Corporate Presentation

OCT 2024

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This presentation (this "Presentation") is provided for informational purposes only and has been prepared to assist interested parties in making their own evaluation with respect to a potential business combination between Abpro Corporation ("Abpro") and Atlantic Coastal Acquisition Corp. II ("ACAB") and related transactions (the "Proposed Business Combination") and for no other purpose.

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This Presentation contains certain forward-looking statements within the meaning of the federal securities laws with respect to the Proposed Business Combination, including statements regarding the benefits of the Proposed Business Combination, the anticipated timing of the Proposed Business Combination, the products and services offered by Abpro and the markets in which it operates and Abpro's projected future results. These forward-looking statements generally are identified by the words "believe", "project", "expect", "anticipate", "estimate", "intend", "strategy", "future", "opportunity", "plan", "may", "should", "will", "would", "will be", "will continue", "will likely result" and similar expressions. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions, and as a result, are subject to risks and uncertainties. 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The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties described in the "Risk Factors" section of ACAB's Registration Statement on Form S-1 filed on December 2, 2021 (as amended), ACAB's Annual Report on Form 10-K for the year ended December 31, 2023, ACAB's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2024 and June 30, 2024, the Registration Statement (as defined below) and the proxy statement/prospectus to be contained therein and the other documents filed by ACAB from time to time with the U.S. Securities and Exchange Commission (the "SEC"). These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. 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Disclaimers

Additional Information and Where to Find It

This document relates to the Proposed Business Combination between Abpro and ACAB. ACAB filed a registration statement on Form S-4 relating to the Proposed Business Combination (the "Registration Statement") which will includes a proxy statement/prospectus of ACAB. The proxy Statement/prospectus will be sent to all ACAB and Abpro stockholders. ACAB will also file other documents regarding the Proposed Business Combination with the SEC. Before making any voting decision, investors and security holders of ACAB and Abpro are urged to read the Registration Statement, the proxy statement/prospectus contained therein, and all other relevant documents filed or that will be filed with the SEC in connection with the Proposed Business Combination as they become available because they will contain important information about the Proposed Business Combination. Investors and security holders will be able to obtain free copies of the proxy Statement/prospectus and all other relevant documents filed or that will be filed with the SEC by ACAB through the website maintained by the SEC at www.sec.gov. In addition, the documents filed by ACAB may be obtained free of charge by written request to ACAB at Atlantic Coastal Acquisition Corp. II, 6 St. Johns Lane, Floor 5, New York, New York, 10013

Participants in Solicitation

ACAB and Abpro and their respective directors and officers may be deemed to be participants in the solicitation of proxies from ACAB's stockholders in connection with the Proposed Business Combination. Information about ACAB's directors and executive officers and their ownership of ACAB's securities is set forth in ACAB's filings with the SEC, including ACAB's Registration Statement on Form S-1 filed with the SEC on December 2, 2021. To the extent that holdings of ACAB's securities have changed since the amounts printed in ACAB's Registration Statement on Form S-1, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Additional information regarding the interests of those persons and other persons who may be deemed participants in the Proposed Business Combination may be obtained by reading the proxy Statement/prospectus regarding the Proposed Business Combination when it becomes available. You may obtain free copies of these documents as described in the preceding paragraph.

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The financial information and data contained in this Presentation is unaudited and does not conform to Regulation S-X. Accordingly, such information and data may not be included in, may be adjusted in or may be presented differently in the Registration Statement to be filed by ACAB with the SEC and the proxy Statement/prospectus contained therein. Certain measures in this presentation do not have any standardized meaning as prescribed by Generally Accepted Accounting Principles ("GAAP") in the United States and, therefore, are considered non-GAAP measures. These measures may not be comparable to similar measures presented by other companies and should not be viewed as a substitute for measures reported under U.S. GAAP. These measures are commonly used by Abpro and ACAB to provide shareholders and potential investors with additional information regarding Abpro's or ACAB's liquidity and their ability to finance their operations. You should review Abpro's audited financial statements, which will be included in the Registration Statement.

Please see the Appendix for the accompanying non-GAAP reconciliations.

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This Presentation contains projected financial information with respect to Abpro and ACAB. Such projected financial information constitutes forward-looking information, and is for illustrative purposes only and should not be relied upon as necessarily being indicative of future results. The assumptions and estimates underlying such financial forecast information are inherently uncertain and are subject to a wide variety of significant business, economic, competitive and other risks and uncertainties. See "Forward-Looking Statements" above. Actual results may differ materially from the results contemplated by the financial forecast information contained in this Presentation, and the inclusion of such information in this Presentation should not be regarded as a representation by any person that the results reflected in such forecasts are achieved.

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Transaction Overview

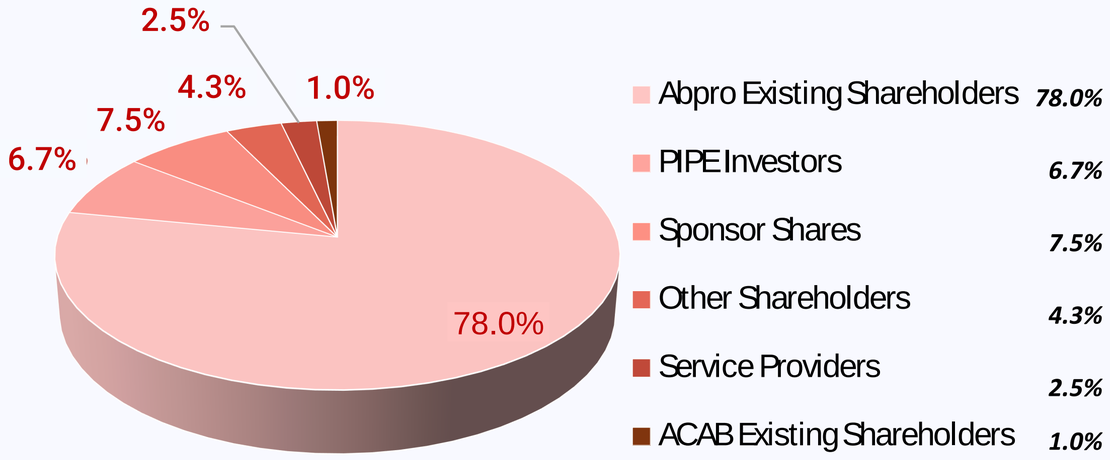
Atlantic Coastal Acquisition Corp. II (NASDAQ: ACAB) plans to conduct a business combination with Abpro Corporation ("Abpro") at a purchase price of approximately $500 million

- Transaction expected to be funded through a combination of $6.4 million PIPE financing and an estimated $6.2 million ACAB cash in trust
- 100% equity rollover by Abpro shareholders, representing an expected ~78% of the Pro Forma Equity Value
- Net proceeds are expected to fund operations of Abpro, including R&D efforts and clinical development of two lead programs
- Targeted transaction close is expected Q4 2024, subject to customary closing conditions and approvals

Pro Forma Valuation at Close

(USD millions, except for share data)	
Pro-Forma Shares Outstanding	50.5m
Share Price	$10.00
Pro-Forma Equity Value	**$505.2**
(-) Cash to Balance Sheet	$8.9
Pro-Forma Enterprise Value	**$496.3**

Illustrative Pro Forma Ownership



Sources & Uses

Sources (USD millions)	
Abpro Equity Rollover	$394.1
Cash in Trust	$6.2
PIPE Financing	$6.4
Total Sources	**$406.7**

Uses *(USD millions)*	
Abpro Equity Rollover	$394.1
Cash to Balance Sheet	$8.9
Estimated Transaction Fees	$3.7
Total Uses	**$406.7**

Investment Highlights

Proprietary Antibody Platform

- Antibody Discovery: DiversImmune®
- Antibody Engineering: MultiMab™

Robust Therapeutic Pipeline of Next Generation Candidates

Candidate	Indication
• ABP-102(HER2/CD3)	Breast and gastric cancer
• ABP-201(VEGF/ANG2)	Wet AMD and DME
• ABP-110(GPC3/CD3)	Liver cancer
• ABP-150(Claudin18.2/CD3)	Gastric cancer

Development & Commercialization Partnerships Established

- Celltrion, Inc. (KRX: 068270)
  - Fully funding development of ABP-102
  - Up to $1.75B in total payments to Abpro
- Abpro Bio[1]

Experienced Leadership Team and World Class Boards

- Industry leaders with wealth of experience from top industry organizations
- Team with extensive biotechnology experience

1 Abpro Bio Co. Ltd (KOSDAQ: 195990), through its subsidiary Abpro Bio International, Inc.,

Experienced Leadership Team

Ian Chan, MBA

CEO, Co-founder

Brown AB; Harvard MBA

Eugene Chan, MD

Chairman, Co-founder

Harvard AB; Harvard MD

Miles Suk

Co-CEO, Board Member

Michigan State U, BS

Robert Markelewicz, MD

Chief Medical Officer

Brown ScB, MMSc, MD

U.S. GENOMICS pioneers in single molecule biology

Morgan Stanley

BEAR STEARNS

rHEALTH

DMI ACCELERATING MEDICAL INNOVATION

U.S. GENOMICS pioneers in single molecule biology

Gan & Lee

LG Chem

Celgene

Acetylon Pharmaceuticals, Inc.

PAREXEL

Atlantic Coastal Management Team

Shahraab Ahmad
Chairman, CEO

Burt Jordan
President

Jason Chryssicas
CFO

Tony Eisenberg
CSO

J.P.Morgan

Ford

CANTOR Fitzgerald

palo santo

DECCA CAPITAL

United Technologies

Goldman Sachs

atai LIFE SCIENCES

ARCHER

TOYOTA

EY

ARCTARIS IMPACT INVESTORS

Experts on Boards

Robert Langer, PhD[1]

David H. Koch Institute Professor, MIT;
Founder of Moderna, BIND,
Momenta, AIR, others

Laurie Glimcher, MD[2]

Former President and CEO,
Dana-Farber Cancer Institute

Ron Levy, MD[2]

Professor and Chief,
Division of Oncology,
Stanford School of Medicine

George Tsokos, MD[2]

Professor of Medicine,
Beth Israel Deaconess
Medical Center

Shiv Pillai, PhD[2]

Professor of Medicine, Harvard
Medical School and Massachusetts
General Hospital

Steven Schnittman, MD, PhD[2]

Infectious Disease Specialist;
Ex-NIH/Chief HIV Division;
Ex-VP BMS

1. Board of Directors member
2. Scientific Advisory Board member

Pipeline with Next Generation Candidates

INDICATION	PROGRAM	TARGET	PRECLINICAL	IND-ENABLING	PHASE 1	PHASE 2	PHASE 3	TOTAL ADDRESSABLE MARKET
DME/Wet AMD	**ABP-201**	Anti-VEGF/ANG2						$10.4 Billion[1]
Breast, Gastric Cancer	**ABP-102**	Anti-HER2/CD3						$12.1 Billion[2]
Liver Cancer	**ABP-110**	Anti-GPC3/CD3						$12.9 Billion[3]
Gastric Cancer	**ABP-150**	Anti- CLAUDIN18.2/CD3						$13.11 Billion[4]

[1] Prescient and Strategic Intelligence, Wet Age-Related Macular Degeneration Market Overview, March 2019.
[2] Research and Markets, Global HER2+ Breast Cancer Market Will Expand to 12.1 Billion in 2030, September 21, 2021.
[3] SNS Insider, Liver Cancer Therapeutics Market to Surpass USD 12,910.02 Million by 2030 Driven by Rising Incidence of Liver Cancer and Advancements in Early Diagnosis, October 25, 2023.
[4] Data Bridge Market Research, Global Gastric Cancer Market - Industry Trends and Forecast to 2029, September 2022.

abpro

TECHNOLOGY PLATFORM

Diversimmune® Discovery Platform

Creates antibody therapies against traditionally difficult targets

Validated by global pharma and research institutions

Proven in **300+** campaigns during early years of development

GSK

Key role in SAP program via platform for GSK SAP amyloid program in Phase 2

Preclinical results published in:

nature

The NEW ENGLAND JOURNAL of MEDICINE

Immunization

Optimization

Diversification

Features:

- **Rapid Generation**

  Proprietary antibody discovery platform that seeks to swiftly produce a diverse array of antibodies

- **Target Variety**

  Targets both clinically validated and novel targets

- **Overcoming Challenges**

  Targets traditionally difficult-to-access antigens

- **Drug-Like Properties**

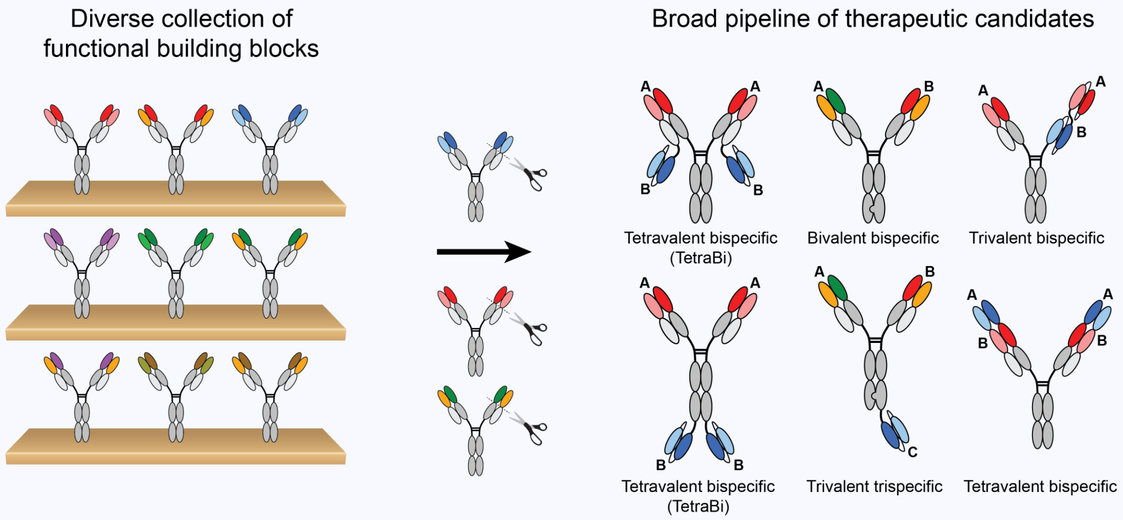
  Seeks to ensure generated antibodies possess characteristics conducive to therapeutic development

- **Create “Building-Blocks”**

  Seeks to deliver functional antibody building blocks with exceptional affinity and specificity to address disease-specific challenges

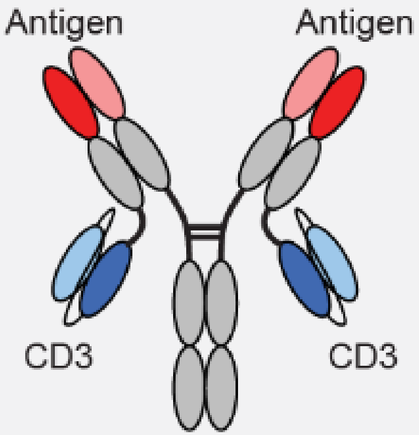
MultiMab™ Antibody Engineering Platform and TetraBi Format

Enhancing efficacy and safety: fine-tuning antibody product formats for optimal results



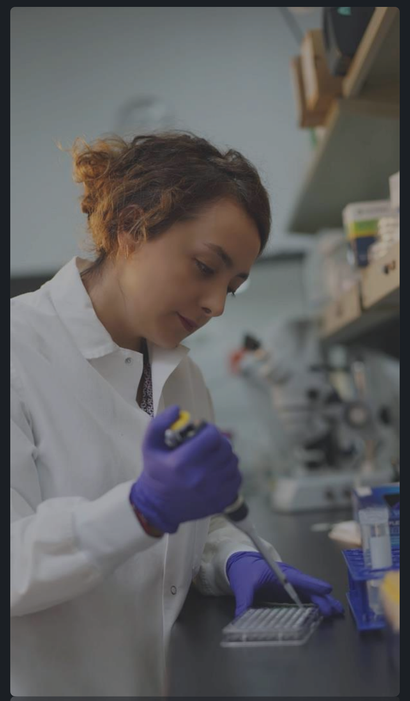
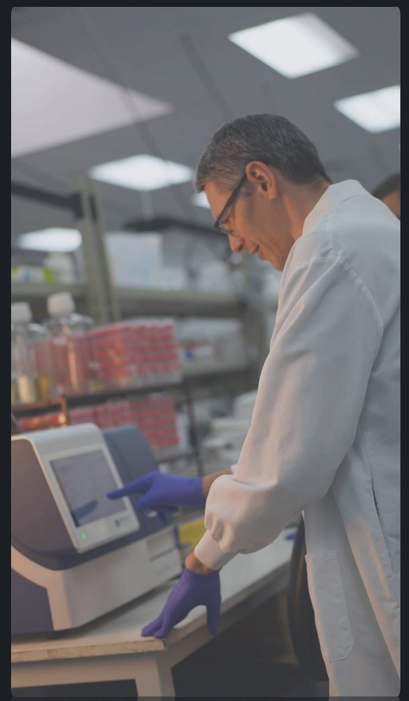
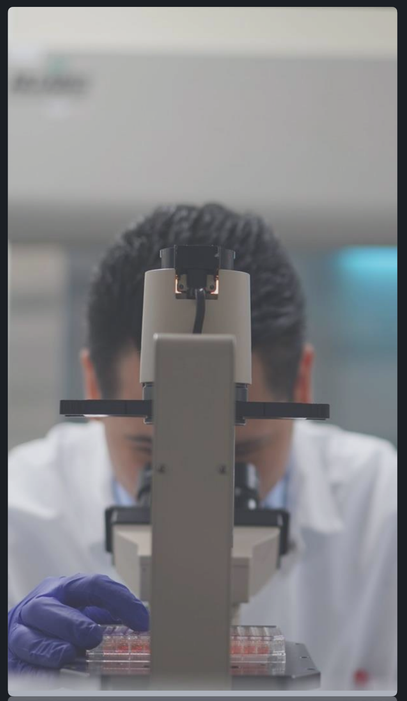
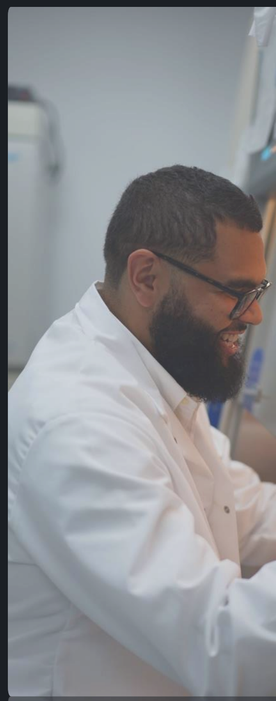
Anticipated Advantages of TetraBi Format:

- Bivalent binding to TAA[1] for potentially increased efficacy
- Fc modification for reducing toxicity and increasing antibody half life
- Flexible configuration for increased safety and/or maximized efficacy
- Symmetrical structure for streamlined manufacturing



[1]TAA= Tumor-Associated Antigen

LEAD PROGRAMS

- ABP-102
- ABP-201

abpro

ABP-102

HER2/CD3 T-Cell Engager

Treatment for HER2+ Breast Cancer &
Gastric Cancer

ABP-102: Strategic Partnership with Celltrion

Leading biopharmaceutical company headquartered in Incheon, South Korea; KRX: 068270

Anticipated Development Plan

- Investigational New Drug (IND) enabling studies underway
  - Preliminary cyno tox study completed
- 2H 2025: File IND application and Initiate Phase 1/2 clinical trial

Indication:

Progressive HER2+ Breast and Gastroesophageal Adenocarcinomas

Design:

First-In-Human, multicenter, open-label, single-agent, Phase 1/2 trial

Global Development & Commercialization Partnership Highlights

Fully Funded

- Celltrion funds all development costs, including preclinical and clinical studies

$1.75B

- Abpro to receive payments up to $1.75B, including equity investment, development/commercial milestone payments

50%[1]

- Abpro retains a 50% share of profits worldwide

[1]The proceeds from commercialization are subject to a 50/50 profit split. Amounts that may be paid by third party collaborators, for example upfronts, milestones and/or royalty payments from territorial commercialization partners, are also subject to a 50/50 split. Following commercial approval of ABP-102, we have agreed to reimburse Celltrion 250% of its direct and certain indirect costs and expenses incurred through first commercial sale. Celltrion is entitled to offset amounts otherwise due to us under the agreement until our share of these costs has been paid back; provided that we are entitled to a minimum 25% of profit from commercial sales and from third party collaborators regardless of the amount of unreimbursed development costs outstanding (and then 50% once the reimbursement has been made in full). In addition, we are entitled to up to over $1.75 billion in development and sales milestones. We are responsible for world-wide patent prosecution, with Celltrion reimbursing 50% of our out-of-pocket costs.

Addressing Unmet Needs in HER2+ Cancers Treatment: ABP-102 Competitive Landscape

$12.1 billion

Projected global HER2+ market size by 2030[1]

Development Fully Funded

By collaboration partner Celltrion

Potential Competitive Advantages:

- Current HER2-directed therapies have demonstrated increased chemical off target toxicity (e.g. TKIs and ADCs) and/or reduced efficacy from drug resistance or limited potency requiring combination with chemotherapy (i.e.: mAbs), especially in the relapsed and refractory disease population
- ABP-102 was designed to overcome these challenges as a single-agent therapy that potently engages the patient's natural immune system without toxic chemicals to directly target and destroy the tumor

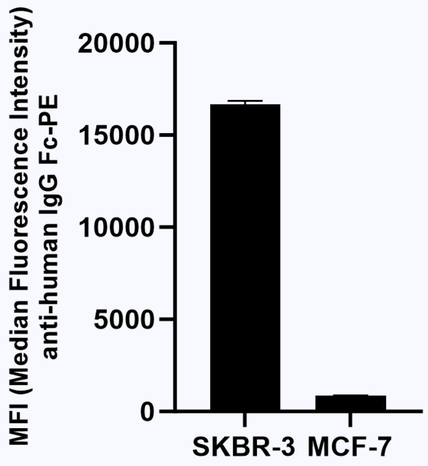
Potential benefits of ABP-102 in immuno-oncology

- **Activating T cells to kill tumor cells**
  TetraBi antibody targets HER2 on tumor cells and CD3 on T cells
- **Reduce activity on -low or negative HER2 cells for safety**
  selectively targets HER2-high and intermediate expressing cells
- **May improve clinical efficacy**
  by inducing T cell infiltration into HER2+ tumors, potentially targeting various solid tumors with HER2 overexpression.
- **Enhances binding, selectivity for tumor cells, potency, and therapeutic index**
  with Dual HER2 binding sites

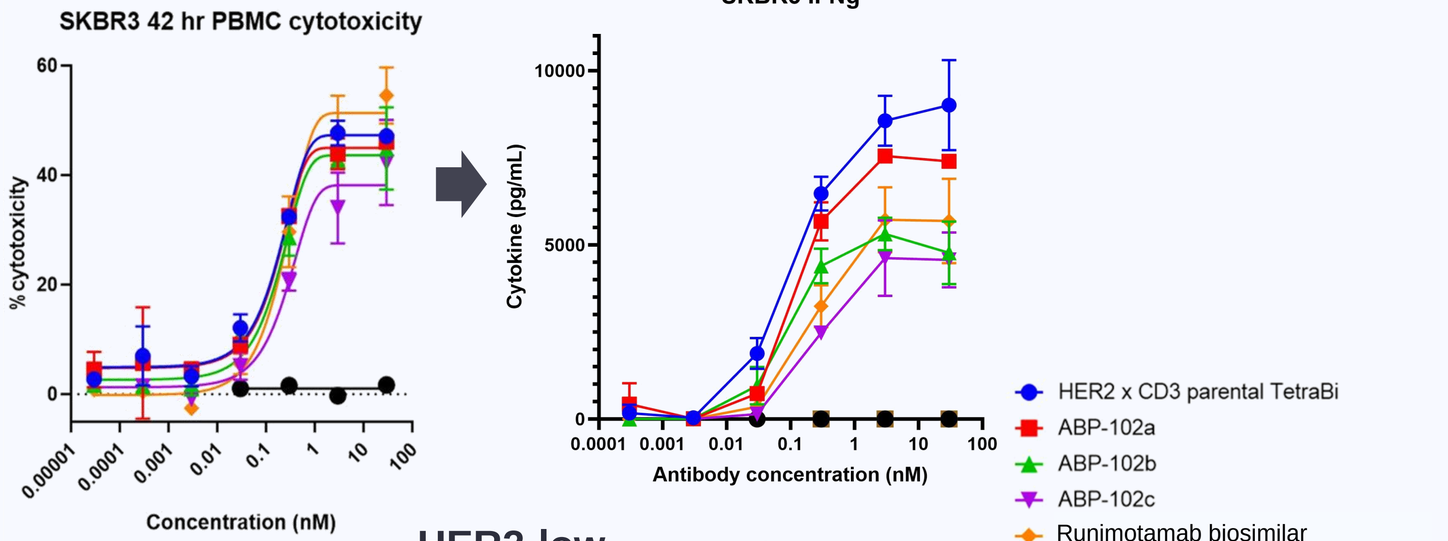
ABP-102: Potent killing of HER2-high but not HER2-low target cells in vitro

HER2 affinity:
HER2 x CD3 parental TetraBi > ABP-102a > ABP-102b > ABP-102c

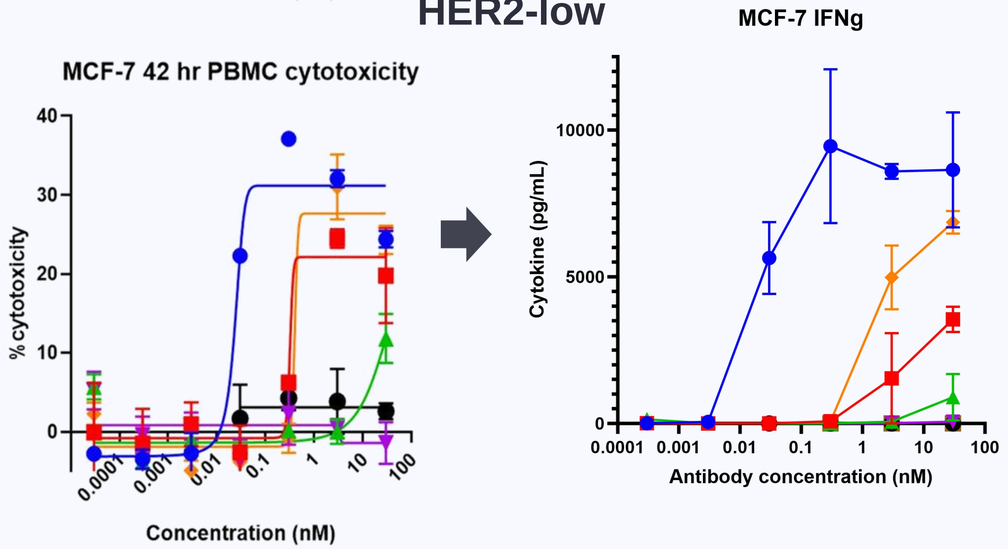
Cell line expression of Her2 with trastuzumab biosimilar



HER2-high



HER2-low



abpro

ABP-201

VEGF/ANG-2 BISPECIFIC ANTIBODY

Treatment for Diabetic Macular Edema (“DME”) &
Wet Age-related Macular Degeneration (”AMD”)

Addressing Unmet Needs in Wet AMD/DME Treatment: ABP-201 Competitive Landscape

$10.4 billion

Global Wet AMD market size projection in 2024[1]

Potential Competitive Advantages:

- Unlike Eylea and Lucentis, ABP-201 seeks to inhibit both VEGF and ANG-2
- Unlike Vabysmo, ABP-201 has two binding sites for VEGF and ANG-2, designed to more effectively trap each ligand
- ABP-201 has a longer half-life in the eye than Eylea, which contributes to pharmacological durability

- We believe that ABP-201 will require less frequent dosing, providing a significant advantage in the commercial setting.
- We anticipate that ABP-201 will not suffer from drug resistance to the same extent as drugs that target VEGF alone, as increased signaling by ANG-2 in response to anti-VEGF therapy is one of the primary mechanisms of resistance to VEGF inhibitors.

1. Prescient and Strategic Intelligence, Wet Age-Related Macular Degeneration Market Overview, March 2019.
2. Risk-adjusted revenues for ABP-201; Does not account for costs Source: Health Advances model and analysis

ABP-201: Anti-VEGF/ANG2

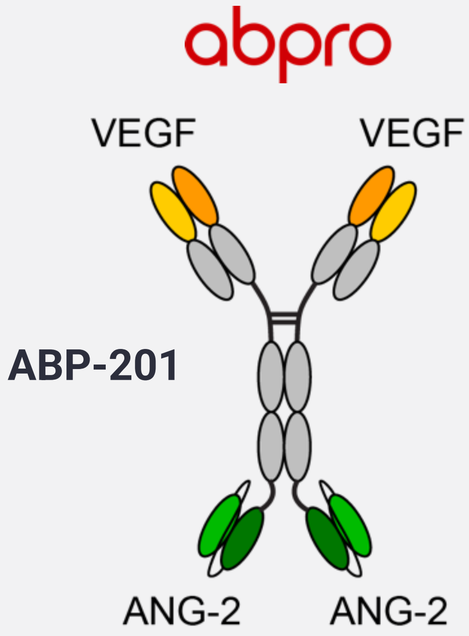
Target Indication: Wet AMD/DME

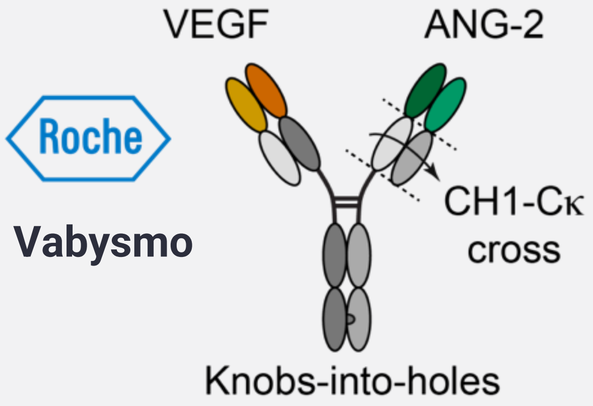
Key Characteristics

- Dual inhibition of VEGF and ANG-2 to block angiogenesis
- Four high-affinity binding sites for increased potential potency
- Dual targeting in single molecule for simultaneous inhibition
- Natural antibody structure for potentially improved dosing
- Symmetrical structure for efficient manufacturing

Ligand trap targeting VEGF and ANG-2 for vascular diseases of the eye

- Formulated for intravitreal injection
- Designed to block blood vessel formation and normalize damaged vessels through co-targeting vascular endothelial growth factor, or VEGF, and angiopoietin-2, or ANG-2

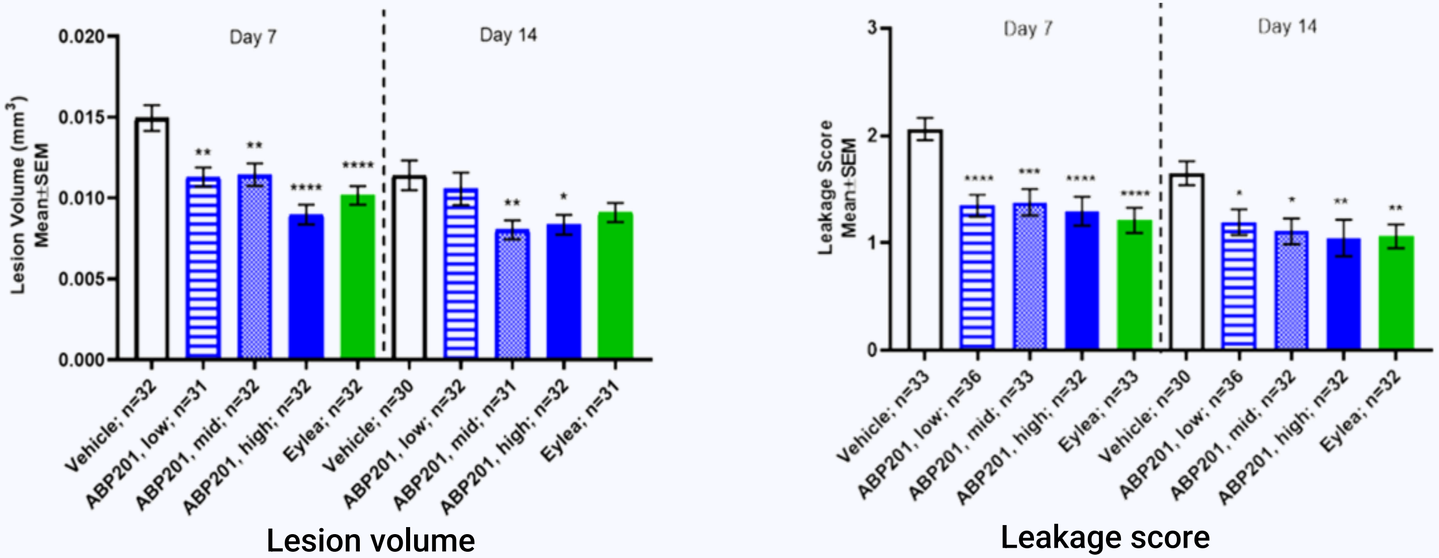




ABP-201: In Vivo Preclinical Models Have Positive Results

ABP-201 significantly reduced vascular lesions comparable to Eylea in rat models

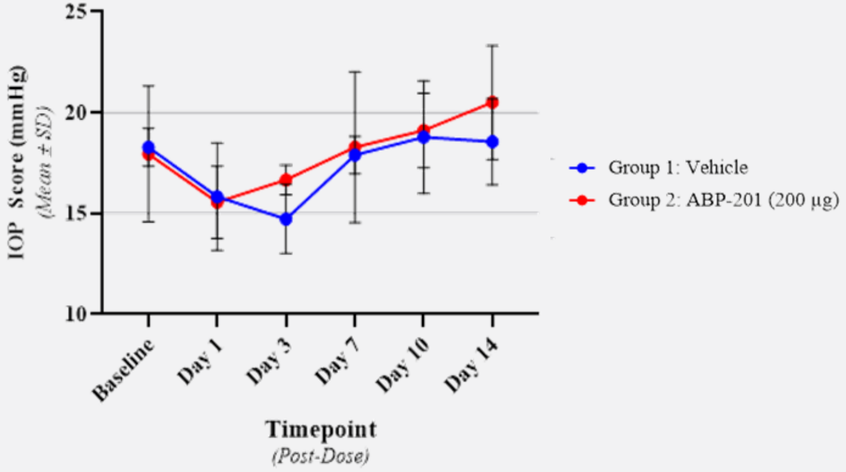
Laser-induced neovascularization model in rats[2]



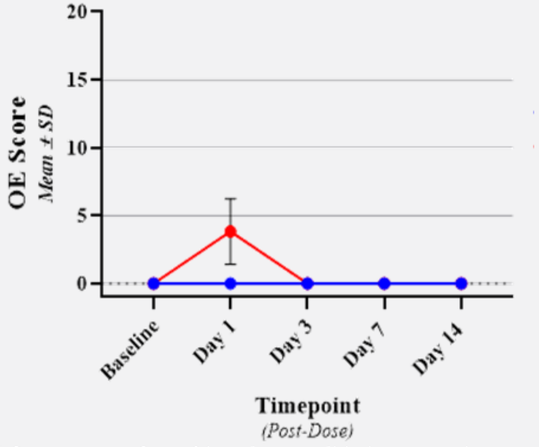
Lesion volume

Leakage score

Mean Intraocular pressure over time [1]



Mean total ocular examination scores over time[1]



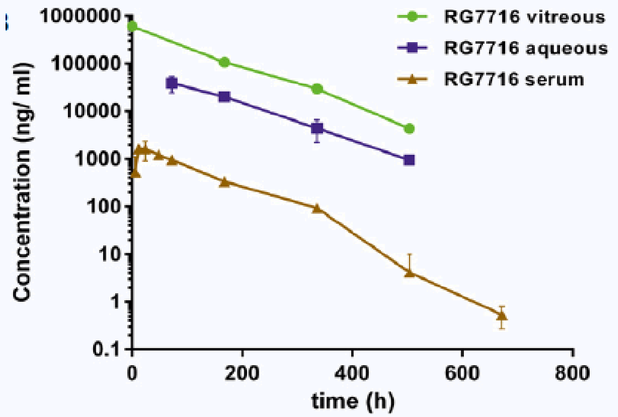
OE Scores range from 0(no abnormalities) to a maximum of 48

ABP-201 does not induce significant inflammation or intraocular pressure increases in rabbit models

[1] PoweredResearch, Safety, Tolerability, and Pharmacokineti C Study Following Intravitreal (IVT) Delivery of a Novel Compound in Rabbit, April 27, 2021.
[2] Ora, Inc., CNV Study with Intravitreally-injected Abpro Test Article ABP201 in Brown Norway Rats, December 20, 2023.

ABP-201 Exhibits Favorable PK Compared with Vabysmo

Faricimab PK in Cyno

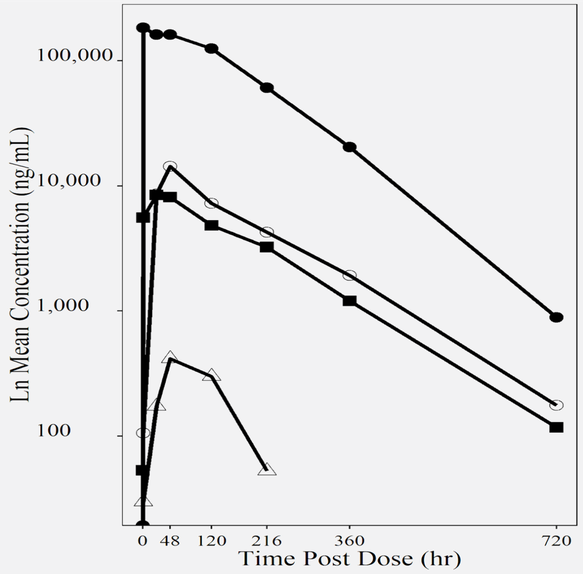


Faricimab(RG7716) 0.5 mg dose in Cyno[1]			
PK parameter	**Unit**	**Serum**	**Aqueous**
C_{max}	µg/ml	3.8	99
t_{max}	h	24	72
$t_{1/2}$	h	89.3	68
t_{last}	h	672	672
$AUC_{0\text{-}tlast}$	(ug*h)/ml	295	18100
$AUC_{0\text{-}inf}$	(ug*h)/ml	296	18200
F	%	12.7	N/A

Vitreous Humor Aqueous Humor Retina Serum

vs.

ABP-201 PK in Rabbit



ABP-201 0.2mg dose in Rabbit[2]					
PK parameter	**Unit**	**Serum**	**Aqueous**	**Vitreous**	**Retina**
C_{max}	µg/ml	0.415	14.374	183.357	8.457
T_{max}	h	48	48	1	24
$t_{1/2}$	h	38	108	82	106
$AUC_{0\text{-}tlast}$	(ug*h)/ml	52	2529	36922	1777
$AUC_{0\text{-}inf}$	(ug*h)/ml	55	2557	37027	1795
MRT	(h)	89	165	142	158

[1]Regula JT, Lundh von Leithner P, Foxton R, et al. Targeting key angiogenic pathways with a bispecific CrossMAb optimized for neovascular eye diseases [published correction appears in EMBO Mol Med. 2019 May;11(5).
[2]Study contracted at ContractKinetica, LLC

ABP-201
Development Strategy

Collaboration Highlights:

- Co-development via a territorial partnership with Abpro Bio[1]
- Abpro retains U.S. and European Union Five commercial rights

Current Status:

- Investigation New Drug (IND) enabling studies underway

Anticipated Development Plan

- **Q1 2026:** File IND application and Initiate a Phase 1 trial in patients with Wet AMD
- Following the identification of the maximum tolerated dose (MTD) in Phase 1, a larger randomized Phase 2 dose ranging trial to be conducted

[1] Abpro Bio Co. Ltd (KOSDAQ: 195990), through its subsidiary Abpro Bio International, Inc., holds territory rights primarily in Asia and Middle East, and is an equity investor of Abpro Corporation.

ADDITIONAL T-CELL ENGAGERS

ABP-150: Anti-Claudin 18.2/ CD3 against Gastric Cancer

ABP-110: Anti-GPC3/CD3 against Liver Cancer

ABP-150: Anti-Claudin18.2/CD3

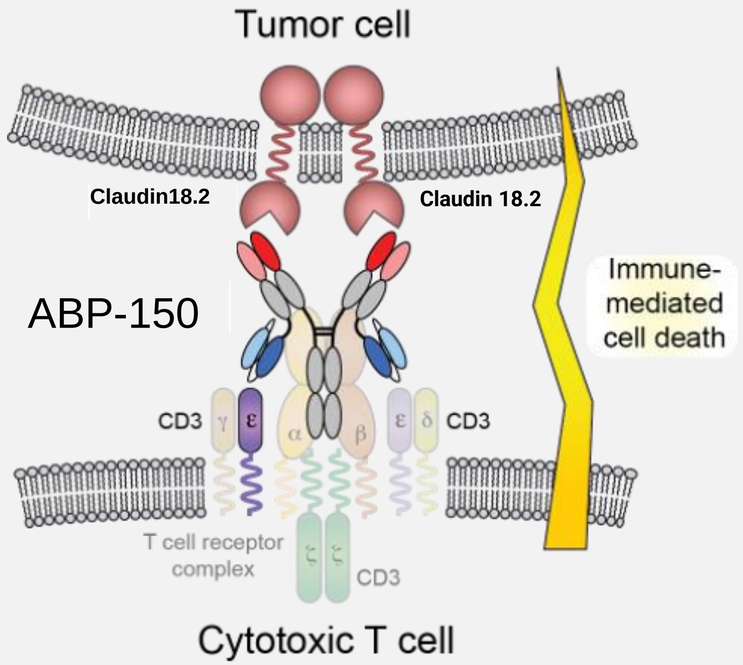
Target Indication: Gastric Cancer

Key Characteristics

- T-cell engager designed to fight cancer through co-targeting CD3 & Claudin 18.2
- Specific for Claudin 18.2, avoiding binding closely related isoform Claudin 18.1 expressed in the lung.
- Showed potent killing in in vitro T cell-mediated killing assays in preclinical studies
- Showed potent efficacy in in vivo efficacy models
- Well tolerated in preclinical efficacy models

$13.11 billion

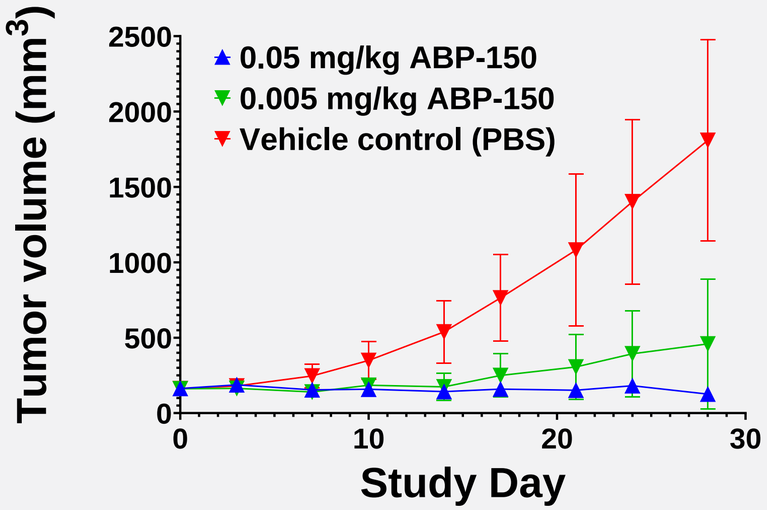
Global gastric cancer market size projection by 2029[1]



[1] Data Bridge Market Research, Global Gastric Cancer Market - Industry Trends and Forecast to 2029, September 2022.

ABP-150: in vivo Efficacy and Safety Profile in Preclinical Models

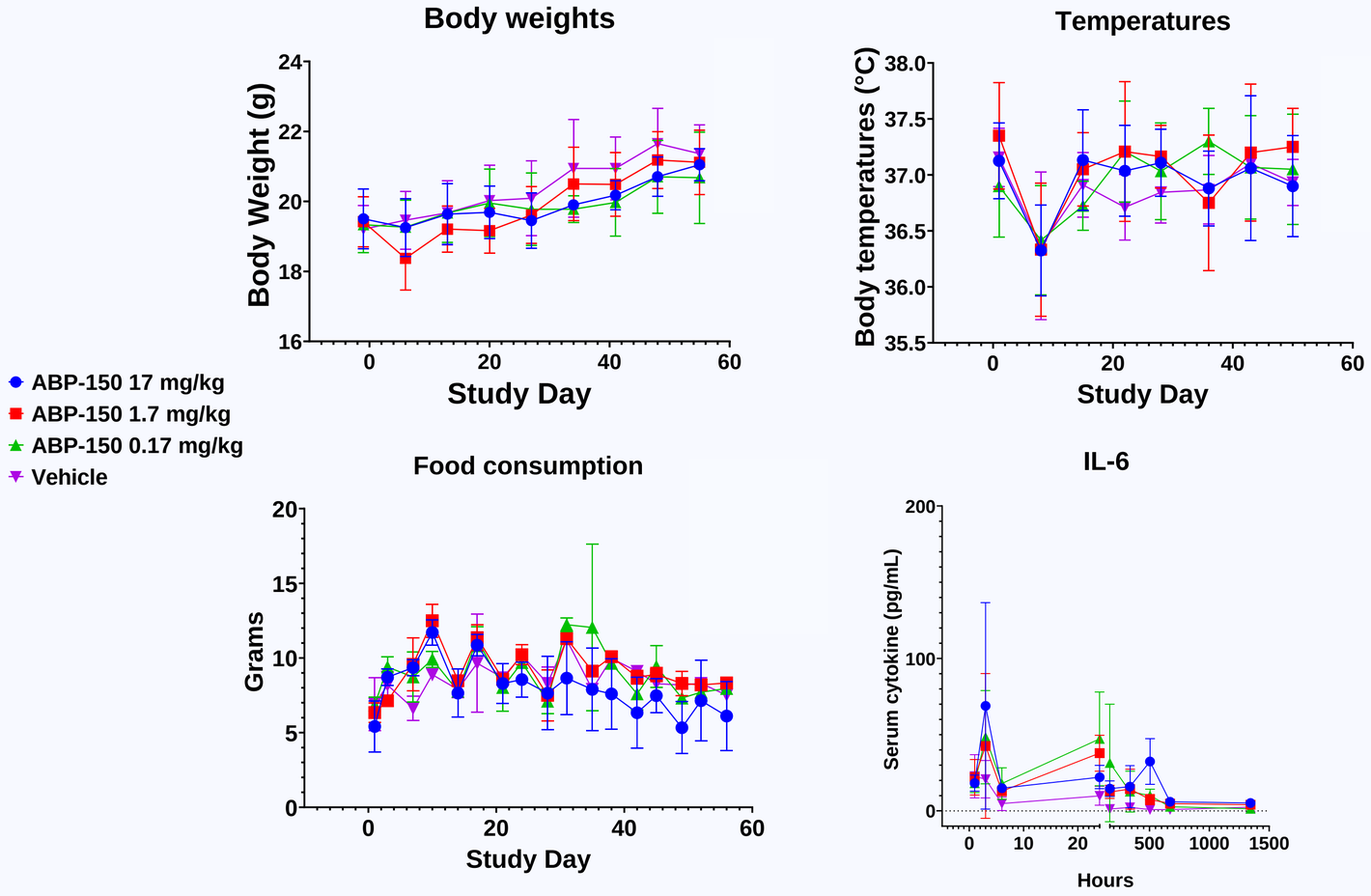
Potent in vivo efficacy in gastric cancer xenograft mouse model[1]



NUGC-4 tumor cells mixed with human PBMCs and implanted subcutaneously in the same bolus into NSG mice.

[1]Abpro internal data.

ABP-150 is well tolerated in a preclinical tox model[1]



Representative toxicity data from human CD3-transgenic mouse model. In this model, ABP-150 can bind both the transgenic human CD3 on mouse T cells and mouse claudin 18.2 on gastric epithelial cells. Upper left: Body weight measurements over time. No significant decrease in body weight with ABP-150 administration. Lower left: Amount of food consumed over time. No differences in food consumption between ABP-150-treated animals and placebo controls. Upper right: Body temperatures over time. No fever response with ABP-150 treatment. Lower right: IL-6 levels in blood over time. ABP-150 administration does not significantly increase IL-6, a major cytokine associated with triggering cytokine release syndrome (CRS).

ABP-110: Anti-GPC3/CD3

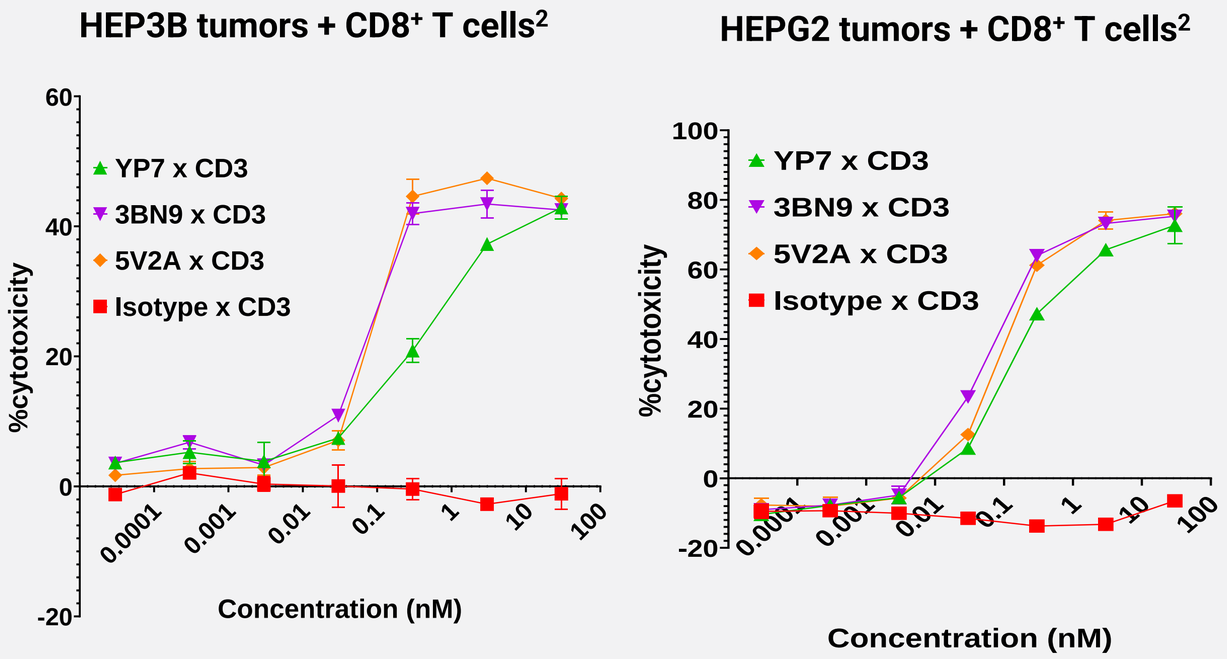
Target Indication: Hepatocellular Carcinoma- Liver Cancer

Designed to provide in-vitro T-cell dependent cellular cytotoxicity (TDCC) against liver cancer cells

- Showed high TDCC in both GPC3-expressing HepG2 and Hep3B cell lines in preclinical models
- Elicited stronger TDCC compared to original YP7 x CD3 bispecific in preclinical models

$12.9 billion

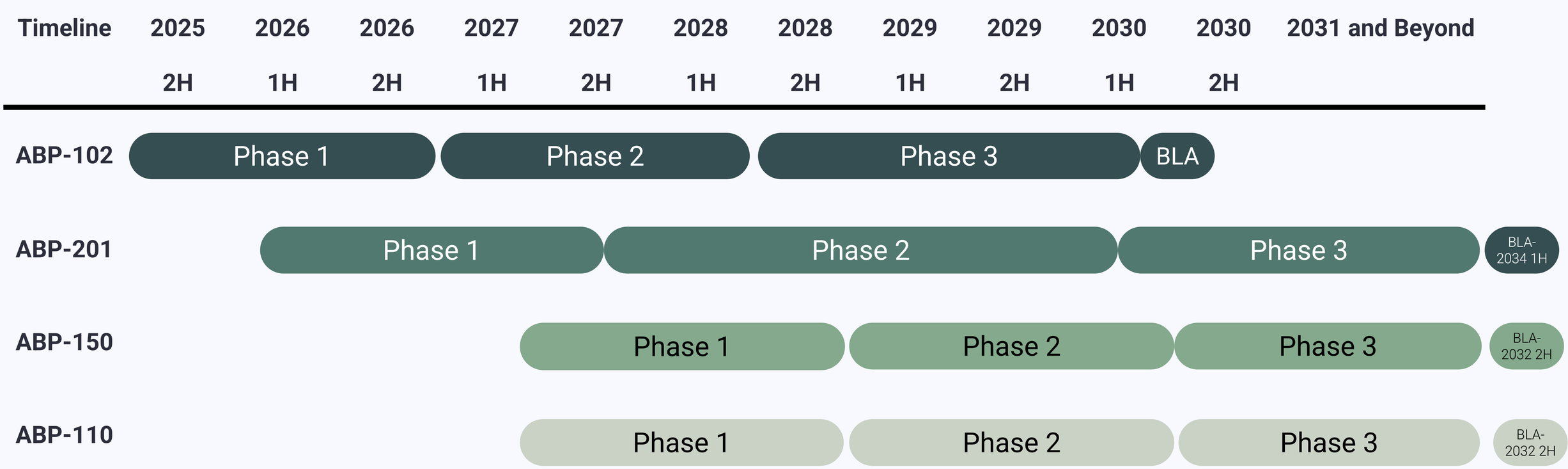
Global liver cancer market size projection by 2030[1]



- YP7 is originally in-licensed from NIH at early stage
- 3BN9 x CD3 and 5V2A x CD3 are Abpro's improved BsAbs

[1] SNS Insider, Liver Cancer Therapeutics Market to Surpass USD 12,910.02 Million by 2030 Driven by Rising Incidence of Liver Cancer and Advancements in Early Diagnosis, October 25, 2023.
[2] Abpro internal data

Anticipated Clinical Development Timeline



Anticipated Upcoming Milestones	IND-Enabling Study Completion	GLP-Tox Study Completion
ABP-102	2Q 2024	1Q 2025
ABP-201		4Q 2025

Appendix

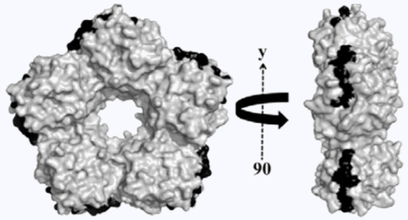
- Additional Data for Abpro Technology Platform
- Additional Key Team Members
- Additional Data for ABP-102(HER2/CD3)
- Additional Data for ABP-201(VEGF/ANG2)

Additional Data for Abpro Technology Platform

Diversimmune Platform

Case study: Amyloid*:

Preclinical results from functional therapeutic antibodies generated with DiversImmune ® platform, via a project for GSK, published in Nature[1] and The New England Journal of Medicine[2]



Conformational epitope recognized by **Abp1** **(highlighted in black)**

Abpro generated a therapeutic mAb “Abp1” against Amyloid used by GSK, featuring high affinity and specificity in ways other approaches can not

*Amyloid plaques, composed of misfolded proteins, are a hallmark feature in the brains of individuals with Alzheimer's disease, contributing to the neurodegenerative process

[1] https://www.nature.com/articles/nature09494
[2] https://www.nejm.org/doi/full/10.1056/NEJMoa1504942

nature
LETTER
doi:10.1038/nature09494

Antibodies to human serum amyloid P component eliminate visceral amyloid deposits

Karl Bodin[1]*, Stephan Ellmerich[1]*, Melvyn C. Kahan[1], Glenys A. Tennent[1], Andrzej Loesch[1], Janet A. Gilbertson[1], Winston L. Hutchinson[1], Palma P. Mangione[1,2], J. Ruth Gallimore[1], David J. Millar[1], Shane Minogue[3], Amar P. Dhillon[4], Graham W. Taylor[1], Arthur R. Bradwell[5,6], Aviva Petrie[7], Julian D. Gillmore[1], Vittorio Bellotti[1,2], Marina Botto[8], Philip N. Hawkins[1] & Mark B. Pepys[1]

METHODS SUMMARY

Induction of murine AA amyloidosis using amyloid enhancing factor and repeated casein injections, estimation of amyloid load *in vivo* and *in vitro*, and quantification of human SAP in serum and tissue extracts, were conducted as previously reported[4,6,10]. Sheep and mouse anti-human-SAP antibodies were raised by immunization with isolated pure human SAP[2,6] and mouse anti-human-SAP hybridomas were cloned by standard methods; Abp1 was produced by AbPro.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Therapeutic Clearance of Amyloid by Antibodies to Serum Amyloid P Component

Duncan B. Richards, D.M., Louise M. Cookson, B.Sc., Alienor C. Berges, Pharm.D., Sharon V. Barton, M.Sc., Thirusha Lane, R.N., M.Sc., James M. Ritter, D.Phil., F.Med.Sci., Marianna Fontana, M.D., James C. Moon, M.D., Massimo Pinzani, M.D., Ph.D., Julian D. Gillmore, M.D., Ph.D., Philip N. Hawkins, Ph.D., F.Med.Sci., and Mark B. Pepys, Ph.D., F.R.S.

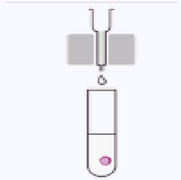
Neutralizing Antibody B cell Cloning Discovery Platform

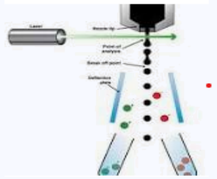
Timeline: < 2 months

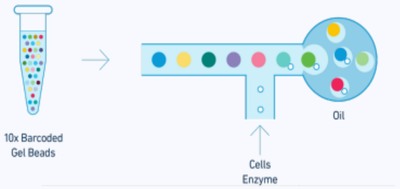
Neutralizing Activity → B Cell isolation → Target-specific memory B cells → Paired H/L cDNA by barcoding → NGS sequencing → Target-specific Ig repertoire → Cloning Expression Testing → nAb epitope binning → Development candidates

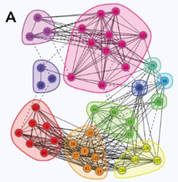
Convalescent /immunized human subjects

Humanized mice





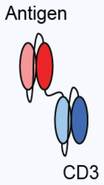
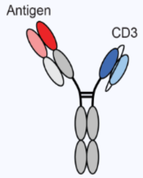
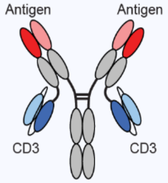




A strategy to enrich only the B cells that are producing blocking antibodies is in the works.

In-house reporter virus particle (RVP) production capability makes it possible to test new emerging variants at any points as needed.

Anticipated Advantages of TetraBi Format Over First- and Second-Generation T-Cell Engagers

Antibody Characteristics	 1st Generation Bispecific	 2nd Generation Bispecific	 Abpro TetraBi	abpro Benefit
Bivalent Binding to Tumor Antigen	✗	✗	✓	Stronger binding to the tumor cell, potentially leading to increased efficacy and an expanded patient population
Long Circulating Half-life	✗	✓	✓	Extends duration of therapeutic effect and reduces frequency of dosing
Fc engineered to reduce CRS	✗	✓ ✗	✓	Decreases interaction with other immune cells, lowering risk of unwanted side effects
Low Risk of Immunogenicity	✓	✓	✓	Natural antibody sequences decrease risk of immune response, which can lead to decreased efficacy
Straightforward Manufacturing	✓	✗	✓	Symmetrical structure streamlines manufacturing by reducing risk of chain mispairing

Additional Key Team Members

Additional Key Team Members

Shaun Murphy, PhD

VP of Immunology

Brown PhD,
Research Harvard Medical School

Joined Abpro in 2014
Previously at Toxikon

Askar Kuchumov, PhD

VP of Business Development

Lomonosov Moscow State, BS
Wayne State U School of Medicine, PhD

Lactocore (Interim CEO), Astrotide (Co-founder/CEO), Cleveland Biolabs (Director of BD)

Mengsha Wang, MBA

Director of Corporate Development

Clark U MSc. Finance, MBA

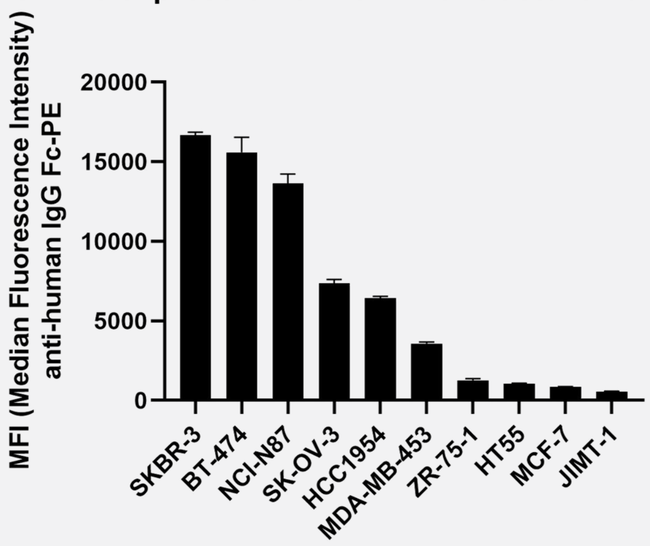
Joined Abpro in 2014

Additional Data for ABP-102

HER2/CD3 T-Cell Engager

ABP-102: engineered TetraBi antibodies exhibit selectivity in vitro, with potent cytotoxicity on HER2-high cell lines and reduced killing of HER2-low cell lines

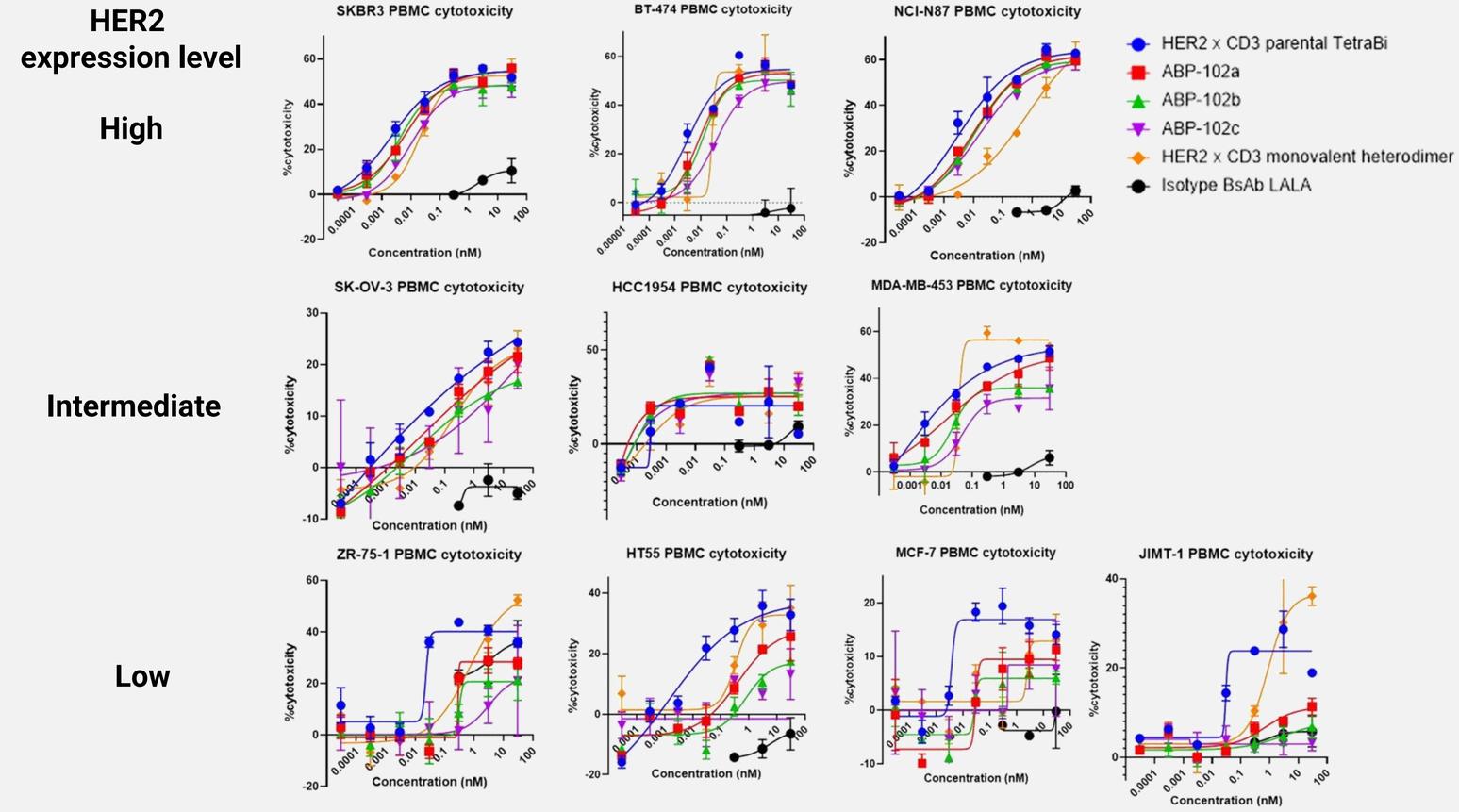
Cell line expression of Her2 with trastuzumab biosimilar



Trastuzumab binding by flow cytometry results in a range of HER2 expressing cancer cell lines.[1]

[1] (left panel) Abpro internal data; trastuzumab (1ug/mL) + anti-human IgG Fc specific PE; flow cytometry on BD FACSCelesta.

[2] (right panel) Abpro internal data; cytotoxicity of cell lines using PBMCs (10:1 E:T ratio) after 42 hours, readout by CellTiterGlo2.0 reagent (Promega).

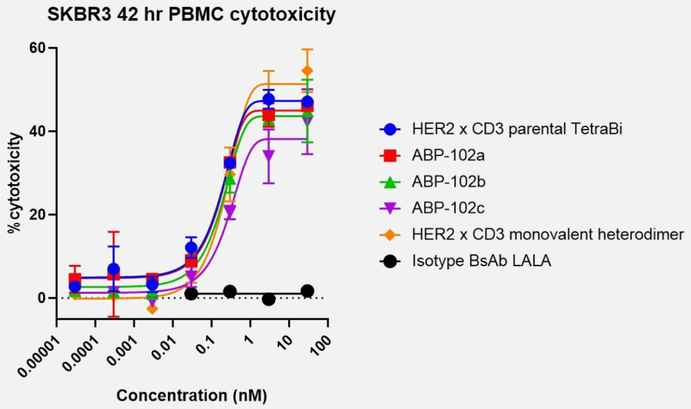


ABP-102 candidate molecules exhibit preferential killing of HER2-high (SKBR3, BT-474, NCI-N87) and HER2-intermediate (SKOV-3, HCC1954, MDA-MB-453) cell lines, with reduced cytotoxic activity on HER2-low cell lines (ZR-75-1, HT55, MCF-7, JIMT-1).[2]

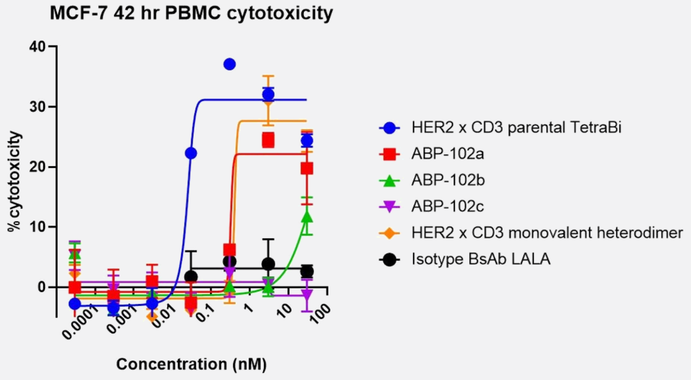
Conclusion: ABP-102 candidate bispecific antibodies have potent cytotoxicity at similar levels as the parental non-affinity-tuned bispecific antibody on HER2-high and HER2-intermediate cell lines. On HER2-low cell lines, ABP102 candidates have reduced cytotoxicity, and exhibit more selectivity than the parental bispecific antibody, reducing the potential for “on-target, off-tumor” toxicity.

ABP-102: engineered TetraBi antibodies exhibit functional selectivity for T cell activation, including reduced cytokine release for HER2-low expressing cell lines

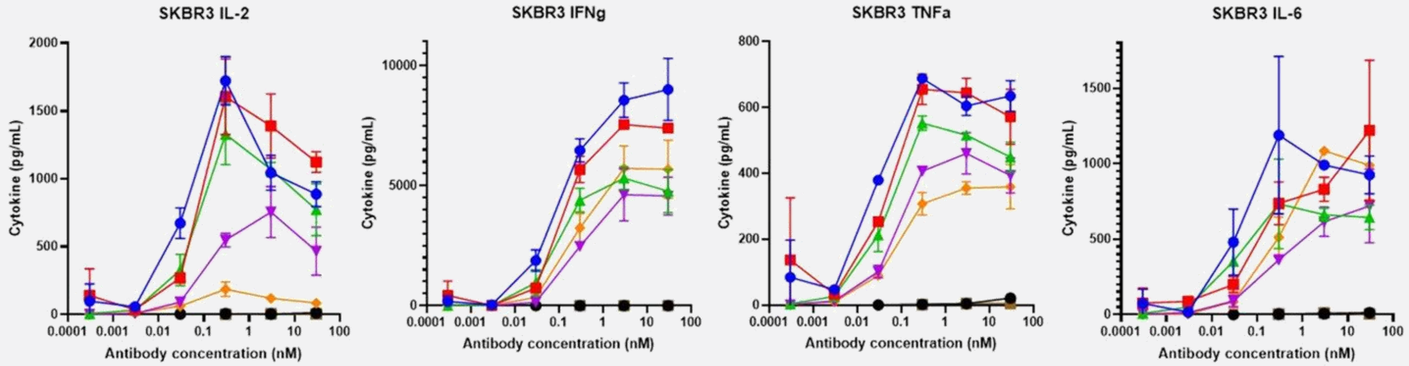
HER2 high

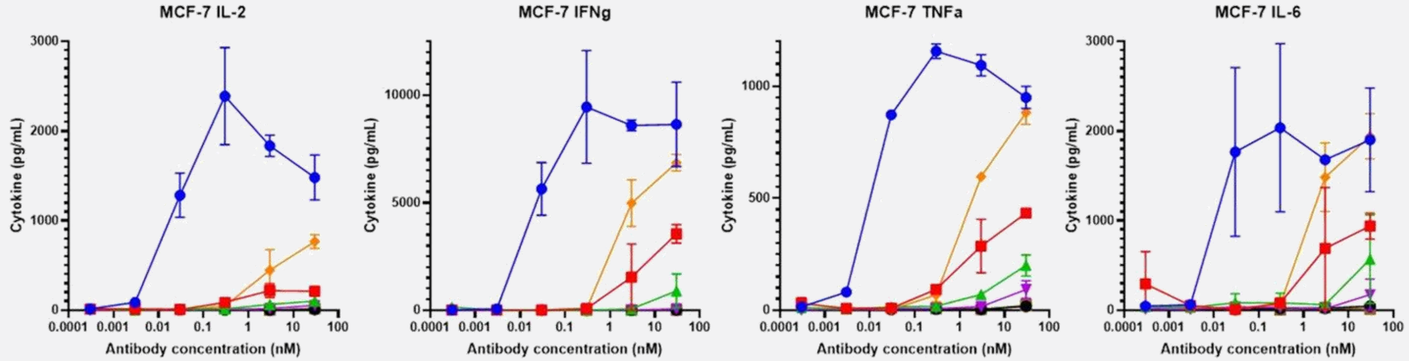


HER2 low



ABP-102-mediated PBMC cytotoxicity of HER2-high (SKBR3) and HER2-low (MCF-7) cell lines.[1]





ABP-102-mediated cytokine release (IL-2, IFNg, IL-6, TNFa) in supernatants with HER2-high target cells (SKBR3) is modestly reduced, while for HER2-low (MCF-7) target cell lines, greater reductions in cytokine release are observed.[2]

Conclusion: ABP-102 engineered dual-arm affinity reduction strategy resulted in candidates with reduced cytokine release compared to the parental molecule, reducing the potential for "on-target, off-tumor" toxicity.

[1] Abpro internal data; cytotoxicity of cell lines using PBMCs (10:1 E:T ratio) after 42 hours, readout by CellTiterGlo2.0 reagent (Promega).
[2] Abpro internal data; cytotoxicity of cell lines using PBMCs (10:1 E:T ratio) after 42 hours, readout by bead-based multiplex assay for cytokine detection (R&D Systems/Luminex).

Additional Data for ABP-201

VEGF/ANG-2 BISPECIFIC ANTIBODIES

ABP-201 Exhibits Favorable PK Compared with Eylea

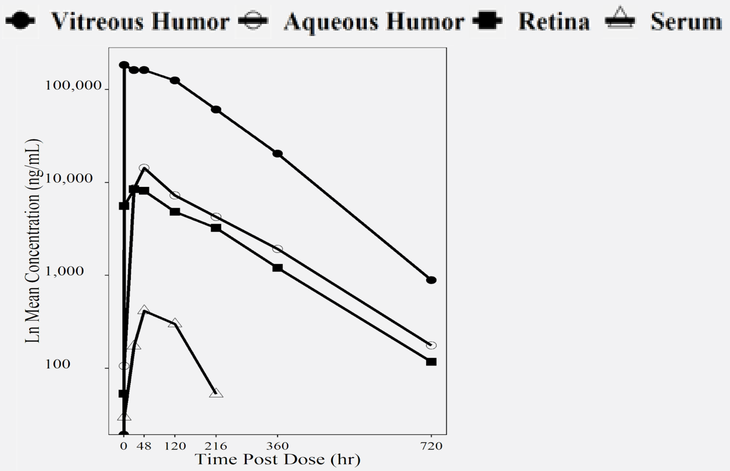
Eylea 1.2 mg dose in Rabbit

TABLE 2. PK Parameters of Aflibercept (Eylea) in the Vitreous, Aqueous Humor, and Retina-Choroid of Eyes From New Zealand White Rabbits

PK Parameters	Vitreous	Aqueous Humor	Retina–Choroid
$T_{1/2}$, h*	94.1 ± 21.4	47.9 ± 7.1	58.2 ± 76.9
MRT, h*	135.8 ± 30.9	69.2 ± 10.2	84.0 ± 110.9
C_{max}, µg/mL†	989.0	108.9	21.9
T_{max}, h†	1	48	24
AUC_{last}, h × µg/mL†	135,810.6	13,889.7	2453.1
V/F, mL*	1.4 ± 0.1	-	-
CL/F, mL/h*	0.01 ± 0.001	-	-

Invest Ophthalmol Vis Sci. 2016;57:2612–2617. DOI:10.1167/iovs.16-19204

ABP201 0.2 mg dose in Rabbit



ABP-201 0.2mg dose in Rabbit[1]					
PK parameter	**Unit**	**Serum**	**Aqueous**	**Vitreous**	**Retina**
C_{max}	µg/ml	0.415	14.374	183.357	8.457
t_{max}	h	48	48	1	24
$t_{1/2}$	h	38	108	82	106
$AUC_{0\text{-}tlast}$	(ug*h)/ml	52	2529	36922	1777
$AUC_{0\text{-}inf}$	(ug*h)/ml	55	2557	37027	1795
MRT	(h)	89	165	142	158

[1]Study contracted at ContractKinetica, LLC

Certain Risk Related to ACAB, Abpro and the Business Combination

All references to the "Company," "we," "us" or "our" refer to the business of Abpro Corporation. and its subsidiaries, taken as a whole, unless the context otherwise requires. The risks noted below are not exhaustive and are qualified in their entirety by disclosures contained in future documents filed or furnished by the Company, Atlantic Coastal Acquisition Corp. II. ("ACAB"), the newly formed company that will become the parent company of the Company and ACAB (the "combined company" or "NewCo") after the proposed business combination and the related transactions contemplated among the parties (collectively, the "Business Combination"), or others, with the U.S. Securities and Exchange Commission (the "SEC"). The risks presented in such filings will include risks with respect to the business and securities of the Company, ACAB, and Newco, as well as risks related to the Business Combination and any related financing, and may differ significantly from and be more extensive than those presented below. Certain risks related to ACAB, Abpro, and the Business Combination include the following:

- ACAB's and Abpro's ability to complete the Business Combination during the anticipated timeframe or at all, including as a result of any changes in SEC regulations or policies related to business combinations involving SPACs that could adversely affect ACAB's and Abpro's ability to negotiate and complete the Business Combination;
- Abpro's success in retaining or recruiting, or changes required in, officers, key employees, or directors following the Business Combination;
- The funds in the trust account being available to ACAB or the combined company;
- ACAB's or the combined company's ability to obtain additional financing to complete the Business Combination;
- ACAB's public securities' liquidity and trading and those of the combined company;
- The lack of a market for ACAB's or the combined company's securities;
- The use of funds not held in the trust account or available to ACAB from interest income on the trust account balance and the trust account not being subject to claims of third parties;
- The impact of macroeconomic conditions and geopolitical crises;
- The number of ACAB shareholders voting against the business combination proposal;
- The occurrence of any event, change or other circumstances that could give rise to the termination of the business combination agreement;
- The ability to achieve and maintain the listing of the combined company's shares on a national securities exchange following the Business Combination;
- Changes adversely affecting the businesses in which Abpro is engaged, including the risk that the Business Combination disrupts current plans and operations of the Company as a result of the announcement or the consummation of the Business Combination;
- Management of growth and Abpro's ability to execute on its business strategy and plans;
- The result of future financing efforts;
- Risks related to regulatory matters, including regulatory approvals and laws and regulations related to anti-corruption, cyber security and privacy;
- Risks related to regulatory approval of Abpro's current or future products and therapies and Abpro's ability to successfully commercialize any these products and therapies in a timely manner or at all, as well as Abpro's ability to accurately anticipate demand and efficacy for its products and therapies;
- Abpro's future financial performance, including the risk that Abpro's financial results and business metrics are likely to fluctuate on a quarterly and annual basis;
- Market opportunity estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate;
- Risks related to Abpro's ability to retain and expand its development agreements, the lack of long-term and binding commitments with co-developers, and its ability to compete effectively;
- Risks related to international operations and related regulatory risks;
- Risks related to our intellectual property, including our ability to protect our IP portfolio and risks related potential claims by third parties;
- Abpro's failure to raise additional capital or generate the significant capital necessary to maintain and expand its operations, and risks related to Abpro's ability to continue as a "going concern";
- Abpro's ability implement and maintain sufficient internal controls over financial reporting and disclosure controls and procedures, and its ability to report its financial results in an accurate and timely manner;
- Fluctuations in the stock price of the combined company's securities;
- Any projections will not have been prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and have not been compiled or examined by any registered public accountants nor any other independent expert or outside party;
- Risks related to the limited public company experience among Abpro's management team and risks related to Abpro's ability to operate as a public company and comply with applicable law and regulations and corporate governance matters applicable to public companies, including those required by the SEC and applicable stock exchange;
- Certain of ACAB's and Abpro's directors and officers and significant stakeholders may have interests in the Business Combination different from the interests of ACAB's or Abpro's shareholders;
- The exercise of discretion by directors and officers ACAB or Abpro in agreeing to changes to the terms, or waivers of closing conditions, in the definitive agreements with respect to the Business Combination and potential conflicts of interest of SPAC's sponsor, directors and officers; and
- Costs related to the Business Combination and the increased costs of being a public company following the consummation of the Business Combination.

Thank you!

Mission:
Developing antibody therapies to improve the lives of patients facing severe and life-threatening diseases

ABPRO CORPORATION
68 Cummings Park,
Woburn, MA 01801

https://abpro.com/

IR@abpro.com