Better Antibodies By Design

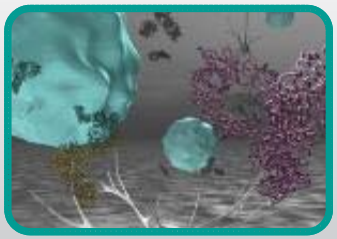
Investor Presentation
November 2015

Genmab

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.

Antibody Innovation Generating World Class Products



Focus on Cancer

- Differentiated human antibodies
- Track record breakthrough therapeutics

Robust Product Pipeline

- Daratumumab blockbuster potential (marketed as Darzalex™ in MM)
- Ofatumumab – cancer & autoimmune potential (marketed as Arzerra® in various CLL indications)
- HuMax®-TF-ADC in Phase I solid cancers

Passion for Innovation

- World class antibody know-how
- Proprietary technologies – DuoBody® & HexaBody™
- Innovative pre-clinical pipeline

Partnerships → Product Ownership

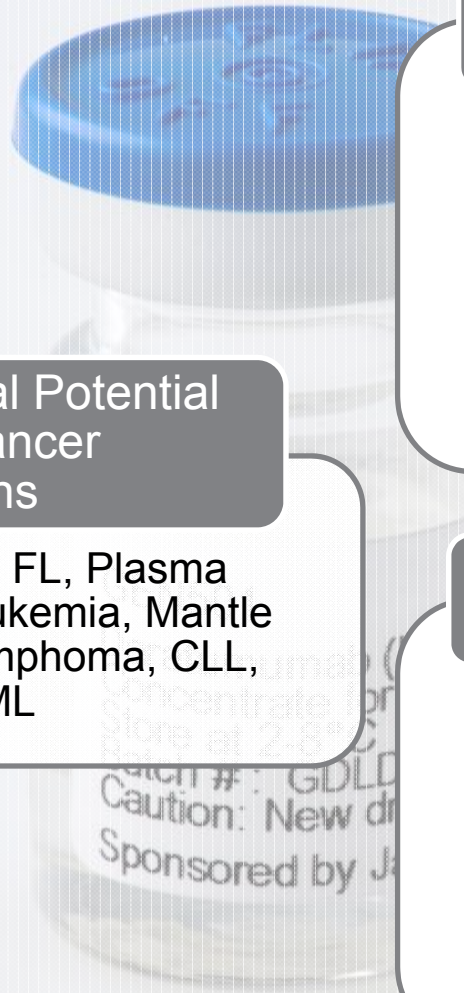
- Key collaborations drive current pipeline
- Product opt-ins + retain products for future value
- Well capitalized

Innovative Pipeline

Product	Disease Indications	Development Phase: Pre-clinical / I / II / III
Ofatumumab Target: CD20 Indication: Cancer Partner: Novartis	Chronic lymphocytic leukemia (CLL)	
	Follicular lymphoma (FL)	
Ofatumumab Target: CD20 Indication: AI Partner: GSK (transfer to Novartis)	Pemphigus vulgaris (PV) (SubQ)	
	Relapsing remitting multiple sclerosis (RRMS) (SubQ)	Announced
	Neuromyelitis optica (NMO) (SubQ)	Announced
Daratumumab Target: CD38 Partner: Janssen	Multiple myeloma (MM)	
	Non-Hodgkin's Lymphoma (NHL)	
HuMax-TF-ADC Target: TF Partner: Seattle Genetics	Solid Cancers	
Teprotumumab Target: IGF-1R Partner: River Vision	Graves' Orbitopathy	
	Diabetic macular edema	
HuMax-TAC-ADC Target: CD25 Partner: ADCT	Lymphoma	
	Acute myeloid leukemia (AML)	Announced
HuMax-IL8 Target: IL-8 Partner: Cormorant	Metastatic solid tumors	
➢ **30 Active Pre-clinical programs incl. HuMax-AXL-ADC**	Partnered programs: HuMab, DuoBody & HexaBody	
	Proprietary programs: HuMab, HuMab-ADC, DuoBody, DuoBody-ADC & HexaBody	

Darzalex™ (daratumumab)

First-in-Class Antibody with Broad-Spectrum Killing Activity



First-in-Class Fully Human Antibody

- Targets CD38 - five ways of attacking cancer cells
- Multiple Myeloma & other blood cancers
- Blockbuster potential
- Promising MM clinical data
- Broad & expansive development in MM
- Breakthrough Therapy Designation

Additional Potential Blood Cancer Indications

- DLBCL, FL, Plasma Cell Leukemia, Mantle Cell Lymphoma, CLL, ALL, AML

Partner: Janssen Biotech

- Janssen funds development & commercialization
- > $1.1B potential deal value, + double-digit royalties
- Zero cost / limited financial risk for Genmab
- Approved by the FDA, November 2015
- MAA filed with EMA, September 2015, accelerated assessment granted

Expansive Daratumumab Clinical Development

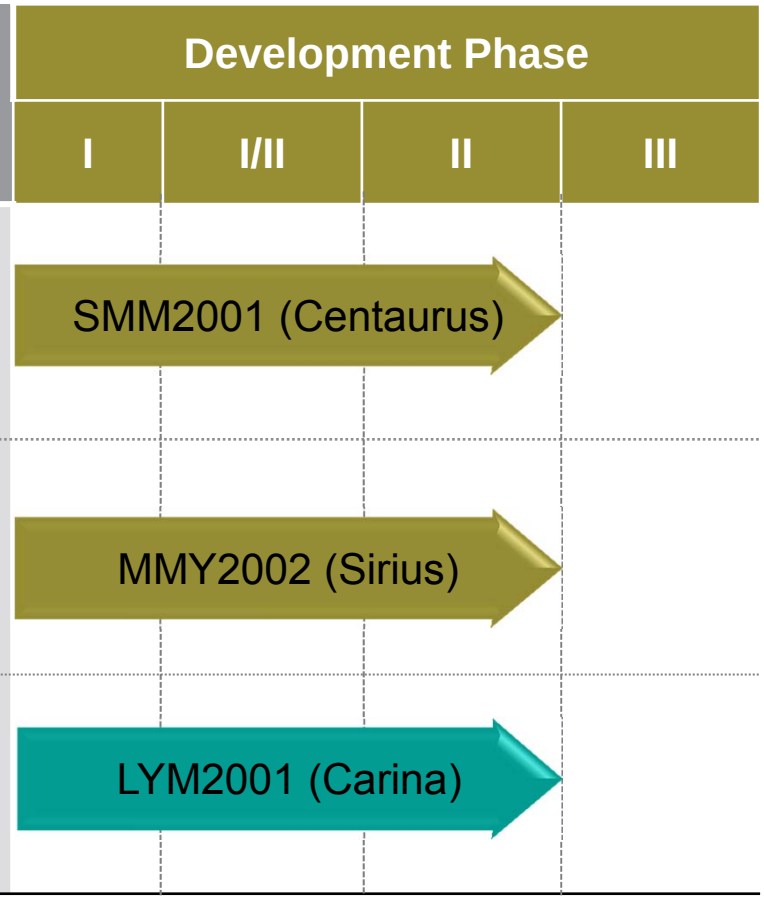
Indication	Disease Stage	Therapy	No. Pts*	Development Phase
				I / I/II / II / III
Multiple Myeloma**	Front line (transplant & non-transplant)	Dara + VMP	700	MMY3007 (Alcyone)
		Dara + Revlimid + Dex	730	MMY3008 (Maia)
		Dara + VTD	1,080	MMY3006 (Cassiopeia)
	Relapsed or Refractory	Multi combo: 1 Study	190	MMY1001 (Equuleus)
		Dara + Revlimid + Dex	45	GEN503
		Dara + Revlimid + Dex	570	MMY3003 (Pollux)
		Dara + Velcade + Dex	480	MMY3004 (Castor)
		Dara +Vel+Dex, Japan	6	MMY1005
		Mono, Japan	9	MMY1002
		Mono, safety	104	GEN501
		Subcutaneous	128	MMY1004

*Approx. no. based on clinicaltrials.gov **Maintenance integrated into some study protocols

VMP = bortezomib & melphalan-prednisone VTD = bortezomib, thalidomide & dexamethasone BTD = Breakthrough Therapy Designation

Expansive Daratumumab Clinical Development
Additional Indications

Indication	Disease Stage	Therapy	No. Pts*	Development Phase
Multiple Myeloma**	High Risk Smoldering	Mono	120	SMM2001 (Centaurus)
	Double Refractory	Mono, BTD population (BLA PDUFA March 9, 2016)	124	MMY2002 (Sirius)
NHL (DLBCL / MCL / FL)	Relapsed or Refractory	Mono	210	LYM2001 (Carina)



*Approx. no. based on clinicaltrials.gov. **Maintenance integrated into some study protocols
BTD = Breakthrough Therapy Designation

Positive Results:

Daratumumab Ph II Study Double Refractory MM (filed FDA)

Study Design

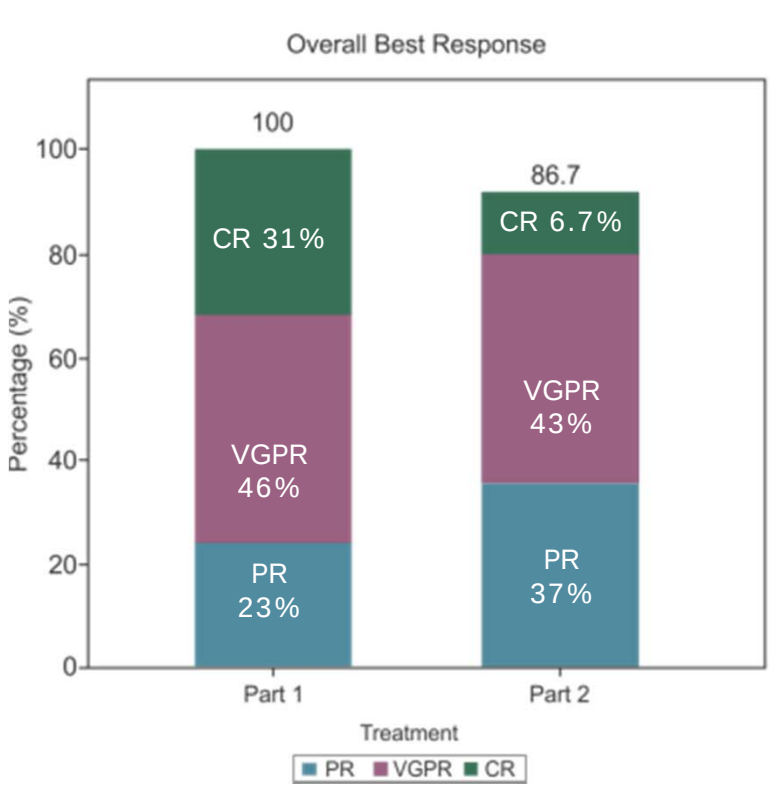
2 part study, enrolled 124 pts • Part 1: defined optimal daratumumab regimen • Part 2: expansion based on Part 1	Pts received at least 3 prior lines of therapy incl. a PI & an IMiD, or double refractory to PI & IMiD	Primary Objective: define optimal dose, determine efficacy of 2 daratumumab treatment regimens as measured by ORR

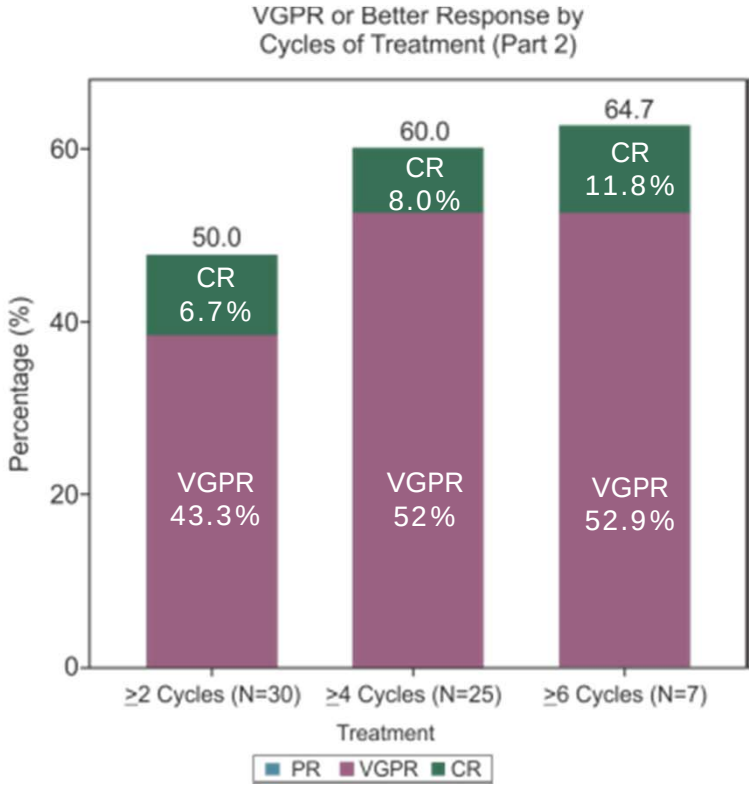
Results

29.2% ORR (31/106) in 16 mg/kg dose group. 13 pts VGPR or better	Robust, durable single agent activity 7.4 month median duration of response	Median prior lines of therapy: 5 • 95% refractory to last PI & IMiD • 63% refractory to pomalidomide • 48% refractory to carfilzomib	Manageable safety profile

Daratumumab: Early Signs of Clinical Activity

Ph I/II Revlimid Combo Study in Multiple Myeloma



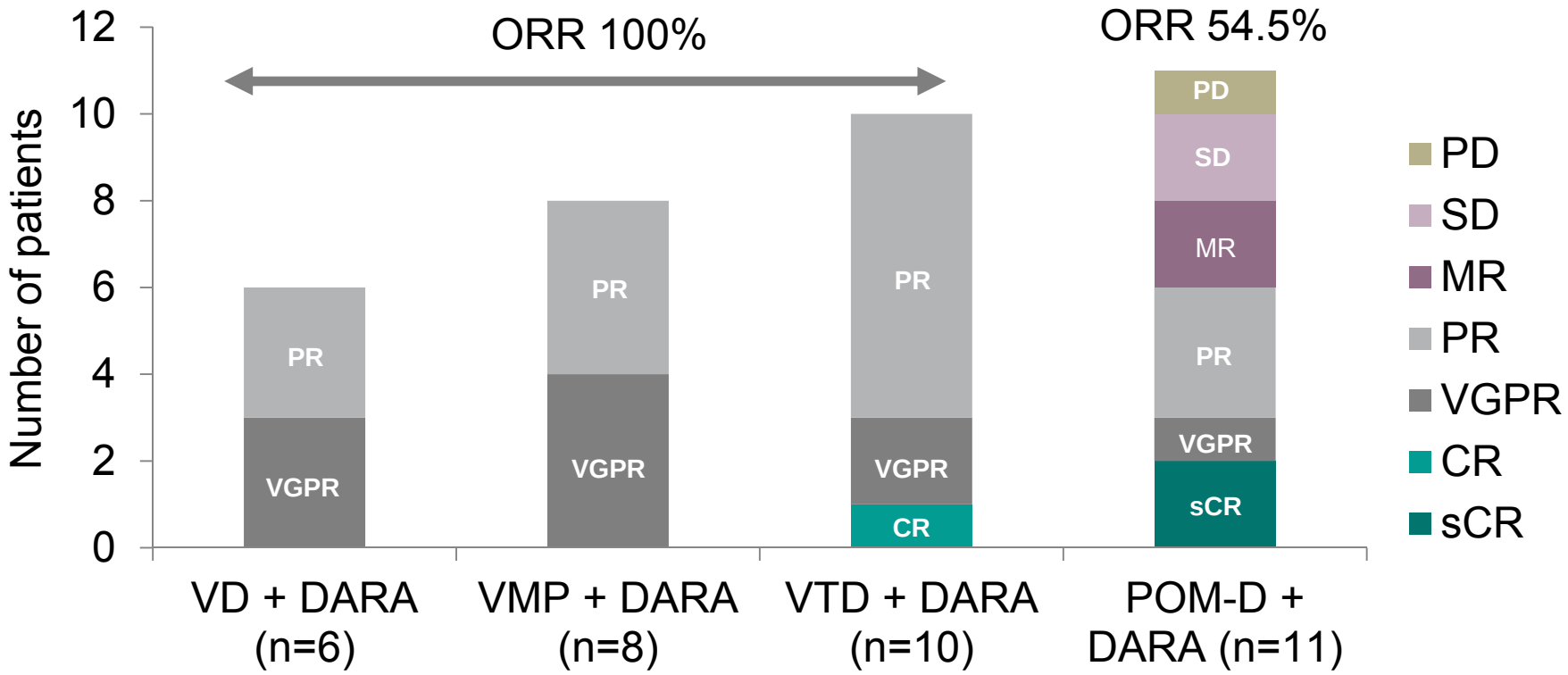


- Part 1; ORR 100% (31% CR, 46% VGPR)
- Part 2; ORR 87% (7% CR, 43% VGPR)
- 75% VGPR or better in patients treated for at least 6 months

Data presented at ASH 2014

Daratumumab: Early Signs of Clinical Activity

Ph Ib MM Combo Study with Velcade / Pomalidomide Regimens

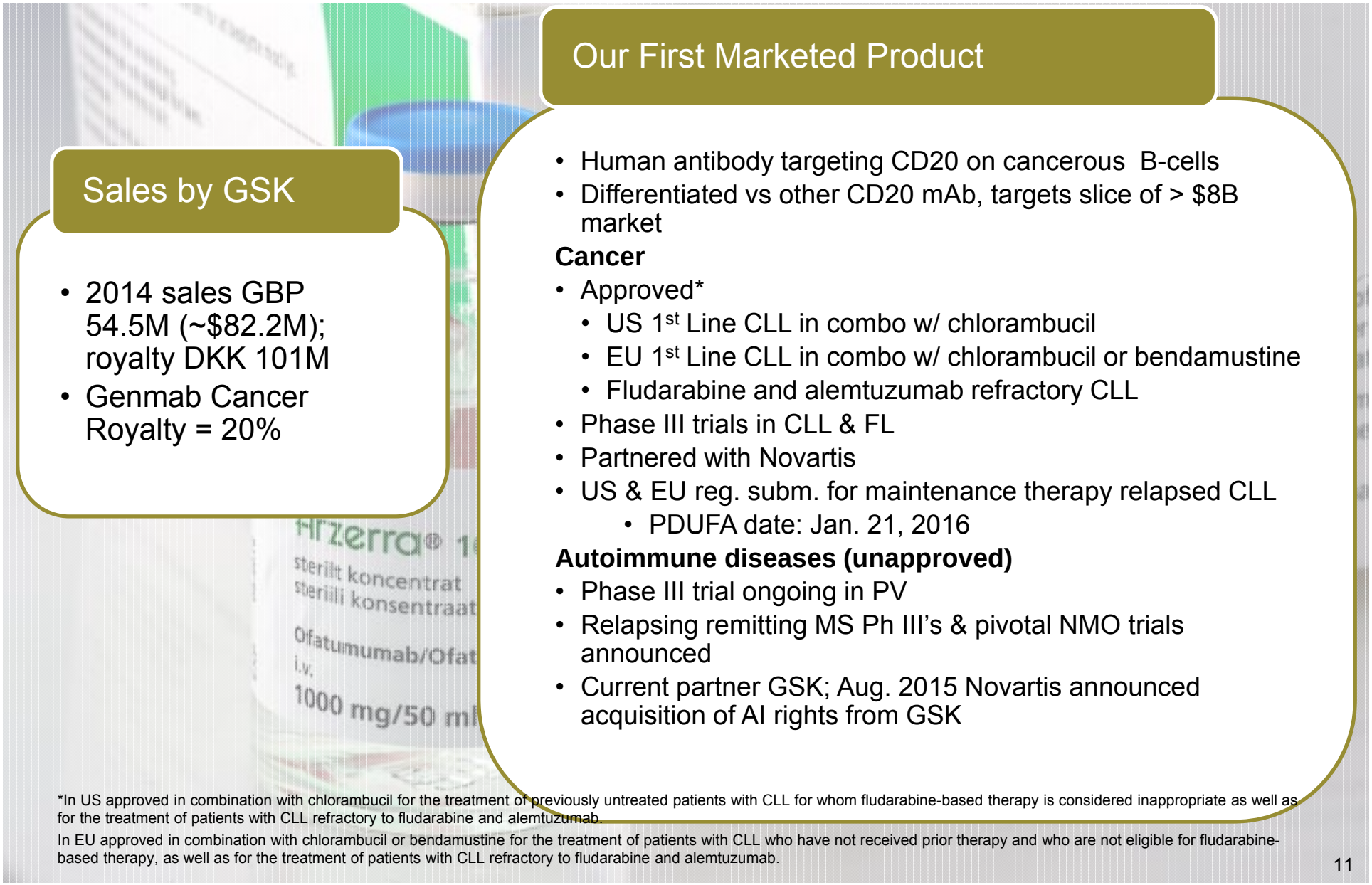


- ORR:
  - 100% in newly diagnosed group (Velcade combinations)
  - 54.5% in relapsed group –2 sCR (POM-D combination)

V, bortezomib; D, dexamethasone; DARA, daratumumab; M, melphalan; P, prednisone; T, thalidomide; POM, pomalidomide.
sCR, stringent complete response; VGPR, very good partial response; PR, partial response; MR, minimal response; PD, progressive disease.

Data presented at EHA 2015

Arzerra® (ofatumumab)



Sales by GSK

- 2014 sales GBP 54.5M (~$82.2M); royalty DKK 101M
- Genmab Cancer Royalty = 20%

Our First Marketed Product

- Human antibody targeting CD20 on cancerous B-cells
- Differentiated vs other CD20 mAb, targets slice of > $8B market

Cancer

- Approved*
  - US 1st Line CLL in combo w/ chlorambucil
  - EU 1st Line CLL in combo w/ chlorambucil or bendamustine
  - Fludarabine and alemtuzumab refractory CLL
- Phase III trials in CLL & FL
- Partnered with Novartis
- US & EU reg. subm. for maintenance therapy relapsed CLL
  - PDUFA date: Jan. 21, 2016

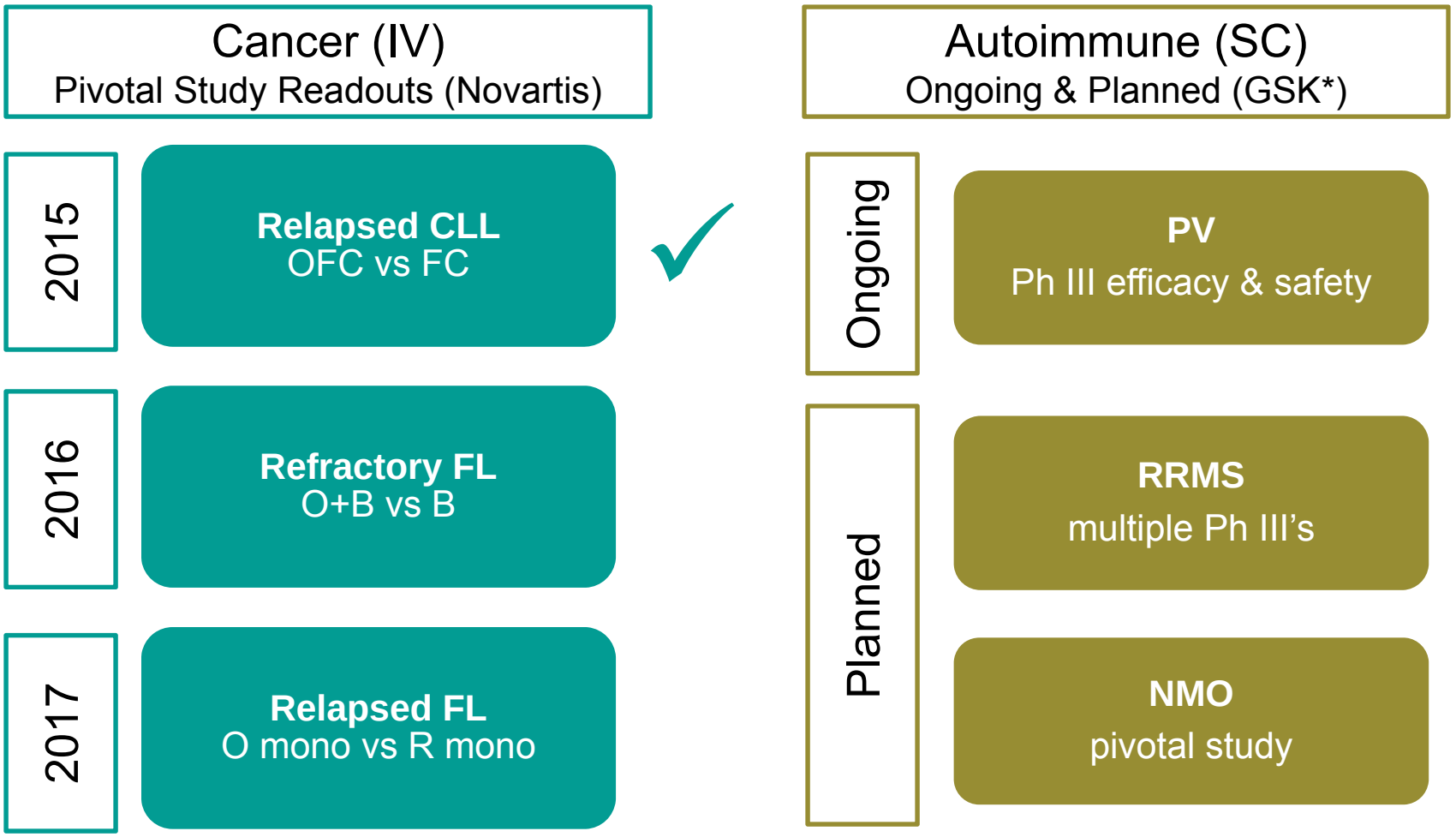
Autoimmune diseases (unapproved)

- Phase III trial ongoing in PV
- Relapsing remitting MS Ph III's & pivotal NMO trials announced
- Current partner GSK; Aug. 2015 Novartis announced acquisition of AI rights from GSK

*In US approved in combination with chlorambucil for the treatment of previously untreated patients with CLL for whom fludarabine-based therapy is considered inappropriate as well as for the treatment of patients with CLL refractory to fludarabine and alemtuzumab.

In EU approved in combination with chlorambucil or bendamustine for the treatment of patients with CLL who have not received prior therapy and who are not eligible for fludarabine-based therapy, as well as for the treatment of patients with CLL refractory to fludarabine and alemtuzumab.

Ofatumumab: Planned & Ongoing Trials



Note: The indications above are unapproved

*AI rights to be acquired by Novartis

HuMax®-TF-ADC: In the Clinic

Next Generation Therapeutics

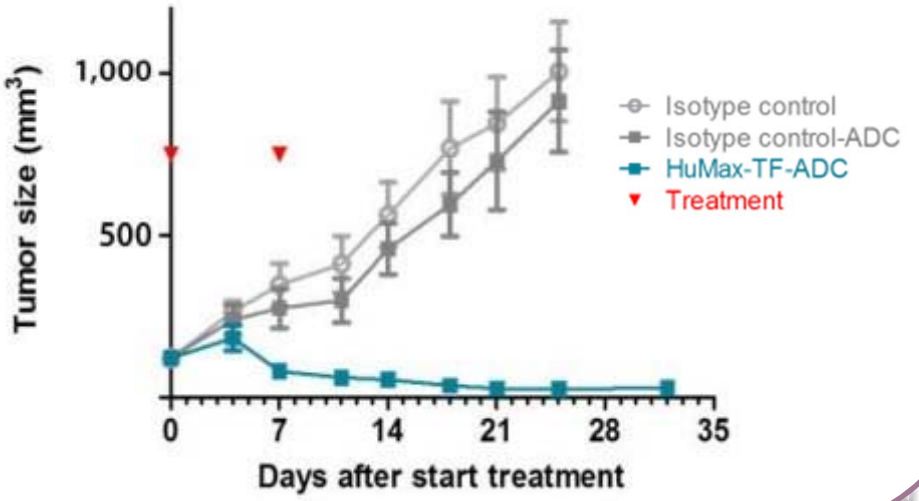
8 Tumors

- Ovary, cervix, endometrium, bladder, prostate, head & neck, esophagus, lung
- Potential in pancreatic cancer

Fully Human Antibody-drug Conjugate

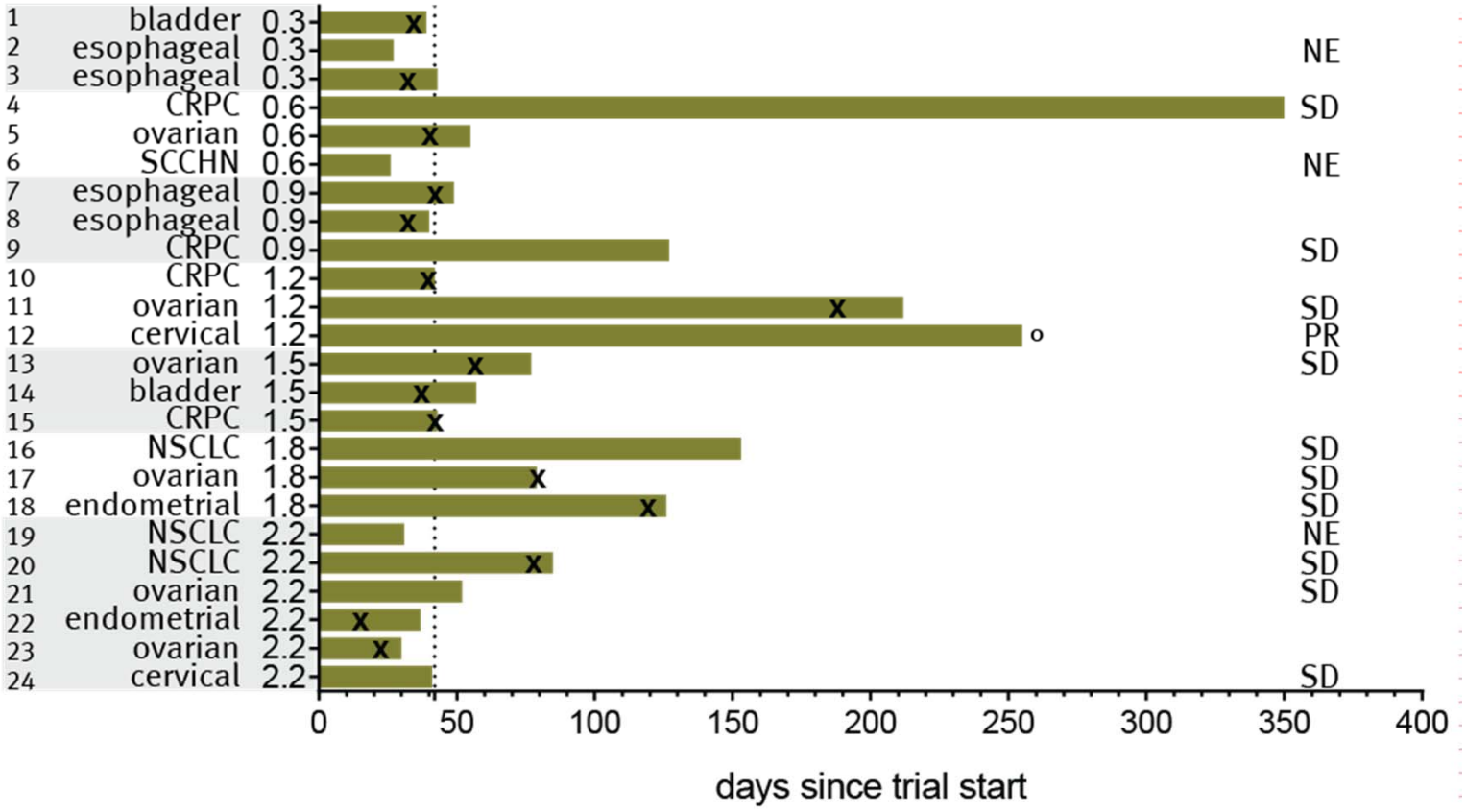
- Targets Tissue Factor (TF)
- Strong pre-clinical data in multiple solid cancers
- Ongoing Phase I study
- Data presented at ASCO 2015
  - Safely dosed up to 1.8mg/kg
  - Preliminary evidence of efficacy encouraging
- Collaboration: Seattle Genetics opt-in (after Ph I/II)

Pre-clinical Cervical Cancer Model



HuMax-TF-ADC in Patients with Solid Tumors

Best Response and Duration of Follow-up

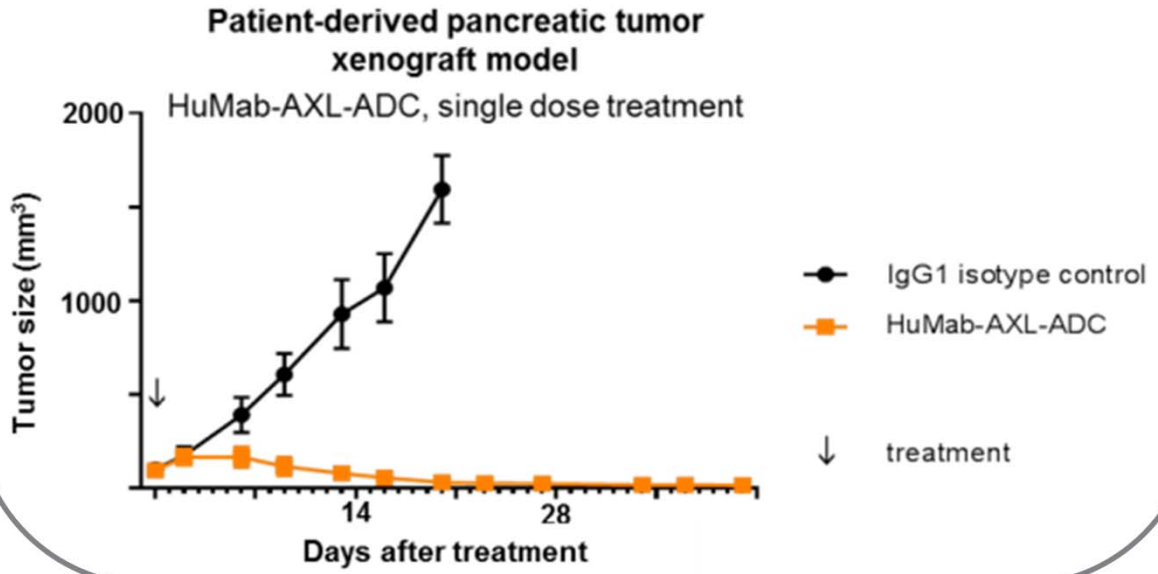


- Footnote: X denotes time of disease progression. Patients still in the trial have an “O” following the end of their bar. Dashed vertical line at 6 weeks denotes the SD-threshold, Not evaluable (because of insufficient follow-up) patients are denoted with an NE. SD: stable disease, PR: partial response.

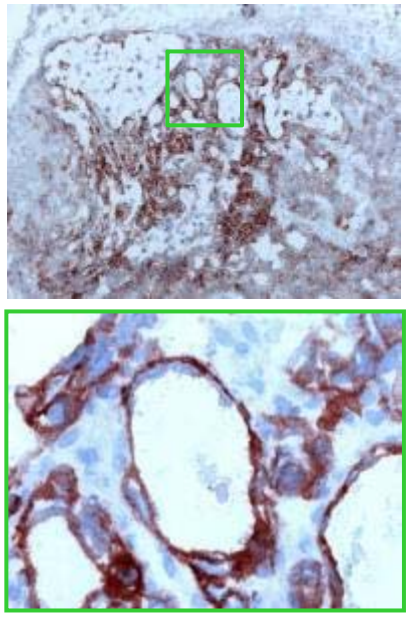
HuMax-AXL-ADC Efficacy in *in vivo* Tumor Model

Fully Human Antibody-Drug Conjugate

- Targets AXL signaling molecule expressed on many solid cancers
- HuMax-AXL-ADC shows anti-tumor activity in patient-derived xenograft model with heterogeneous target expression
- Collaboration: Seattle Genetics



AXL expression in xenograft model



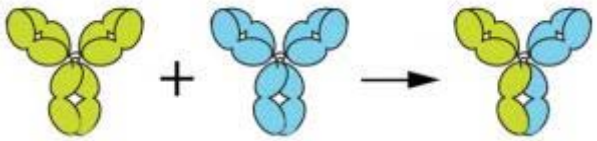
AXL antibody

DuoBody® Technology

Efficient & Versatile Platform for Bispecific Antibodies

DuoBody

- Dual-targeting, potential to improve specificity & efficacy
- Large scale manufacturing
  - Minimal protein engineering
  - Excellent quality BsAb at very high yields
- Differentiated from competitor platforms
  - Proper in vivo half-life
  - Fc-effector functions
- Good manufacturability



Ongoing Collaborations

- 5 Commercial deals
  - Novartis (2 progr., $175M potential deal value + royalties)
  - Janssen Biotech (20 progr., $3.6B potential deal value + royalties)
  - Novo Nordisk (2 progr. $250M each exclusive license / $200M each non-exclusive license + royalties)
  - BioNovion* (expansion research deal, joint development / ownership)
  - BioNTech (joint development / ownership)
- 4 Research deals
  - Undisclosed major Biotech, Agenus, Humabs BioMed, Pierre Fabre

*Sept 2015 Aduro BioTech, Inc. announced definitive agreement to acquire BioNovion

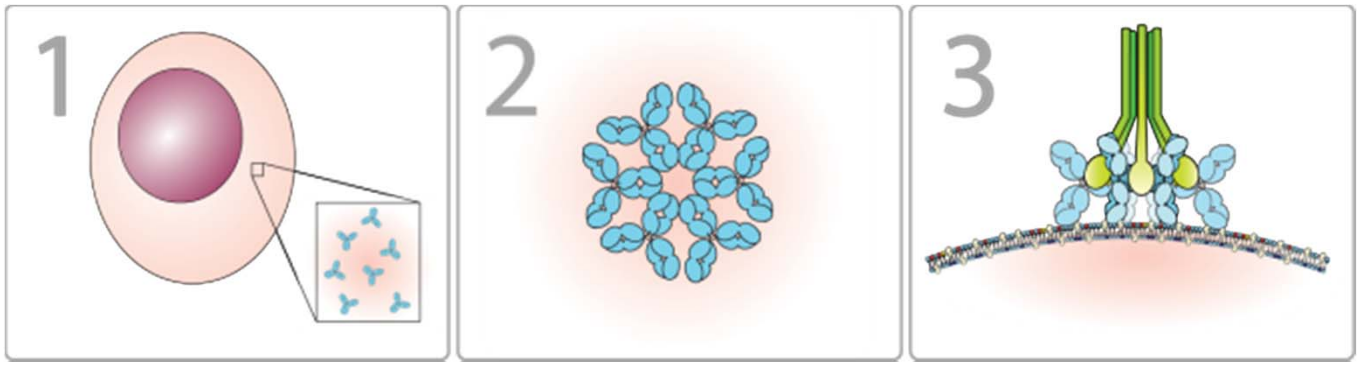
HexaBody™ Technology

Robust Effector Function Enhanced Antibodies

HexaBody

HexaBody

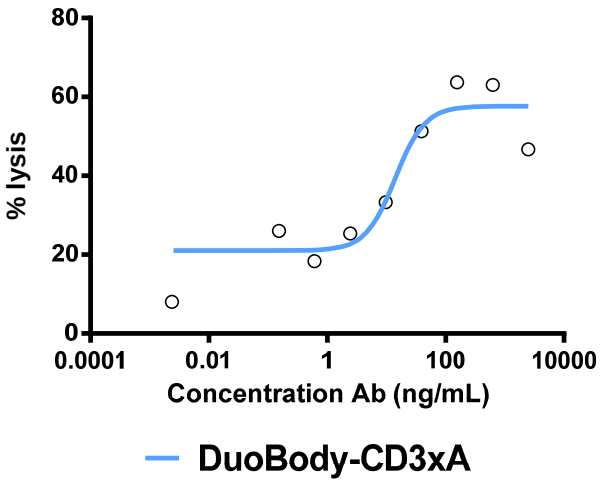
- Enables antibodies to readily form clusters of 6 (hexamers)
- Induces & enhances target cell killing after binding via CDC
- CDC capability to essentially any antibody
- Builds on natural antibody biology - minimal engineering
- Create novel, differentiated products in cancer & infect. dis.
- Repurpose / rescue drug candidates that failed in Phase II/III
- Life cycle management
- Collab. w. undiscl. major Biotech, Humabs BioMed & Agenus

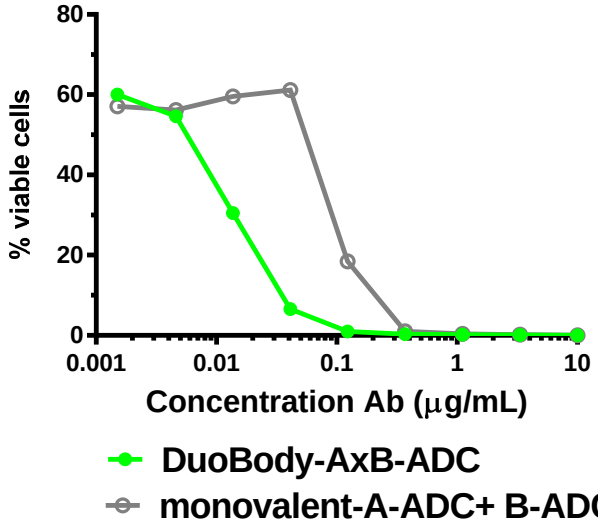


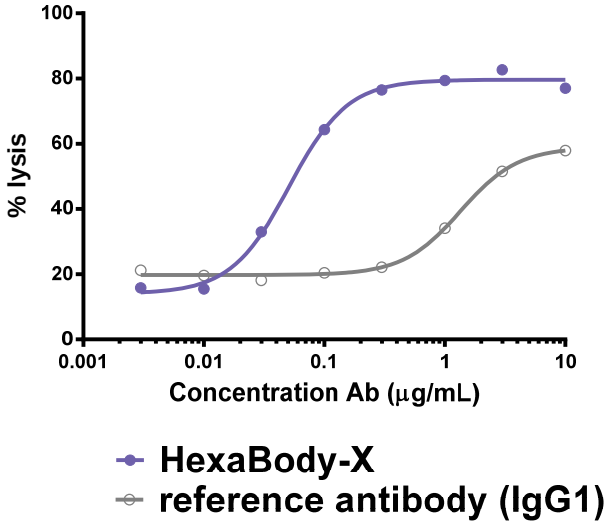
Genmab's Robust Innovative Pre-Clinical Pipeline

DuoBody™ formats

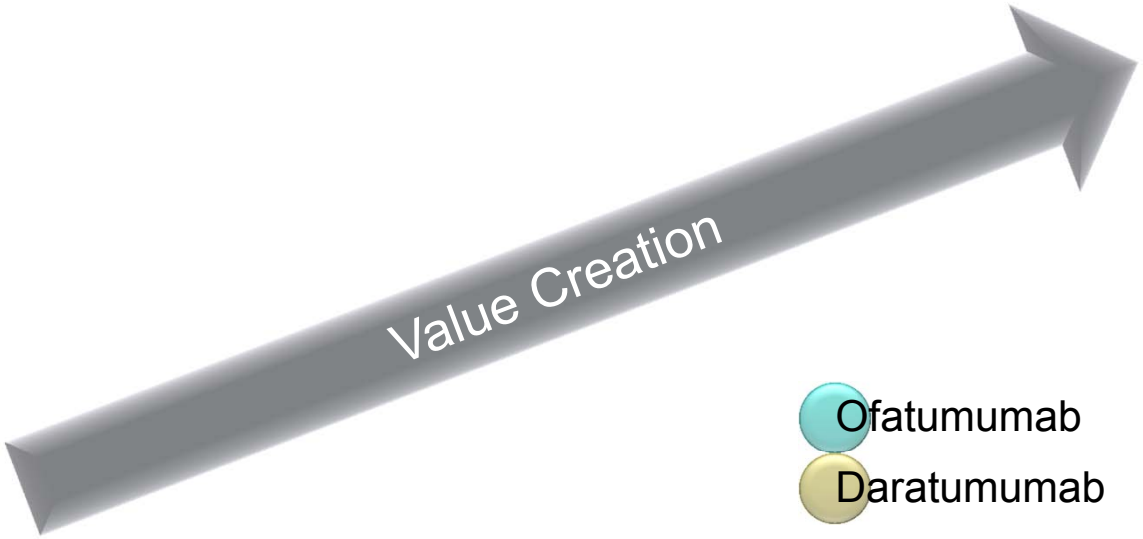
HexaBody™ format







Creating Value With Our Technologies



Janssen DuoBody

Novartis DuoBody

Licensing

Products / Technology

Validation

HuMax-TAC-ADC

Opt-ins

Exchange for technology

Many shots on goal

Ofatumumab

Daratumumab

Partnerships

Greater value after PoC

Creates sustainable company

HuMax-TF-ADC

HuMax-AXL-ADC

Pipeline products

Joint Dev /Ownership (BioNovion* / BioNTech)

Ownership

Value inflection

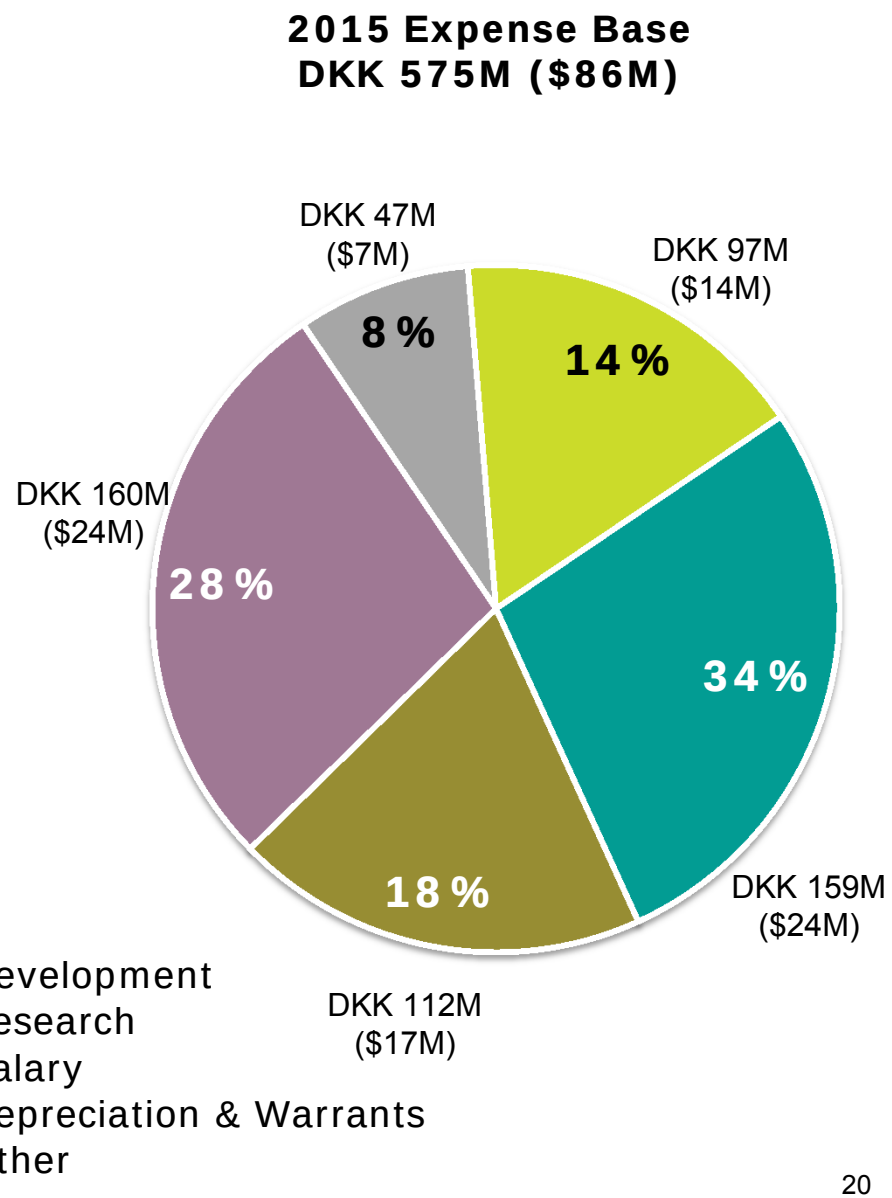
Greater rewards

*Sept 2015 Aduro BioTech, Inc. announced definitive agreement to acquire BioNovion

Well-Capitalized Biotech – 2015 Guidance

Income Statement	DKKM	USDM*
Revenue	1,025 – 1,100	154 - 165
Operating expenses	(550) – (600)	(83) – (90)
Reversal of GSK Liability	175	26
Operating income	625 - 700	94 - 105
Cash position at end of year**	3,000 – 3,100	451 - 466

*USD 1.00 = DKK 6.6588 (September 30, 2015)
**Cash, cash equivalents and marketable securities



2015 Guidance – November 3, 2015. Revised on November 16, 2015 following the approval of Darzalex

2015 Goals: Maximizing Pipeline Value

Priority	✓	Targeted Milestone
Maximize daratumumab clinical progress	✓	» Phase II MM monotherapy data and if favorable, discuss regulatory next steps with health authorities
	✓	» Start multiple new MM trials
	✓	» Start non-MM clinical trial
Optimize ofatumumab value	✓	» File for an additional indication
	✓	» Phase III relapsed CLL data
	X	» Start Phase III sc autoimmune trials*
Strengthen differentiated product pipeline	✓	» Phase I HuMax-TF-ADC data
	✓	» Progress HuMax-AXL-ADC
	✓	» Progress pre-clinical DuoBody & HexaBody projects
Broaden partnership portfolio with next generation technologies	✓	» Expand DuoBody & HexaBody collaborations
	✓	» Progress partnered programs
	✓	» New IND filings
Disciplined financial management	✓	» Maintain cost base while selectively investing to advance pipeline

*This milestone is not expected to be completed in 2015 due to the expected transfer of the rights for ofatumumab in autoimmune indications from GSK to Novartis.

On Track to a Sustainably Profitable Future

- Robust differentiated product pipeline
  - Daratumumab, ofatumumab, HuMax-TF-ADC
  - Innovative pre-clinical pipeline
- Proprietary technologies -DuoBody & HexaBody
- Partnerships → Product ownership
  - Well capitalized
- Positioned for success
  - For patients & shareholders

Better Antibodies By Design

Genmab