# probiodrug



## The 2014 financial year Full year results

Halle (Saale), 31 March 2015

Konrad Glund CEO Hendrik Liebers CFO Inge Lues CDO

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## Content

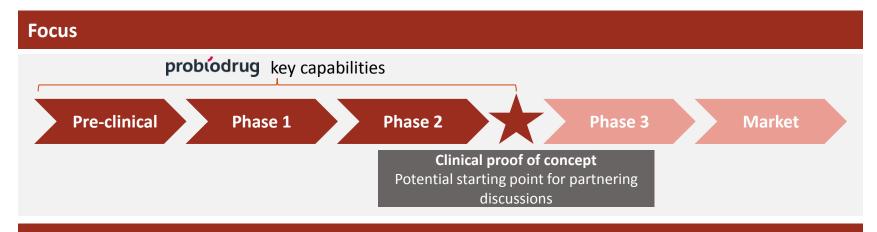
## 1. Corporate introduction

- 2. Results 2014
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## Investment highlights

Alzheimer's Disease ("AD") is a devastating neurological disease affecting over 35 million people world-wide\* Alzheimer's Disease: major No cure or long-term beneficial treatment available burden, no cure No new drugs approved since 2007\*\* Developing a differentiated approach aimed to treat AD **Differentiated approach** Building on proprietary know-how of AD biology, taking into account the latest insights in AD drug development A novel target in AD: pGlu-Abeta Focused proprietary pipeline PQ912: small molecule, first of its kind in clinical trials – phase 2 PBD-C06: antibody, complementary mode of action – pre-clinical Extensive ownership of IP: **Strong IP protection** Granted composition of matter patents Granted medical use patents Established drug development and CNS expertise **Experienced management team** Track record of monetizing cutting-edge science (diabetes/gliptin-drug class) and renowned investor base Committed support from leading financial and strategic investors

## Strategy & business model



#### **Strategic objectives**

- Continue to develop PQ912 through Phase 2a clinical trials and beyond
- Advance development of PBD-C06 and PQ1565 to the clinical stage
- Enter into partnerships with biotechnology and pharmaceutical companies
- Expand the company's intellectual property position in QC-inhibitors
- Explore benefits of combination therapies between the Company's products and other products
- Evaluate the potential of the Anti-pGlu-Abeta approach for other indications, such as the Down syndrome or aged-dependent macular degeneration (AMD)



## Management team

#### **Management team**

Konrad Glund, PhD, CEO Co-founder Chairman of the management board



#### **Biography**

- Co-founder of Probiodrug, CEO since 2006
- Led development of DP 4 inhibitors, transactions with Merck, Novartis, OSI and Ferring
- COO & VP business development OSI (Prosidion) in 2004-2006
- > 10 deals at OSI, including phase 1 deal with pharma

Hendrik Liebers, PhD CFO Member of the management board



- Longstanding track record in venture and private capital, CFH and IBG
- Numerous board seats in biotech companies
- > 20 financing rounds, M&A transactions, trade sales

Inge Lues,
PhD CDO
Member of the
management board



- Advisor to biotech companies and public research institutions
- Family office E. Merck KG
- EVP member of the Pharma Board, Merck KGaA
- Head Global Drug Discovery and Non-Clinical Development; Head, Business Area Team, CNS Pharma, Merck KGaA

Frank Weber MD, CMO



- Global Clinical Advisor of InterMune
- Chief Medical Officer at Merck KGaA
- Several medical affairs and clinical development management positions at American Cyanamid/Lederle, Synthelabo, Merck KGaA

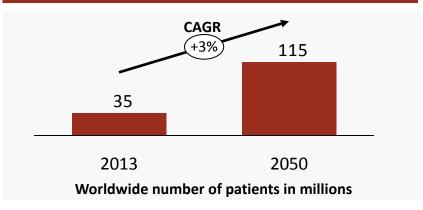


## Alzheimer's Disease: growing burden, no cure

#### Alzheimer's Disease introduction\*

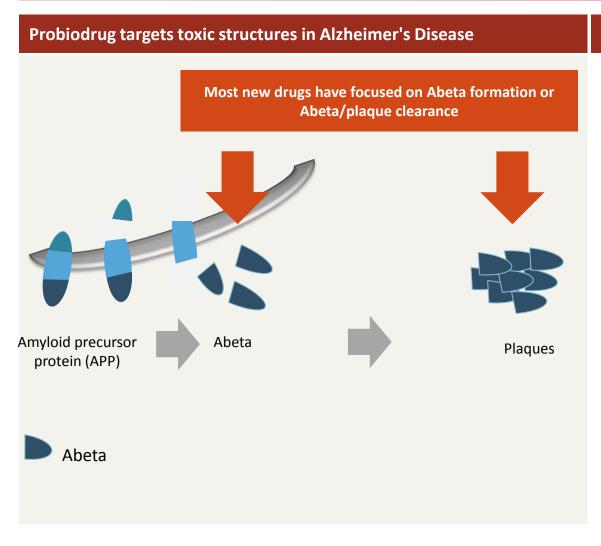
- Leading cause of dementia, ultimately leading to death
- Large burden on families
- Growing cost for society
- Available treatments marginally effective and focus on symptoms only
- Current symptomatic treatments generate
   ~\$4bn p.a.\*\*\*
- No disease modifying beneficial treatments available
- No new drugs approved since 2007\*\*\*\*

## Worldwide patient population will triple in the next 30 years\*\*





## Original Abeta approach



#### Considerations

- Most new drug treatments have targeted Abeta or plaques
- Therapies have focused on:
  - 1. Reduction of Abeta formation
  - 2. Clearance of existing Abeta or plaque
- To date, several drug development attempts based on this original Abeta approach have failed except one Abeta antibody in an early trial others are ongoing and have yet to show benefit

## Probiodrug's differentiated approach

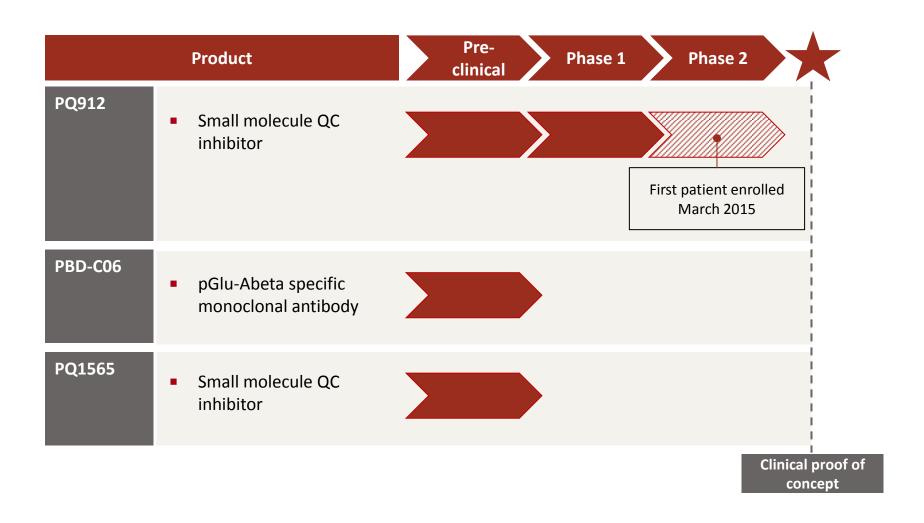
## Probiodrug targets toxic structures in Alzheimer's Disease Toxic Amyloid precursor Abeta **Plaques** "pre-plaques" protein (APP) problodrug Abeta Probiodrug targets production and clearance of a pGlu-Abeta specific type of Abeta, crucial in formation of toxic structures in AD

#### \* Pre-plaques = soluble Abeta oligomers = toxic structures

#### **Considerations**

- Probiodrug and others have progressed insights on Abeta and its role in AD
- Abeta has a physiological function
- Plaques are not the primary toxic culprit
- In fact, a "pre-plaque"\* structure is most toxic and relevant from a clinical perspective
- Probiodrug targets a specific type of Abeta, pGlu-Abeta, which is crucial in the formation of these toxic "pre-plaques"

## Focused proprietary pipeline



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## Highlights

#### 2014

- Successful initial public offering (IPO) on Euronext Amsterdam raising EUR 23,2 million
- Cash and cash equivalents of EUR 20,9 million as of 31
   December 2014
- Net loss of EUR 11.4 million compared with EUR 9.8 million in 2013, in line with expectations
- Lead product for treating Alzheimer's disease, PQ912, prepared for start of clinical Phase 2a "SAPHIR" study
- Strengthened Management Board with appointment of Inge Lues PhD as Chief Development Officer
- Hubert Birner PhD appointed to the Supervisory Board, replacing Axel Polack, MD

#### **Post-period**

- First patient enrolled in Phase 2a "SAPHIR" study at leading Alzheimer Center in Amsterdam
- Additional data on Glutaminyl Cyclases (QCs) in its relation to Alzheimer's disease published in Acta Neuropathologica



## Key financial figures

In EUR k	2014	2013 (unconsolidated*)	2013	2012	2011 (consolidated)
Earnings, Financial and Net Assets Position Revenues	0	0	0	6	21
Operating profit/loss	-11,267	-9,701	-9,651	-10,558	-14,269
Net loss for the period	-11,437	-9,807	-9,929	-18,720	-16,307
Equity (end of the year)	15,971	-4,304	-4,224	5,365	14,945
Equity ratio (end of the year) (in %)	74.4	0	0	53.6	78.3
Balance sheet total (end of the year)	21,480	6,281	6,374	10,005	19,093
Cash flows from operating activities (year)	-10,589	-8,459	-8,526	-12,040	-14,321
Cash flows from operating activities (average)	-882	-705	-711	-1,003	-1,193
Cash flows from financing activities (net)	25,762	5,346	5,346	9,197	18,641
Cash and cash equivalents at the end of period	20,920	4,421	4,879	7,726	9,295
Personnel  Total number of employees (incl. Board of management) (end of the year)	13	16	16	34	79
Average number of employees (incl. Board of management)	12.0	19.3	20.0	53.8	83.0
Probiodrug-Share Earnings per share (basic/diluted) (in EUR)	-2.35	-2.3	-0.39	-0.77	-0.78
Number of shares issued (end of the year)	6,766	25,529	25,529	25,529	22,694

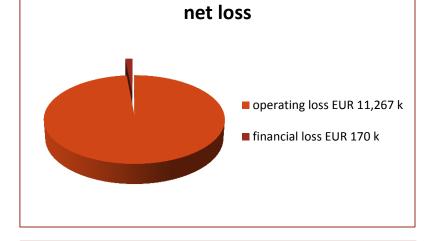
<sup>\*</sup> While the financial statements 2013 where prepared on a consolidated basis, the financial statements 2014 were prepared on an unconsolidated basis, since the subsidiary Ingenium was sold in July 2014. For comparison reasons the 2013 financials are also shown in an unconsolidated manner, leaving out Ingenium.



## Details of the Financial Results (according to IFRS)

#### **Net loss**

- Net loss in line with expectations
- Operating loss primarily driven by R&D expenses
- Increase in operating expenses reflects primarily IPO preparation costs and post-listing requirements
- Financial loss largely driven by the costs incurred with a venture loan line, secured during the IPO preparation



#### **Equity**

 Equity amounts to EUR 15,971k (2013: EUR -4,304k), corresponding to an equity ratio of 74.4%.

#### Cash

 Cash and cash equivalents were EUR 20,920k, compared with EUR 4,421k as at the end of 2013 and reflect the cash inflow from the IPO





## **Operational Review**

#### **Pipeline Update PQ912**

- In 2014 prepared for a Phase 2a study (SAPHIR).
- In preceding Phase 1 study with healthy young and elderly volunteers was shown to be safe and well tolerated and revealed high QC-inhibition.
- First QC-inhibitor being tested in humans.
- SAPHIR is a randomized, double-blind multi-center study
  - ▶ Plans to enrol a total of 110 patients with early stage Alzheimer's disease
  - Led by internationally renowned experts in AD
  - Run in five European countries at about 14 sites
  - Primary endpoint is the safety and tolerability compared with placebo over a threemonth treatment period
  - Set of exploratory read-outs comprising cognitive tests, functional assessments by EEG and functional MRI and new molecular biomarkers in CSF will be used to evaluate the compound's effect on the pathology of the disease.
  - First data of the SAPHIR study are expected mid-2016.
  - In March 2015, first patient enrolled at the Alzheimer Center, VU Medical Center (VUmc), Amsterdam



## **Operational Review**

#### PBD-C06

- Monoclonal antibody targeting pGlu-Abeta, currently in preclinical stage
- Successfully humanized and also de-immunized

#### **PQ1565**

- Second QC-inhibitor with attractive drug-like properties, currently in preclinical stage
- Regulatory toxicology studies in preparation, production being scaled up

#### **Publications and IP**

- In January 2015, additional data on Glutaminyl Cyclases (QCs) in its relation to Alzheimer's disease published in Acta Neuropathologica, underlining QC-inhibition as a therapeutic approach
- IP position further strengthened by important patent applications being granted



## The Probiodrug Share

#### **KEY FIGURES AS OF 31 DECEMBER 2014**

■ ISIN: DE0007921835

• WKN: 792183

Ticker Symbol: PBD

Type of shares: Bearer shares

Number of shares: 6,765,898

Stock exchange: Euronext Amsterdam

Liquidity Provider: Kempen & Co.

First trading day: 27 October 2014

■ IPO Price: EUR 15.25

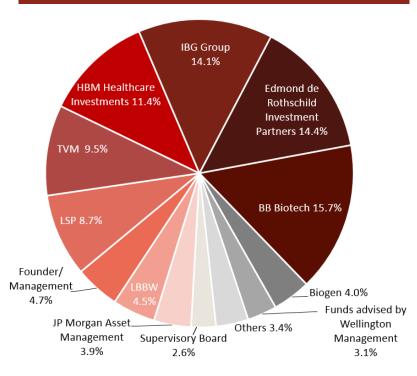
Annual high: EUR 24.99

Annual low: EUR 18.50

Closing 31/12/2014: EUR 19.15

Market cap 31/12/2014: EUR 129.6 million

#### **SHAREHOLDERS**





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#### Outlook 2015

The mid-term focus of Probiodrug's business activities can be summarised as follows:

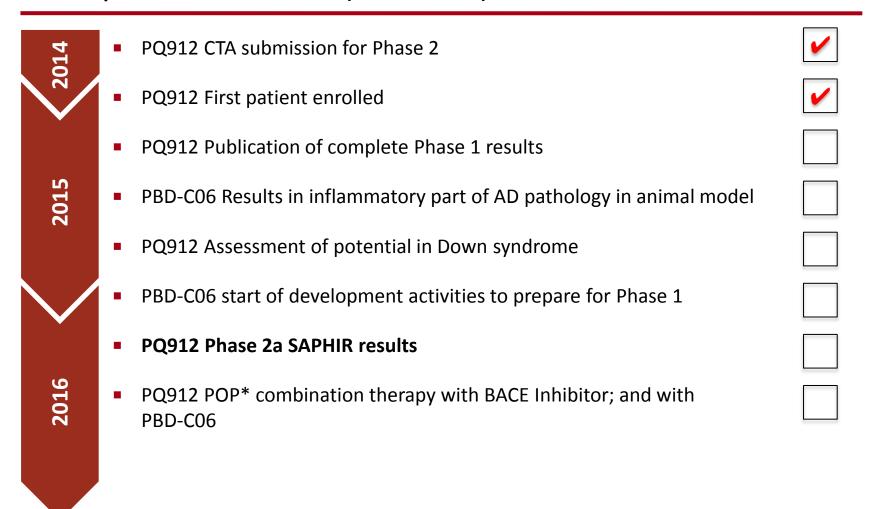
- Further preclinical and clinical testing of the development candidate PQ912, in particular execution of the first patient study in a Phase 2a "SAPHIR" trial in 2015/2016
- Securing further supporting data and intellectual property protection for the therapeutic concept of QC inhibition as a fundamental novel approach for the treatment of Alzheimer's disease and other diseases
- Further progression of the anti pGlu-Abeta specific anti-body (PBD-CO6) as well as of PQ1565, an additional small molecule QC inhibitor

#### **Guidance**

 Probiodrug estimates the net loss for the financial year 2015 to be comparable to the net loss of 2014



## Anticipated news flow (selection)



<sup>\*</sup>Pre-clinical proof of Principle Please note: timing of news flow is indicative



### Financial Calendar

13 May 2015 Interim Management Statement Q1 2015

10 June 2015 Annual General Meeting of Shareholders in Berlin

27 August 2015 Interim Report, half year results 2015

19 November 2015
 Interim Management Statement Q3 2015



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