Better Antibodies By Design

36th Annual J.P. Morgan Healthcare Conference
January 10, 2018

Genmab

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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 At-A-Glance

Core Purpose, Strategy & Vision

Core Purpose

- To improve the lives of patients by creating & developing innovative antibody products

Our Strategy

- Turn science into medicine
- Build a profitable & successful biotech
- Focus on Core Competence

Vision

- By 2025, our own product has transformed cancer treatment and we have a pipeline of knock-your-socks off antibodies

Genmab At-A-Glance
Solid Foundation

DARZALEX®
Arzerra®

2 marketed products generating royalty income

Tisotumab vedotin
HuMax®-AXL-ADC
HexaBody-DR5/DR5
DuoBody-CD3xCD20

4 exciting proprietary clinical programs

DuoBody® Platform
HexaBody® Tech.

2 proprietary next generation technologies for robust pre-clinical pipeline

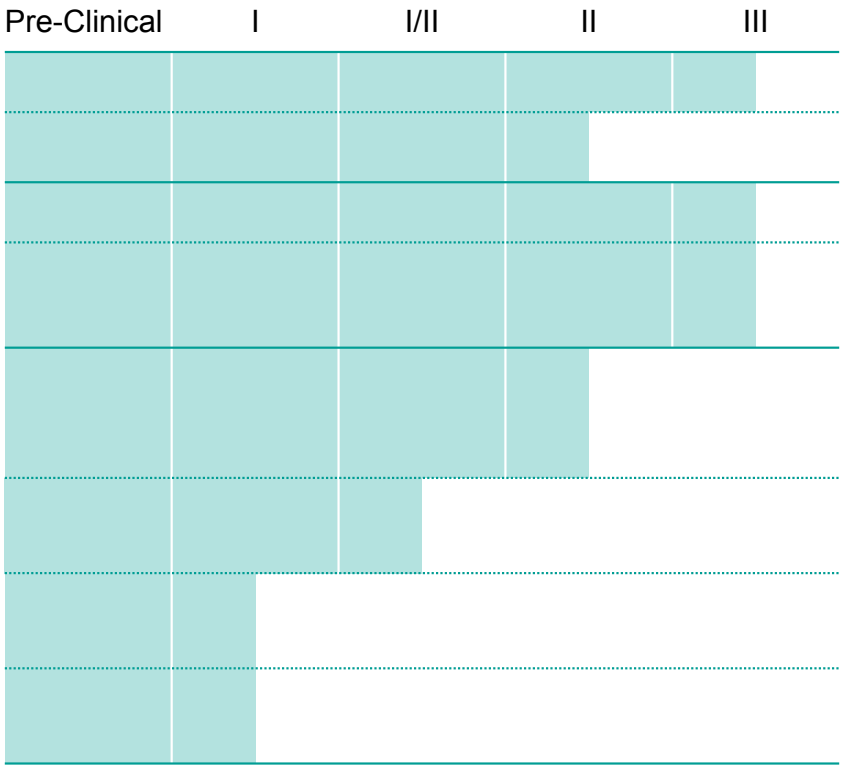
Solid financial base

Aim to own at least 50% of product rights
Allows for building capabilities to market own product in future

Innovative Clinical & Pre-clinical Pipeline

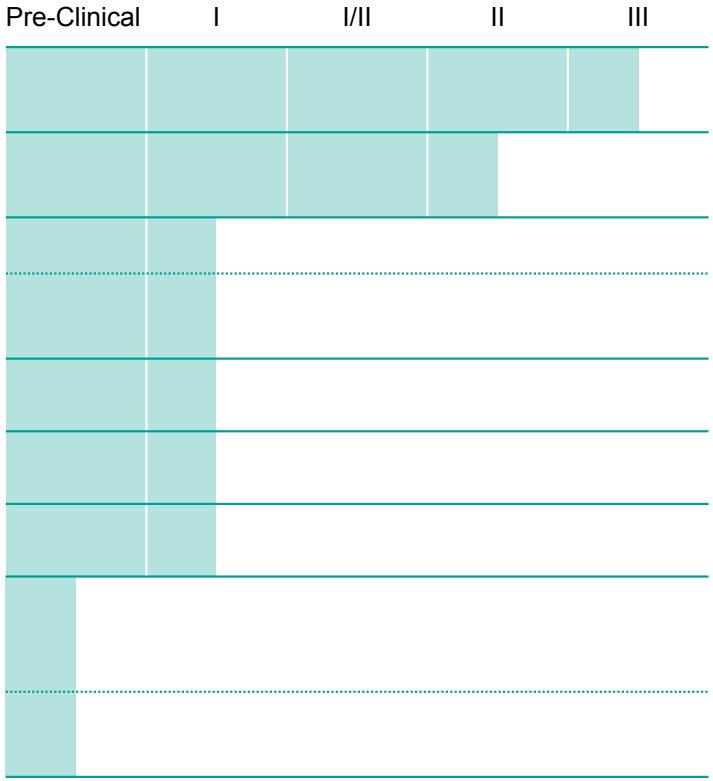
Development for Marketed & Genmab Proprietary Products

Product		Disease Indications	Development Phase
Daratumumab Target: CD38 Partner: Janssen	BTD (2 - MM)	Multiple myeloma (MM)	
		Non-MM & Solid tumor indications	
Ofatumumab (OMB157) Target: CD20 Partner: Novartis	BTD (CLL)	Follicular lymphoma (FL)	
		Relapsing multiple sclerosis (RMS) (SubQ)	
Tisotumab vedotin Target: TF Partner: Seattle Genetics		Solid cancers	
HuMax-AXL-ADC Target: AXL		Solid cancers	
HexaBody-DR5/DR5 Target: DR5		Solid cancers	
DuoBody-CD3xCD20 Target: CD20		Hematological malignancies	



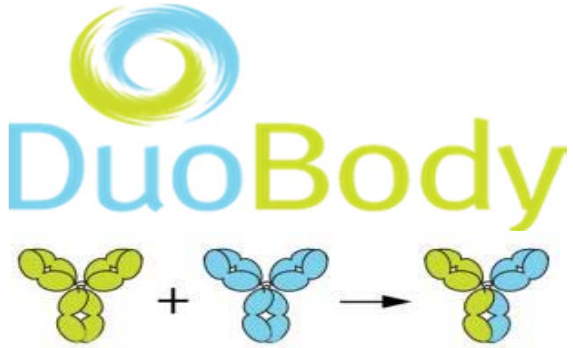
Innovative Clinical & Pre-clinical Pipeline
Additional Shots on Goal

Product	Disease Indications	Development Phase
Teprotumumab (RV001) BTD Target: IGF-1R, Partner: Horizon Pharma	Graves' orbitopathy	
AMG 714 Target: IL-15, Partner: Celimmune	Celiac Disease	
ADCT-301 (HuMax-TAC-ADC) Target: CD25, Partner: ADCT	Lymphoma	
	Acute myeloid leukemia (AML) or acute lymphoblastic leukemia (ALL)	
JNJ-61186372 Targets: EGFR, cMet, Partner: Janssen	Non-small-cell lung cancer (NSCLC)	
JNJ-63709178 Targets: CD3, CD123, Partner: Janssen	Acute Myeloid Leukemia (AML)	
JNJ-64007957 Targets: BCMA, CD3, Partner: Janssen	Relapsed or refractory MM	
>20 Active Pre-clinical programs incl. DuoBody CD40x4-1BB	Proprietary programs: HuMab, HuMab-ADC, DuoBody, DuoBody-ADC & HexaBody	
Aim 4 INDs in 4 Years	Partnered programs: HuMab, DuoBody & HexaBody	



Cutting Edge Capabilities

Additional Value Created by Technologies



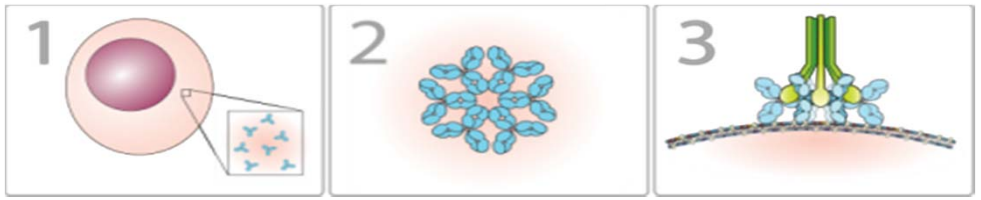
DuoBody Platform

- Efficient & versatile bispecific Ab platform
- Applicable to any antibody from any platform
- Regular IgG format
- Large scale production validated
- No developability liabilities
- Robotized bispecific library generation
- Multiple ongoing collab. incl. with Novo Nordisk, Gilead & Janssen

HexaBody Technology

- Robust effector function enhanced Ab
- Enables antibodies to readily form clusters of 6 (hexamers)
- Induces & enhances target cell killing after binding (CDC and apoptosis)
- Creates innovative products in cancer & infectious diseases
- Multiple ongoing research collaborations

HexaBody



Daratumumab (Marketed as DARZALEX®)
Approved in US, EU & Japan

First-in-class antibody targeting CD38 – 2 FDA BTDs

Marketed as monotherapy in US & EU for double refractory MM

Approved in US, EU & Japan in combo. w/ Revlimid® & dex or Velcade® & dex for relapsed / refractory MM

Approved in the US in combo. w/ Pomalyst® & dex for pts w/ MM who have received at least 2 prior therapies

Industry sponsored clinical studies ongoing in MM, NKT-cell lymphoma, MDS, amyloidosis and solid tumors

Blockbuster status – growing royalty income
- Royalty rate: 12% - 20%

Collaboration w/ Janssen Biotech
- Up to $1bn total in dev., reg. & sales milestones, Janssen responsible for all costs assoc. w/ dev. & commercialization

See local country prescribing information for precise indications

Daratumumab Development

Covering All Stages of Multiple Myeloma

High Risk Smoldering

- Ph III subcutaneous (SC) (AQUILA)
- Ph II monotherapy (CENTAURUS)

Frontline

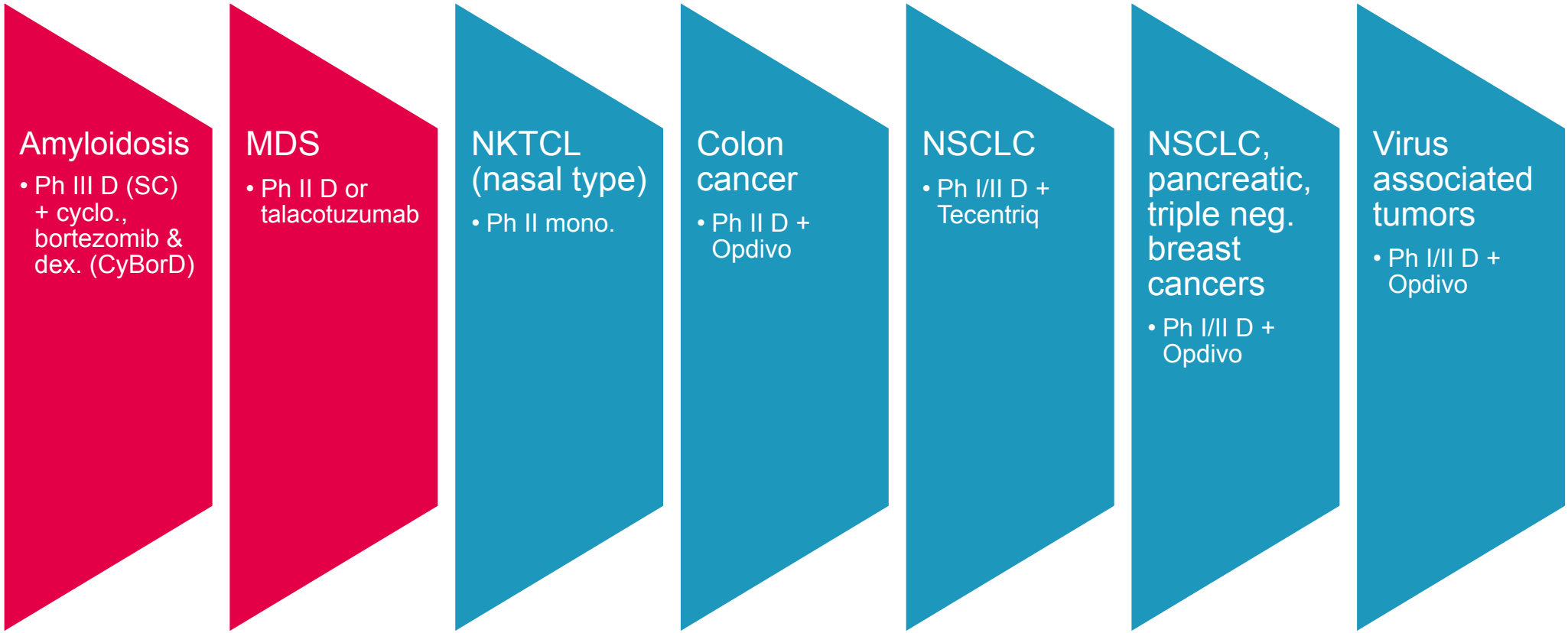
- Ph III D + Velcade®, melphalan & prednisone (D+VMP) (ALCYONE)
- Ph III D + VMP (Asia Pacific)
- Ph III D + Revlimid® & dexamethasone (D+Rd) (MAIA)
- Ph III D + Velcade, thalidomide & dexamethasone (D+VTd) (CASSIOPEIA)
- Ph II D + Revlimid, Velcade & dexamethasone (D+RVd) (GRIFFIN)
- Ph I Multi-combo (EQUULEUS)

Relapsed or Refractory

- Ph III D + Vd (China)
- Ph III D + Kyprolis® & dexamethasone (D+Kd) (CANDOR)
- Ph III D (SC) + Pomalyst® & dexamethasone (D+Pd) (APOLLO)
- Ph III SC vs IV (COLUMBA)
- Ph II D + Imfinzi® (FUSION)
- Ph I D +Tecentriq®
- Ph I D + Opdivo®
- Ph I SC (PAVO)
- Ph I D + JNJ-63723283

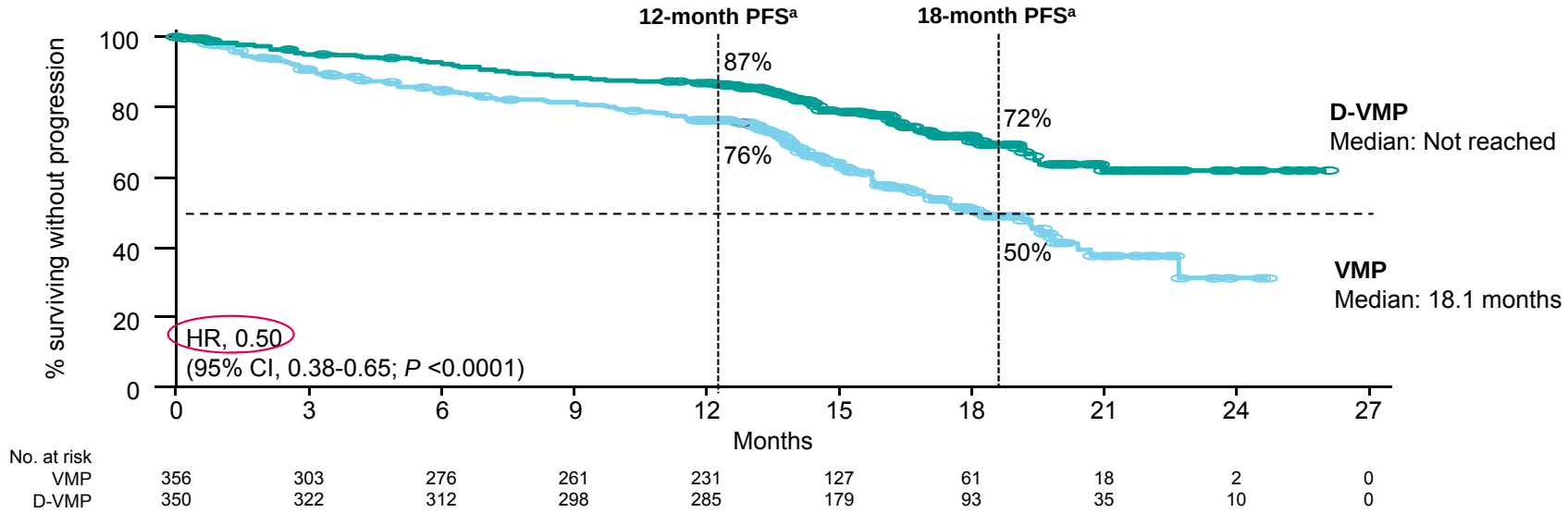
Daratumumab Development

Beyond Multiple Myeloma



Front Line Multiple Myeloma: ALCYONE

Ph III Newly Diagnosed Multiple Myeloma



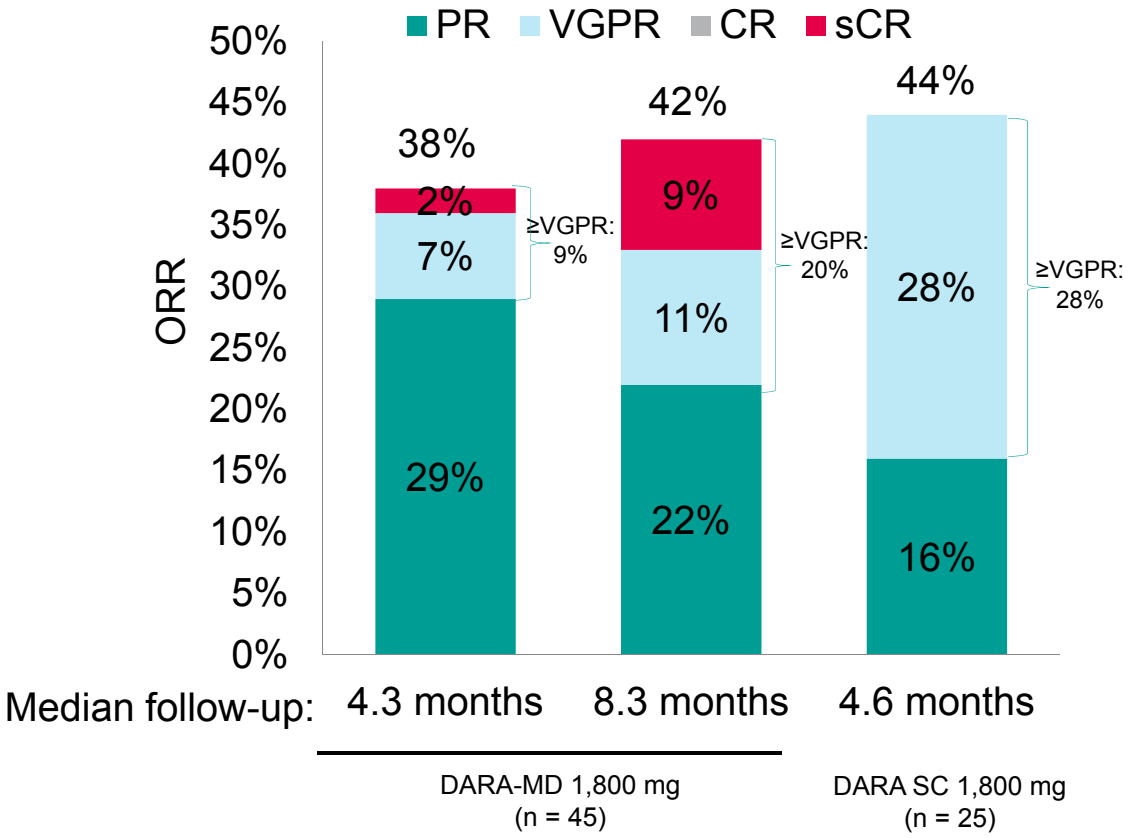
In D-VMP arm:

- 50% reduction risk of disease progression or death in patients receiving D-VMP
- Median PFS not reached
- >3-fold higher MRD-negative rate

Data Presented at ASH – Atlanta, December 2017 / Basis of FDA & EMA Submissions, November 2017

Subcutaneous Daratumumab

Data PhIb PAVO Study in Relapsed or Refractory MM



Presented at ASH – Atlanta, December 2017

Faster Infusion time

- Dosing in 3-5 min.
  - Ph III study underway
- First IV infusion: 7 hrs

Well tolerated

- IRRs w/ dara SC: 12%
- IRRs w/ dara IV: 45% - 56%

Clinical responses to dara SC observed

- Rates similar to Dara IV

Ofatumumab (Arzerra®)

Human antibody targeting CD20

Two Phase III studies in relapsing MS ongoing

MS Advantages: Dosing
- Better disease management, subcutaneous dosing

MS Advantages: Attributes
- Potential for low immunogenicity, manageable safety profile

Marketed in various territories for certain CLL indications*

Collaboration with Novartis
- Cash flow positive for Genmab

*See local country prescribing information for precise indications

Clinical Projects: Tisotumab vedotin

Phase II for Cervical Cancer

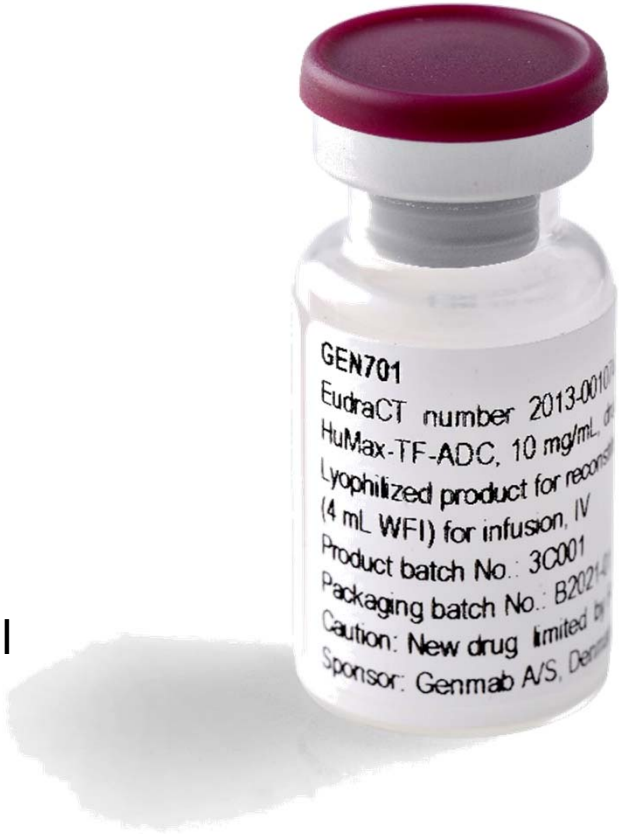
Fully human antibody-drug conjugate (ADC)

Targets Tissue Factor (TF)
- Therapeutic potential in broad range of solid tumors

Ph II Study announced in cervical cancer
- Potential registrational pathway

Studies ongoing in solid tumors
- Indications incl. gynecologic (ovarian, cervical, and endometrial) cancers, prostate, bladder, & esophageal cancers, NSCLC & SCCHN

50:50 Co-development with Seattle Genetics



Clinical Projects: HuMax-AXL-ADC

Efficacy in *in vivo* Tumor Model

Human ADC

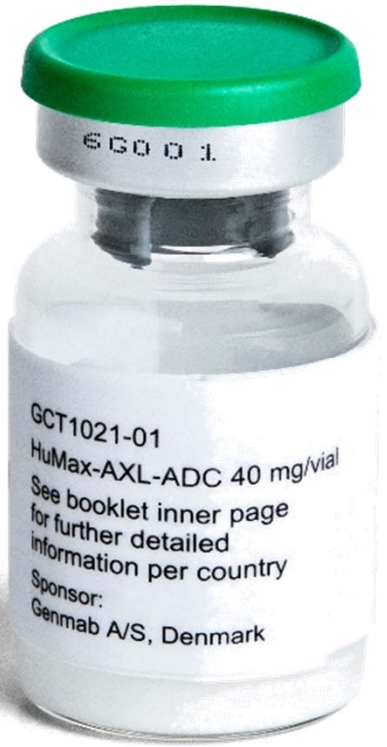
Targets tumor-associated AXL

Therapeutic potential in solid tumors

First-in-human Phase I/II study

- Indications incl. gynecologic (ovarian, cervical, & endometrial) cancers, thyroid cancer, NSCLC and melanoma
- Initiating expansion cohorts in 2018

ADC technology licensed from Seattle Genetics



Clinical Projects: HexaBody-DR5/DR5

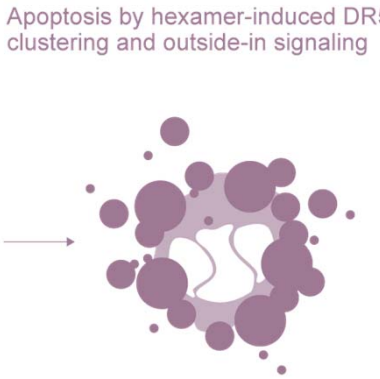
Potential in Solid Tumors

Proprietary HexaBody technology

DR5 as tumor target

IND & CTAs filed in Q4 2017
- Initiating Phase I/II study in Q1 2018

Potential in solid cancers
- Colorectal, NSCLC, triple neg. breast cancer, renal cell cancer & urothelial cancer



Clinical Projects: DuoBody-CD3xCD20

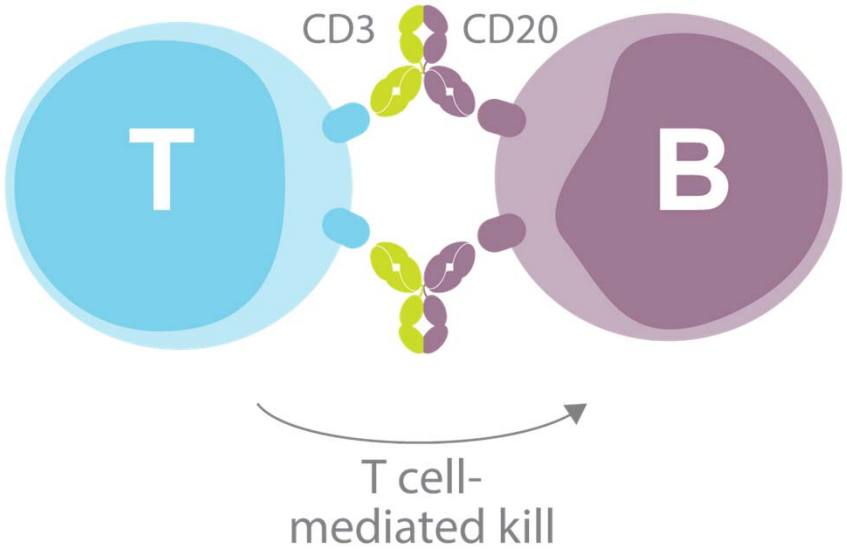
Phase I/II Study Planned

Proprietary DuoBody Technology

CD20 as tumor target

IND & CTAs filed in Q4 2017
Initiating Phase I/II study in 2018

Potential in B-cell malignancies



Well-Capitalized Biotech – 2017 Guidance

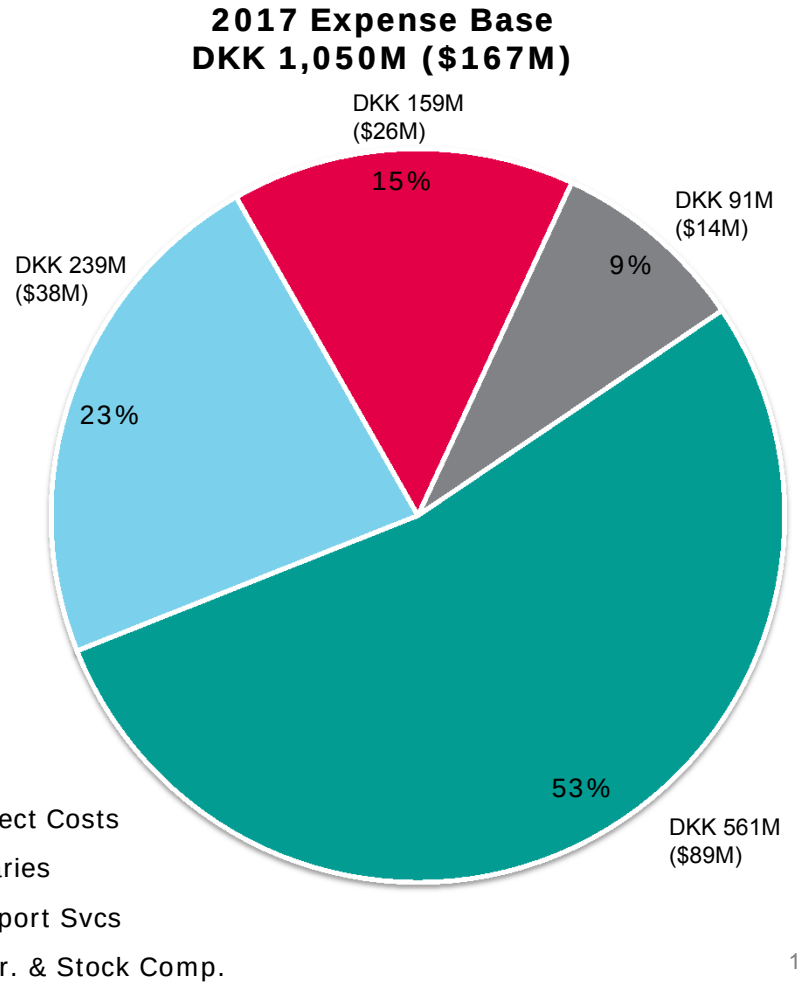
Income Statement	DKKM	USDM*
Revenue	2,240 – 2,440	355 - 387
Operating expenses	(1,000) – (1,100)	(159) – (174)
Operating income	1,190 – 1,390	189 - 221
Cash position at end of year**	>4,900	>777
*USD 1.00 = DKK 6.3038 **Cash, cash equivalents and marketable securities		

2017 Guidance – Nov 29, 2017

DARZALEX sales
- Genmab's estimate of DARZALEX net sales USD 1.1-1.3 billion

Revenue mid-point DKK 2,050M
- DARZALEX royalties DKK 1,000M
- DARZALEX milestones DKK 1,090M
- Quality of revenue improving

Expense mid-point DKK 1,050
- Expense increase DKK 287M, +38%
- Continued investment in our clinical & pre-clinical pipeline
- 8 pipeline projects drive ~DKK 440M, 42% of total expense



2018 Company Goals
Maximizing Differentiated Product Portfolio Value

Priority	✓	Targeted Milestone
Maximize daratumumab progress		» FDA and EMA decision on Phase III ALCYONE multiple myeloma (MM) submission » Start new Phase III MM study » Report early clinical data in solid tumors » Phase III MAIA MM efficacy analysis in frontline » Phase III CASSIOPEIA MM efficacy analysis in frontline
Optimize ofatumumab value		» Complete recruitment Phase III subcutaneous ofatumumab relapsing MS studies
Maximize tisotumab vedotin progress		» Start two Phase II studies cervical cancer (recurrent / metastatic & combination study in frontline) » Start Phase II study in additional solid tumor indications
Strengthen differentiated product pipeline and technology partnership portfolio		» Start HuMax-AXL-ADC expansion phase in ongoing Phase I/II study » Progress HexaBody-DR5/DR5 Phase I/II study » Progress DuoBody-CD3xCD20 Phase I/II study » Accelerate proprietary DuoBody Immuno-Oncology programs towards clinic » Enter new technology or product collaborations
Disciplined financial management and building a commercial footprint		» Execute controlled company growth with selective investments in product & technology pipeline » Continue investing in building commercialization and launch capabilities

Creating Value for Patients & Shareholders

Building on 3 central pillars: Focus, Innovation & Execution

- 2 marketed products
- 4 proprietary early stage clin. programs
- 2 proprietary technologies
- Robust pre-clinical pipeline
- World-class antibody & R&D expertise
- Strategic collaborations
- Building commercial expertise
- Solid financials
- Proven track record

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