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Company Update

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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.

Strong and Differentiated Biopharmaceutical Pipeline

Successful Transformation from Technology Provider to Drug Development Company

- First partnered programs approaching the market
- Proprietary portfolio is gaining momentum

Increasing Confidence in Proprietary Portfolio

- Additional resources
- Majority of spending for clinical programs

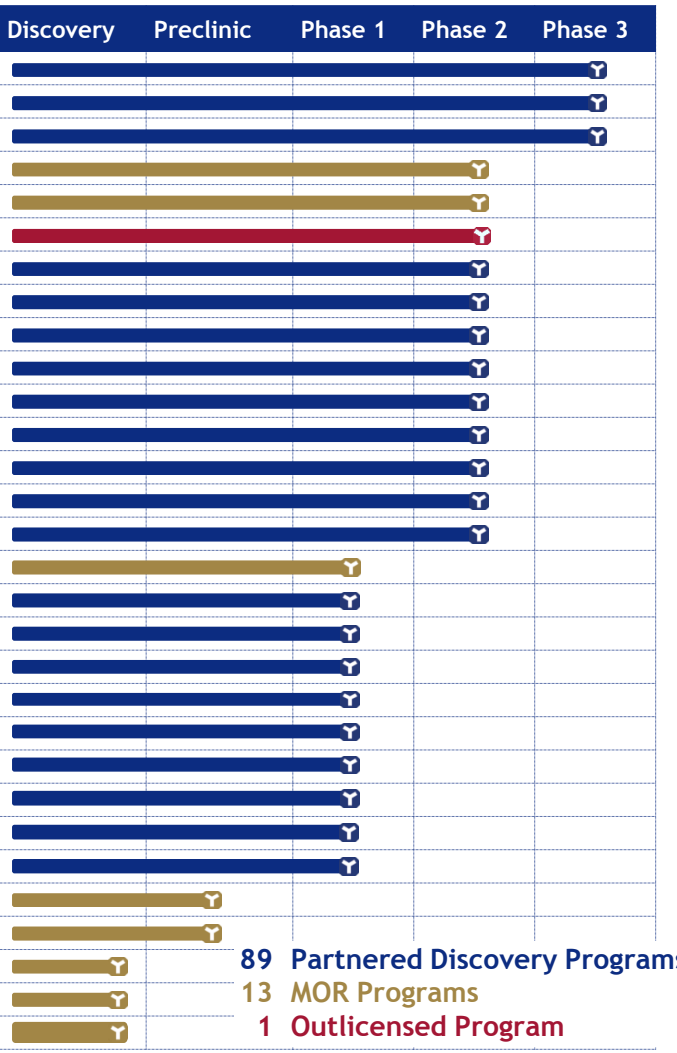
Long-term Strategy

- Growing portfolio of innovative therapeutics
- Creation of long-term, sustainable value

The MorphoSys Pipeline
25 Clinical Product Candidates, 103 Total

Most advanced development stage

Program	Partner	Target	Disease Area
Bimagrumab (BYM338)	Novartis	ActRIIB	sIBM (musculoskeletal)
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
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
PF-05082566	Pfizer	4-1BB	Solid tumors
Vantictumab (OMP-18R5)	OncoMed	Fzd 7	Solid tumors
MOR106	Galapagos	-	Inflammation
MOR107 (LP2)	-	AT2-R	Fibrosis
Immuno-oncology program	Merck Serono	-	Cancer
Immuno-oncology program	Immatics	-	Cancer
6 MOR programs	-	-	Various



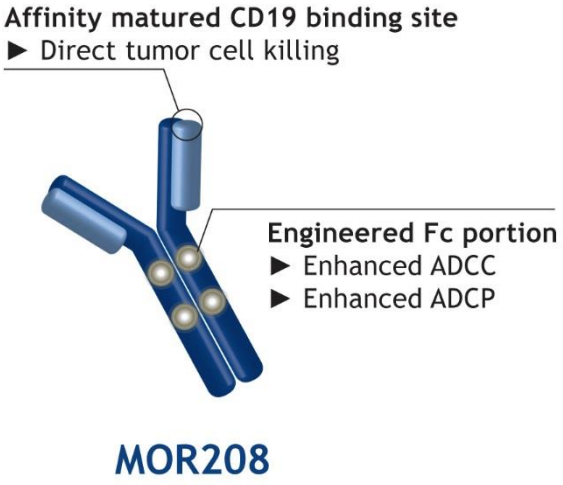
In addition, 25 partnered programs in pre-clinic, and 43 partnered programs in discovery

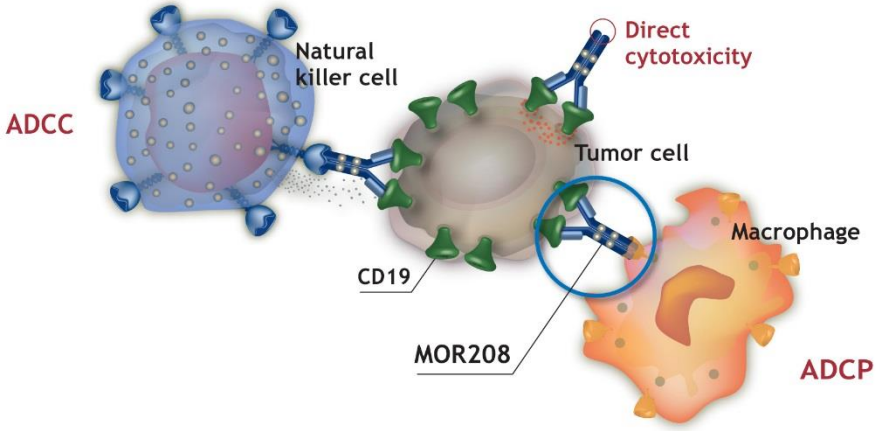
The MOR Portfolio

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/hand osteoarthritis	GM-CSF					

MOR208
First- & Best-in Class Potential

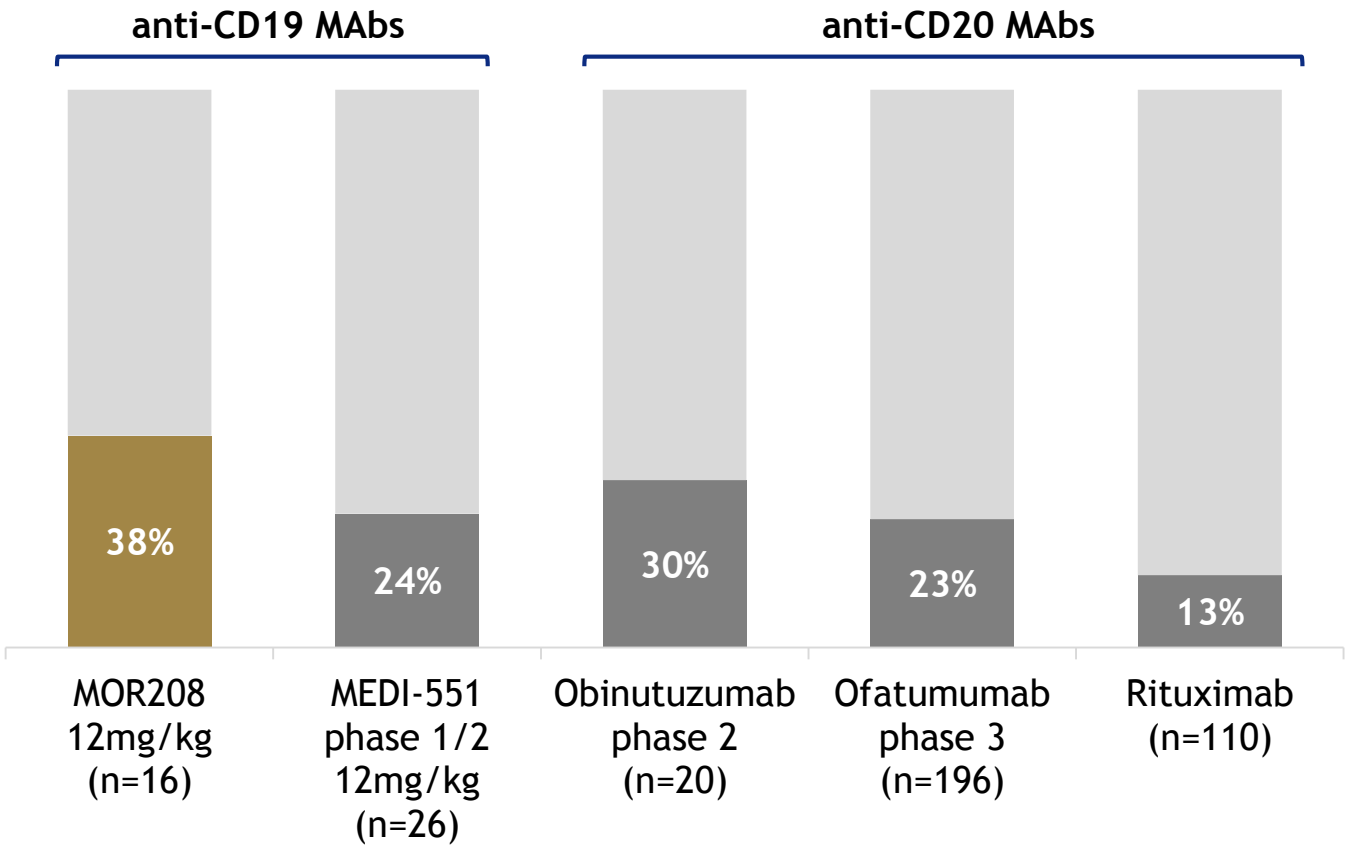
- Fc-enhanced, humanized IgG1 antibody targeting CD19
- CD19 is target of choice for B-cell malignancies
  - CD20 down-regulated after anti-CD20 treatment
  - CD19 down-regulation not described
- Fc modification leads to dramatically enhanced B cell depletion
  - Antibody dependent cellular cytotoxicity (ADCC)
  - Phagocytosis
  - Direct cytotoxicity
- Convenient dosing schedule
- Straightforward manufacturing
- Strong pre-clinical support for combo therapy





MOR208
Superior to Other CD19 & CD20 MAbs in R/R CLL

Response Rates Based on IWCLL2008 Criteria



mPFS (months)	14	NR	10.7	8	5.5

MEDI-551 data source: Poster ASCO 2013, 12mg/kg dosing group

Obinutuzumab data source: GAUGUIN study, Cartron et al, Blood 2014

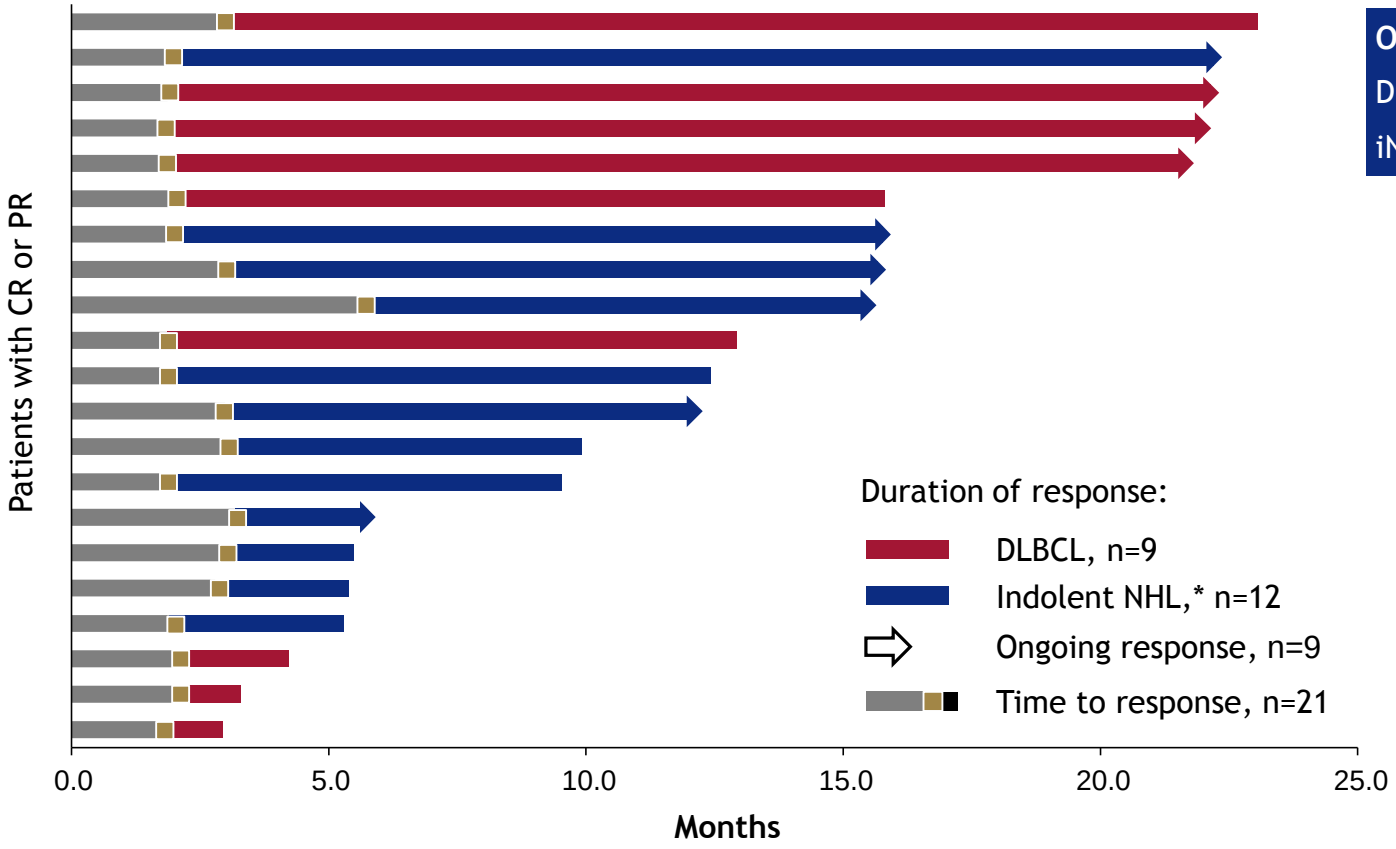
Ofatumumab data source: control arm in ibrutinib vs. O phase 3 trial (RESONATE, ASCO 2014)

Rituximab data source: Late breaking abstract #6, ASH 2013

Criteria: Hallek et al 2008 (including CT)

[NR – not reported]

MOR208
Very Encouraging Duration of Response



ORR (Evaluable pts)

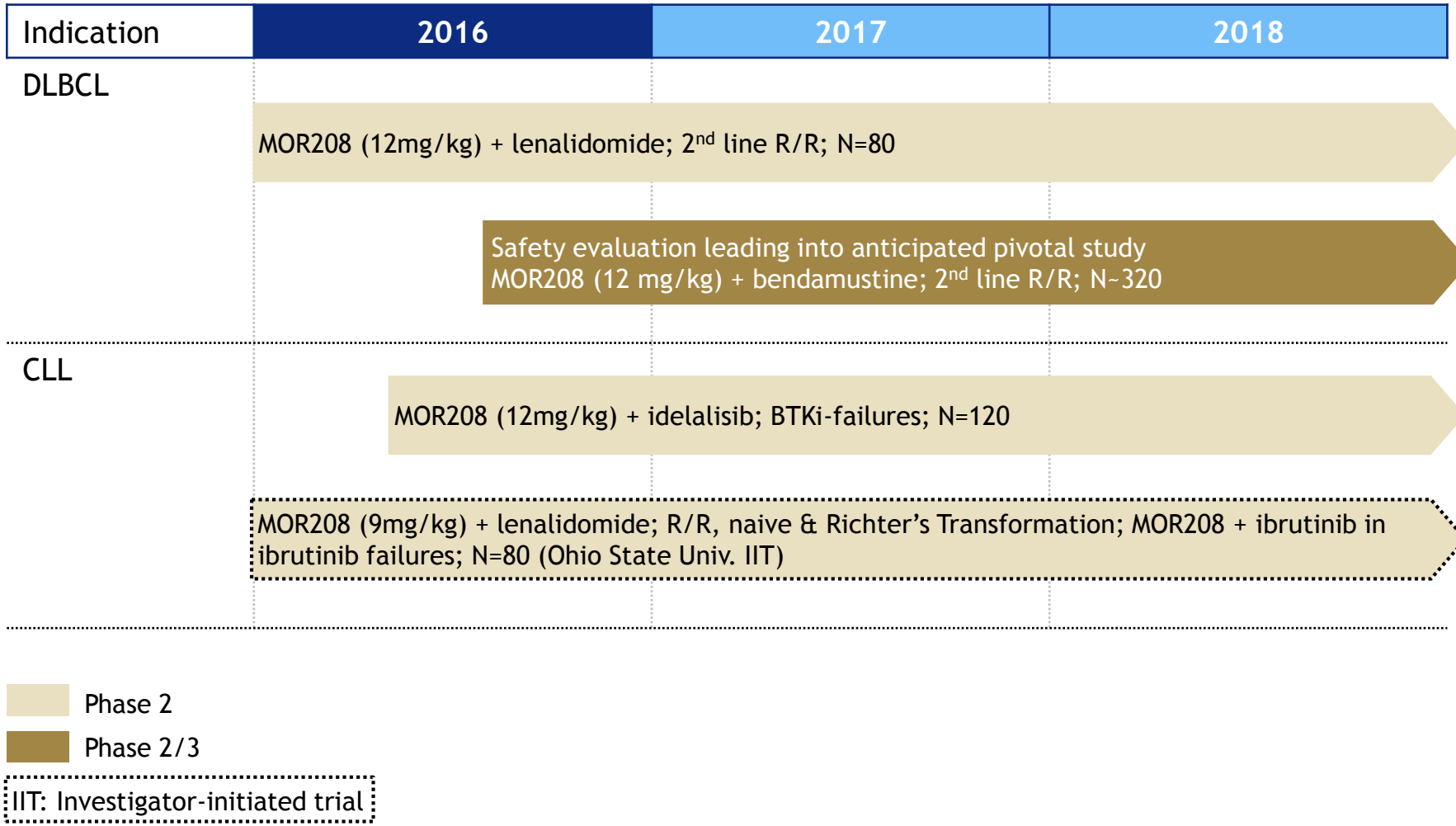
DLBCL: 36% (incl. 2 CRs)

iNHL: 30% (incl. 5 CRs)

* Includes follicular lymphoma and other indolent NHLs

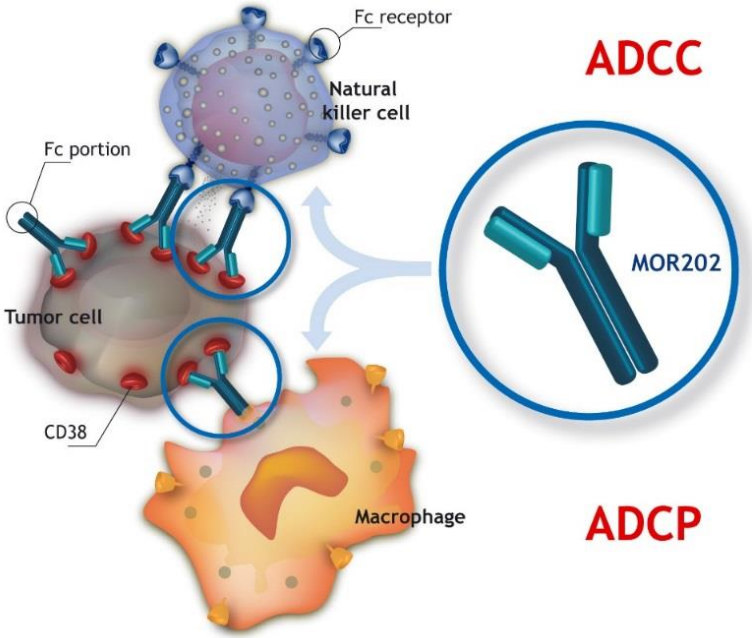
Jurczak et al, #1528, ASH 2015

MOR208
Comprehensive Clinical Development Plan

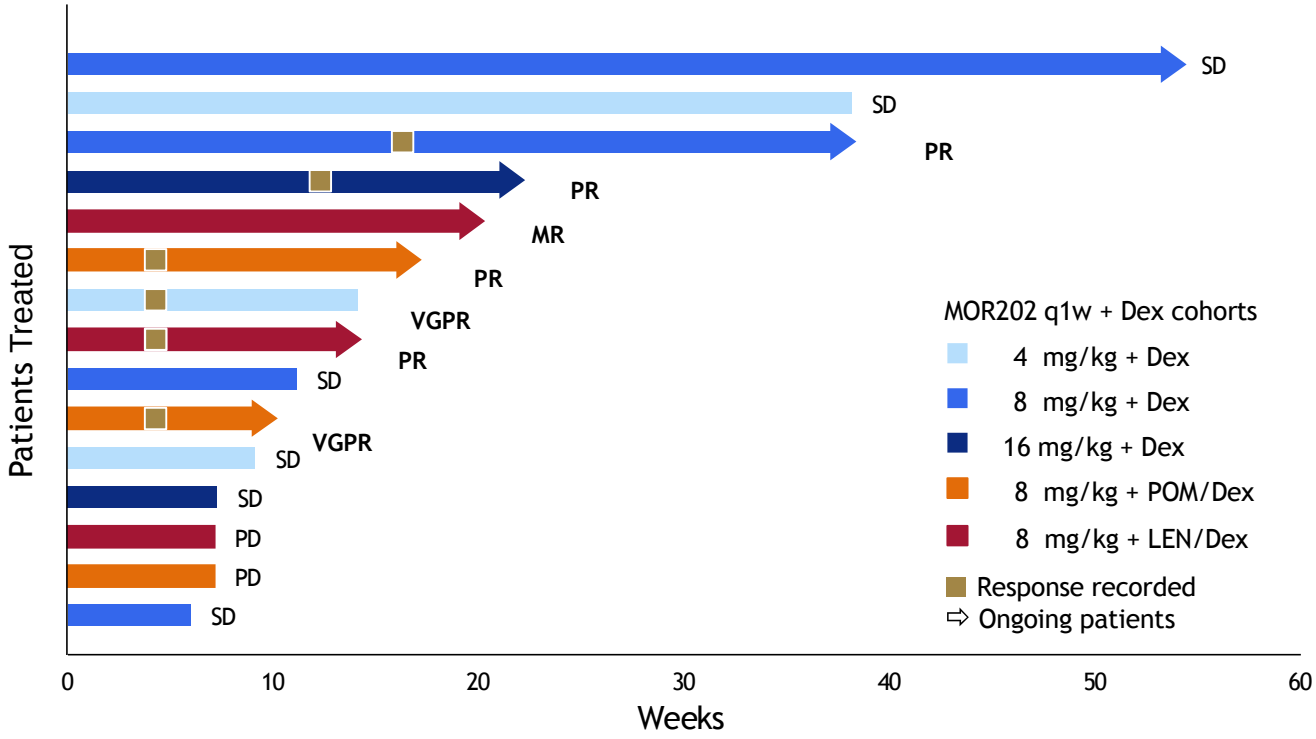


MOR202
A Novel Antibody for Multiple Myeloma

- HuCAL IgG1 antibody binding unique epitope on CD38
- One of only three CD38 antibodies in clinic
- Potent ADCC and ADCP
  - Enhanced killing of MM cells
  - Low-level killing of NK cells
- Strongly synergistic with IMiDs and proteasome inhibitors in pre-clinical models
- MOR202 - Differentiation
  - Convenience: 2-hour infusion
  - Best-in class infusion tolerability: only one patient with mild infusion reactions
  - Preservation of NK cells
- Patients receiving MOR202 plus pomalidomide have shown very encouraging responses, which have deepened considerably since data was reported at ASH in December 2015



MOR202 – Phase 1/2a
Time on Study and Best Response



Preliminary Results:

MOR202 alone:
ORR of 33%

MOR202 + IMiDs:
Clinical benefit rate of 67%

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

Clinical Programs from Partnered Discovery Alliances (I)

Program	Partner	Target	Indication	Phase 1	Phase 2	Phase 3
Bimagrumab (BYM338)	Novartis	ActRIIB	sIBM (RESILIENT)			
			sIBM (extension)			
			sIBM (long-term study)			
			Hip fracture surgery			
			Cachexia (COPD)			
			Sarcopenia (dose-ranging)			
			Sarcopenia (withdrawal extension study)			
Guselkumab (CNTO1959)	Janssen/J&J	IL23p19	Psoriasis (VOYAGE 1)			
			Psoriasis (VOYAGE 2)			
			Psoriasis (NAVIGATE)			
			Pustular/Erythrodermic psoriasis			
			Moderate to severe plaque-type psoriasis			
			Palmoplantar pustulosis			
			Active psoriatic arthritis			
Gantenerumab	Roche	Amyloid-ß	Mild Alzheimer‘s disease			
			Prodromal Alzheimer‘s disease			
			Genetically predisposed			
Anetumab Ravtansine BAY94-9343	Bayer	Mesothelin	Mesothelioma			
			Solid tumors			
			Advanced malignancies (Japan)			
BHQ880	Novartis	DKK-1	MM (renal insufficiency)			
			Smoldering MM			
BPS804	Mereo/Novartis	Sclerostin	Osteoporosis			
			Hypophosphatasia (HPP)			
			Osteogenesis Imperfecta			
CNTO3157	Janssen/J&J	n.d.	Asthma			
			Safety/Pharmacokinetic			
CNTO6785	Janssen/J&J	n.d.	COPD			
			Rheumatoid arthritis			

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			
LJM716	Novartis	HER3	ESCC (combo with BYL719)			
			HER2+ cancer (combo BYL719 & trastuzumab)			
			HER2+ cancer, combo with trastuzumab			
Tarextumab (OMP-59R5)	Oncomed/GSK	Notch 2	Pancreatic cancer (ALPINE)			
			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			
			Various solid cancer			
			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			
PF-05082566	Pfizer	4-1BB	Advanced malignancies, with avelumab			
			Solid tumors, NHL (+rituximab)			
			Solid tumors, combo with PD-1i MK-3475			
			Advanced solid tumors, with mogamulizumab			
Vantictumab (OMP-18R5)	Oncomed/Bayer	Fzd 7	Solid tumors			
			Metastatc breast cancer			
			Pancreatic cancer (combo)			
			NSCL			

Bimagrumab (BYM338)
A Novartis Musculoskeletal Program

Bimagrumab

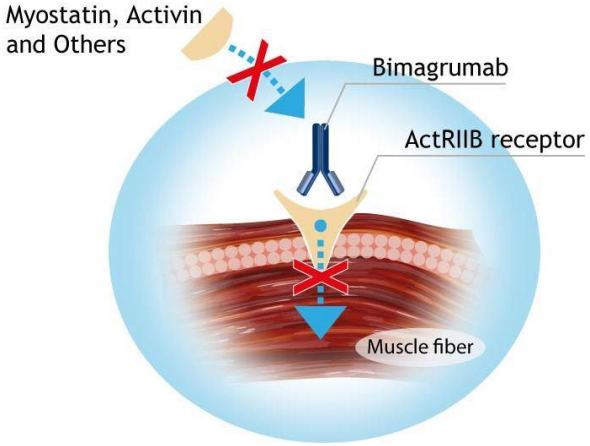
- HuCAL antibody specific for ActRIIB, antagonizes myostatin binding to muscle cells
- Development in muscle-wasting conditions
- FDA breakthrough therapy designation

Current Status

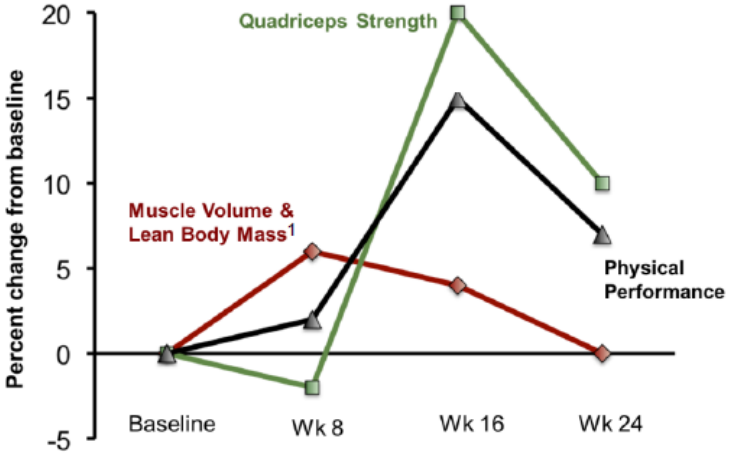
- Pivotal study in sIBM with 240 patients ongoing, phase 3 data expected in H1 2016
- Phase 2 studies in sarcopenia, cachexia and hip fracture surgery

Promising Phase 2 Data in sIBM

- Bimagrumab, single dose, 30 mg/kg
- Muscle mass increased approx. 5% more than placebo
- Muscle gain was functional
  - Increases in strength parallel to physical performance and in 6-minute walking distance test



Promising Phase 2 Data in sIBM



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

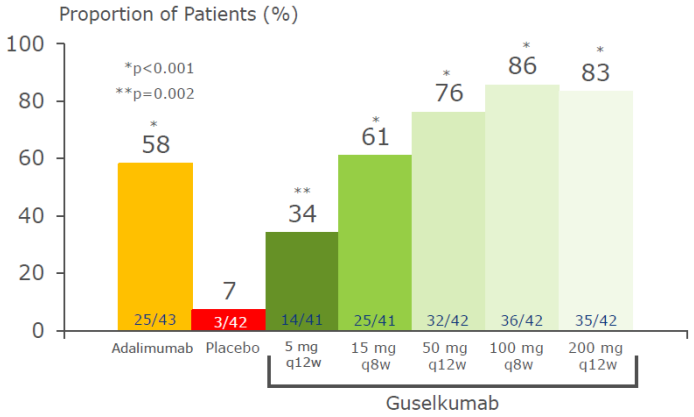
Current Status

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

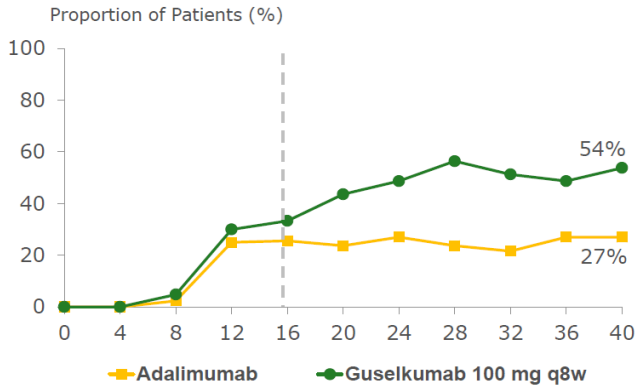
Clinical Phase 2b Data

- 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

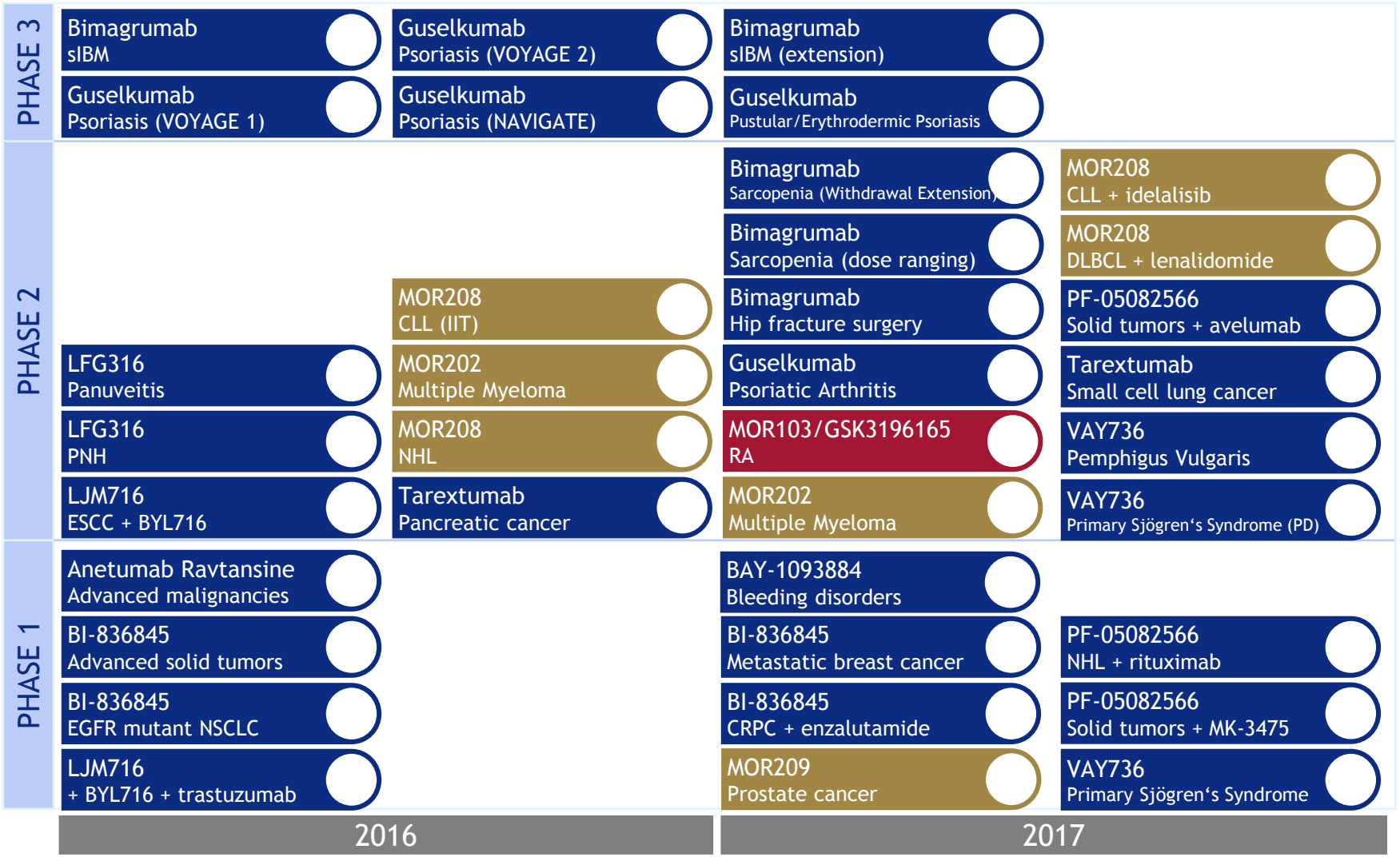


Adalimumab: 80 mg at Week 0, followed by 40 mg at Week 1 and q2w thereafter through Week 39.
Duffin, KC, et al. AAD 2014. Late breaker.

What to Expect?

Bimagrumab	sIBM	Data from pivotal trial and regulatory filing expected
Guselkumab	Psoriasis	Data from 3 pivotal trials and regulatory filing expected
MOR208	DLBCL	■ Phase 2 lenalidomide combo trial to start in Q1 2016 ■ Phase 2 bendamustine combo safety evaluation to start mid 2016 ■ Phase 3 bendamustine combo pivotal study planned for 2017 ■ First data of combination trials in 2017
	CLL	■ Phase 2 idelalisib combo trial to start in Q1 2016 ■ First data of combination trial in 2017
MOR202	MM	Updated data from phase 1/2a trial at ASCO 2016 and ASH 2016
MOR209	Prostate cancer	Continuation of 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	RA Osteoarthritis	■ Start of phase 1b/2a in osteoarthritis of the hand ■ Data from the phase 2b in RA in 2017
Pipeline		■ Up to 5 new program starts ■ Around 5 clinical milestones

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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