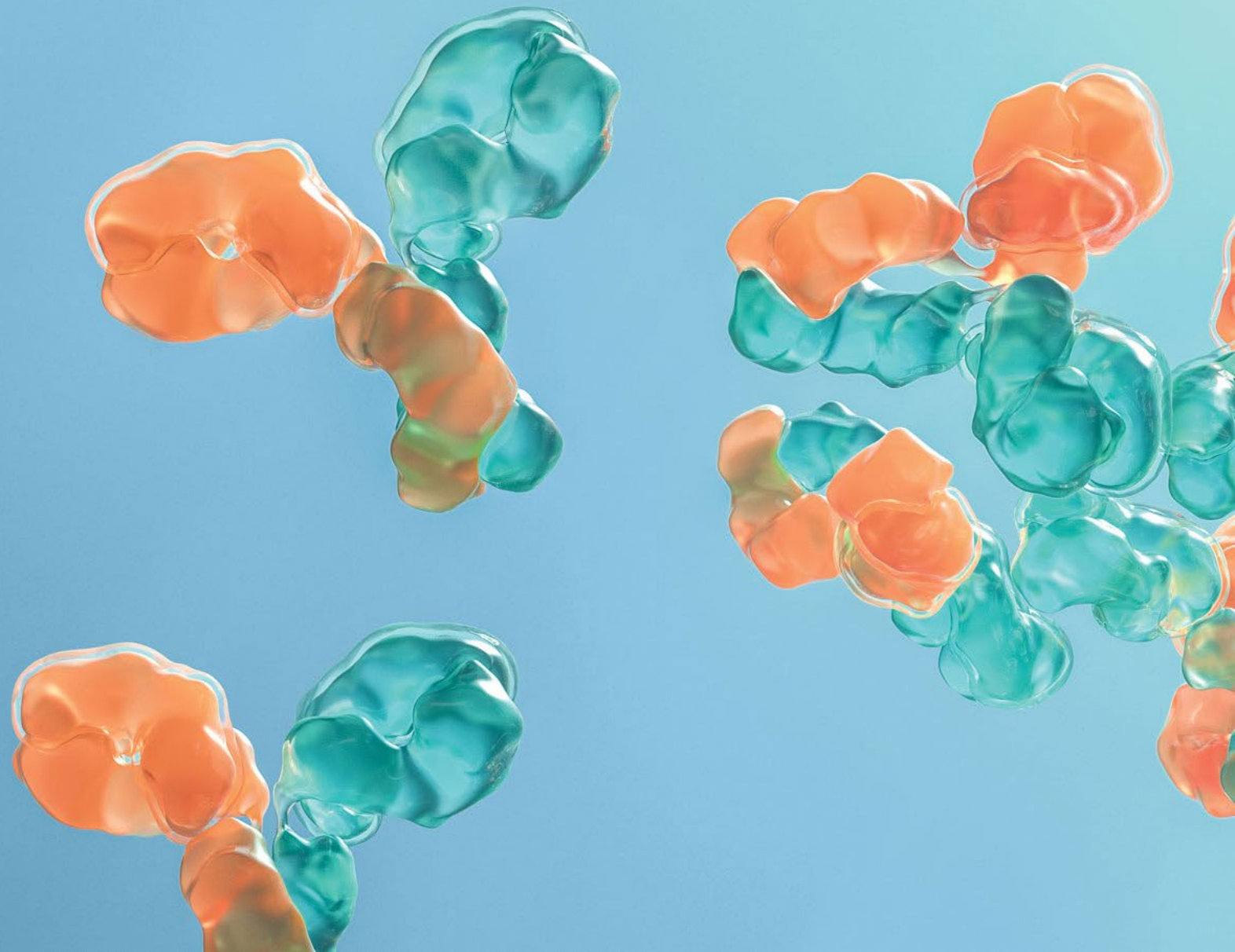
Genmab

Rooted in Science, Inspired by Patients

Investor Presentation

May 2023



Forward looking statement

This presentation contains forward looking statements. The words “believe”, “expect”, “anticipate”, “intend” and “plan” and similar expressions identify forward looking statements. All statements other than statements of historical facts included in this presentation, including, without limitation, those regarding our financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to our products), are forward looking statements. Such forward looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Such forward looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. The important factors that could cause our actual results, performance or achievements to differ materially from those in the forward looking statements include, among others, risks associated with product discovery and development, uncertainties related to the outcome of clinical trials, slower than expected rates of patient recruitment, unforeseen safety issues resulting from the administration of our products in patients, uncertainties related to product manufacturing, the lack of market acceptance of our products, our inability to manage growth, the competitive environment in relation to our business area and markets, our inability to attract and retain suitably qualified personnel, the unenforceability or lack of protection of our patents and proprietary rights, our relationships with affiliated entities, changes and developments in technology which may render our products obsolete, and other factors. Further, certain forward looking statements are based upon assumptions of future events which may not prove to be accurate. The forward looking statements in this document speak only as at the date of this presentation. Genmab does not undertake any obligation to update or revise forward looking statements in this presentation nor to confirm such statements to reflect subsequent events or circumstances after the date made or in relation to actual results, unless required by law.

Genmab

Towards 2030:
Evolving Into a Fully Integrated Biotech Innovation Powerhouse

KYSO™
KNOCK YOUR SOCKS OFF

Core Purpose

Our unstoppable team will improve the lives of patients through innovative and differentiated antibody therapeutics.

Our Strategy

- ✓ Focus on core competence
- ✓ Turn science into medicine
- ✓ Build a profitable & successful biotech

Vision

By 2030, our KYSO antibody medicines are fundamentally transforming the lives of people with cancer and other serious diseases.

Genmab

Solid Track Record and Financial Foundation Fuel Our Growth

- ✓ 41 Cumulative INDs since 1999
- ✓ Innovative clinical pipeline: 9 Genmab owned ≥50%
- ✓ 6 approved medicines based on Genmab's innovation and antibody expertise
- ✓ First medicine on the market: Tivdak® (tisotumab vedotin-tftv), co-promoting with Seagen in U.S.
- ✓ Growing recurring revenue
- ✓ Sustainably profitable with cash position of ~USD 3.5B
- ✓ Investing in our capabilities
- ✓ Experienced, international leadership team

Genmab

Tivdak is being co-developed and co-promoted by Genmab and Seagen.

The Genmab Model

Deep insight into antibody biology & disease targets

- Solid tumors
- B-cell NHL
- Multiple Myeloma

Proprietary technologies enable us to build a world-class pipeline

- DuoBody®
- HexaBody®
- DuoHexaBody®
- HexElect®

Match in-house expertise with strategic collaborations & partnerships

- Discovery / academic
- Technology based
- Product based

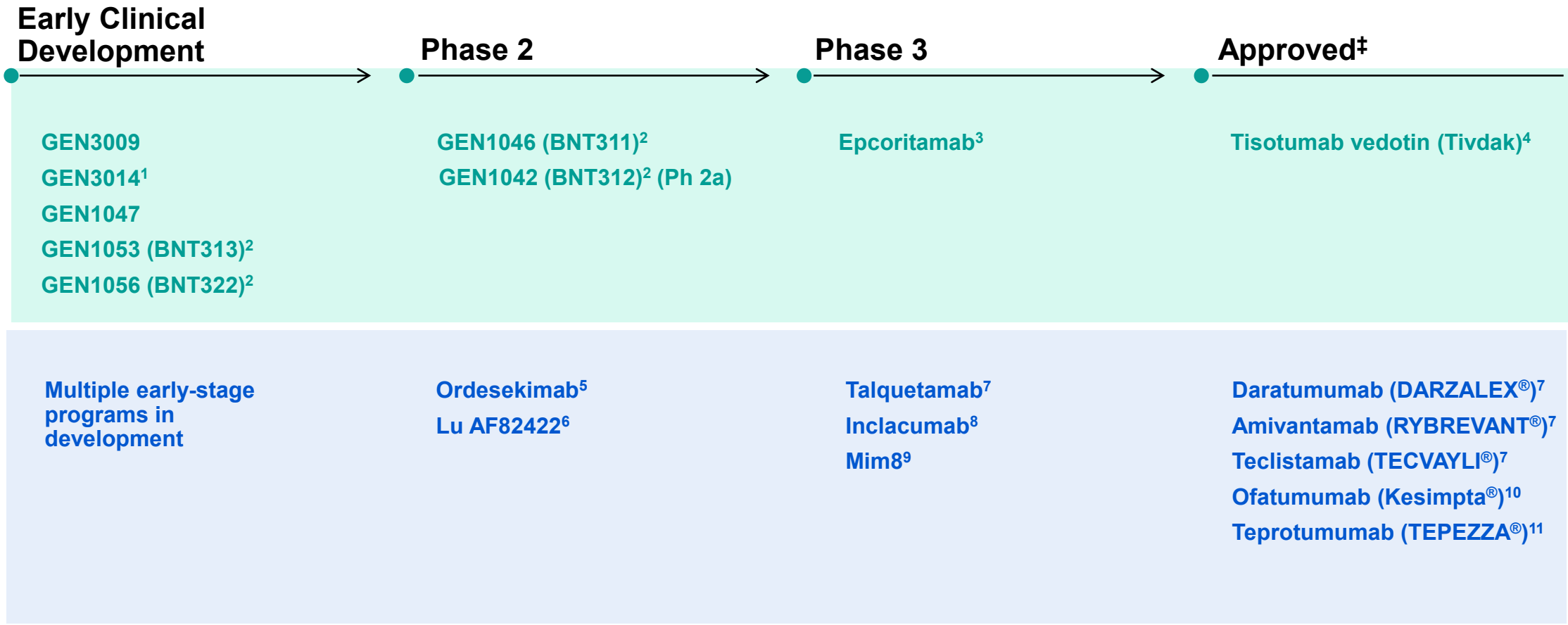
Strong pipeline of potential 1st-in-class / best-in-class products

- Tisotumab vedotin
- Epcoritamab
- DuoBody-PD-L1x4-1BB
- DuoBody-CD40x4-1BB
- DuoHexaBody-CD37
- HexaBody-CD38
- DuoBody-CD3xB7H4
- HexaBody-CD27

Genmab

Tisotumab vedotin is being co-developed and co-promoted in the U.S. by Genmab and Seagen; Epcoritamab is being co-developed by Genmab and AbbVie; DuoBody-PD-L1x4-1BB (GEN1046/BNT311), DuoBody-CD40x4-1BB (GEN1042/BNT312) and HexaBody-CD27 (GEN1053/BNT313) are being co-developed by Genmab and BioNTech; HexaBody-CD38 is being developed in exclusive worldwide license and option agreement with Janssen.

Innovative Clinical Pipeline: Genmab Proprietary* and Partnered Products - Most Advanced Development Phase



*Products where Genmab has ownership of at least 50%
‡See local prescribing information for full indications / safety information
[1]Genmab is developing HexaBody-CD38 in an exclusive worldwide license and option agreement with Janssen; [2]Co-development with BioNTech; [3]Co-development with AbbVie; [4]Co-development with Seagen; [5]Development by Provention Bio; [6]Development by Lundbeck; [7]Development and/or discovery by Janssen; [8]Development by Pfizer (Global Blood Therapeutics); [9]Development by Novo Nordisk; [10]Development by Novartis; [11]Development by Horizon Therapeutics

World-class R&D Engine

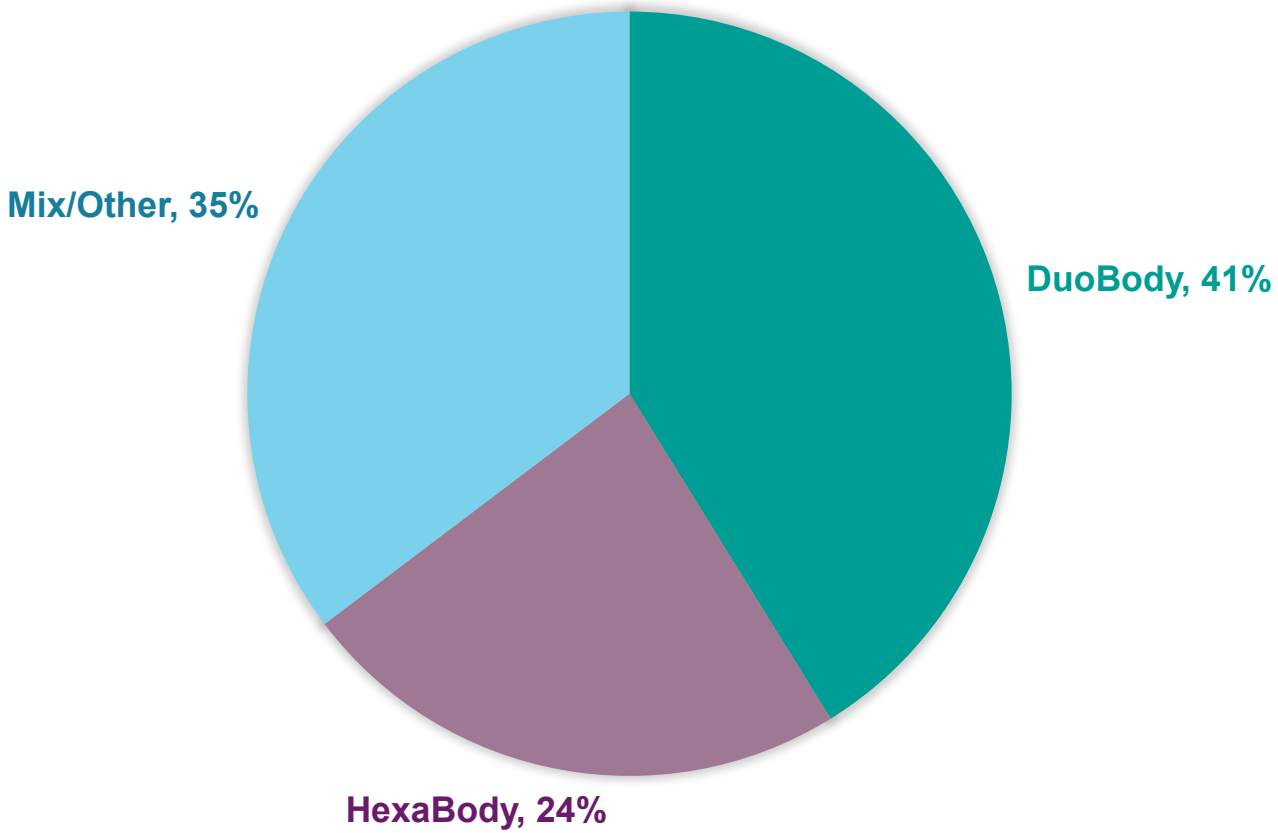
DuoBody technology

HexaBody technology

DuoHexaBody technology

HexElect technology

Innovative Technologies Powering Our Pipeline

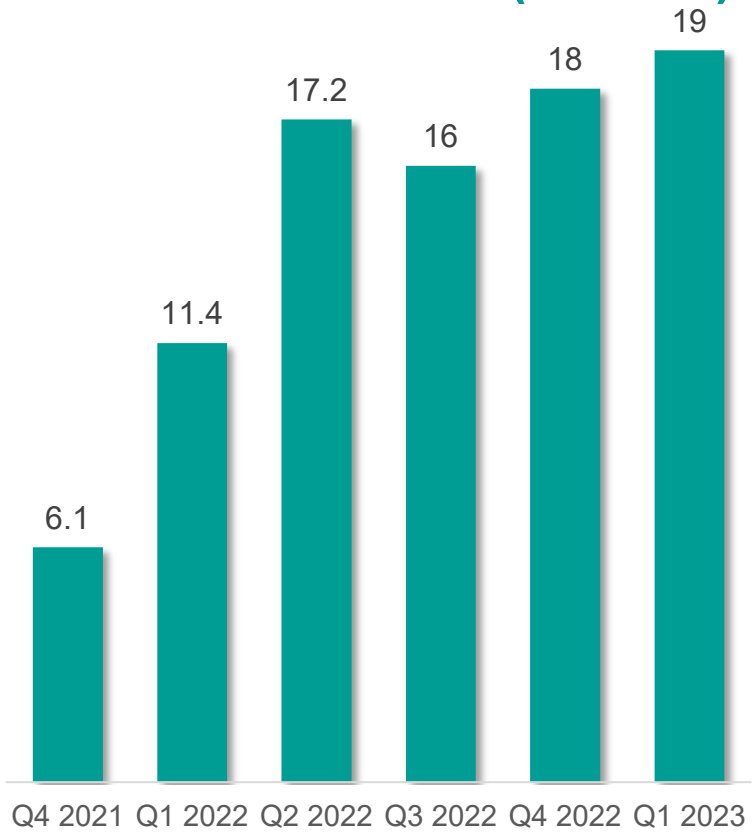


Genmab

First Genmab Approved Therapy: Tivdak (tisotumab vedotin-tftv) in Collaboration with Seagen

- U.S FDA accelerated approval: recurrent or metastatic cervical cancer with disease progression on or after chemo*
- 1st and only approved ADC for this population
- First Genmab-owned therapy to receive regulatory approval
- Pursuing potential in early lines of Cervical Cancer and in other solid tumors

Sales Since Launch (USD M)

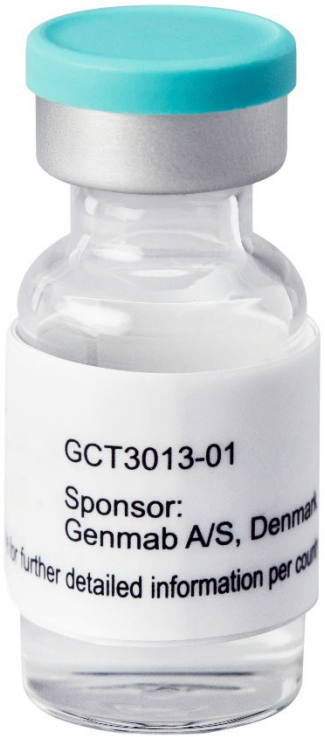


Genmab

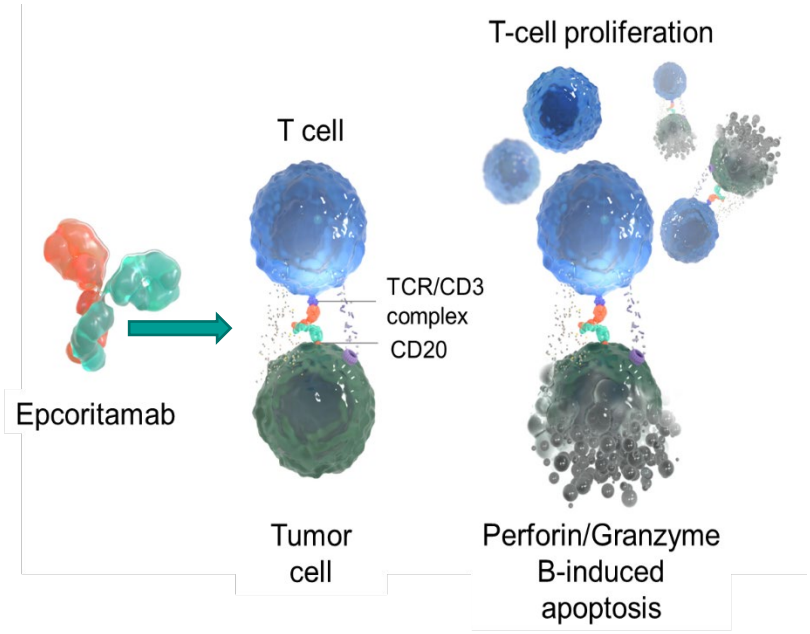
*See U.S. prescribing information for full indication and safety information. U.S. FDA accelerated approval; continued approval may be contingent on verification and confirmation of clinical benefit in confirmatory trials.

Epcoritamab (DuoBody-CD3xCD20)
in Collaboration with AbbVie

- Demonstrated manageable safety profile, substantial antitumor activity in patients with heavily pretreated B-cell NHL in first-in-human trial[1]
- Bispecific antibody delivered as off the shelf, rapid, SC injection, studied in B-NHL[2,3]
- 2022: regulatory submissions in U.S., EU and Japan
- BLA **received Priority Review** from U.S. FDA



Mechanism of Action



TCR, T-cell receptor.

1. Hutchings M, et al. *Lancet*. 2021;398:1157-69. 2. Engelberts PJ, et al. *EBioMedicine*. 2020;52:102625. 3. van der Horst HJ, et al. *Blood Cancer J*. 2021;11:38.

Broad & Comprehensive Epcoritamab Development Plan

B-NHL Type	Intervention	Study Phase: Pre-clinical | 1 | 1/2 | 2 | 3
DLBCL, FL, MCL and other histologies		
Front-line		
DLBCL	Epcoritamab + R-CHOP	EPCORE DLBCL-2 (Ph 3)
	Epcoritamab +/- lenalidomide	EPCORE DLBCL-3 (Ph 2)
	Epcoritamab + R-CHOP	EPCORE NHL-2 (Ph 1b/2)
	Epcoritamab + pola-R-CHOP	EPCORE NHL-5 (Ph 1b/2)
FL	Epcoritamab + BR	EPCORE NHL-2 (Ph 1b/2)
Relapsed or refractory		
B-NHL (DLBCL, FL, MCL)	Epcoritamab monotherapy	EPCORE NHL-1 (Ph 1/2)
ASCT eligible DLBCL	Epcoritamab + R-DHAX/C	EPCORE NHL-2 (Ph 1b/2)
DLBCL	Epcoritamab + GemOx	EPCORE NHL-2 (Ph 1b/2)
	Epcoritamab + lenalidomide	EPCORE NHL-5 (Ph 1b/2)
	Epcoritamab + lenalidomide + ibrutinib	EPCORE NHL-5 (Ph 1b/2)
	Epcoritamab vs SOC	EPCORE DLBCL-1 (Ph 3)
FL	Epcoritamab + R^2	EPCORE NHL-2 (Ph 1b/2)
	Epcoritamab + R^2	EPCORE FL-1 (Ph 3)
B-NHL (Japanese patients)	Epcoritamab monotherapy	EPCORE NHL-3 (Ph 1/2)
CLL		
Relapsed or refractory & Richter's Syndrome	Epcoritamab monotherapy	EPCORE CLL-1 (Ph 1/2)

B-NHL: B-cell Non-Hodgkin Lymphoma; BR: bendamustine + rituximab; DLBCL: diffuse large B-cell lymphoma; FL: follicular lymphoma; MCL: mantle cell lymphoma; SOC: standard of care; R2 = Revlimid + rituximab: pola-R-CHP: polatuzumab vedotin, rituximab, cyclophosphamide, HCL, prednisone

Broad Collaboration with BioNTech

DuoBody-PD-L1x4-1BB (GEN1046/BNT311)

- First-in-class, bispecific next gen. immunotherapy
- Potential in solid tumors
- Encouraging clinical activity & manageable safety[1]
- Phase 2 trial in combo. with pembrolizumab in recurrent NSCLC and Phase 1/2 trial - expansion cohorts ongoing in other solid tumors

DuoBody-CD40x4-1BB (GEN1042/BNT312)

- First-in-class bispecific next gen. immunotherapy
- Potential in solid tumors
- Encouraging clinical activity & manageable safety[2]
- Phase 1/2 trial - expansion cohorts, incl. combination therapy with pembrolizumab and chemo, currently enrolling

HexaBody-CD27 (GEN1053/BNT313)

- Proprietary HexaBody technology
- Potential in solid tumors
- In pre-clinical studies *in vitro* and *in vivo*, HexaBody-CD27 increased T-cell activation, proliferation, cytokine secretion, cytotoxic activity[3]
- FiH study in solid tumors currently ongoing

Genmab

1. Garralda E, et al. SITC 2020. Poster 412..
2. Johnson M. et al SITC 2021
3. Nürmberger K. et al SITC 2022

50:50 Collaboration with BioNTech for all investigational medicines

Genmab Owned Investigational Medicines in Clinical Development

DuoHexaBody-CD37 (GEN3009)

- Combination of DuoBody & HexaBody platforms
- Novel target for hematological malignancies
- Unique MoA
- Dose escalation ongoing incl. arm in combo w/ epcoritamab

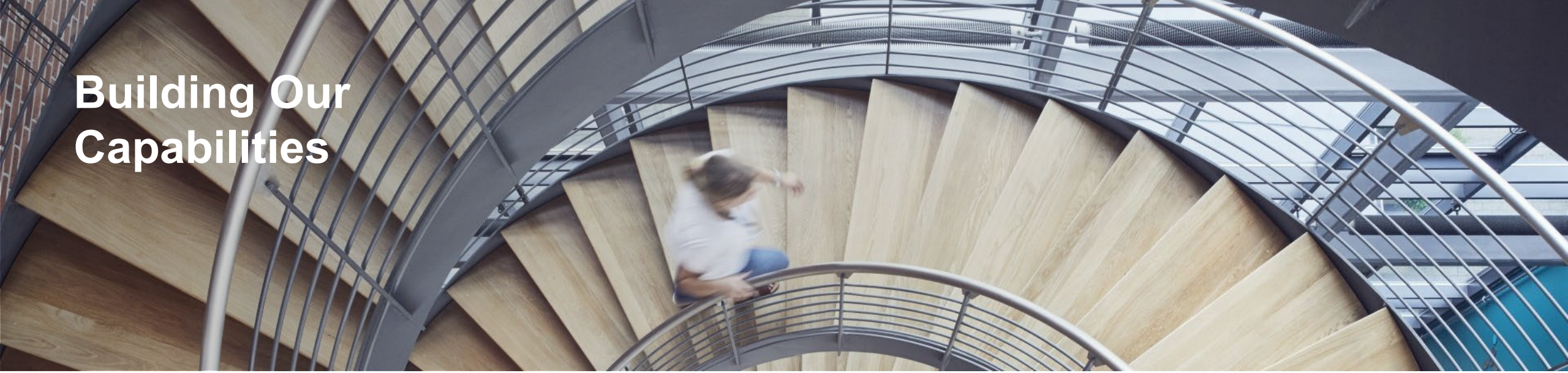
HexaBody-CD38 (GEN3014)

- Proprietary HexaBody technology
- Promising data in pre-clinical models for MM, DLBCL & AML
- Potentially add to/broaden DARZALEX franchise
- Preliminary dose escalation data: ASH 2022
- Developing under exclusive WW license and option agreement with Janssen

DuoBody-CD3xB7H4 (GEN1047)

- Proprietary DuoBody technology
- In preclin. studies, induced T-cell mediated cytotoxicity of B7H4-positive tumor cells
- Potential in solid cancer indications known to express B7H4
- Dose escalation ongoing

Genmab



Building Our Capabilities

Research

Track record of success and investing for tomorrow

- State-of-the-art facilities
- Novel technologies and formats
- External innovation

Development

Scaling up to expand from early to late stage

- Clinical development & operations
- Disease area expertise
- Medical Affairs, Translational Research, Safety and Regulatory

Commercialization

Evolving into end-to-end, fully integrated biotech

- Experienced team in place
- Focused on U.S. and Japan
- First successful launch: Tivdak

Enabling functions to support growth & manage risk | Data Sciences to drive insights

Genmab

Approved Antibody Therapeutics Incorporating Genmab's Innovation

DARZALEX® (daratumumab) injection for intravenous infusion 100 mg/5 mL, 400 mg/20 mL

Developed & commercialized by Janssen

Redefining Treatment of Multiple Myeloma (MM)*

Kesimpta® ofatumumab

Developed & commercialized by Novartis

Approved in U.S., EU & Japan in relapsing multiple sclerosis (RMS)*

TEPEZZA® teprotumumab-trbw

Developed and commercialized by Horizon Therapeutics

Approved in U.S. in thyroid eye disease (TED)*

Medicines Incorporating Genmab's DuoBody Technology

RYBREVANT® (amivantamab-vmjw) Injection for IV Use 350 mg/7 mL (50 mg/mL)

Developed & commercialized by Janssen

Approved in U.S. & EU for patients with locally advanced or metastatic NSCLC with EGFR Exon 20 insertion mutations*

TECVAYLI™ (teclistamab)

Developed & commercialized by Janssen

Approved in U.S. & EU for patients with relapsed and refractory MM*

Genmab

*See local prescribing information for full indication and safety information.

2023 Guidance
Recurring Revenue Growth and Focused Investments

Key Figures (DKKM)	Guidance	~USDM
Revenue	14,600 – 16,100	2,147 – 2,368
Operating Expenses	(9,800) – (10,600)	(1,441) – (1,559)
Operating Profit	3,900 – 6,200	574 – 912

DARZALEX net sales of USD 9.4B to USD 10.0B

DARZALEX royalties of ~DKK 10.4B to ~DKK 11.1B to drive ~12%* growth in recurring revenue (25% on an operational basis)

Growth in operating expenses to support portfolio advancement and investing for epcoritamab launch

Significant underlying profitability

Genmab

**Mid-point of guidance range.*
Operating Profit does not sum due to rounding
All amounts in DKK millions unless otherwise noted
2023 guidance assumes a USD/DKK exchange rate of 6.8

2023 Priorities:

Further Advancing Our Differentiated Product Pipeline Towards The Market

KNOCK YOUR SOCKS OFF

Genmab

Bring Our Own Medicines to Patients

Epcoritamab[1]
- Launch in R/R DLBCL[2]
- Submit an sBLA[3]
- Broaden clinical development program

Tivdak[4]
- Progress successful uptake in 2L+ recurring or metastatic cervical cancer patients
- Progress clinical development program

Build World-class Differentiated Pipeline

DuoBody-CD40x4-1BB (GEN1042/BNT312)[5]
- Establish efficacy and safety data in solid tumor indication
- Progress towards late-stage clinical development

DuoBody-PD-L1x4-1BB (GEN1046/BNT311)[5]
- Establish proof of concept data in solid tumor indication

Expand and advance proprietary clinical product portfolio

Invest in Our People & Culture

Further scale organization aligned with differentiated antibody product portfolio growth and future launches

Become a Leading Integrated Biotech Innovation Powerhouse

Use solid financial base to grow and broaden antibody product and technology portfolio

1. Co-development w/ AbbVie; 2. Subject to regulatory approvals; 3. Subject to supportive U.S. FDA feedback; 4. Co-development w/ Seagen; 5. Co-development w/ BioNTech

Driving Towards Our 2030 Vision

- **Clear Vision**
- **Focused Strategy**
- **Effective Execution**

Genmab Today

- ✓ 1 approved medicine
- ✓ 1 potential near-term product launch
- ✓ Significant & growing recurring revenues
- ✓ Strong rationale to invest
- ✓ Focused & disciplined

Our Future

- ✓ Fully-integrated biotech innovation powerhouse

Genmab

Appendix

Genmab

genmab.com

A Leading International Biotech With Large Free Float

- Ordinary shares: Nasdaq Copenhagen, DK
- ADSs: Nasdaq Global Select USA
- Shares world-wide incl: US, DK, NL, UK
- Market Cap:
  - ~ DKK 178bn
  - ~ USD 26bn
- Shares outstanding: ~66M

Genmab

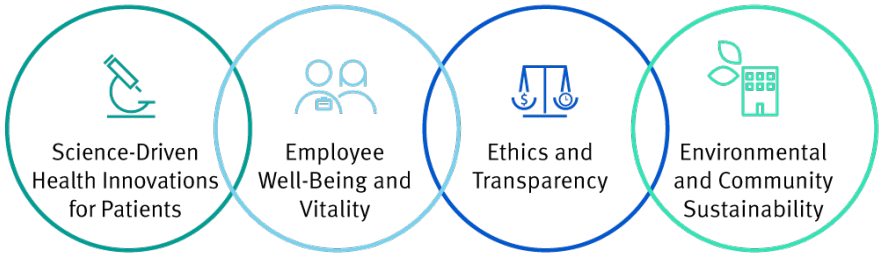
As of May 9, 2023

Our Approach to Corporate Social Responsibility (CSR)

Genmab is committed to being a socially responsible and sustainable biotechnology company. Our commitment to CSR is anchored in our company's purpose, values and vision. Being socially responsible is fundamental to the way we do business.

Our Approach

Our Pillars



Our Commitment to the UN Sustainable Development Goals

Genmab

Genmab's ESG Performance: Well-Rated Company

GENMAB A/S (GMAB)

Biotechnology | DK

Robust governance and talent management

MSCI ESG RATINGS — AA

CCC | B | BB | BBB | A | AA | AAA

RATING ACTION DATE: July 08, 2022
LAST REPORT UPDATE: August 11, 2022

Score attribution by key issue

This chart highlights the company's positioning relative to the industry average for each Key Issue that contributed to its ESG Rating as of August 11, 2022.

ESG Rating history

ESG Rating history shows five most recent rating actions

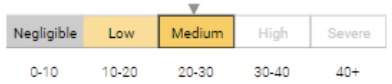
ESG Rating distribution

Universe: MSCI ACWI Index constituents, Biotechnology, n=43

ESG Risk Rating

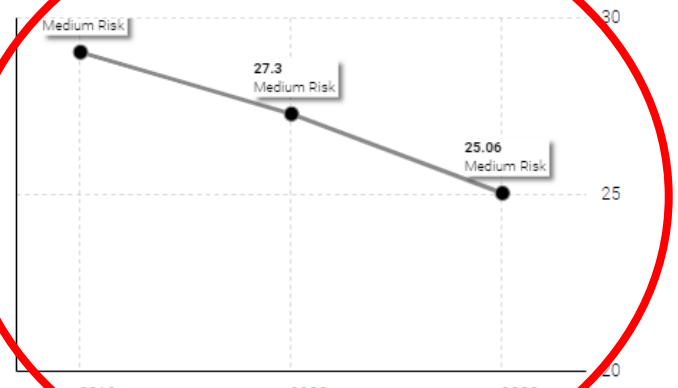
COMPREHENSIVE FRAMEWORK

Your ESG Risk Rating — **25.0** Medium Risk



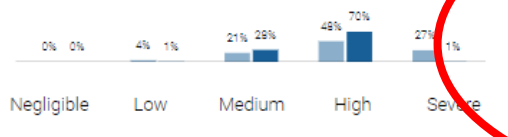
The company is at medium risk of experiencing material financial impacts from ESG factors, due to its medium exposure and average management of material ESG issues. Furthermore, the company has not experienced significant controversies.

ESG Risk Rating History



LEARN MORE ABOUT OUR METHODOLOGY

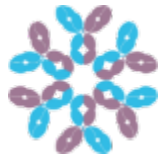
ESG Risk Rating Distribution



Legend	Rank | Percentile (1st = lowest risk)
Industry (Pharmaceuticals)	126 / 956 | 14th
Subindustry (Biotechnology)	51 / 440 | 12th

Genmab

Innovation Powerhouse:
Cutting Edge Proprietary Technologies

Technology		Principle	Applications
DuoBody		Bispecific antibodies	Dual targeting
HexaBody		Target-mediated enhanced hexamerization	Enhanced potency
DuoHexaBody		Bispecific antibodies with target-mediated enhanced hexamerization	Dual targeting + enhanced potency
HexElect		Two co-dependent antibodies with target-mediated enhanced hexamerization	Dual targeting + enhanced potency & selectivity

Genmab

Innovative Pipeline: Genmab's Proprietary[1] Products

Product	Target	Developed By	Disease Indications	Most Advanced Development Phase
Tisotumab vedotin	TF	Co-development Genmab / Seagen	Cervical cancer	3
			Solid tumors	2
Epcoritamab	CD3, CD20	Co-development Genmab / AbbVie	Relapsed/refractory diffuse large B-cell lymphoma	3
			Relapsed/refractory follicular lymphoma (combo)	3
			Newly diagnosed diffuse large B-cell lymphoma	3
			B-cell non-Hodgkin lymphoma	2
			B-cell non-Hodgkin lymphoma (combo)	2
			Relapsed/refractory chronic lymphocytic leukemia & Richter's Syndrome	1/2
			Indolent non-Hodgkin lymphoma, pediatric patients	1
DuoBody-PD-L1x4-1BB (GEN1046/BNT311)	PD-L1, 4-1BB	Co-development Genmab / BioNTech	Non-small cell lung cancer	2
			Solid tumors	1/2
DuoBody-CD40x4-1BB (GEN1042/BNT312)	CD40, 4-1BB	Co-development Genmab / BioNTech	Solid tumors	1/2
DuoHexaBody-CD37 (GEN3009)	CD37	Genmab	Hematologic malignancies	1
HexaBody-CD38 (GEN3014)	CD38	Genmab[2]	Hematologic malignancies	1
DuoBody-CD3xB7H4 (GEN1047)	CD3, B7H4	Genmab	Solid tumors	1
HexaBody-CD27 (GEN1053/BNT313)	CD27	Co-development Genmab / BioNTech	Solid tumors	1
GEN1056 (BNT322)	Undisclosed	Co-development Genmab / BioNTech	Solid tumors	1

Pre-clinical | 1 | 1/2 | 2 | 3

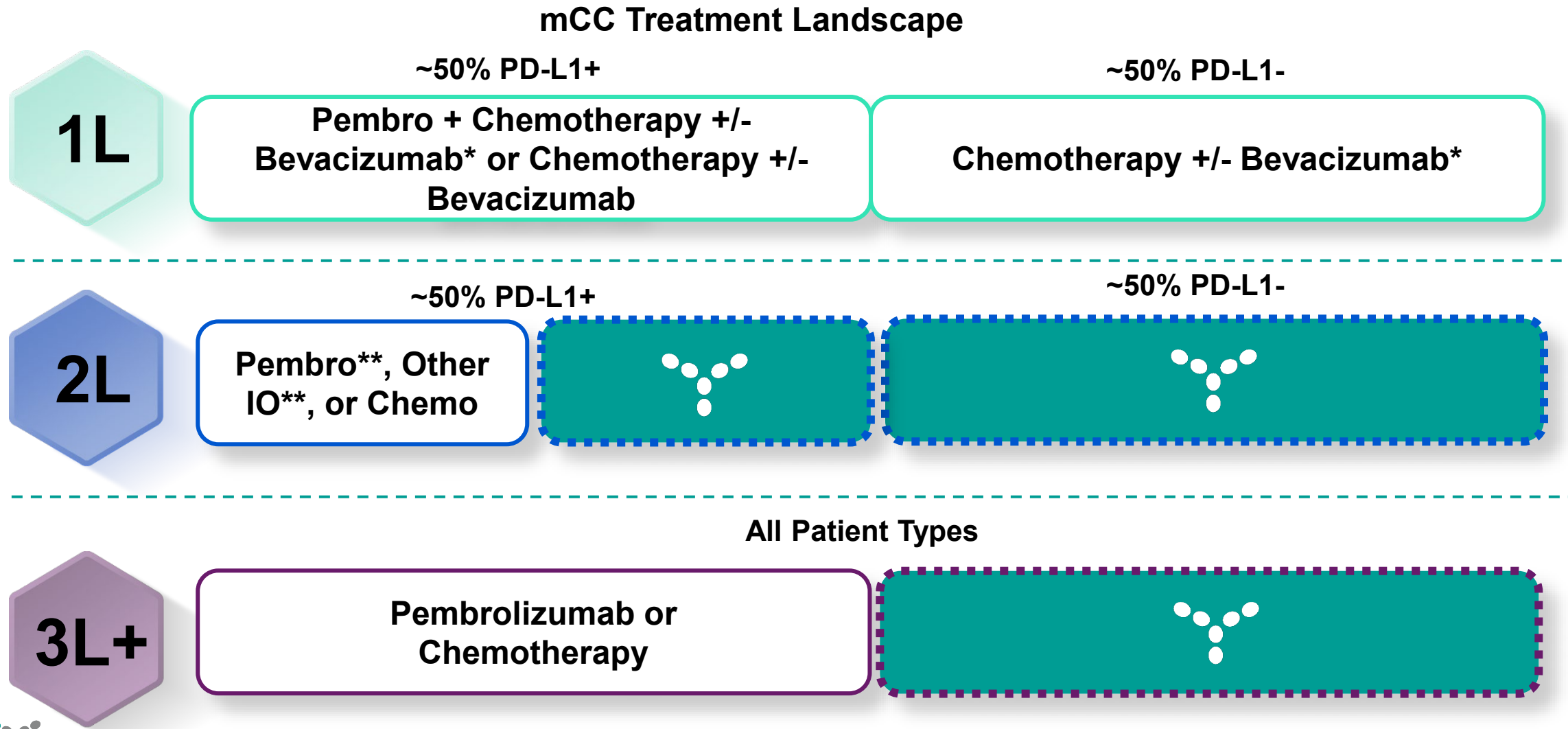
[1]Certain product candidates in development with partners, as noted; [2]Genmab is developing HexaBody-CD38 in an exclusive worldwide license and option agreement with Janssen Biotech, Inc

Programs Incorporating Genmab's Innovation and Technology, ≥Phase 2 Development

Product	Technology	Discovered and/or Developed By	Disease Indications	Most Advanced Development Phase
				Pre-clinical / 1 / 1/2 / 2 / 3
Daratumumab	UltiMAb®*	Janssen	Multiple myeloma	
			AL Amyloidosis	
Teprotumumab	UltiMAb	Horizon Therapeutics	Thyroid eye disease	
Amivantamab	DuoBody	Janssen	NSCLC	
			Advanced or metastatic gastric or esophageal cancer	
			Hepatocellular carcinoma	
			Advanced or metastatic colorectal cancer	
Teclistamab	DuoBody	Janssen	Multiple myeloma	
Talquetamab (JNJ-64407564)	DuoBody	Janssen	Relapsed or refractory multiple myeloma	
Inclacumab	UltiMAb	Pfizer (Global Blood Therapeutics)	Vaso-occlusive crises in sickle cell disease	
Mim8	DuoBody	Novo Nordisk	Hemophilia A	
Ordesekimab (PRV-015/AMG 714)	UltiMAb	Provention Bio	Celiac disease	
Lu AF82422	UltiMAb	Lundbeck	Multiple system atrophy	

Genmab

Our Goal in Cervical Cancer: Establish Tivdak® as the Clear Choice in 2L+ Settings



Source: Kantar Treatment Architecture: Cervical Cancer; NCCN Treatment Guidelines;

*Pembrolizumab is approved in combination with chemo +/- bev in 1L for PD-L1 positive patients only in the US at this time, global filings to follow. Other IOs are also being evaluated in 1L treatment

**Pembrolizumab is approved for 2L r/mCC in the US; not approved in JPN or EU. Nivo is on NCCN guidelines for PD-L1 positive patients

Rooted in Science,
Inspired by Patients

Genmab

genmab.com