MorphoSys

Company Update

Jefferies 2016 Healthcare Conference

June 7 – 10, 2016

Safe Harbor

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 at a Glance

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
- Attractive proprietary clinical assets including MOR202 & MOR208
- Strong balance sheet with recurring cash-flows supports growing investment

The MorphoSys Pipeline
26 Clinical Product Candidates, 104 Total

Most advanced development stage

Program	Partner	Target	Disease Area	Discovery	Preclinic	Phase 1	Phase 2	Phase 3
Bimagrumab (BYM338)	Novartis	ActRIIB	Musculoskeletal diseases					
Guselkumab (CNTO1959)	Janssen	IL23p19	Psoriasis					
Gantenerumab	Roche	Amyloid-ß	Alzheimer's disease					
MOR208	-	CD19	ALL, CLL, NHL					
MOR202	-	CD38	Multiple myeloma					
MOR103/GSK3196165	GSK	GM-CSF	Inflammation					
Anetumab Ravtansine (BAY94-9343)	Bayer	Mesothelin (ADC)	Solid tumors					
BHQ880	Novartis	DKK-1	Multiple myeloma					
BPS804	Mereo/Novartis	Sclerostin	Brittle bone syndrome					
CNTO3157	Janssen	-	Inflammation					
CNTO6785	Janssen	-	Inflammation					
LFG316	Novartis	C5	Eye diseases					
LJM716	Novartis	HER3	Cancer					
Tarextumab (OMP-59R5)	OncoMed	Notch 2	Solid tumors					
VAY736	Novartis	BAFF-R	Inflammation					
MOR209/ES414	Emergent	PSMA/CD3	Prostate cancer					
MOR106	Galapagos	-	Inflammation					
BAY1093884	Bayer	TFPI	Hemophilia					
BI-836845	BI	IGF-1	Solid tumors					
NOV-7	Novartis	-	Eye diseases					
NOV-8	Novartis	-	Inflammation					
NOV-9	Novartis	-	Diabetic eye diseases					
NOV-10	Novartis	-	Cancer					
NOV-11	Novartis	-	Blood disorders					
Utomilumab (PF-05082566)	Pfizer	4-1BB	Solid tumors					
Vantictumab (OMP-18R5)	OncoMed	Fzd 7	Solid tumors					
MOR107 (LP2)	-	AT2-R	Fibrosis					
Immuno-oncology program	Merck	-	Cancer					
Immuno-oncology program	Immatics	-	Cancer					
6 MOR programs	-	-	Various					

90 Partnered Discovery Programs
13 MOR Programs
1 Outlicensed Program

In addition, 24 partnered programs in pre-clinic, and 45 partnered programs in discovery

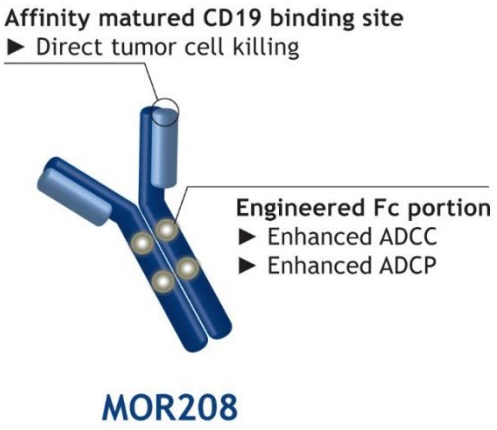
The MOR Portfolio
5 Clinical Product Candidates, 14 Total

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

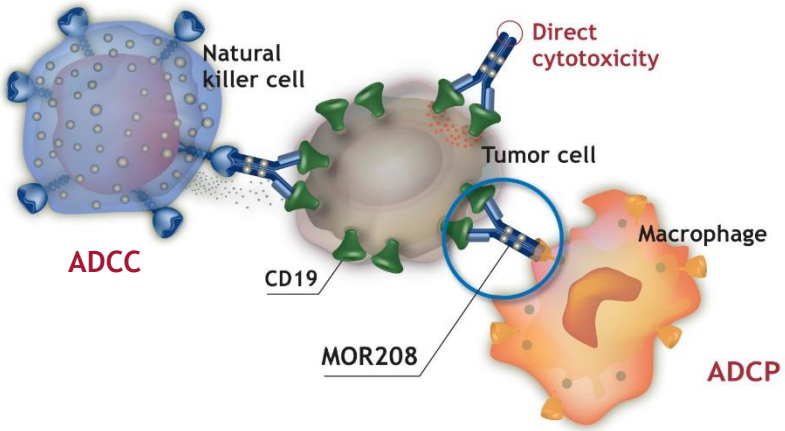
CD19 is an ideal target in NHL because

- CD19 is broadly and homogeneously expressed
  - Across different NHL subtypes incl. DLBCL and CLL
- CD19 conveys a survival signal for B cells
  - Signaling via PI3K/AKT and c-Myc
  - Especially important for an extended treatment
- 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 ADCC, ADCP and direct cytotoxicity
- Straightforward manufacturing
- Strong pre-clinical support for combo therapy



ADCC, antibody dependent cellular cytotoxicity; ADCP, antibody dependent cell phagocytosis

MOR208 in R/R NHL
Strong Single Agent Efficacy

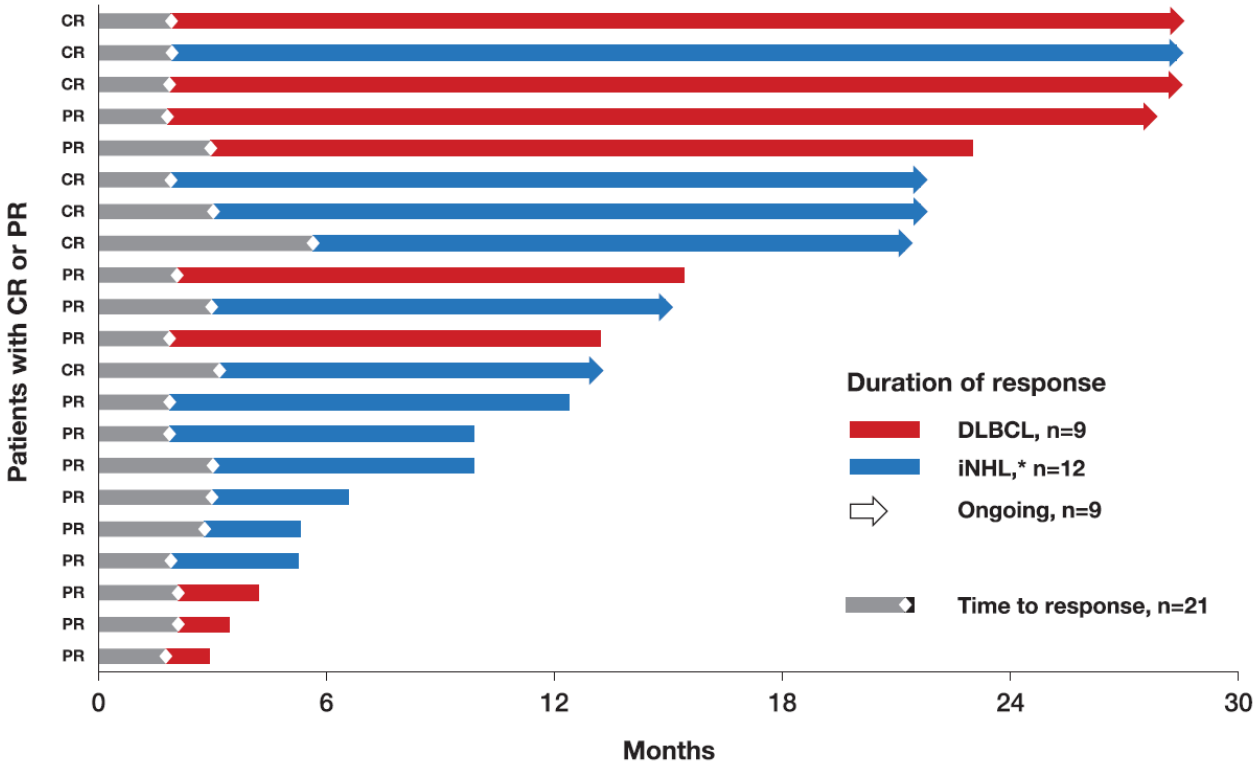
Response Rate in evaluable patients* n (%)	**DLBCL** n=35	**iNHL** incl. FL n=45
Disease Control Rate (DCR)	**14 (40%)**	**33 (73%)**
Overall Response (ORR)	**9 (36%)**	**13 (33%)**
Complete response (CR)	2 (6%)	5 (11%)
Partial response (PR)	7 (20%)	8 (18%)
Stable disease (SD)	5 (14%)	20 (44%)

DCR is a relevant efficacy endpoint as the majority of patients with stable disease had marked target lesion shrinkage but as per study design were not treated beyond cycle 3

*Investigator assessed

Jurczak et al., Abstract #7545, ASCO 2016

MOR208 in R/R NHL
Long Duration of Responses in DLBCL and FL/iNHL



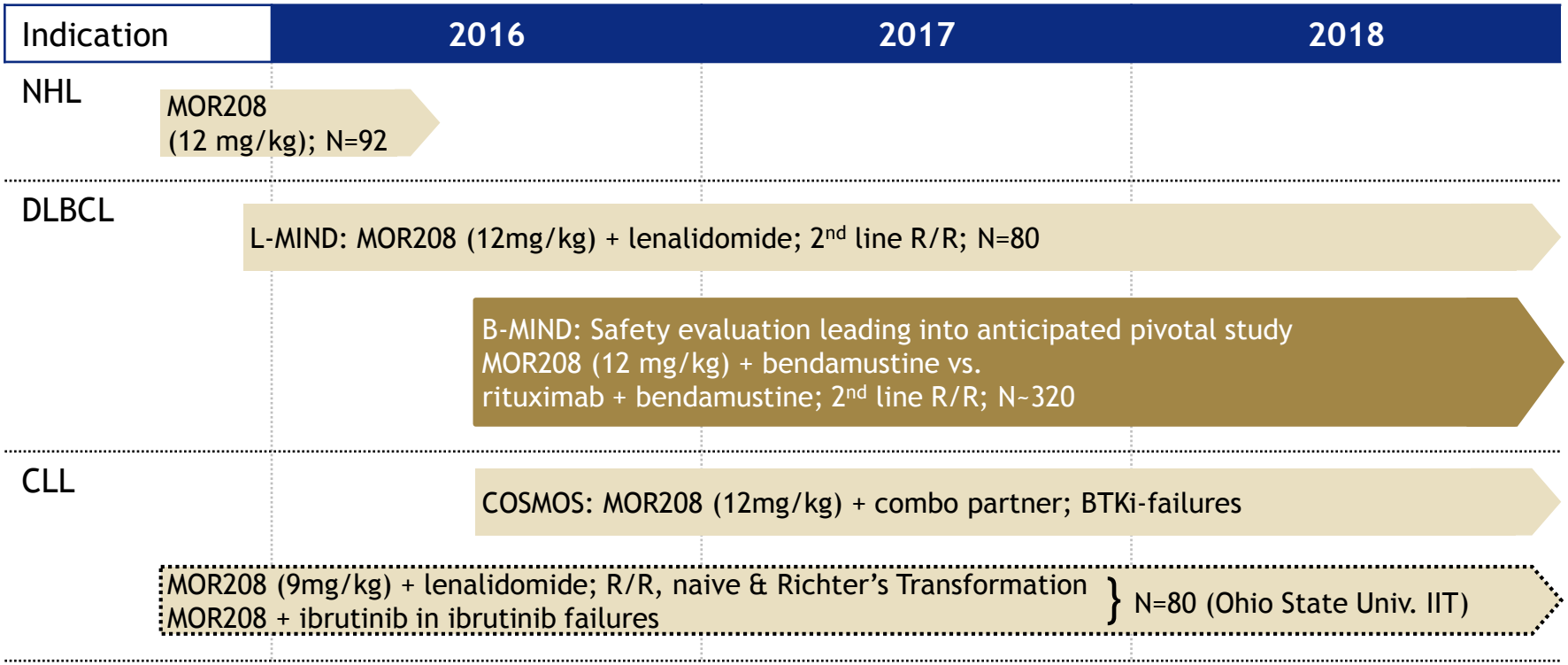
- Long-lasting responses, up to >26 months
- PFS at 12 months: >40% in both DLBCL & iNHL

* Includes follicular lymphoma and other indolent NHLs. One patient with stable disease had a late response (PR) after 17 months in follow-up. This patient is not shown in the figure.

CR, complete response; DLBCL, diffuse large B-cell lymphoma; NHL, non-Hodgkin's lymphoma; PR, partial response

Jurczak et al., Abstract #7545, ASCO 2016

MOR208
Comprehensive Clinical Development Plan



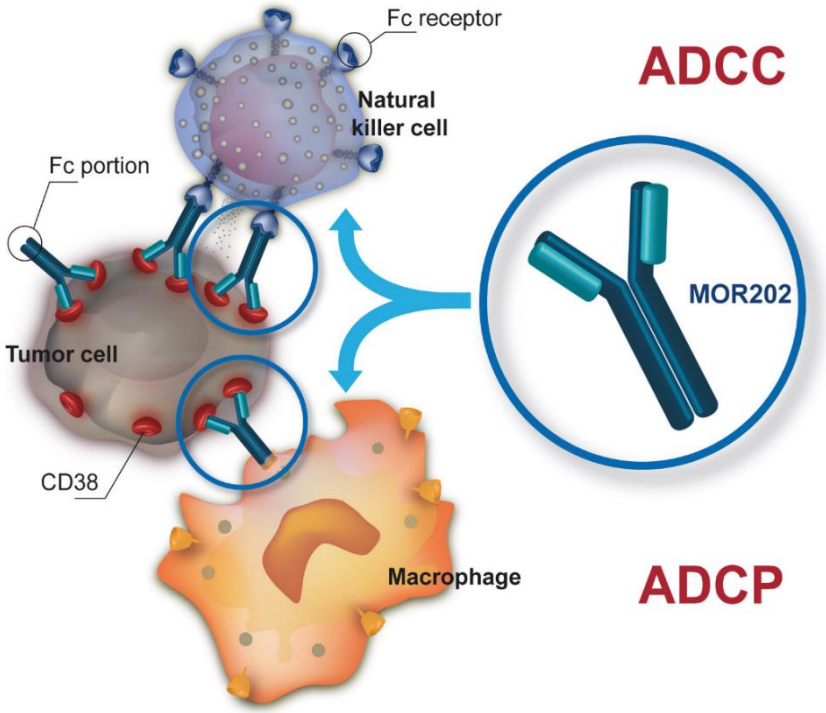
MOR202
A Novel Antibody for Multiple Myeloma

Fully human monoclonal HuCAL IgG1 antibody

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

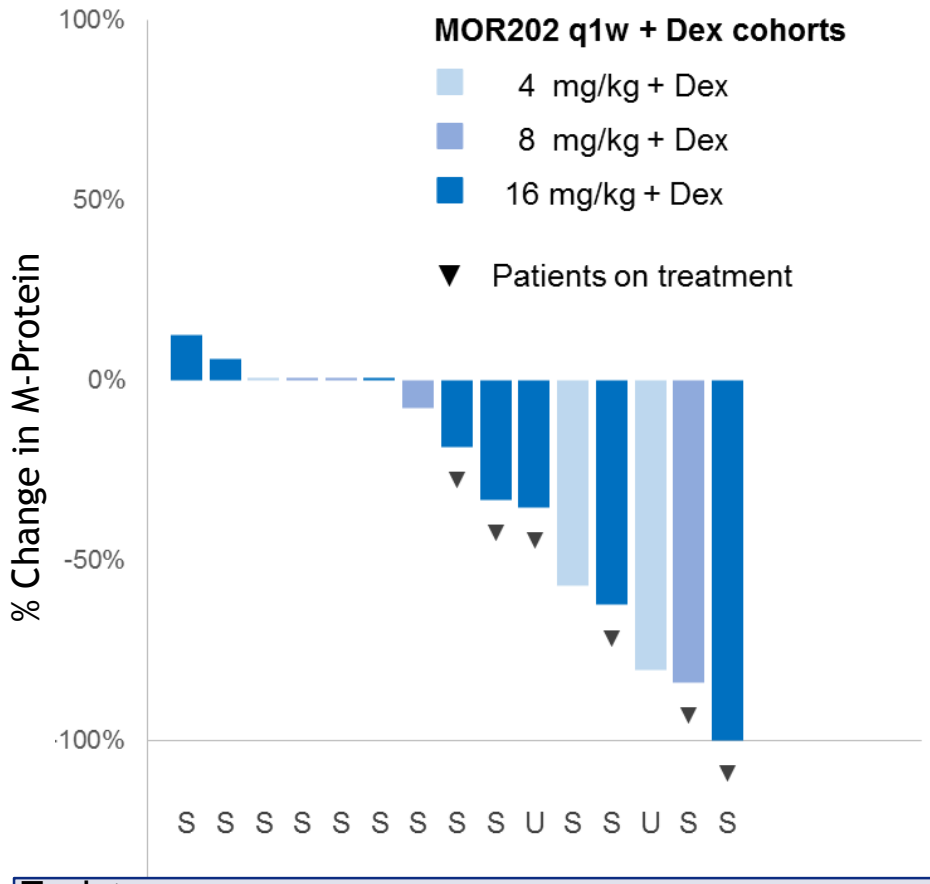
One of only three CD38 antibodies in clinical development

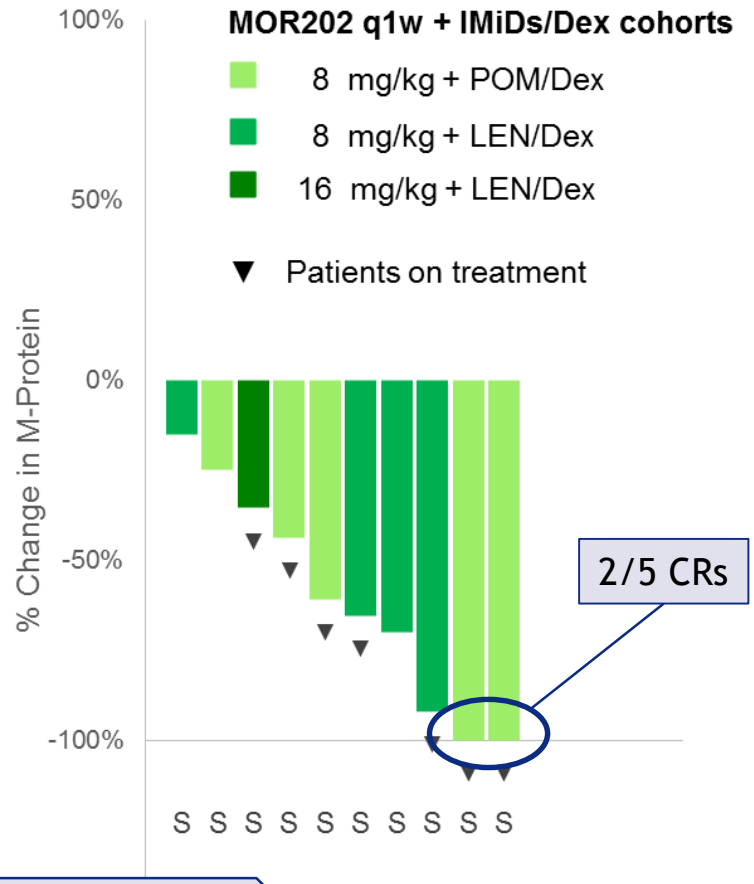
Strongly synergistic with IMiDs and proteasome inhibitors in pre-clinical models



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

MOR202: Preliminary Phase 1/2a Data
Best Maximum Change in M-protein*

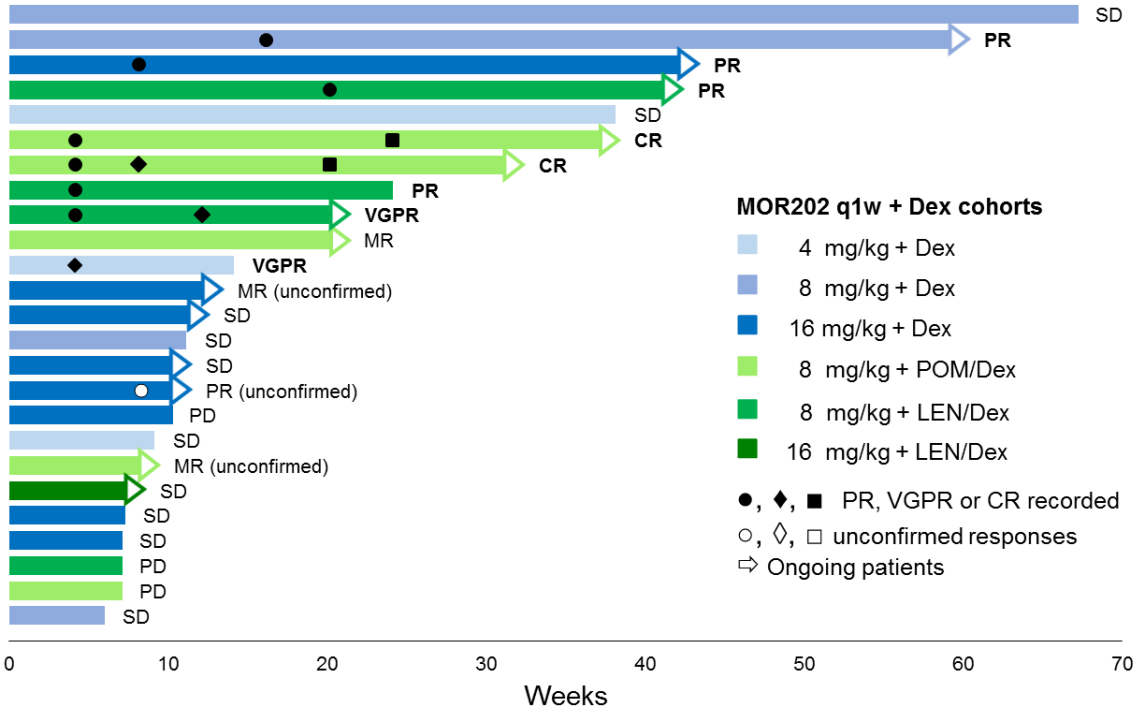




To date:
- 4 responses in the MOR202 + Dex cohorts
- 5 responses in cohorts of MOR202 with an IMiD/Dex with 2 CRs

Raab et al., Abstract #8012, ASCO 2016

MOR202: Preliminary Phase 1/2a Data
Time on Study and Best Response



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- Median time to response was 4 weeks; most responses deepened over time
- 7 out of 9 responses are ongoing; longest duration of response currently 44 weeks, ongoing

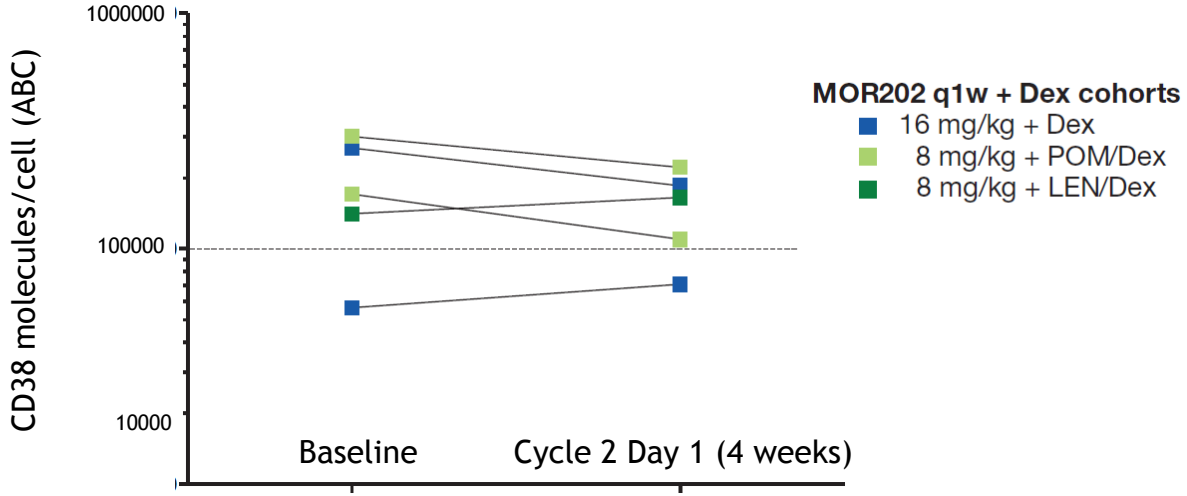
MOR202
A Clearly Differentiated CD38 Antibody

Minimal Infusion Tolerability and Immunogenicity

- A 2-hour IV infusion was feasible in all patients
- IRRs occurred in 4 (14%) patients and were mainly limited to the first infusion
- Only 1 of 30 patients (all cohorts) developed a transient anti-MOR202 antibody response

MOR202 q1w + dex cohorts	No IRR	IRR Grade 1	IRR Grade 2
Total; n (%)	24 (86%)	3 (10%)	1 (4%)

Current Data Suggest CD38 Preservation During MOR202 Therapy



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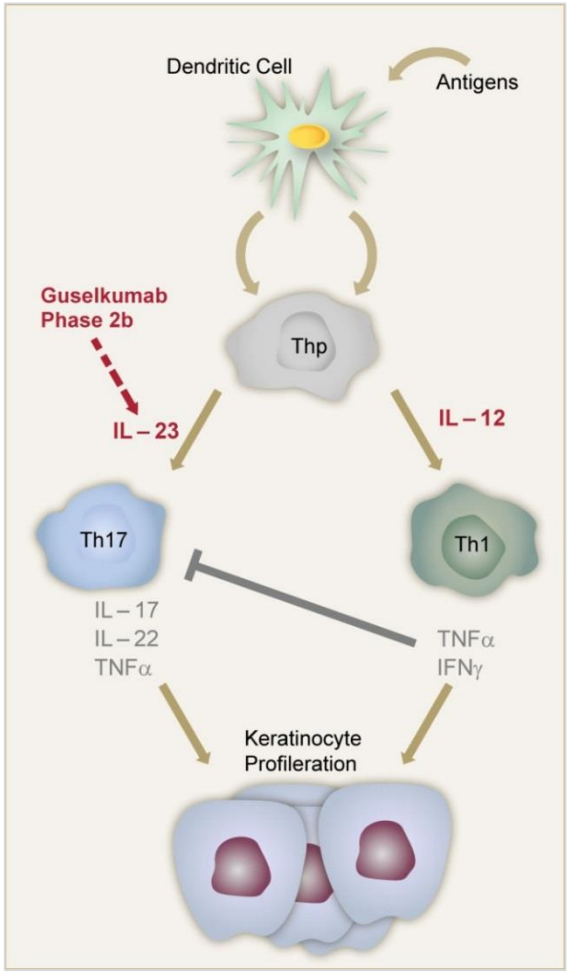
Guselkumab (CNTO1959)
A Janssen Anti-Inflammatory Program

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

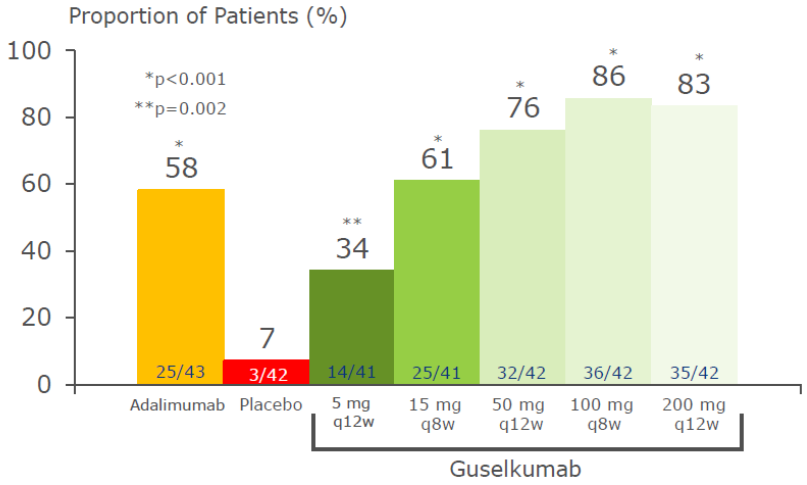


Source: Jetten AM, Nucl Recept Signal, 2009

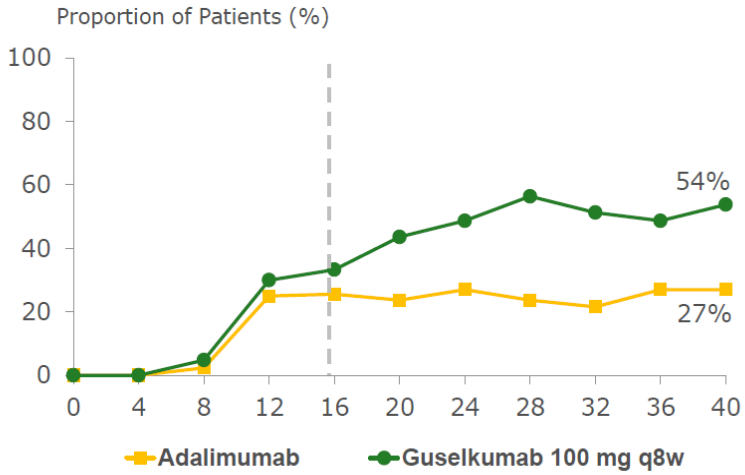
Guselkumab (CNTO1959) Clinical Data

- 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



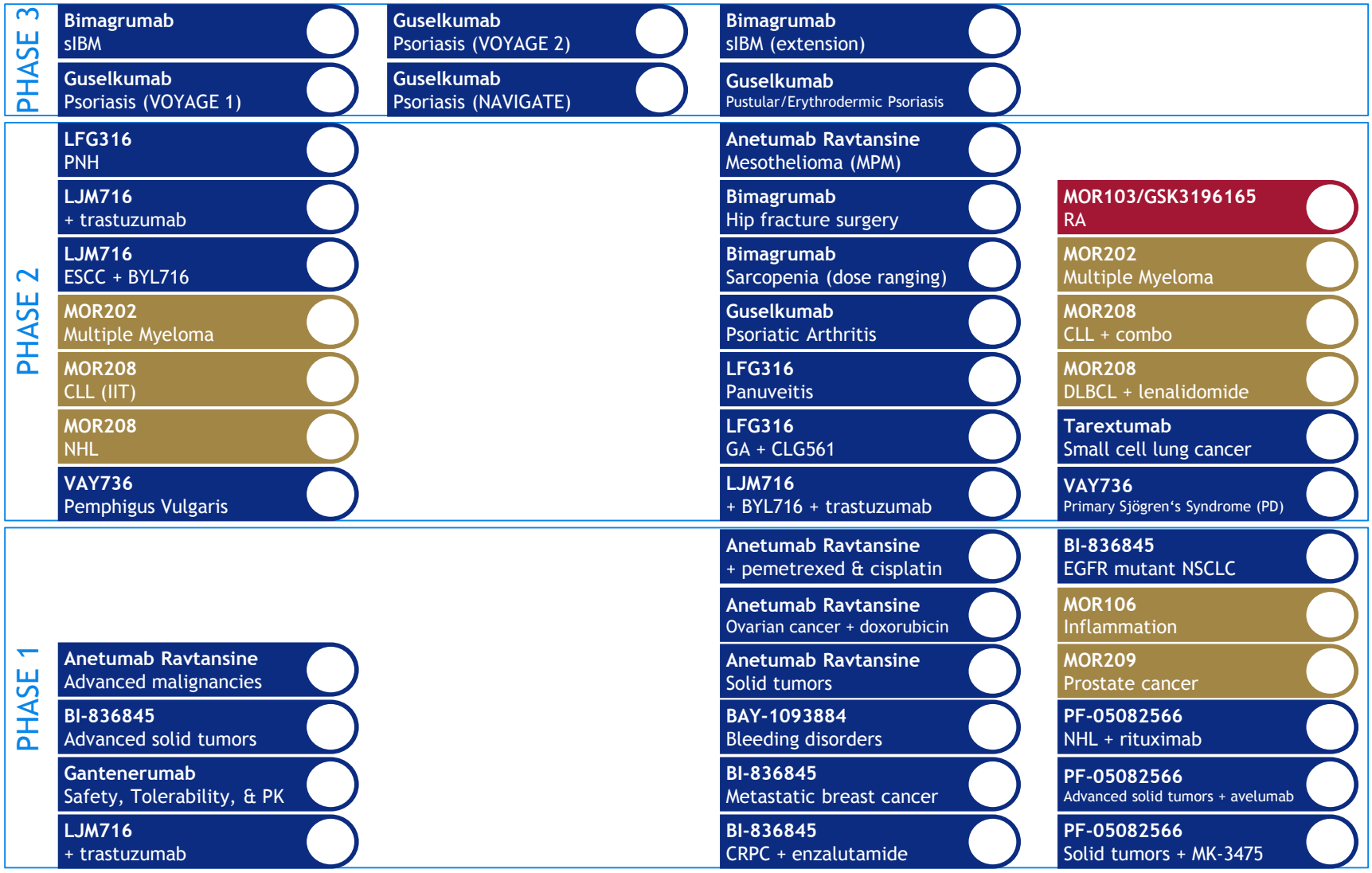
Adalimumab: 80 mg at Week 0, followed by 40 mg at Week 1 and q2w thereafter through Week 39.
Duffin, KC, et al. AAD 2014. Late breaker.

Data courtesy of Janssen

Financial Guidance 2016

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	

Pipeline Set to Deliver a Lot of Clinical Data



Based on published information and MorphoSys estimates

Partnered Discovery Programs | MOR Programs | Outlicensed programs

Thank You

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