



PART2: Toripalimab JS001

Our mission is to provide patients with treatment options that work better and cost less

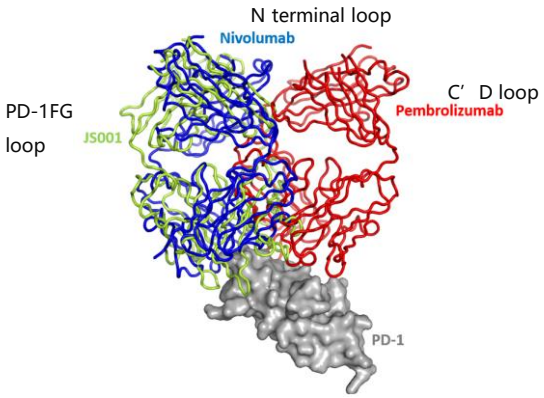
Our Core Product —— JS001 (Toripalimab, anti-PD-1 mAb)

" Glycosylation-independent binding of monoclonal antibody toripalimab to FG loop of PD-1 for tumor immune checkpoint therapy."

Liu H. et al. mAbs 11(4):681-690. doi: 10.1080/19420862.2019.1596513. Epub 2019 Apr 19.

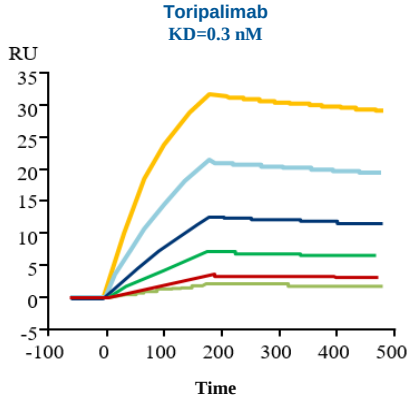
Distinct binding characteristics

- Unique CDR sequences and binding domains: PD-1 FG loop
- IP: IgG4/Kappa (CN104250302B) (PCT: WO2014/206107A1)



High affinity

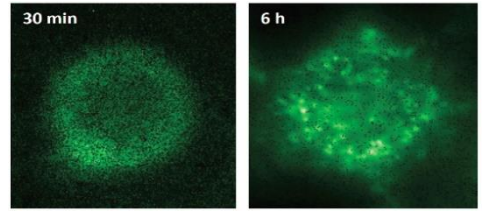
- The binding affinity of JS001 for PD-1 is about 0.3 nm as measured by Biacore T200
- The results show high binding affinity of JS001, which enables it to bind more firmly to the PD-1 receptors on T-cells and better prevent the binding between PD-1 and PD-L1/PD-L2 on tumor cells



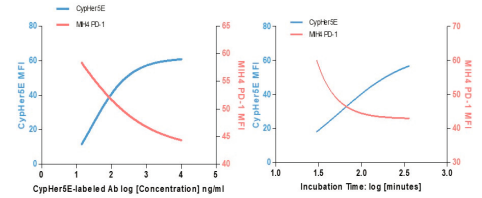
Strong internalization induction

- Upon binding with the PD-1 receptor, JS001 blocks the interaction of PD-1 with PD-L1 and PD-L2 and simultaneously induces the internalization of the PD-1 receptor, thereby decreasing the expression of PD-1 on the surface of the cell membrane
- The bottom-right graphs show a decrease in PD-1 expression on the cell surface during internalization of JS001 by simultaneously staining the JS001 non-competitive anti-PD-1 monoclonal antibody (clone MIH4). A decrease in PD-1 expression can improve the reactivity of T-cells to the antigen. This mechanism does not rely on PD-1 ligand (PD-L1) expression

Immunofluorescence assay results



Flow cytometry results



Toripalimab Pivotal Trials Layout and Strategy

Adjuvant/Neoadjuvant

- HCC Adjuvant
  Mono vs Placebo
- NSCLC Neoadjuvant
  Combo vs Chemo
- ESCC Neoadjuvant
  Combo vs Chemo

1st Line

- NSCLC EGFR(-)
  Combo vs Chemo — Reach pre-specified primary endpoint
- NSCLC EGFR(+)
  Combo vs Chemo
- TNBC
  Combo vs albumin-bound paclitaxel
- SCLC
  Combo vs Chemo
- RCC
  Combo with axitinib vs sunitinib
- UC PD-L1(+)
  Combo vs Chemo
- Melanoma
  Mono vs dacarbazine — NMPA BTD
- NPC
  Combo vs Chemo — NDA Submitted
- EC
  Combo vs Chemo
- HCC
  Combo with avastin vs sorafenib
- HCC
  Combo with lenvatinib vs lenvatinib

≥ 2nd Line

- Melanoma
  Mono single arm — Approved
- NPC
  Mono single arm — Approved
- UC
  Mono single arm — NDA Submitted; Priority Review
- GC
  Mono single arm

International Clinical Development Strategy —— Toripalimab Pivotal Trials Layout

	China	U.S. & EU
Major Indication	• NSCLC (EGFR wt and mut) • Esophageal squamous cell carcinoma (ESCC) • Hepatocellular carcinoma (HCC) • Gastric cancer (GC)	• Lung cancer (NSCLC(EGFR wt, EGFR TKI Failed, Neo-adjuvant), SCLC) • Hepatocellular carcinoma (HCC)
Niche Indication	• Melanoma • Nasopharyngeal carcinoma (NPC) • Urothelial carcinoma (UC) • Triple-negative breast cancer (TNBC) • Renal cell carcinoma (RCC) • Small cell lung cancer (SCLC) • Soft tissue sarcoma	• Nasopharyngeal carcinoma[ODD&BTD&BLA] • Mucosal melanoma[ODD&FTD] • Urothelial carcinoma • Soft tissue sarcoma[ODD] • Esophageal squamous cell carcinoma (ESCC) • Triple-negative breast cancer (TNBC)

BLA: Biologics License Application
ODD: FDA Orphan Drug Designation
BTD: FDA Breakthrough Therapy Designation
FTD: FDA Fast Track Designation

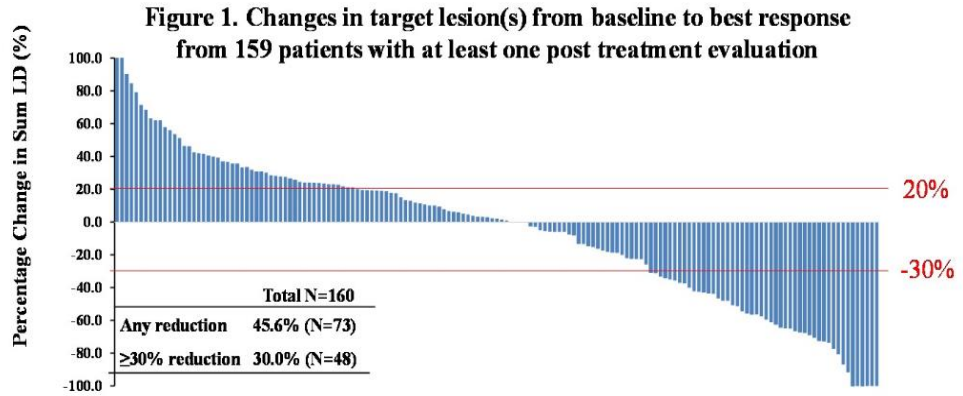
Toripalimab in NPC

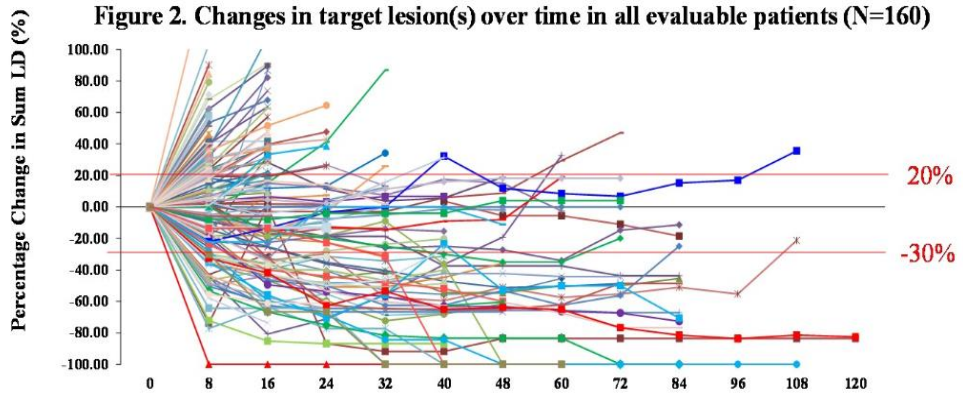
- In April 2020, the NDA for toripalimab as a treatment for patients with recurrent/metastatic NPC who failed at least two lines of systemic therapy was accepted by NMPA. And the indication was **granted conditional approval in February 2021.**This is the world's first NDA of anti-PD-1 monoclonal antibody for the treatment of recurrent/ metastatic NPC.
- In September 2020, this therapy received the FDA's **Breakthrough Therapy Designation.**
- **In Feb 2021, the supplemental NDA application of toripalimab in combination with chemotherapy for the first-line treatment of patients with advanced, recurrent or metastatic NPC was accepted by the NMPA.**
- **In Mar 2021, the rolling submission of the BLA for toripalimab to the FDA for the treatment of recurrent or metastatic NPC was initiated.**

As of Feb 19, 2020, among all 190 patients assessed by an Independent Review Committee, 5 complete responses, 34 partial responses and 40 stable diseases were observed, for an objective response rate of 20.5%, and disease control rate of 40.0%. For 92 2L+ patients, the objective response rate was 23.9%.

The response was durable as the median DOR was 14.9 months.

The median PFS was 1.9 months and the median OS was 17.4 months.

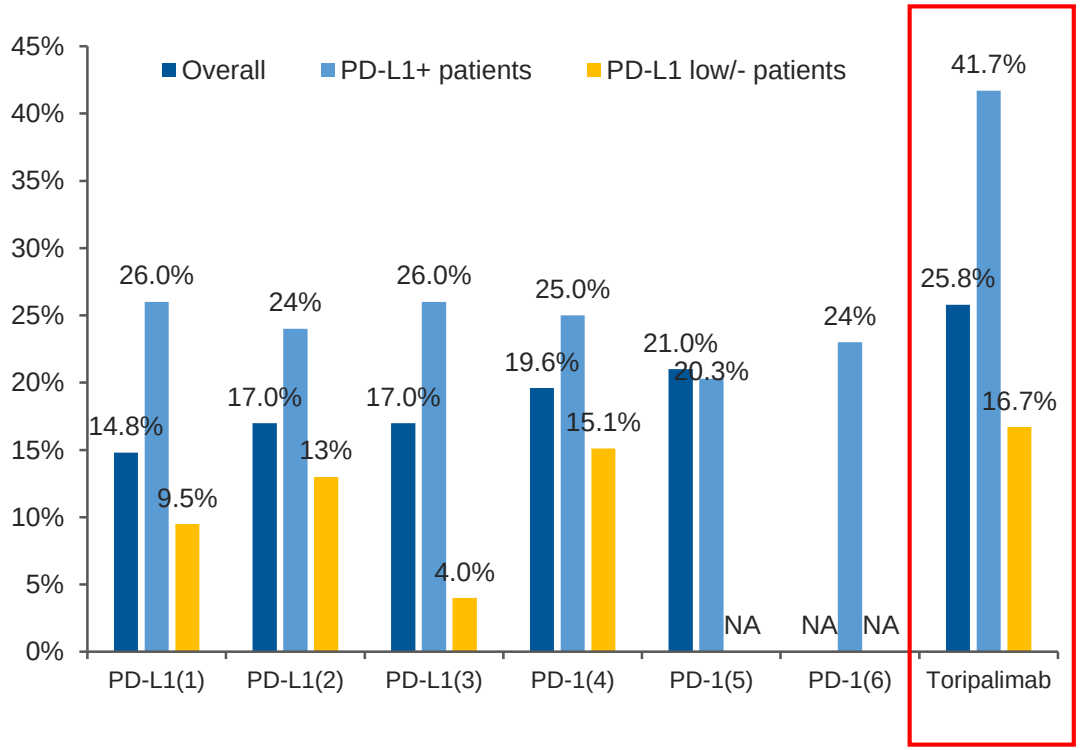




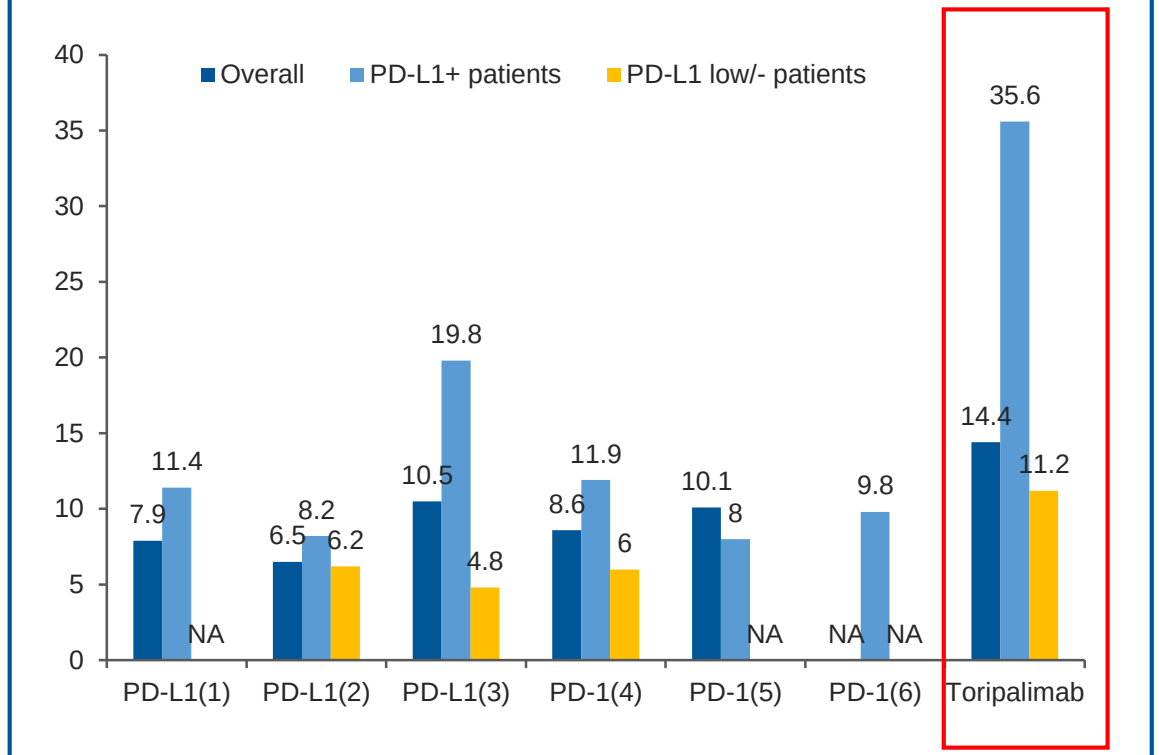
Toripalimab in UC

- **In May 2020, the supplemental NDA in respect of toripalimab injection as a treatment for the second-line treatment of metastatic urothelial carcinoma was accepted by the NMPA, and it received priority review designations from the NMPA in July 2020.**
- Toripalimab demonstrated encouraging clinical efficacy in **overall** patients and **PD-L1+** patients.
- The obvious survival benefit of toripalimab can be observed in treating patients, and the median OS was **35.6** months in PD-L1+ patients.

ORR



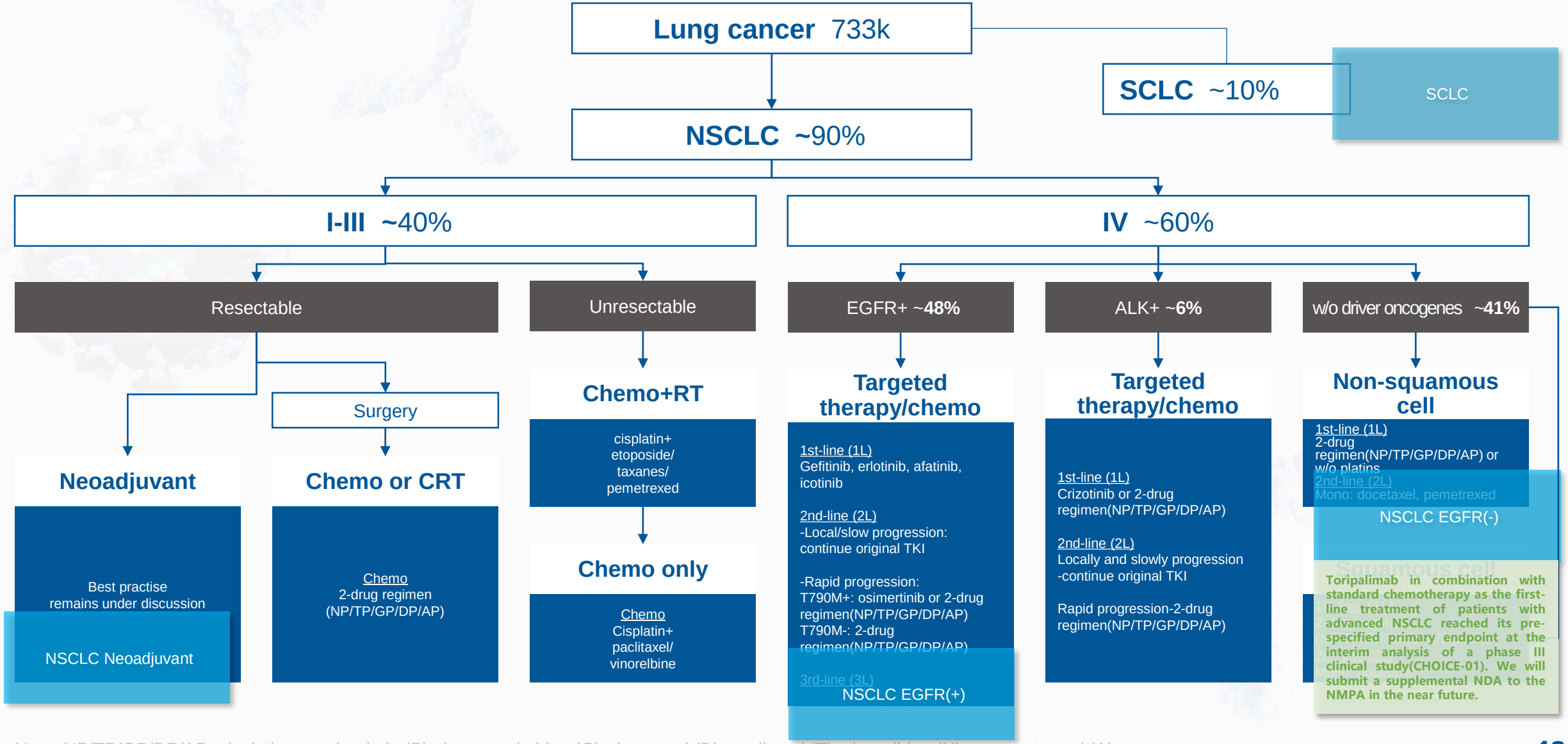
OS



1. Lancet. 2016;387(10031):1909-20.
2. Lancet Oncol. 2018;19(1):51-64.
3. 2018 AACR CT031 / 24;
4. Clin Cancer Res. 2020;26(19):5120-5128.;
5. Annals of Oncology. 2019; 30: 970–976.
6. Cancer Sci. 2020 Oct 12.

Notes: Cross-trial comparison

Toripalimab in Lung Cancer

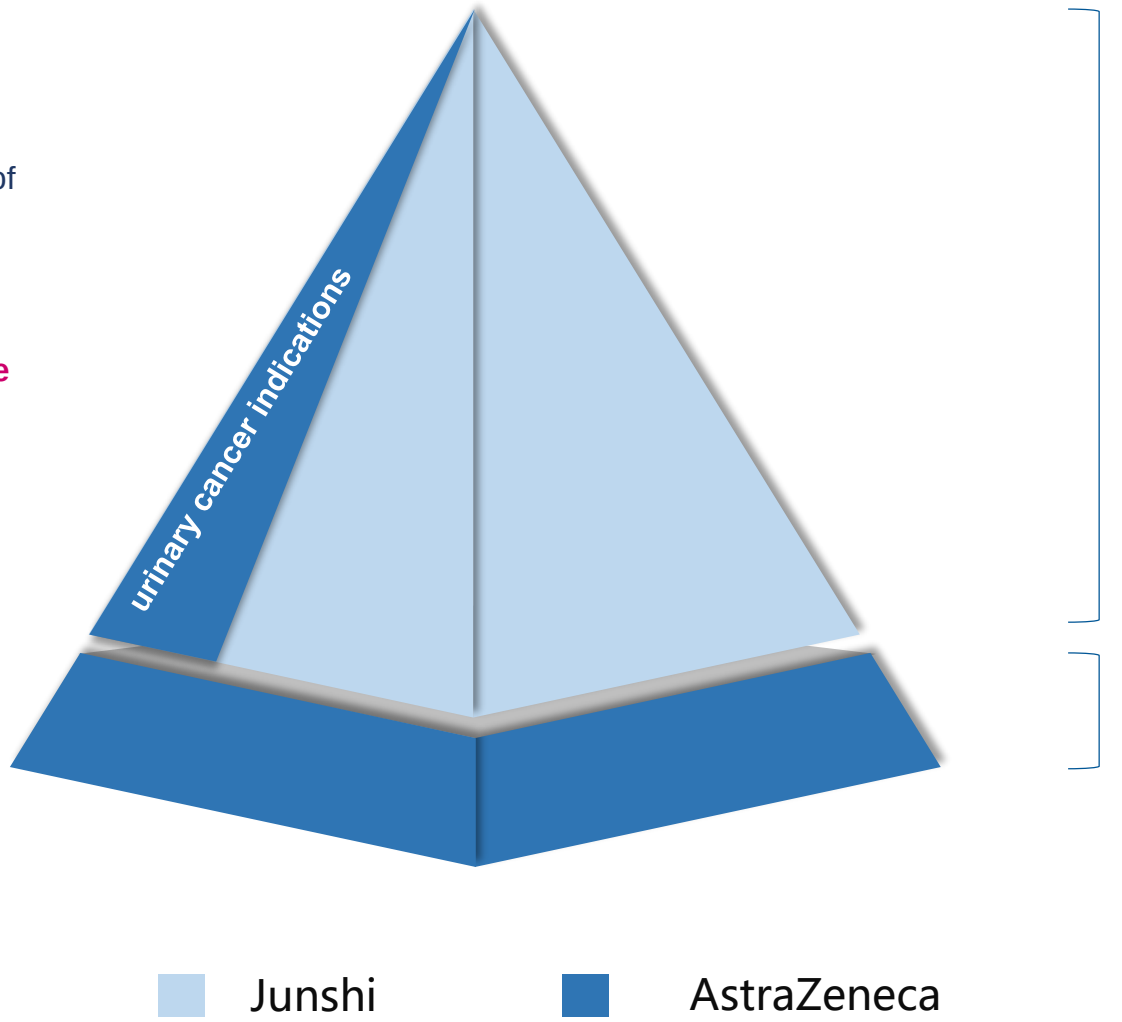


Note: NP/TP/GP/DP/AP: cisplatin or carboplatin (P) plus gemcitabine (G), docetaxel (D), paclitaxel (T), vinorelbine (N) or pemetrexed (A)
Source: CSCO (Chinese Society of Clinical Oncology), Goldman Sachs Global Investment Research, Internal Estimation

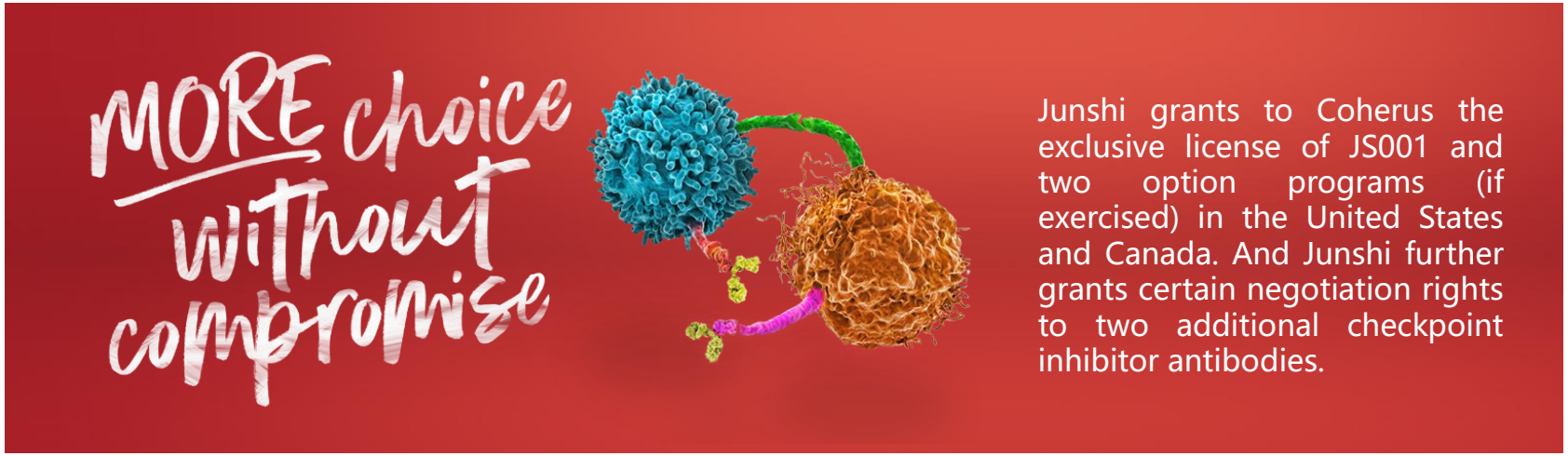
Toripalimab:
Reaching a Collaboration Agreement with AstraZeneca

- From 28 February 2021, Junshi will grant **AstraZeneca** the exclusive promotion right of toripalimab Injection (trade name: TUOYI®) for the **urinary cancer indications** to be approved subsequently for marketing in mainland China and the exclusive promotion right for **all indications approved and to be approved in non-core urban areas**.

- Junshi will continue to be responsible for the promoting of other indications approved and to be approved excluding urinary cancer indications in core urban areas.



Exclusive rights of JS001 in the U.S. and Canada to Coherus



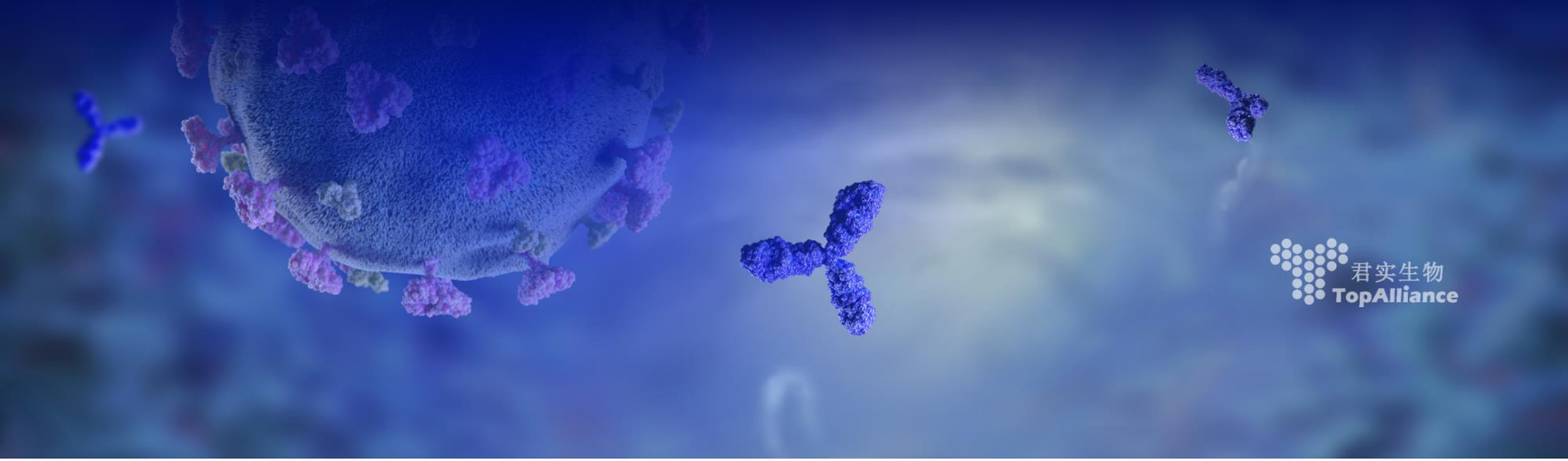
Junshi grants to Coherus the exclusive license of JS001 and two option programs (if exercised) in the United States and Canada. And Junshi further grants certain negotiation rights to two additional checkpoint inhibitor antibodies.

Key Contents of the Agreement

- An aggregate of US$ 1.11 billion of upfront payment, exercise fee and milestone payments
- 20% royalty on the annual net sales
- Exclusive rights of JS001 in US and Canada
- Options to JS006 and JS018-1
- Negotiation rights to two additional checkpoint inhibitor antibodies
- Establishing a joint development committee
- A maximum of US$25 million R&D expenses per project per year

Upcoming Catalysts

- **Clinical Data:** Data from toripalimab pivotal clinical program, TIGIT/PD-1 combination and other potential combination trials
- **Publications:** Abstracts in medical conferences such as ASCO/SITC, 5-year publication plan in both mono and combo settings
- **FDA Filings:** BLA filled of NPC with BTD, multiple additional filings and PDUFA actions in rare and prevalent indications
- **Commercial Launches:** Multiple U.S. launches expected in 2022-2026 timeframe



PART3: Etesevimab (JS016)

Our mission is to provide patients with treatment options that work better and cost less

Project Milestones

2020Q1

- Isolation of mAbs
- Identification of mAbs
- Signed a collaboration agreement with the IMCAS

2020Q2

- GLP-tox studies
- GMP 2000L stable pool manufacturing
- Lilly was granted an exclusive license outside of Greater China
- The preclinical research results were published in Nature

2020Q3

- The phase I clinical trial was conducted in China
- Dosing complete for the first subject
- Dosing complete for all subjects in phase I clinical trial in China

2020Q4

- Lilly announced positive interim results from its phase II study of combination therapy
- EUA request for combination therapy

2021Q1

- The combination therapy met the primary endpoint of the Phase III trial
- The combination therapy received FDA EUA
- NIH recommended the use of combination therapy
- The U.S. government agreed to purchase doses of antibody therapy combination
- CHMP gave a positive scientific opinion for combination therapy
- New data from the Phase III study showed combination therapy reduced risk of hospitalizations and deaths by 87%

- The **1st** report to evaluate the function of NAbs against SARS-CoV-2 in nonhuman primates
- The **1st** clinical trial on a NAb for COVID-19 carried on healthy subjects
- The **1st** Nab for COVID-19 to enter the clinical trial in China
- The **1st** Chinese-developed innovative biological drug approved for use in the United States
- The **1st** Chinese innovative drug recommended by NIH
- The **1st** Chinese-developed monoclonal antibody purchased by U.S. government

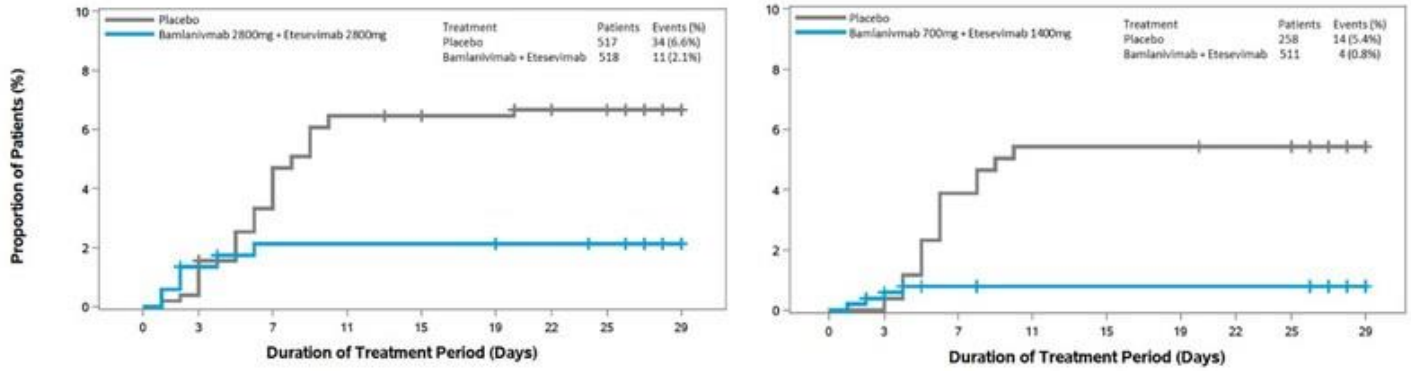
Combination Therapy Clinical Trial

Clinical

A randomized, double-blind, placebo-controlled, phase II/III study to evaluate the efficacy and safety of LY-CoV555 and JS016 in participants with mild to moderate COVID-19 illness

Results

March 10, 2021, the new data from BlAZE-1 Phase III study demonstrates that LY-CoV555 and JS016 together **reduced COVID-19 related hospitalizations and deaths by 87%**



Etesevimab(JS016): The First Chinese-developed mAb Purchased by the U.S. Government

EUA

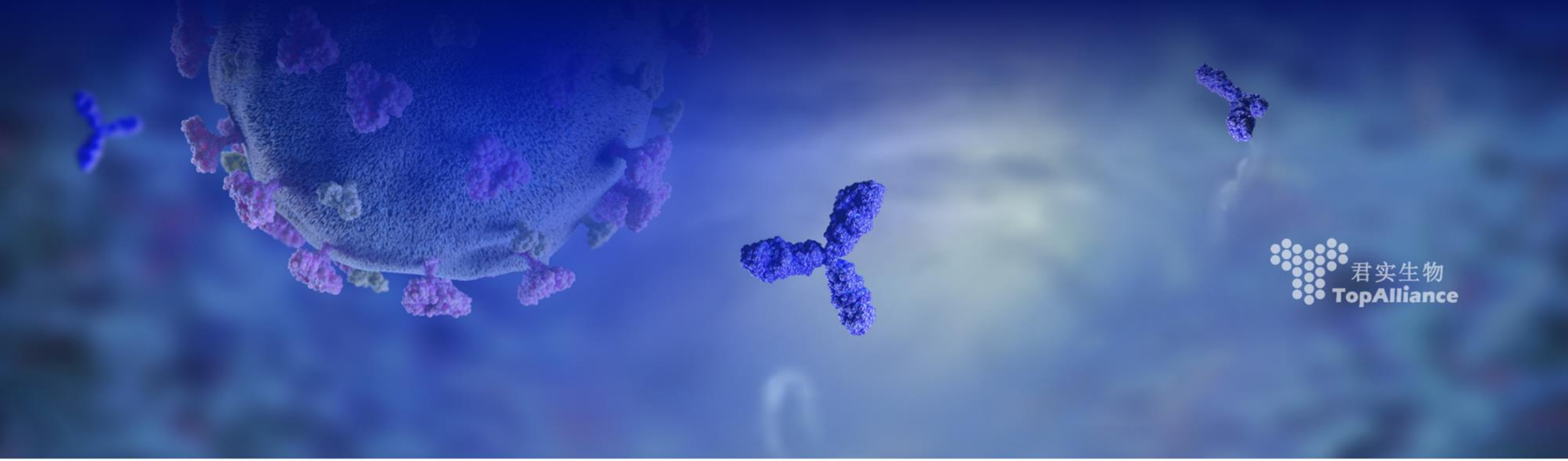
- 2021/02, **the FDA** granted **Emergency Use Authorization (EUA)** for JS016 and LY-CoV555 combination therapy.
- **JS016 is the first Chinese-developed innovative biological drug approved for use in the United States.**

Recommendation

- 2021/02, **the NIH** recommended the use of JS016 plus LY-CoV555.**The Panel has greater confidence in the currently available evidence for the clinical efficacy of JS016 plus LY-CoV555 combination than in the evidence for the other monoclonal antibody options. JS016 is the first Chinese innovative drug recommended by NIH**.
- 2021/03, the **EMA Committee for Medicinal Products for Human Use (CHMP)** has issued a positive scientific opinion for the combination therapy.

Commercialization

- 2021/02, **the U.S. government** has agreed to purchase a minimum of **100,000** doses of JS016 and LY-CoV555 together. **JS016 is the first Chinese-developed monoclonal antibody purchased by the U.S. government.**



PART4: Robust Late-stage Pipelines

Our mission is to provide patients with treatment options that work better and cost less

Strong R&D Capability, Rich Portfolio of Products

Pre-clinical *13	Phase I *10	Phase II *1	Phase III *3	NDA *1	Launch to market *2
JS007 JS009 JS011 JS012 JS014 JS018 JS019 JS104 JS105 JS107 JS112 JS113 JS203 JS008 JS010	JS003 JS004 JS006 JS101 JS108 JS110 JS111 JS201 JS103 UBP1213	JS005	JS109 JS002 JS501	UBP1211	JS001 JS016（EUA）

30 Drug Candidates in Pipeline

The world's leading multiple innovation platforms

- Human Transmembrane Receptor Protein Array
- High-throughput Screening Platform
- Bispecific Antibody Platform
- PrecisionGATE™
- ADC Platform
- Unique PK Analysis Platform

A comprehensive drug target landscape

Immuno-Oncology	PD-1，BTLA，…	IL-21, IL-2	
	TIGIT & CD112R	CD39	
Other targeted therapies	PARP, PI3k-α，CDK	XPO1	
	EGFR exon 20 , EGFR 4th		

Different types of drugs

- mAbs
- bsAbs
- small molecule drugs
- ADC

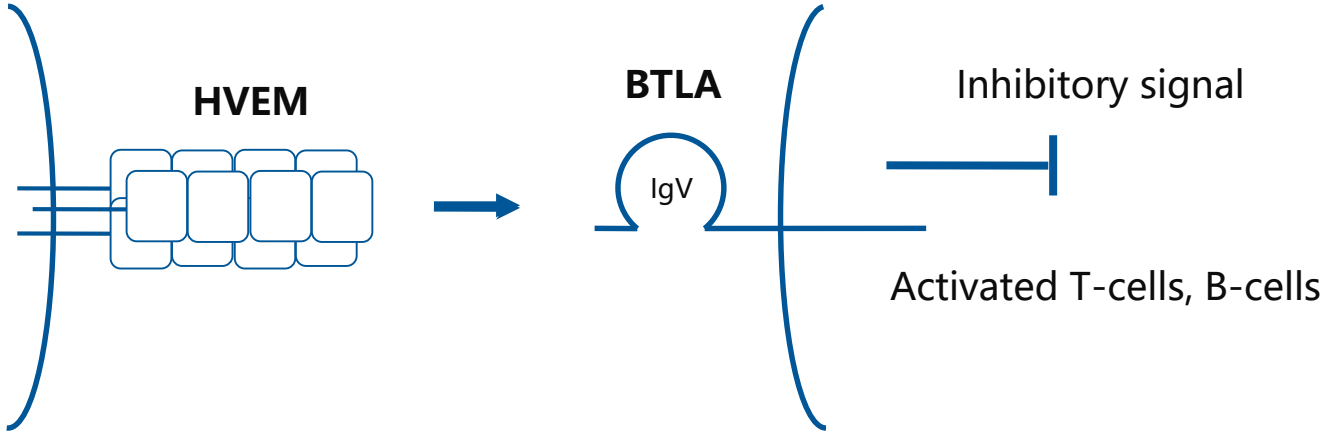
A wide range of therapeutic areas

- Oncology
- Metabolic
- Autoimmune
- Neurological
- Infectious diseases

Clinical Candidates:
TAB004 /JS004 First in Human Anti-BTLA Antibody for Solid Tumors

Macrophage, DC, B-cells, T-cells,
Epithelial and Endothelial cells,
Neuronal cells

Overexpressed on tumors



BTLA

- PD-1-like molecule expressed on activated T- and B-cells
- In animal models of autoimmunity and inflammation (RA, SLE, EAE and Asthma), BTLA-deficient mice show enhanced T-cell activation and have exacerbated disease
- HVEM overexpressed in tumors and suppressed T-cell function through BTLA
- BTLA co-expresses with PD-1 on tumor specific T-cells from human melanoma and non-small cell lung cancer patients
- BTLA blockade promotes antigen-specific T-cell response and works synergistically with toripalimab (anti-PD-1)
- The IND application was approved by the FDA and the NMPA in April 2019 and January 2020, respectively; no competitor in clinical stage

1. BTLA is a parallel checkpoint with PD-1 to regulate lymphocyte activation.

Progress in Clinical Trials of JS004/TAB004 in China and the U.S.

- In April 2019, TAB004/ JS004 was approved by the U.S. FDA for clinical trials and is the world's first anti-BTLA monoclonal antibody for injection approved for clinical trials
- In January 2020, the IND application for TAB004/JS004 was approved by the NMPA
- **In October 2019, the first patient was dosed in the U.S and in April 2020, the first patient was dosed in China**

NCT No.	NCT04137900	NCT04278859 / CTR20200202
Study Type	Interventional (Clinical Trial)	Interventional (Clinical Trial)
Estimated Enrollment	144	200
Allocation	Non-Randomized	Non-Randomized
Masking	None (Open Label)	None (Open Label)
Official Title	A First-in-Human, Multicenter, Open-Label, Phase 1 Dose-Escalation and Cohort Expansion Study to Evaluate the Safety, Tolerability, and Pharmacokinetics of TAB004 in Subjects With Advanced Solid Malignancies Including Lymphoma	A Phase I Clinical Study of JS004, a Recombinant Humanized mAb Specific to B-and T-Lymphocyte Attenuator (BTLA), in Subjects With Advanced Solid Malignancies in China
Actual Study Start Date	October 30, 2019	March 31, 2020
Estimated Completion Date	January, 2023	July, 2022

New Immune Checkpoint Inhibitor: JS009/TAB009 Anti-CD112R Monoclonal Antibody

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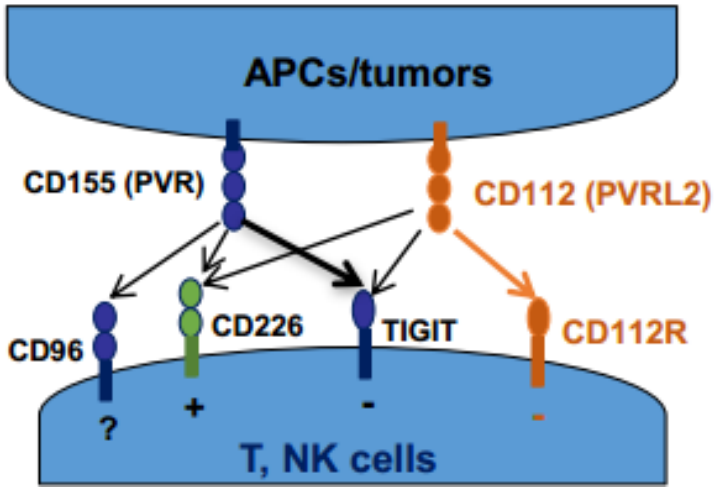
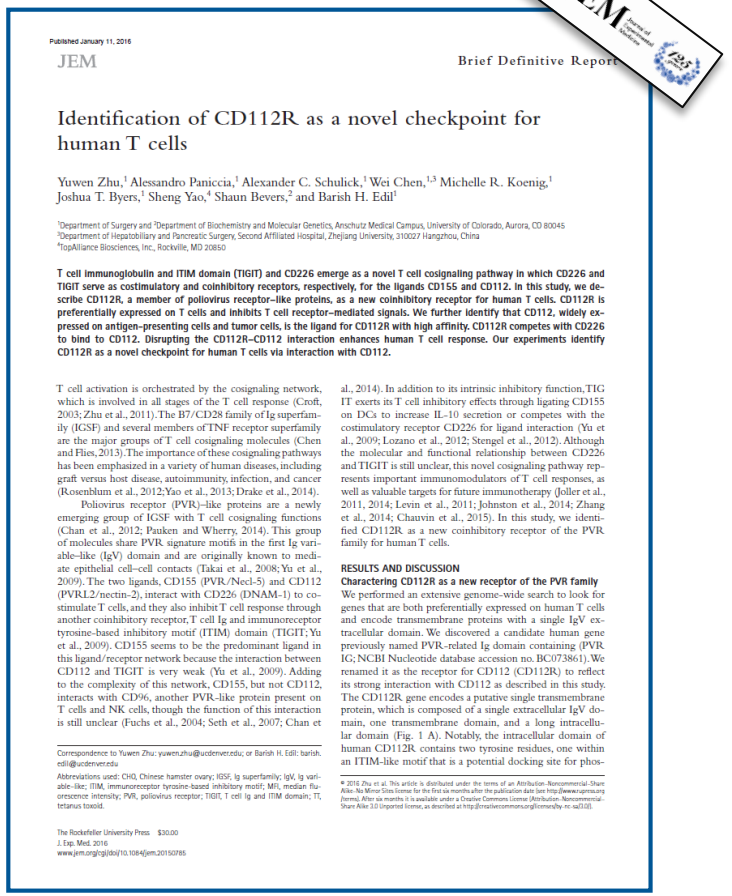
CD112R: A new immune checkpoint pathway discovered by Junshi from the origin.

Anti-CD112R



- **CD112R(PVRIG)**, a inhibitory immune checkpoint.
- Treatment of T cells with anti-CD112R in combination with PD-1 or TIGIT inhibitors further increased T cell activation, improved the effect of clinical treatment.



Published January 11, 2016

JEM Brief Definitive Report

Identification of CD112R as a novel checkpoint for human T cells

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T cell immunoglobulin and ITIM domain (TIGIT) and CD226 emerge as a novel T cell cosignaling pathway in which CD226 and TIGIT serve as costimulatory and coinhibitory receptors, respectively, for the ligands CD155 and CD112. In this study, we describe CD112R, a member of poliovirus receptor–like proteins, as a new coinhibitory receptor for human T cells. CD112R is preferentially expressed on T cells and inhibits T cell receptor–mediated signals. We further identify that CD112, widely expressed on antigen-presenting cells and tumor cells, is the ligand for CD112R with high affinity. CD112R competes with CD226 to bind to CD112. Disrupting the CD112R–CD112 interaction enhances human T cell response. Our experiments identify CD112R as a novel checkpoint for human T cells via interaction with CD112.

T cell activation is orchestrated by the cosignaling network, which is involved in all stages of the T cell response (Croft, 2003; Zhu et al., 2011). The B7/CD28 family of Ig superfamily (IGSF) and several members of TNF receptor superfamily are the major groups of T cell cosignaling molecules (Chen and Flies, 2013). The importance of these cosignaling pathways has been emphasized in a variety of human diseases, including graft versus host disease, autoimmunity, infection, and cancer (Rosenblum et al., 2012; Yao et al., 2013; Drake et al., 2014).

Poliovirus receptor (PVR)–like proteins are a newly emerging group of IGSF with T cell cosignaling functions (Chan et al., 2012; Pauken and Wherry, 2014). This group of molecules share PVR signature motifs in the first Ig variable-like (IgV) domain and are originally known to mediate epithelial cell–cell contacts (Takai et al., 2008; Yu et al., 2009). The two ligands, CD155 (PVR/Necl-5) and CD112 (PVRL2/nectin-2), interact with CD226 (DNAM-1) to costimulate T cells, and they also inhibit T cell response through another coinhibitory receptor, T cell Ig and immunoreceptor tyrosine-based inhibitory motif (ITIM) domain (TIGIT; Yu et al., 2009). CD155 seems to be the predominant ligand in this ligand/receptor network because the interaction between CD112 and TIGIT is very weak (Yu et al., 2009). Adding to the complexity of this network, CD155, but not CD112, interacts with CD96, another PVR-like protein present on T cells and NK cells, though the function of this interaction is still unclear (Fuchs et al., 2004; Seth et al., 2007; Chan et al., 2014). In addition to its intrinsic inhibitory function, TIGIT exerts its T cell inhibitory effects through ligating CD155 on DCs to increase IL-10 secretion or competes with the costimulatory receptor CD226 for ligand interaction (Yu et al., 2009; Lozano et al., 2012; Stengel et al., 2012). Although the molecular and functional relationship between CD226 and TIGIT is still unclear, this novel cosignaling pathway represents important immunomodulators of T cell responses, as well as valuable targets for future immunotherapy (Joller et al., 2011, 2014; Levin et al., 2011; Johnston et al., 2014; Zhang et al., 2014; Chauvin et al., 2015). In this study, we identified CD112R as a new coinhibitory receptor of the PVR family for human T cells.

RESULTS AND DISCUSSION

Charactering CD112R as a new receptor of the PVR family

We performed an extensive genome-wide search to look for genes that are both preferentially expressed on human T cells and encode transmembrane proteins with a single IgV extracellular domain. We discovered a candidate human gene previously named PVR-related Ig domain containing (PVRIG; NCBI Nucleotide database accession no. BC073861). We renamed it as the receptor for CD112 (CD112R) to reflect its strong interaction with CD112 as described in this study. The CD112R gene encodes a putative single transmembrane protein, which is composed of a single extracellular IgV domain, one transmembrane domain, and a long intracellular domain (Fig. 1 A). Notably, the intracellular domain of human CD112R contains two tyrosine residues, one within an ITIM-like motif that is a potential docking site for phos-

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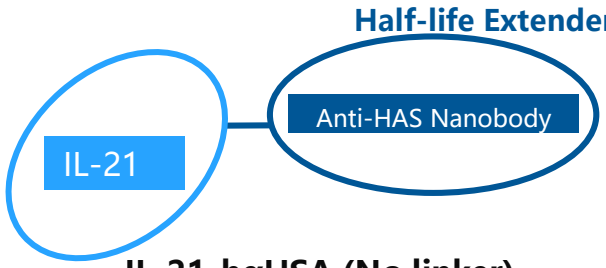
Abbreviations used: CHO, Chinese hamster ovary; IGSF, Ig superfamily; IgV, Ig variable-like; ITIM, immunoreceptor tyrosine-based inhibitory motif; MFI, median fluorescence intensity; PVR, poliovirus receptor; TIGIT, T cell Ig and ITIM domain; TT, tetanus toxoid.

The Rockefeller University Press $30.00
J. Exp. Med. 2016
www.jem.org/cgi/doi/10.1084/jem.20150785

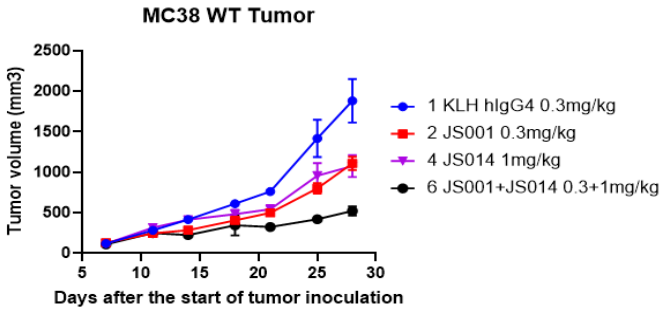
A Comprehensive Landscape of Tumor Immunology: JS014 & JS019

JS014 the world's first long-acting IL-21
T-cell activation

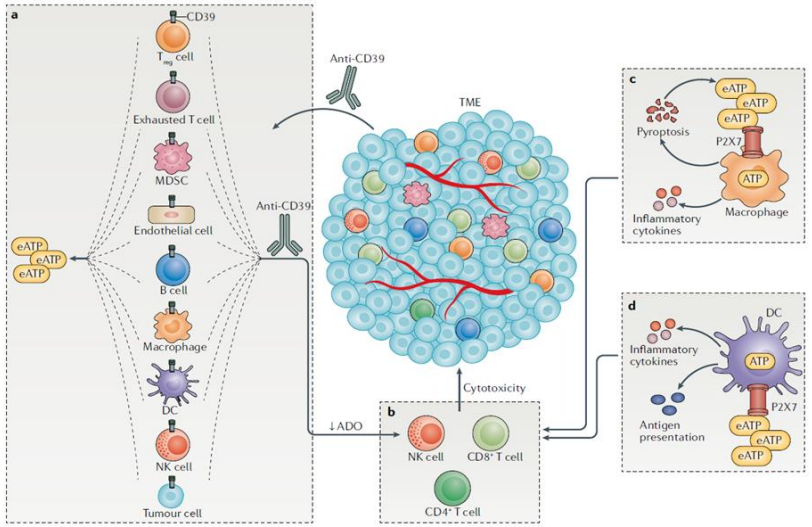


IL-21-hαHSA (No linker)

- Improved stability and developability
- Significantly improved PK profile
- Improved anti-tumor efficacy and in synergy with JS001



JS019 CD39
Tumor microenvironment regulation

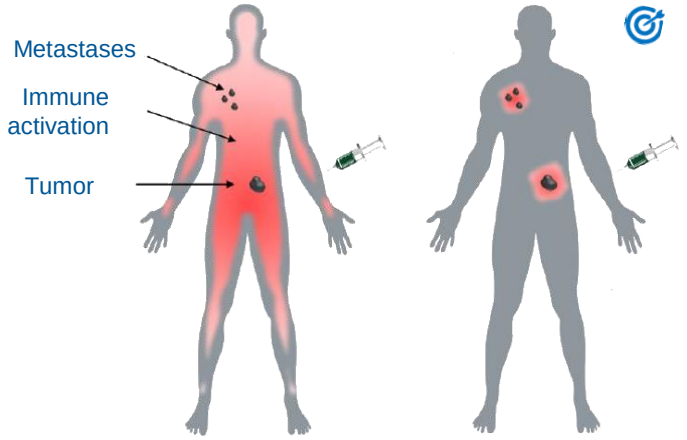


- Good tolerance up to 200 mg/kg in the preliminary toxicity evaluation

The Next-generation of T-cell Engaging Cancer Immunotherapies: PrecisionGATE™

Junshi and Revitope collaborate in the research and development of the next-generation of T-cell engaging cancer immunotherapies. Revitope will be responsible for designing up to 5 unique T-cell immunotherapeutic drugs against targets selected by the Company.

Background

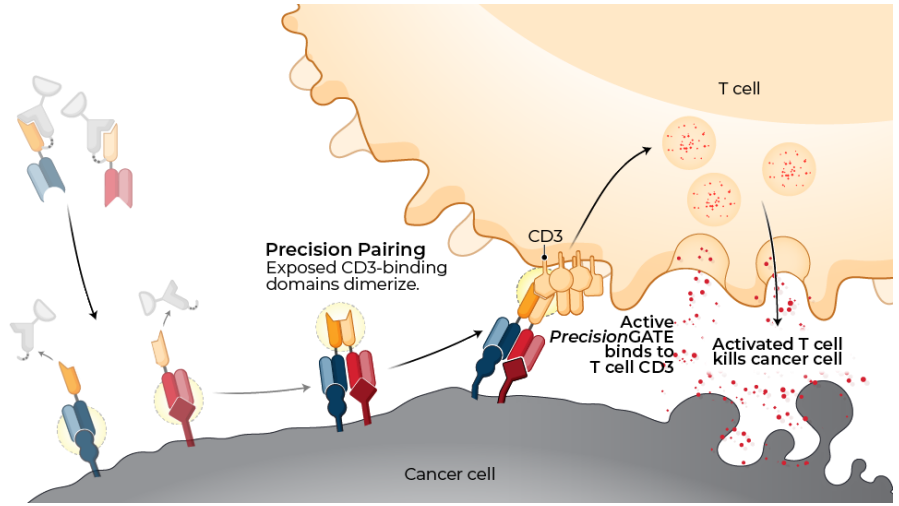


Conventional BsAb

PrecisionGATE™

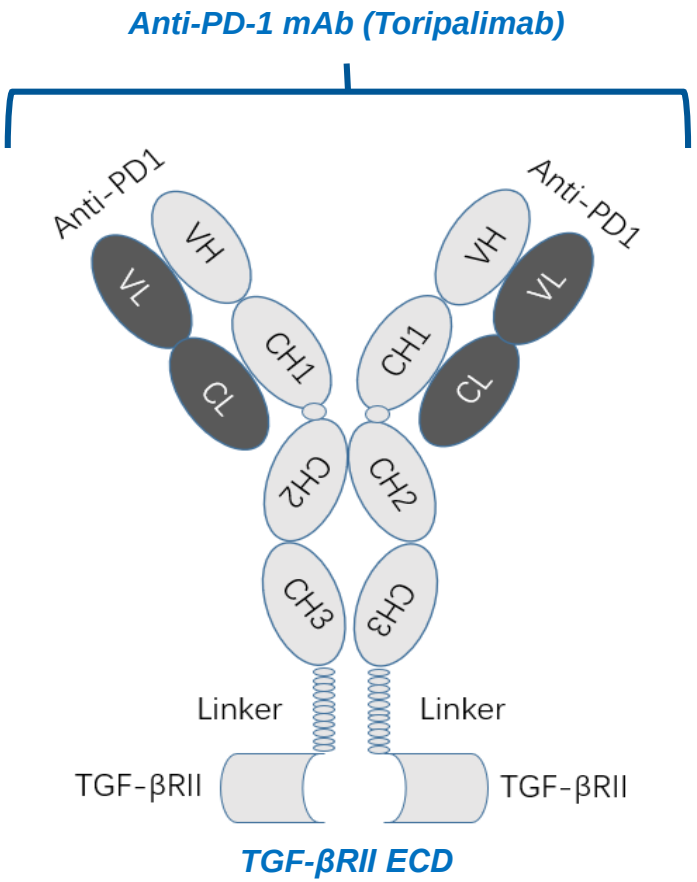
Because tumors typically do not express cell surface proteins unique to the tumor, conventional bispecific antibody therapeutics can generate unwanted and substantial **"on-target, off-tumor"** toxicity. Revitope's two-component T-cell engaging antibody circuits are designed to permit specific recruitment and activation of T-cells exclusively by **tumor cells**, thereby reducing systemic toxicity.

MoA



PrecisionGATE™ therapies **split** the CD3 paratope (the T-cell recognition domain) into two halves, with one half on one molecule and the other half on the other molecule. This allows for true dual-antigen targeting to a unique tumor-specific address – two inputs coming together to enable one precision targeted output. Only when the two molecules come together through **binding to their different tumor targets on the same tumor cell** can the two halves of the CD3 binding domain **recombine and create** a fully functional anti-CD3 domain.

BsAbs: JS201 Bifunctional Fusion Protein Simultaneously Targeting PD-1 and TGF-β



Recent Results

- Dual blockade of PD-1 and TGF-β signaling promote superior T cell activation than monotherapy in MLR assay.
- In vivo efficacy and PK/PD profile in Cyno with NOAEL of 100mg/kg indicate promising better efficacy than monotherapy, and tolerate safety.

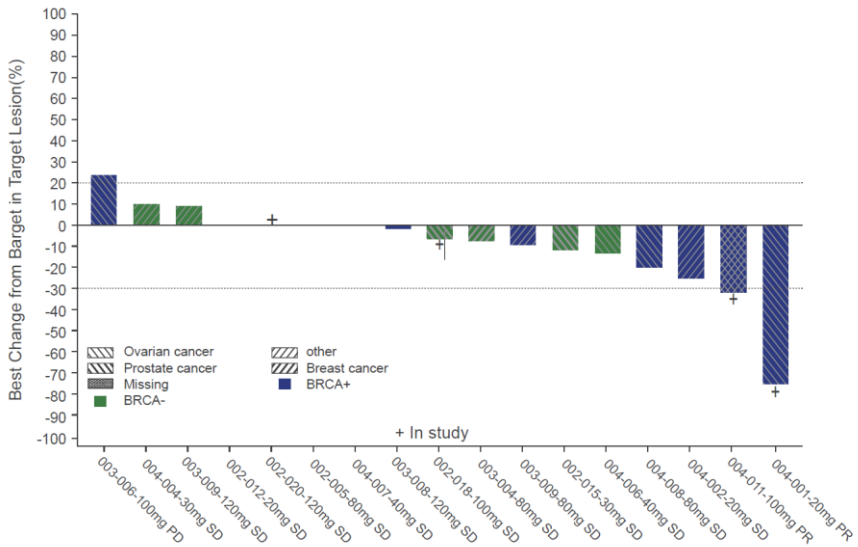
IND

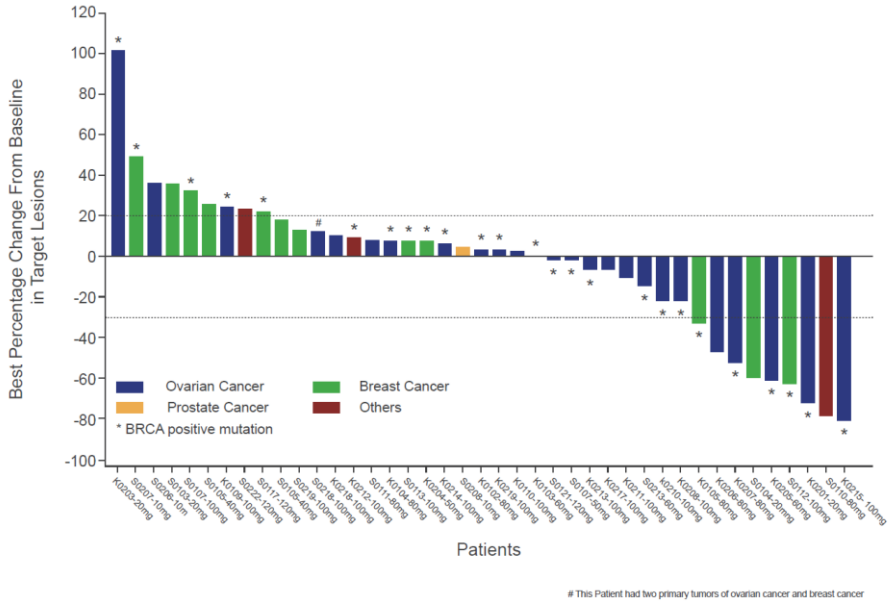
- **In Feb 2021, JS201 received the Acceptance Notice issued by NMPA for the investigational new drug application.**

A PARP Inhibitor in Phase III: Senaparib(JS109)

- Senaparib (JS109) is a novel agent targeting PARP (poly-ADP ribose polymerase).
- Junshi and IMPACT entered into the JV Agreement for the R&D and commercialization of the drugs.
- We are conducting **a Phase II pivotal study** of JS109 monotherapy in treating advanced ovarian cancer patients with BRCA mutation, and **a Phase III study** of JS109 as the 1L maintenance treatment in platinum-sensitive advanced ovarian cancer patients.

✓ **Senaparib(JS109) has been well-tolerated with significant anti-tumor activity in both Chinese and Australian patients.**





Source：ESMO 2020

Other Small Molecule Cancer Drugs

In Feb 2021, JS110 and JS111 IND applications were accepted by the NMPA

JS110
XPO1 inhibitor

- **JS110** is a small molecule inhibitor of the nuclear export protein XPO1, which is clinically intended to treat patients with advanced tumors.
- According to the results of pre-clinical studies, JS110 specifically blocks the function of XPO1. JS110 inhibits the growth and induces death of a variety of tumor cells in vitro. In animal tumor models, JS110 monotherapy or combination therapy can inhibit the growth of a variety of blood and solid tumors. Due to its unique mechanism of action, the development of JS110 is expected to bring new treatments to patients with advanced tumors.

JS111
EGFR exon 20 insertion and other uncommon mutation inhibitor

- **JS111** is a small molecule inhibitor that effectively inhibits uncommon EGFR (epidermal growth factor receptor) mutations. Due to the limited clinical benefits from existing EGFR-TKI, chemotherapy and immunotherapy for patients with EGFR exon 20 insertion or other uncommon EGFR mutations in non-small cell lung cancer, patients have urgent demand for clinical treatments.
- Pre-clinical data showed that JS111 maintains the activity of inhibition for the common EGFR mutations such as T790M and selection of wild-type EGFR, while overcoming the insensitivity of the third-generation EGFR inhibitor for exon 20 insertion and other uncommon EGFR mutations.

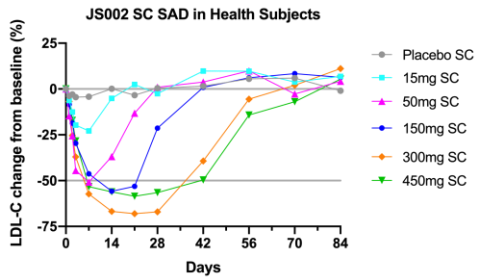
Clinical Candidates: Metabolic JS002 & JS103

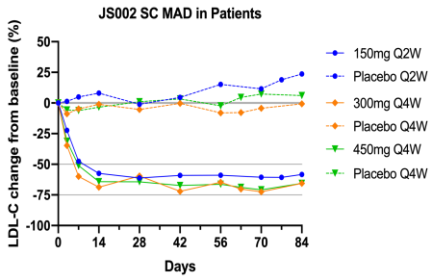
Ongericimab (JS002)：Hyperlipidemia

- JS002 is a recombinant humanized anti-PCSK9 monoclonal antibody for injection independently developed by Junshi for the treatment of cardiovascular diseases. **Junshi is the first PRC company to obtain clinical trial approval for the target drug**
- Phase I and phase II clinical trials has been completed. **In Sep 2020, the Phase III clinical studies with a larger patient population has been initiated**

Recent Results

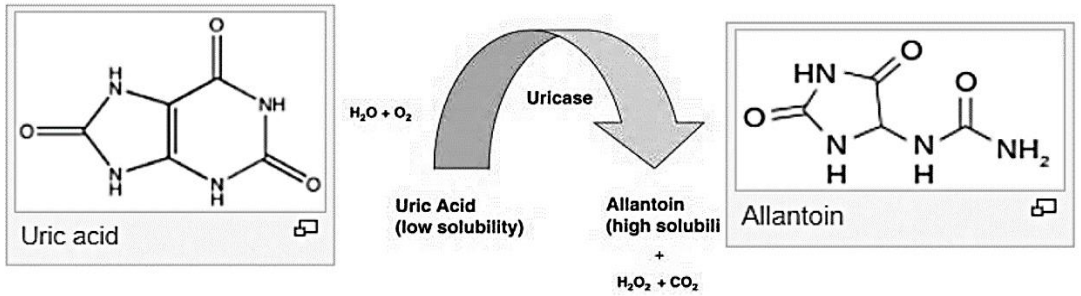
- After a single dose of 15-450mg in healthy subjects, JS002 was shown to be effective in lowering LDL-C levels (50-70% reduction from baseline) at 150/300/450mg
- After multiple dosing of 150-450mg in patients with hyperlipidemia, the results showed that 150mg Q2W or 300/450mg Q4W dosing regimens can achieve maximum and stable LDL-lowering efficacy over the long term （55-75% reduction from baseline, comparable to imported drugs）





Notes: This is the primary analysis data, the final result is subject to the publication

JS103：Hyperuricemia with or without Gout



- JS103 is a pegylated uricase derivative developed independently by the Company that is mainly used for the treatment of hyperuricemia with or without gout. JS103 catalyzes the oxidation of uric acid to form an allantoin with significantly higher solubility than that of uric acid, thereby achieving the effect of reducing blood uric acid
- **In March 2021, the IND application for the JS103 has been accepted**

Current Status

- Pharmaceutical research has been completed. The production process is stable and reliable, and the product quality is controllable and stable
- Pharmacological and toxicological studies has been completed, JS103 shows good enzymatic catalytic activity on uric acid substrates and has a long efficacy

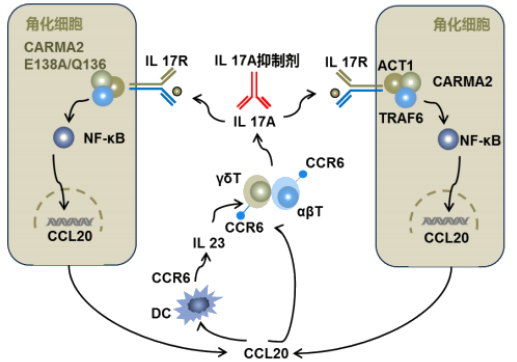
Clinical Candidates: Auto-immune UBP1211 & JS005

UBP1211: Adalimumab

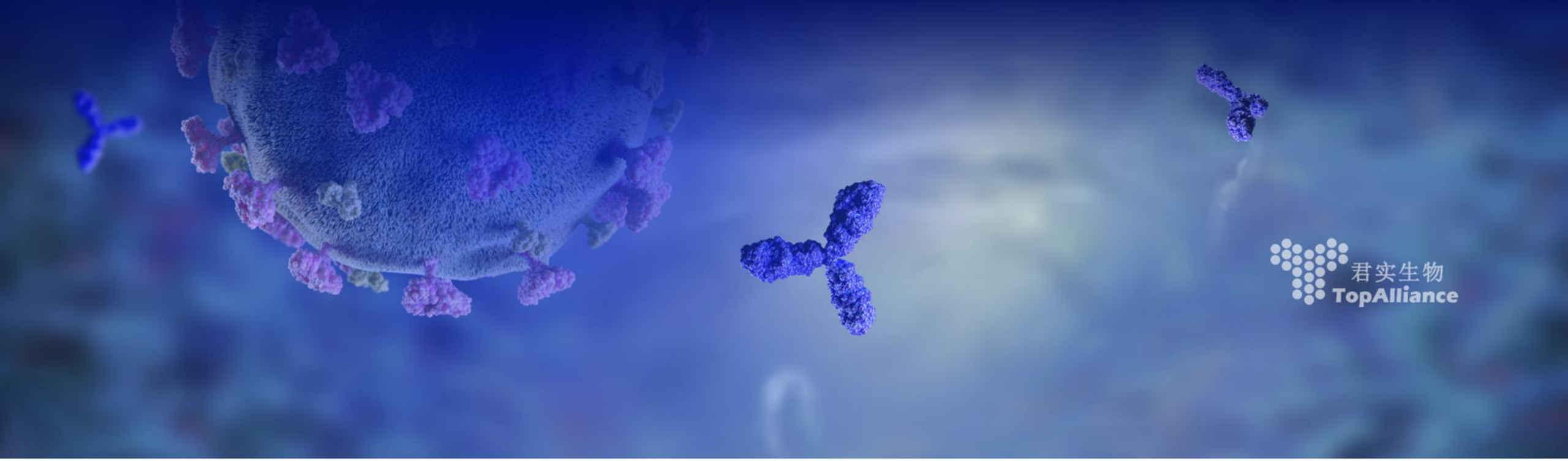
A recombinant humanized anti-TNF-α-monoclonal antibody injection, which targets autoimmune diseases such as rheumatoid arthritis.

The Company has submitted the NDA to NMPA and it was accepted in November 2019

JS005: Specific anti-IL-17A monoclonal antibody



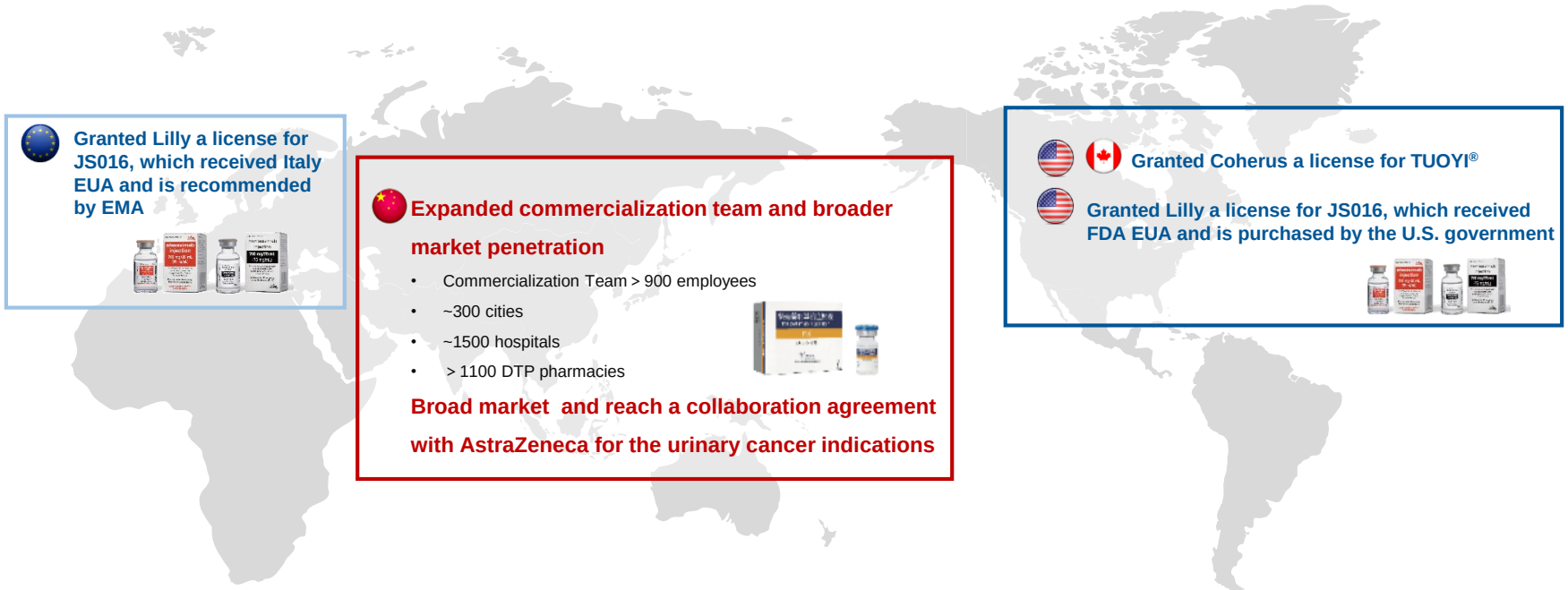
- JS005 is a recombinant humanized anti-IL-17A monoclonal antibody injection that targets autoimmune diseases including psoriasis.
- In preclinical studies, JS005 has shown efficacy and safety comparable to those of marketed anti-IL-17 monoclonal antibodies.
- In May 2020, the first subject was dosed in a Phase I clinical study of JS005 in China. At present, **the Phase I clinical study has completed and has commenced Phase II clinical trial.**



PART5: Commercialization, Academic Achievements and Prospects

Our mission is to provide patients with treatment options that work better and cost less

Strong Commercial Execution and Collaborative Capability with Global Coverage



Granted Lilly a license for JS016, which received Italy EUA and is recommended by EMA

Expanded commercialization team and broader market penetration

- Commercialization Team > 900 employees
- ~300 cities
- ~1500 hospitals
- > 1100 DTP pharmacies

Broad market and reach a collaboration agreement with AstraZeneca for the urinary cancer indications

Granted Coherus a license for TUOYI®

Granted Lilly a license for JS016, which received FDA EUA and is purchased by the U.S. government

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Beijing

Co-development for an IL-2 drug with Leto Laboratories

Co-development for a CD39 drug with Beijing Eirene

Nanjing

Co-development for a PARP inhibitor with IMPACT

Shanghai

Co-development for bevacizumab with Huaota Biosciences

Co-development for XPO1/Aurora A/ EGFR exon 20/ EGFR 4th with Wigen Biomedicine

Hangzhou

Co-development for an anti-Trop2 monoclonal antibody – Tub196 conjugate with DAC Biotech

Suzhou

Co-development for CDK/PI3K with Risen pharma

San Francisco

Co-development for a novel IL-21 fusion protein/ Anti-HSA-IL-2Nα with Anwita

Cambridge

Co-development for the next-generation of T-cell engaging cancer immunotherapies with Revitope

Our Production Bases

- Single-use bioprocessing platform for lower capital and operating costs, higher flexibility and sustainability

Suzhou Wujiang

Production Base

- Constructed in accordance with the **GMP Standard**
- Construction completed in 2016
- **3,000L** fermentation capability

Shanghai Lingang

Production Base

- Currently under construction in accordance with **cGMP standard**
- 5 production lines with a total of **30,000L** fermentation capability
- Drug GMP production license obtained
- **Passed the on-site inspection conducted by Eli Lilly and provided overseas clinical samples of JS016**

Keep on Exploring Academic Frontier

As of March 30 2021, 47 abstracts have been published at international conferences and 44 papers have been published in SCI journals with a cumulative impact factor of 371.61

1 **January 2020**

Cancer Communications, IF 5.627

The research results of TUOYI® for the treatment of advanced solid tumors.

2 **February 2020**

ASCO-GU

The results of TUOYI® for the treatment of treated metastatic urothelial carcinoma (POLARIS-03) were selected.

3 **April 2020**

Clinical Cancer Research, IF 10.107

The research results of TUOYI® for the treatment of advanced melanoma in Clinical Cancer Research.

4 **April 2020**

AACR 2020

The research results of TUOYI® for the treatment of advanced solid tumors were selected.

5 **May 2020**

Nature, IF 42.778

The preclinical research results of SARs-Cov2 neutralizing antibody jointly developed by the IMCAS and Junshi

6 **May 2020**

ASCO 2020

A total of 9 research results of TUOYI® were selected, and mucosal melanoma research was orally reported.

7 **September 2020**

ESMO 2020

A total of 4 research results of TUOYI® were selected, including biliary tract tumors, colorectal cancer and esophageal carcinoma,

8 **September 2020**

CSCO 2020

A total of 9 research results of TUOYI® were selected, urothelial cancer research was an excellent paper and the special topic of the main venue of the conference and 4 research were special topic presentations for innovative drugs.

9 **October 2020**

JAMA Network Open, IF 5.032

The research results of TUOYI® for the treatment of advanced non-small cell lung carcinoma.

10 **November 2020**

STIC 2020

A total of 2 research results of TUOYI® were selected, including neo-adjuvant treatment of non-small cell lung carcinoma and esophageal squamous cell carcinoma.

11 **November 2020**

ESMO ASIA 2020

The research result of TUOYI® for the treatment of advanced hepatocellular carcinoma was selected

12 **January 2021**

WCLC 2020

The research result of TUOYI® in combination with CIK cell therapy for the treatment of non-small cell lung carcinoma was selected.

13 **January 2021**

Journal of Clinical Oncology, IF 32.956

Publication of the results of TUOYI® for the treatment of recurrent or metastatic nasopharyngeal carcinoma (POLARIS-02) .

Prospective Achievements in 2021

NDA Approvals

- **Adalimumab**
- **Toripalimab** for NPC **Achieved**
- **Toripalimab** for UC

Data Readouts & NDA/BLA Submissions

- **Toripalimab** for 1L ESCC readout
- **Toripalimab** for EGFR+ NSCLC readout
- **BTLA** Phase I readout
- **Senaparib** interim readout
- **Toripalimab** for NPC BLA [US] **Achieved**
- **Toripalimab** for 1L NPC NDA [China] **Achieved**
- **Toripalimab** for 1L NSCLC BLA/NDA [US/China]
- **Toripalimab** for 1L ESCC NDA [China]
- **Etesevimab** (combo with bamlanivimab) for Covid-19[US] **Achieved**

Preclinical Candidates

- **About 15** candidates to file IND or Pre-IND meeting **5 achieved in Q1**

Thank You