Better Antibodies By Design

Investor Presentation January 2018





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 gualified 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

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DARZALEX® Arzerra®	Tisotumab vedotin HuMax®-AXL-ADC HexaBody-DR5/DR5 DuoBody-CD3xCD20	DuoBody® Platform HexaBody® Tech.	Solid financial base
2 marketed products generating royalty income	4 exciting proprietary clinical programs	2 proprietary next generation technologies for robust pre-clinical	Aim to own at least 50% of product rights Allows for building capabilities to market

pipeline

own product in future



Innovative Clinical & Pre-clinical Pipeline

Development for Marketed & Genmab Proprietary Products

Product		Disease Indications	Development Phase					
			Pre-Clinical	Ι	1/11	П	III	
Daratumumab	BTD (2 - MM)	Multiple myeloma (MM)						
Target: CD38 Partner: Janssen		Non-MM & Solid tumor indications						
Ofatumumab (OMB157)BTD (CLL)Target: CD20 Partner: Novartis		Follicular lymphoma (FL)						
		Relapsing multiple sclerosis (RMS) (SubQ)						
Tisotumab vedotir Target: TF Partner: Seattle Ge		Solid cancers						
HuMax-AXL-ADC Target: AXL		Solid cancers						
HexaBody-DR5/DR5* Target: DR5		Solid cancers						
DuoBody-CD3xCD20* Target: CD20		Hematological malignancies						

*Announced



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Innovative Clinical & Pre-clinical Pipeline Additional Shots on Goal

Product	Disease Indications	Development Phase				
		Pre-Clinical	I	1/11	П	Ш
Teprotumumab (RV001)BTDTarget: IGF-1R, Partner: Horizon Pharma	Graves' orbitopathy					
AMG 714 Target: IL-15, Partner: Amgen	Celiac Disease					
BMS-986253 (HuMax-IL8) Target: IL8, Partner: BMS	Advanced cancers					
ADCT-301 (HuMax-TAC-ADC)	Lymphoma					
Target: CD25, Partner: ADCT	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



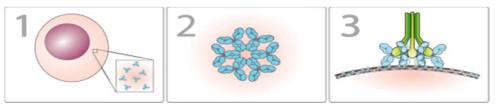
HexaBody Technology

- 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

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







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)

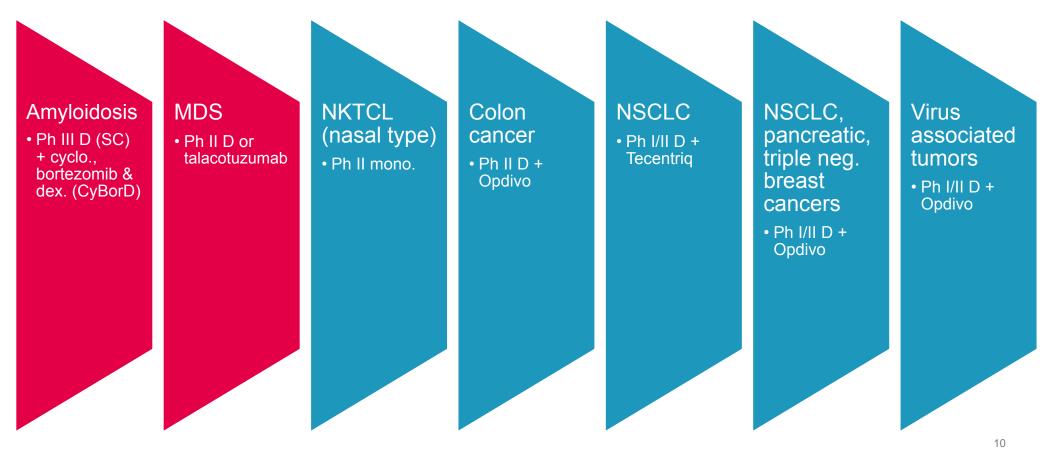
Relapsed or Refractory

- 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



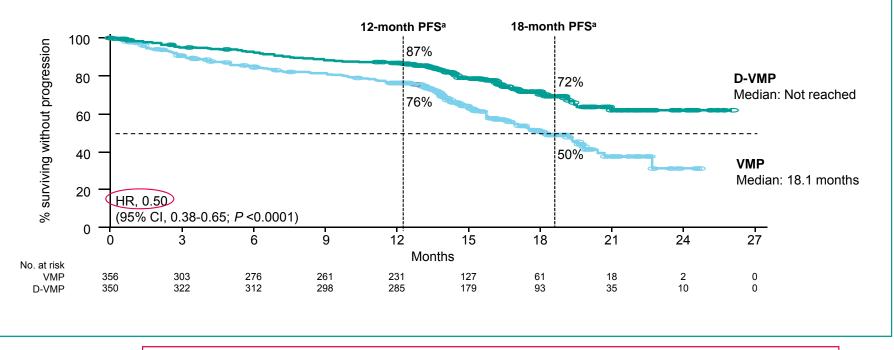
Daratumumab Development

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

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Subcutaneous Daratumumab

Data PhIb PAVO Study in Relapsed or Refractory MM





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* In non-US markets, Novartis intends to transition from commercial to compassionate use programs

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





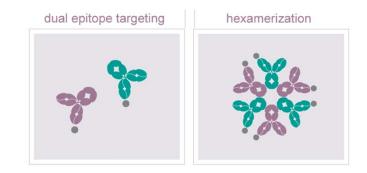
Clinical Projects: HexaBody-DR5/DR5 Potential in Solid Tumors

Proprietary HexaBody technology

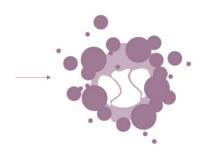
DR5 as tumor target

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



Apoptosis by hexamer-induced DR5 clustering and outside-in signaling





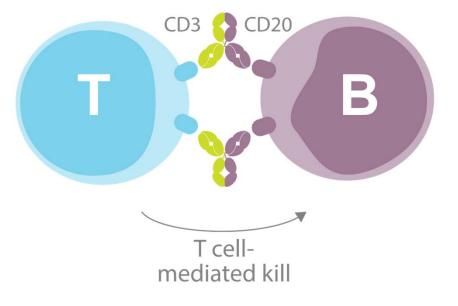
Clinical Projects: DuoBody-CD3xCD20 Phase I/II Study Planned

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

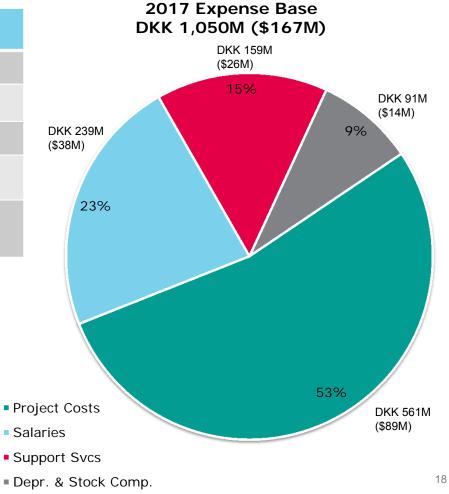
Genmab's estimate of DARZALEX net sales USD 1.1-1.3 billion

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



expertise

Robust pre-clinical pipeline

World-class antibody & R&D

Strategic collaborations



Building commercial expertise



Solid financials



Rroven track record

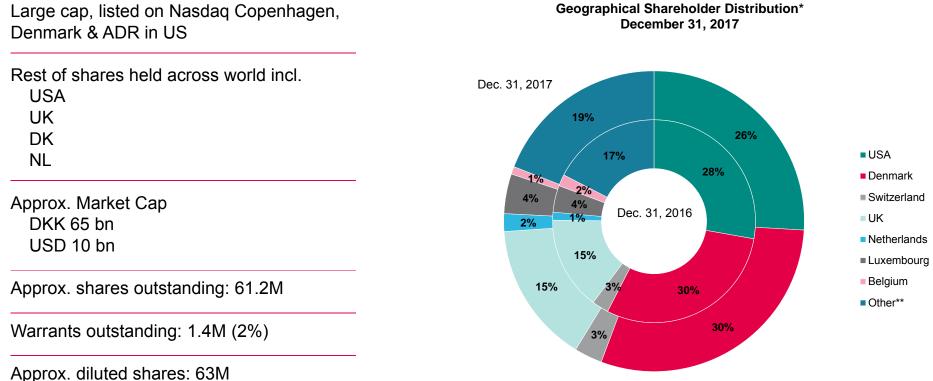
Better Antibodies by Design

Appendix





Publicly Listed Company with Large Free Float



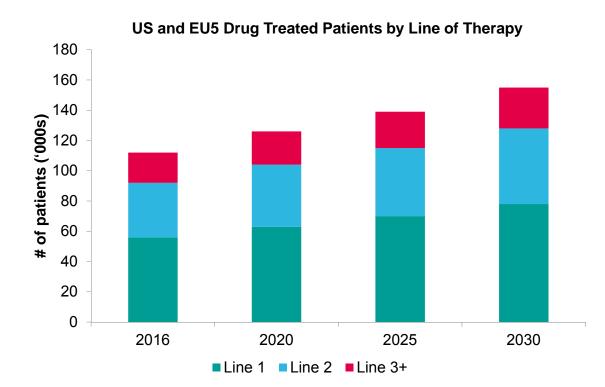
* Based on figures from the internal shareholder register per December 31, 2016 and June 30, 2017

** "Other" includes shares held in other countries and shares not held in nominee accounts, including OTC traded shares



Market Opportunity in MM

- Current projections assume a larger frontline patient population and greater rate of growth over time
- As a disease of the elderly, MM prevalence is expected to rise in line with the growing elderly population
- Incidence is expected to increase in Europe in line with the growing elderly population
- Mortality has significantly decreased due to effectiveness of newer treatments
 - Average lifespan of a patient diagnosed with MM is 7-8 years





DARZALEX® (daratumumab) Sales Potential



Net sales Full Year 2017



Genmab projected 2017 sales



Average analyst* projected peak MM sales Potential upside: smoldering disease, other blood cancers, solid tumors, rheumatoid arthritis

*Average sales projections of analysts covering Genmab as of Dec 2017

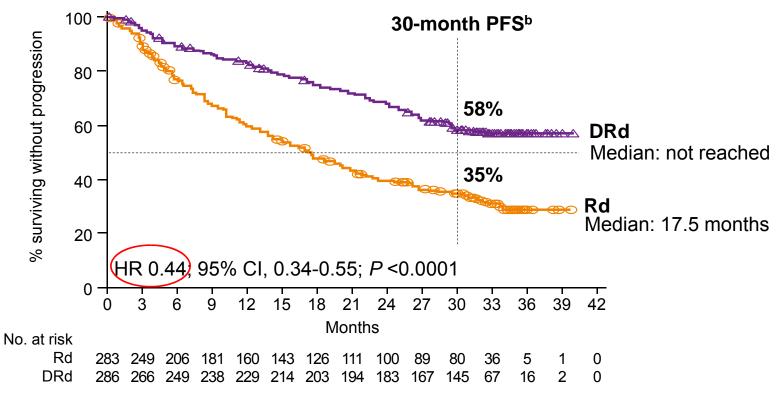
Expansive Daratumumab Clinical Development: Key MM Trials

Disease Stage	Therapy	Development Phase					
		No. Pts	Pre-Clinical	Ι	1/11	Ш	Ш
High Risk Smoldering	Subcutaneous	360	AQUILA	4			
	Monotherapy	126					
Front line (transplant & non-transplant)	Dara + VMP	706	ALCYO				
	Dara + VMP (Asia Pacific)	192					
	Dara + Rd	744	MAIA				
	Dara + VTd	1,080		OPEIA			
	Dara + RVd	216	GRIFFII				
	Multi combo study (6 arms)	250	EQUUL	EUS			
Relapsed or Refractory	Dara + Vd (China)	210					
	Dara + Kd	450	CANDO)R			
	Dara + Pom + d	302	APOLL	0			
	Subcutaneous vs IV	480	COLUN	/IBA			
	Dara + Imfinzi*	264	FUSIO	N			
	Dara + Keytruda	57					
	Dara + Venclexta + d +/- V	90					
nib , MP = melphalan-prednisone , T = d= dexamethasone, R = lenalidomide, K = n = Pomalyst id dTicle concretient limited biology and the	Dara + Opdivo	375					
ited *Trials on partial clinical hold, unrelated to b Maintenance integrated into some study	Dara + Tecentriq	288					
	Dara + JNJ-63723283	386				Select Stu	dies



Updated Efficacy: POLLUX

Presented ASH 2017



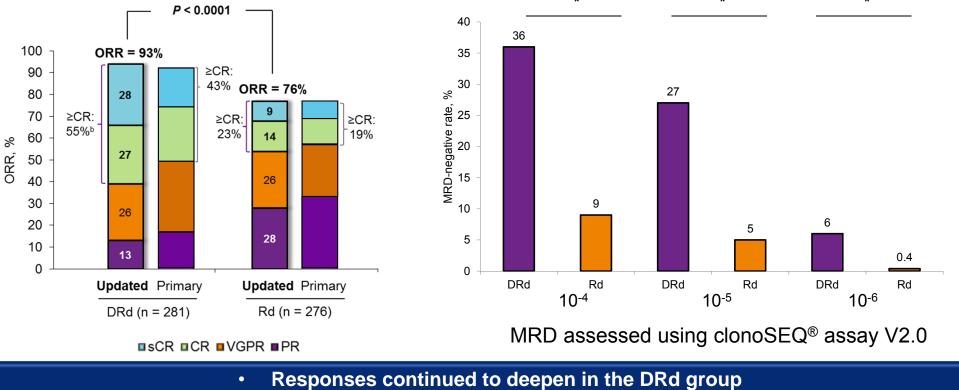
56% reduction in risk of progression/death for DRd versus Rd

HR, hazard ratio; CI, confidence interval.

^aExploratory analyses based on clinical cut-off date of October 23, 2017. ^bKaplan-Meier estimate.

Updated Efficacy: POLLUX

Presented ASH 2017 ORR



Significantly higher (>3-fold) MRD-negative rates for DRd versus Rd ٠

sCR, stringent complete response; PR, partial response.

Primary analysis reported in Dimopoulos MA, et al. N Engl J Med. 2016;375(14):1319-1331. ^aExploratory analyses based on clinical cutoff date of October 23, 2017; ^bP < 0.0001 for DRd versus Rd.

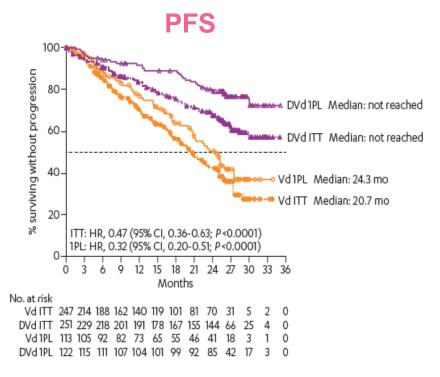


*P < 0.0001

MRD-negative Rates

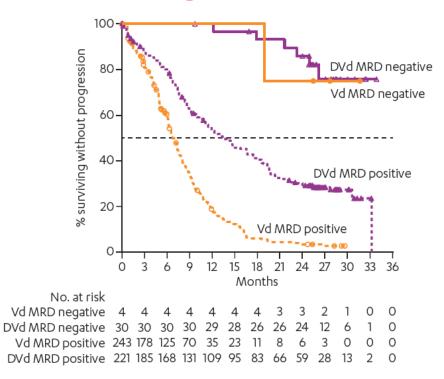


Updated Efficacy: CASTOR Presented ASH 2017



PFS2, progression-free survival on subsequent line of therapy; ITT, intent-to-treat; IPL, 1 prior line of therapy; DVd, daratumumab/bortezomib/ dexamethasone; Vd, bortezomib/dexamethasone.

MRD-negative Rates





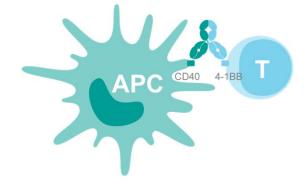
DuoBody-CD40x4-1BB

Immunomodulation: targeting two checkpoint activators

Bispecific antibody targeting CD40 and 4-1BB (CD137)

- Trans-activating bispecific targeting two checkpoint activators
- Simultaneously activates antigen-presenting cell (APC) and enhances T cell activation
 - Co-engagement of CD40 (APCs) and 4-1BB (T cells) in immune response against tumor
 - Conditional activation and expansion of previously activated cytotoxic CD8⁺ T cells
 - Inert Fc backbone
- For treatment of solid cancers
- 2018 IND/CTA candidate
- 50/50 Co-development Genmab and BioNTech





Genmab

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	III	Janssen	Untreated MM	Daratumumab + VMP (ALCYONE)
NCT02541383	III	Janssen	Untreated MM	Daratumumab + VTd (CASSIOPEIA)
NCT02076009	III	Janssen	Relapsed or Refractory MM	Daratumumab + Rd (POLLUX)
NCT02136134	III	Janssen	Relapsed or Refractory MM	Daratumumab + Vd (CASTOR)
NCT03180736	Ш	Janssen	Relapsed or Refractory MM	Daratumumab + Pom-d (APOLLO)
NCT03201965	111	Janssen	Amyloidosis	Daratumumab + CyBorD
NCT03217812	III	Janssen	Untreated MM	Daratumumab + VMP (Asia Pacific)
NCT03234972	III	Janssen	Relapsed or Refractory MM	Daratumumab + Vd vs Vd (China)
NCT03277105	III	Janssen	Relapsed or Refractory MM	Daratumumab SC vs IV
NCT03301220	III	Janssen	Smoldering MM	Daratumumab SC
NCT03384654	П	Janssen	Relapsed / Refractory ALL / LL	Dara + Vincristine + Prednisone + Doxorubicin
NCT01985126	II	Janssen	Relapsed or Refractory MM	Monotherapy, basis for approval
NCT02951819	II	Janssen	Untreated and Relapsed MM	Daratumumab + CyBorD (LYRA)
NCT02874742	II	Janssen	Untreated MM	Daratumumab + RVd (GRIFFIN)
NCT02316106	II	Janssen	Smoldering MM	Monotherapy (CENTAURUS)
NCT02927925	П	Janssen	NKTCL, Nasal Type	Monotherapy
NCT03011034	II	Janssen	Myelodysplastic Syndromes	Daratumumab or Talacotuzumab
NCT03412565	II	Janssen	Newly diagnosed & relapsed / refractory MM	Daratumumab SC + Rd, VMP & VRd

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

Daratumumab Trials Sponsored by Pharma / Biotech

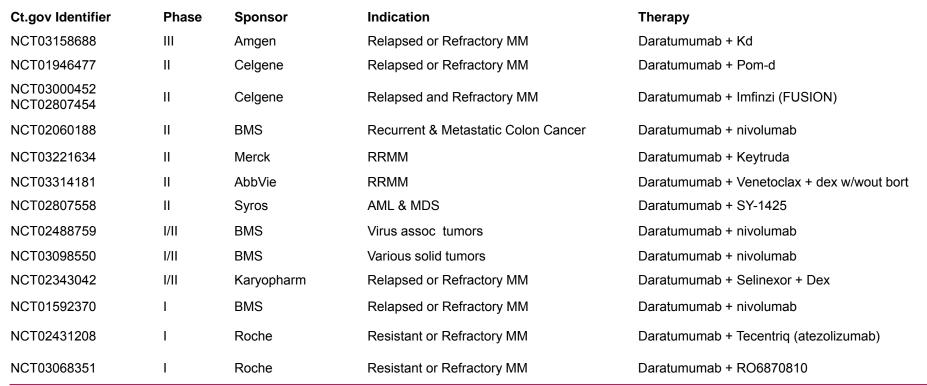
Ct.gov Identifier	Phase	Sponsor	Indication	Therapy
NCT01615029	1/11	Janssen	Relapsed and Refractory MM	Daratumumab + Rd
NCT03023423	1/11	Janssen	Previously treated NSCLC	Daratumumab + Tecentriq (atezolizumab)
NCT02852837	I	Janssen	Relapsed or Refractory MM	Monotherapy (in China)
NCT02519452	I	Janssen	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	I	Janssen	Relapsed or Refractory MM	Daratumumab subq (Japan)
NCT01998971	I	Janssen	Various MM	Daratumumab + backbone regimens (Vd, VMP, VTd, Pom-d, Kd, KRd) (EQUULEUS)
NCT03320707	I	Janssen	Healthy volunteers	Daratumumab vs placebo
NCT03357952	I	Janssen	Relapsed or Refractory MM	Daratumumab + JNJ-63723283



Ongoing Daratumumab Clinical Trials

Other Industry Sponsored Trials

Daratumumab Trials Sponsored by Pharma / Biotech







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

Investigator Sponsored Studies (ISS) of Daratumumab

Ct.gov Identifier	Phase	Sponsor	Indication	Therapy
NCT02944565	П	ISS	ММ	Daratumumab accelerated infusion
NCT02977494	П	ISS	R/R MM & Severe Renal Impairment	Daratumumab + Vd
NCT02626481	П	ISS	Resistant or Refractory MM	Daratumumab + dexamethasone
NCT03004287	П	ISS	Newly diagnosed MM	KTD-Dara-PACE / Dara-KD / Dara-RD
NCT03012880	Ш	ISS	Newly diagnosed MM	Daratumumab+ Ixazomib, Len & Dex
NCT03143036	Ш	ISS	RRMM	Daratumumab + thalidomide + Dex
NCT03184194	П	ISS	RRMM	Daratumumab + nivolumab w/ or w/out Len & Dex
NCT03188172	П	ISS	Newly diagnosed MM	Daratumumab + VRd
NCT03215524	П	ISS	RRMM	Daratumumab + Dex, Cy, Pom
NCT03224507	П	ISS	Deep remission in MM	Daratumumab + KRd
NCT03290950	11	ISS	Newly Diagnosed MM	Daratumumab + KRd
NCT03289299	II	ISS	Smoldering MM	Daratumumab + carfilzomib, lenalidomide & dexamethasone
NCT03346135	Ш	ISS	MM	Dara as maintenance after ASCT
NCT03236428	I	ISS	Smoldering MM	Daratumumab
NCT02955810	I	ISS	Untreated MM	Daratumumab + CyBorD
NCT03311828	I	ISS	Relapsed MM	Daratumumab + positron emission tomography
NCT02751255	1/11	ISS	RRMM	Daratumumab + All-trans retinoic acid



Ongoing Daratumumab Clinical Trials

ISS: Other Indications

Investigator Sponsored Studies (ISS) of Daratumumab

Ct.gov Identifier	Phase	Sponsor	Indication	Therapy
NCT02816476	II	ISS	Amyloidosis	Monotherapy
NCT03067571	II	ISS	AML or MDS	Monotherapy
NCT03095118	II	ISS	Membranoproliferative Glomerulonephritis	Monotherapy
NCT03187262	П	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
NCT03283917	Ι	ISS	Amyloidosis	Daratumumab, ixazomib & dex

Dex = dexamethasone Pom = Pomalyst (pomalidomide) Rd = Revlimid (lenalidomide) + dexamethasone VTd = Velcade (bortezomib) + thalidomidde + dexamethasone Vd = Velcade (bortezomib) + dexamethasone VMP = Velcade (bortezomib) + melphalan-prednisone Kd = Kyprolis (carfilzomib) + dexamethasone

As per clinicaltrials.gov, Jan 2018

www.genmab.com