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The 2015 financial year
Full year results

Halle (Saale), 15 March 2016

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CMO

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Investment highlights

1	**Alzheimer's Disease: major burden, no cure**
2	**Attractive industry landscape**
3	**Clearly differentiated approach**
4	**Focused proprietary pipeline**
5	**Strong IP protection**
6	**Experienced management team and renowned investor base**

- Alzheimer's Disease ("AD") is the most common form of dementia, a devastating neurological disease affecting 46 million people world-wide*
- No cure or long-term beneficial treatment available
- No new drugs approved since 2007**

- After years of "drought" rising interest in AD / neurodegeneration
- Only few major pharma players in the field with clinical programs
- Limited number of innovative approaches available on the biotech side

- Developing a differentiated approach aimed to treat AD
- 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
  - 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:
  - Granted composition of matter patents
  - Granted medical use patents

- Established drug development and CNS expertise
- Track record of monetizing cutting-edge science (diabetes/DP4-inhibitor drugs)
- Committed support from leading financial and strategic investors

* World Alzheimer Report 2015 ** FDA

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Longstanding track-record and renowned investor base

Brief history

- 1997: Foundation, pioneered a new class of anti-diabetics (gliptins) – partnerships with Merck & Co, Ferring and Novartis
- 2004: Sold diabetes franchise to OSI Pharmaceuticals – proceeds partially returned to shareholders and partially invested in AD
- 2007 - 2014: Series A and B financings round totalling appr. € 80m with top tier investors
- 2011: Progressed PQ912 in Phase 1 clinical development – first in class in clinical development
- Oct 27 2014: IPO at Euronext/ Amsterdam, raise of € 23.2m
- 2015: Initiation Phase 2 clinical development of PQ912
- Jun 2015: European Mediscience Award for Best Technology of the Year
- Nov 5 2015: Private Placement, raise of € 13.5m

EUROPEAN MEDISCIENCE AWARDS 2015
SPONSORED BY KEMPEN & CO

Major investors (> 3%)

BB BIOTECH
AVIVA INVESTORS
IBG
EDMOND DE ROTHSCHILD INVESTMENT PARTNERS
TVM | Capital
HBM Healthcare Investments
LSP Life Sciences Partners
CFH CFH Beteiligungsgesellschaft
biogen idec
J.P.Morgan

Experienced management team

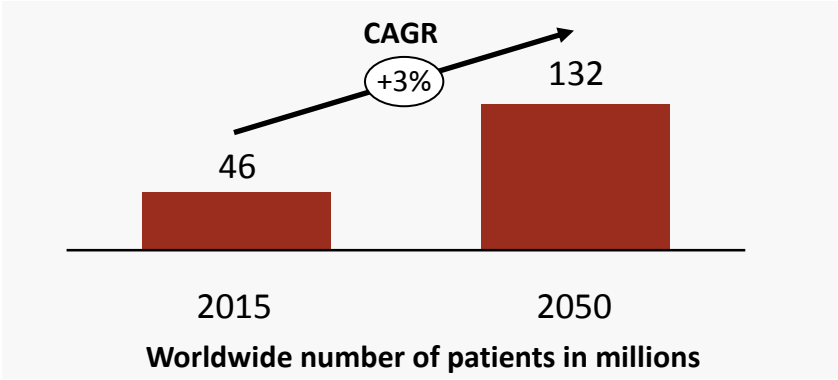
Management team		Biography
Konrad Glund, PhD CEO Co-founder Chairman of the management board		▪ Co-founder of Probiodrug, CEO since 2006 ▪ Led development of DP 4 inhibitors, transactions with Merck, Novartis, OSI and Ferring ▪ COO & VP business development OSI (Prosidion) in 2004-2006 ▪ > 10 deals at 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 dementia population will triple in the next 30 years*



* WHO Alzheimer Report 2015 ** Datamonitor 2014 *** FDA Source picture: Alzheimers.org

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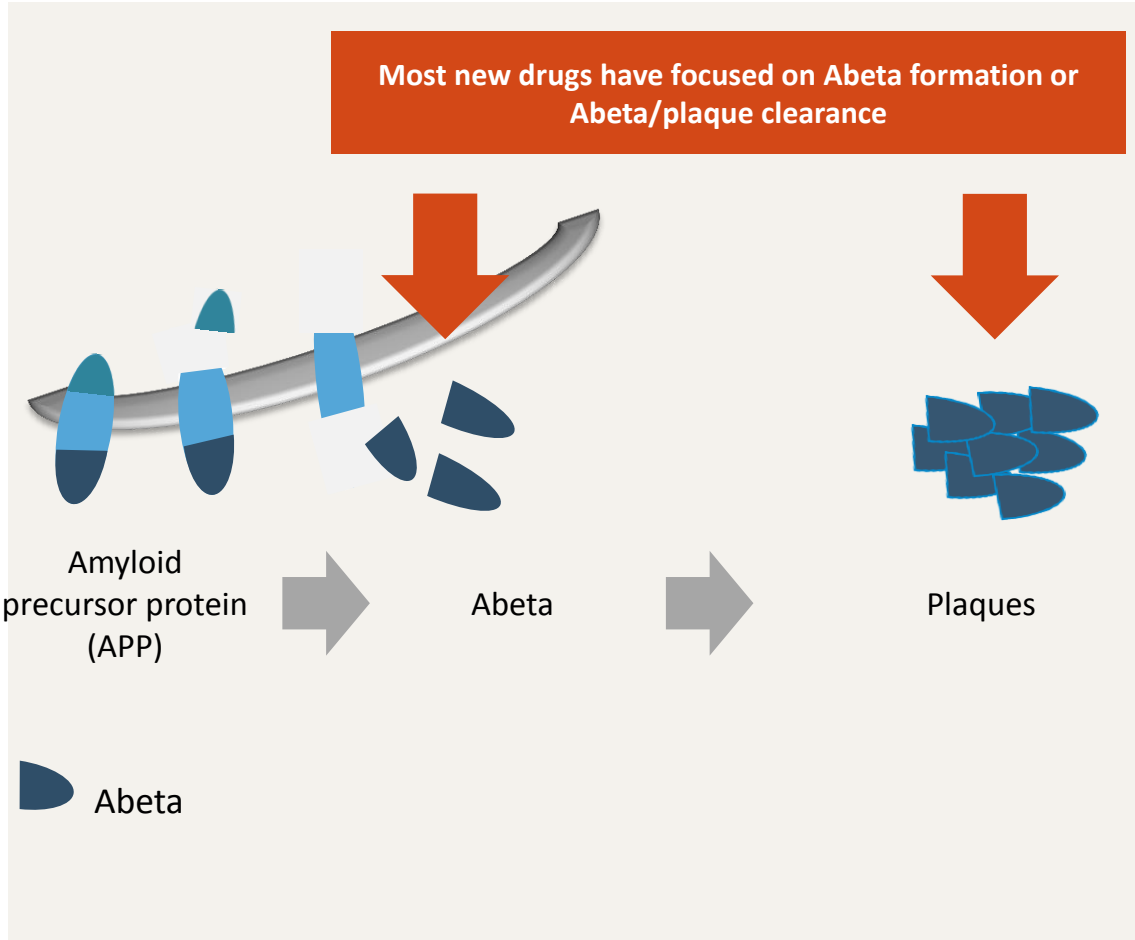
Original Abeta approach

Probiodrug targets toxic structures in Alzheimer's Disease



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

* Company analysis, Mullard A Nat Rev Drug Discov 2012

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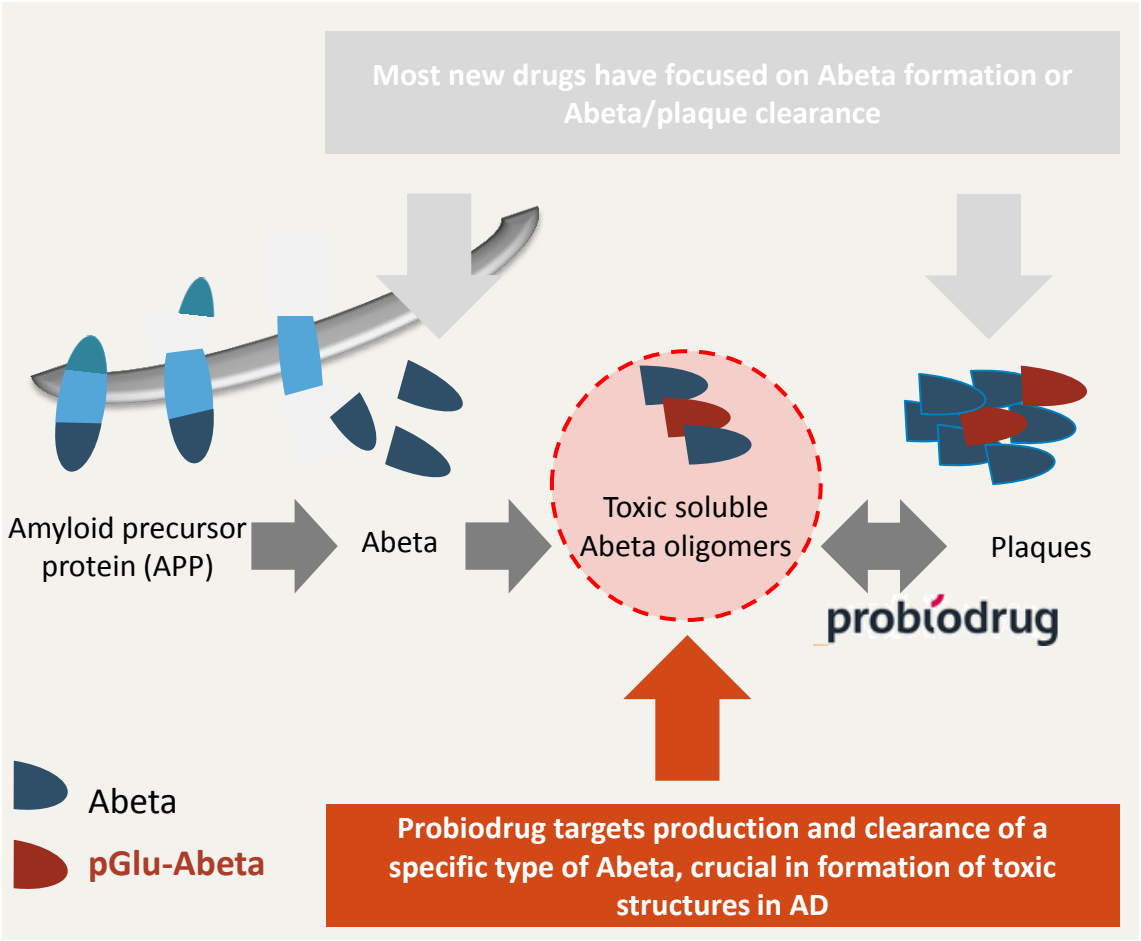
Probiodrug's **differentiated** approach

Probiodrug targets toxic structures in Alzheimer's Disease

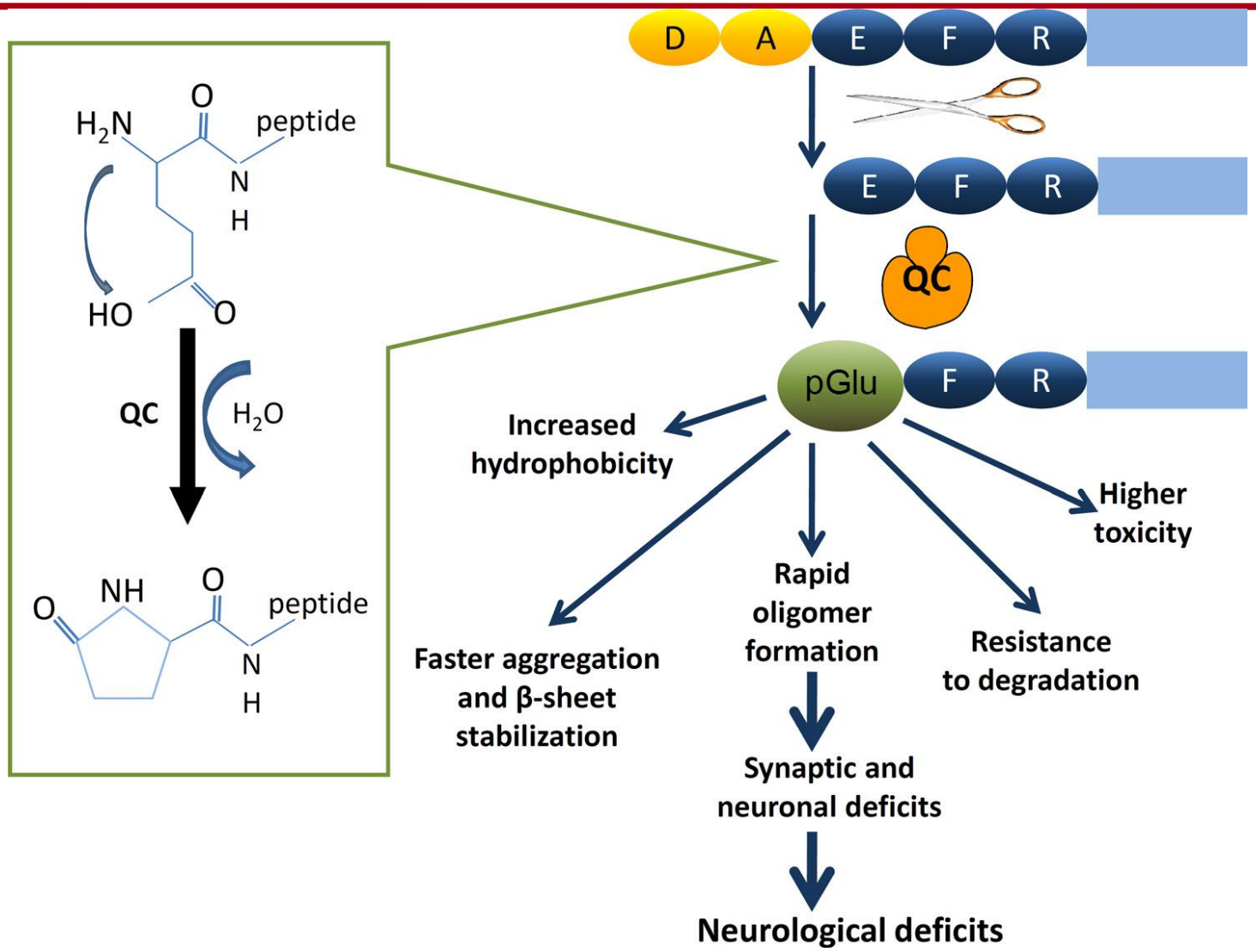


Considerations*

- 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, an oligomer 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 oligomers

* Company analysis, Mullard A Nat Rev Drug Discov 2012

pGlu-Abeta - N-modified Abeta



Jawhar, S., Wirths, O., Bayer, T.A. JBC 286, 45, 2011

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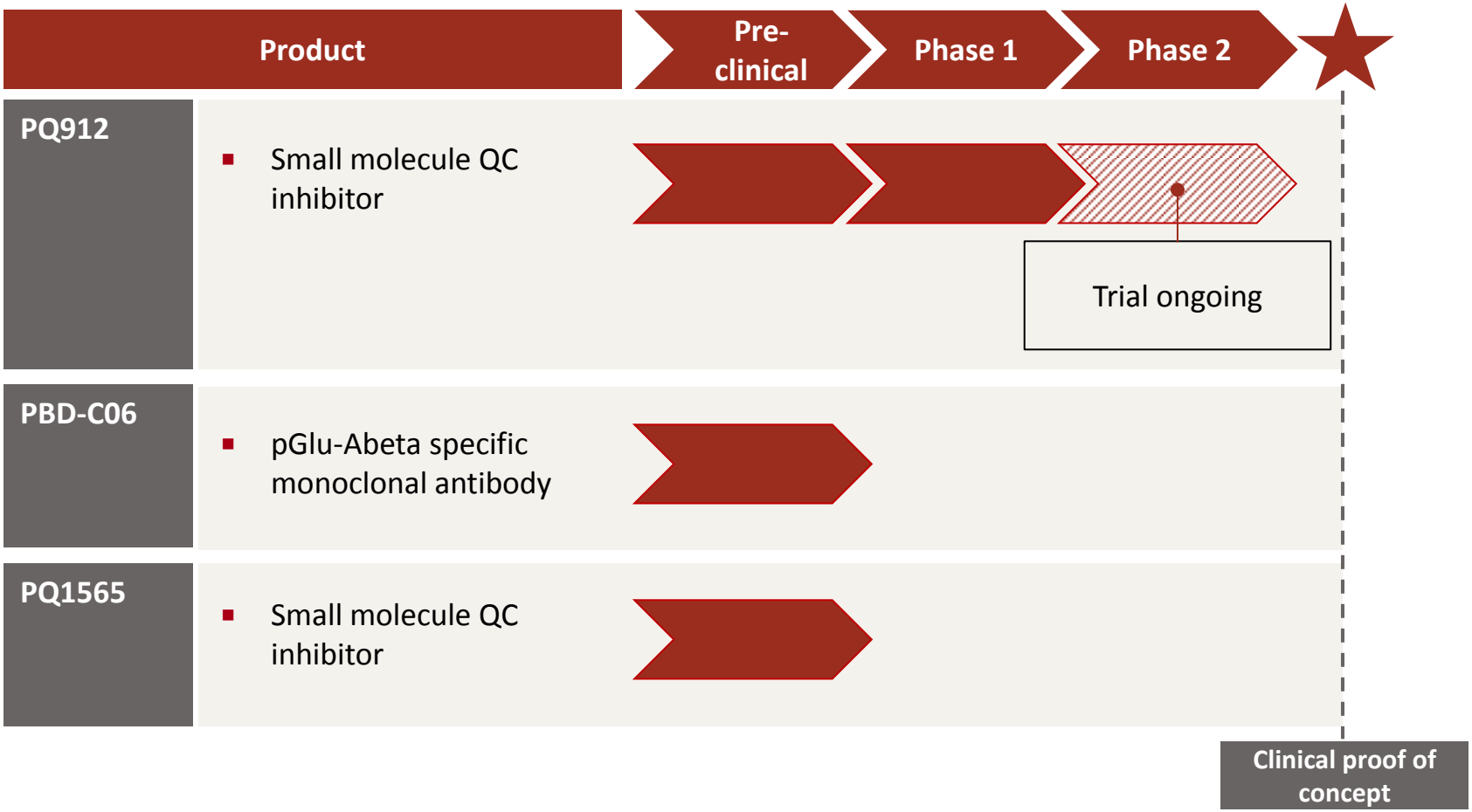
Focused proprietary pipeline

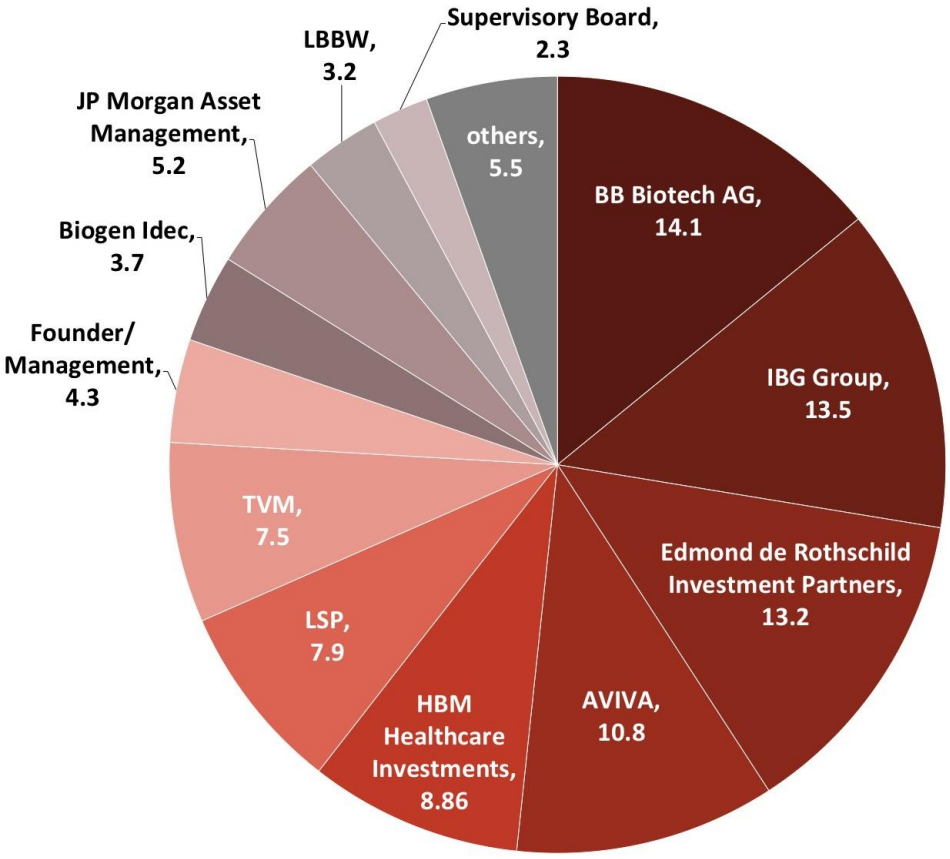


The Probiodrug Share

KEY INFORMATION

- ISIN: DE0007921835
- WKN: 792183
- Ticker Symbol: PBD
- Type of shares: Bearer shares
- Number of shares: 7,442,487
- Stock exchange: Euronext Amsterdam
- Liquidity Provider: Kempen & Co.
- Listing Agent: Kempen & Co.
- First trading day: 27 October 2014

SHAREHOLDER (> 3%)



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Highlights 2015

2015

- Phase 2a study of novel treatment for Alzheimer's disease, the SAPHIR trial, initiated
- Phase 1 PQ912 data, a first in class Glutaminyl Cyclase (QC) inhibitor for the treatment of AD, published in *Alzheimer's & Dementia: Translational Research & Clinical Interventions*
- Manufacturing process for PBD-C06, Probiodrug's anti-pGlu-Abeta targeting antibody, initiated
- Additional data on Glutaminyl Cyclases (QCs) in Alzheimer's disease published in *Acta Neuropathologica*
- Data on Probiodrug's anti-pGlu-Abeta monoclonal antibody presented at the 12th AD/PDTM 2015, Nice, France and at Neuroscience 2015, the 45th annual meeting of the Society for Neuroscience (SfN) in Chicago, USA
- Key patents on Glutaminyl Cyclase (QC) inhibition for the treatment of AD and for Probiodrug's antibody program targeting pGlu-Abeta granted in key territories

Highlights 2015 – cont.

2015

- Several high-caliber academic collaborations continued or initiated, eg. with the Brigham and Women's Hospital, affiliated with Harvard Medical School and with University of Leipzig, Paul Flechsig Institute for Brain Research
- Winner of the European Mediscience Award 2015 for Best Technology
- Annual General Meeting held in June 2015, all resolutions proposed by Management and Supervisory Board approved
- New members of the Supervisory Board with distinguished industry expertise appointed
- Private placement raising EUR 13.5 million closed in November 2015
- Cash and cash equivalents of EUR 21.4 million as of 31 December 2015
- Net loss of EUR 13.5 million compared with EUR 11.4 million in 2014 – in line with company expectations

Post-period Highlights

- There were no significant events subsequent to the reporting period

Key financial figures (according to IFRS)

In EUR k	2015	2014
Earnings, Financial and Net Assets Position		
Revenues	0	0
Operating loss	-13,393	-11,267
Net loss for the period	-13,505	-11,437
Equity (end of the year)	16,133	15,971
Equity ratio (end of the year) (in %)	73.8	74.4
Balance sheet total (end of the year)	21,866	21,480
Cash flows used in operating activities (year)	-12,147	-10,589
Cash flows used in operating activities (monthly average)	-1,012	-882
Cash flows provided by financing activities (net)	12,598	25,762
Cash and cash equivalents at the end of period	21,361	20,920
Personnel		
Total number of employees (incl. Board of management) (end of the year)	16	12
Average number of employees (incl. Board of management)	15,8	12.0
Probiodrug-Share		
Loss per share (basic and diluted) (in EUR)	-1,97	-2.35
Number of shares issued (end of the year)	7,442	6,766

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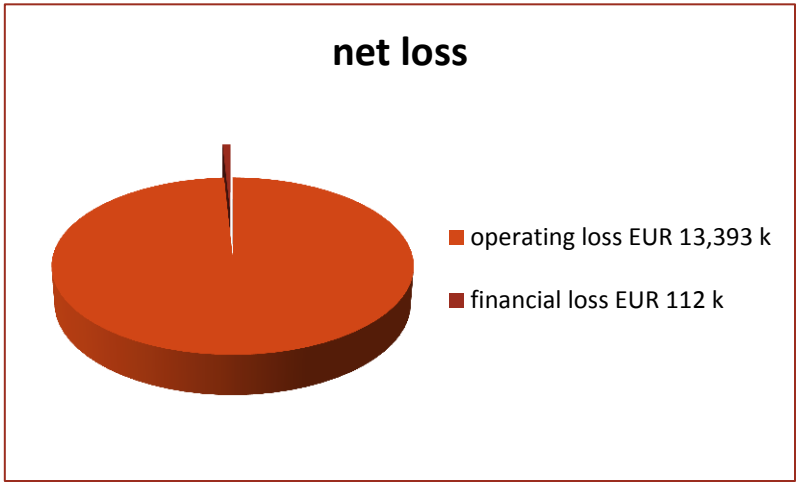
Details of the Financial Results (according to IFRS)

Net loss

- Net loss in line with expectations
- Operating loss primarily driven by R&D expenses
- Increase in operating expenses reflects primarily investments in PQ912
- Financial loss largely driven by the costs incurred from accrued interest on the disputed tax liability

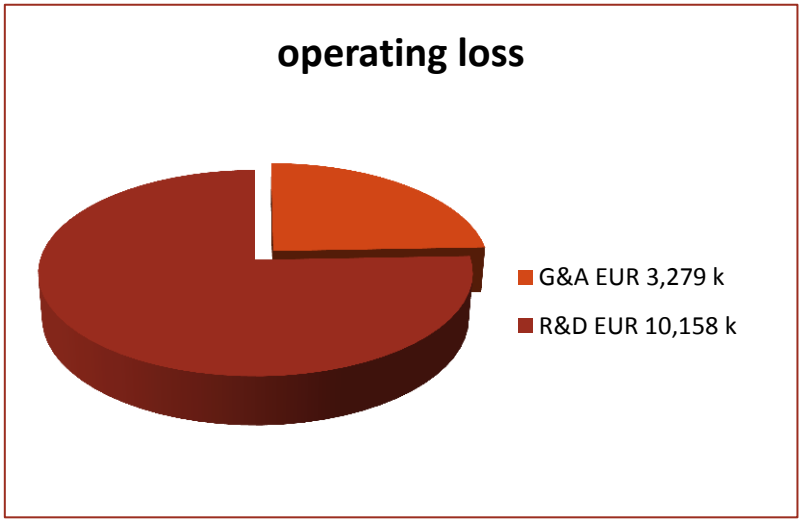


Equity

- Equity amounts to EUR 16,133k (2014: EUR 15,971k), corresponding to an equity ratio of 73,8%.

Cash

- Cash and cash equivalents were EUR 21,361k, compared with EUR 20,920k at the end of 2014, reflecting cash inflow from the capital increase in November 2015



Operational Review (1)

Pipeline Update PQ912

- First QC-inhibitor being tested in humans
- In preceding Phase 1 study with healthy young and elderly volunteers shown to be safe, well tolerated and revealed high QC-inhibition
- SAPHIR is a randomized, double-blind multi-center study
  - Patient enrolment started in March 2015
  - Plans to enrol a total of 110 patients with early stage Alzheimer's disease
  - Led by internationally renowned experts in AD
  - Run in six European countries at about 18 sites
  - Primary endpoint safety and tolerability compared with placebo over a three-month treatment period
  - Set of exploratory read-outs comprising cognitive tests, functional assessments by EEG and functional MRI and new molecular biomarkers in CSF to evaluate the compound's effect on the AD pathology
- SAPHIR now in full swing
  - As response to several challenges (eg. high competition in getting access to treatment naïve patients) various measures taken, in particular adding more sites while keeping quality at high level
  - Additional sites activated, all highly motivated and enrolling
  - Primary endpoint data expected to be available end of 2016
  - Full picture of all exploratory results expected to be finally evaluated about 3 to 4 months thereafter

Operational Review (2)

PBD-C06

- Monoclonal antibody targeting pGlu-Abeta, while leaving non-toxic forms of Abeta untouched
- Currently in preclinical stage
- Successfully humanized and de-immunized
- For the first time for an anti-pGlu-Abeta-antibody approach PBD-C06 has not only shown the ability to reduce Abeta/plaques but also to significantly improve cognitive deficits in aged Alzheimer's mice
- Moreover, no evidence was found of increased microhemorrhages after treatment with PBD-C06
- The manufacturing process of this molecule started in October 2015

PQ1565

- Second QC-inhibitor with attractive drug-like properties
- Currently in preclinical stage
- GMP process for this molecule is being implemented

Operational Review (3)

Publications/ Presentations

- March 2015: additional data on Glutaminyl Cyclases (QCs) in its relation to Alzheimer's disease published in Acta Neuropathologica 2015 Apr, 129(4), Pages 565-83
  - Further evidence of strong correlation between QCs and AD pathology in human brain biopsies underlining QC-inhibition as a therapeutic approach

- March 2015: Poster presentation "Anti-pGlu-3 Abeta mab ig isotype affects plaque clearance" on its specific pGlu-Abeta mouse antibody 17/1 at the 12th International Conference on Alzheimer's and Parkinson's Diseases and Related Neurological Disorders (AD/PDTM 2015) in Nice, France
  - Data resulted from a collaboration with the research team led by Professor Cynthia Lemere from the Center for Neurologic Diseases at the Brigham and Women's Hospital and Harvard Medical School, Boston, MA
  - Mouse pGlu-Abeta IgG2a antibody was most efficient, followed by the mutated IgG2a form while the IgG1 was the least effective in clearing Abeta plaques

Operational Review (4)

Publications

- October 2015: Oral presentation “Preclinical in vivo Effects of an anti-PyroGlu-3 Abeta Antibody” presented data on its specific anti pGlu-Abeta monoclonal antibody at Neuroscience 2015, the 45th annual meeting of the Society for Neuroscience (SfN) in Chicago, USA
  - Data presented resulted from a collaboration with the research team led by Associate Professor Cynthia Lemere from the Center for Neurologic Diseases at the Brigham and Women’s Hospital and Harvard Medical School, Boston, USA
  - First report that an anti-pGlu-Abeta antibody approach not only reduced Abeta/plaques but also significantly improved cognitive deficits in aged Alzheimer’s mice
  - No evidence was found for increased microhemorrhages after treatmen.

- December 2015: Data of the phase 1 study of PQ912, published in Alzheimer’s & Dementia: Translational Research & Clinical Interventions, Volume 1, Issue 3 Pages 182–195
  - Over 200 young and elderly healthy volunteers were included in a single-and multiple-ascending dose design
  - PQ912 found to be safe and well tolerated; maximum tolerated dose not reached
  - Pharmacokinetic parameters of the compound also evaluated as well as the extent of QC inhibition in the cerebral spinal fluid (CSF), which is a measure for QC-inhibition in the brain
  - Dose dependent target inhibition reliably determined and used for dose selection in phase 2a trial
  - Study conducted with Covance in Switzerland and the UK

Operational Review (5)

IP

- In 2015, IP position further strengthened by important patent applications being granted:
  - Patent no. US 9,156,907 and JP 5,828,762, covering method as well as composition of matter claims for Probiodrug's antibody program targeting pGlu-Abeta, were granted in the US and in Japan, respectively
  - Patent nos. JP 5690463, covering the use of QC inhibitors for the treatment of Alzheimer's disease, JP 5688745, covering a chemical space of heterocyclic QC inhibitors, and Patent no. JP2007-508347A, covering the use of QC inhibitors for the treatment of Familial British Dementia and Familial Danish Dementia, were granted in Japan
  - Patent no. JP 5677297, covering Glutaminyl Cyclase as a diagnostic/prognostic indicator for neurodegenerative diseases, was granted in Japan

Corporate Review

Execution of a private placement on Nov, 5, 2015

- Increase of share capital from EUR 6,765,898 to EUR 7,442,487, issuing 676,589 new shares
- Representing appr. 10% of the issued share capital at the time of the placement
- Gross proceeds of EUR 13.5 million
- Order book well covered based on strong demand from European and US investors
- New shares placed at EUR 20 per share

Supervisory Board

- Shareholder meeting on June, 10, 2015, elected Ms Charlotte Lohmann and Mr Kees Been, two industry experts with an extensive background in drug development and public markets respectively, as new members of the Supervisory Board
- Dr Hubert Birner and Prof Georg Frank, who contributed significantly in establishing Probiodrug as a successful public biopharmaceutical company, did not apply for a new term
- Probiodrug would like to thank them again for their valuable contribution to the growth of the company

European Mediscience Award for Best Technology 2015

- In June 2015, Probiodrug won the 2015 European Mediscience Award for Best Technology 2015
- Award presented for an innovative technology being well funded and capable of significant commercial success

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Outlook

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

- Continue the clinical development of PQ912 in particular generate initial patient study data and start long-term treatment
- Completion of the production development of PBD-C06 and conduction of regulatory tox as preparation for first in man study
- Continuation of the development of PQ 1565
- Further scientific analysis of potential additional indications for the use of QC inhibitors
- Continuation of work to better understand the pGlu Abeta mediated pathologies
- Further increasing visibility and acceptance as an important prerequisite for obtaining additional capital as well as for an industrial transaction
- Further strengthening Probiodrug's financial resources

As a result of the additional costs being incurred for development activities, the Company estimates a net loss for the financial year 2016, which may be in excess of that incurred in 2015.

Anticipated news flow *(selection)*

2015

- ✔ First patient enrolled in PQ912 Phase 2a "SAPHIR" study at leading Alzheimer Center in Amsterdam
- ✔ Additional data on Glutaminyl Cyclases (QCs) in AD published in Acta Neuropathologica
- ✔ Key patents on Glutaminyl Cyclase (QC) inhibition for treatment of AD granted in Japan
- ✔ Data on Probiodrug`s Anti-pGlu-3 Abeta monoclonal antibody presented at the 12th International Conference on Alzheimer's and Parkinson's Diseases (AD/PDTM 2015)
- ✔ PBD-C06 start of development activities to prepare for Phase 1
- ✔ PQ912 Publication of complete Phase 1 results

2016

- ☐ PQ912 results of long term tox studies
- ☐ PQ912 POP* combination therapy with BACE Inhibitor; and with PBD-C06
- ☐ PQ912 Preclinical assessment of potential in Down syndrome and in age-related macular degeneration (AMD)
- ☐ **PQ912 Phase 2a SAPHIR results**

* Pre-clinical proof of Principle
Please note: timing of news flow is indicative

Financial Calendar

▪ 12 May 2016	Interim Management Statement Q1 2016
▪ 19 May 2016	Annual General Meeting of Shareholders in Berlin
▪ 30 August 2016	Interim Report, half year results 2016
▪ 10 November 2016	Interim Management Statement Q3 2016

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