Better Antibodies By Design

Investor Presentation
Credit Suisse 2014 London Healthcare Conference
March 5, 2014

Genmab

Forward Looking Statement

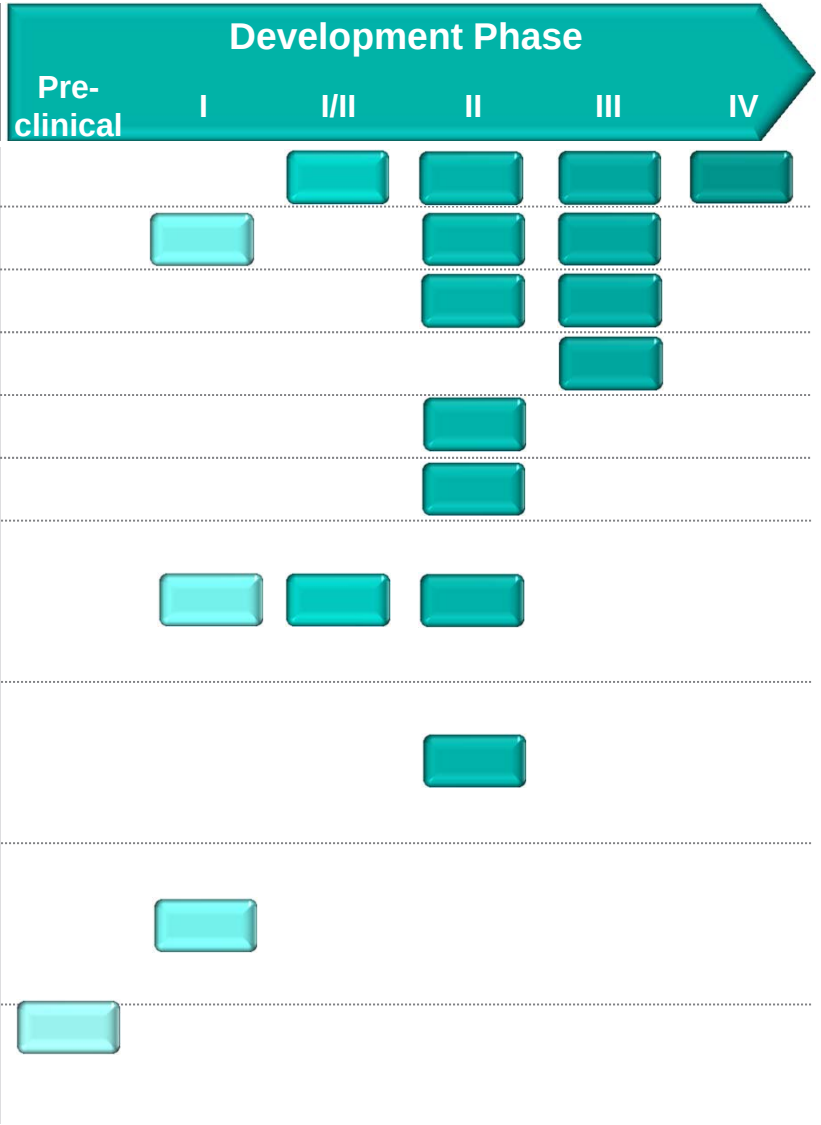
This presentation contains forward looking statements. The words “believe”, “expect”, “anticipate”, “intend” and “plan” and similar expressions identify forward looking statements. All statements other than statements of historical facts included in this presentation, including, without limitation, those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

Antibody Innovation Generating World Class Products

- Focus on human antibodies to treat cancer
- Differentiated product pipeline
  - Arzerra® on the market with growing sales and potential label expansions in the future
  - First-in-class daratumumab potential next to market
  - HuMax®-TF-ADC in Phase I
- Passion for innovation
    - Proprietary technologies – DuoBody® & HexaBody™
    - Innovative pre-clinical pipeline
    - World class antibody know-how
- Collaborations with blue chip partners incl. GSK and Janssen
- Aim to build value by taking products further towards the market

Innovative Pipeline

Product	Disease Indications	Development Phase
Ofatumumab 18 studies Target: CD20 Partner: GSK	Chronic lymphocytic leukemia (CLL)	
	Follicular lymphoma (FL)	
	Diffuse large B-cell lymphoma (DLBCL)	
	Pemphigus vulgaris (PV)	
	Relapsing remitting multiple sclerosis (RRMS)	
	Waldenström's Macroglobulinemia (WM)	
Daratumumab 4 studies Target: CD38 Partner: Janssen	Multiple myeloma (MM)	
Teprotumumab Target: IGF-1R Partner: River Vision	Active thyroid eye disease	
HuMax-TF-ADC Target: TF Partner: Seattle Genetics	Solid cancers	
> 10 Active Pre-clinical Programs	HuMab, Enhanced HuMab, HuMab-ADC, DuoBody or DuoBody-ADC	

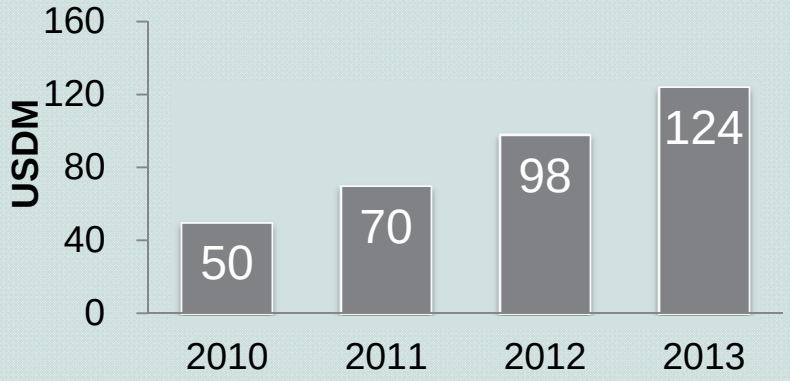


Arzerra® (ofatumumab)

Our First Marketed Product

- Collaboration with GSK
- Fully human antibody targeting CD20 on cancerous B-cells
- Effectively engages immune system, binds to a unique epitope
- Differentiated to other CD20 mAbs, targets slice of > $7 Bn market
- Approved in major territories for CLL pts that do not respond to current treatments (fludarabine & alemtuzumab)
- Application for expanded label in 1st line CLL in EU, US PDUFA date April 19, 2014
- 7 cancer pivotal trials ongoing
- Potential in cancer & autoimmune diseases

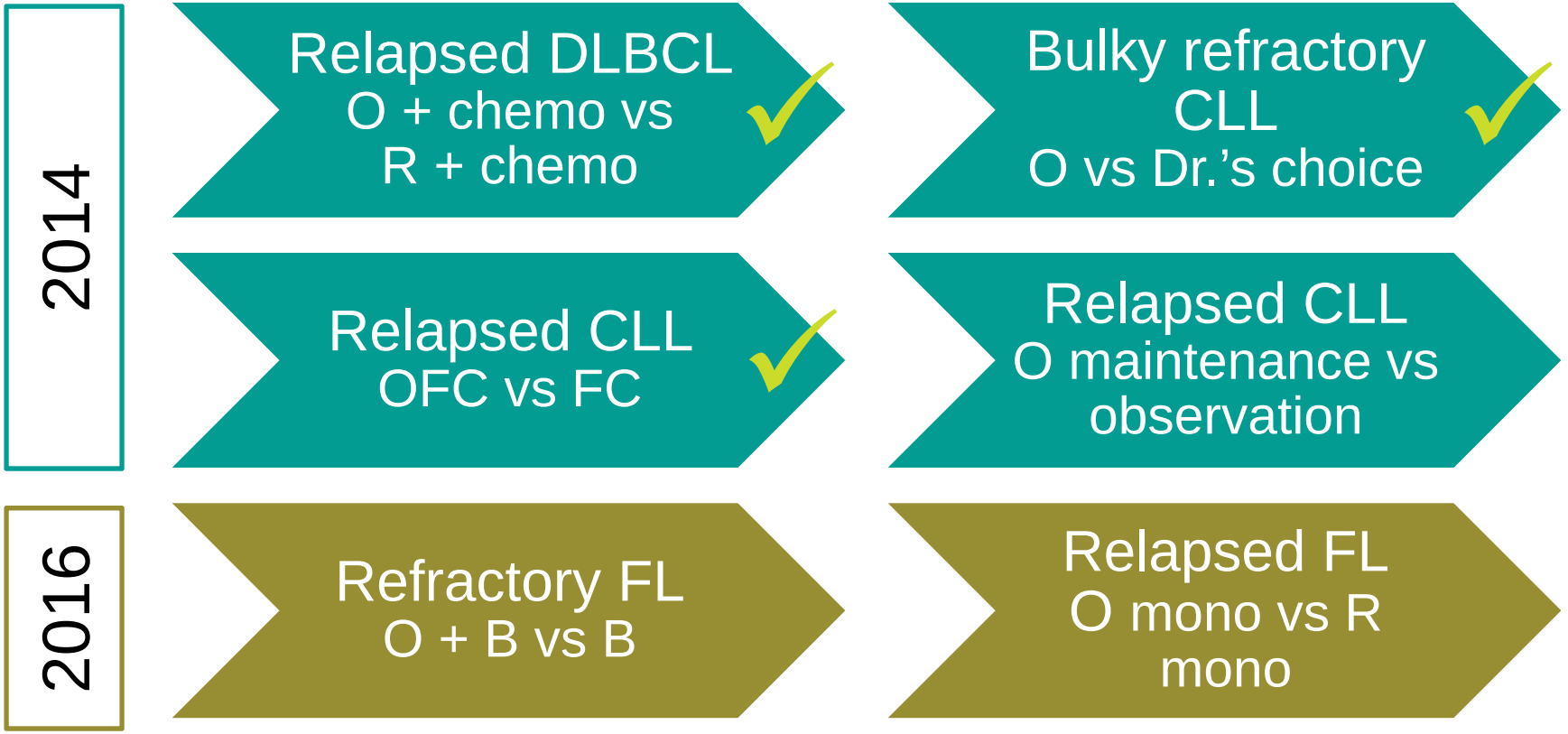
Sales Growth by GSK



- 2013 sales GBP 74.9M (~$124M); royalty DKK 131M
- Genmab Cancer Royalty = 20%

Data to Drive Ofatumumab Sales

4 Pivotal Study Readouts in 2014



✓ = recruitment completed

Note: The indications above are unapproved.

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
  - 38% of CR patients in Ofa + Chl arm MRD negative
- No unexpected safety findings - Most common SAEs:
  - Neutropenia (5%), anemia (4%), pneumonia (4%) and pyrexia (2%)

Key Efficacy Results	IRC Assessment		Investigator Assessment	
	Ofatumumab + chlorambucil	Chlorambucil	Ofatumumab + chlorambucil	Chlorambucil
Median PFS	22.4 months	13.1 months	23.4 months	14.8 months
ORR*	82%	69%	88%	81%
CR**	14%	1%	49%	21%

*As per IWCLL 2008 criteria, CR includes CRi, PR includes nPR

**Discrepancy IRC vs Inv due to missing / incomplete BM, or >30% BM invasion

Daratumumab (HuMax®-CD38)

First-in-Class Antibody with Broad-Spectrum Killing Activity

First-in-Class Fully Human Antibody

- Targets CD38 molecule on multiple myeloma (MM) cells
- Potential in: MM, DLBCL, FL, Plasma Cell Leukemia, ALL, Mantle Cell Lymph., AML
- Blockbuster potential
- Promising early clinical data
- Breakthrough Therapy Designation, Fast Track & Orphan Drug status awarded by FDA

Partner: Janssen Biotech

- Janssen funds development & commercialization
- > $1.1Bln potential deal value*, + double-digit royalties
- Zero cost / limited risk for Genmab

* Represents aggregate of all milestone payments and license fees that could be payable to Genmab if collaboration partner successfully initiates, develops and commercializes all programs under the collaboration

Extensive Daratumumab Development Plans in Multiple Myeloma

Smoldering	• New studies planned
Front line (transplant & non-transplant)	• Ph Ib multi combo
Relapsed	• Ph I/II len/dex combo
Relapsed-Refractory	• Ph I/II & Ph II single agent

Daratumumab: Early Signs of Clinical Activity

Phase I/II Combination Study

- Preliminary Ph I/II data for daratumumab in combination with lenalidomide and dexamethasone
- Treating patients with relapsed / refractory multiple myeloma
- Efficacy measured in 11 patients
- Treatment was well tolerated

Response Rate (Number of Patients)					
	2 mg/kg (N=3)	4 mg/kg (N=3)	8 mg/kg* (N=3)	16 mg/kg* (N=2)	Total (N=11)
CR	1	2	0	0	3
VGPR	1	1	0	0	2
PR	1	0	2	0	3
MR	0	0	1	1	2
SD	0	0	0	1	1
PD	0	0	0	0	0

*Limited treatment exposure

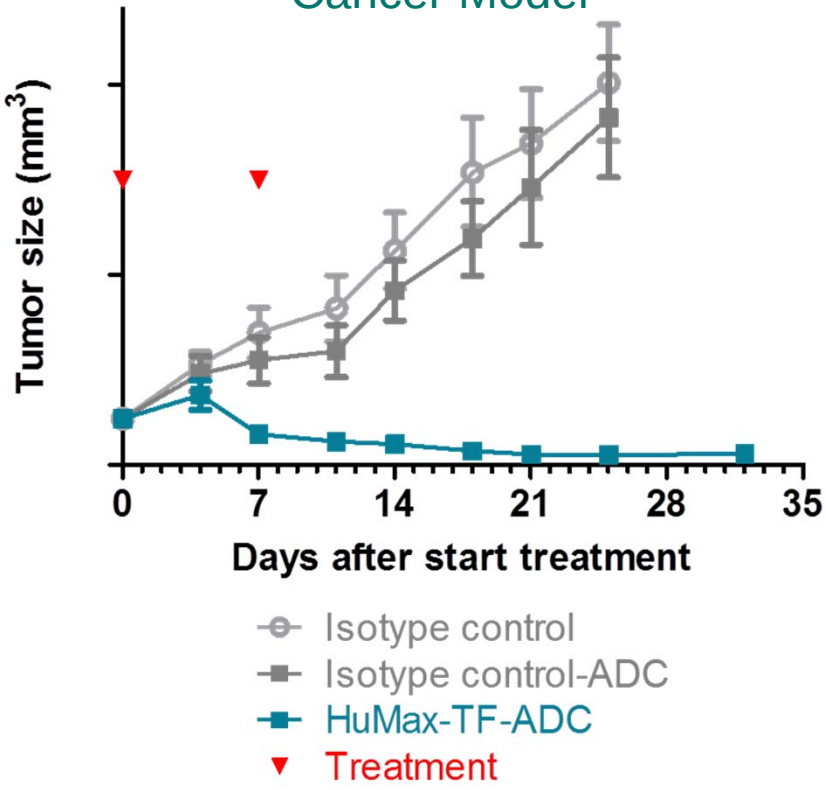
Response rates evaluated in 11 patients according to IMWG 2011 guidelines. CR: complete response, VGPR: very good partial response, PR: partial response; MR: minimal response, SD: stable disease, PD: progressive disease.

HuMax®-Tissue Factor-ADC: In the Clinic

Next Generation Therapeutics

- Fully human antibody-drug conjugate
- Targets Tissue Factor (TF)
- Ongoing Phase I study in 8 different tumors: ovary, cervix, endometrium, bladder, prostate, head & neck, esophagus, lung
- Potential also in pancreatic cancer
- Collaboration with Seattle Genetics

Pre-clinical Cervical Cancer Model



DuoBody® Platform

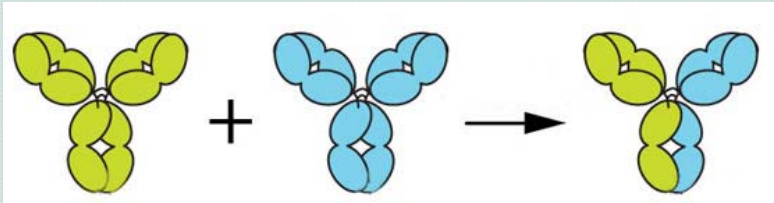
Innovative Technology for Bispecific Antibodies

DuoBody

- Dual-targeting, potential to improve specificity, efficacy
- Large scale manufacturing
  - Minimal protein engineering
  - Excellent quality antibodies at very high yields
- Differentiated from competitor platforms
  - Proper in vivo half-life
  - Fc-effector functions
  - Good manufacturability

Major Collaborations

- Novartis
  - 2 programs, $175M potential deal value, plus royalties
- Janssen Biotech
  - 20 programs, $3.6B potential deal value, plus royalties
- Kirin (KHK) research deal
- Lilly research deal

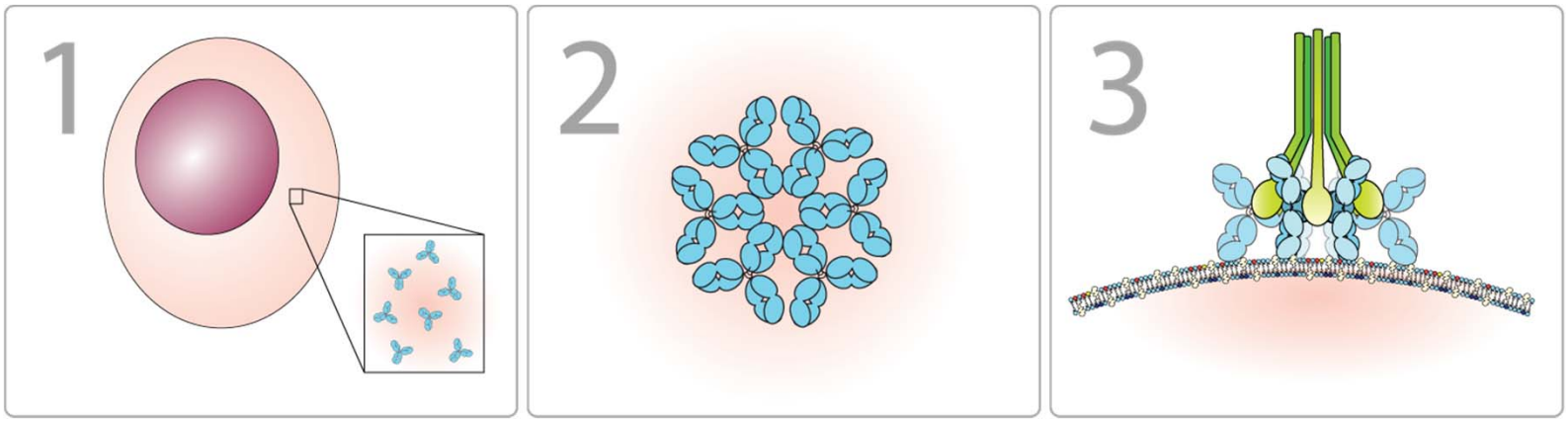


HexaBody™ Technology

Enhancing Multiple Natural Killing Mechanisms

- Builds on natural antibody biology - minimal engineering required
- Enables antibodies to more readily form clusters of 6 (hexamers)
- Induces & enhances target cell killing after binding via CDC
    - CDC capability to essentially any antibody
- Potential to create novel, differentiated products in cancer & infectious disease
    - Repurpose / rescue drug candidates that failed in Phase II/III
    - Life cycle management

HexaBody



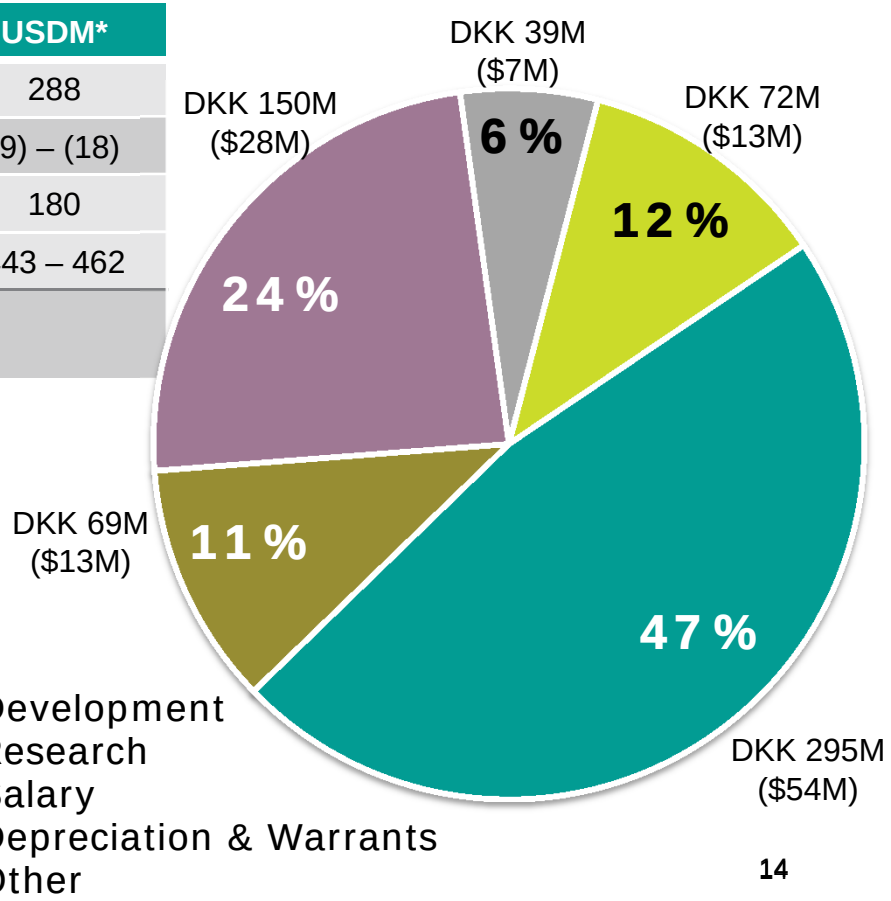
2014 Guidance

Income Statement	DKKM	USDM*
Revenue	725 – 775	134 – 143
Operating expenses	(600) – (650)	(110) – (120)
Operating result continuing operations	90– 160	17 – 30

Cash Position	DKKM	USDM*
Cash position beginning of year**	1,557	288
Cash used in operations	(50) – (100)	(9) – (18)
Proceeds from Private Placement	972	180
Cash position at end of year**	2,400 – 2,500	443 – 462

** USD 1.00 = DKK 5.4127 (spot rate December 31, 2013)*
***Cash, cash equivalents and marketable securities*

2014 Expense Base
DKK 625M ($115M)

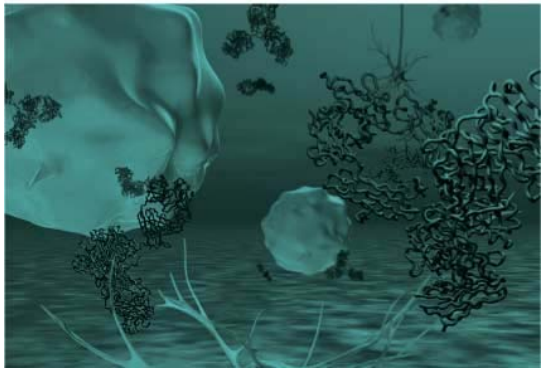


2014 Goals: Fueling Growth Through Our Platforms & Products

Priority	✓	Targeted Milestone
Maximize value of ofatumumab		» Ph III relapsed CLL ofa + FC data » Ph III maintenance CLL data » Ph III bulky refractory CLL ofa vs physician's choice data » Ph III relapsed DLBCL; ofa + chemo vs RTX + chemo data » Update progress sc autoimmune development
Expansion Arzerra		» CLL front line label expansion and launch » Launch & reimbursement in new countries
Fully exploit the potential of daratumumab		» Ph I/II MM monotherapy matured efficacy data » Ph I/II MM dara + Revlimid safety & efficacy data » Ph II MM monotherapy preliminary data » Ph Ib MM multi combo data » Start multiple new MM trials » Progress non-MM indications
Expand pipeline		» Progress Ph I HuMax-TF-ADC study » Report progress pre-clin. ADC, DuoBody & HexaBody projects
Next generation technologies	✓	» Enter new DuoBody technology collaborations » Report progress DuoBody collaborations » Start HexaBody technology collaborations
Partnerships		» Report progress partnered programs » Enter new collaboration
Disciplined financial management		» Significant daratumumab milestones » No significant increase in cost base » Increase operating income and reduce cash burn

On Track to a Sustainably Profitable Future

- World class antibody know-how
- Next generation antibody technologies
- Arzerra pivotal trials and label expansion
- Expansive daratumumab development with Janssen Biotech
- HuMax-TF-ADC in Phase I solid cancers
- Broad pre-clinical pipeline includes multiple DuoBody & ADC programs
- New partnership deals
- Disciplined spending & selectively invest



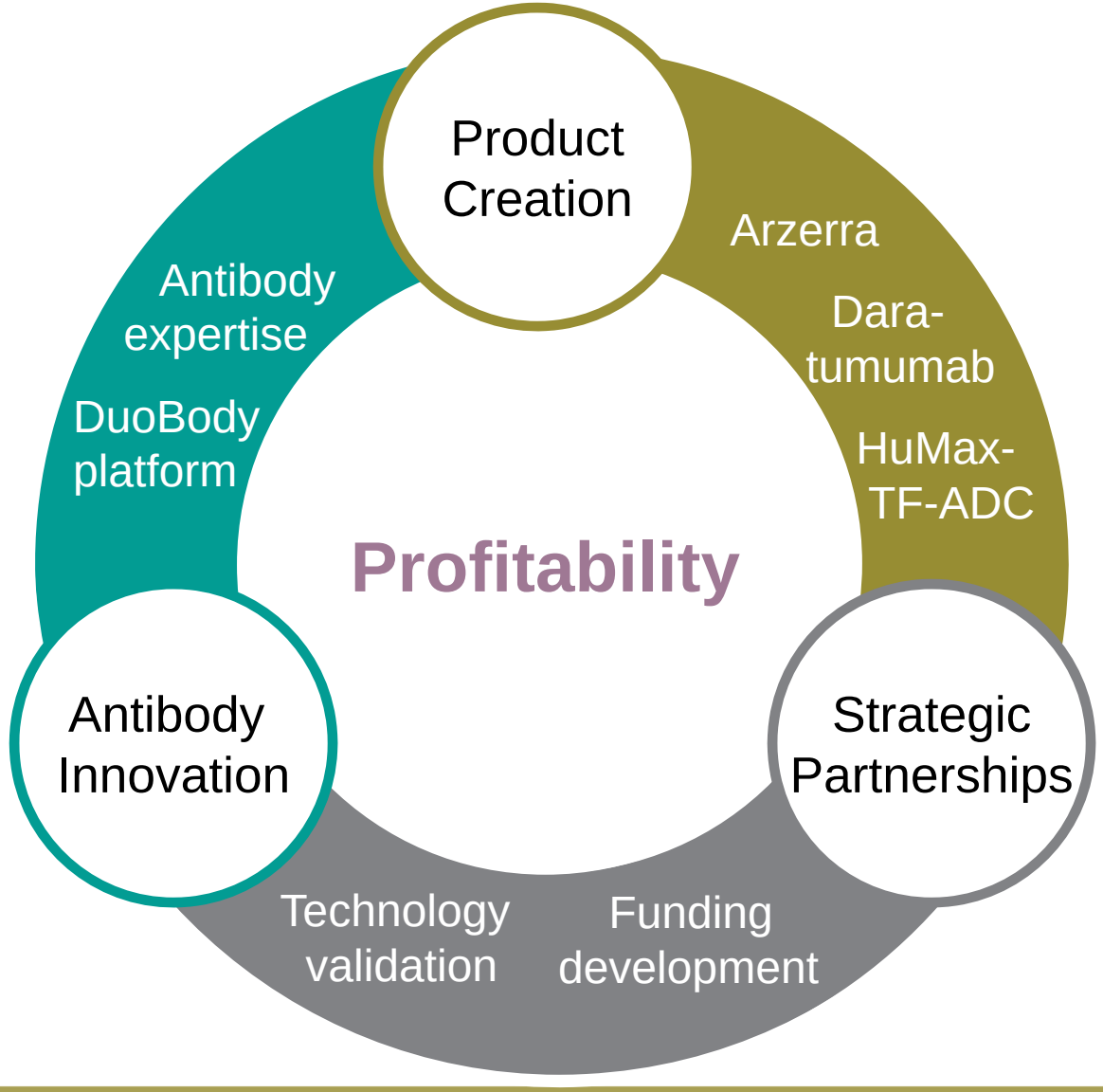
Better Antibodies By Design

Appendix

Genmab

Hybrid Business Model

Trend-Setting Technologies & Differentiated Products



Leveraging Our Assets

Creative partnerships for new product opportunities

- HuMax-TAC-ADC (target: IL-2R) – ADC Therapeutics
- HuMax-IL8 (target: Interleukin-8) – Cormorant Pharmaceuticals

Top class antibody knowhow

- 2001/2 Roche agreement
  - Inclacumab (target: P-selectin) – PoC establised for reduction myocardial injury. Available for outlicensing
  - Teprotumumab (target: IgF1R) – outlicensed to River Vision, in Phase II for Graves' orbitopathy
- 2012 Janssen DuoBody agreement
  - EM1-mAb, EGFrxcMet bispecific (targets: EGFr & cMet)

Income Statement: Year Ended December 31

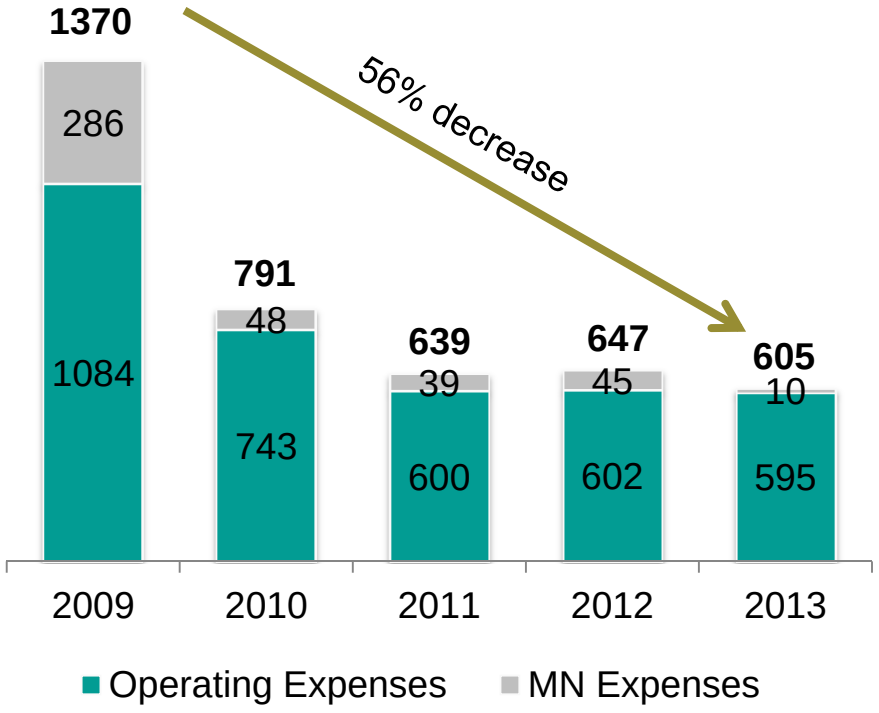
	2013	2012	Change	2013	2012
	DKK millions			USD millions **	
Revenue	664	485	179	123	89
R&D Costs	(528)	(537)	9	(98)	(99)
G&A Expenses	(67)	(65)	(2)	(12)	(12)
Operating Expenses	(595)	(602)	7	(110)	(111)
Operating Result	69	(117)	186	13	(22)
Net Financial Items & Tax	1	6	(5)	0	1
Net Result - Continuing Operations	70	(111)	181	13	(21)
Net Result - Discontinued Operations	42	(376)	418	8	(69)
Net Result	112	(487)	599	21	(90)
Cash position increase/(decrease)*	41	411		8	76
Cash position at end of year*	1,557	1,516		288	280

*Cash, cash equivalents, and marketable securities

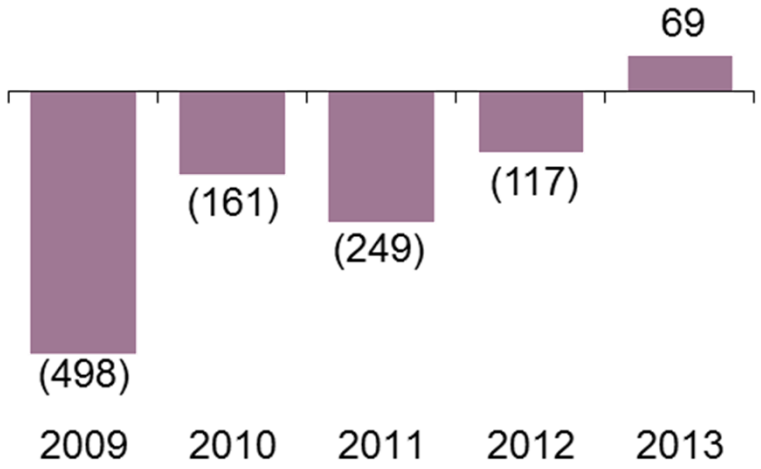
** USD 1.00 = DKK 5.4127 (Danish Central Bank spot rate on December 31, 2013)

Progress Towards a Sustainable Future

Controlling Expenses



Operating Result

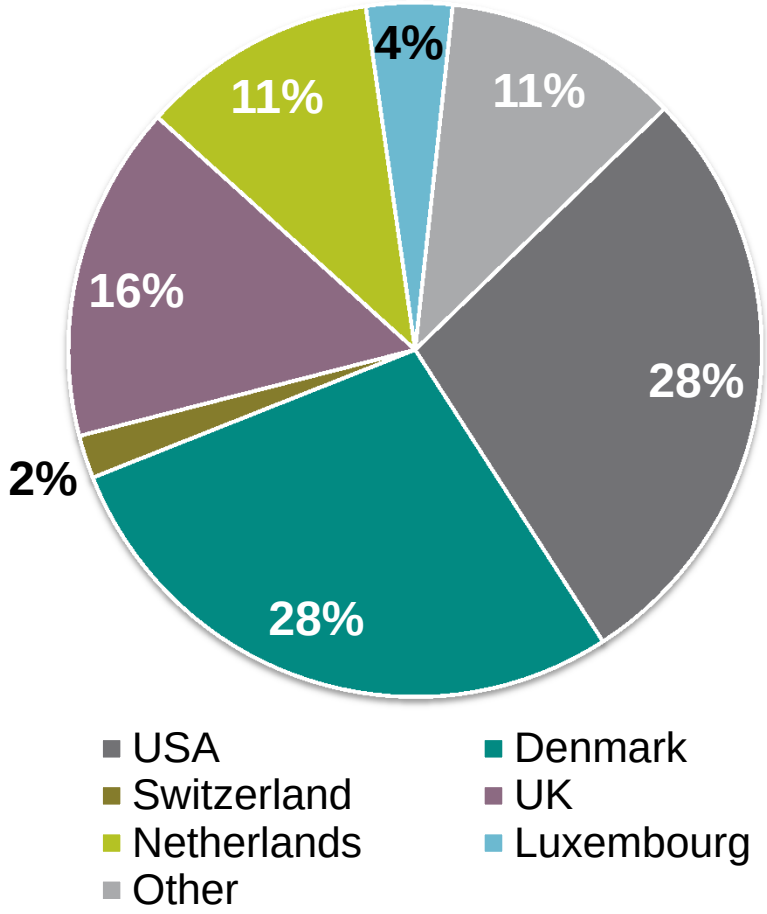


**All amounts in DKK millions unless otherwise noted*

International Shareholder Base

- Major shareholders >5%
  - Johnson & Johnson Development Corporation
  - Glaxo Group Ltd.
  - ATP Group
  - Hendrikus Stienstra
  - FMR (Fidelity)
- ADR program in US
  - Ticker: GMXAY
  - Sponsored level 1
  - Ratio: 2 ADR: 1 ordinary share
  - Depositary Deutsche Bank
  - Info at www.adr.db.com

Geographical Shareholder Distribution
January 31, 2014*



*Based on internal shareholder registry

Hematological Cancer Market Size

Estimated Prevalence in 7 Major Markets

Disease	Estimated Incidence in 7 Major Markets	Estimated Prevalence
CLL	32,000	250,000
DLBCL	38,000	300,000
FL	32,000	260,000
MM	55,000	190,000

Sources: CLL, DLBCL, FL 2013 forecast incidence: Datamonitor, “Pipeline Insight: Leukemias” and “Pipeline Insight: Lymphomas, Multiple Myeloma & Myelodysplastic Syndromes”, March 2010.
CLL, DLBCL, FL prevalence based on median survival of 8 yrs: company estimates.
MM 2012 incidence: Datamonitor, “Multiple Myeloma Epidemiology”, May 2013; MM prevalence: SEER 2012; company estimates.

Positive Phase II Ofatumumab + Bendamustine Data in CLL

- 97 CLL patients in study
- Previously untreated CLL
  - 44 patients
  - 95% Overall response rate (ORR)
  - 43% Complete response rate (CR)
    - 56% of these achieved MRD negativity in Bone Marrow
- Relapsed CLL
  - 53 patients
  - 74% ORR
  - 11% CR

Robust Technology & IND Engine to Produce Better Cancer Therapeutic Antibodies

UltiMAb® Platform

- Validated technology
  - 5 approved products
  - 29 in development
- Naked & potency-enhanced antibodies

DuoBody® Platform

- Genmab proprietary -

- Creates bispecific antibodies with ability to bind to 2 targets
- Potential in: cancer, infectious disease, autoimmune & CNS
- Collaborations with Novartis, Janssen, Eli Lilly and KHK

Antibody-Drug Conjugates

- Major new advancement in antibody technology
- Collaboration with Seattle Genetics
- Collaboration with ADC Therapeutics

HexaBody™ Platform

- Genmab proprietary -

- Enhances natural killing ability of antibodies
- Creates novel, differentiated products
- Potential in: cancer & infectious disease

Better Antibodies By Design

Genmab