2015 R&D Update

Capitalizing on Success to Build a Knock-Your-Socks-Off Pipeline

December 8, 2015

Live in Orlando and via WebEx 14:00 – 16:00 EST

Genmab

Forward Looking Statement

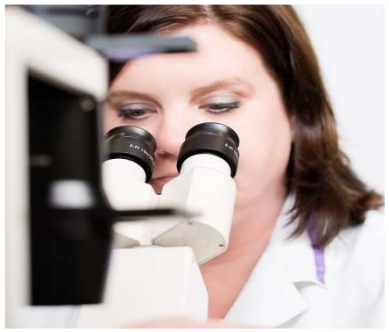
This presentation contains forward looking statements. The words “believe”, “expect”, “anticipate”, “intend” and “plan” and similar expressions identify forward looking statements. All statements other than statements of historical facts included in this presentation, including, without limitation, those 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.

Agenda

14:00	Welcome	Dr. Jan van de Winkel, President & CEO
14:05	News from the Clinic	
14:05	Daratumumab	Dr. Peter Voorhees, University of North Carolina at Chapel Hill Prof. Torben Plesner, Vejle Hospital Prof. Thierry Facon, Lille University Hospital Prof. Maria Victoria Mateos, University Hospital of Salamanca
	Daratumumab Q&A	
15:18	HuMax-TF-ADC	Prof. Johann de Bono, The Institute of Cancer Research, Surrey
15:28	Pre-clinical Pipeline: The Antibody Experts	
15:28	Progressing the pipeline: Creating bispecifics with the DuoBody technology	Jan van de Winkel
15:35	2016 Milestones	Jan van de Winkel
15:40	Q&A	
16:00	Refreshments	

Transforming Cancer Treatment

Focus

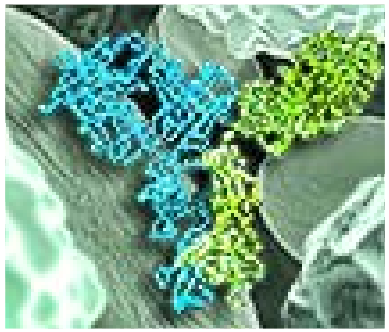


- Differentiated antibodies
- Treating cancer

Products

- DARZALEX™ approved by FDA
- Arzerra® on the market
- 5 other antibodies in clinical studies
- Robust pre-clinical pipeline

Technology



- DuoBody® platform
- HexaBody® technology

Partnerships

- Leverage our technology
- Strategic collaborations with big pharma & biotech

Key Achievements 2015

Daratumumab

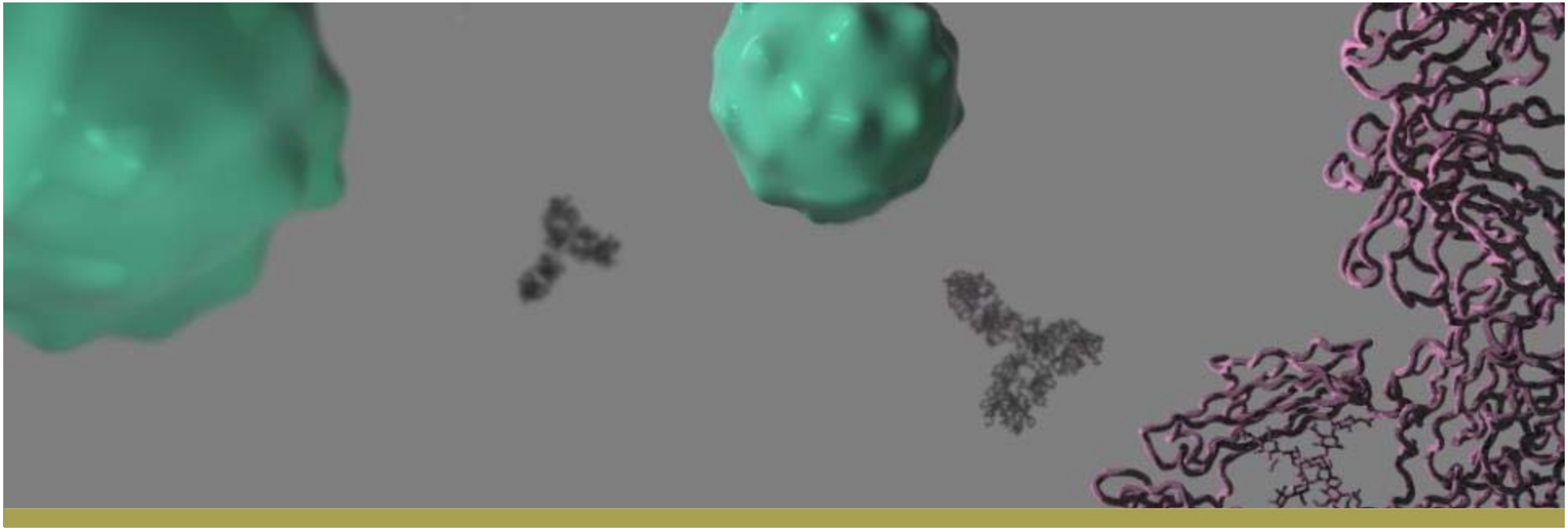
- **FDA approval – 1st antibody for heavily pre-treated or double refractory MM**
- Regulatory submission in double refractory MM in EU
- Positive Phase II data in double refractory MM
- Enrollment complete in two Phase III studies (Pollux & Castor)
- $80 M in milestones from Janssen collaboration

Arzerra® (ofatumumab)

- US & EU regulatory submissions in maintenance CLL – Priority Review from FDA
- Positive Phase III data in relapsed CLL
- Collaboration transferred from GSK to Novartis for cancer indications; transfer pending for autoimmune indications

Other Key Highlights

- Encouraging preliminary Phase I data for HuMax-TF-ADC
- DuoBody® commercial collaborations with Novo Nordisk, BioNovion & BioNTech
- Progress in DuoBody commercial collaboration with Janssen
- Acquired rights to antibodies & IP from iDD Biotech & BMS
- Strong financials; guidance improved; record year



News from the Clinic

Daratumumab

Presented by Dr. Peter Voorhees, M.D., *School of Medicine, University of North Carolina at Chapel Hill*

Genmab

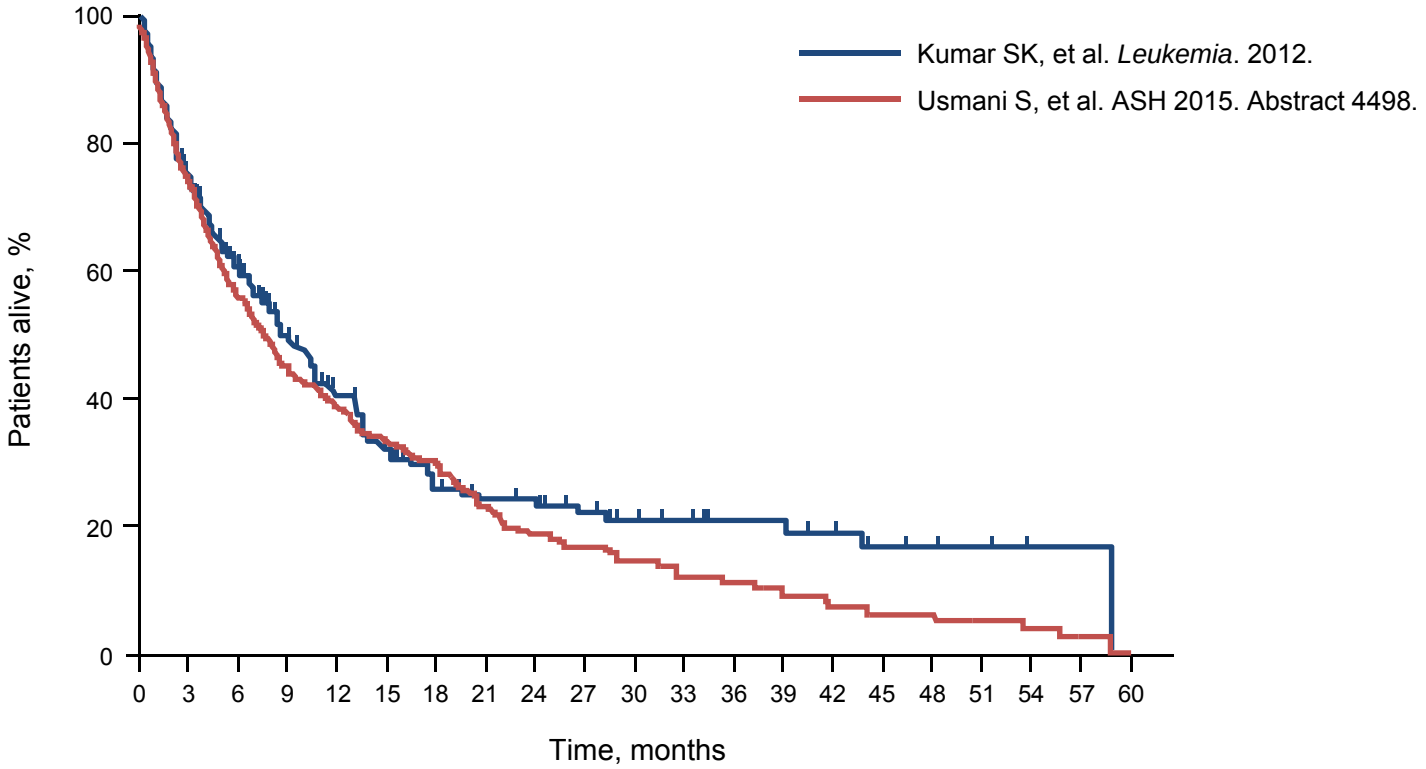
Clinical Efficacy of Daratumumab Monotherapy in Patients With Heavily Pretreated Relapsed or Refractory Multiple Myeloma

Saad Z. Usmani, MD[1]; Brendan M. Weiss, MD[2]; Nizar J. Bahlis, MD[3]; Andrew Belch, MD[4]; Sagar Lonial, MD[5]; Henk M. Lokhorst, MD[6]; Peter M. Voorhees, MD[7]; Paul G. Richardson, MD[8]; A. Kate Sasser, PhD[9]; Amy Axel PhD[9]; Huaibao Feng, PhD[10]; Clarissa M. Uhlar, PhD[9]; Jianping Wang, PhD[9]; Imran Khan, MD[10]; Tahamtan Ahmadi, MD[9]; Hareth Nahi, MD[11]

[1]Levine Cancer Institute/Carolinas HealthCare System, Charlotte, NC, USA; [2]Division of Hematology-Oncology, Department of Medicine, Abramson Cancer Center and Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA; [3]Tom Baker Cancer Center–University of Calgary, Calgary, AB, Canada; [4]Cross Cancer Institute, Edmonton, AB, Canada; [5]Department of Hematology and Medical Oncology, Winship Cancer Institute, Emory University, Atlanta, GA, USA; [6]Department of Hematology, VU University Medical Center, Amsterdam, The Netherlands; [7]Division of Hematology/Oncology, Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA; [8]Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA; [9]Janssen Research & Development, LLC, Spring House, PA, USA; [10]Janssen Research & Development, LLC, Raritan, NJ, USA; [11]Karolinska Institute, Department of Medicine, Division of Hematology, Karolinska University Hospital at Huddinge, Stockholm, Sweden.

Relapsed and Refractory MM

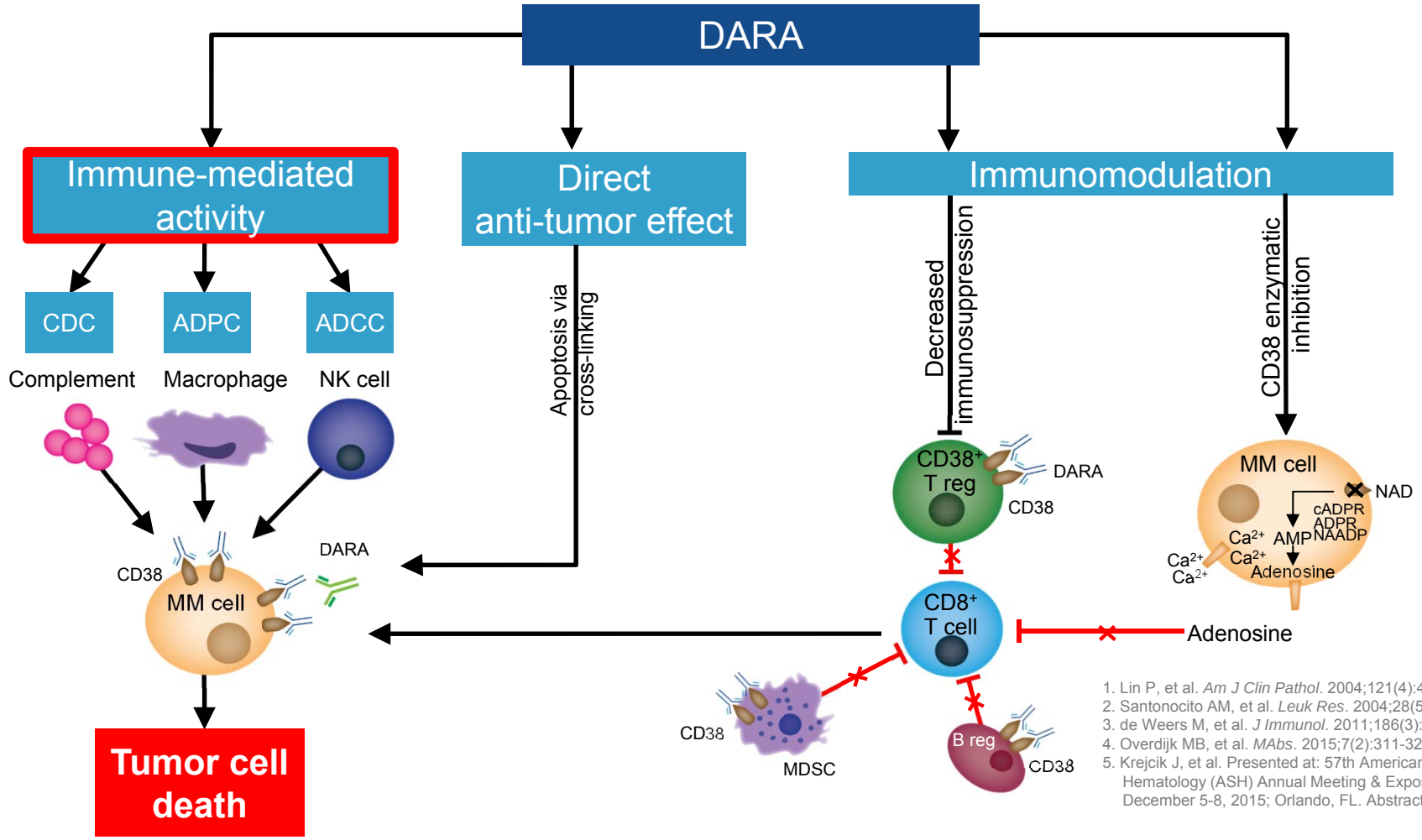
- Despite the introduction of IMiDs and PIs, most patients relapse and outcomes are poor in relapsed or refractory patients[1]
  - Median OS of 9 months in patients refractory to bortezomib and at least 1 IMiD[1]
  - Median OS of 8 months in patients with relapsed or refractory MM who were double refractory or had relapsed after ≥3 prior lines of therapy, including pomalidomide and carfilzomib[2]



1. Kumar SK, et al. *Leukemia*. 2012;26(1):149-157.
2. Usmani S, et al. Presented at: 57th American Society of Hematology (ASH) Annual Meeting & Exposition; December 5-8, 2015; Orlando, FL. Abstract 4498.

DARA: Mechanisms of Action

- CD38 is highly and ubiquitously expressed on myeloma cells[1,2]
- DARA is a human IgG1 monoclonal antibody that binds CD38-expressing cells
- DARA binding to CD38 induces tumor cell death through direct and indirect mechanisms[3-5]



1. Lin P, et al. *Am J Clin Pathol*. 2004;121(4):482-488.
2. Santonocito AM, et al. *Leuk Res*. 2004;28(5):469-477.
3. de Weers M, et al. *J Immunol*. 2011;186(3):1840-1848.
4. Overdijk MB, et al. *MAbs*. 2015;7(2):311-321.
5. Krejcik J, et al. Presented at: 57th American Society of Hematology (ASH) Annual Meeting & Exposition; December 5-8, 2015; Orlando, FL. Abstract 3037.

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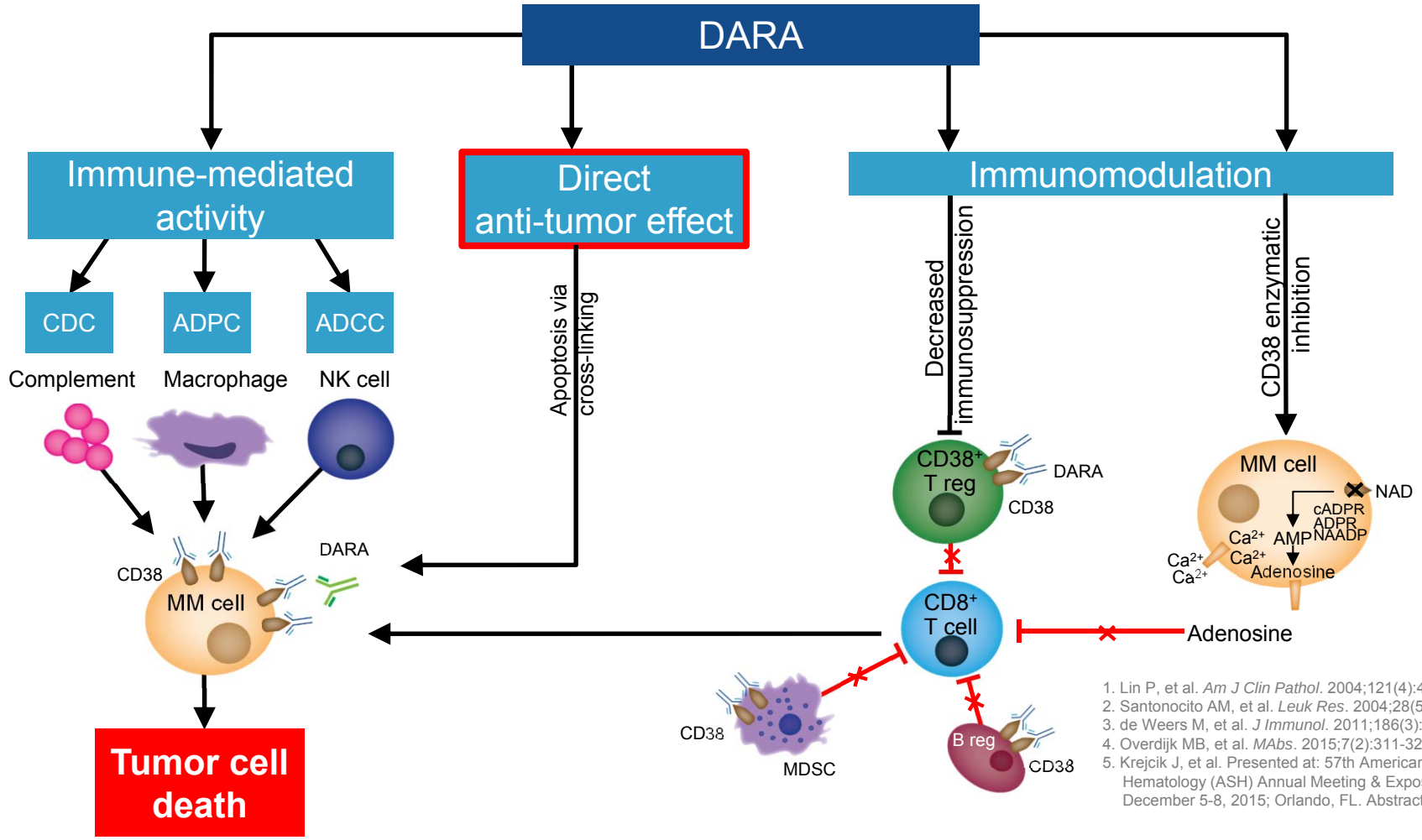

1. Lin P, et al. *Am J Clin Pathol*. 2004;121(4):482-488.
2. Santonocito AM, et al. *Leuk Res*. 2004;28(5):469-477.
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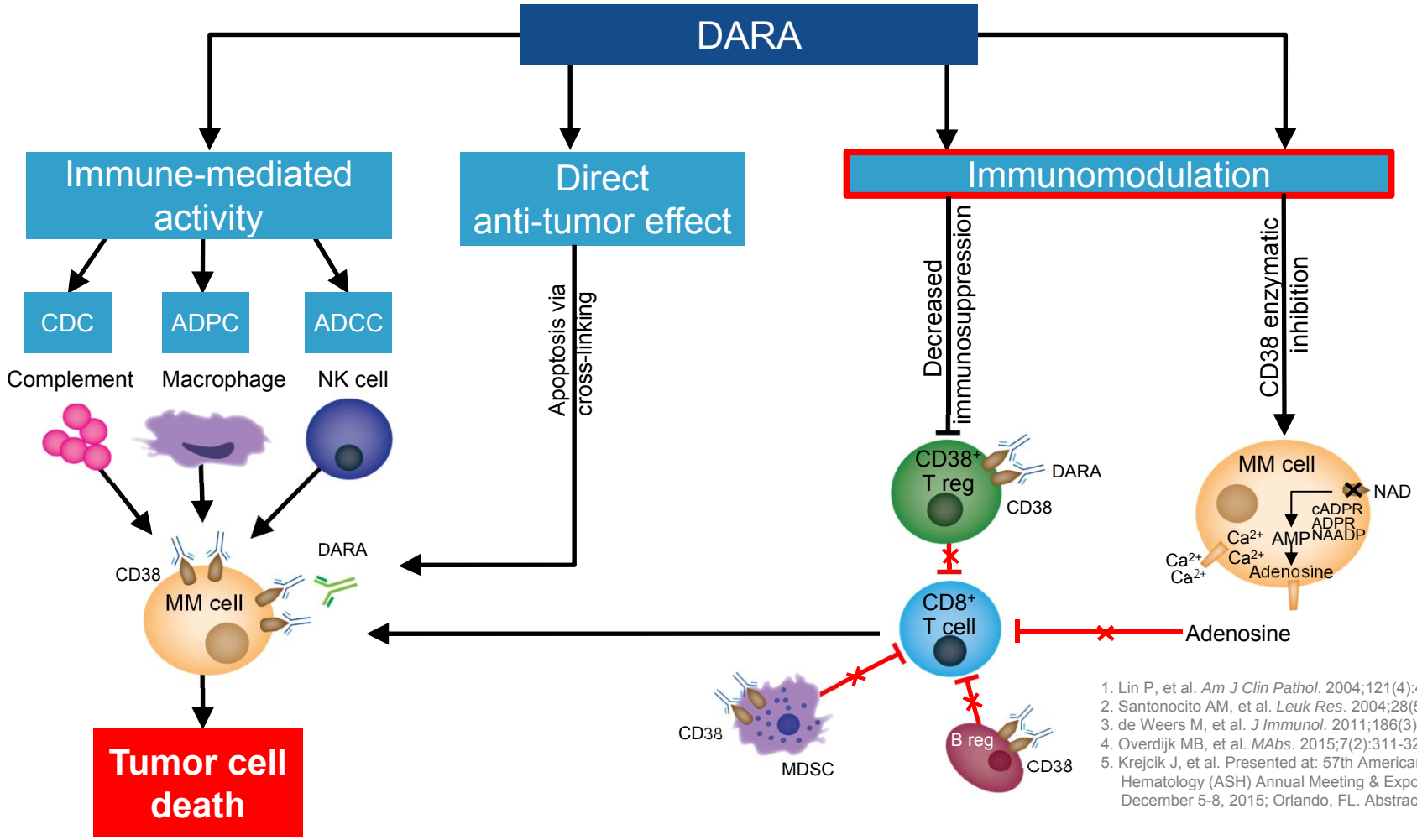

1. Lin P, et al. *Am J Clin Pathol*. 2004;121(4):482-488.
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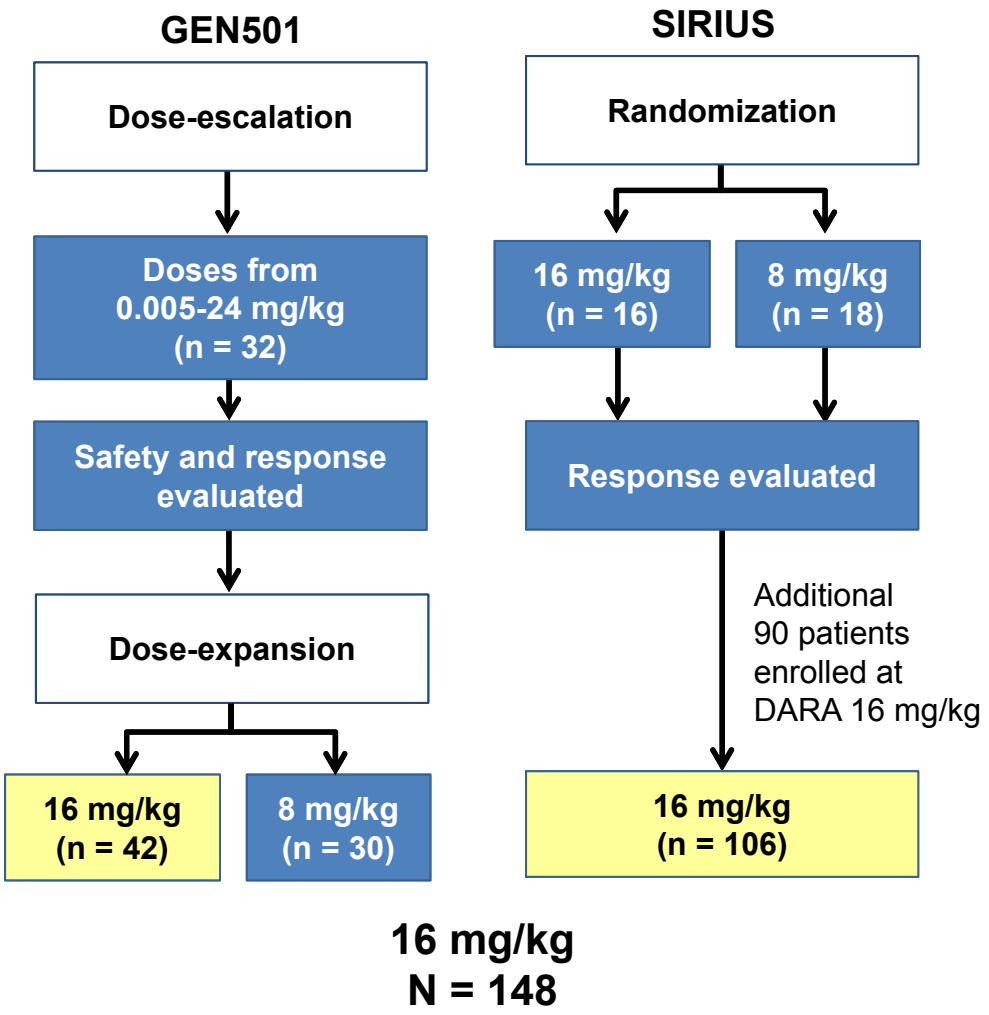
DARA Monotherapy Studies

- ≥18 years of age, ECOG status ≤2[1,2]
- GEN501[1]
  - Open-label, multicenter, phase 1/2, dose-escalation and dose-expansion study
  - Relapsed from or refractory to ≥2 prior lines of therapy including PIs and IMiDs
- SIRIUS[2]
  - Open-label, multicenter, phase 2 study
  - Patients had received ≥3 prior lines of therapy, including a PI and an IMiD, or were double refractory to a PI and an IMID
- DARA was approved by the FDA on November 16, 2015, based on these studies



1. Lokhorst HM, et al. *N Engl J Med*. 2015;373(13):1207-1219.
2. Lonial S, et al. *Lancet*. 2015. In press.

Baseline Characteristics

	16 mg/kg		
	GEN501, Part 2 n = 42	SIRIUS n = 106	Combined N = 148
Median (range) age, y ≥65 years of age, n (%)	64.0 (44-76) 20 (48)	63.5 (31-84) 48 (45)	64 (31-84) 68 (46)
Female/male sex, %	36/64	51/49	53/47
ECOG score, n (%) 0 1 2	 12 (29) 28 (67) 2 (5)	 29 (27) 69 (65) 8 (8)	 41 (28) 97 (66) 10 (7)
Median (range) time since diagnosis, y	5.8 (0.8-23.7)	4.8 (1.1-23.8)	5.1 (0.8-23.8)
Median (range) number of prior lines >3 prior lines, n (%)	4 (2-12) 26 (62)	5 (2-14) 87 (82)	5 (2-14) 113 (76)
Prior ASCT, n (%)	31 (74)	85 (80)	116 (78)
Prior PI, n (%) Bortezomib Carfilzomib	42 (100) 42 (100) 8 (19)	106 (100) 105 (99) 53 (50)	148 (100) 147 (99) 61 (41)
Prior IMiD, n (%) Lenalidomide Pomalidomide Thalidomide	40 (95) 40 (95) 15 (36) 19 (45)	106 (100) 105 (99) 67 (63) 47 (44)	146 (99) 145 (98) 82 (55) 66 (45)

Baseline Refractory Status

Refractory to, n (%)	GEN501, Part 2 n = 42	16 mg/kg SIRIUS n = 106	Combined N = 148
Last line of therapy	32 (76)	103 (97)	135 (91)
Both PI and IMiD PI only IMiD only	27 (64) 3 (7) 4 (10)	101 (95) 3 (3) 1 (1)	128 (86) 6 (4) 5 (3)
PI + IMiD + alkylating agent	21 (50)	79 (75)	100 (68)
Bortezomib	30 (71)	95 (90)	125 (84)
Carfilzomib	**7 (17)**	**51 (48)**	**58 (39)**
Lenalidomide	31 (74)	93 (88)	124 (84)
Pomalidomide	**15 (36)**	**67 (63)**	**82 (55)**
Thalidomide	12 (29)	29 (27)	41 (28)
Alkylating agent only	25 (60)	82 (77)	107 (72)

Patient Disposition

	16 mg/kg		
	GEN501, Part 2 n = 42	SIRIUS n = 106	Combined N = 148
Discontinued from treatment, n (%)	31 (74)	96 (91)	127 (86)
Progressive disease	26 (62)	88 (83)	114 (77)
Adverse event	1 (2)	5 (5)	6 (4)
Physician decision	4 (10)	0	4 (3)
Withdrawal of consent	0	3 (3)	3 (2)

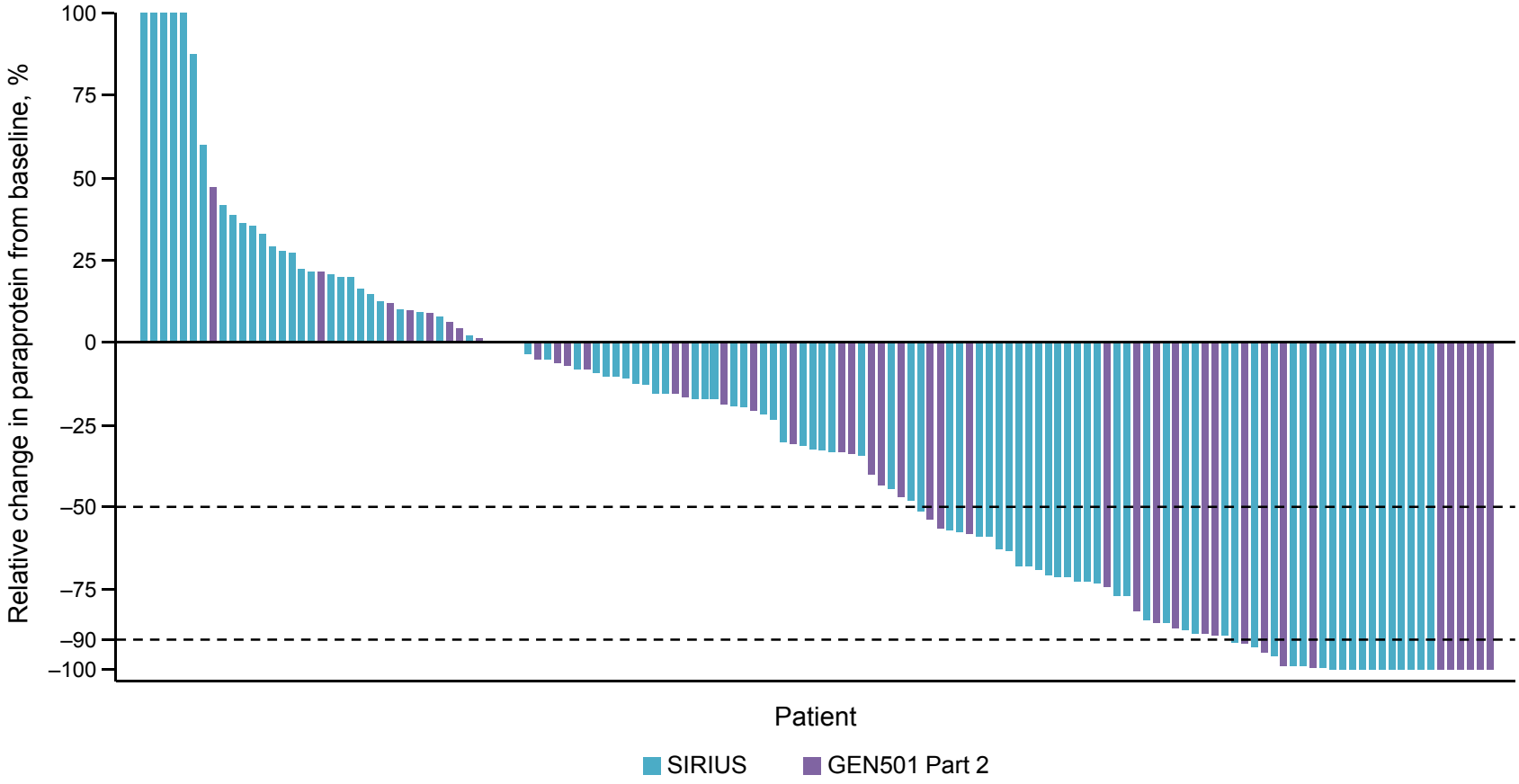
- In the combined dataset
  - Median (range) duration of treatment = 3.4 (0-20) months
  - Median (range) number of infusions = 12 (1-33)
- Death within 30 days of the last dose of treatment = 14
  - 11 (7%) progressive disease
  - 3 (2%) adverse events

Summary of Clinical Safety

Treatment-emergent adverse event, n (%)	Any grade N = 148	Grade ≥3 N = 148
Fatigue	61 (41)	3 (2)
Nausea	42 (28)	0
Anemia	41 (28)	26 (18)
Back pain	36 (24)	3 (2)
Cough	33 (22)	0
Neutropenia	30 (20)	15 (10)
Thrombocytopenia	30 (20)	21 (14)
Upper respiratory tract infection	30 (20)	1 (<1)

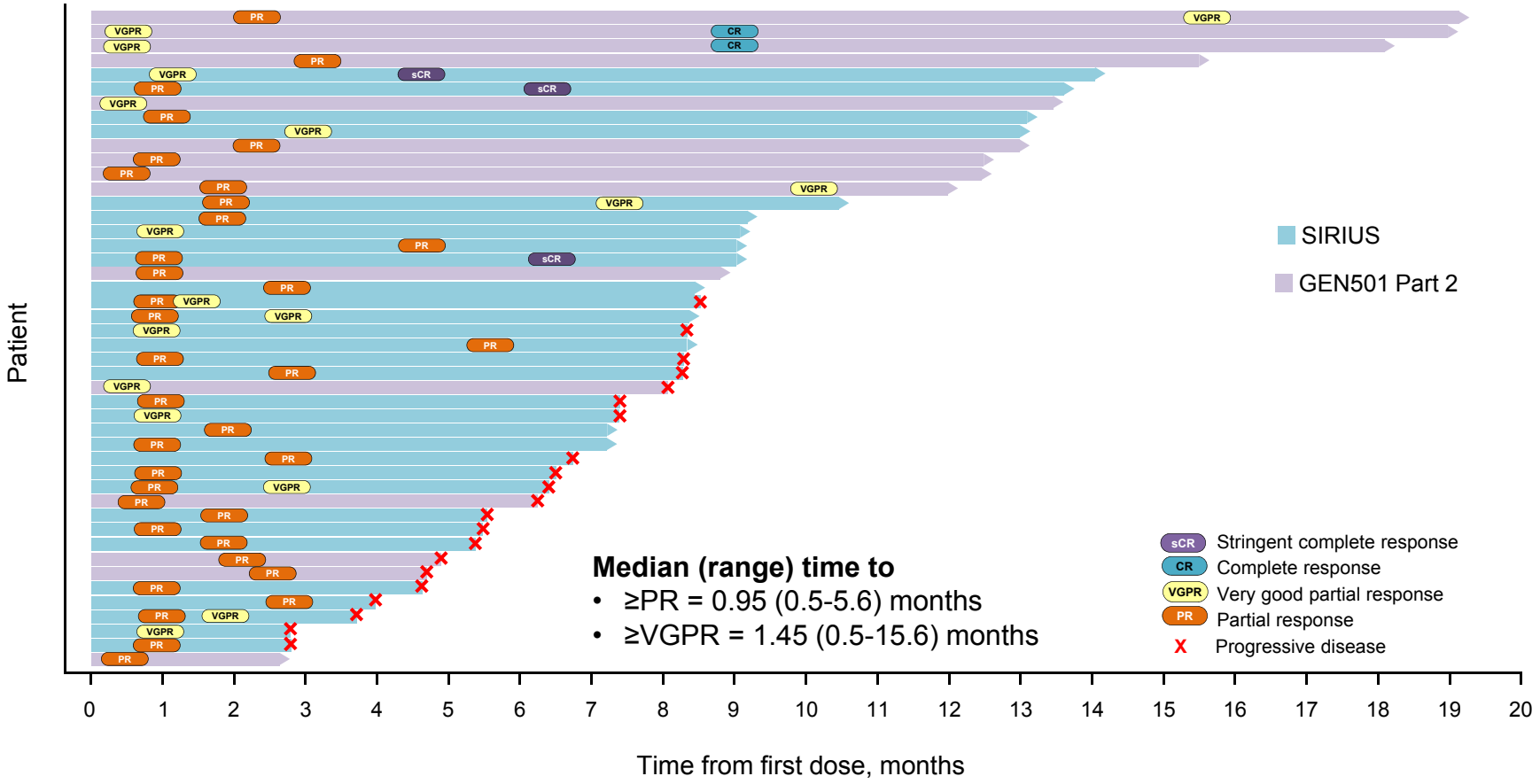
- AEs were consistent with the individual GEN501 and SIRIUS studies; no new safety signals were identified
- 48% of patients had infusion-related reactions
  - 46%, 4%, and 3% occurred during the first, second, and subsequent infusions, respectively

Change in Paraprotein From Baseline



- 40 of 46 responders are still alive at a median follow-up of 14.8 months

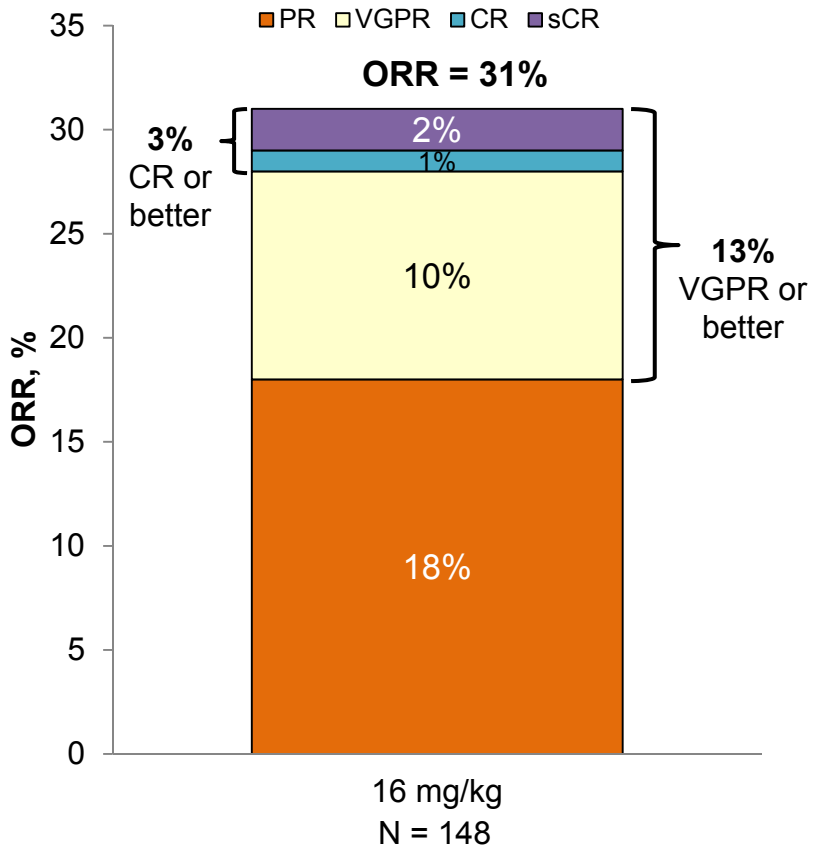
Depth and Duration of Response



- In many patients, responses deepened with continued DARA treatment
- Median duration of response = 7.6 (95% CI, 5.6-NE) months
- At a median follow-up of 14.8 months, 50% (95% CI, 33.6-63.9) of responders were progression-free at 12 months

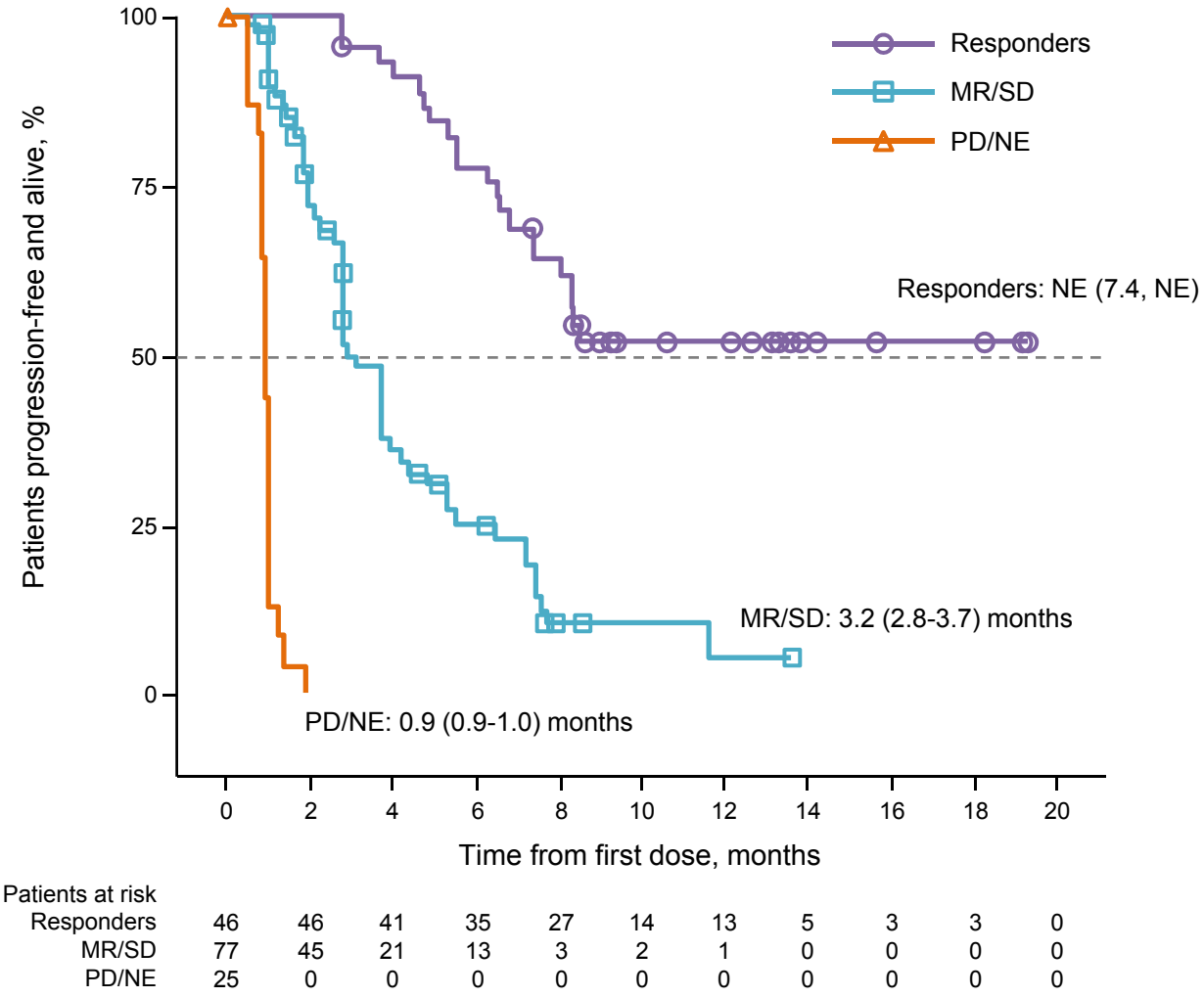
Efficacy in Combined Analysis

	16 mg/kg (N = 148)	
	n (%)	**95% CI**
Overall response rate (sCR+CR+VGPR+PR)	**46 (31)**	**23.7-39.2**
Best response		
sCR	3 (2)	0.4-5.8
CR	2 (1)	0.2-4.8
VGPR	14 (10)	5.3-15.4
PR	27 (18)	12.4-25.4
MR	9 (6)	2.8-11.2
SD	68 (46)	37.7-54.3
PD	18 (12)	7.4-18.5
NE	7 (5)	1.9-9.5
VGPR or better (sCR+CR+VGPR)	19 (13)	7.9-19.3
CR or better (sCR+CR)	5 (3)	1.1-7.7

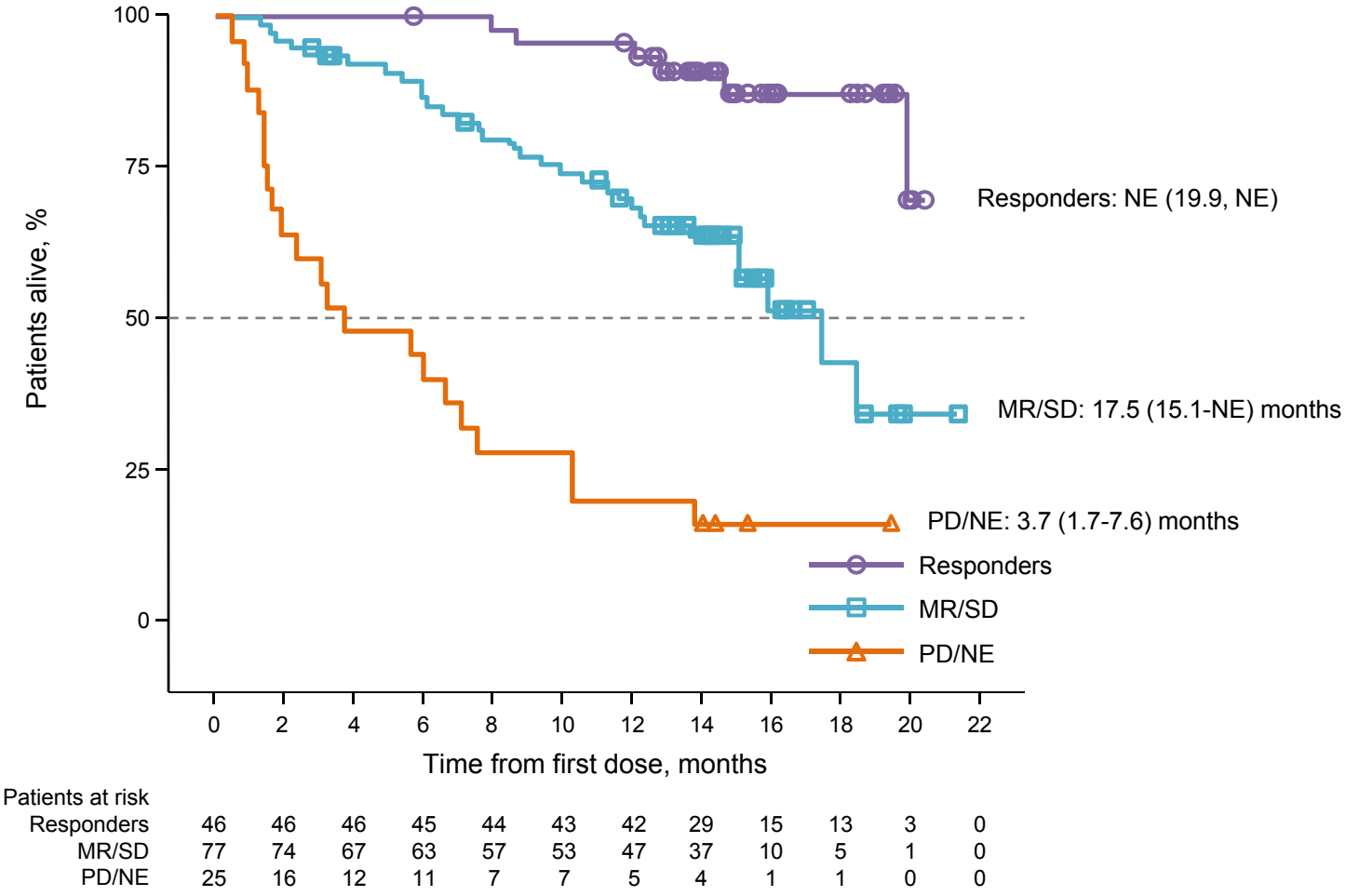


- ORR = 31%
- ORR was consistent in subgroups including age, number of prior lines of therapy, refractory status, or renal function

Progression-free Survival



Overall Survival



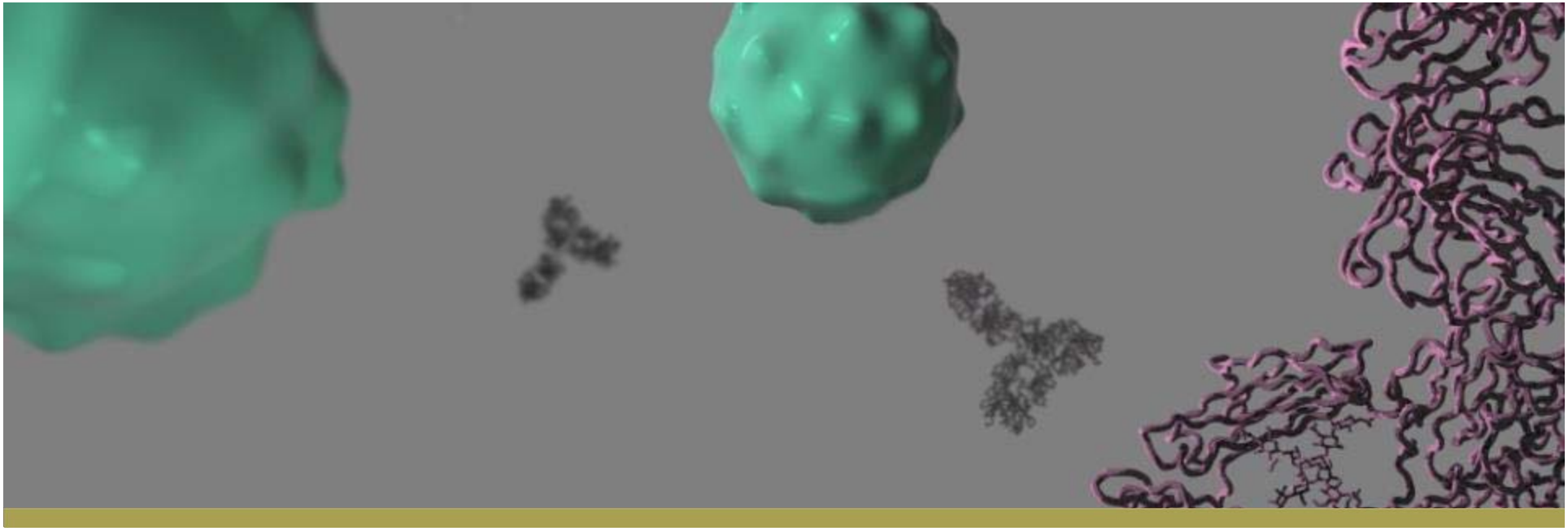
- For the combined analysis, median OS = 19.9 (95% CI, 15.1-NE) months
- 1-year overall survival rate = 69% (95% CI, 60.4-75.6)

Conclusions

- As a single agent, DARA induced rapid, deep, and durable responses in a heavily pretreated/highly refractory population
- Remarkable depth of response observed in patients refractory to newer agents, including pomalidomide and carfilzomib
- DARA conferred an OS benefit even in patients who achieved stable disease or minimal response
- Updated analysis of the combined dataset of GEN501 and SIRIUS did not identify any new safety signals
- DARA has immune-mediated and immunomodulatory mechanisms that may be contributing to a survival benefit

Acknowledgments

- The authors acknowledge the patients who participated in this study and their families, as well as the study co-investigators, research nurses, and coordinators at each of the clinical sites, the Independent Review Committee, and research teams
- This study was funded by Janssen Research & Development, LLC
- Medical writing and editorial support were provided by Erica S. Chevalier-Larsen, PhD (MedErgy) and were funded by Janssen Global Services, LLC



News from the Clinic

Daratumumab

Presented by Prof. Torben Plesner, *Vejle Hospital*

Genmab

Daratumumab in Combination With Lenalidomide and Dexamethasone in Patients With Relapsed or Relapsed and Refractory Multiple Myeloma: Updated Results of a Phase 1/2 Study (GEN503)

Torben Plesner, MD,PhD[1]; Hendrik-Tobias Arkenau, MD[2]; Peter Gimsing, MD, PhD[3]; Jakub Krejcik, MD[1]; Charlotte Lemech, MD[2]; Monique C. Minnema, MD, PhD[4]; Ulrik Lassen, MD, PhD[3]; Jacob P. Laubach, MD[5]; Antonio Palumbo, MD[6]; Steen Lisby, MD[7]; Linda Basse, MD, DMSc[7]; Jianping Wang, PhD[8]; Kate Sasser, PhD[9]; Mary E. Guckert, MSN, RN[9]; Howard Yeh, MD[8]; Tahamtan Ahmadi, MD, PhD[9]; Henk M. Lokhorst, MD, PhD[10]; Paul G. Richardson, MD[5]

[1]Vejle Hospital, Vejle, Denmark; [2]Sarah Cannon Research Institute, London, UK; [3]Department of Haematology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark; [4]Department of Hematology, UMC Utrecht Cancer Center, Utrecht, The Netherlands; [5]The LeBow Institute for Myeloma Therapeutics and the Jerome Lipper Myeloma Center, Department of Medical Oncology, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA; [6]Myeloma Unit, Division of Hematology, University of Torino, Torino, Italy; [7]Genmab A/S, Copenhagen, Denmark; [8]Janssen Research & Development, LLC, Raritan, NJ, USA; [9]Janssen Research & Development, LLC, Spring House, PA, USA; [10]Department of Hematology, VU University Medical Center, Amsterdam, The Netherlands.

Background

- In DARA monotherapy studies in patients with heavily pretreated/ highly refractory MM, we observed an ORR of 31% and a median OS of 19.9 months[1]
- Based on these data, DARA received FDA approval in this population
  - DARA is the first monoclonal antibody approved for the treatment of myeloma
- In randomized, phase 3 studies, LEN/DEX resulted in an ORR of 61% to 66% and a median PFS of 11 to 14.9 months in patients receiving ≥1 line of previous treatment[2,3]
- Here, we present data from a phase 1/2 study of DARA + LEN/DEX in relapsed or relapsed and refractory patients

1. Usmani S, et al. Presented at: 57th American Society of Hematology (ASH) Annual Meeting & Exposition; December 5-8, 2015; Orlando, FL. Abstract 29.
2. Dimopoulos MA, et al. *Leukemia*. 2009;23(11):2147-2152.
3. Lonial S, et al. *New Engl J Med*. 2015;373(7):621-631.

Phase 2 DARA + LEN/DEX

Key eligibility

- Measurable disease by M-protein
- Patients refractory or intolerant to LEN were excluded

Part 1

- Relapsed MM following 2 to 4 prior lines of therapy

Part 2

- Relapsed MM following ≥1 prior line of therapy (no upper limit)

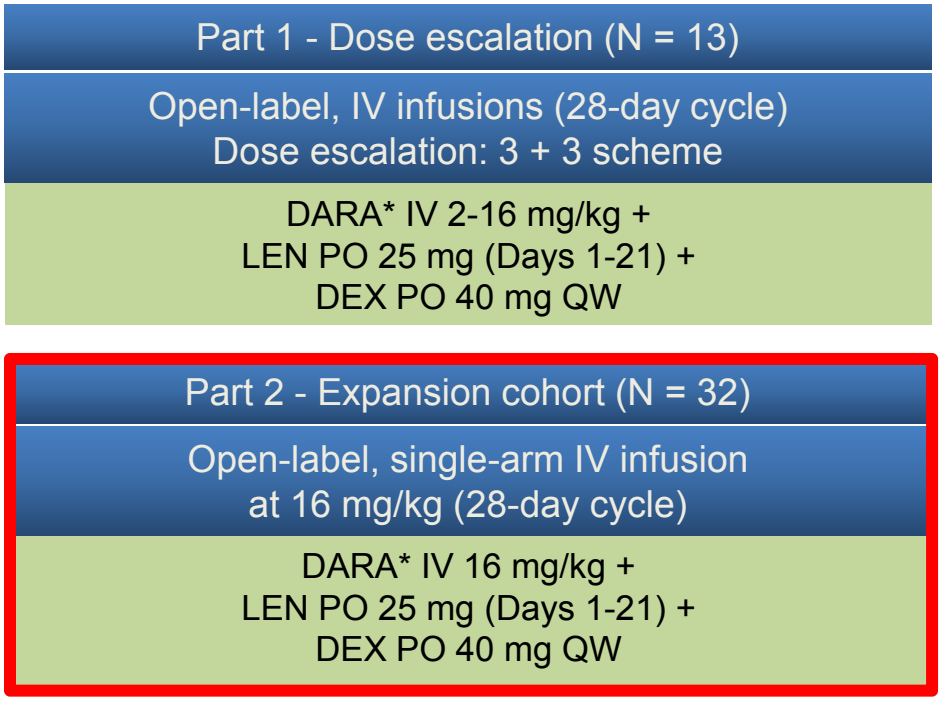
Endpoints

Primary endpoint

- Incidence of adverse events

Key secondary endpoints

- Rate of response
- Pharmacokinetics
- Time to progression
- Duration of response
- Progression-free survival

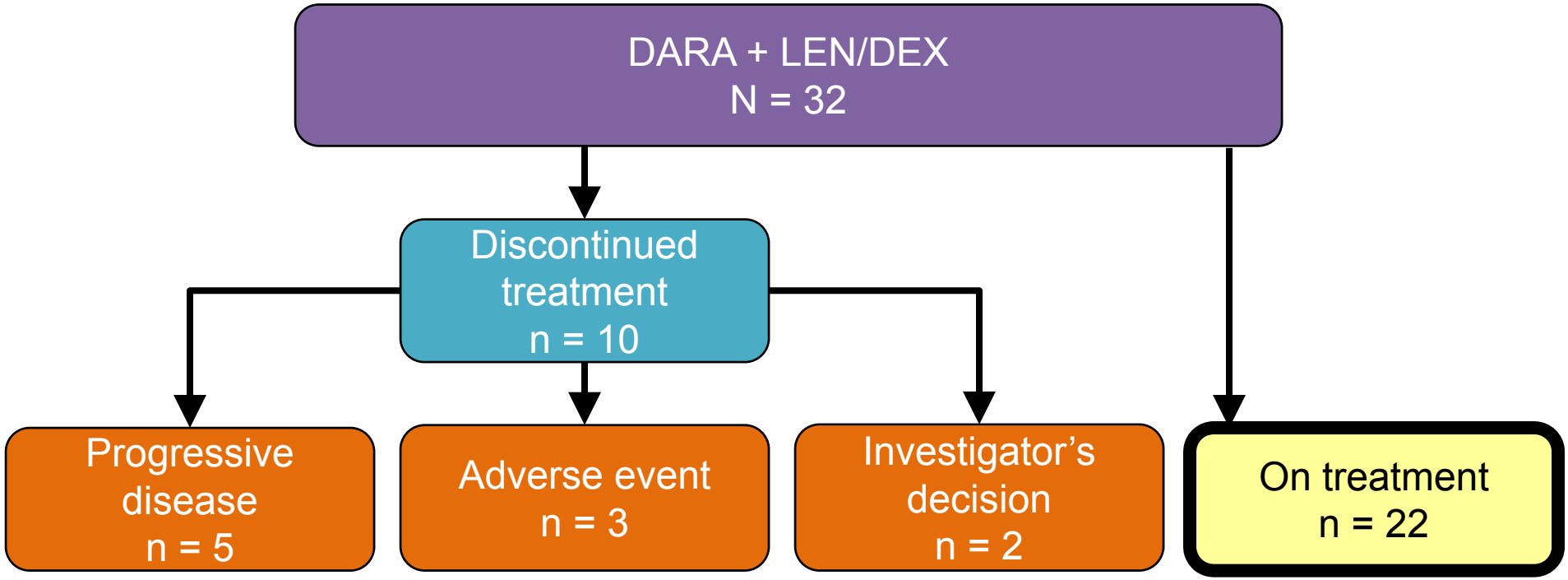


*QW for Months 1-2, Q2W for Months 3-6, and Q4W beyond.

Baseline Characteristics

	N = 32
Median (range) age, y	60 (41-76)
≥65 years of age, n (%)	9 (28)
Female/male sex, %	31/69
ECOG score, n (%)	
0	19 (59)
1	12 (38)
2	1 (3)
Median (range) time since diagnosis, y	3.2 (0.9-12.7)
Median (range) number of lines of prior therapy	2 (1-3)
≥2 prior lines of therapy, n (%)	17 (53)
Refractory to last line of therapy	7 (22)
Prior autologous stem cell transplant, n (%)	25 (78)
Prior PI, n (%)	29 (91)
Bortezomib	28 (88)
Prior IMiD, n (%)	23 (72)
Lenalidomide	11 (34)
Thalidomide	14 (44)
Prior chemotherapy, n (%)	32 (100)
Alkylating agents	29 (91)
Anthracyclines	15 (47)

Patient Disposition



- 3 treatment-related AEs led to discontinuation: 1 case of gastric adenocarcinoma (unrelated to DARA or LEN), 1 case of laryngeal edema (DARA-related) and 1 case of viral pneumonia (DARA- and LEN/DEX-related)
- 3 deaths occurred in Part 2 of the study, 2 due to progressive disease and 1 due to an AE (viral pneumonia)
- 22 of 32 (69%) patients remain on treatment at a median of 15.6 months of follow-up

Adverse Events in >20% of Patients

	N = 32	
Treatment-emergent adverse event, n (%)	**Any grade**	**Grade ≥3**
Any event	32 (100)	28 (88)
Neutropenia	27 (84)	25 (78)
Cough	16 (50)	0
Diarrhea	14 (44)	1 (3)
Muscle spasms	14 (44)	0
Fatigue	11 (34)	0
Pyrexia	10 (31)	0
Thrombocytopenia	10 (31)	4 (13)
Hypertension	9 (28)	3 (9)
Nausea	9 (28)	0
Anemia	8 (25)	4 (13)
Peripheral edema	8 (25)	0
Upper respiratory tract infection	8 (25)	1 (3)
Peripheral sensory neuropathy	7 (22)	0

- 16 (50%) patients had serious AEs, 8 (25%) of which were due to infection
  - Serious AEs occurring in >1 patient included neutropenia (n = 3), and gastroenteritis and pyrexia (n = 2, each)
- 22 (69%) patients received GCSF during the study

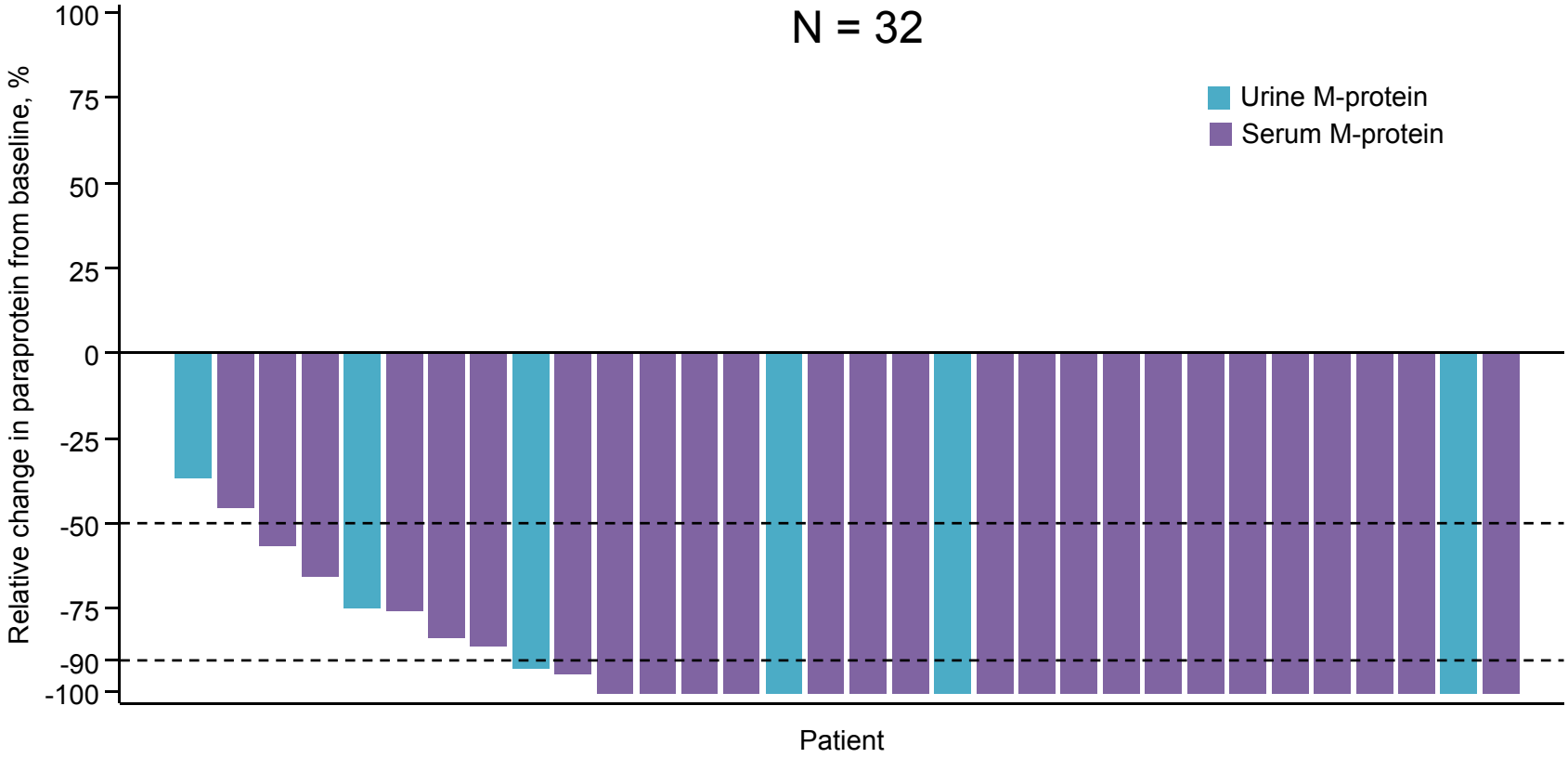
Infusion-related Reactions in >2 Patients

	N = 32	
Infusion-related reaction, n (%)	**Any grade**	**Grade 3**
Any event	18 (56)	2 (6)
Cough	8 (25)	0
Allergic rhinitis	3 (9)	0
Nausea	3 (9)	0
Vomiting	3 (9)	0
Dyspnea	2 (6)	0
Nasal congestion	2 (6)	0

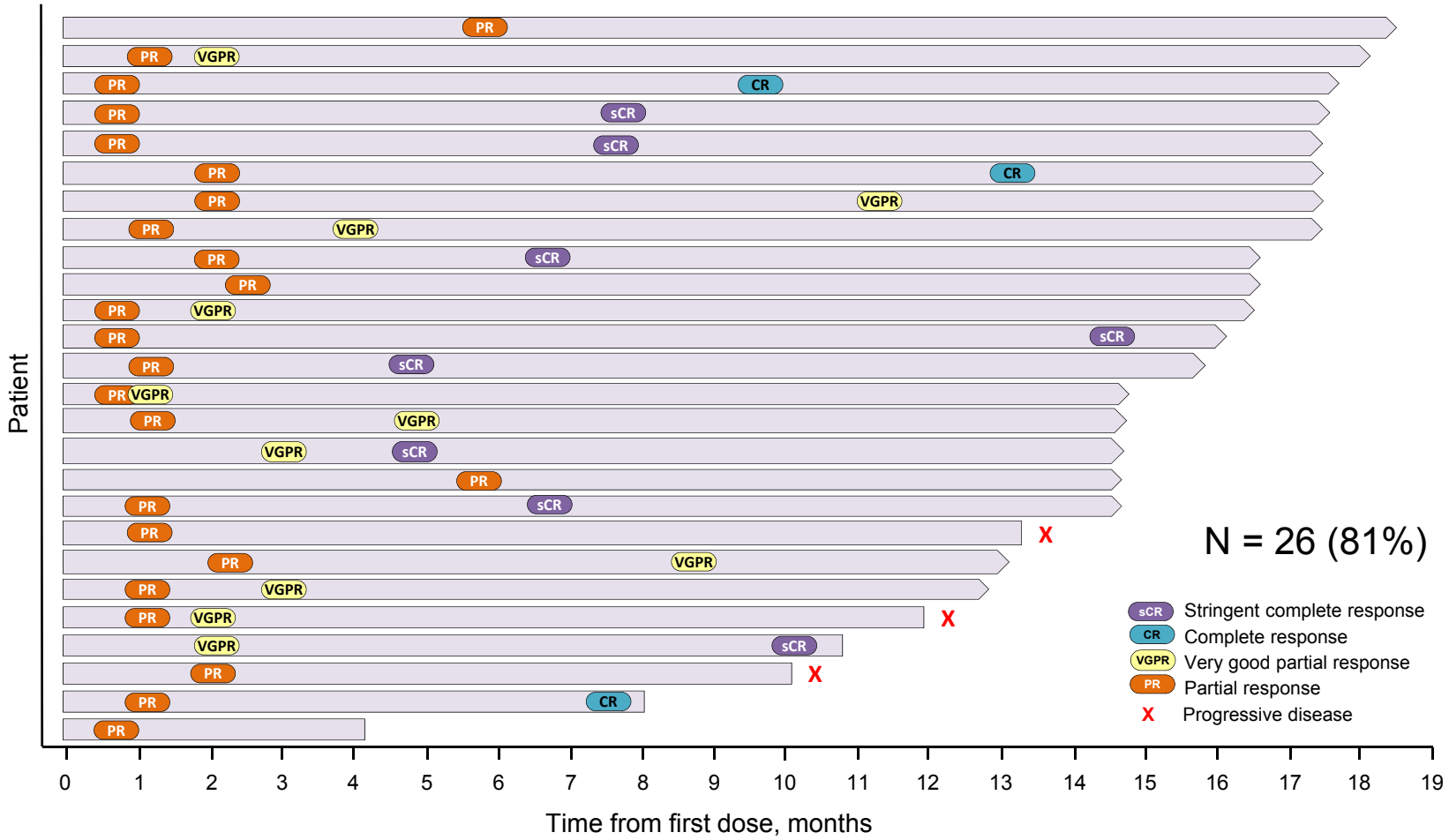
- Type and rate of IRRs were similar to those reported in studies of DARA monotherapy
- The majority of IRRs were grade ≤2
- All patients who experienced IRRs (n = 18) had an IRR during the first infusion
  - 3 patients had IRRs in the second or subsequent infusions
- 2 patients had grade 3 IRRs; 1 patient had laryngeal edema and the other had hypertension
- No grade 4 IRRs were reported

Change in Paraprotein From Baseline:

DARA + LEN/DEX



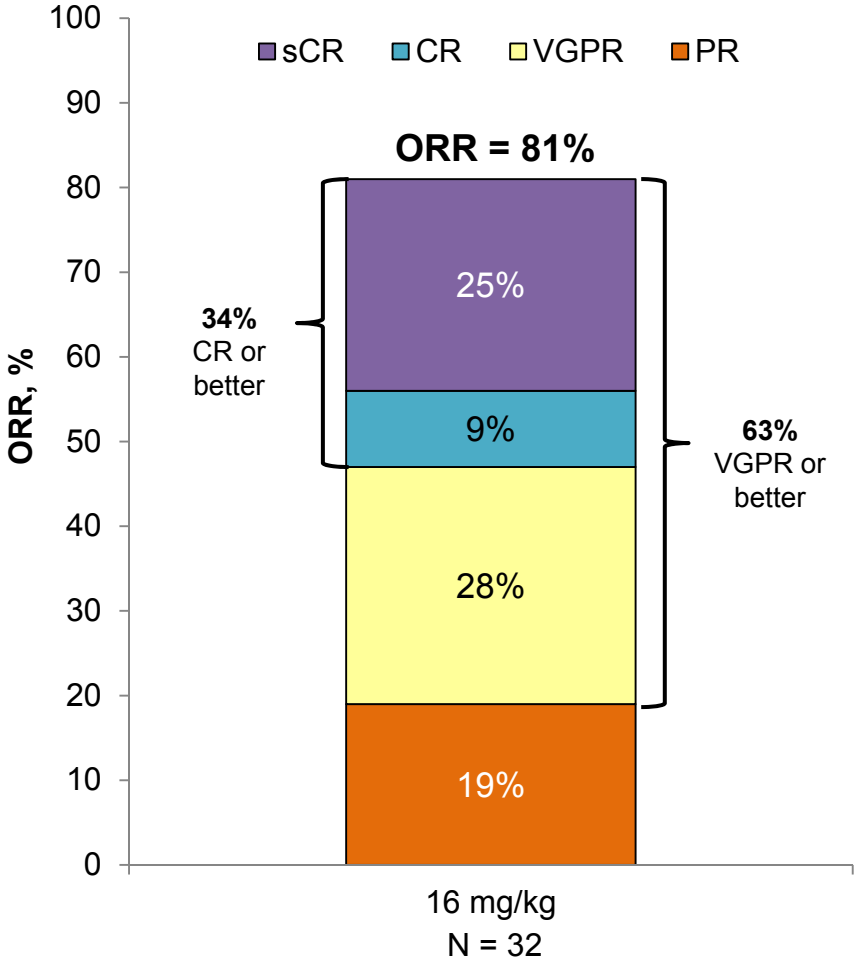
Depth and Duration of Response (≥PR):
DARA + LEN/DEX



- Median (range) time to first response = 1.0 (0.5-5.6) month
- Median (range) time to best response = 5.1 (0.5-14.4) months
- Median duration of response not reached
- 91% were disease progression-free at 12 months

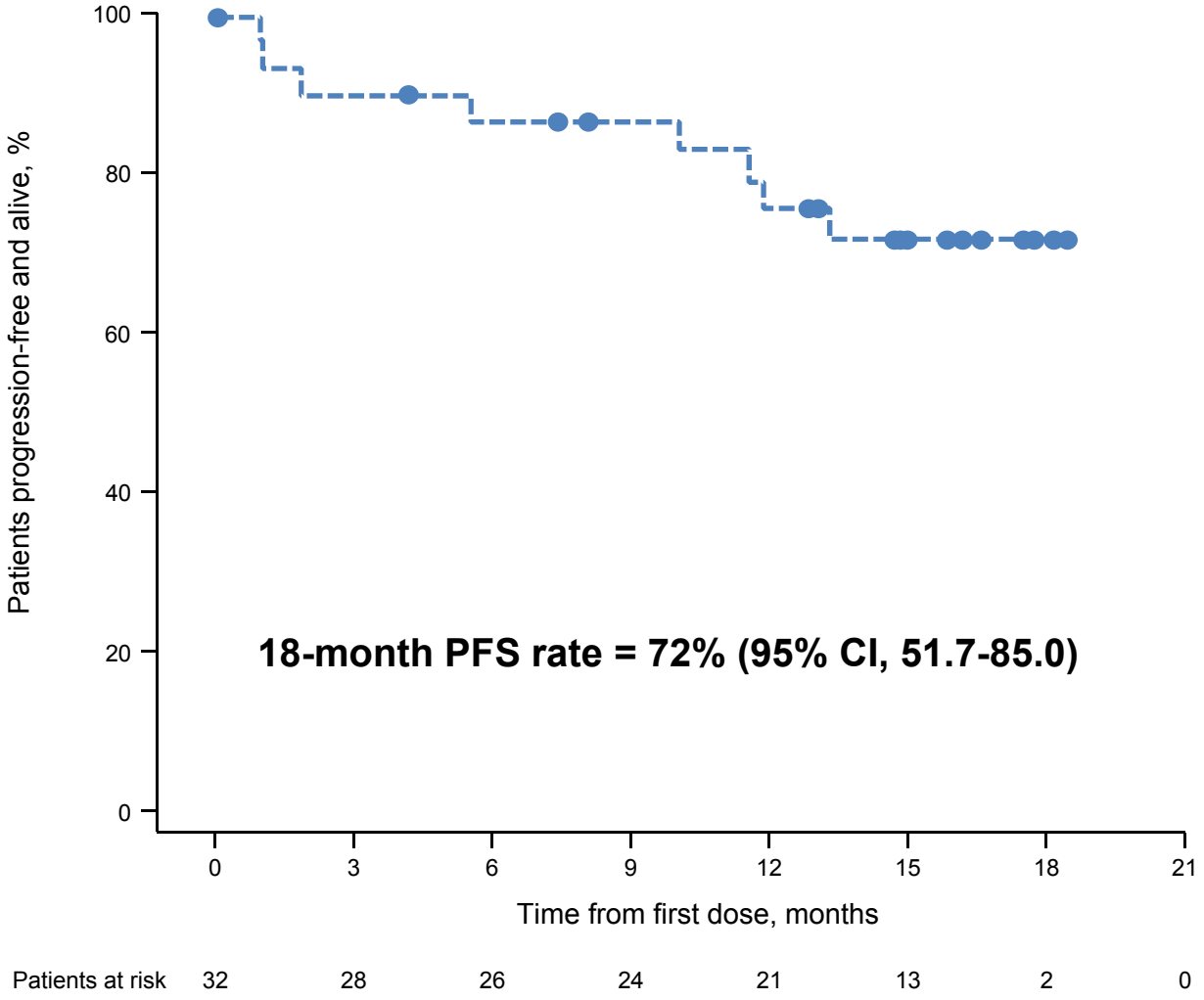
Overall Response Rate:
DARA + LEN/DEX

	N = 32	
	n (%)	**95% CI**
Overall response rate (sCR+CR+VGPR+PR)	**26 (81)**	**63.6-92.8**
Best response		
sCR	8 (25)	11.5-43.4
CR	3 (9)	2.0-25.0
VGPR	9 (28)	13.7-46.7
PR	6 (19)	7.2-36.4
VGPR or better (sCR+CR+VGPR)	20 (63)	43.7-78.9
CR or better (sCR+CR)	11 (34)	18.6-53.2



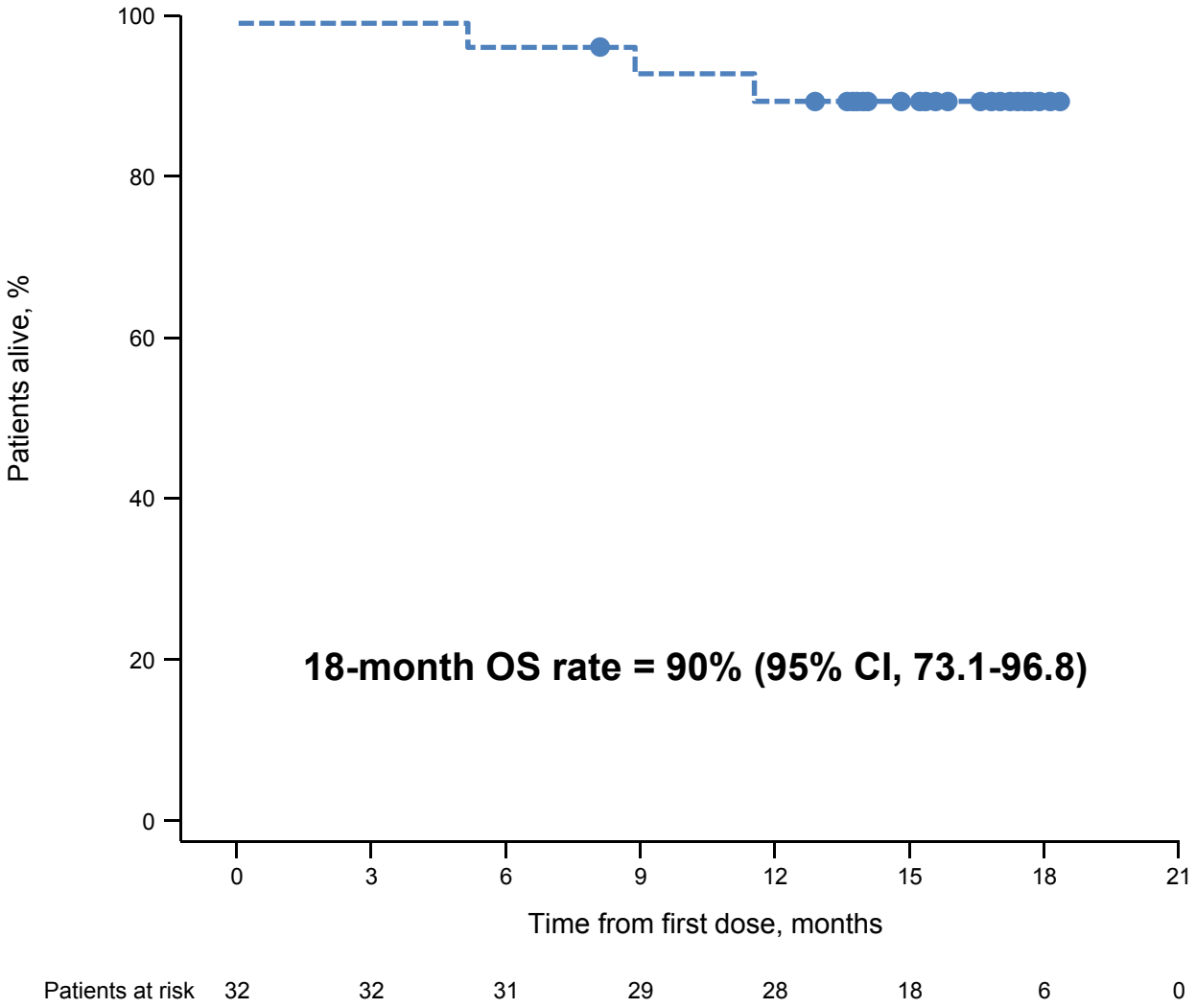
- ORR = 81%
- Clinical benefit rate (ORR + minimal response) = 88%

Progression-free Survival:
DARA + LEN/DEX



Overall Survival:

DARA + LEN/DEX



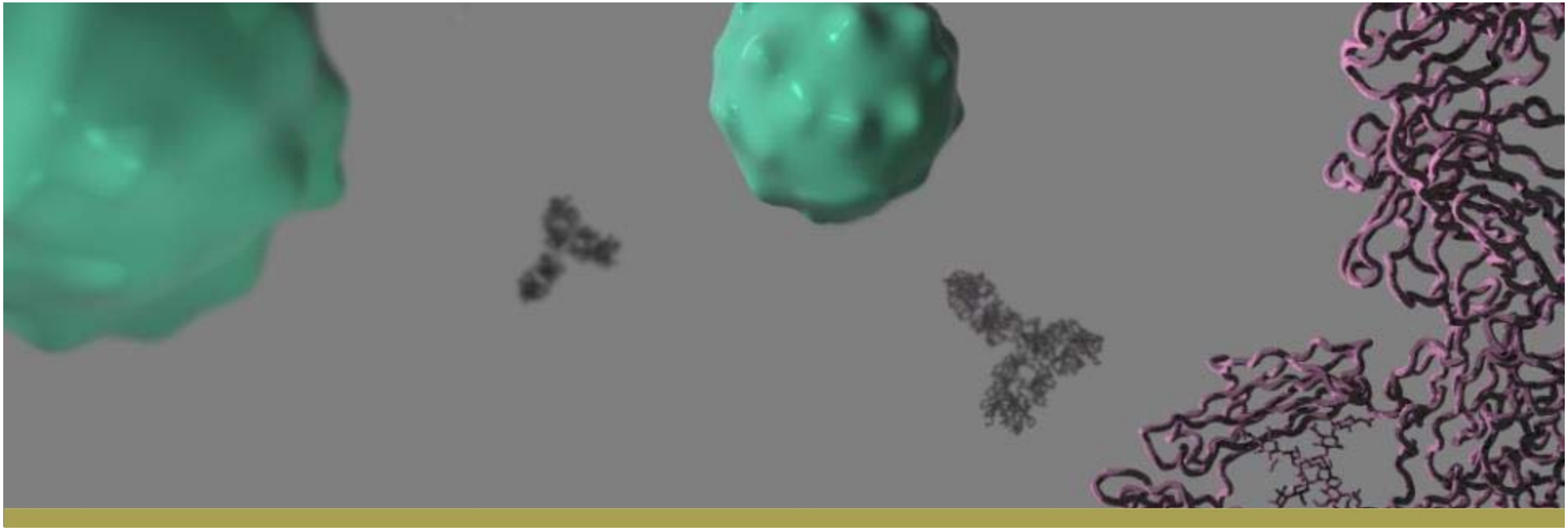
Conclusions

- DARA + LEN/DEX induced rapid, deep, and durable responses
  - At a median follow-up time of 15.6 months, ORR was 81% including 28% VGPR and 34% CR/sCR
  - Median time to first response was 1 month
  - PFS rate of 72% at 18 months
  - OS rate of 90% at 18 months
- DARA can be safely combined with LEN/DEX with no additional safety signals
- Randomized phase 3 studies of DARA are ongoing:
  - DARA + LEN/DEX in relapsed/refractory patients (POLLUX)*
  - DARA + LEN/DEX in newly diagnosed patients (MAIA)†

*ClinicalTrials.gov Identifier: NCT02076009
†ClinicalTrials.gov Identifier: NCT02252172

Acknowledgments

- The authors acknowledge the patients who participated in this study and their families, as well as the study co-investigators, research nurses, and coordinators at each of the clinical sites; they also acknowledge Nushmia Khokhar, MD, for clinical oversight, and the Independent Review Committee
- This study was funded by Janssen Research & Development, LLC
- Medical writing and editorial support were provided by Erica S. Chevalier-Larsen, PhD (MedErgy) and were funded by Janssen Global Services, LLC



News from the Clinic

Daratumumab

Presented by Prof. Thierry Facon, *Lille University Hospital*

Genmab

Open-label, Multicenter, Phase 1b Study of Daratumumab in Combination With Pomalidomide and Dexamethasone in Patients With ≥2 Lines of Prior Therapy and Refractory or Relapsed and Refractory Multiple Myeloma (MM)

Ajai Chari, MD[1]; Sagar Lonial, MD[2]; Attaya Suvannasankha, MD[3]; Joseph W. Fay, MD[4]; Bertrand Arnulf, MD, PhD[5]; Jainulabdeen J. Ifthikharuddin, MD[6]; Xiang Qin, MS[7]; Tara Masterson, MS[7]; Kerri Nottage, MD, MPH[8]; Jordan Schecter, MD[8]; Tahamtan Ahmadi, MD, PhD[7]; Brendan Weiss, MD[9]; Amrita Krishnan, MD[10]; Suzanne Lentzsch, MD, PhD[11]

[1]Tisch Cancer Institute, Mount Sinai School of Medicine, New York, NY, USA; [2]Department of Hematology and Medical Oncology, Winship Cancer Institute, Emory University, Atlanta, GA, USA; [3]Indiana University School of Medicine and Simon Cancer Center, Richard L. Roudebush VAMC, Indianapolis, IN, USA; [4]Baylor Institute for Immunology Research, Dallas, TX, USA; [5]Hôpital Saint Louis, Paris, France; [6]James P. Wilmot Cancer Center, University of Rochester Strong Memorial Hospital, Rochester, NY, USA; [7]Janssen Research & Development, LLC, Spring House, PA, USA; [8]Janssen Research & Development, LLC, Raritan, NJ; [9]Abramson Cancer Center and Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA; [10]City of Hope, Duarte, CA, USA; [11]Columbia University Medical Center, New York, NY, USA.

Rationale for DARA + POM-D

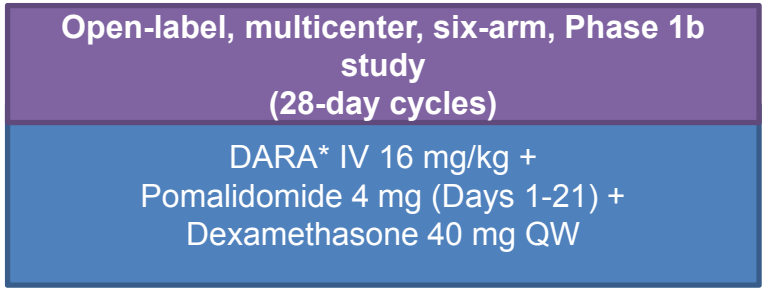
- In a randomized, Phase 3 study, pomalidomide plus low-dose dexamethasone (POM-D) in patients relapsed from or refractory to previous treatment with bortezomib or lenalidomide[1] resulted in the following:
  - ORR = 31%
  - Median PFS of 4.0 months
  - Median OS of 12.7 months
- Pomalidomide increases CD38 expression in a time and dose-dependent fashion in multiple myeloma cells[2]

1. San Miguel J, et al. *Lancet Oncol*. 2013;14(11)1055-1066.
2. Boxhammer R, et al. Presented at 51st American Society of Clinical Oncology (ASCO) Annual Meeting; May 29 -June 2, 2015; Chicago, IL. Abstract 8588.

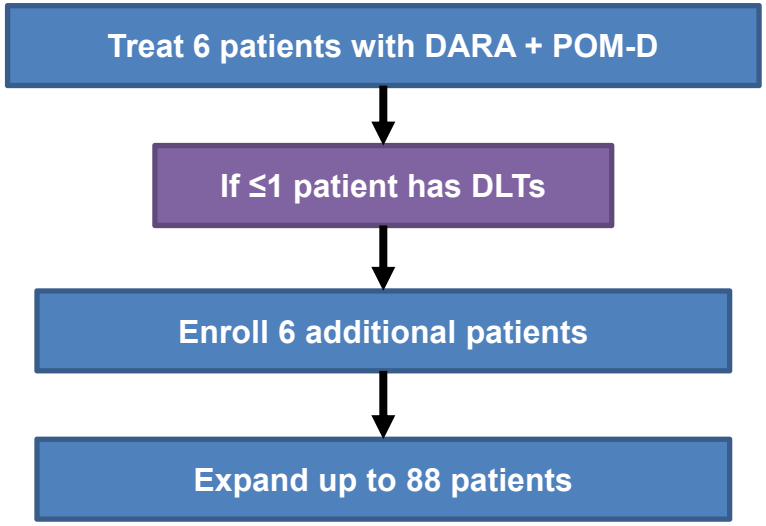
MMY1001: DARA + POM-D Arm

Eligibility criteria

- Refractory to last line of therapy
- ≥2 prior lines of therapy, including 2 consecutive cycles of lenalidomide and bortezomib
- Pomalidomide naïve
- ECOG score ≤2
- Absolute neutrophil count ≥1.0×10^9/L, and platelet count ≥75×10^9/L for patients with <50% plasma cells (>50×10^9/L, otherwise)
- Calculated creatinine clearance ≥45 mL/min/1.73 m^2



*QW for Cycles 1-2, Q2W for Cycles 3-6, and Q4W beyond.



Baseline Characteristics

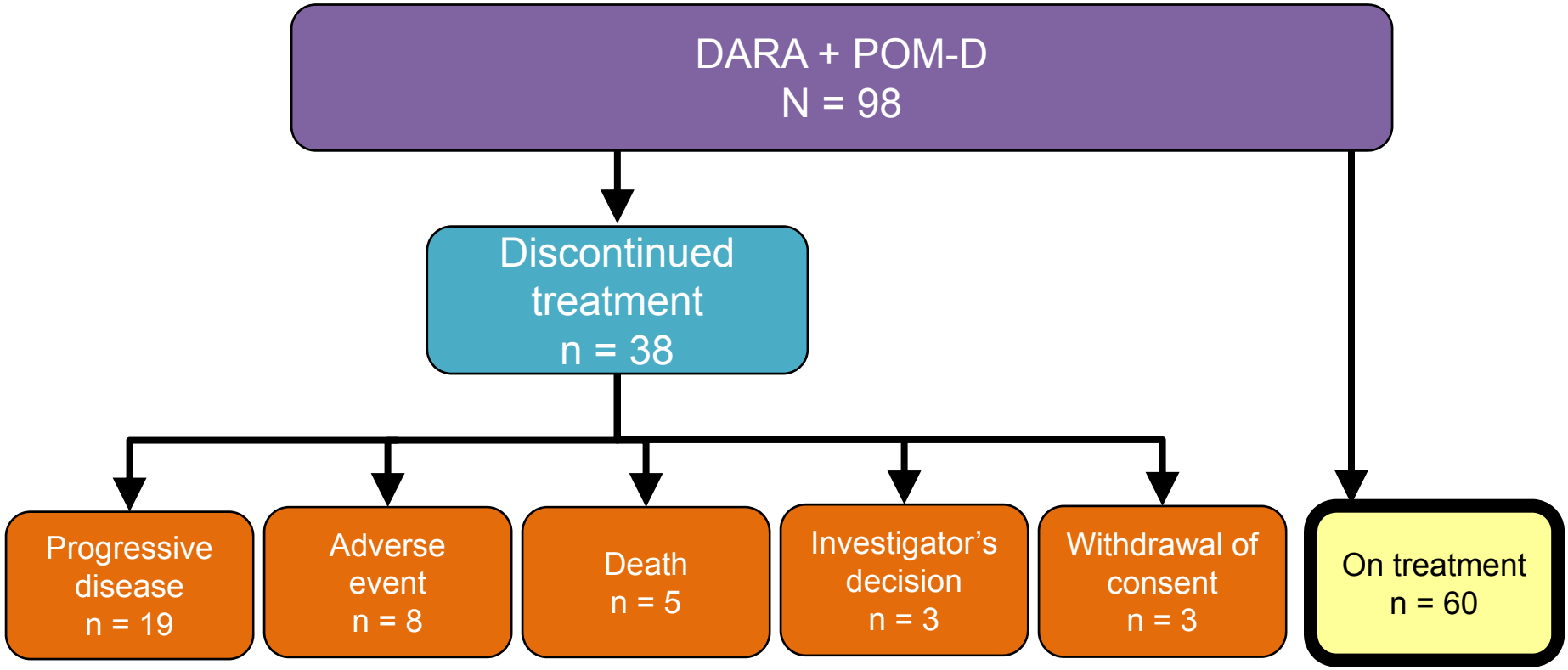
	DARA + POM-D N = 98
Median (range) age, y	64.5 (35-86)
Age category, n (%) 18 to 69 years ≥70 years	 70 (71) 28 (29)
Female/male, %	44/56
Race, n (%) White Black or African American Not reported	 71 (72) 14 (14) 13 (13)
Baseline ECOG score, n (%) 0 1 2	 27 (28) 60 (61) 11 (11)

Prior Therapy Status

- Patients were heavily pretreated and highly refractory per inclusion criteria

	DARA + POM-D N = 98
Median (range) time since MM diagnosis, y	5.2 (0.4-16.0)
	N = 97
Median (range) number of prior lines of therapy	4.0 (2-13)
Prior	
Autologous stem cell transplant	73 (75)
PI	97 (100)
Carfilzomib	31 (32)
Bortezomib	96 (98)
IMiD	97 (100)
	N = 98
Refractory to	
PI	74 (76)
Bortezomib	65 (66)
Carfilzomib	29 (30)
Lenalidomide	87 (89)
PI and IMiD	66 (67)

Patient Disposition



Common (>20% of Patients) AEs

	N = 98	
	Any grade	Grade ≥3
Any grade	97	91
Neutropenia	63	60
Anemia	42	25
Fatigue	41	8
Thrombocytopenia	34	15
Leukopenia	32	20
Cough	31	0
Diarrhea	30	1
Dyspnea	28	6
Nausea	25	0
Constipation	22	0

- Rates of grade ≥3 AEs were similar to those observed with POM-D alone
- Serious AEs occurred in 42% of patients
- 17 (17%) deaths occurred
- 45 (46%) patients required GCSF and 24 (25%) required blood transfusions during treatment
  - No blood transfusion–related AEs were reported
- No new safety signals were identified with DARA + POM-D

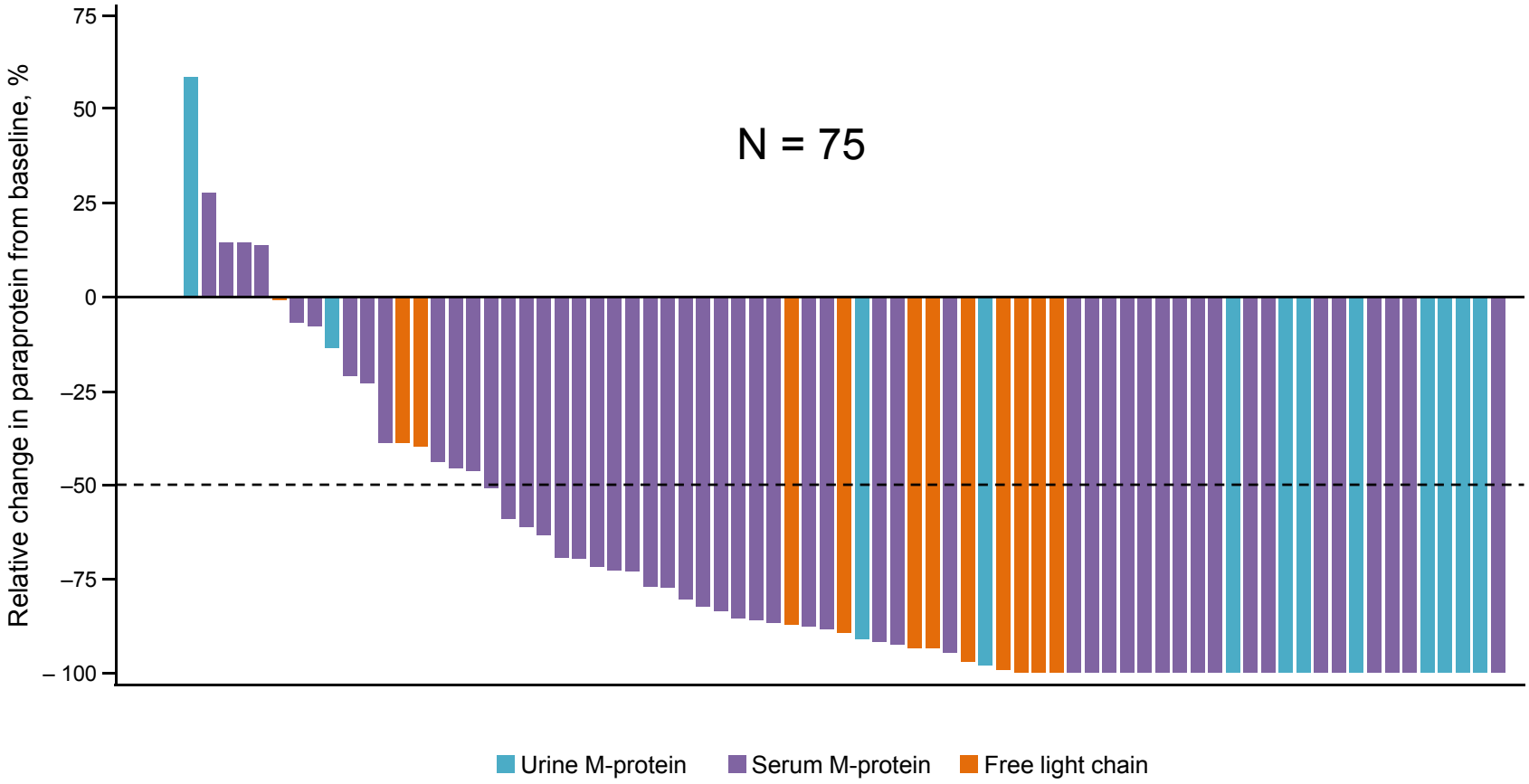
Infusion-related Reactions in >3 Patients

	N = 98	
Infusion-related reaction, n (%)	**Any grade**	**Grade 3**
Any event	52 (53)	6 (6)
Chills	14 (14)	0
Cough	11 (11)	0
Dyspnea	11 (11)	0
Nasal congestion	7 (7)	0
Throat irritation	7 (7)	0
Nausea	7 (7)	0
Chest discomfort	6 (6)	0
Pyrexia	6 (6)	0

- IRRs were predominantly grade ≤2
  - 6 (6%) patients had grade 3 IRRs
  - Only 2 patients discontinued due to an IRR
- 53%, 1%, and 0% of patients had IRRs during the first, second, and subsequent infusions, respectively
- IRRs were managed with premedication and reduced infusion rates

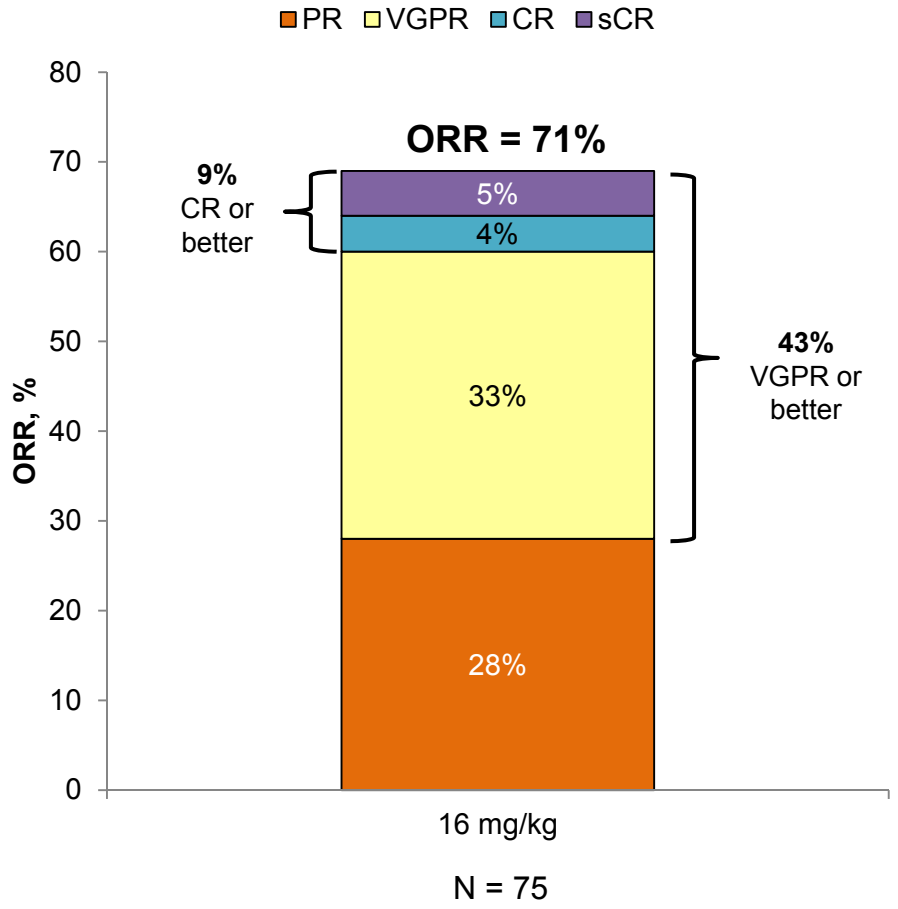
Maximum Change in Paraprotein From Baseline:

DARA + POM-D



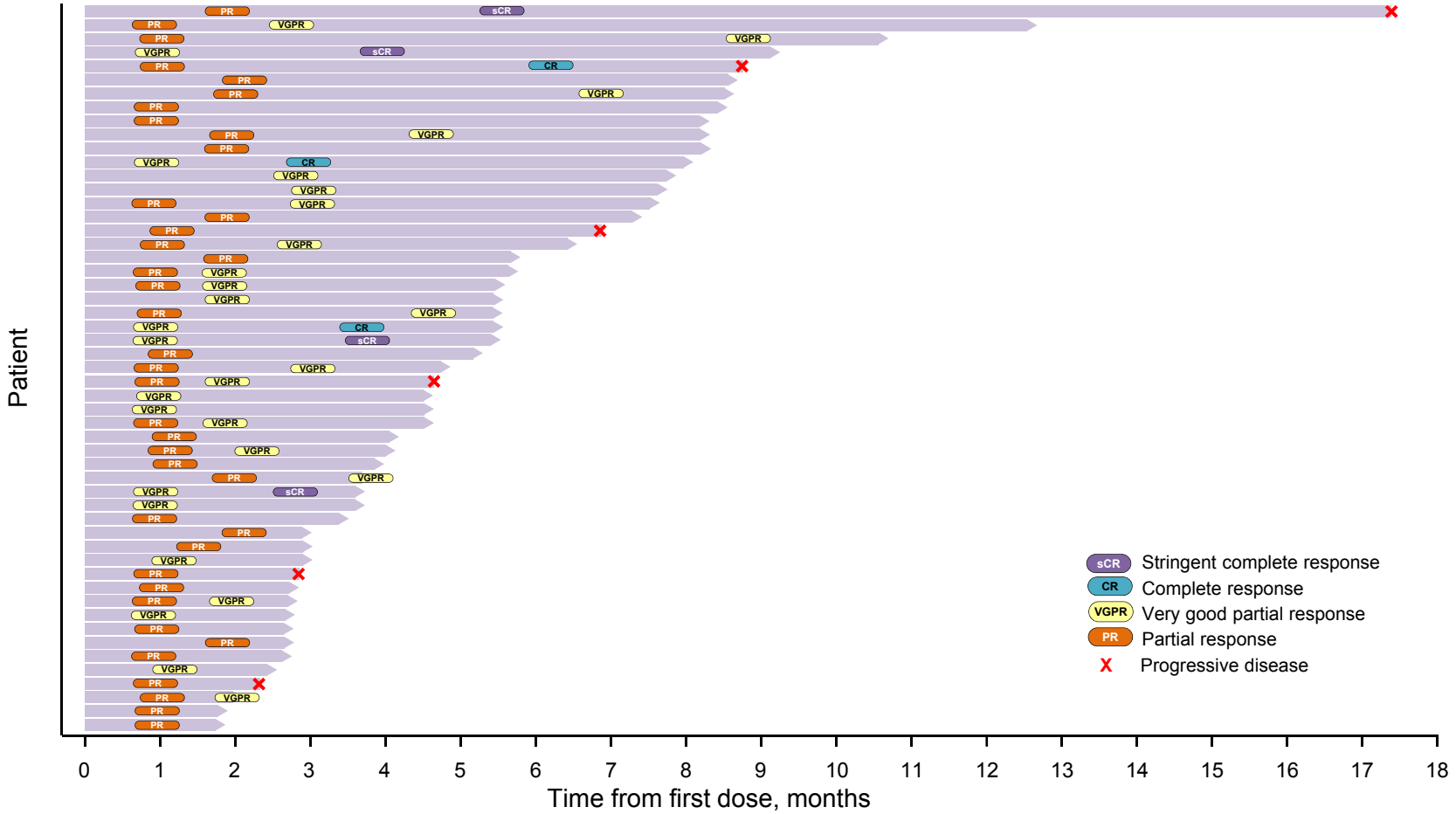
Overall Response Rate:
DARA + POM-D

	DARA + POM-D (N = 75)	
	n (%)	**95% CI**
Overall response rate (sCR+CR+VGPR+PR)	**53 (71)**	**59.0-80.6**
Best response		
sCR	4 (5)	1.5-13.1
CR	3 (4)	0.8-11.2
VGPR	25 (33)	22.9-45.2
PR	21 (28)	18.2-39.6
MR	2 (3)	0.3-9.3
SD	17 (23)	13.8-33.8
PD	3 (4)	0.8-11.2
VGPR or better (sCR+CR+VGPR)	32 (43)	31.3-54.6
CR or better (sCR+CR)	7 (9)	3.8-18.3



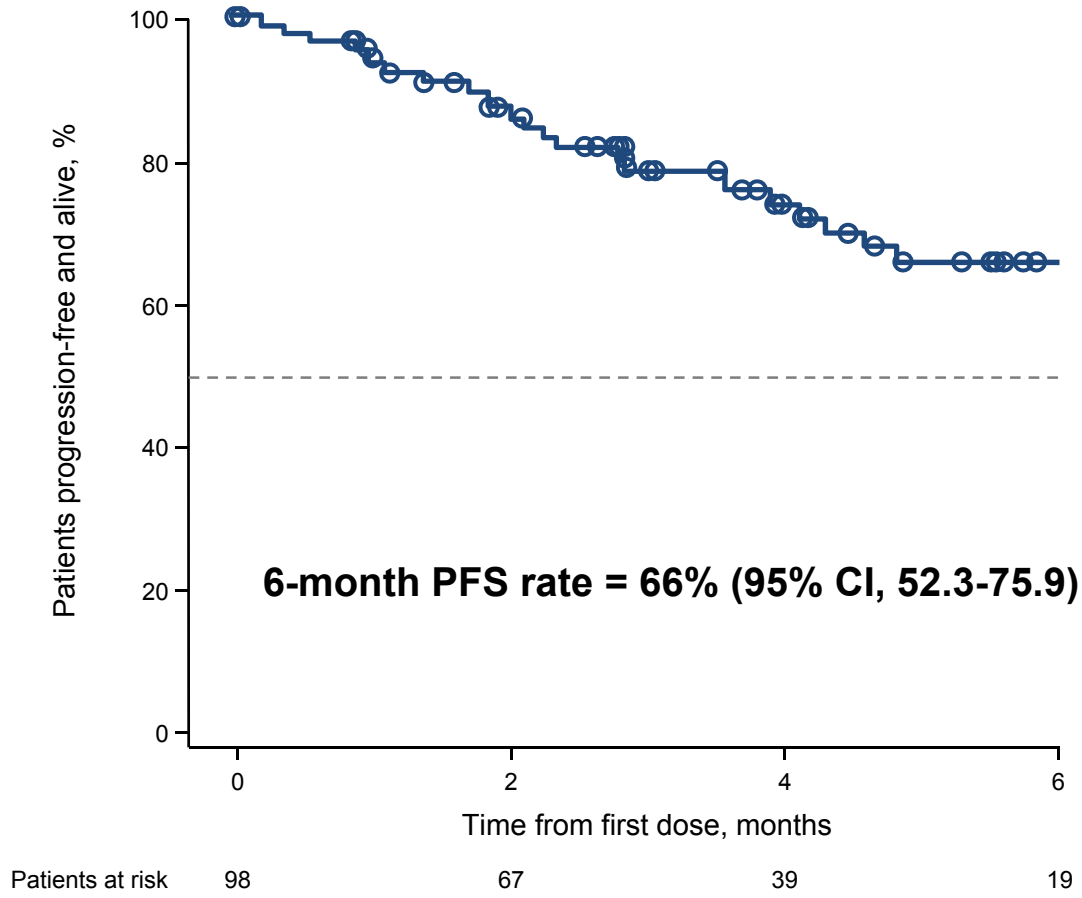
- ORR = 71%
- ORR in double-refractory patients = 67%
- Clinical benefit rate (ORR + minimal response) = 73%

Depth and Duration of Response:
DARA + POM-D



- Median time to first response was 1.2 months
- At a median follow-up time of 4.2 months
  - Median time to best response was 2.8 months; responses are deepening over time
  - 47 of 53 (89%) responders had not progressed

Progression-free Survival at 6 Months:
DARA + POM-D



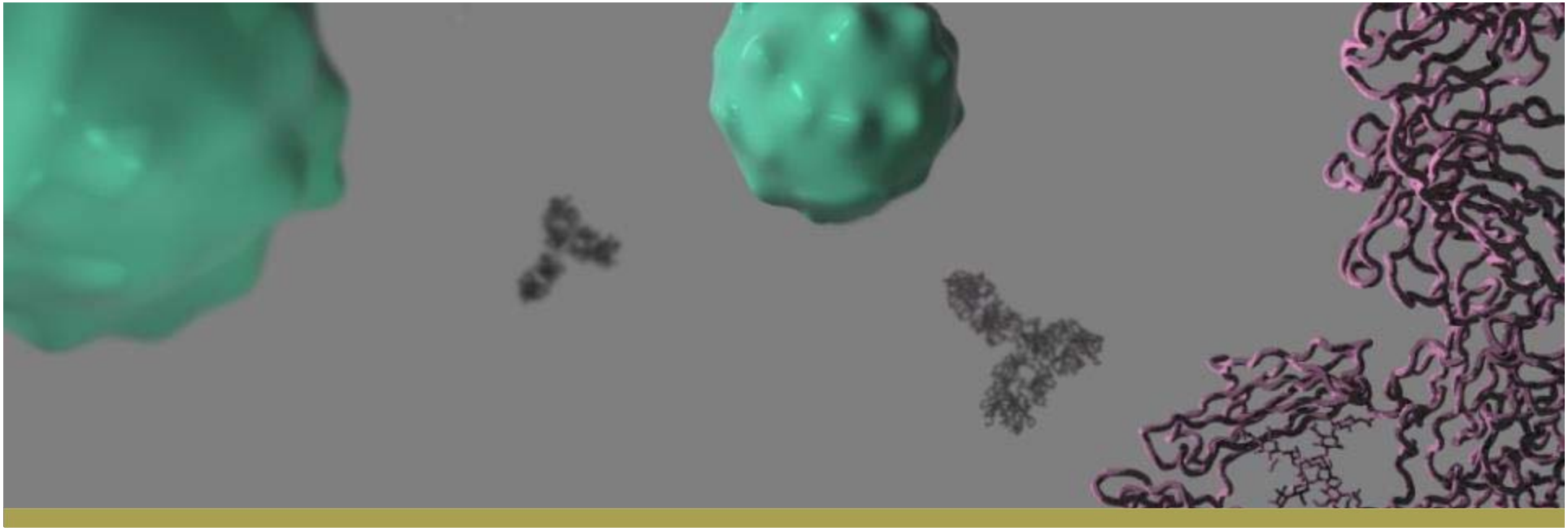
- Median follow-up of 4.2 months

Conclusions

- DARA (16 mg/kg) + POM-D induced rapid, deep, and durable responses in a heavily pretreated patient population
  - Median of 4 prior lines of therapy
  - 67% of patients were double refractory to a PI and an IMiD
- ORR was 71% including 43% ≥VGPR and 5% sCR
- PFS rate at 6 months was 66%
- No additional safety signals observed
- DARA can be safely combined with POM-D
- These data support the conduct of a Phase 3 study evaluating this novel combination

Acknowledgments

- The authors acknowledge the patients who participated in this study and their families, as well as the study co-investigators, research nurses, and coordinators at each of the clinical sites; they also acknowledge Jianping Wang, PhD, for statistical analyses, Nushmia Khokhar, MD, for clinical oversight, and the Independent Review Committee
- This study was funded by Janssen Research & Development, LLC
- Medical writing and editorial support were provided by Erica S. Chevalier-Larsen, PhD (MedErgy) and were funded by Janssen Global Services, LLC



News from the Clinic

Daratumumab

Presented by Prof. Maria Victoria Mateos, *University Hospital of Salamanca*

Genmab

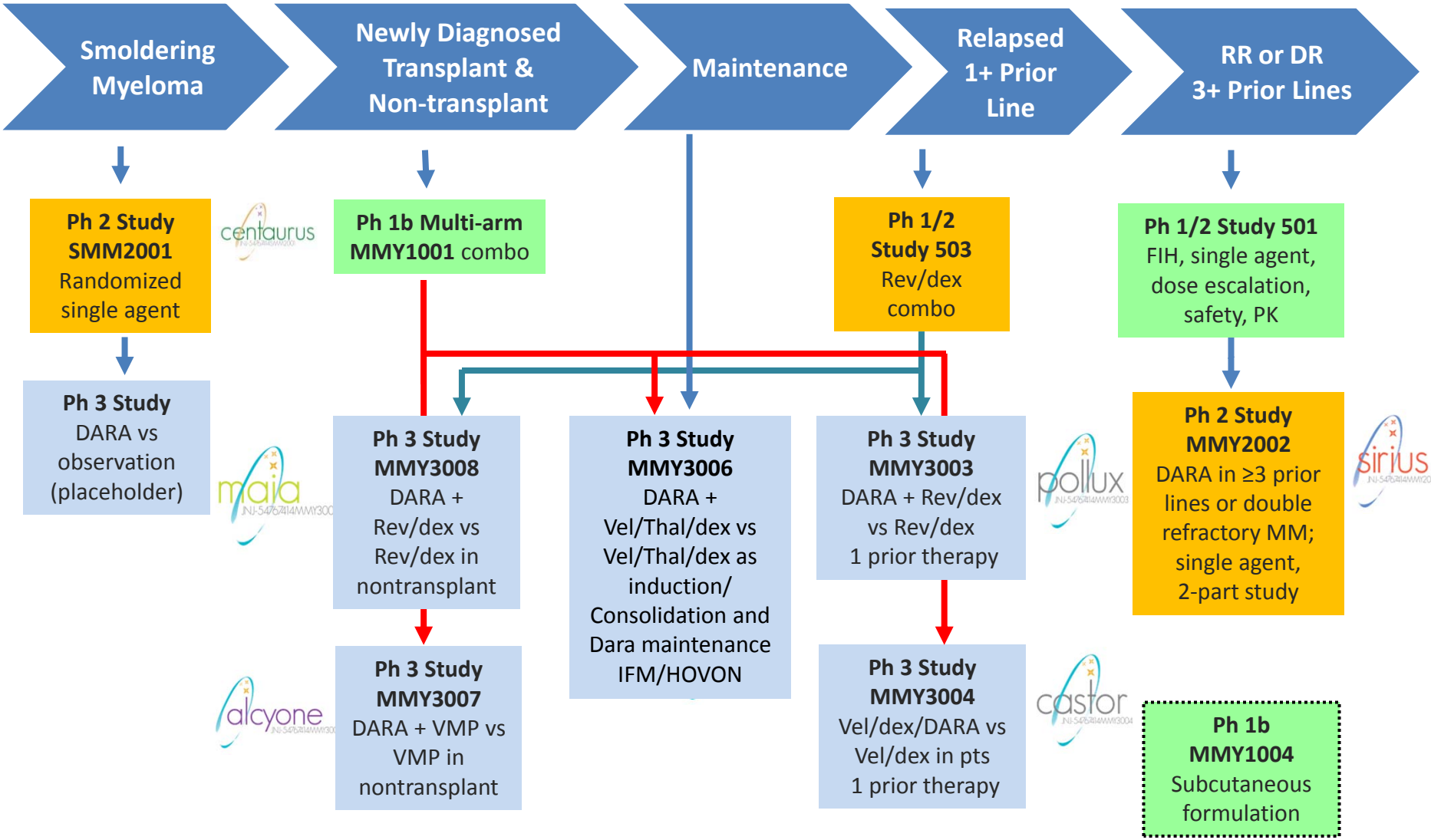
DARZALEX™ (Daratumumab)

Multiple Myeloma Core Program

Frontline & Smoldering Myeloma

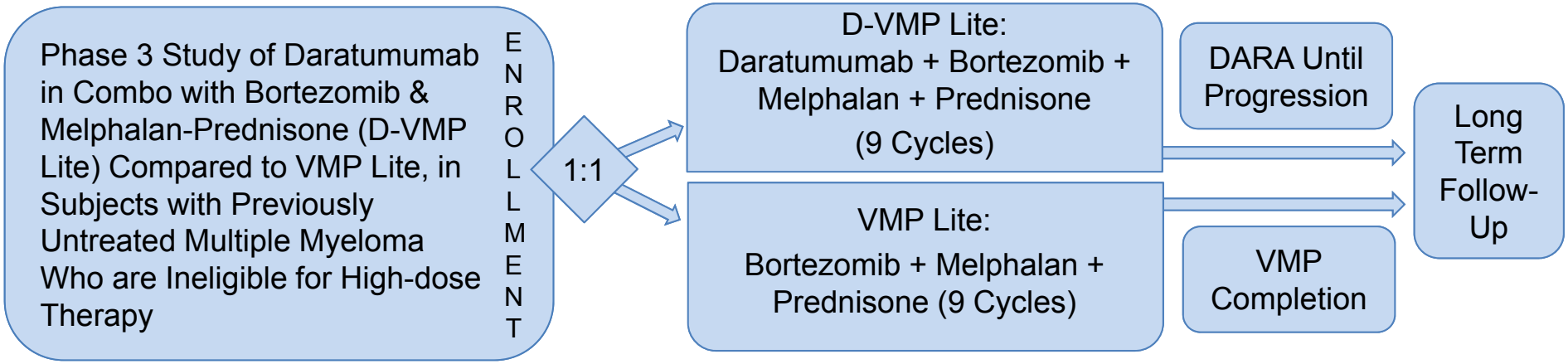
Non-Hodgkins Lymphoma

Daratumumab in all MM Settings



Frontline MM; Non-Transplant

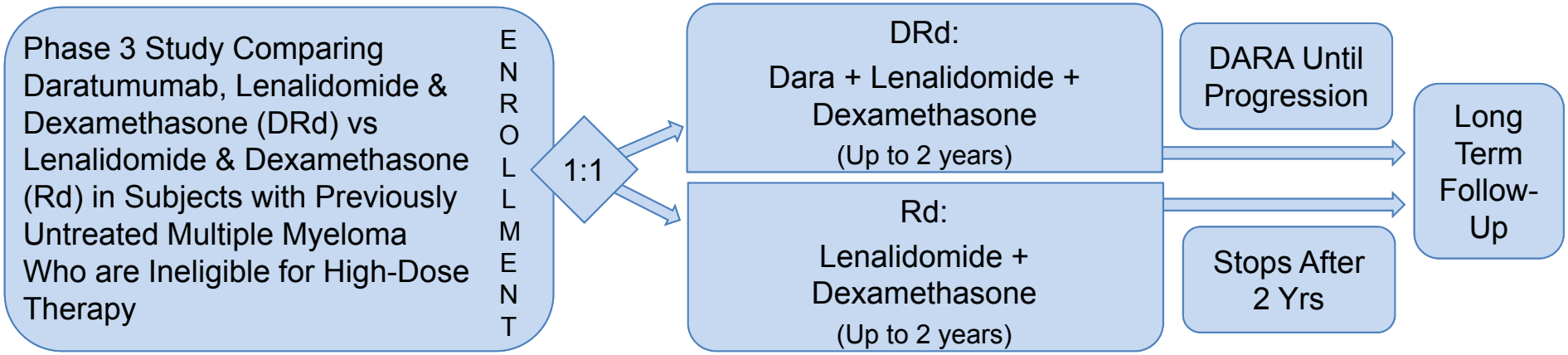
MMY3007; Alcyone; NCT 02195479



Primary Endpoint: PFS

1 Cycle = 42 Days

MMY3008; Maia; NCT 02252172



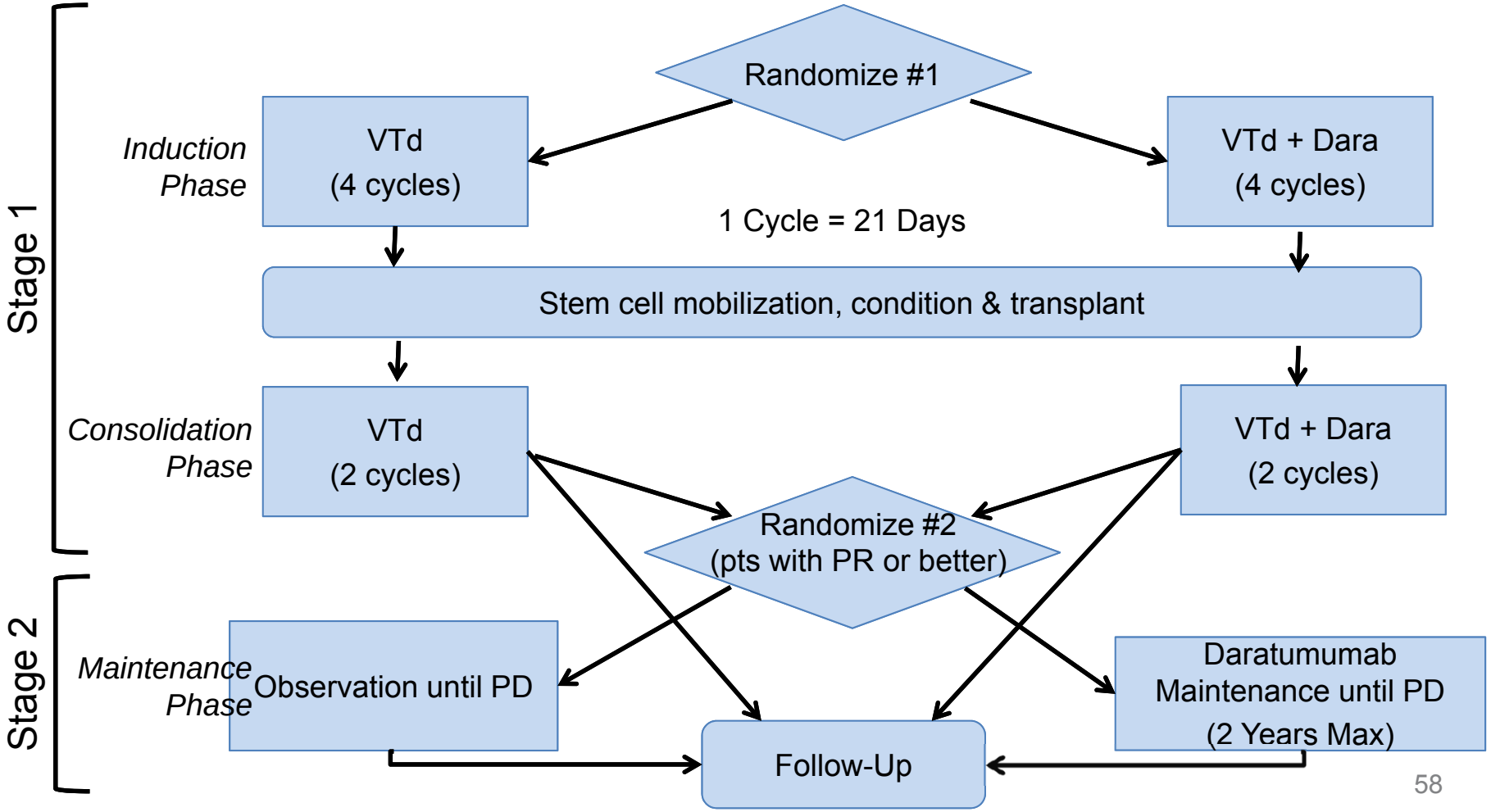
Primary Endpoint: PFS

1 Cycle = 28 Days

Frontline MM; Transplant

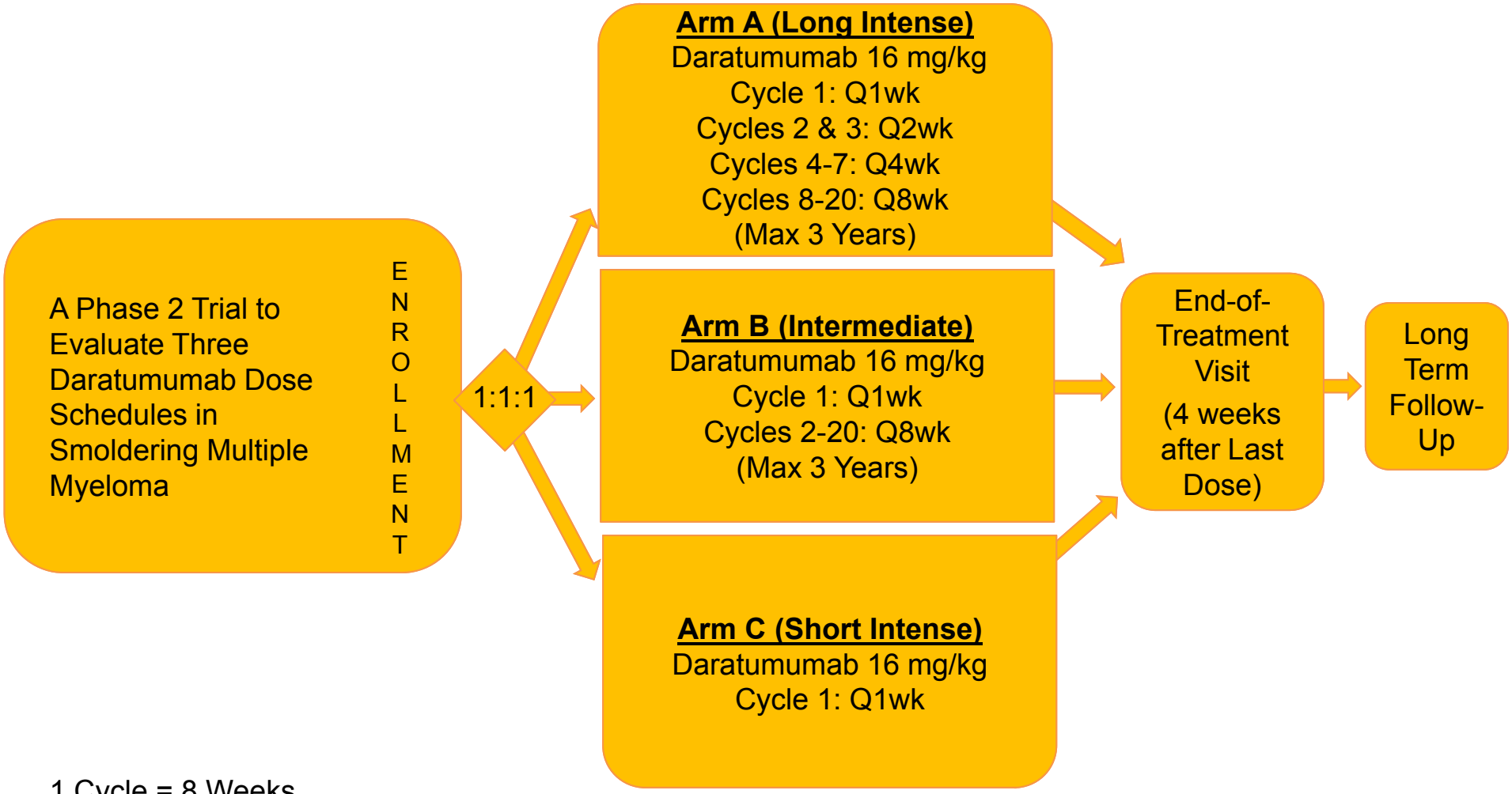
MMY3006; Cassiopeia; NCT 02541383

Phase 3 Study of Daratumumab in Combo w Bortezomib, Thalidomide & Dexamethasone (VTd) vs VTd Alone in Patients with Previously Untreated Symptomatic Multiple Myeloma Who are Eligible for High-Dose Chemo & Stem Cell Transplant.



Smoldering MM

SMM2001; Centaurus; NCT 02316106

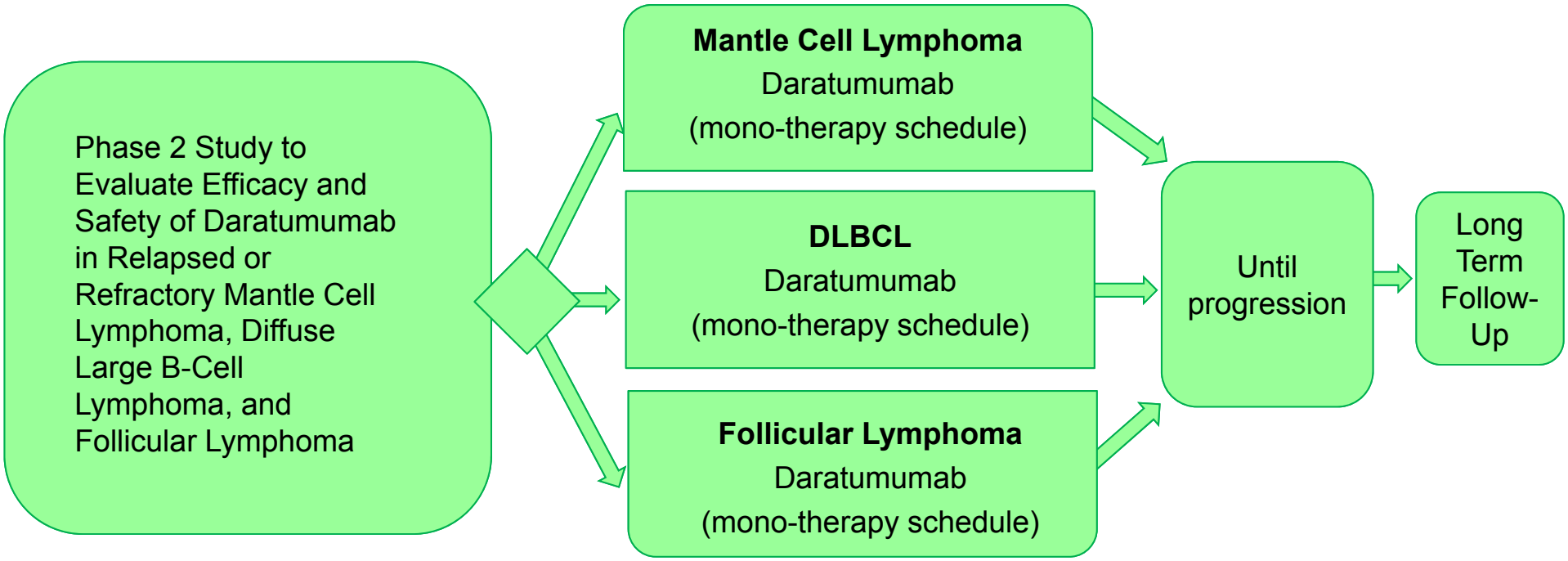


1 Cycle = 8 Weeks

Primary Endpoints: CR & Time to Progression to Symptomatic Multiple Myeloma

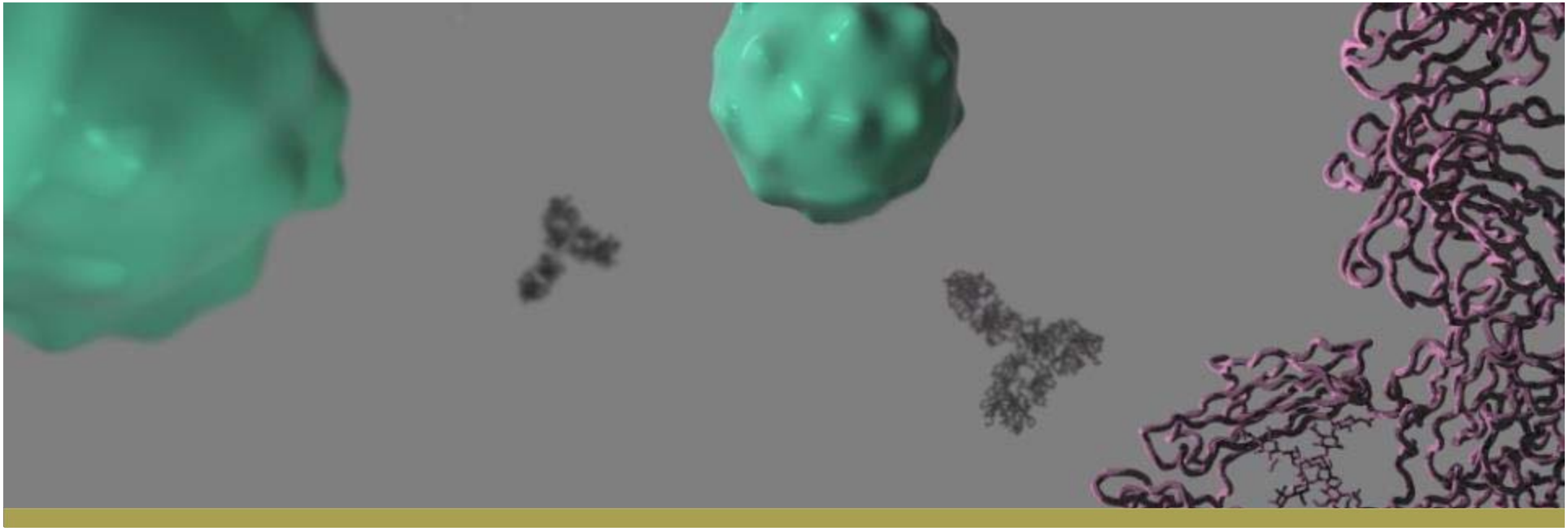
Non-Hodgkins Lymphoma

LYM2001; NCT 02413489 – first study outside MM



1 Cycle = 8 Weeks

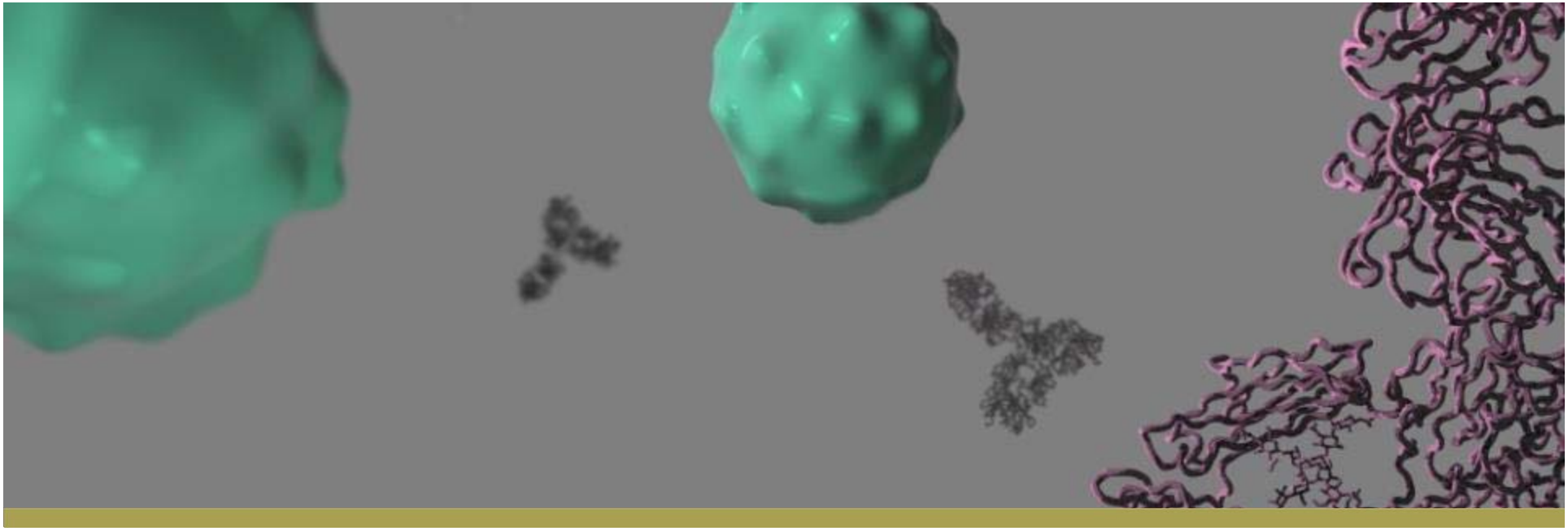
Primary Endpoints: ORR



Daratumumab Q&A

Dr. Peter Voorhees, MD
Prof. Torben Plesner
Prof. Thierry Facon
Prof. Maria Victoria Mateos

Genmab



News from the Clinic

HuMax-TF-ADC

Presented by Prof. Johann de Bono, *The Institute of Cancer Research*

Genmab

HuMax®-TF-ADC

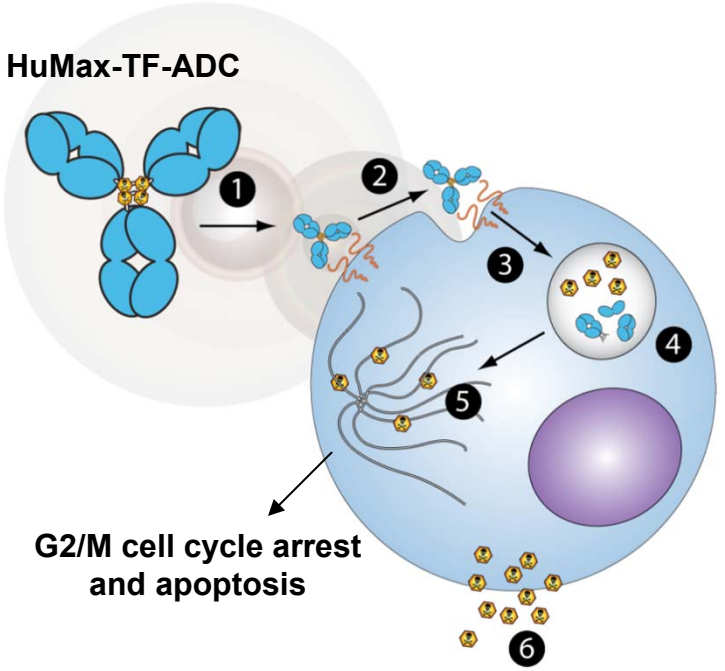
Johann De Bono, MD, FRCP, MSc, PhD

Director, Drug Development Unit
Institute of Cancer Research
and Royal Marsden,
Drug Development Unit
London, UK

HuMax-TF-ADC

- HuMax-TF-ADC is an antibody drug conjugate composed of:
  - a human monoclonal antibody specific for tissue factor
  - a protease cleavable valine citrulline linker
  - the microtubule disrupting agent monomethyl auristatin E (MMAE)

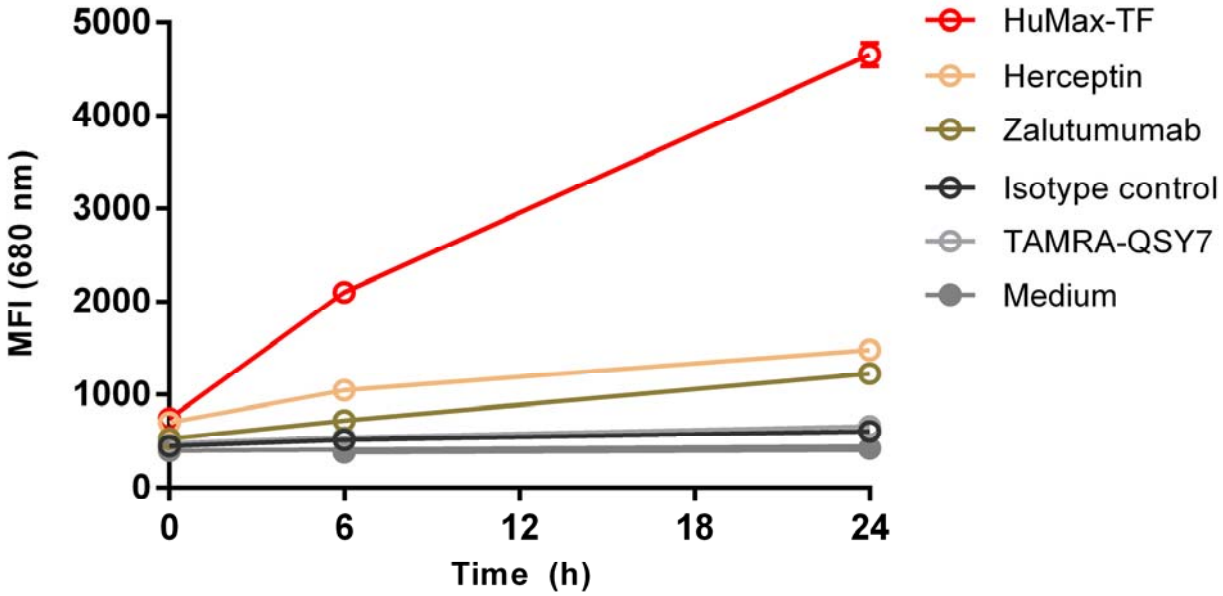
- Mode of Action: MMAE-mediated tumor cell killing
  1. Binding to TF (CD142, thromboplastin)
  2. Internalization of HuMax-TF-ADC
  3. Intracellular trafficking to the lysosomes
  4. Enzymatic degradation HuMax-TF-ADC, release of MMAE
  5. MMAE induces cell death by microtubule disruption
  6. *Diffusion of free MMAE across the cell membrane may induce cell death of neighboring cells*

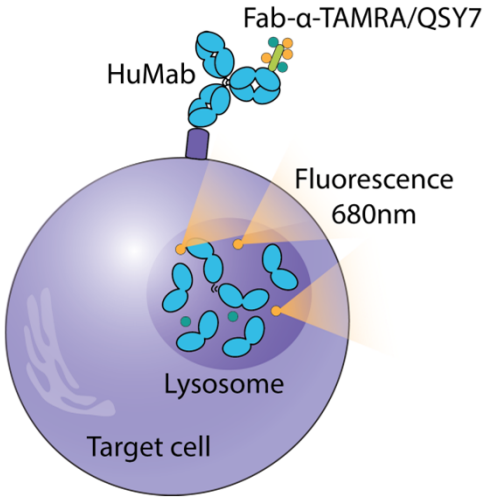


TF as an ADC target

Potent internalization and intracellular degradation

- Efficient internalization
- Profound intracellular degradation





- Intracellular degradation of antibodies measured by indirect Fab-α-human IgG1-TAMRA/QSY7 degradation assay
- De-quenching of TAMRA indicates intracellular degradation

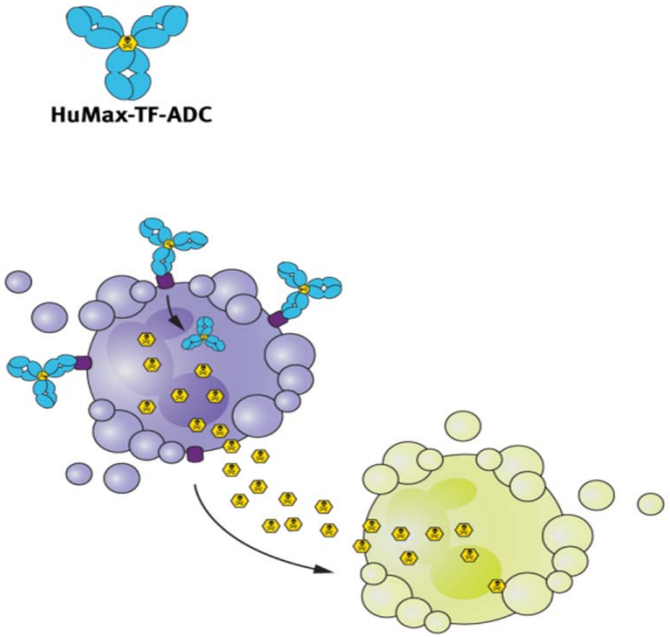
Cell line	TF	EGFr	HER2
SK-OV-3	100.000	50.000	200.000 molecules/cell

HuMax-TF-ADC: Bystander Cytotoxicity *in vitro*

Support efficacy in heterogeneously expressing tumors

Bystander cytotoxicity *in vitro*

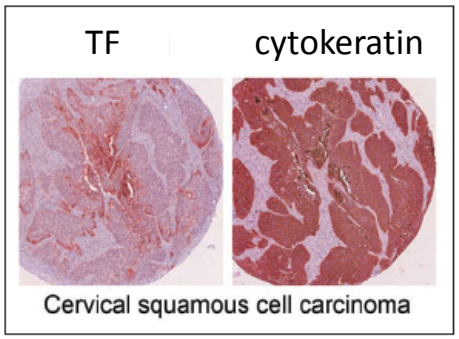
- In monocultures, HuMax-TF-ADC is cytotoxic for cells expressing high (TF^{high}) but not cells expressing low (TF^{low}) levels of TF
- In co-cultures of TF^{high} and TF^{low} cells, HuMax-TF-ADC kills TF^{low} cells through bystander cytotoxicity
- In contrast, HuMax-TF-MMAF does not kill TFl^{ow} cells in co-cultures with TF^{high} cells



HuMax-TF-ADC: Anti-tumor Activity in PDX Models

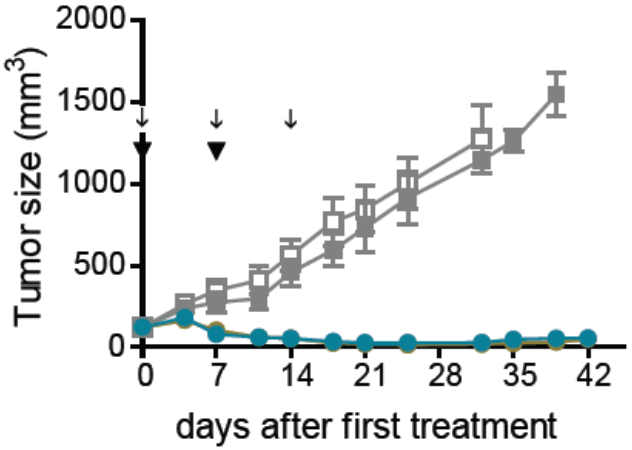
Support efficacy in a taxane-relapsed setting

- Cervical squamous cell carcinoma PDX model – heterogeneous target expression

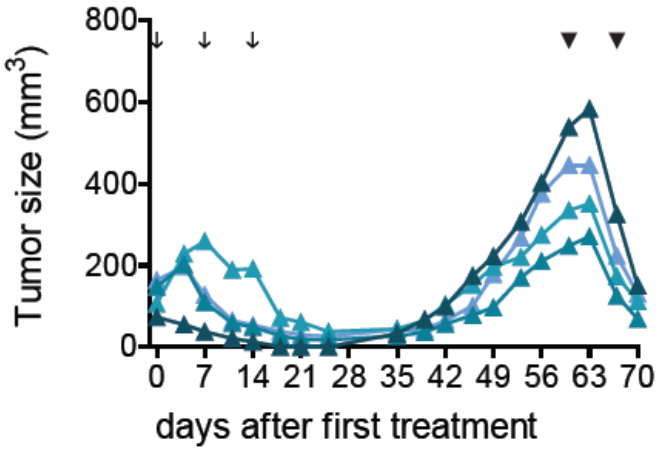


25-50% TF⁺ cells

Primary treatment



Re-treatment after initial paclitaxel treatment



- HuMax-TF-ADC
- isotype control ADC
- isotype control IgG
- paclitaxel

- Treatment paclitaxel 20 mg/kg
- Treatment ADC 4 mg/kg

Breij et al, Cancer Research 2014

Tissue Factor Expression in Tumors

- Broad expression of TF in solid tumors

Indication	Percentage of biopsies showing TF staining (membrane and/or cytoplasm)	
	Any TF staining (1+, 2+ or 3+) in >0% of tumor cells	High intensity TF staining (2+ or 3+) in ≥10% of tumor cells
Endometrial	98	58
NSCLC	95	47
Cervical	92	66
Prostate	85	52
SCCHN	87	68
Esophageal	82	45
Ovarian	82	33
Bladder	64	26*

*staining observed tumor stroma, in addition to tumor cell staining

TF expression in solid cancers was assessed by IHC analysis of tissue microarrays (60 patients per indication), using the TF-specific monoclonal antibody HTF-1.

HuMax-TF-ADC – GEN701

Rationale

- TF is aberrantly expressed in many solid tumors
- HuMax-TF-ADC showed anti-tumor activity in a broad range of solid cancer xenograft models, supporting clinical development in solid tumors

- Differentiate by
  - Efficient internalization and lysosomal targeting of HuMax-TF-ADC allows efficient intracellular delivery of MMAE
  - Broad target expression
- Clinical development program ongoing in solid tumors

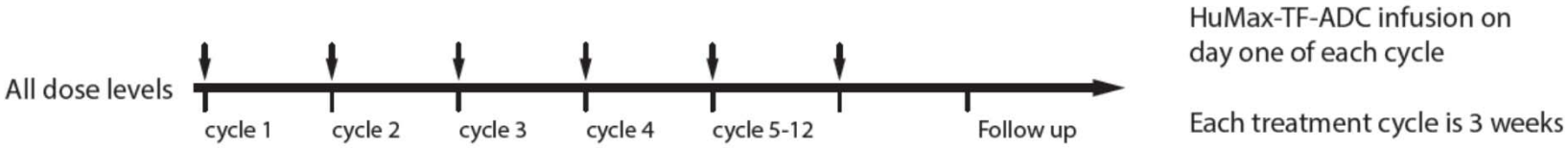
GEN701

Trial design

Study design

Phase I dose escalation (traditional 3+3 design) followed by a Phase II cohort expansion

- Indications included: ovary, cervix, endometrium, bladder, prostate, esophagus, NSCLC and SCCHN
- Dose schedule q3wk for 4 cycles. In patients with clinical benefit (defined as SD or better) the possibility to continue dosing for additionally 8 cycles is available as per protocol.



- Phase II Expansion part using defined MTD

GEN701

- FIH, Phase I/II clinical trial ongoing (NCT02001623)
  - Phase I dose escalation in solid tumors finalized
  - Clinically relevant dose of 2.0 mg/kg identified as MTD
  - Phase II cohort expansion ongoing
- Additional study launched to address differentiated dose schedule (NCT02552121)

Patient Demographics – GEN701 Part I

Cohort	Age	Sex (% male)	Location of primary tumor (indication)	Stage of disease	Response to last therapy	Previous Taxane (%)	Number of previous therapies mean (median)	Mean weight (kg)
0.3 mg/kg	61	67	bladder esophageal esophageal	4 4a 4	PD PD PR	67	2 (2)	69
0.6 mg/kg	67	67	CRPC ovarian SCCHN	4 4 3	PD PD NA	100	8 (6)	76
0.9 mg/kg	56	67	esophageal esophageal CRPC	4 4 2	SD PD PD	100	4 (3)	65
1.2 mg/kg	50	33	CRPC ovarian cervical	4 4 4	PD PR NA	100	3 (3)	82
1.5 mg/kg	57	33	ovarian bladder CRPC	3c 4 4	PD SD PD	33	3 (2)	67
1.8 mg/kg	65	0	NSCLC ovarian endometrial	4 3c 1b	PD PD PD	67	4 (4)	67
2.0 mg/kg	62	0	NSCLC ovarian endometrial	3a 3a 4	PD PD PD	100	7 (4)	61
2.2 mg/kg	63	17	NSCLC NSCLC ovarian endometrial ovarian cervical	4 3a 3c 3c 4 2b	PD SD PD PD SD PD	100	6 (5)	79

- Patients had received a median of 4 (range 1-14, mean 4.7) prior lines of therapy
- Vast majority of patients had experienced a PD to their last treatment

HuMax-TF-ADC; GEN701 Tolerability

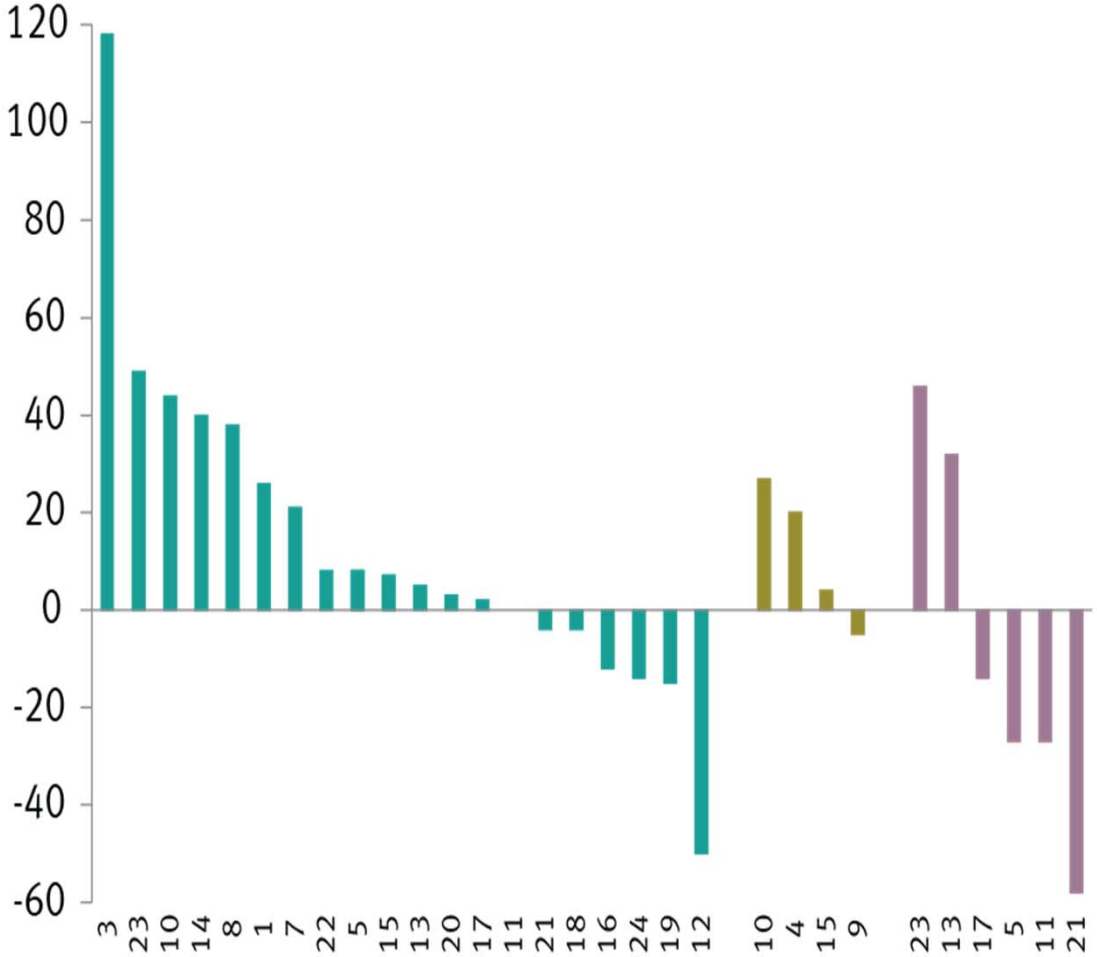
- Twenty-seven patients have been administered HuMax-TF-ADC at doses up to and including 2.2 mg/kg every 3 weeks.
- Three DLTs observed in 3 patients at 2.2 mg/kg (mucositis, diabetes and neutropenic fever, all CTCAE grade 3). Intermediate dose of 2.0 mg/kg found well tolerated and identified as MTD.
- A fatal pharyngeal hemorrhage from a large tumor mass in the 0.6 mg/kg cohort was reported from one SCCHN patient with normal coagulation, previously treated with 3 lines of therapy including radical radiotherapy. Causality deemed unlikely by PI (by me).
  - All other AE's related to bleeding was CTCAE grade 1 except for 1 event of grade 2 hematuria in a patient with bladder cancer.
- The most commonly reported AEs seen in at least 5 patients were constipation, nausea, abdominal pain, anemia, epistaxis, fatigue, decreased appetite, pyrexia and alopecia.
- No dose relationship to severe AEs (≥grade 3) and no AE grade 4 was observed

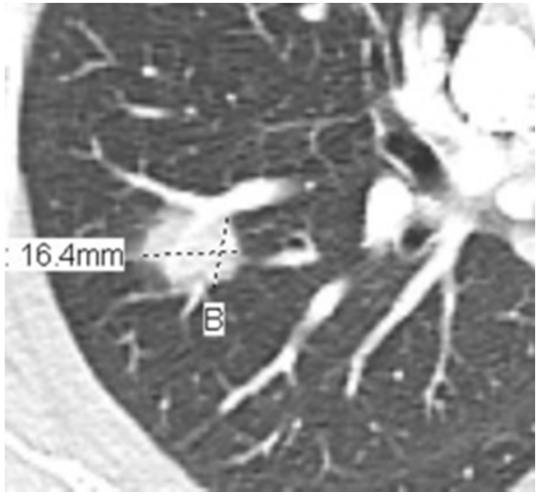
Part 1: Anti-tumor Activity

- Overall, patients had received a median of 4 (range 1-14, mean 4.7) prior lines of therapy.
  - In the 2.2 mg/kg cohort, a median of 5 (mean 6) prior lines of therapy
  - Majority of patients had PD to their last treatment.
- Preliminary evidence of antitumor activity reported in 12 patients (44%) of which 11 SD and 1PR were observed according to RESIST.
- Clinical meaningful, long term disease control seen in 6 patients, including:
  - 2 patients with CRPC (SD, 18 and 50 wks),
  - 1 patient with ovarian cancer (SD, 27 wks),
  - 1 patient with endometrial cancer (SD, 17 wks)
  - 1 patient with NSCLC (SD, 22 wks) and
  - 1 cervical cancer patient with a confirmed PR (after 36 weeks on therapy, the patient went to named patient use program – ongoing in PR at 1½ year).

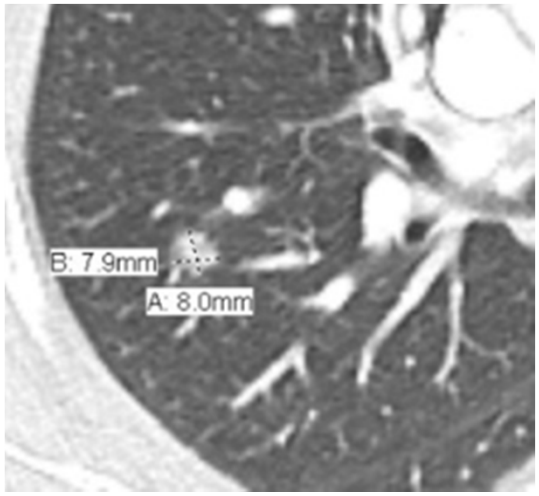
HuMax-TF-ADC in Patients with Solid Tumors

Best Percent Reduction from Baseline





Pre-study (August 2014)



Post therapy (May 2015)

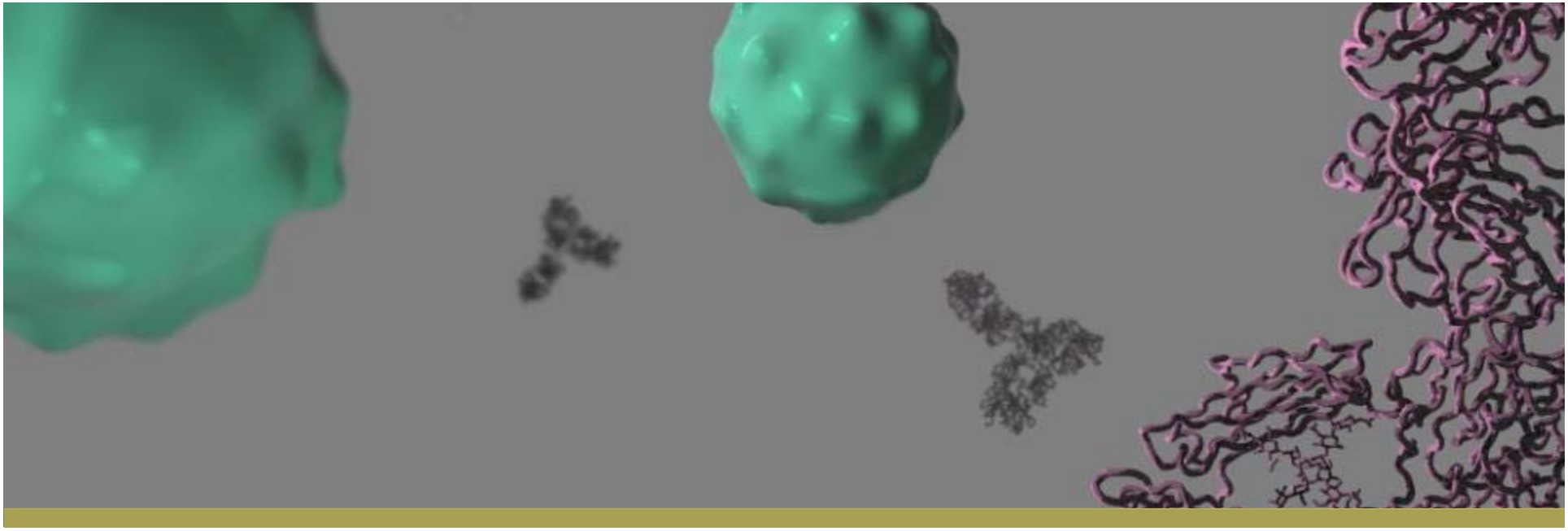
Footnote: as per RECIST 1.1 (green), PSA (CRPC patients only, yellow), CA125 (ovarian cancer patients only, purple).

Further Development of HuMax-TF-ADC

- GEN701 expansion extended from 30 pts to include ~136 patients including 30 pts each with cervical- and endometrial cancers – indications with particular high TF expression
- In parallel, a Phase I study is exploring an alternative schedule
  - 3 weeks on, 1 week off schedule, NCT02552121
- Studies will form basis for further development of HuMax-TF-ADC

Summary

- First in class ADC targeting TF
  - Warhead is a microtubule disrupting agent
  - Differentiation includes high target expression, and rapid internalization that leads to efficient lysosomal degradation
- Dose escalation part of FIH study finalized: Well tolerated
- Preliminary Evidence of antitumor activity
- Ongoing enrolment in Phase II



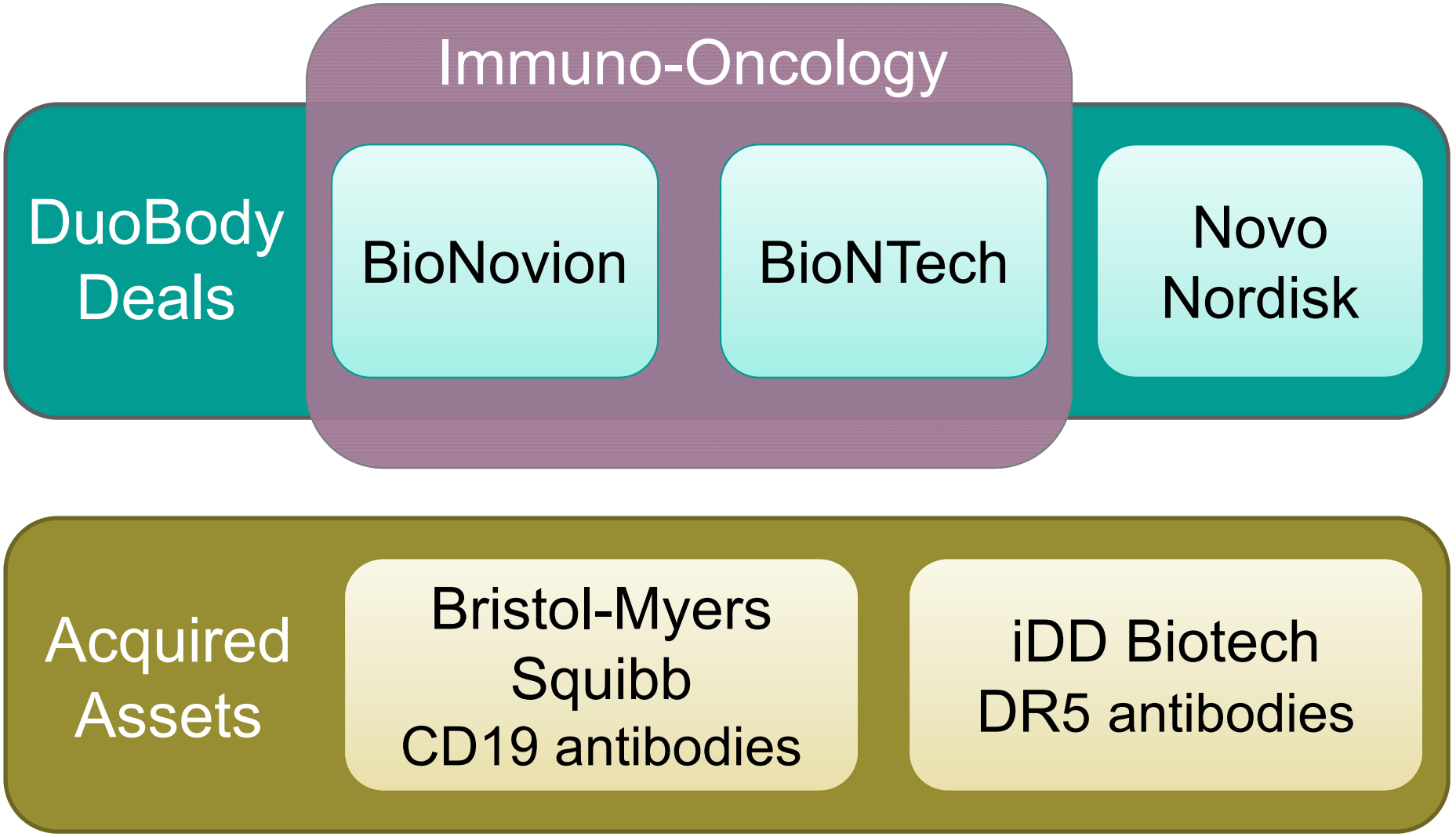
Pre-Clinical Pipeline – The Antibody Experts

Progressing the Pipeline: Creating Bispecifics with the DuoBody Technology

Presented by Jan van de Winkel, *CEO, Genmab*

Genmab

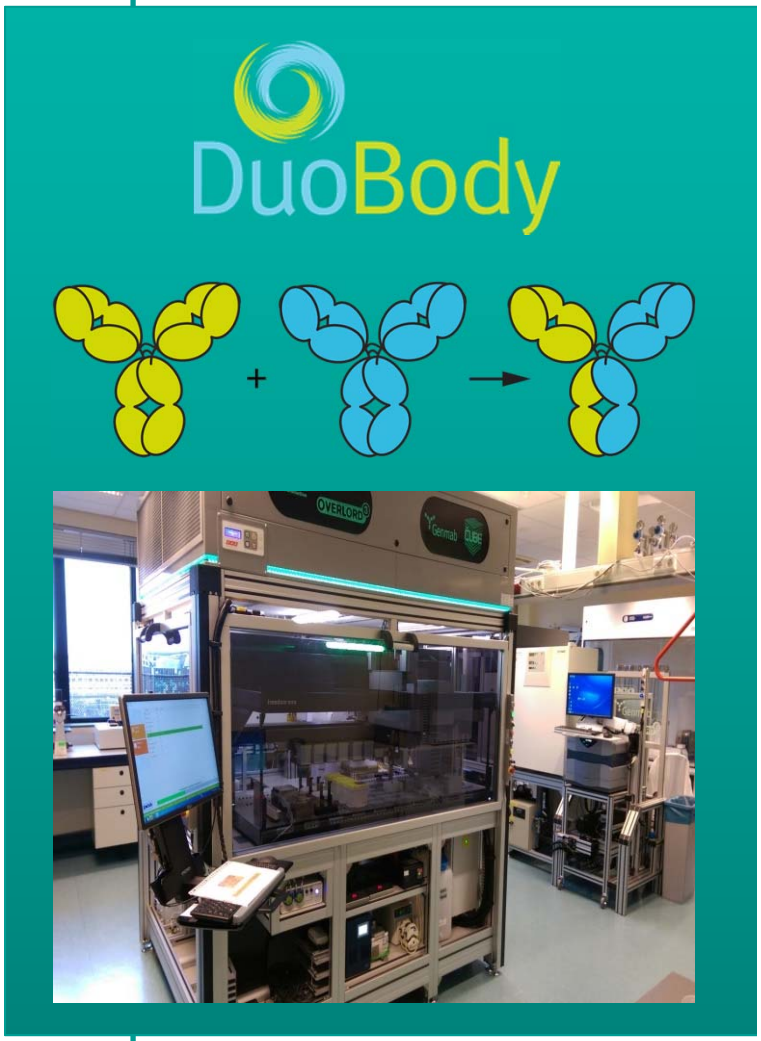
New Collaborations & Acquisitions Fuel Pipeline



Note: Sept 2015 Aduro announced definitive agreement to acquire BioNovion

DuoBody Platform Advantages

- Applicable to any antibody from any platform
- Regular IgG format
- Lead candidate screening in final format
- Fully scalable from lab to large scale manufacturing
  - Large scale production validated
- No developability liabilities
- Patent protected
- Robotized bispecific library generation
  - Scalable platform for automated screening of thousands BsAb candidates



Immuno-Oncology

Turning Cancer into a Chronic Condition

Innovating cancer treatment

- Activate the patient's own immune system to fight cancer
- Long duration of response
- Potential game changer: >$50B market

Many immune checkpoint targets

- Combinations may improve survival outcome

DuoBody technology

- Robust & versatile BsAb platform
- Ideal for:
  - Screening multiple combinations in final therapeutic format
  - Combined targeting immune check point
- Partnerships with BioNovion and BioNTech

HuMax-AXL-ADC: Antibody-Drug Conjugate Targeting AXL

- Fully human IgG1 conjugated with highly potent toxin MMAE
- In pre-clinical development for tumors that express AXL
- AXL is a receptor tyrosine kinase expressed on many solid & hematological cancers
- HuMax-AXL-ADC is internalized & degraded upon binding, resulting in release of toxin
- Toxin-mediated killing is dominant mechanism of action *in vivo*
- Potent *in vivo* anti-tumor activity seen in pancreas cancer model
  - Single dose of HuMax-AXL-ADC induced complete tumor regression

HexaBody-DR5/DR5

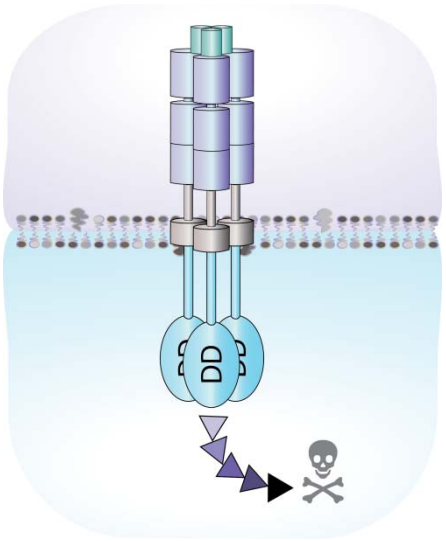
Targeting DR5 for Cancer Therapy

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

Targeting DR5 for treatment of cancer

- Agonistic DR5 antibodies induce apoptosis after crosslinking
- Agonistic DR5 antibodies have shown limited anti-tumor activity in the clinic
- Need for increased therapeutic potency
  - HexaBody technology may provide solution

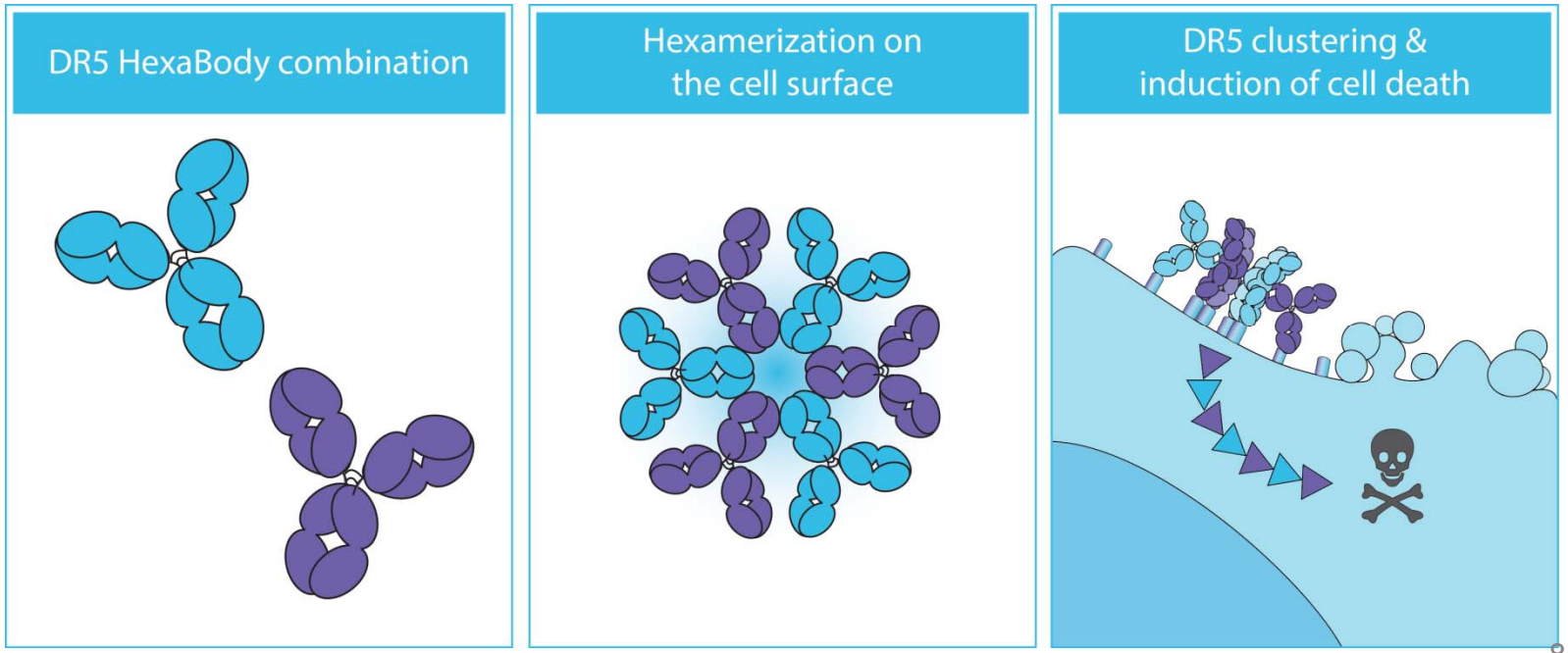


DR5 activation induces cell death

HexaBody-DR5/DR5

Therapeutic Concept Enhancing DR5 Targeting Potency

- HexaBody technology stimulates antibodies to form hexamers upon target binding
- Use this concept to induce clustering and activation of DR5 molecules, without the need for additional crosslinking
- Combination of two HexaBody molecules against two non-overlapping DR5 epitopes induced maximal cell death



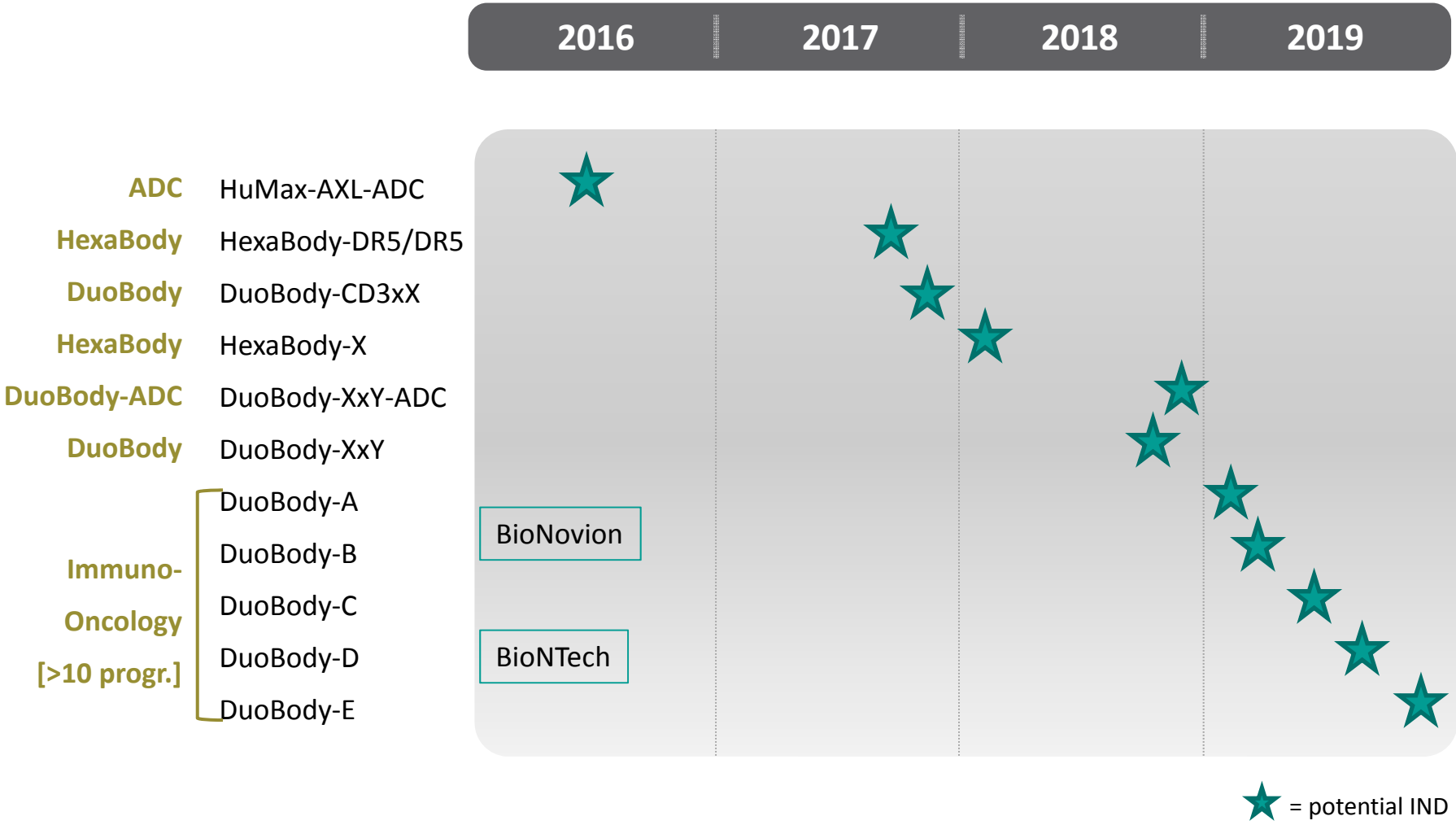
HexaBody-DR5/DR5

HexaBody Technology Highly Suitable for DR5 Targeting

- Incubation of colorectal cancer cells with conatumumab does not affect the cells
- In contrast, there is highly effective killing when these cancer cells were incubated with a combination of DR5-specific HexaBody molecules
- In a colorectal cancer xenograft model, the HexaBody-DR5 combination effectively reduced tumor growth, whereas conatumumab has no effect

Genmab Knock-Your-Socks-Off Pipeline

Efficient IND Engine



Pre-clinical pipeline targeting at least 4 leapfrog INDs in next 4 years

2016 Goals: Maximizing Product Portfolio Value

Priority	✓	Targeted Milestone
Maximize daratumumab progress		» Launch DARZALEX ™ in US and other approved territories » CHMP decision on monotherapy application » Phase III multiple myeloma (MM) interim efficacy analysis in relapsed / refractory MM settings [Pollux and Castor trials] » File for label in relapsed / refractory settings if results of interim analyses are favorable » Start multiple clinical trials in MM and non-MM indications » Report initial clinical data non-MM indications
Optimize ofatumumab value		» Start Phase III sc autoimmune trials » Regulatory decision for CLL maintenance » File for label in relapsed CLL » Phase III refractory follicular lymphoma (FL) interim efficacy data
Strengthen differentiated product pipeline		» Phase I HuMax-TF-ADC additional data » IND for HuMax-AXL-ADC and start clinical trial » Progress HexaBody-DR5/DR5 program » Progress pre-clinical DuoBody & HexaBody projects
Broaden partnership portfolio with next generation technologies		» Sign new / expanded DuoBody & HexaBody collaborations » Progress partnered programs » New IND filings
Disciplined financial management		» Selectively invest to progress and broaden differentiated product pipeline

Q&A

Jan van de Winkel & David Eatwell, *Genmab*

Genmab


Glædelig Jul og Godt Nytår
Holiday Greetings
Prettige Feestdagen
Copenhagen • Princeton • Utrecht
Genmab