

UBS Global Healthcare Conference

Company Update

May 23, 2016



This presentation includes forward-looking statements.

Actual results could differ materially from those included in the forward-looking statements due to various risk factors and uncertainties including changes in business, economic competitive conditions, regulatory reforms, foreign exchange rate fluctuations and the availability of financing. These and other risks and uncertainties are detailed in the Company's Annual Report.

MorphoSys is developing a pipeline of truly differentiated therapeutic antibodies built using proprietary technologies



- Munich, Germany-based biopharmaceutical company
- The industry's largest antibody therapeutic pipeline assembled using proprietary technologies:
 - 104 active therapeutic programs
 - 26 antibodies in clinical trials
- Growing portfolio of attractive proprietary assets
- Strong balance sheet with recurring cash-flows supports growing investment in R&D
- Successful track-record of partnering world-wide
- Listed on the German TecDAX

The MOR Portfolio

5 Clinical Product Candidates, 14 Total



Program	Indication	Target	Discovery	Preclinic	Phase 1	Phase 2	Phase 3
Unpartnered							
MOR208	DLBCL	CD19	FTD, orphan status US & EU				
	CLL		Orphan status US & EU				
MOR202	Multiple myeloma	CD38					
MOR107	Fibrosis	AT2-R					
Immuno-oncology program	Cancer	MHC-associated peptides					
6 Programs	Various	Various					
Co-development & co-promotion							
MOR209/ES414 (Emergent)	Prostate cancer	PSMA / CD3					
MOR106 (Galapagos)	Inflammation	Undisclosed					
Immuno-oncology program (Merck Serono)	Cancer	Undisclosed					
Outlicensed to GSK							
MOR103/ GSK3196165	RA	GM-CSF					
	Osteoarthritis of the hand						

MOR208

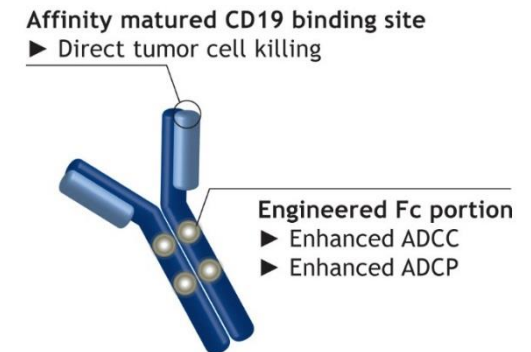
First- & Best-in Class Potential

CD19 is an ideal target in NHL because

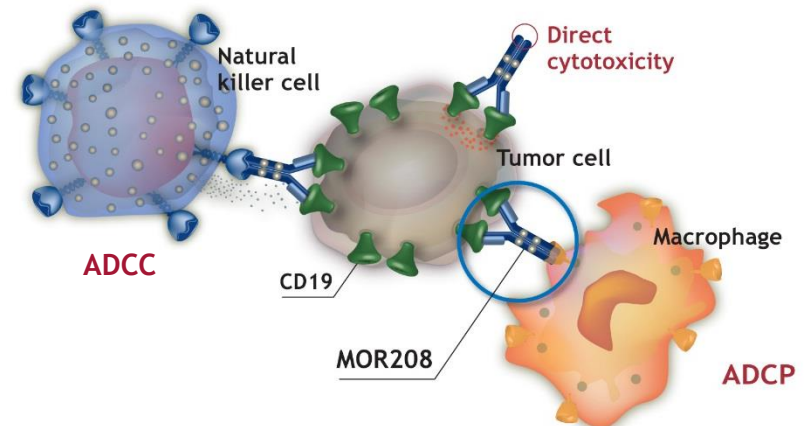
- CD19 is broadly and homogeneously expressed
 - Across different NHL subtypes incl. DLBCL and CLL
- CD19 conveys a survival signal for B cells
 - Via B cell receptor signaling
- CD19 expression seems to be preserved
 - Even after pretreatments targeting B cells

MOR208 is an Fc-enhanced, humanized IgG1 antibody targeting CD19

- Fc modification leads to dramatically enhanced B cell depletion by
 - Antibody dependent cellular cytotoxicity (ADCC)
 - Antibody dependent cell phagocytosis (ADCP)
 - Direct cytotoxicity
- Straightforward manufacturing
- Strong pre-clinical support for combo therapy

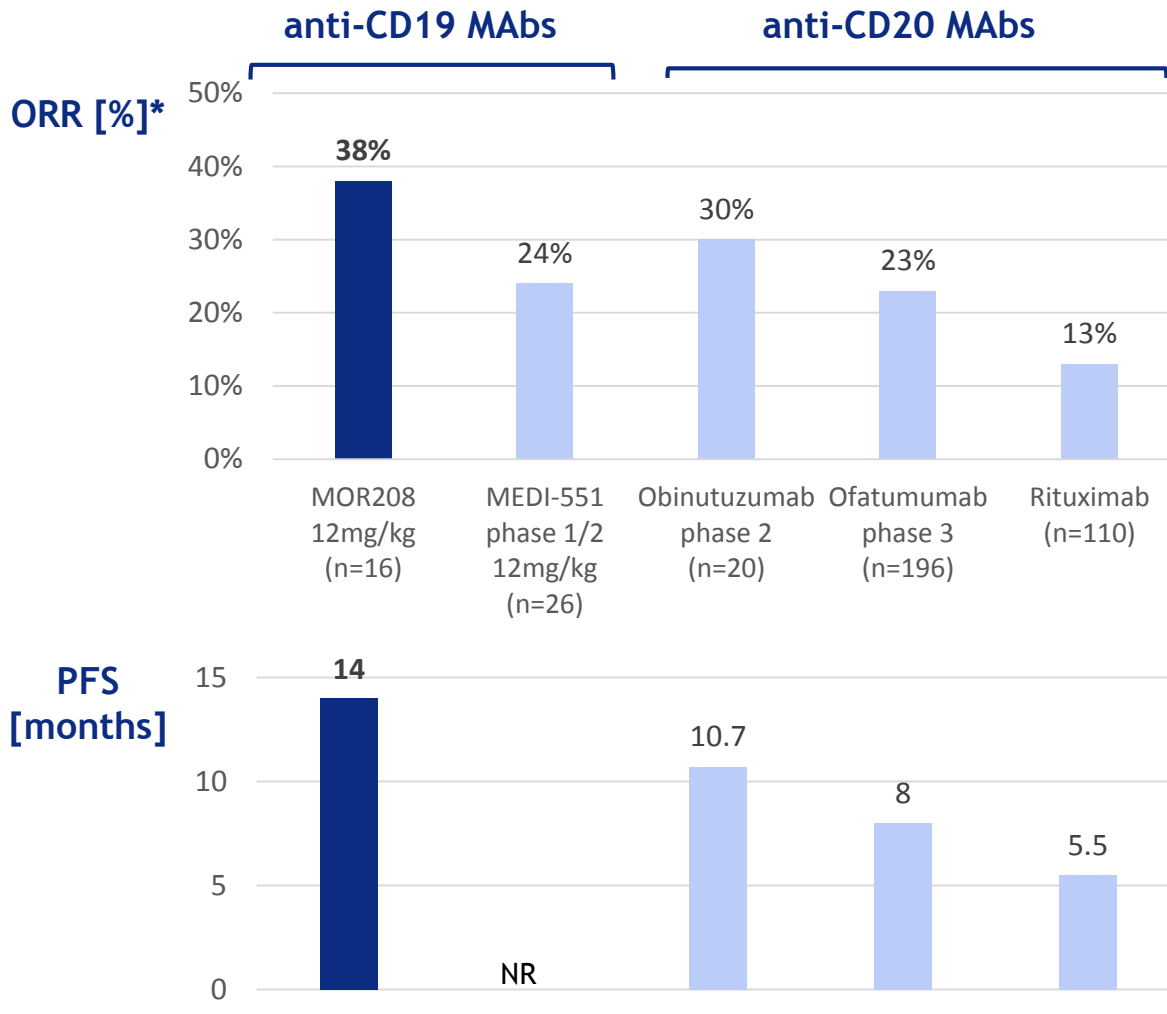


MOR208



MOR208 in R/R CLL

Superior to Other CD19 and CD20 MABs



Sources:
 MOR208: Woyach et al., Blood 2014
 MEDI-551: Forero-Torres et al. ASH 2013
 Obinutuzumab: Cartron et al., Blood 2014
 Ofatumumab: Byrd et al., NEJM 2014
 Rituximab: Furman et al., NEJM 2014
 *IWCLL Criteria: Hallek et al., 2008

[NR - not reported]

MOR208 in R/R NHL

Strong Single Agent Efficacy



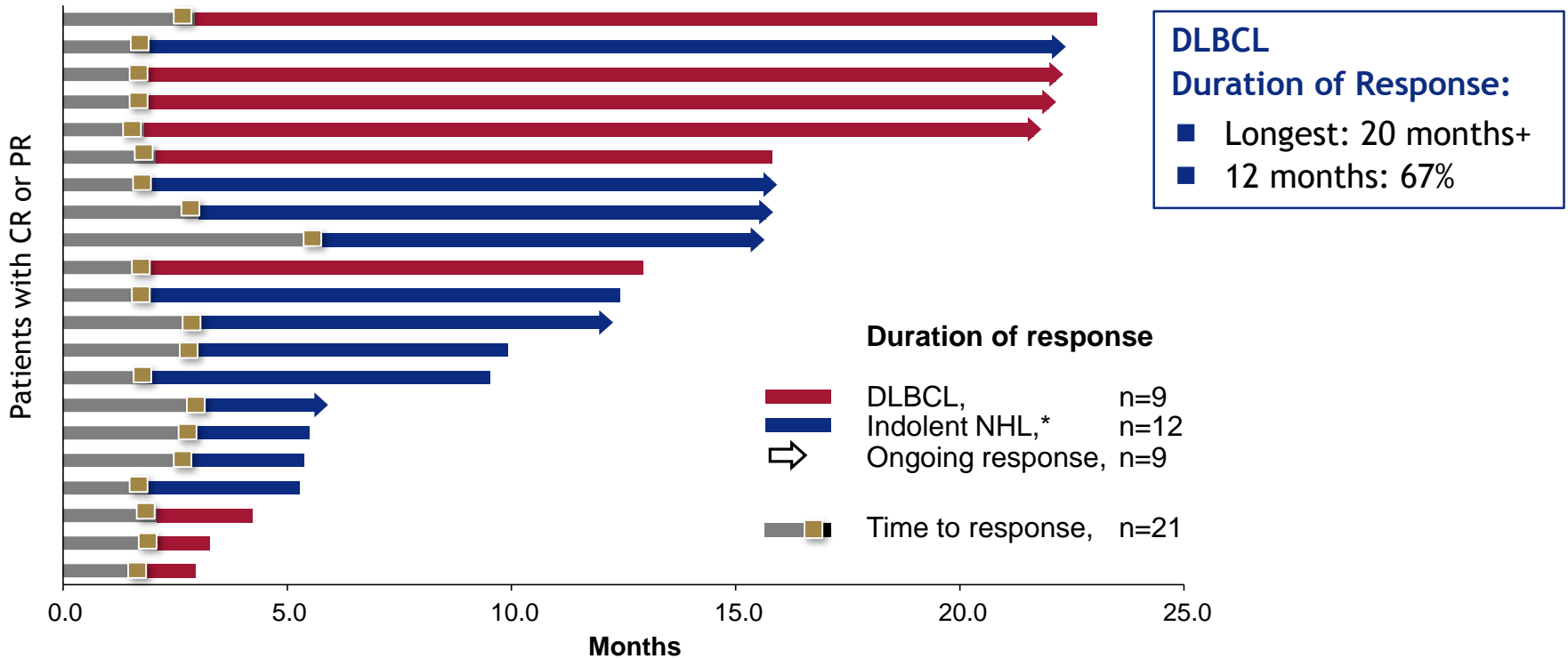
Response Rate in evaluable patients* n (%)	DLBCL n=25	iNHL incl. FL n=40
Overall Response (ORR)	9 (36%)	12 (30%)
Complete response (CR)	2 (8%)	5 (13%)
Partial response (PR)	7 (28%)	7 (18%)
Stable disease (SD)	5 (20%)	21 (53%)

*Investigator assessed

Jurczak et al., Abstract #1528, ASH 2015

MOR208 in R/R NHL

Very Promising Duration of Response

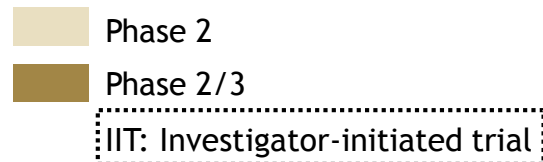
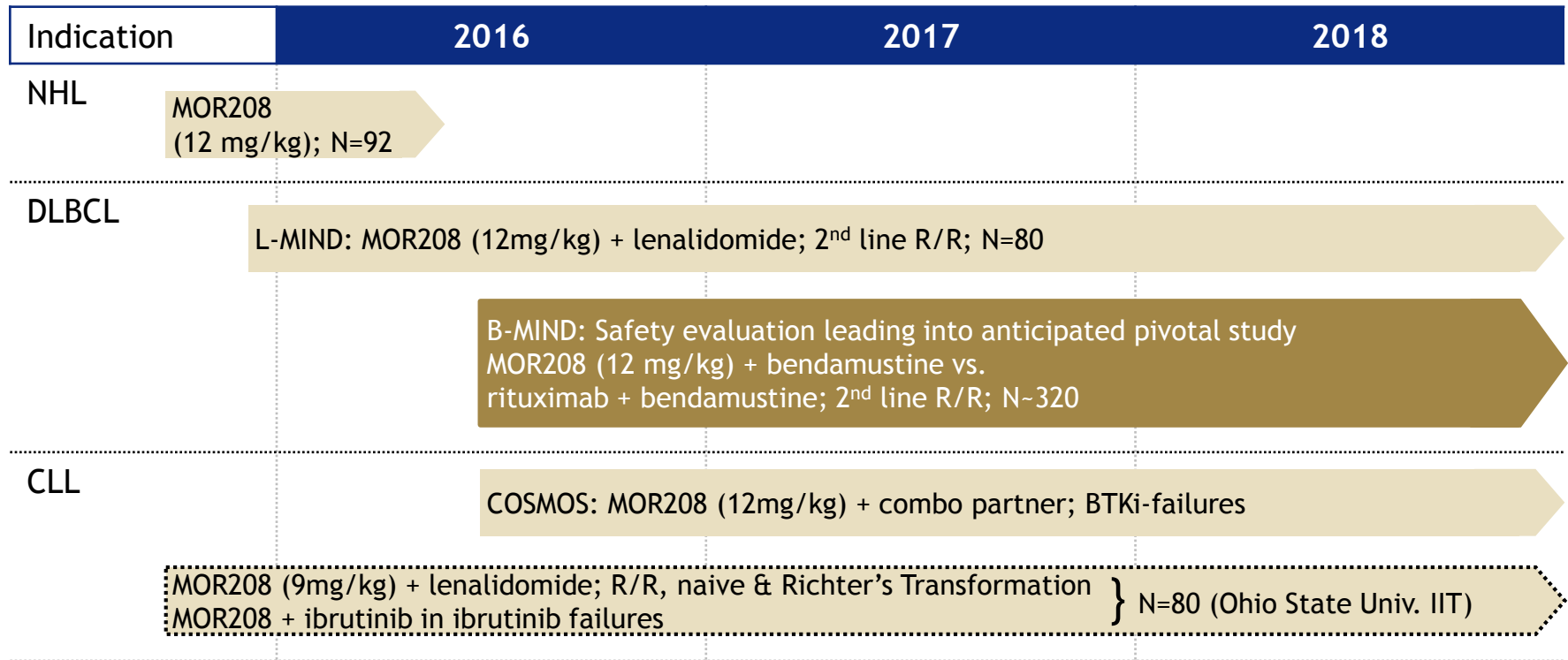


* Includes follicular lymphoma and other indolent NHLs
DLBCL, diffuse large B-cell lymphoma; NHL, non-Hodgkin's lymphoma.

Jurczak et al., Abstract #1528, ASH 2015

MOR208

Comprehensive Clinical Development Plan



MOR202

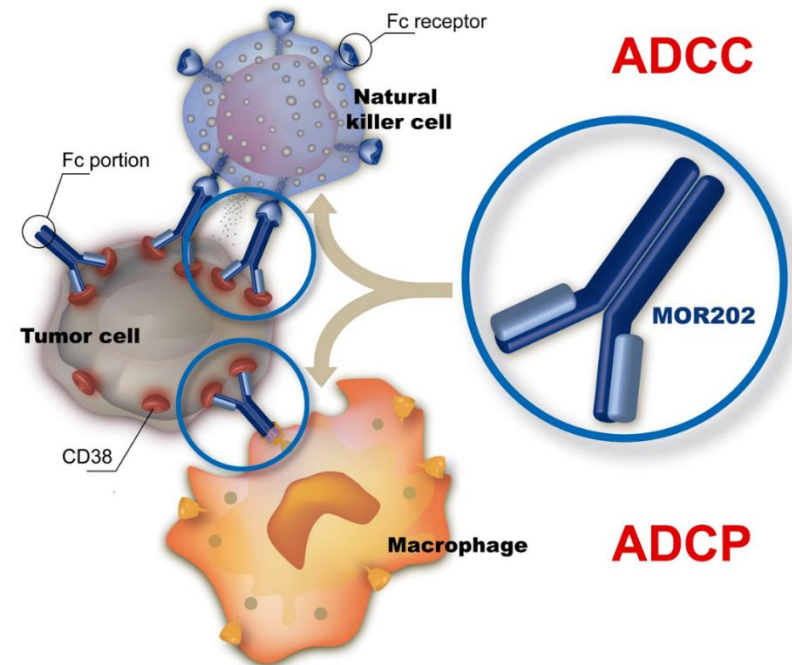
A Novel Antibody for Multiple Myeloma

Fully human monoclonal HuCAL IgG1 antibody

- Targeting a unique epitope of CD38
- Inducing potent immune effector mechanisms ADCC and ADCP

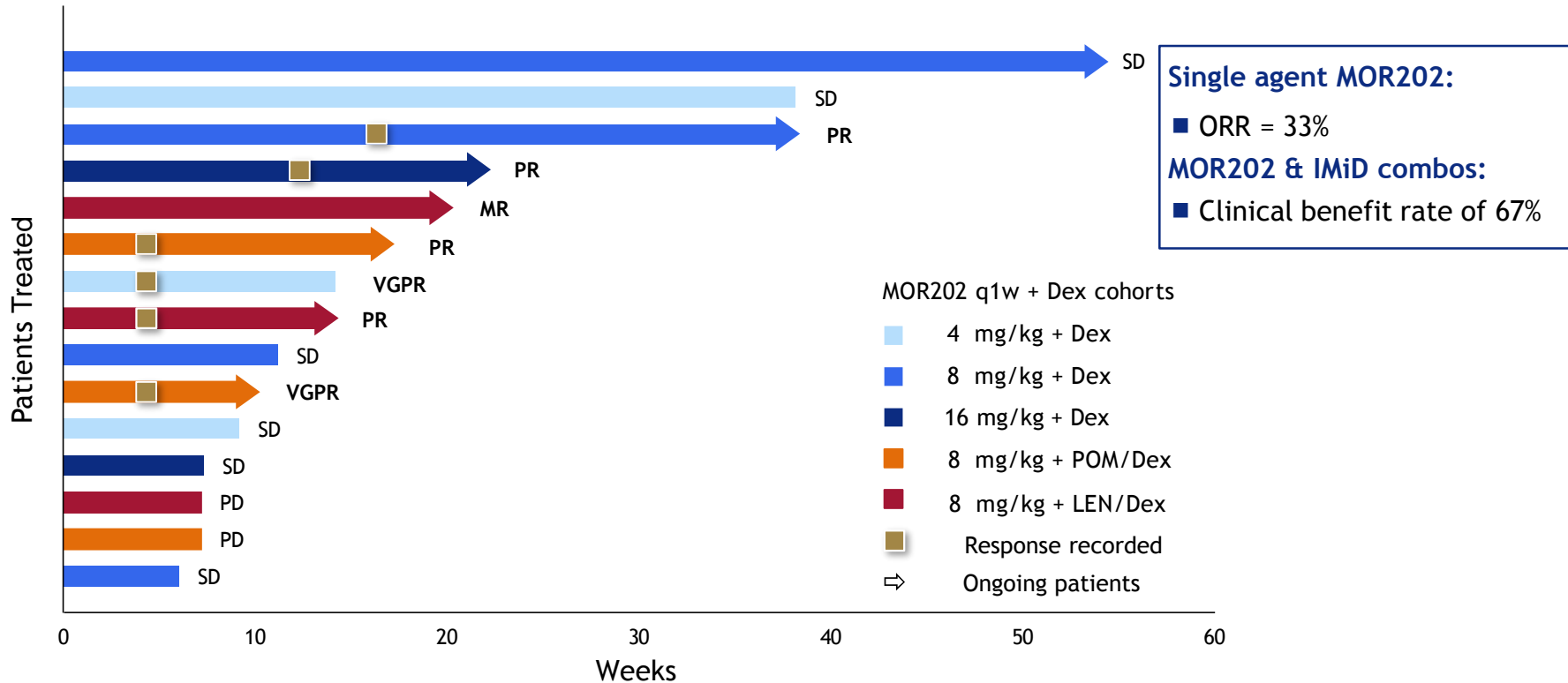
One of only three CD38 antibodies in clinical development

Strongly synergistic with IMiDs and proteasome inhibitors in pre-clinical models



ADCC = Antibody-Dependent Cell-Mediated Cytotoxicity; ADCP = Antibody-Dependent Cell-Mediated Phagocytosis;
CDC = Complement-Dependent cytotoxicity

MOR202 Preliminary Phase 1/2a Data



Data from patients treated with the clinically relevant dose regimens who received > 1 treatment cycle.

Dex, dexamethasone; LEN, Lenalidomide; MR, minor response; POM, Pomalidomide; PD, progressive disease; PR, partial response; q1w, weekly; SD, stable disease; VGPR, very good partial response.

Raab et al, #3035, ASH 2015

MOR202: Excellent Clinical Safety & Convenience



MOR202 shows best-in-class infusion tolerability & infusion duration

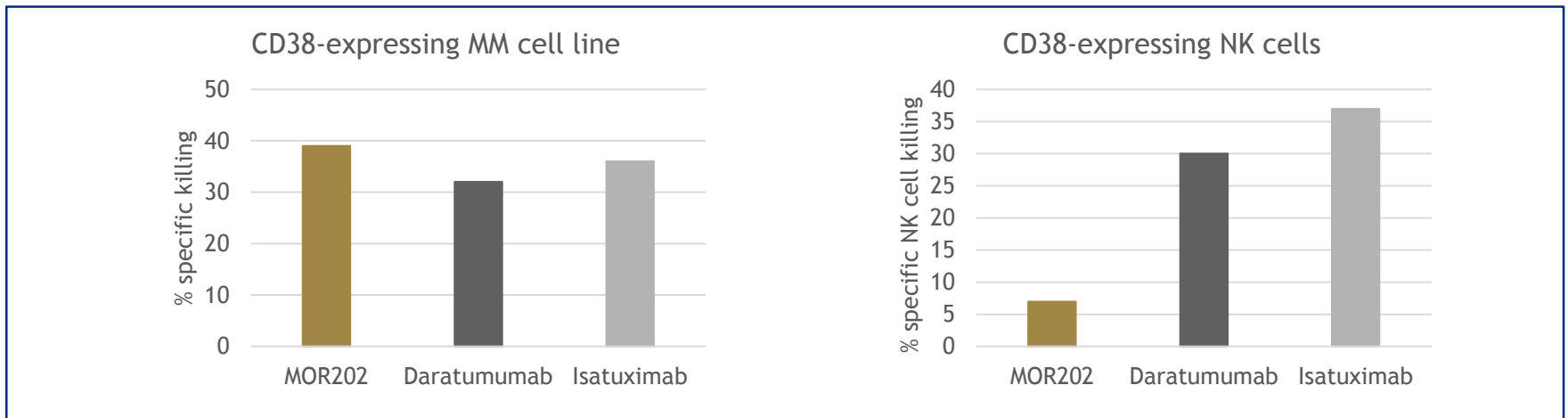
	MOR202	Daratumumab	Isatuximab
Infusion time	2 h	6.5 h (1st infusion) (3.5 h @ 3rd infusion)	4 - 6 h
Infusion reactions (IRRs) with Steroids	6% (Grade 1 only)	70-77%	52%

MOR202: Raab et al., ASH 2015
Daratumumab: Lokhorst et al., NEJM 2015
Isatuximab: Martin et al., ASH 2015

MOR202: Pre-clinical Data Suggest Advantage in Durability of Response



MOR202 shows best-in-class difference between MM cell killing and NK cell preservation



Clinical Programs from Partnered Discovery Alliances (II)



Program	Partner	Target	Indication	Phase 1	Phase 2	Phase 3
LFG316	Novartis	C5	Age-related geographic atrophy	██████████	██████████	
			Geographic atrophy (combo with CLG561)	██████████	██████████	
			Panuveitis	██████████	██████████	
			Paroxysmal nocturnal hemoglobinuria	██████████	██████████	
			Transplant Associated Microangiopathy (TAM)	██████████	██████████	
LJM716	Novartis	HER3	ESCC (combo with BYL719)	██████████	██████████	
			HER2+ cancer (combo BYL719 & trastuzumab)	██████████	██████████	
			HER2+ cancer, combo with trastuzumab	██████████	██████████	
Tarextumab (OMP-59R5)	Oncomed/GSK	Notch 2	Small cell lung cancer (Pinnacle)	██████████	██████████	
			Solid tumors	██████████	██████████	
VAY736	Novartis	BAFF-R	Pemphigus vulgaris	██████████	██████████	
			Primary Sjögren's syndrome	██████████	██████████	
			Rheumatoid Arthritis	██████████	██████████	
BAY1093884	Bayer	TFPI	Bleeding disorders	██████████	██████████	
BI-836845	BI	IGF-1	Solid tumors, Japanese patients	██████████	██████████	
			EGFR mutant NSCLC	██████████	██████████	
			Metastatic breast cancer	██████████	██████████	
			CRPC + enzalutamide	██████████	██████████	
			Advanced solid tumors	██████████	██████████	
NOV-7	Novartis	n.d.	Eye disease	██████████	██████████	
NOV-8	Novartis	n.d.	Inflammation	██████████	██████████	
NOV-9	Novartis	n.d.	Diabetic eye disease	██████████	██████████	
NOV-10	Novartis	n.d.	Cancer	██████████	██████████	
NOV-11	Novartis	n.d.	Blood disorders	██████████	██████████	
Utomilumab (PF-05082566)	Pfizer	4-1BB	Advanced malignancies, with avelumab	██████████	██████████	
			Solid tumors, NHL (+rituximab)	██████████	██████████	
			Solid tumors, with PD-1i MK-3475	██████████	██████████	
			Advanced solid tumors, with mogamulizumab	██████████	██████████	
			Solid tumors, with PF04518600 (OX-40)	██████████	██████████	
Vantictumab (OMP-18R5)	Oncomed/Bayer	Fzd 7	Solid tumors	██████████	██████████	
			Metastatic breast cancer	██████████	██████████	
			Pancreatic cancer (combo)	██████████	██████████	
			NSCLC	██████████	██████████	

Guselkumab (CNTO1959)

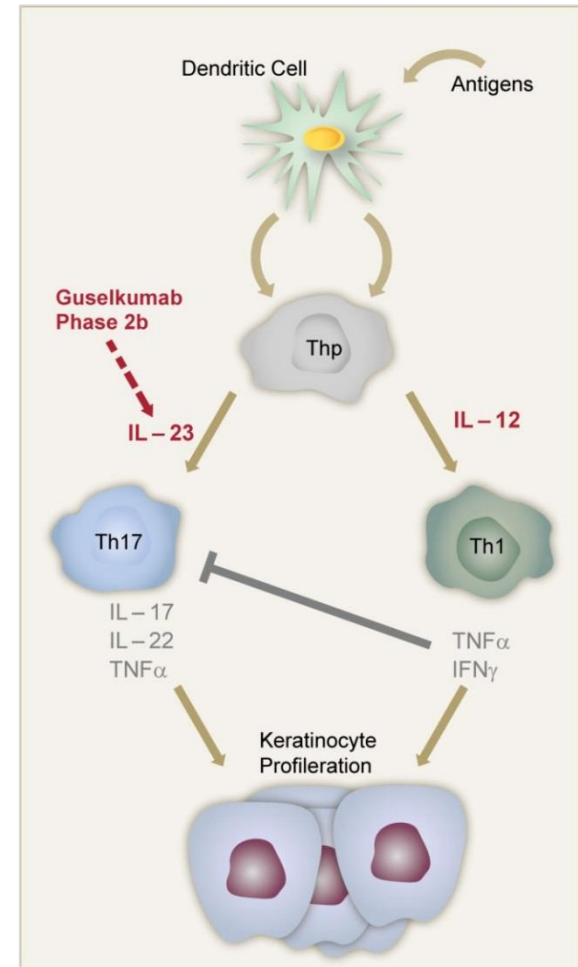
A Janssen Anti-Inflammatory Program

Guselkumab

- A HuCAL antibody specific for IL-23, does not bind IL-12
- IL-23 blockade inhibits production of multiple cytokines beyond IL-17A and preserves Th1 & Treg regulatory pathways
- Being developed in psoriasis and psoriatic arthritis

Current Status

- Six Phase 3 clinical trials ongoing
- First Phase 3 data expected in 2016
- Anticipated filing in 2016



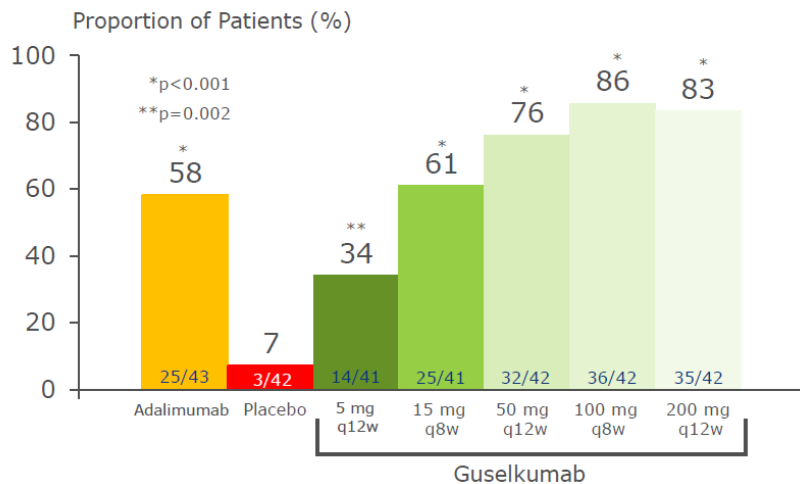
Source: Jetten AM, Nucl Recept Signal, 2009

Guselkumab (CNTO1959) Clinical Data

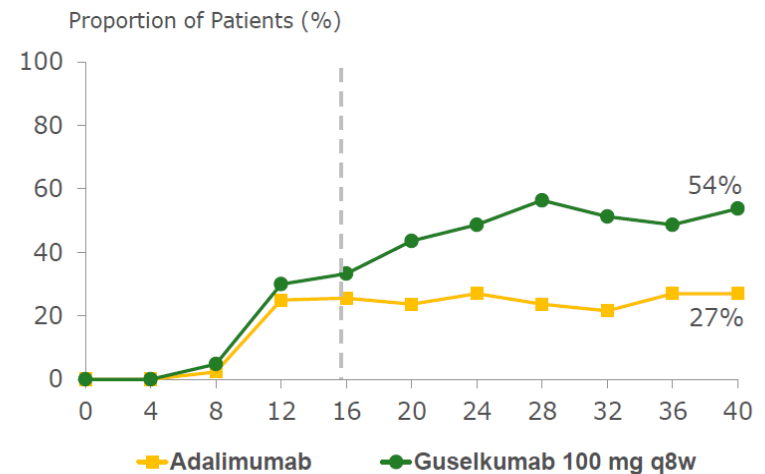


- Highest levels of durable skin clearance with less intensive dosing regimens vs. anti-IL-17 class
- Potential for similar safety profile vs. long-term blockade of IL-12 + 23 with STELARA®
- Potential for long-term, drug-free efficacy

Primary Endpoint: Patients with PGA Scores of Cleared (0) or Minimal (1) at Week 16



PASI 100 through Week 40



Adalimumab: 80 mg at Week 0, followed by 40 mg at Week 1 and q2w thereafter through Week 39.
Duffin, KC, et al. AAD 2014. Late breaker.

Data courtesy of Janssen

Anetumab Ravtansine (BAY94-9343) A Bayer Anti-Cancer Program

Anetumab Ravtansine

- ADC comprising
 - HuCAL anti-mesothelin G1 antibody conjugated to
 - potent maytansinoid tubulin inhibitor DM4
- In development for mesothelioma & other solid cancers

Pre-clinic

- Anetumab ravsansine potently inhibited growth of human mesothelioma models *in vivo*

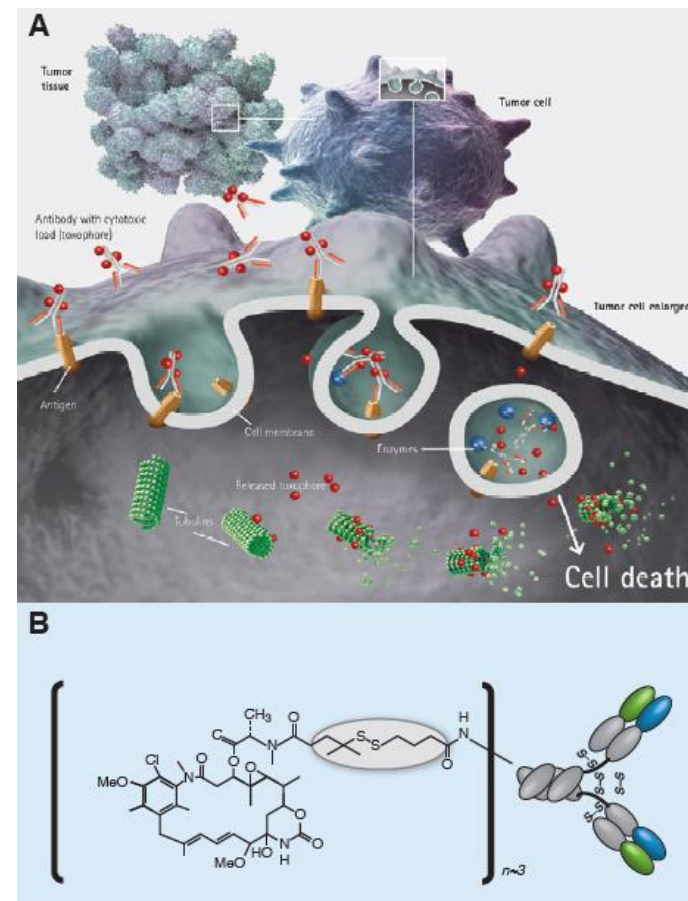
Phase 1

- Anetumab ravsansine 6.5 mg/kg IV Q3W was well tolerated and showed efficacy in patients with previously treated mesothelioma

Phase 2

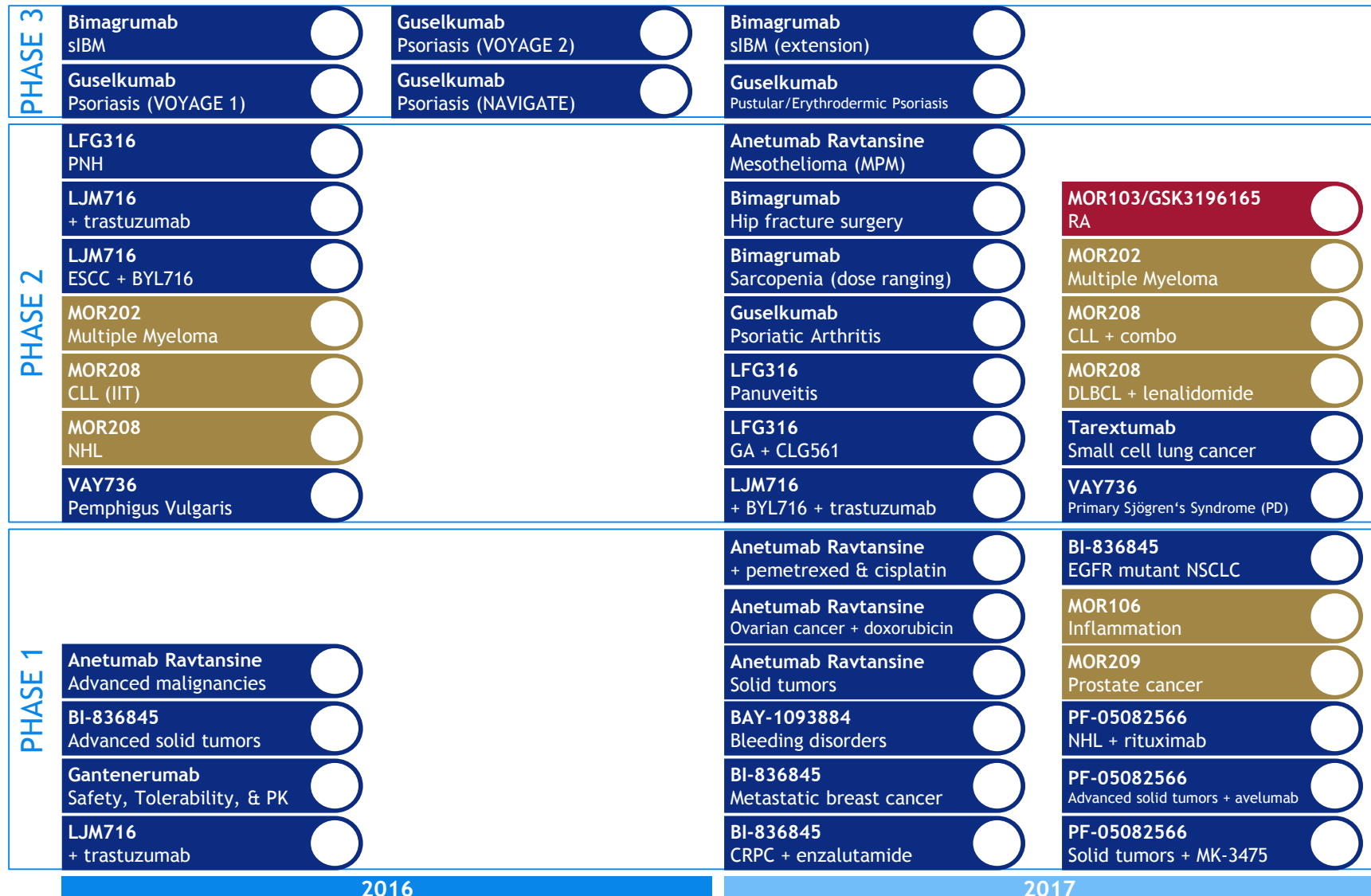
- Started Q1, 2016
- Second-line, malignant pleural mesothelioma
- Estimated enrollment 210

Data courtesy of Bayer Healthcare



Antibody-drug conjugate anti-tumor therapy
(A) General mechanism of action
(B) Structure of anetumab ravsansine

Pipeline Set to Deliver a Lot of Clinical Data



Based on published information and MorphoSys estimates

Partnered Discovery Programs

MOR Programs

Outlicensed programs

Powerful Technology Base Ensures Pipeline Sustainability

Innovative Targets

GPCRs, ion channels



Immune checkpoints



MHC-presented, tumor-associated peptides



Source of novel targets



Differentiated drug candidates

Proprietary Platforms

Antibody library



Protein optimization

SLONOMICS

Lantipeptides



in EUR million	2015A	Q1 2016	Guidance 2016
Group Revenues	106.2	12.1	47 to 52
Proprietary R&D Expenses (incl. Technology Development)	56.6	14.6	76 to 83
EBIT	17.2	-9.7	-58 to -68

Cash, cash equivalents & marketable securities as well as other short-term and long-term financial assets	298.4	287.0
--	-------	-------

Bimagrumab	sIBM	Data from pivotal trial and regulatory filing expected	✗
Guselkumab	Psoriasis	Data from 3 pivotal trials and regulatory filing expected	
MOR208	DLBCL	<ul style="list-style-type: none"> ■ Phase 2 lenalidomide combo trial L-MIND starts ■ Phase 2 bendamustine combo trial B-MIND: <ul style="list-style-type: none"> – Safety evaluation to start mid 2016 – Pivotal study planned for 2017 	✓
	CLL	Phase 2 idelalisib combo trial in planning	
MOR202	MM	Updated data from phase 1/2a trial at ASCO 2016	
MOR209	Prostate cancer	Continuation of phase 1 trial under amended protocol, clinical data in 2017	
MOR106	Inflammation	Start of phase 1 with Galapagos in H1 2016	✓
MOR107	Fibrosis	Start of phase 1 in Q4 2016	
MOR103	Osteoarthritis RA	<ul style="list-style-type: none"> ■ Start of phase 1b/2a in osteoarthritis of the hand ■ Data from the phase 2b in RA in 2017 	✓
Pipeline		<ul style="list-style-type: none"> ■ Up to 5 new program starts ■ Around 5 clinical milestones 	✓ ✓✓

Thank You

www.morphosys.com

Dr. Claudia Gutjahr-Löser
Head of Corporate Communications & IR

Phone +49 (0)89 / 899 27-404

Fax +49 (0)89 / 899 27-5404

Email investors@morphosys.com