Better Antibodies By Design

Jefferies 2012 Global Healthcare Conference in London
November 14, 2012

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.

Leading International Biotechnology Company

- Focus on human antibodies to treat cancer
- Track record of bringing products to market
  - Arzerra® on market with growing sales
  - 1st-in-class daratumumab aimed as next marketed product
- Strong innovation focus
  - Proprietary bispecific technology - DuoBody Platform
  - Innovative pre-clinical pipeline incl. HuMax-TF-ADC
  - World class antibody know-how
- Strategic collaborations: blue chip partners incl. GSK & Janssen
- Capital efficient model to create a sustainable business

Innovative Pipeline

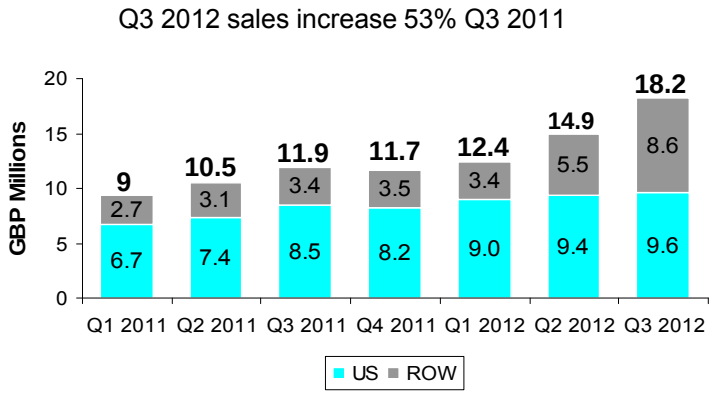
Product	Disease Indications	Development Phase: Pre-clinical / I / I/II / II / III / IV
Ofatumumab 23 studies Partner: GSK	Chronic lymphocytic leukemia (CLL)	
	Follicular lymphoma (FL)	
	Rheumatoid arthritis (RA)	
	Diffuse large B-cell lymphoma (DLBCL)	
	Relapsing remitting multiple sclerosis (RRMS)	
	Waldenström's Macroglobulinemia (WM)	
Daratumumab 2 studies Target: CD38 Partner: Janssen	Multiple myeloma (MM)	
RG1512 Target: p-selectin Partner: Roche	Saphenous vein graft disease	
	Acute coronary syndrome (ACS)	
HuMax-TF-ADC Partner: Seattle Genetics	Solid cancers	
8 Active Pre-clinical Programs	HuMab, HuMab-ADC, DuoBody or DuoBody-ADC	

Arzerra® (ofatumumab)

About Arzerra

- Fully human antibody
- Approved in US & EU for patients with CLL that does not respond to current treatments (fludarabine & alemtuzumab)
- Targets CD20 molecule on B-cells which can become cancerous
- Effectively engages immune system
- Slow release from disease target increases length of treatment effect
- Successful collaboration with GSK since 2006

Arzerra Sales Growth

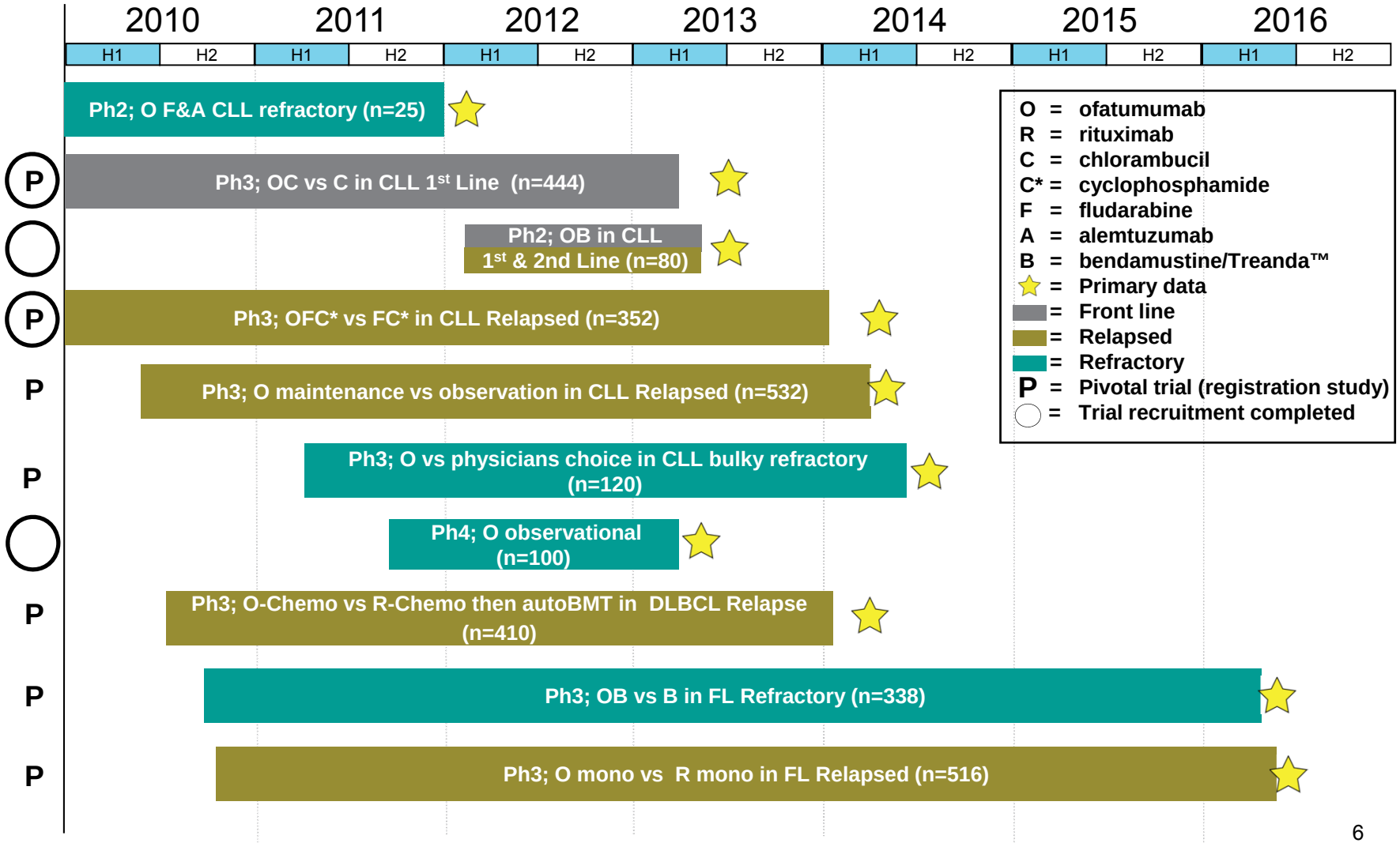


Future Growth Drivers

- New Drug Application submitted Japan for CLL patients who received prior therapy
- Continued worldwide rollout
- Blockbuster potential in Cancer; broad potential in Autoimmune diseases such as MS
- Broad clinical program - 7 cancer pivotal trials ongoing

Ofatumumab Cancer Clinical Trials

Timeline to Primary Data – Per November 2012

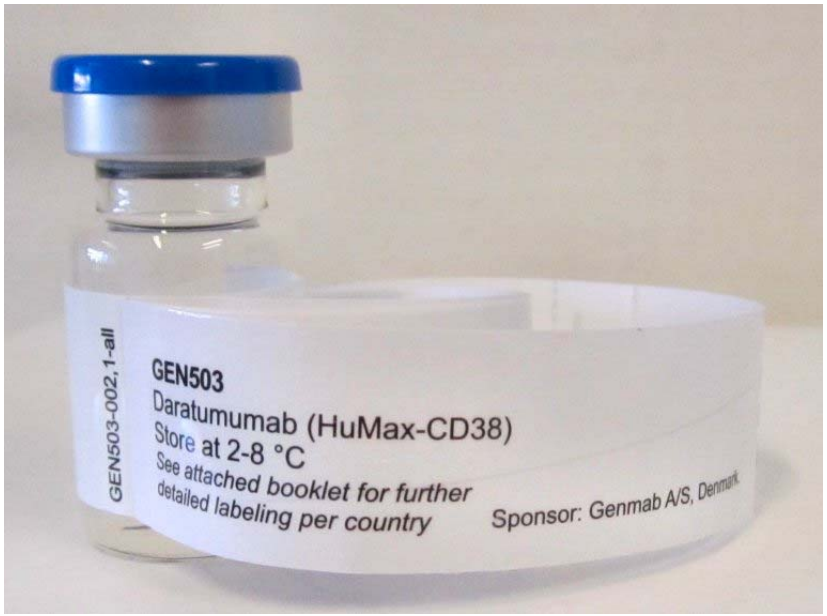


Daratumumab (HuMax®-CD38)

- First-in-class fully human antibody
- Targets CD38 molecule on multiple myeloma (MM) cells
- Potential in: MM, DLBCL, FL, Plasma Cell Leukemia, Mantle Cell lymphoma, ALL & AML
- Partnership with Janssen
- Potential MM market > $3.9 billion
- Encouraging pre-clinical data
  - Broad-spectrum killing activity
  - Inhibits tumor growth; active at very low doses
  - Enhances cell killing in combination with current treatments (Revlimid, Velcade)

Daratumumab Agreement with Janssen Completed

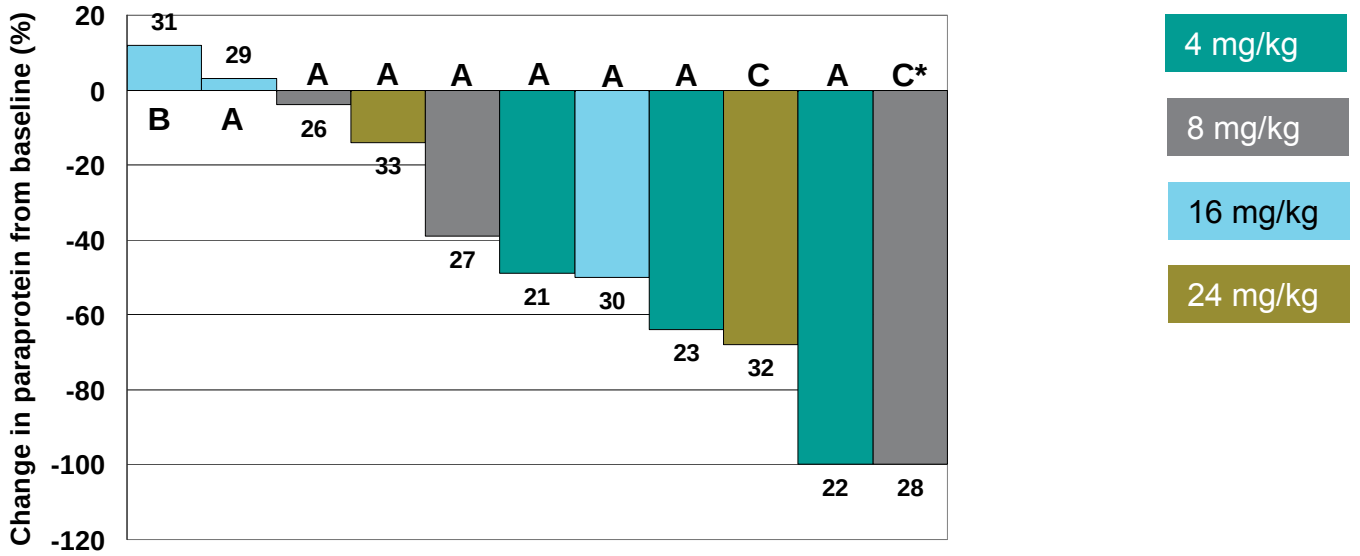
- Janssen Biotech, Inc.* licenses worldwide rights
- $55M up front payment to Genmab
- > $1 Bn in potential development, regulatory, and sales milestones
- Johnson & Johnson Development Corporation invests $80 M in Genmab shares (10.7% of share capital)
- > $1.1 Bn total potential deal value plus double-digit tiered royalties on global sales
- Janssen fully funds all development & commercialization



* One of the Janssen Pharmaceutical Companies of Johnson & Johnson

Daratumumab: Early signs of clinical activity

- Preliminary Phase I/II data in relapsed/refractory multiple myeloma
- 11 patients treated at ≥ 4 mg/kg of daratumumab
  - 7 clinical responses observed
    - 5 PR and 2 MR



A: serum M-protein; B: urine M-protein; C: FLC

* Data at baseline below limits for measurable disease

Results are before database lock

Daratumumab Development Plans

Planned Studies

- Genmab continues ongoing multiple myeloma (MM) studies
  - Phase I/II monotherapy
  - Phase I/II Revlimid combination
- Janssen to initiate >10 new studies
  - Several Phase III studies

Potential Indications

- Studies planned in 3 new indications
- Future potential indications
  - Acute myeloid leukemia (AML)
  - Diffuse large B-cell lymphoma (DLBCL)
  - Plasma cell leukemia (PCL)
  - Follicular lymphoma (FL)
  - Mantle cell lymphoma
  - Acute lymphoblastic leukemia (ALL)

Robust Technology & IND Engine to Produce Better 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

Antibody-Drug Conjugates

- Major new advancement in antibody technology
- Collaboration with Seattle Genetics
- Research agreement with undiscl. pharma (DuoBody-ADC)

UniBody® Platform

- Genmab proprietary -

- Creates smaller, inert antibody fragments, bind with only 1 arm
- Potential in: Allergies, Autoimmune & CNS
- Collaboration with Lundbeck

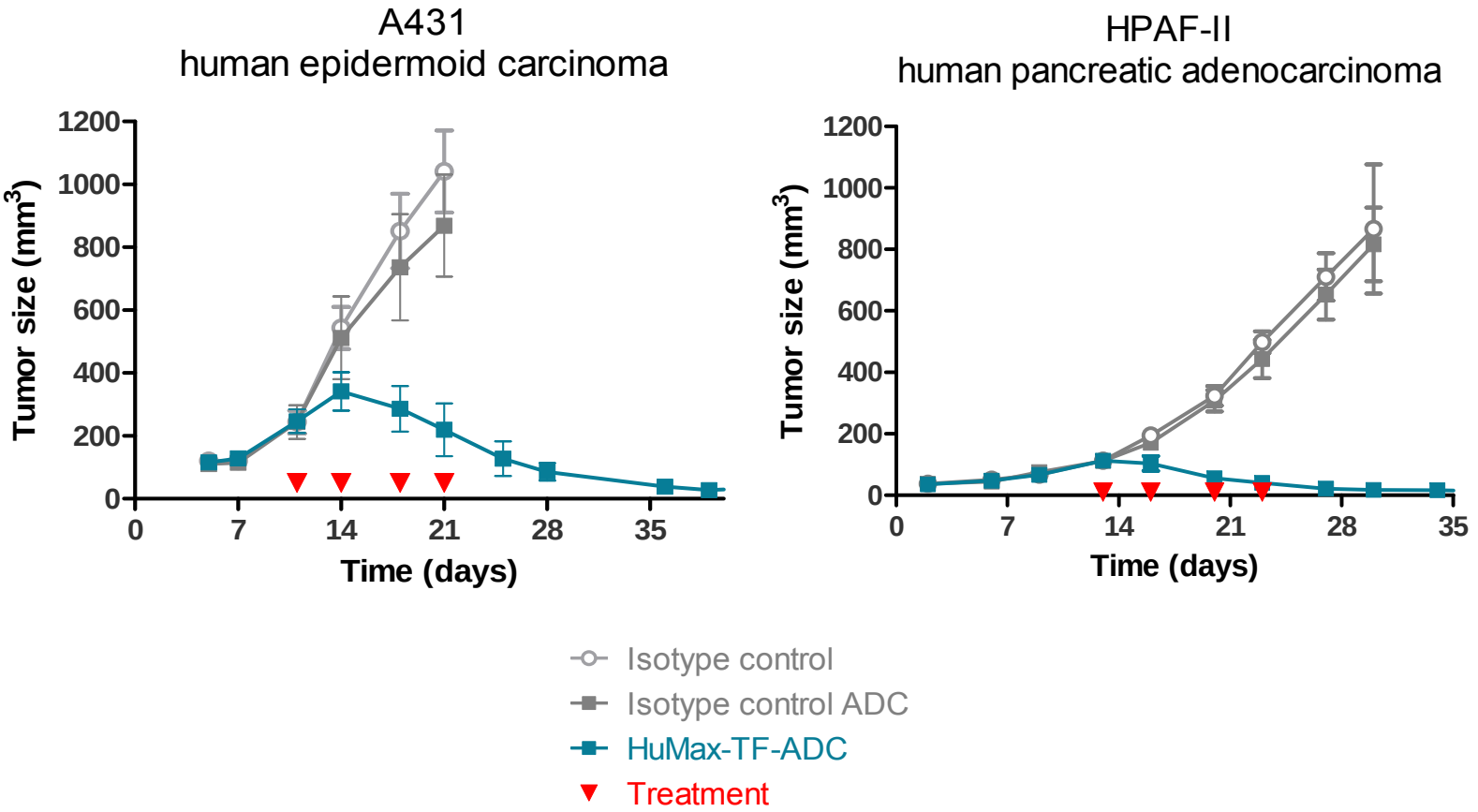
HuMax-Tissue Factor-ADC

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

HuMax-TF-ADC

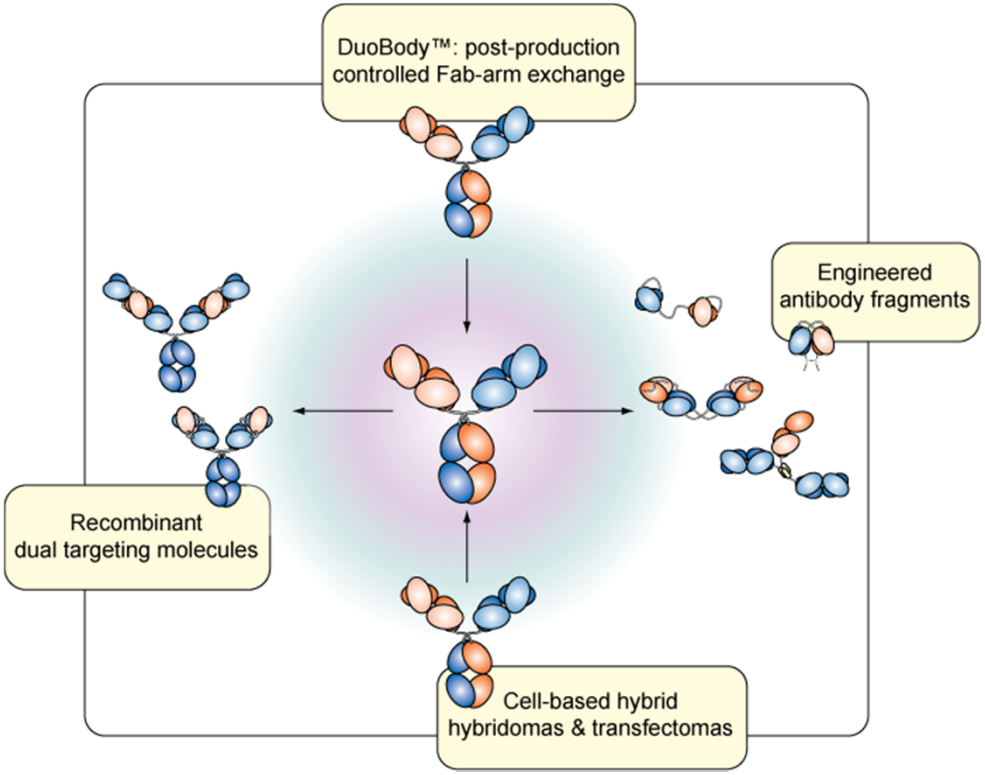
Potent *in vivo* killing activity

- HuMax-TF-ADC efficiently inhibits tumor outgrowth in different in vivo xenograft models



DuoBody™ Platform
Therapeutic Bispecific Antibodies

- Uses dual-targeting which may improve specificity & efficacy
- Suitable for large scale manufacturing
  - Based on standard unit operations for IgG1
  - Minimal protein engineering
  - Produces high quality antibodies
- Distinguished from competitor platforms
  - Proper in vivo half-life
  - Fc-effector functions
  - Good manufacturability



Income Statement

9 months ended Sept 30, 2012

	DKK millions			USD millions*	
	2012	2011	Change	2012	2011
Revenue	322	258	64	56	45
R&D Costs	(384)	(390)	6	(67)	(68)
G&A Expenses	(47)	(53)	6	(8)	(9)
Operating Expenses	(431)	(443)	12	(75)	(77)
Operating Loss	(109)	(185)	76	(19)	(32)
Financial Items & Tax	13	4	9	2	1
Continuing Operations	(96)	(181)	85	(17)	(31)
Discontinued Operations	(31)	(371)	340	(5)	(65)
Net Loss	(127)	(552)	425	(22)	(96)
Cash Increase (Decrease)	89	(325)	414	15	(56)

*USD 1.00 = DKK 5.7660 (Danish Central Bank spot rate on Sept 30, 2012)

Improved Guidance

MDDK	Revised Guidance Nov. 7, 2012	Previous Guidance Aug. 30, 2012
Revenue	450 – 475	435 – 460
Operating expenses	(600) – (625)	(600) – (625)
Operating loss continuing operations	(125) – (175)	(140) – (190)
Discontinued operation	(40)	(40)
Cash position beginning of year*	1,105	1,105
Cash used in operations	(360) – (385)	(375) – (400)
Cash from license agreement & share subscription agreement	800	800
Cash at end of year* excl. MN sale	1,520 – 1,545	1,505 – 1,530
Facility sale	320	320
Cash position at end of year*	1,840 – 1,865	1,825 – 1,850

**Cash, cash equivalents and marketable securities*

Revenue, operating loss and cash improved by DKK 15 million, due to increase in Arzerra royalty

New range DKK 105 – 115, previously DKK 90 – 100 million

Impressive 2012 Achievements

Priority	Milestone	Current Progress
Maximize value of ofatumumab	» Report Ph II F&A CLL refract. data » Ph III CLL mainten. safety interim data » Ph III DLBCL O vs R interim analysis for futility » Report data multiple ISS studies	✓ Data presented at ASCO IDMC analysis expected H1 2013 ✓IDMC recommends continuing study ✓ Data from 5 ISS studies presented at ASCO / EHA
Expansion Arzerra	» Launch & reimbursement new countries » Filing in new territory	✓ 1st launch in S. America; now in 24 countries ✓ GSK submitted NDA in Japan
Daratumumab	» Report efficacy data Ph I/II MM study » Initiate Ph I/II combination studies » Complete partnering	✓ Prelim data ASCO/EHA ✓ 1st patient dosed Ph I/II study daratumumab + Revlimid ✓Janssen agreement
Expand pipeline	» Report proof-of-concepts ADC and DuoBody product candidates	✓ DuoBody proof-of-concepts presented at 14 conferences
DuoBody platform	» Enter new collaboration » Advance platform	✓ 2 collaborations: Novartis & Janssen ✓ 3 bispecific antibody programs activated by Janssen
Partnered programs	» Report progress pre-clinical programs » Report progress clinical programs » Enter new collaboration	✓ Lundbeck 2nd milestone ✓ Outlicense HuMax-IL8
Manage and control cash burn	» Reduce cash burn & lengthen cash runway » Execute sale manufacturing facility	✓ Guidance improved 3 times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