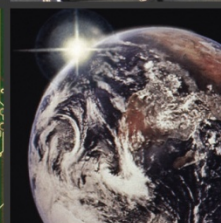
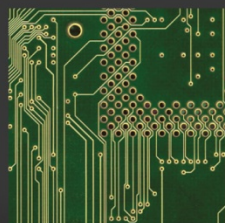


Industry Expertise: Business Services | **Clean Technology** | **Consumer** |  
Financial Institutions | **Health Care** | Industrial Growth | **Technology**

*The Third Annual*

# Piper Jaffray Europe Conference

June 24-25, 2008



## DiaGenic ASA

GUIDES FOR  
THE JOURNEY.®

PiperJaffray®

## UK Press Coverage



## Executive Summary

### Markets:

- Large, fast growing. Unmet medical needs

### DiaGenic:

- Blood based diagnostic tests
- IP based innovative technology with unique benefits & strong scientific validation
- First revenues H2 '08
- Experienced team
- Backed by Nordic institutional investors
- Share issue placed May 2008; proceeds of GBP 4 mill. should allow the Company to reach B/E level for BC and AD products



## The DiaGenic Concept

- Diseases leave a unique "signature" in parts of the body besides the affected primary organ(s)
- These signatures can be identified using gene expression technologies
- These signatures can be obtained from easily accessible fluids (blood)



## Overview

### The Commercial Opportunity

## The Company

## The Technology

## The Investment Story

## Breast Cancer

(India not included)

Cases per Year	High Risk (Family history, extreme dense breast on screening)	Adjuvant to Mammography (inconclusive results)	Preferred first line test (cultural or psychosocial reasons not to undertake mammography)
<b>US</b>	4 mill	1,1 mill	1 mill
<b>Europe</b>	4 mill	1,8 mill	0,7 mill
<b>Japan</b>	1,5 mill	1,0 mill	0,2 mill
<b>Total</b>	<b>9,5 mill</b>	<b>3,9 mill</b>	<b>1,9 mill</b>

*"UK Partner expecting a 200-300 GBP per test"*

*"Gross margin to IP holder (e.g. DiaGenic) ~ 20% (Industry avg)"*

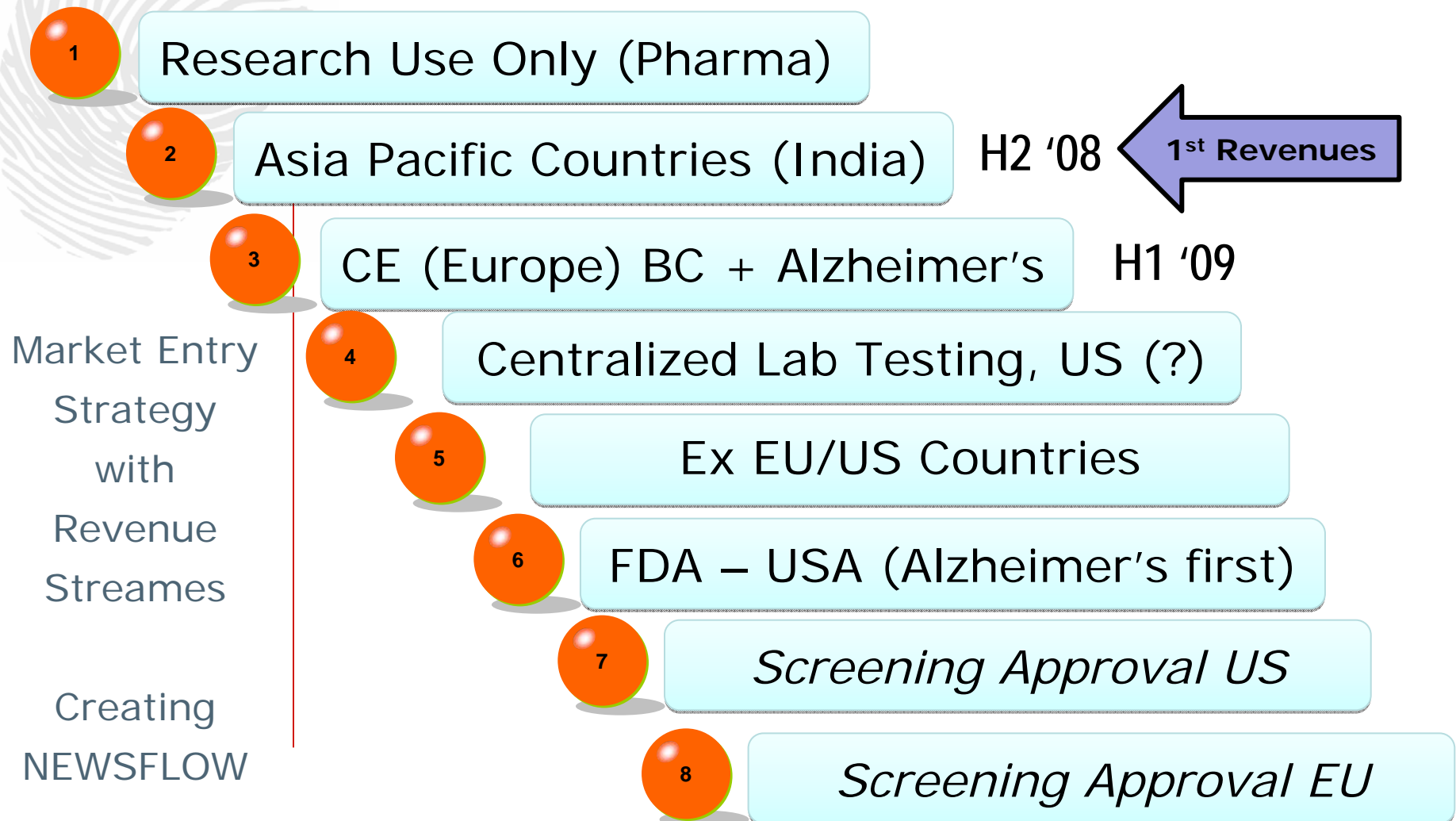
*Present "burn rate" of DiaGenic only GBP 250' per month; ~ 5.000 tests*

Three  
product  
candidates

## Potential total market (annually)

	Breast Cancer (Niche Only)	Alzheimer's	Parkinson's
Total	15 m	5 m	2 m

(Does not include India, Pharma companies,  
and potential for general prevention screening)



**Overview**

**The Commercial Opportunity**

**The Company**

**The Technology**

**The Investment Story**

## History

1997 - Concept discovered

1998 - DiaGenic founded

2000 - Full time research

2002 - Proof of concept

2004 - First patent granted (US/EU)  
Listed on Oslo Stock Exchange

2005 - Scientific recognition

2006 - Prototype diagnostic tests  
developed in Breast Cancer  
and Alzheimer's Disease

2007 - Breast Cancer diagnostic  
test enters clinical trials.  
Parkinson's Disease project  
funded

DiaGenic  
-  
the  
Management



**Erik Christensen**  
**Chief Executive Officer**

Medical Doctor, Odense, DK, 1983  
PhD in biochemistry, Oslo 1991  
Certified Consultant in Clinical Chemistry  
1992

The National Hospital, Oslo, N, 1985  
– 93

Ullevål University Hospital, Oslo, N,  
1993 – 96

Abbott Laboratories  
Nordic Scientific Affairs Manager, 1996 – 2001  
Country Manager Norway, 2001 – 06.  
CEO DiaGenic from 1.1 2007



**Anders Lönneborg**  
**Research Director**



**Praveen Sharma**  
**Technology Director**



**Dag Christiansen**  
**Marketing Director**



**Håkon Sæterøy**  
**Executive Chairman of  
the Board; Equity  
financing**

DiaGenic  
Scientific  
Advisors

**Alzheimer's Disease**

**Prof. Bengt Winblad**

Karolinska Institutet,  
Sweden

**Prof. Khalid Iqbal**

N.Y. State University,  
US

**Prof. Sam Gandy**

Faber Inst. Philadelphia,  
US

**Prof. Dag Årsland**

Stavanger University  
Hospital, Norway

**Breast Cancer**

**Prof. Anne Lise Børresen  
Dale**

Det Norwegian Radium  
Hospital, Norway

**Dr. Alan Hollingsworth**

Director, Mercy Women's  
Center, Oklahoma, US

**Prof. Martine Piccart**

Université Libre de  
Bruxelles, Belgium

**Dr. Christos Sotiriou**

Université Libre de  
Bruxelles, Belgium

Molecular  
Diagnostics  
Value  
Chain



DiaGenic provides the missing link in the growing search for applications in the molecular diagnostic market



Award from  
Michael J.  
Fox  
Foundation  
&  
Cooperation  
Harvard  
Medical  
School

- Statement from member of our Scientific Board, professor Dag Aarsland:
  - “I like to congratulate DiaGenic with this very prestigious award.
  - The competition is paramount and only the very best projects receive funding
  - I also like to emphasize that very few non-US research groups ever get this award.
  - It is also recognition of the importance of identifying new biomarkers that can help in the early diagnosis of this disease”



India

Commercial  
Launch  
summer  
2008



- South East Asia's & India's fastest growing Pathology Services
  - 750 collection centres
  - 321 laboratories
  - 1.100 employees
  - 5 mill patients per year
- Extensive competencies within molecular diagnostics and experience in launching new diagnostic methods
  - A strategic and broad cooperation

**Overview**

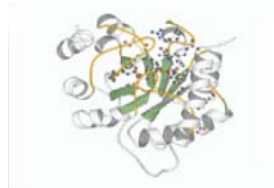
**The Commercial Opportunity**

**The Company**

**The Technology**

**The Investment Story**

## Central Theme in DiaGenic Technology



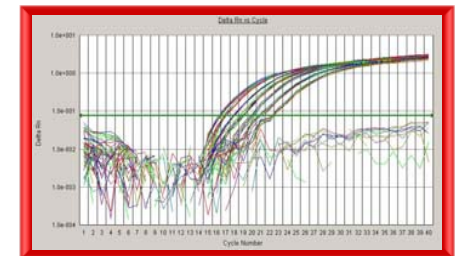
DNA



RNA



Protein



- RNA plays a central role in translating what is written in our genes to what is expressed in our bloodstream
- RNA expression is measured by qRT-PCR and forms the basis of our proprietary gene signature

## Patent Status

	<b>Family 1</b> (WO 98/49342)			<b>Family 2</b> (WO 2004/046382)			<b>Family 3</b> (WO 2005/118851)		
<b>Expiry year</b>	2017			2023			2024		
<b>Countries/ Region</b>	G	A	P	G	A	P	G	A	P
<b>US</b>	Alz	0	BC, MS	0	0	G	0	0	C
<b>Europe*</b>	G, nSB	0	Alz	0	0	0	0	0	0
<b>Europe**</b>	0	0	0	0	0	G	0	0	C
<b>Norway</b>	G, nSB	0	G, dD	0	0	G	0	0	C
<b>Japan</b>	0	0	G, dD	0	0	G	0	0	C
<b>Canada</b>	0	0	0	0	0	G	0	0	C
<b>Hong Kong</b>	G, nSB	0	0	0	0	G	0	0	C
<b>China</b>	0	0	0	0	0	G	0	0	C
<b>Australia</b>	0	0	0	0	0	G	0	0	C
<b>New Zealand</b>	0	0	0	0	0	G	0	0	C
<b>India</b>	0	0	0	0	Alz , BC	0	0	0	C
<b>South Africa</b>	0	0	0	G	0	0	0	0	C
<b>ARIPO*</b>	0	0	0	0	0	G	0	0	C

G = Granted  
A = Accepted by examiner  
P = In-process

### Abbreviations

Alz: Alzheimer's Disease

BC: Breast cancer

C: Cancer

G: No disease limitation.

G, dD: No disease limitation. Samples collected distant to the area of the disease

G, nSB: No disease limitation. Limited to **only** non-sequence based methods.

MS: Multiple sclerosis.

## ACCURATE AND EARLY DETECTION OF ALZHEIMER'S DISEASE USING A GENE EXPRESSION SIGNATURE IN BLOOD

Anders Lønneborg<sup>1</sup>, Birgitte Boijj<sup>1</sup>, Marianne Jensen<sup>1</sup>, Ken Bårdsen<sup>1</sup>, Nina Hagen<sup>1</sup>, Lena Kristiansen<sup>1</sup>, Torbjørn Lindahl<sup>1</sup>, Solve Sæbø<sup>1</sup>, Siri Feten<sup>1</sup>, Bernt Wijnad<sup>1</sup>, and Einar Mørta<sup>1</sup>

## Introduction

A novel blood-based gene expression signature was identified that could discriminate AD patients and age-matched controls with high accuracy, sensitivity, and specificity. The signature also accurately distinguished AD patients from those having Parkinson disease, another neuro-degenerative disease. In an initial validation with a subset of identified informative gene probes on the quantitative real-time PCR (qRT-PCR) based TaqMan® Low Density Arrays® (LDA, Applied Biosystems), we showed that high diagnostic accuracy was retained and the platform potentially can be used for diagnostic and prognostic purposes.

## Methods

Total RNA was extracted from blood samples using PAXgene<sup>TM</sup> Blood RNA kit (figure 2) and quality assessed by NanoDrop spectrophotometer and Agilent2100 Bioanalyzer.

Table 1. Demographic information of patient and control samples

	Age (years)				MMSE score				Gender distribution	
	Average	SD	Min	Max	Average	SD	Min	Max	Female (%)	Male (%)
Alzheimer's disease (N=68)	77.4	7.0	55	88	21.1	4.5	5	28	64%	36%
Age-matched controls (N=68)	75.8	7.6	59	93	29.2	0.8	27	30	79%	21%
Young controls (N=8)	22.6	2.4	20	28	-	-	-	-	100%	0%

[illegible]

## Statistical Discussion

In case of CodeLink customized arrays, the Alzheimer's specific gene expression signature was developed using complete pre-processed data. As shown in Table 2, the developed gene expression signature correctly predicted the class of 97 samples (accuracy, 85%), including 42 AD samples (sensitivity, 82%) and 49 non-Alzheimer's controls (specificity, 87%).

The prediction results reported here are comparable to those previously presented using Affymetrix Human Whole Genome Microarrays. The comparative ROC and AUC obtained in these studies is presented in Figure 3. The AUC in these studies ranged between 0.89 to 0.93 thus demonstrating improved diagnostic value compared to existing clinical diagnostic practice.

Table 2. Prediction results from AB1700 Human whole genome array, TaqMan® LDA and CodeLink™ BioArray. LR+: positive likelihood ratio. (%) 95% Confidence interval.

Study	Sensitivity	Specificity	Accuracy	LR+
ABI1700 Whole Genome Array	85 %	88 %	87 % (5 %)	7.3
TaqMan® LDA	74 %	84 %	79 % (7 %)	4.6
CodeLink™ BioArray	82 %	87 %	85 % (7 %)	6.5

metabolism. These genes represented 1.5% of the 10,000 genes in the Affymetrix U133A array (Table 1). The 150 genes represented protein metabolism and modification, 100 genes represented lipid metabolism, and 100 genes represented nucleic acid metabolism. These were also the largest categories represented in the Affymetrix reported AB1700 Vm array study before the enrichment of the most informative genes were

Figure 3. ROC curves for ABI700 WGA, TaqMan® LDA within a 96-assay format and Codelink BioArrays data. The respective AUC's are shown.

Figure 4. Biological processes involved in the Alzheimer's specific gene expression signature for a 96-assay format on TagMan® LDA.

## Conclusions

- The main biological processes involved in the Alzheimer's specific gene expression signature in blood are protein metabolism and modification, nucleoside, nucleotide and nucleic

## References

1. Sharp FR, et al (2005). *Arch Neurol*, 63: 1529-1536.
  2. Borge-Garcia JM, Dorner AJ (2006). *Pharmacogenomics* 7 (2):187-202.
  3. Odeh YV, A. Kaufman R, Korf J (2004). *Proc Neuropsychopharmacol Bd Psychiatry*, 28: 559-576.
  4. Sharma P, Lönnberg A (2004). *United States Patent*, 6,730, 198.
  5. Moe GC et al (2005). *Neurobiology of Aging*, 1559-1457.
  6. Sharma P, et al (2005) Abstract number: 162360, 12th P.A. Glodholm, Sweden
  7. Lönnberg A, et al (2005) Abstract: 0-10-01, 10th ICAAD Conference, Madrid, Spain
- <http://www.prenalind.com/PNA.asp>

Benefit  
to  
users

- Easy, convenient peripheral blood samples, compared to:
  - Tissue based tests (cancer)
  - Mammograms (Breast cancer)
  - Battery of neuropsychiatry tests, Spinal Fluid (Alzheimer's disease)
- Processing time comparable with other blood tests (e.g. PSA)
- High accuracy
- Early stage of the disease; better prognosis
- Technology well suited for "Point of Care" and screening

**Overview**

**The Commercial Opportunity**

**The Company**

**The Technology**

**The Investment Story**

Well  
controlled  
burn rate

- 16 mill GBP invested since year 2000
  - Norwegian State FUGE grants: 2 mill GBP
  - Equity (financial investors): 14 mill GBP
- New: Private placement May 2008; net proceeds 4 mill GBP should allow the Company to reach break even level for BC and AD diagnostic products\*
- Market cap: 25 mill GBP

\* Includes: AD and BC CE approval, BC Launch in India and FDA studies on AD

## Interesting Pipeline Opportunity

- Further growth capital to be raised to finance FDA studies on BC and roll out to new verticals:
  - Pipeline within CNS
  - Biomarkers for pharma industry
- The Company is seeking alternative sources of financing; Equity (from partners) and non dilutive solutions

Backed by  
Nordic  
Institutional  
Investors

Shares	Percent	Name
3 589 135	6.94	VERDIPAPIRFONDET NOR V/NORDEA FONDENE AS
2 910 000	5.62	SHARMA PRAVEEN
2 890 000	5.59	LØNNEBORG ERIK ANDERS
2 844 100	5.50	NORDEA BANK SWEDEN A
2 344 000	4.53	Tredje AP-Fonden C/O HANDELSBANKEN AS
1 914 000	3.70	A/S SKARV
1 444 870	2.79	HOLBERG NORDEN V/HOLBERG FONDSFORVA
1 406 500	2.72	NORDEA BANK PLC FINL
1 400 000	2.71	SKAGEN VEKST
1 389 400	2.69	JPMBSA NORDEA LUX LENDING A
1 097 387	2.12	HOLBERG NORGE V/HOLBERG FONDSFORVA
1 003 100	1.94	LIVSFORSIKRINGSSELSK STRATEGISK
828 933	1.60	INVESTOR CORPORATE A
773 300	1.49	VERDIPAPIRFONDET NOR V/NORDEA FONDENE AS
702 000	1.36	AMFIBIEN AS
646 000	1.25	ANDERSEN RUBEN
476 100	0.92	SANDEN A/S C/O JAN PETTER COLLI
460 000	0.89	HAAVIND KARL WILHELM
428 378	0.83	STORHAUGDAG
<b>28 957 203</b>	<b>55.98</b>	<b>Sum</b>

20 Largest Share Holders - June 20th 20:00

## Conclusion

- Innovative molecular diagnostics company, strong IP
- Experienced management team
- Target disease markets are large
- Clear marketing strategy via different global territories
- First Sales Q3 08
- Intensive Newsflow 2008/09

F R O S T   &   S U L L I V A N

## 2007 Entrepreneurial Company Award

The logo for DiAGENIC is centered in a white rectangular box. The word "DiAGENIC" is written in a serif font, with the letters "i" and "i" in red. A large, stylized fingerprint graphic is overlaid on the letters "A" and "G".

**DiAGENIC**

*“Partnering with Clients to  
Create Innovative Growth Strategies”*



# DiAGENiC

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