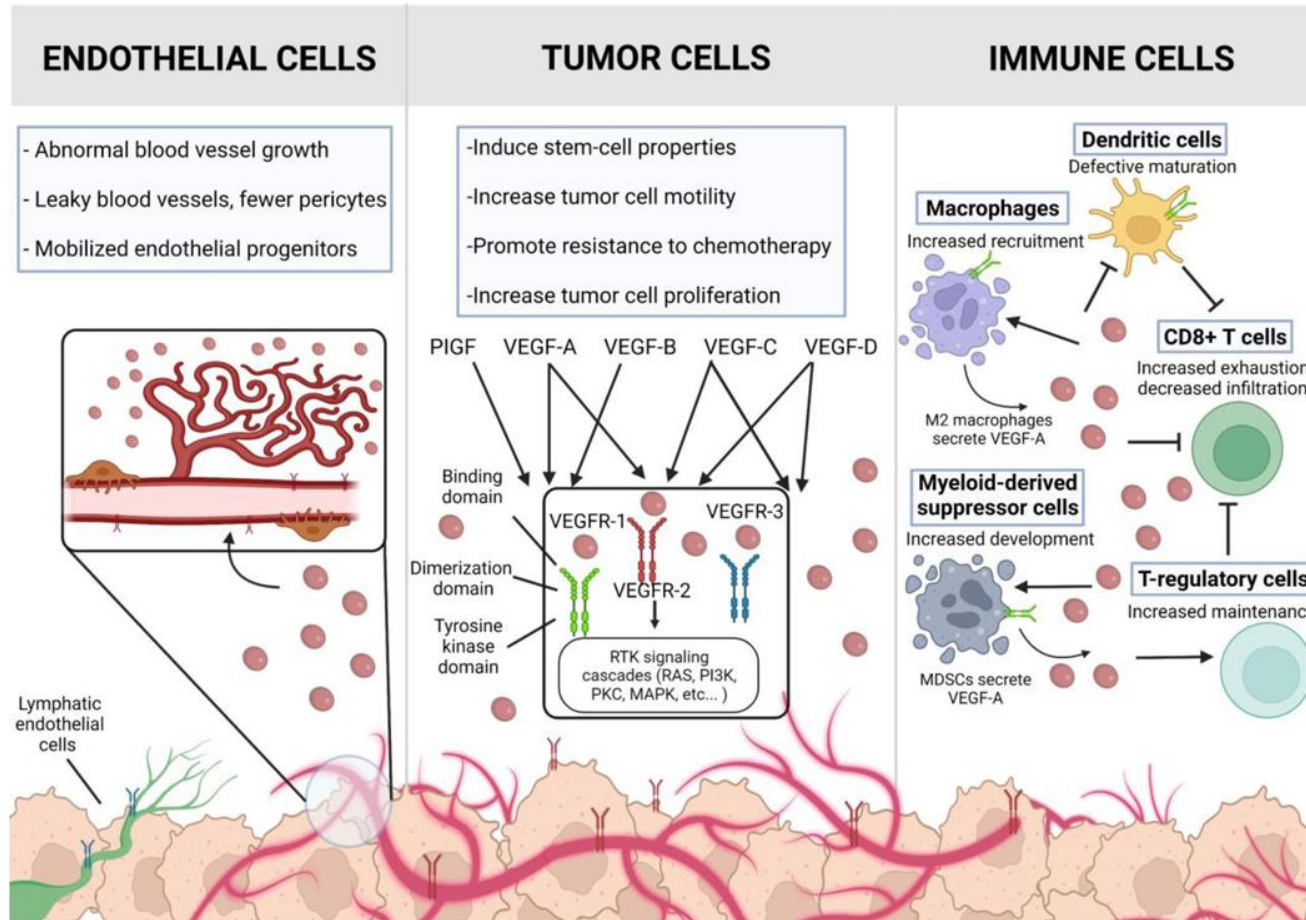


In Vivo Evaluation of VEGF-Targeted Bispecific Antibodies



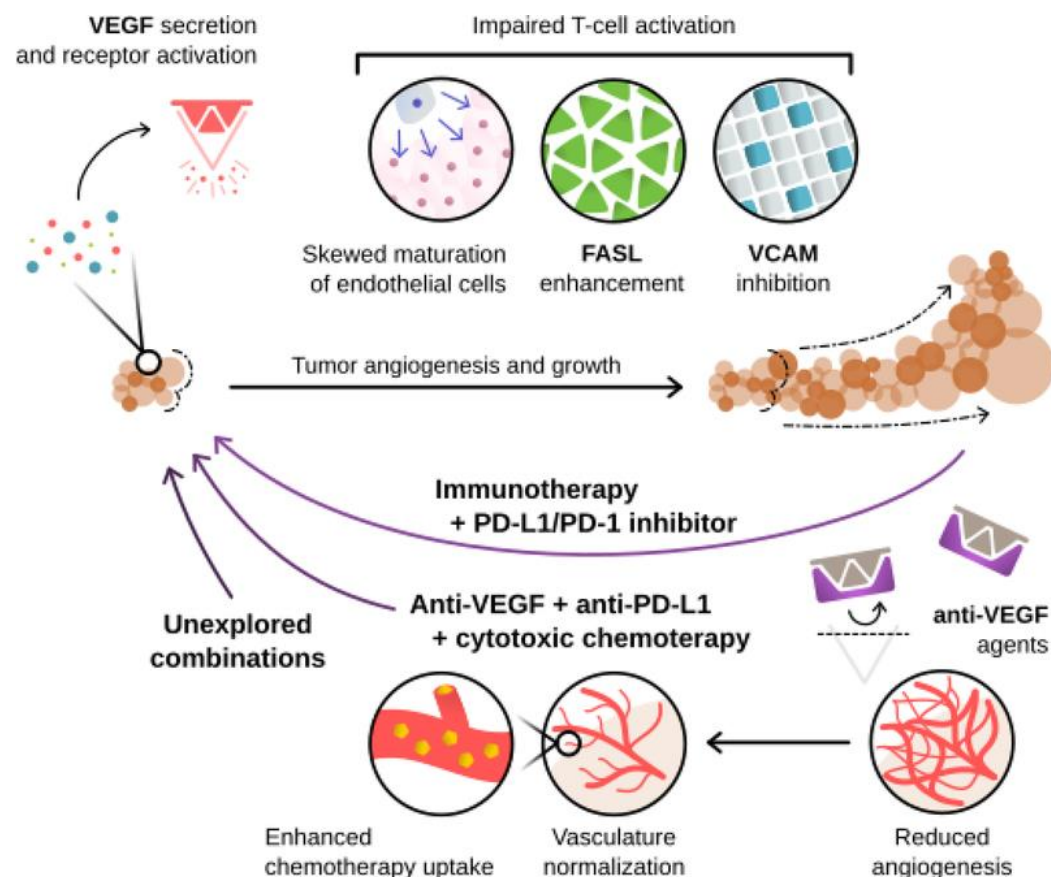
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*Clin Cancer Res (2023) 29 (1):
30–39. 10.1158/1078-0432.CCR-
22-1366*

- VEGF was identified as a key driver of vascular permeability and angiogenesis.
- The tumor vascular network supports the delivery of nutrients, oxygen, and immune cells and is regulated by pro- and anti-angiogenic factors.
- VEGF-A acts as an immunosuppressive factor in modulating immune cells.

Strategies for targeting VEGF and PD-1/PD-L1



- Clinical studies have supported a role for anti-VEGF agents in combination with in PD-1/PD-L1 inhibitors in anti-cancer immunity.
- Nowadays, a growing number of PD-1/PD-L1 x VEGF targeting bispecific antibodies are emerging.

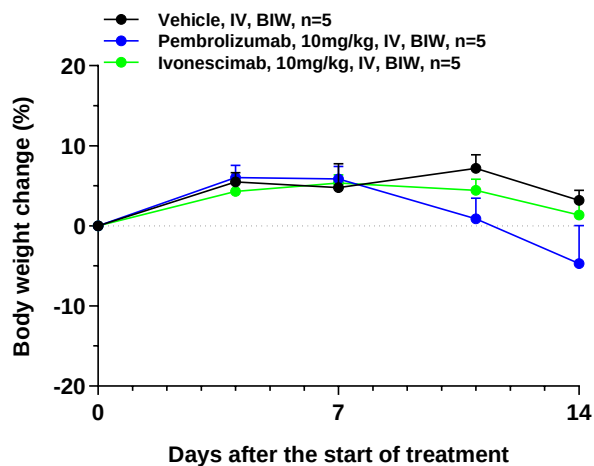
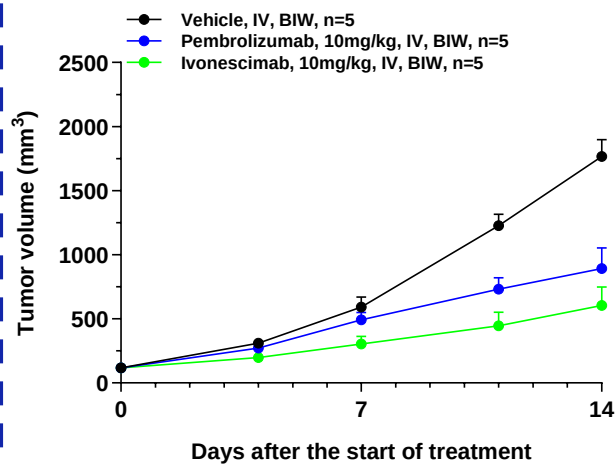
Name	Target	Inventor	Indications	Status
Ivonescimab (AK112)	PD-1 x VEGF	Akeso x Summit	NSCLC	Approved (China)
Pumitamig (BNT327)	PD-L1 x VEGF-A	Biotheus x BioNTech	NSCLC, TNBC	Phase II/III
JS207	PD-1 x VEGF	Junshi Biosciences	mCRC, NSCLC, TNBC	Phase II/III
HB0025	PD-L1 x VEGF	Huaota Biopharmaceutical	TNBC, EC, NSCLC	Phase II/III
RC148	PD-1 x VEGF	RemeGen x AbbVie	NSCLC, CRC	Phase II/III
SSGJ-707	PD-1 x VEGF	3SBio x Pfizer	NSCLC, CRC	Phase II/III
LM-299	PD-1 x VEGF	LaNova Medicines x MSD	solid tumor	Phase I

Cell. 2019 Mar 7;176(6):1248–1264. doi: 10.1016/j.cell.2019.01.021

Showcase of Ivonescimab evaluation

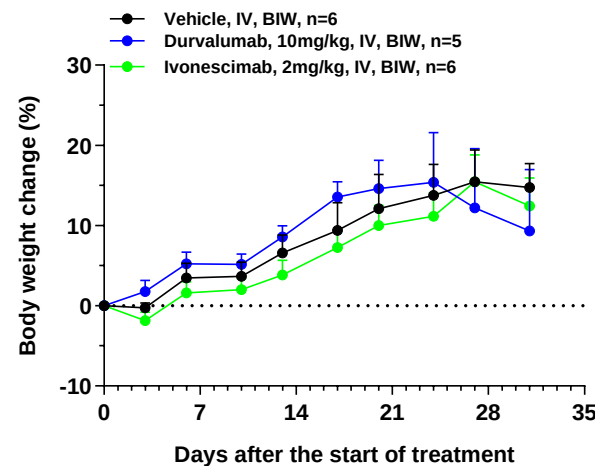
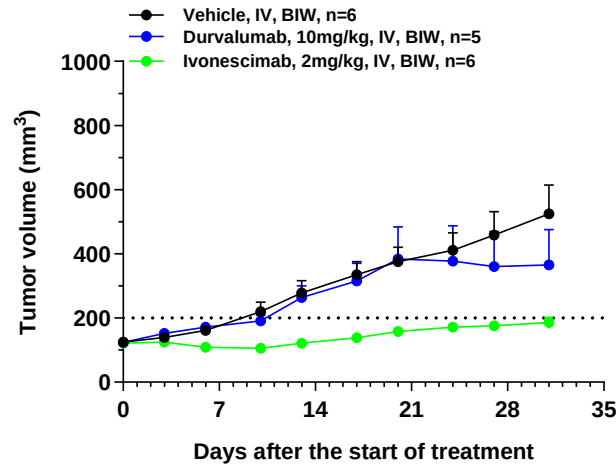
Melanoma-CDX model

PBMC humanized mice

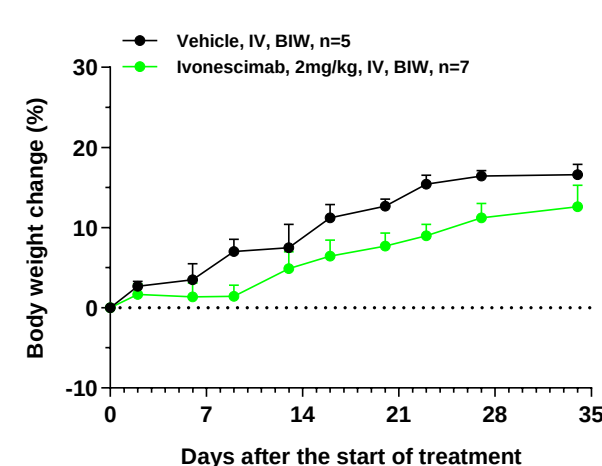
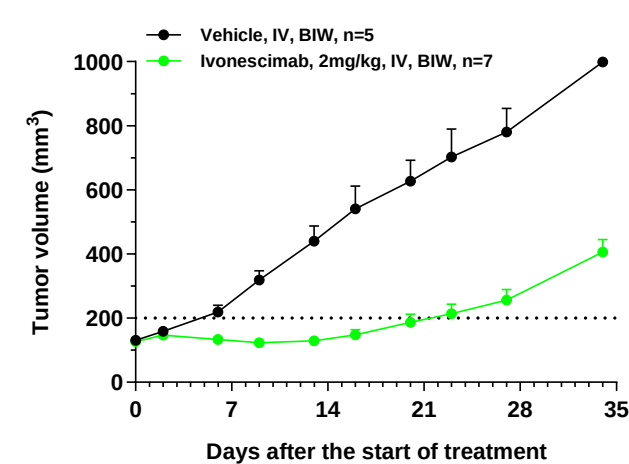


Breast cancer-CDX model

PBMC humanized mice



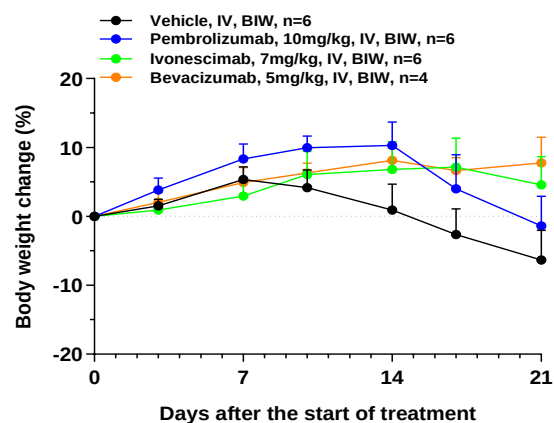
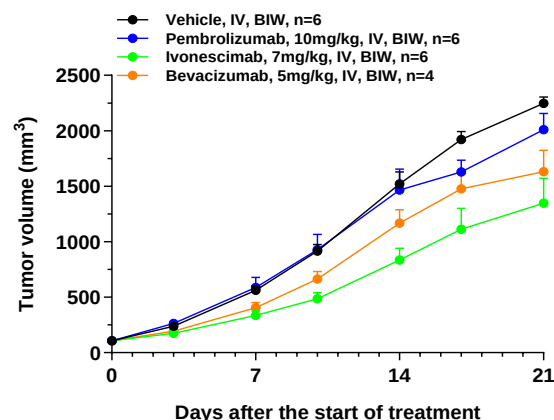
Non-PBMC humanized mice



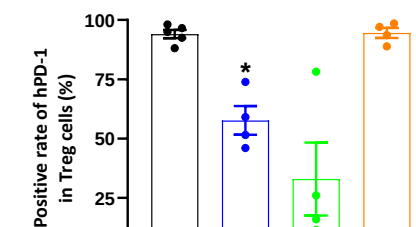
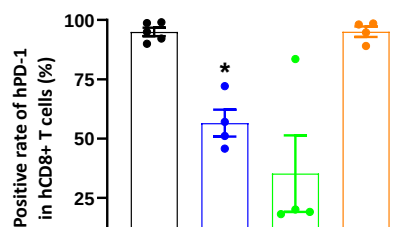
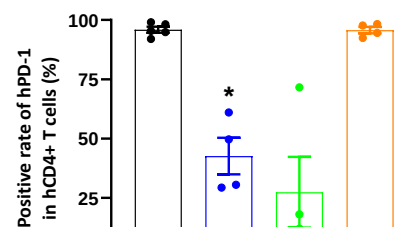
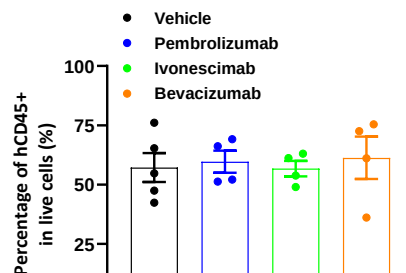
Showcase of Ivonescimab evaluation

Skin cancer-CDX model

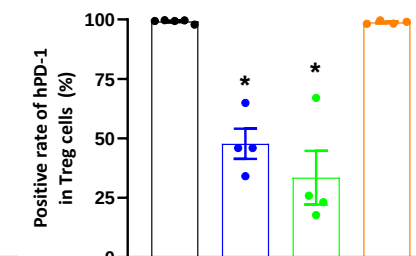
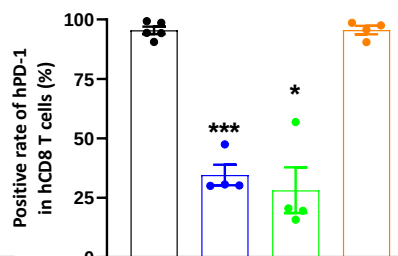
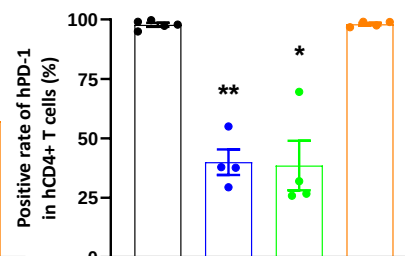
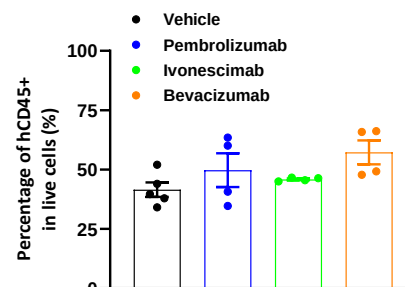
PBMC humanized mice



human immune cells reconstitution in blood



Tumor-infiltrating human immune cells



Tumor types	Cell lines
Bladder (4)	<i>RT112/84, UM-UC-3, 5637, SW780</i>
Brain (1)	<i>U87MG</i>
Breast (3)	<i>MDA-MB-231, HCC1806, HCC1954/Enhertu-R</i>
Colorectal (3)	<i>Colo205, HT29, Lovo</i>
Endometrial (1)	<i>RL95-2</i>
Gastric (5)	<i>SNU-16, NCI-N87, MKN45, NCI-N87/Enhertu-R, NCI-N87-hABCG2</i>
Head & Neck (5)	<i>Cal 27, Fadu, HN-13-0318, HN-13-0200, HN-13-0336</i>
Leukemia (2)	<i>MOLT-4, Nalm-6-luc</i>
Liver (3)	<i>Huh 7, Hep3B, Hep3B-luc</i>
Lung (10)	<i>NCI-H1650, NCI-H460, A549-luc, NCI-H292, NCI-H322, NCI-H358, NCI-H441, NCI-H1299, LU-01-1062, NCI-H441-luc</i>
Lung (Small cell, 5)	<i>NCI-H69, NCI-H82, SHP-77, SHP-77-luc, NCI-H524</i>
Lymphoma (6)	<i>Raji, Ramos, WSU-DLCL2, LY-24-0054, LY-24-0177, Ibrutinib-R-LY-24-0041</i>
Melanoma (1)	<i>A375</i>
Myeloma (2)	<i>NCI-H929, MM.1S</i>
Ovary (1)	<i>OVCAR-3</i>
Pancreas (3)	<i>AsPC-1, HPAC, Mia-pa-ca-2 hCLDN18.2</i>
Prostate (3)	<i>LNCap FGC, 22RV.1, VCaP</i>
Renal (1)	<i>KI-12-0062</i>
Sarcoma (2)	<i>HT1080, LP-19-0220</i>



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For questions and requests, please email to Pharmacology-BD-Translation@wuxiapptec.com



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