Better Antibodies By Design

Jefferies 2013 Healthcare Conference

New York, NY June 2013

Genmab

Forward Looking Statement

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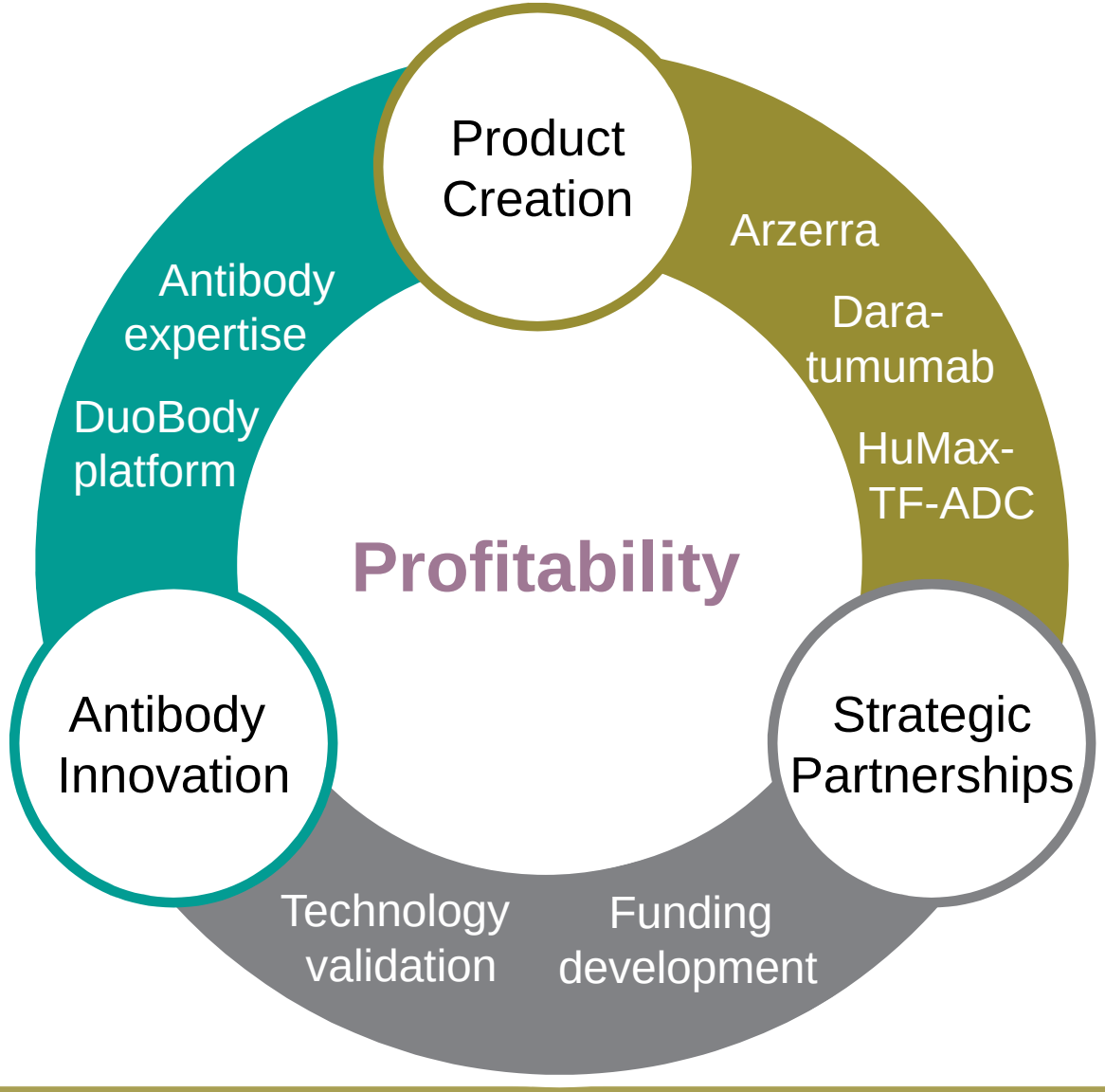
Antibody Innovation Generating World Class Products

- Focus on human antibodies to treat cancer
- Proven ability to bring product to market
  - One marketed product (Arzerra®) with growing sales
  - First-in-class daratumumab next potential product
- Strong innovation focus
  - Proprietary technologies – DuoBody® & HexaBody™
  - Innovative pre-clinical pipeline including HuMax®-TF-ADC
  - World class antibody know-how
- Collaborations with blue chip partners incl. GSK and Janssen
- Capital efficient model aimed at creating a sustainably profitable business

Hybrid Business Model

Trend-Setting Technologies & Differentiated Products



Innovative Pipeline

Product	Disease Indications	Development Phase: Pre-clinical	I	I/II	II	III	IV
Ofatumumab 19 studies Partner: GSK	Chronic lymphocytic leukemia (CLL)			■	■	■	■
	Follicular lymphoma (FL)		■		■	■	
	Diffuse large B-cell lymphoma (DLBCL)				■	■	
	Relapsing remitting multiple sclerosis (RRMS)				■		
	Waldenström's Macroglobulinemia (WM)				■		
Daratumumab 2 studies Target: CD38 Partner: Janssen	Multiple myeloma (MM)			■			
Inclacumab Target: p-Selectin Partner: Roche	Saphenous vein graft disease				■		
	Acute coronary syndrome (ACS)*				■		
HuMax-TF-ADC Target: Tissue factor Partner: SeaGen	Solid cancers	■					
> 10 Active Pre-clinical Programs	HuMab, Enhanced HuMab, HuMab-ADC, DuoBody or DuoBody-ADC	■					

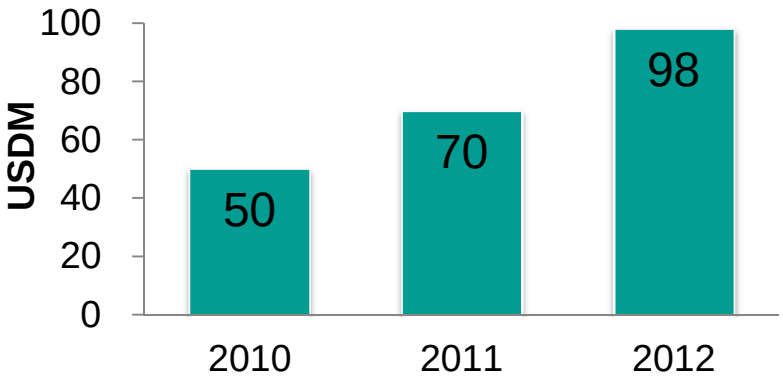
*Study completed

Arzerra® (ofatumumab)

About Arzerra

- Fully human antibody
- Approved in US, EU, Japan & other territories for CLL patients that do not respond to current treatments (fludarabine & alemtuzumab)
- Targets CD20 on (cancerous) B-cells
- Highly effectively engages immune system
- Slow release from disease target
- Differentiated to rituximab, targets slice of > $7 Bn market
- Successful GSK collaboration since 2006

GSK Arzerra Sales Growth



- Genmab Cancer Royalty = 20%
- Q1 2013 sales GBP 20.5M (~$31M); royalty DKK 36M

Future Growth Drivers

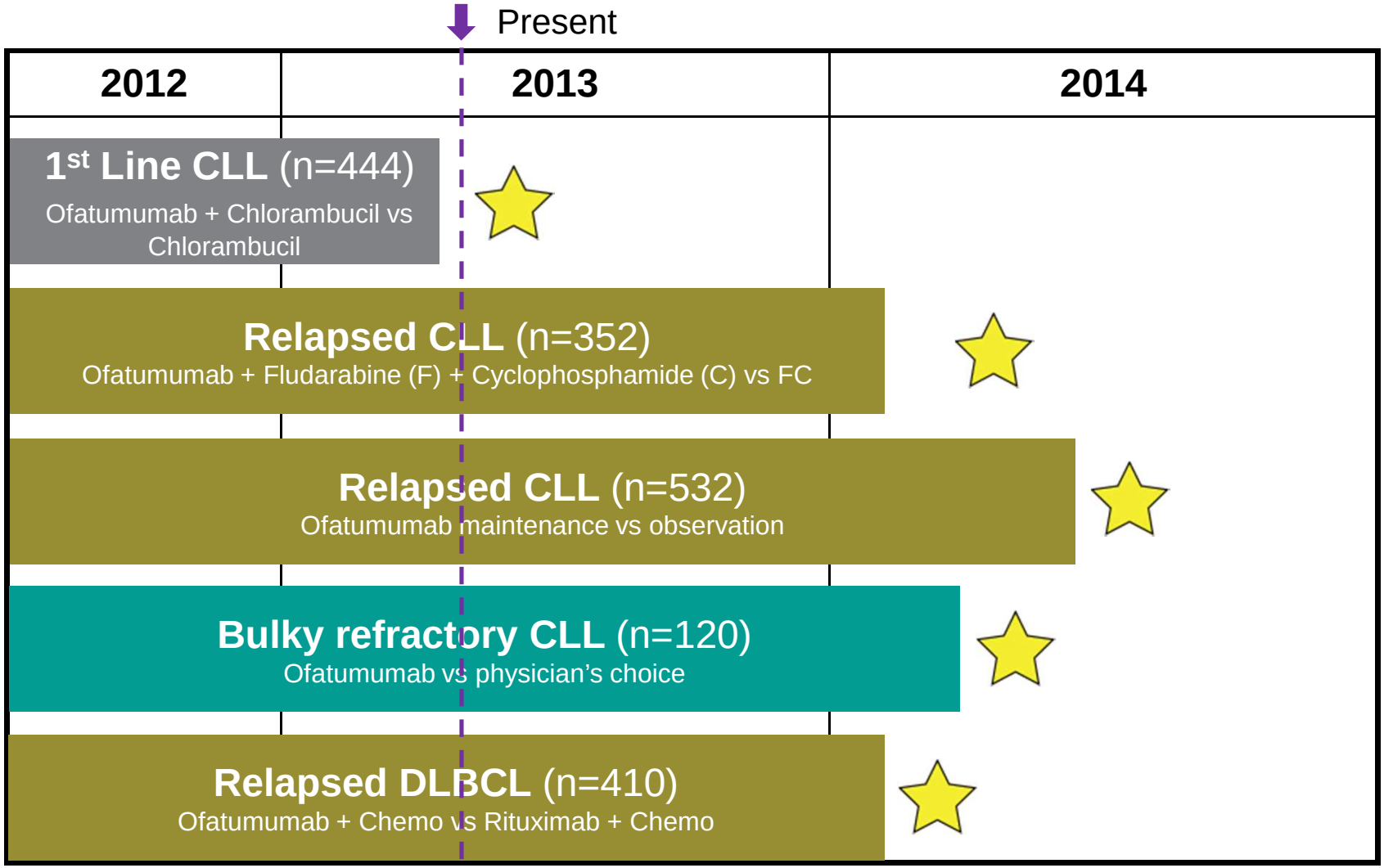
- Continued worldwide rollout
- Blockbuster potential in Cancer; broad potential in Autoimmune diseases
- Broad clinical program - 7 cancer pivotal trials ongoing

Ofatumumab + Chlorambucil Extends Progression Free Survival: Phase III Results

- Ofatumumab + chlorambucil vs. chlorambucil alone in front line CLL
- 447 patients in the study
- Met primary endpoint in the study - PFS
- 9.3 month improvement in PFS in patients treated with ofatumumab + chlorambucil vs chlorambucil alone
- 22.4 month median PFS in ofatumumab + chlorambucil arm
- 13.1 month median PFS in chlorambucil arm
- No unexpected safety findings
- Most common SAEs
  - Neutropenia (5%), anemia (4%), pneumonia (4%) and pyrexia (2%)

Ofatumumab: Driving Value Through Data

Five Pivotal Studies in Next 15 months

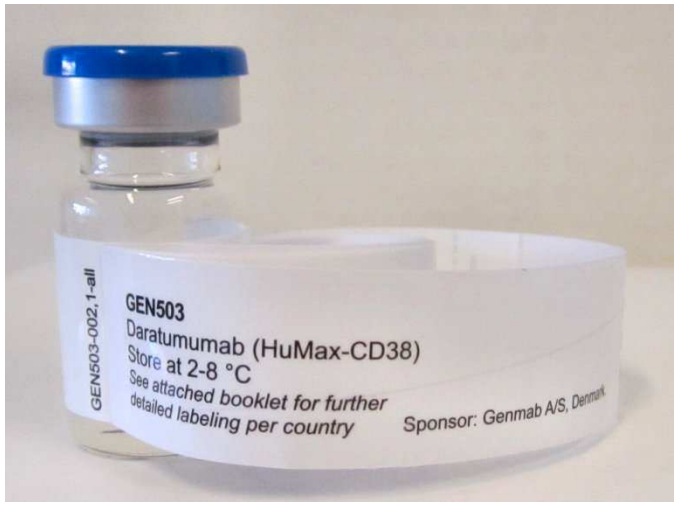


Daratumumab (HuMax®-CD38)

- First-in-class fully human antibody
- Targets CD38 molecule on multiple myeloma (MM) cells
- Potential in: MM, DLBCL, FL, Plasma Cell Leukemia, Mantle Cell Lymph., ALL & AML
- Partnership with Janssen
- Blockbuster potential
- Encouraging pre-clinical data
  - Broad-spectrum killing activity
  - Inhibits tumor growth at very low doses
  - Enhances cell killing in combination with current treatments (Revlimid, Velcade)
- Promising early clinical data
- Breakthrough Therapy Designation & Fast Track status awarded by FDA

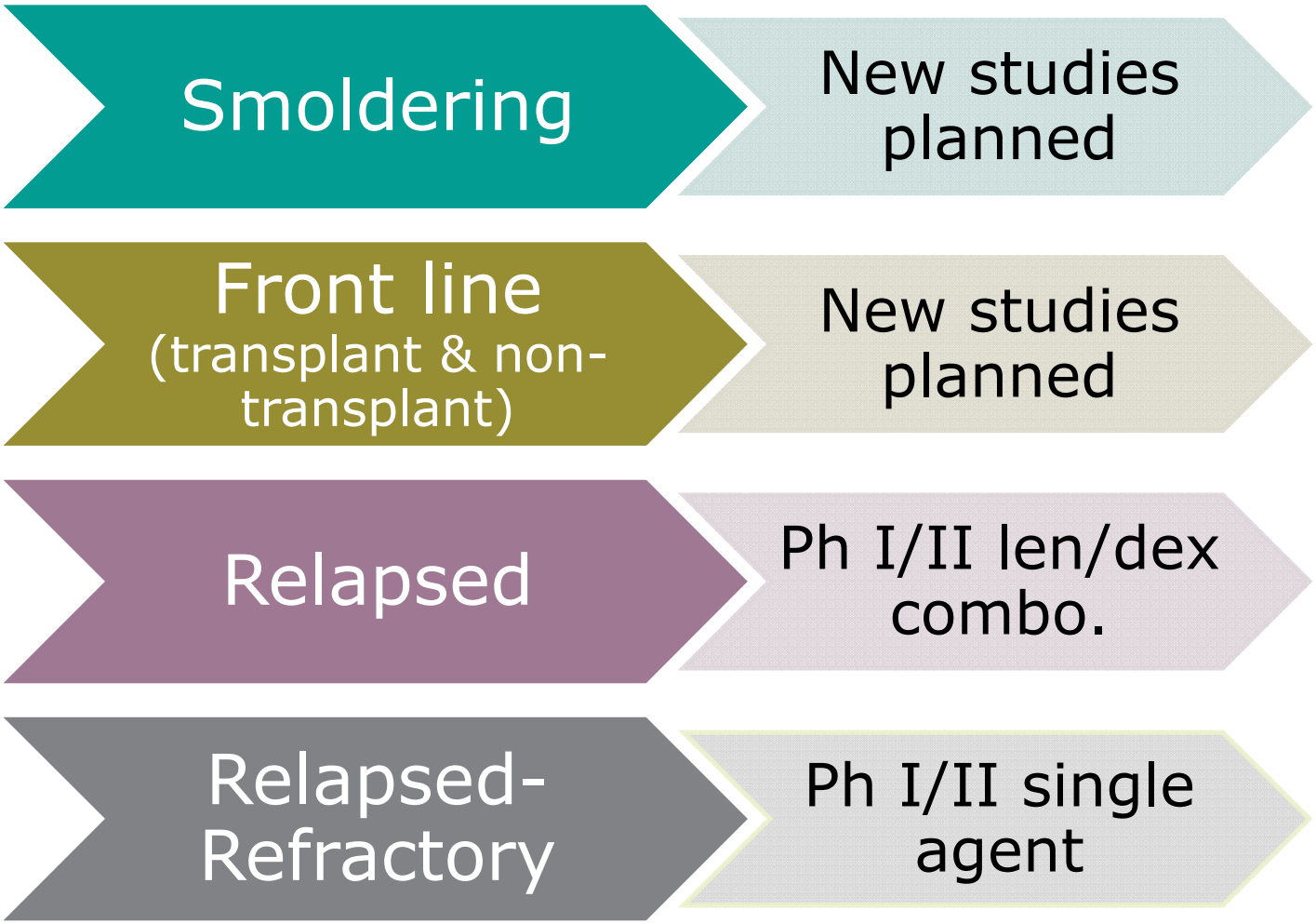
Daratumumab Collaboration
Billion Dollar Deal, Zero Costs

- Janssen Biotech* licenses worldwide rights: fully funds all development & commercialization
- $55M upfront payment
- $80M equity investment by J&J Devel. Corporation (10.7% stake)
- > $1.1 Bn total potential deal value
- Incl. development, regulatory, and sales milestones
- Plus double digit tiered royalties on global sales
- Zero cost / limited risk for Genmab



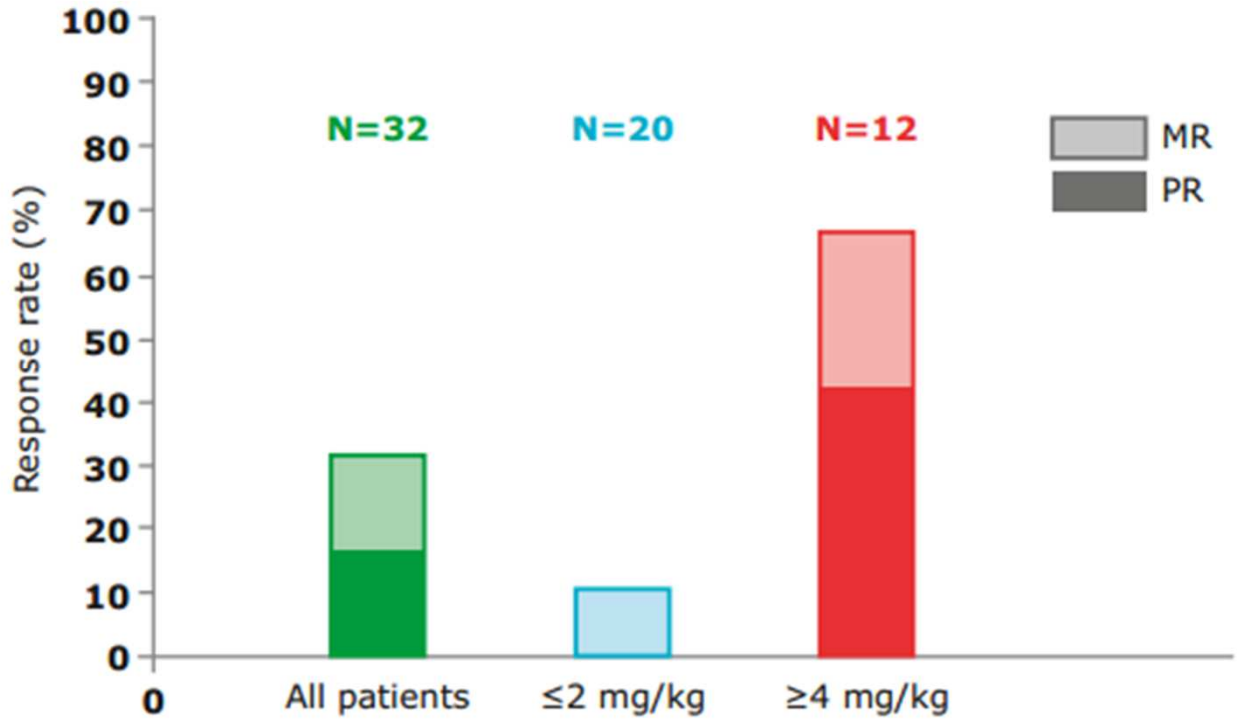
*Janssen Biotech, Inc., one of the Janssen Pharmaceutical Companies

Extensive Daratumumab Development Plans in Multiple Myeloma



Daratumumab: Early Signs of Clinical Activity

- Preliminary Ph I/II data in relapsed / refractory multiple myeloma
- 12 patients received ≥ 4 mg/kg of daratumumab
  - 8 clinical responses observed, 5 PR and 3 MR
  - Median PFS not reached at 18.4 weeks

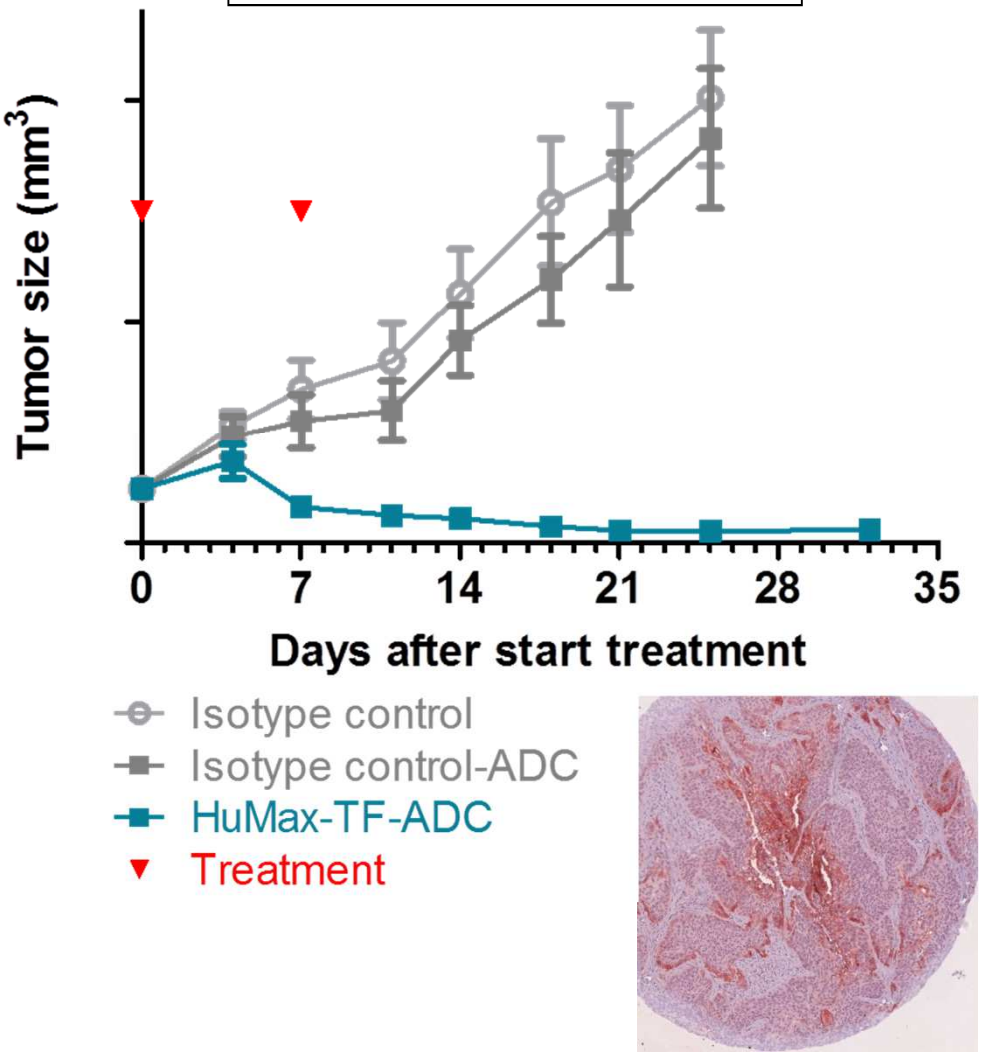


HuMax®-Tissue Factor-ADC: Towards the Clinic

Next Generation Therapeutics

- Fully human antibody-drug conjugate
- Targets Tissue Factor (TF)
- Potential in multiple solid cancers including pancreatic, lung, bladder, cervix, ovarian, and prostate cancer
- IND submission prepared for 2013
- Collaboration with Seattle Genetics

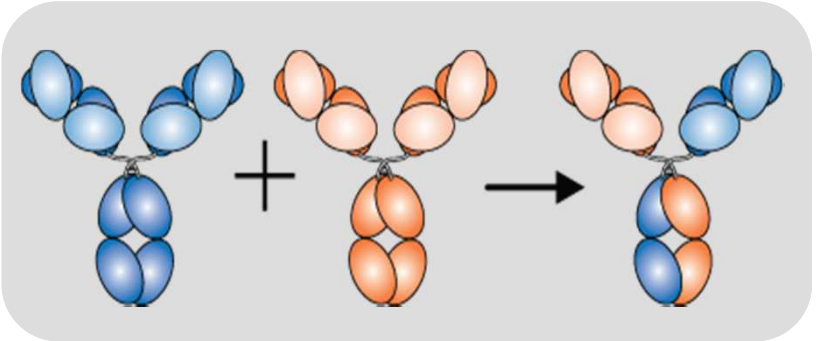
Cervical Cancer Model



DuoBody Platform

Innovative Technology for Therapeutic Bispecific Antibodies

- Uses dual-targeting, potential to improve specificity & efficacy
- Suitable for large scale manufacturing
  - Minimal protein engineering
  - Produces excellent quality antibodies at very high yields
- Distinguished from competitor platforms
  - Proper in vivo half-life
  - Fc-effector functions
  - Good manufacturability



DuoBody process for bispecificity

- IgG1
- Controlled conditions
- Unidirectional reaction

Potential Value of Two Major DuoBody Collaborations: Over $1.9 Billion

Novartis

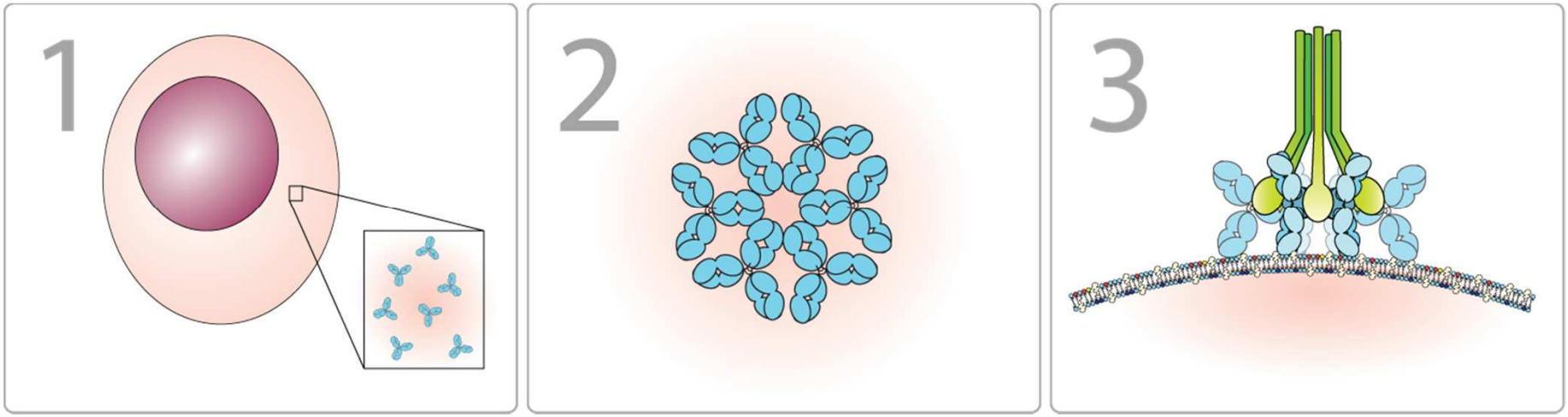
- 2 DuoBody programs
- Genmab receives
  - $2 million upfront payment
- $175 million total potential deal value
- Royalties on sales
- Novartis fully funds research

Janssen Biotech

- 10 DuoBody programs
- Genmab receives
  - $3.5M up front payment
  - $175M in potential milestone & license payments *per product*
- $1.75 billion total potential deal value
- Royalties on sales
- Janssen fully funds research

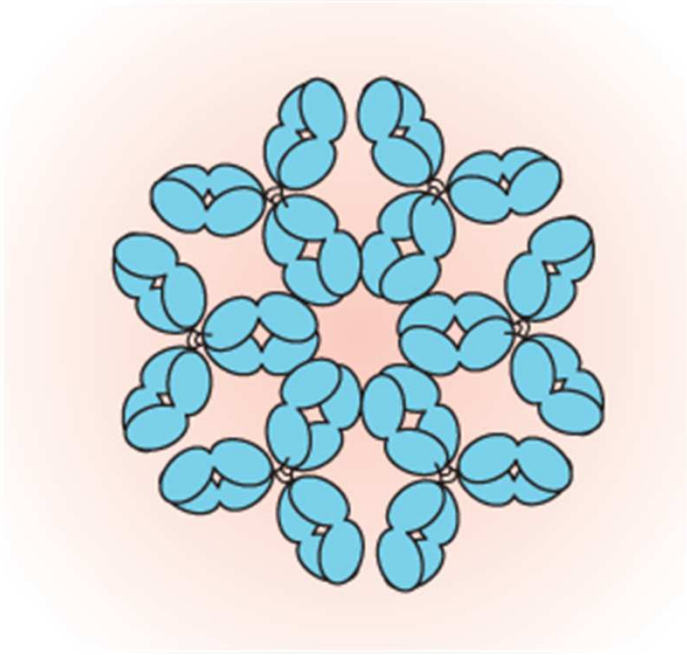
HexaBody™ Antibody Technology
Enhancing Natural Killing Mechanisms

- Builds on natural antibody biology
- Minimal engineering required
- Enables antibodies to more readily form clusters of 6 (hexamers)
- Induces and enhances target cell killing after binding via CDC, a major mechanism of action of antibodies
- Can impart CDC capability to essentially any antibody



HexaBody Antibody Technology
New Business Opportunities

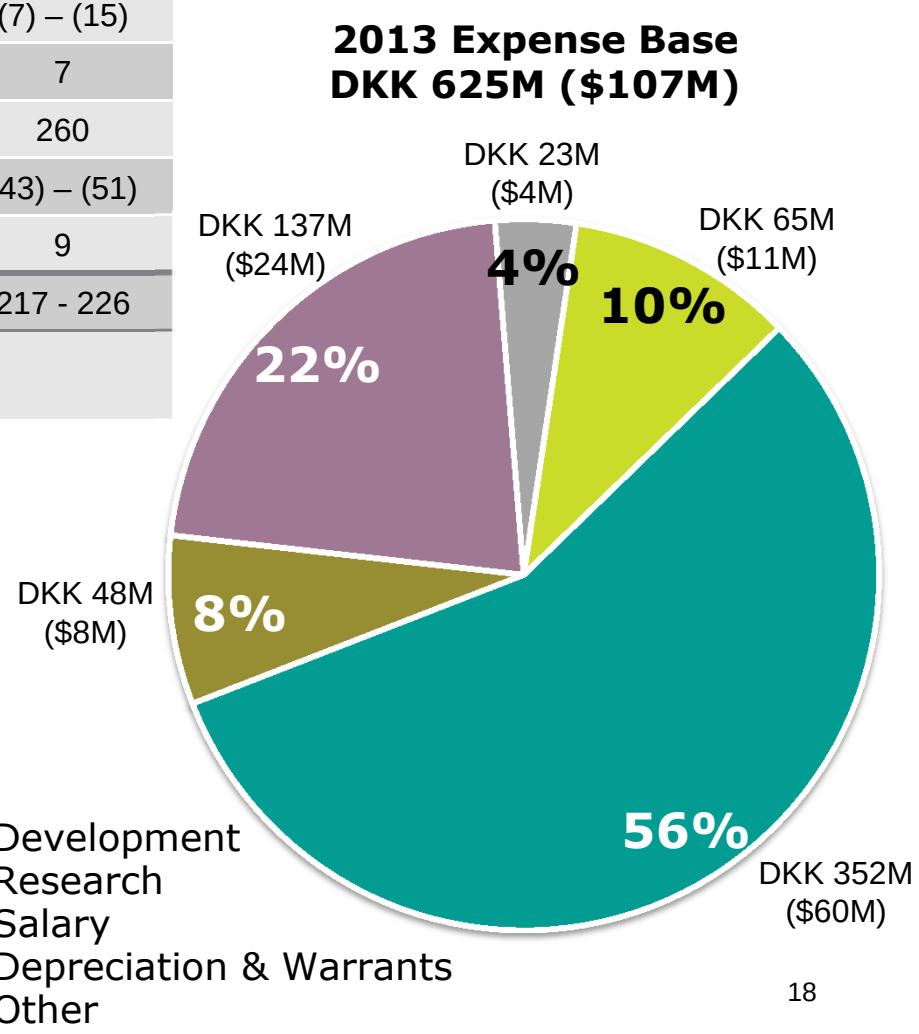
- Novel, differentiated products
  - Hematology, Oncology, Infectious diseases
- Attractive alternative to pay-load enhanced antibodies
- Other opportunities
  - Repurpose / rescue drug candidates that failed in Phase II / III
  - Life cycle management



2013 Guidance

	DKK M	USD M*
Revenue	540 - 580	93 – 99
Operating expenses	(600) – (650)	(103) – (111)
Operating loss continuing operations	(40) – (90)	(7) – (15)
Discontinued operation	40	7
Cash position beginning of year**	1,516	260
Cash used in operations	(250) – (300)	(43) – (51)
Facility sale	50	9
Cash position at end of year*	1,266 – 1,316	217 - 226

** USD 1.00 = DKK 5.8371 (spot rate Mar. 31, 2013)*
***Cash, cash equivalents and marketable securities*

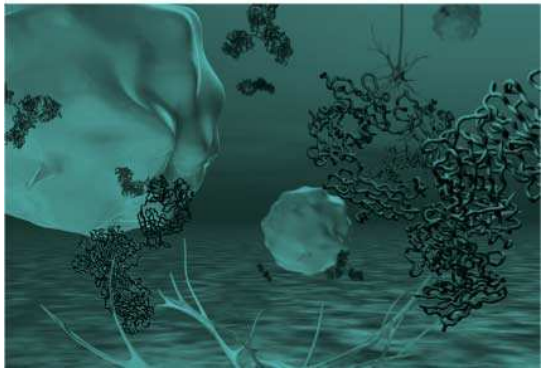


2013: A Year of Data and Deals

Priority	Milestone	Current Progress
Maximize value of ofatumumab	» Ph III frontline CLL; ofa + chlorambucil vs chlorambucil data » Ph II front and 2nd line; ofa + bendamustine data » Ph III CLL; ofa maintenance safety interim data » Update progress ofa sc autoimmune development	✓ Positive data reported in May ✓ Positive data reported in May ✓ IDMC recommends continuing study ✓ Recruitment in Ph II MS study completed
Expansion Arzerra	» Approval in Japan » Launch & reimbursement in new countries	✓ Approved in March ✓ Launched in Japan in May
Fully exploit the potential of daratumumab	» Ph I/II MM monother. matured safety & effic. data » Ph I/II MM combi therapy preliminary safety & efficacy data » Initiate additional MM clinical studies	✓ Updated data pres. at Intl. Myeloma Workshop in Japan ✓ Received Fast Track Designation ✓ Received Breakthrough Designation
Expand pipeline	» File IND for HuMax-TF-ADC » Initiate first clinical trial with HuMax-TF-ADC » Update progress pre-clinical programs including ADC and DuoBody projects	
Next generation technologies	» Expand DuoBody technology collaborations » Validate and advance HexaBody technology	✓ Janssen activated fourth bispecific antibody program
Partnerships	» Report progress partnered programs » Enter new collaboration	✓ Ph II inclacumab data reported
Disciplined expense management, reduce cash burn	» 2013 operating loss < than in 2012 » Reduce cash burn, lengthen cash runway	✓ Guidance maintained ✓ MN facility sold

On Track to a Sustainably Profitable Future

- World class antibody know-how
- Next generation antibody technologies
- Arzerra sales on the rise
- Expansive daratumumab development with Janssen Biotech
- HuMax-TF-ADC scheduled for 2013 IND
- Broad pre-clinical pipeline includes multiple DuoBody & ADC programs
- New partnership deals
- Well capitalized: Cash runway > 4½ years
- Disciplined spending & selective investing



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