Better Antibodies By Design

Investor Presentation September 2017





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 At-A-Glance

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



DARZALEX® Arzerra®

2 marketed products generating royalty income



Tisotumab vedotin HuMax®-AXL-ADC

2 exciting proprietary clinical programs



DuoBody® Platform HexaBody® Tech.

2 proprietary next gen. technologies for robust pre-clinical pipeline



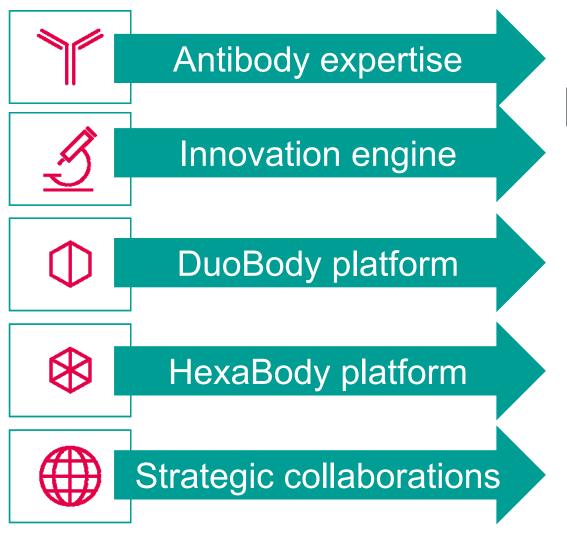
Solid financial base

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



Antibody Innovation Powerhouse

Creating Value for Stakeholders



Leapfrog products that create value





Innovative Clinical & Pre-clinical Pipeline Further Development for Marketed Products

Product	Disease Indications	Development Phase					
		Pre- Clinical	I	1/11	II	III	
Daratumumab BTD (2 - MM)	Multiple myeloma (MM)						
Target: CD38 Partner: Janssen	Amyloidosis						
	Natural Killer /T-Cell Lymphoma (NKTCL), Nasal Type						
	Myelodysplastic Syndromes (MDS)						
	Solid tumors						
Ofatumumab Target: CD20 Indication: Cancer Partner: Novartis	Follicular lymphoma (FL)						
Ofatumumab (OMB157) Target: CD20 Indication: AI Partner: Novartis	Relapsing multiple sclerosis (RMS) (SubQ)						



Innovative Clinical & Pre-clinical Pipeline

Product	Disease Indications	Development Phase					
		Pre- Clinica	al	I	1/11	П	III
Tisotumab vedotin Target: TF	Solid cancers						
HuMax-AXL-ADC Target: AXL	Solid cancers						
Teprotumumab (RV001) 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						
raiget. OD23, i aither. ADO i	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. HexaBody-DR5/DR5, DuoBody CD3xCD20	Proprietary programs: HuMab, HuMab-ADC, DuoBody, DuoBody- ADC & HexaBody						
	Partnered programs: HuMab, DuoBody & HexaBody						6



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

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

Marketed as monotherapy in US & EU for double refractory MM

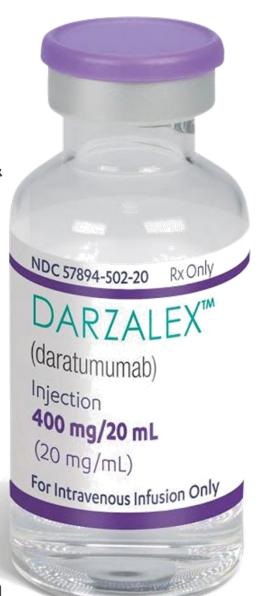
Approved in US & EU in combo. w/ Revlimid & dex or Velcade & dex for relapsed / refractory MM

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 potential – growing royalty income Royalty rate: 12% - 20%

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





Expansive Daratumumab Clinical Development: MM

Disease Stage	Therapy	Development Phase					
		Pre-Clinical I	1/11	II	III		
High Risk Smoldering	Monotherapy	✓ CENTAURUS					
Front line (transplant & non-	Dara + VMP	✓ ALCYONE					
transplant)	Dara + VMP (Asia Pacific)						
	Dara + Rd	✓ MAIA					
	Dara + VTd	CASSIOPEIA					
	Dara + RVd						
	Multi combo study (6 arms)	EQUULEUS					
Relapsed or Refractory	Dara + Vd (China)						
	Dara + Kd	CANDOR					
	Dara + Pom + d	APOLLO					
	Subcutaneous						
	Dara + Imfinzi*	FUSION					
	Dara + Keytruda						
	Dara + Opdivo*						
	Dara + Tecentriq						

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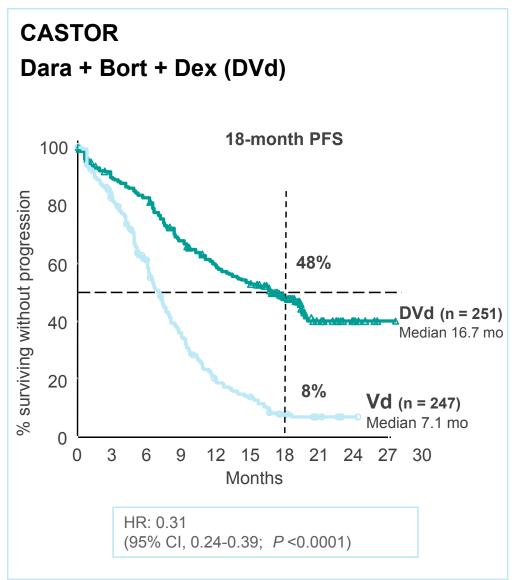


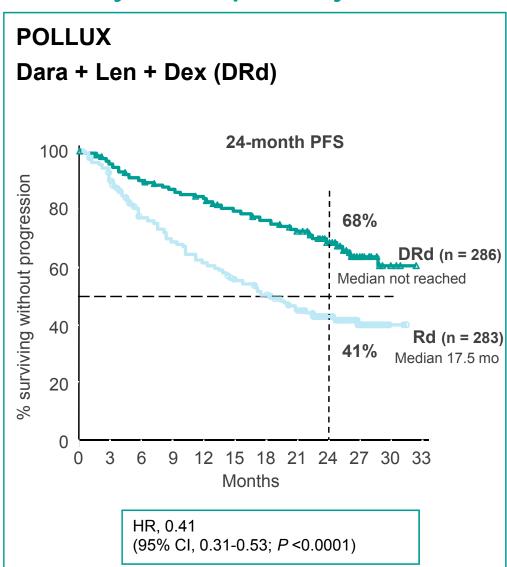
Expansive Daratumumab Clinical DevelopmentOther Indications

Disease Stage	Therapy	Development Phase					
		Pre-Clinical	I	1/1	I	Ш	III
Amyloidosis	Dara + CyBorD						
NKTCL (nasal type)	Monotherapy	VOLANS					
Colon cancer	Dara + Opdivo						
MDS	Dara or talacotuzumab						
NSCLC	Dara + Tecentriq	CALLISTO					
NSCLC, pancreatic, triple neg. breast cancers	Dara + Opdivo						
Virus associated tumors	Dara + Opdivo						



Updated Efficacy: CASTOR & POLLUX Phase III Relapsed or Refractory Multiple Myeloma

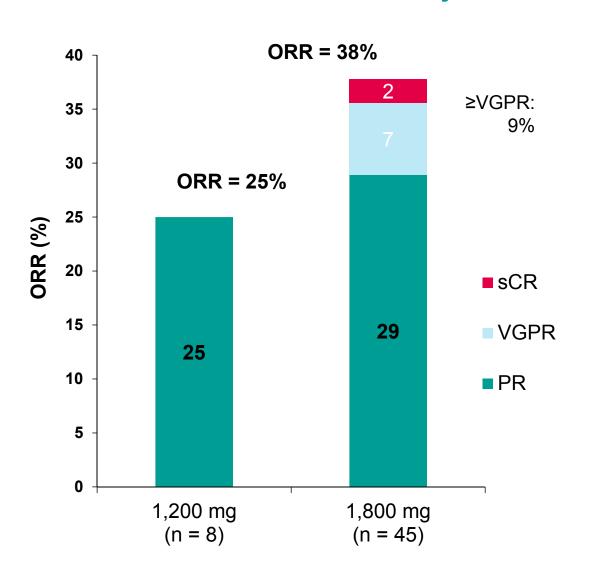






Subcutaneous Daratumumab

Data Phlb PAVO Study in Relapsed or Refractory MM



Faster Infusion time

- 1,800 mg dose: ~30min
- First IV infusion: 7 hrs

Lower IRR incidence

- 1,800 mg dose: 24%
- 16 mg/kg IV dose: 48%

PK profile of 1,800 mg dose consistent with 16 mg/kg IV dose



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





Clinical Projects: Tisotumab vedotin Phase I/II studies in Patients with Solid Tumors

Fully human antibody-drug conjugate (ADC)

Targets Tissue Factor (TF)

Therapeutic potential in broad range of solid tumors

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

Encouraging preliminary safety & efficacy data
Promising data in pts w/ cervical cancer
Based on data, looking at further dev. in indication

Co-development with Seattle Genetics





Clinical Projects: HuMax-AXL-ADC

Efficacy in in vivo Tumor Model

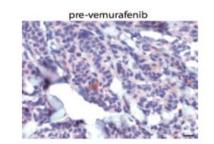
Human ADC

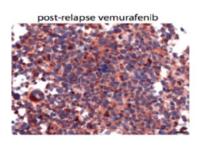
Targets tumor-associated AXL

Therapeutic potential in solid tumors

First-in-human Phase I/II study
Indications incl. gynecologic (ovarian, cervical, & endometrial) cancers, thyroid cancer, NSCLC and melanoma







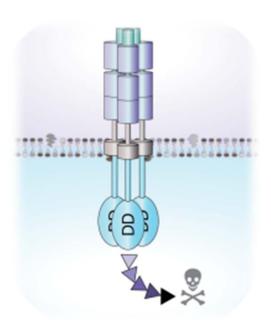




Next in the Clinic: 2017 IND Candidates

HexaBody-DR5/DR5

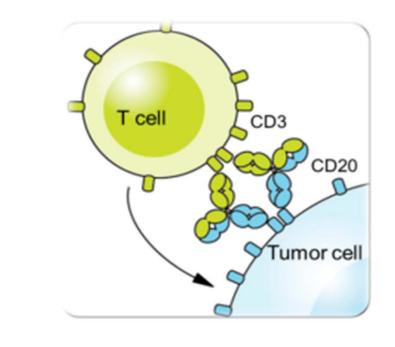
- Targets DR5 for cancer therapy
- Potentially effective in multiple tumor types



DR5 activation induces cell death

DuoBody CD3xCD20

- Humanized IgG1 bispecific antibody
- Activates T cells to kill CD20⁺ tumor cells





Genmab Proprietary Innovative Pipeline

Potential INDs in next 4 years

Technology	product	2017	2018	2019	2020
HexaBody	HexaBody-DR5/DR5				
DuoBody	DuoBody-CD3xCD20				
HexaBody	DuoHexaBody				
DuoBody	DuoBody-CD3xX				
Immuno-Oncology	DuoBody-A		_		
[>10 progr.]*	DuoBody-B				
	DuoBody-C				
	DuoBody-D				
*: Aduro Biotech & BioNTech	DuoBody-E				



Cutting Edge Capabilities: Proprietary Technologies to create Leapfrog Drugs



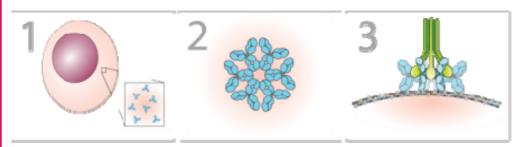
DuoBody

- 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 collaborations incl. with Novartis, Novo Nordisk, Gilead & Janssen Biotech

HexaBody

- 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
- Collaborations with Humabs BioMed, Agenus and others







Cutting Edge Capabilities: Immuno-Oncology Turning Cancer into a Chronic Condition

Innovating cancer treatment

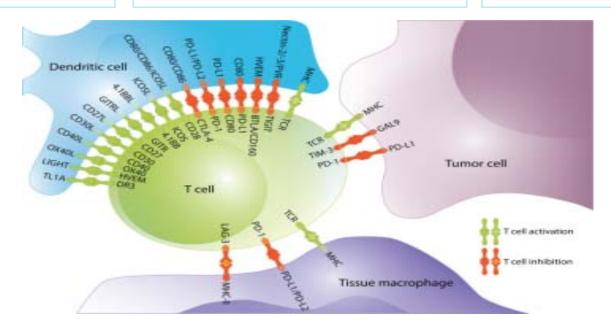
- Activate patient's own immune system
- Long duration of response
- Potential game changer
- >\$50B market

DuoBody technology

- Robust & versatile bispecific antibody platform
- Screening multiple combinations in final therapeutic format
- Combined targeting immune check points
- Current Partnerships
 - Aduro Biotech
 - BioNTech

daratumumab + anti-PD-L1 / PD-1

- Multiple studies started in 2016 & 2017
- Ph II study in combi. w/Tecentriq (Genentech) in relapsed / refractory MM & NSCLC
- PhII study in combi. w/ Imfinzi (Celgene) in relapsed / refractory MM
- Ph Ib/II in combi. w/Opdivo (BMS) in solid tumors & MM
- •Ph II in combi. w/ Keytruda (Merck) in MM





Well-Capitalized Biotech – 2017 Guidance

Income Statement	DKKM	USDM*
Revenue	1,950 – 2,150	299 - 330
Operating expenses	(1,000) – (1,100)	(153) – (169)
Operating income	900 – 1,100	138 - 169
Cash position at end of year**	>4,500	>691

^{*}USD 1.00 = DKK 6.5165

2017 Guidance - Aug 9, 2017

DARZALEX sales

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

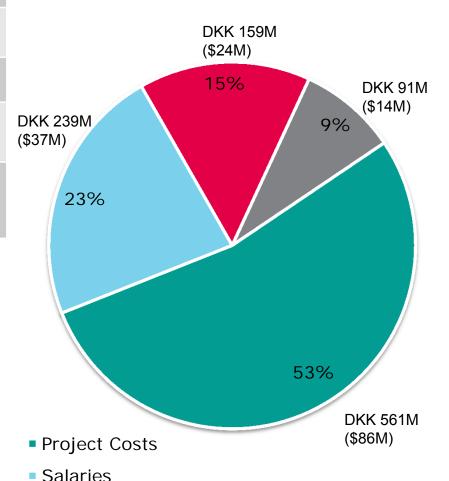
Revenue mid-point DKK 2,050M

- DARZALEX royalties DKK 1,000M
- DARZALEX milestones DKK 800M
- 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

2017 Expense Base DKK 1,050M (\$161M)



Support Svcs

Depr. & Stock Comp.

^{**}Cash, cash equivalents and marketable securities



2017 GoalsMaximizing Differentiated Product Portfolio Value

Priority	✓	Targeted Milestone
Maximize daratumumab progress	✓ ✓ ✓ ✓	 EMA decision & launch in 2nd line+ in multiple myeloma (MM) relapsed / refractory setting FDA decision in 3rd line MM setting (daratumumab + POM) Phase III MM interim efficacy analysis in frontline (Alcyone trial) Start Phase III subcutaneous trial Start trials in solid tumors and non-MM blood cancers Report non-MM clinical data
Optimize ofatumumab value		» Phase III refractory follicular lymphoma headline results
Strengthen differentiated product pipeline	✓	 Phase I/II tisotumab vedotin data Progress HuMax-AXL-ADC Phase I/II clinical trial IND/CTA submission HexaBody-DR5/DR5 IND/CTA submission DuoBody-CD3xCD20 Progress pre-clinical pipeline
Broaden partnership portfolio with next generation technologies		» Enter new technology collaborations» Progress partnered programs
Disciplined financial management		» Execute controlled company growth with selective investments in product pipeline



Creating Value for Patients & Shareholders

Building on 3 central pillars: Focus, Innovation & Execution



2 marketed products



Robust pre-clinical



Ruilding commercial expertise



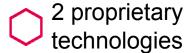
2 proprietary early stage clin. programs



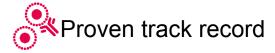
World-class antibody & R&D expertise



Solid financials



Strategic



Better Antibodies by Design





Publicly Listed Company with Large Free Float

Geographical Shareholder Distribution*
As of December 31, 2016

Large cap, listed on Nasdaq Copenhagen, Denmark & ADR in US

Rest of shares held across world incl.

USA

UK

DK

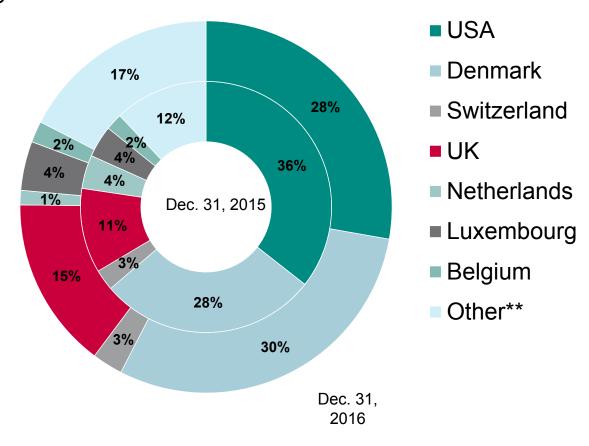
NL

Approx. Market Cap°
DKK 83 bn
USD 12 bn

Approx. shares outstanding: 61.1M

Warrants outstanding: 1.4M (2%)

Approx. diluted shares: 63M



^{*} Based on figures from the internal shareholder register per December 31, 2015 and December 31, 2016

^{** &}quot;Other" includes shares held in other countries and shares not held in nominee accounts, including OTC traded shares



DARZALEX® (daratumumab) Sales Potential

\$554M

Net sales H1 2017 \$1.1 - 1.3B

Genmab projected 2017 sales

\$8B

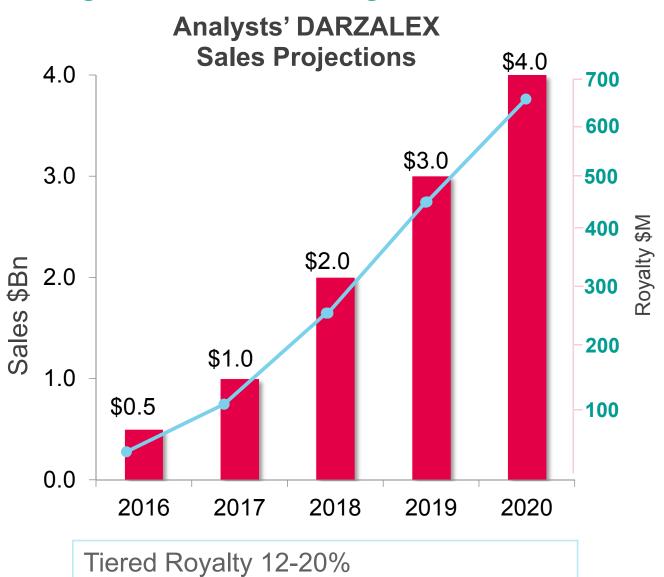
Average analyst* projected MM sales

Potential upside: smoldering disease, other blood cancers, solid tumors



DARZALEX*

Significant Earnings Potential: CMD, November 2016



2017 - 2020

DARZALEX Sales: \$10Bn

Royalty: \$1,500M

Milestones: \$400M4 x \$100m

Other Revenue: \$100M

Potential Revenue \$2 Billion

2017 Spend ~\$150M Room to Invest in Pipeline

^{*} Rounded average revenue projections from covering analysts





Daratumumab

Other Opportunities

Smoldering MM

Novel combos with other drugs

- Tecentriq®
- Imfinzi
- Opdivo®
- Keytruda

Subcutaneous formulation

syond Multiple Myeloma

Other Indications:

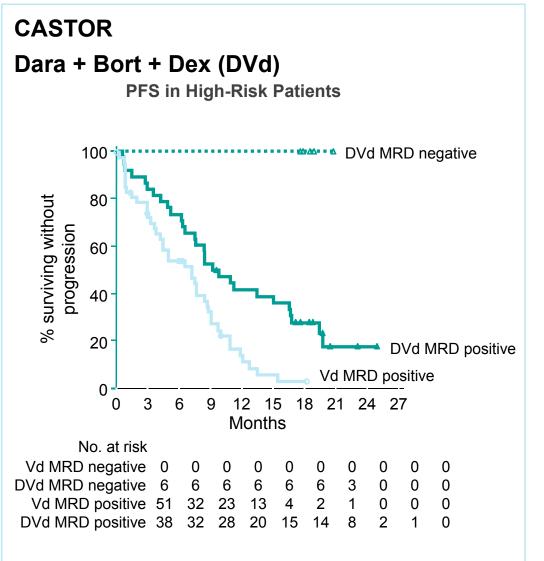
Incl. Solid Tumors

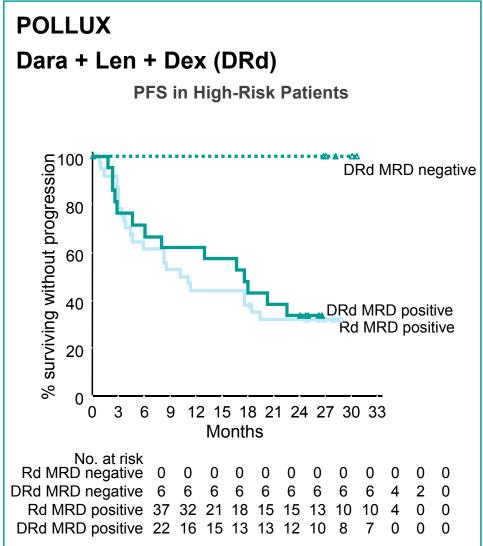
- Amyloidosis, Mantle cell lymphoma (MCL), acute myeloid leukemia (AML), acute lymphoblastic leukemia (T-ALL and B-ALL), myelodysplastic syndromes (MDS), Waldenstrom's macroglobulinemia, NKT-cell lymphomas, non-small cell lung cancer (NSCLC), colorectal cancer, virus assoc. tumors
- Exploit immune modulation as key mechanism of action
- Combination therapy with immune check point inhibitors (Tecentriq, Opdivo)



Updated Efficacy: CASTOR & POLLUX

Phase III RRMM: MRD by Cytogenic Risk Status





Strength via PartnershipsSources of Value



Commercial Products



Milestones \$1Bn (\$383 to date) Royalty Rate 12-20% **Zero Costs**



Oncology 20% Royalty
Autoimmune Double Digit Royalty
Zero Costs

Technology Licenses



20 prg. \$3.6Bn



2 prg. \$175M



2 prg. ~\$500M



1 prg.* Up to \$277M



... Plus Royalties

Product Partnerships



50:50 - I.O Activators Co-development & Commercialization



Genmab

DuoBody

50:50 - I.O. Blockers
Co-development & Commercialization



25% Ownership HuMax-TAC-ADC

Discovery Partnerships









Zero Costs



HexaBody-DR5/DR5

DR5 (death receptor 5)

Cell surface receptor that mediates programmed cell death

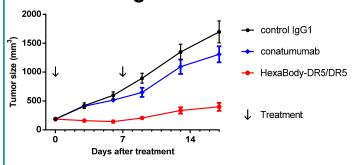
In normal physiology, binding of TRAIL ligand results in DR5 clustering & cell death



Agonistic DR5 mAb induce apoptosis after crosslinking

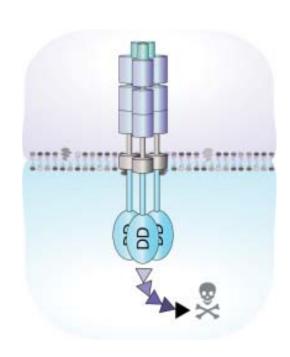
 Agonistic DR5 antibodies have shown limited anti-tumor activity in the clinic

Mouse xenograft model



Need for increased therapeutic potency

- Use HexaBody technology to induce clustering & activation of DR5 molecules, without a need for additional crosslinking
- Combination of two HexaBody molecules against two non-overlapping DR5 epitopes induces maximal cell death



DR5 activation induces cell death

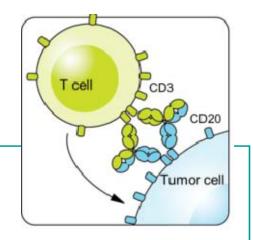


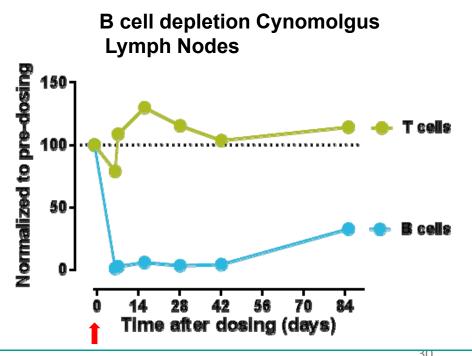
DuoBody CD3xCD20

Key Characteristics

Humanized IgG1 bispecific antibody

- DuoBody platform
- Regular half life
- Non-activating Fc-domain
- Potently activates T cells to kill CD20⁺ tumor cells
- Cynomolgus CD3 & CD20 x-reactive
 - Potent Cynomolgus B cell depletion (peripheral blood, lymph nodes)
- 2017 IND candidate







Ongoing Daratumumab Clinical Trials Janssen Sponsored Phase II & III

Daratumumab Trials Sponsored by Pharma / Biotech

Ct.gov Identifier	Phase	Sponsor	Indication	Therapy
NCT02252172	Ш	Janssen	Untreated MM	Daratumumab + Rd (MAIA)
NCT02195479	Ш	Janssen	Untreated MM	Daratumumab + VMP (ALCYONE)
NCT02541383	Ш	Janssen	Untreated MM	Daratumumab + VTd (CASSIOPEIA)
NCT02076009	Ш	Janssen	Relapsed or Refractory MM	Daratumumab + Rd (POLLUX)
NCT02136134	Ш	Janssen	Relapsed or Refractory MM	Daratumumab + Vd (CASTOR)
NCT03180736	Ш	Janssen	Relapsed or Refractory MM	Daratumumab + Pom-d (APOLLO)
NCT03201965	Ш	Janssen	Amyloidosis	Daratumumab + CyBorD
NCT03217812	Ш	Janssen	Untreated MM	Daratumumab + VMP (Asia Pacific)
NCT03234972	Ш	Janssen	Relapsed or Refractory MM	Daratumumab + Vd vs Vd (China)
NCT03277105	Ш	Janssen	Relapsed or Refractory	Daratumumab SC
NCT01985126	Ш	Janssen	Relapsed or Refractory MM	Monotherapy, basis for approval
NCT02951819	II	Janssen	Untreated and Relapsed MM	Daratumumab + CyBorD
NCT02874742	Ш	Janssen	Untreated MM	Daratumumab + RVd
NCT02316106	Ш	Janssen	Smoldering MM	Monotherapy (CENTAURUS)
NCT02927925	Ш	Janssen	NKTCL, Nasal Type	Monotherapy
NCT03011034	П	Janssen	Myelodysplastic Syndromes	Daratumumab or Talacotuzumab

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Ongoing Daratumumab Clinical Trials Janssen Sponsored Phase I & I/II



Daratumumab Trials Sponsored by Pharma / Biotech

Ct.gov Identifier	Phase	Sponsor	Indication	Therapy
NCT01615029	1/11	Janssen	Relapsed and Refractory MM	Daratumumab + Rd
NCT03023423	1/11	Janssen	Previously treated NSCLC	Daratumumab + Tecentriq (atezolizumab)
NCT02852837	1	Janssen	Relapsed or Refractory MM	Monotherapy (in China)
NCT02519452	1	Janssen	Relapsed or Refractory MM	Monotherapy, subcutaneous (PAVO)
NCT02497378	I	Janssen	Relapsed or Refractory MM	Daratumumab + Vd (in Japan)
NCT02918331	I	Janssen	Untreated MM	Daratumumab + Rd (Japan)
NCT03242889	1	Janssen	Relapsed or Refractory MM	Daratumumab subq (Japan)
NCT01998971	I	Janssen	Various MM	Daratumumab + backbone regimens (Vd, VMP, VTd, Pom-d, Kd, KRd) (EQUULEUS)



Ongoing Daratumumab Clinical Trials Other Industry Sponsored Trials

Daratumumab Trials Sponsored by Pharma / Biotech

Ct.gov Identifier	Phase	Sponsor	Indication	Therapy
NCT03158688	Ш	Amgen	Relapsed or Refractory MM	Daratumumab + Kd
NCT01946477	II	Celgene	Relapsed or Refractory MM	Daratumumab + Pom-d
NCT03000452 NCT02807454	II	Celgene	Relapsed and Refractory MM	l Daratumumab + Imfinzi (FUSION)
NCT02060188	II	BMS	Recurrent & Metastatic Color Cancer	Daratumumab + nivolumab
NCT03221634	II	Merck	RRMM	Daratumumab + Keytruda
NCT02488759	1/11	BMS	Virus assoc tumors	Daratumumab + nivolumab
NCT03098550	1/11	BMS	Various solid tumors	Daratumumab + nivolumab
NCT02343042	1/11	Karyopharm	Relapsed or Refractory MM	Daratumumab + Selinexor + Dex
NCT01592370	1	BMS	Relapsed or Refractory MM	Daratumumab + nivolumab
NCT02431208	I	Roche	Resistant or Refractory MM	Daratumumab + Tecentriq (atezolizumab)
NCT03068351	I	Roche	Resistant or Refractory MM	Daratumumab + RO6870810



Ongoing Daratumumab Clinical Trials Investigator Sponsored Study (ISS): MM

Investigator Sponsored Studies (ISS) of Daratumumab

Ct.gov Identifier	Phase SponsorIndication			Therapy
NCT02419118	11/111	ISS	Various MM	Daratumumab + Rd
NCT02944565	П	ISS	MM	Daratumumab accelerated infusion
NCT02977494	II	ISS	R/R MM & Severe Renal Impairment	Daratumumab + Vd
NCT02626481	II	ISS	Resistant or Refractory MM	Daratumumab + dexamethasone
NCT03004287	II	ISS	Newly diagnosed MM	KTD-Dara-PACE / Dara-KD / Dara-RD
NCT03012880	II	ISS	Newly diagnosed MM	Daratumumab+ Ixazomib, Len & Dex
NCT03143036	П	ISS	RRMM	Daratumumab + thalidomide + Dex
NCT03184194	II	ISS	RRMM	Daratumumab + nivolumab w/ or w/out Len & Dex
NCT03188172	II	ISS	Newly diagnosed MM	Daratumumab + VRd
NCT03215524	II	ISS	RRMM	Daratumumab + Dex, Cy, Pom
NCT03224507	II	ISS	Deep remission in MM	Daratumumab + KRd
NCT03236428	1	ISS	Smoldering MM	Daratumumab
NCT02955810	1	ISS	Untreated MM	Daratumumab + CyBorD
NCT02751255	1/11	ISS	RRMM	Daratumumab + All-trans retinoic acid 34



Ongoing Daratumumab Clinical Trials

ISS: Other Indications

Investigator Sponsored Studies (ISS) of Daratumumab

	Ct.gov dentifier	Phase	Sponsor	Indication	Therapy
	NCT02816476	II	ISS	Amyloidosis	Monotherapy
	NCT03067571	II	ISS	AML or MDS	Monotherapy
	NCT03095118	II	ISS	Membranoproliferative Glomerulonephritis	Monotherapy
	NCT03187262	II	ISS	Waldenstrom macroglobulinemia	Monotherapy
	NCT03207542	II	ISS	ALL	Monotherapy
	NCT02841033	1/11	ISS	Amyloidosis	Monotherapy
	NCT03177460	I	ISS	High-risk localized prostate cancer	Monotherapy with prostatectomy