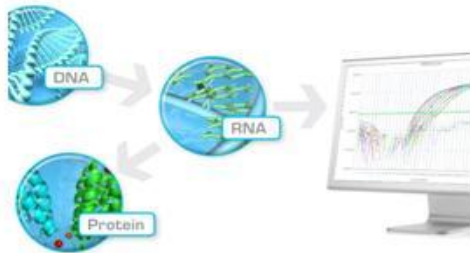


DiaGenic ASA

Worlds First in on blood based MCI biomarkers

Enable patient selection in clinical trials
and deliver companion diagnostics
to maximize product revenues

Erik Christensen, MD PhD, CEO



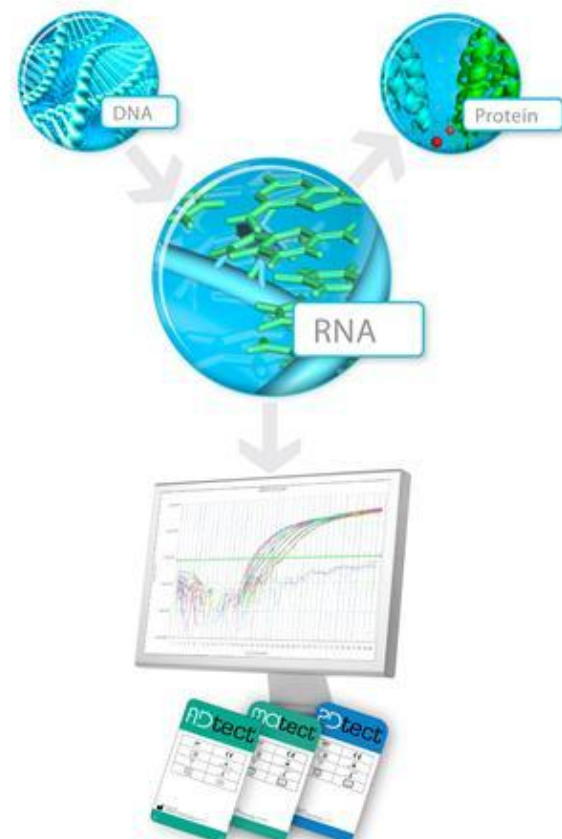
Business strategy and background

- ◆ The goal of the company is to take a leading position in the area of blood based diagnostics within selected CNS disease areas through its ability to deliver precise well-documented tools for early detection.
- ◆ This position is achieved by expanding committed pharma partnerships, sale of commercial rights and co-development agreements with large pharmaceutical and diagnostic companies.
- ◆ Successfully delivered on collaboration agreement with Pfizer in Alzheimer's disease.
- ◆ Non-exclusive pharma strategy enable potential significant revenues in the large AD market.
- ◆ Stock listed (OSE:DIAG) life science company based in Oslo.

DiaGenic

Core Assets

- Worlds first in gene expression biomarker development in Alzheimer's & Parkinson's Disease
- Solid IP in US and Europe for diagnosing AD and stages thereof in blood
- Partnered with providers of commercially available, quality assured and robust platforms that are suitable for diagnostic use in clinical medicine (Qiagen, Life Technologies)
- Up scalable robust FDA compliant technology
 - Concept applicable in other CNS disease areas e.g. Parkinson's disease
- First in market with ADtect, CE regulatory approved in EU
 - Product development documented in peer reviewed journals (e.g. JAD 2011)



DiaGenic has the experience on taking a product from discovery to market

A multitude of opportunities

Application	Utility	Biomarkers
Patient selection tool for clinical trials	<ul style="list-style-type: none">• Reduced size of clinical trials• Reduced cost of clinical trials	Early onset
Selection tool for expensive imaging procedures	<ul style="list-style-type: none">• Selection tool which potentially can open up the market for expensive PIB PET imaging	PET enabler
Monitor disease progression	<ul style="list-style-type: none">• Classification of patients into different stages of the disease (e.g. drug efficacy measurement)	Staging
Prospective tool to differentiate expected speed of progression	<ul style="list-style-type: none">• Classification of patients into different treatment schemes (e.g. dosage optimisation)	Progression
Select patients for therapy – Companion Diagnostics	<ul style="list-style-type: none">• New therapies and expanded target populations	Companion Dx
Early disease and prodromal stages detection	<ul style="list-style-type: none">• Speed up diagnosis and reduce cost of diagnosis• Enable earlier intervention	Prodromal

Blood based gene expression – the future in personalized and stratified medicine

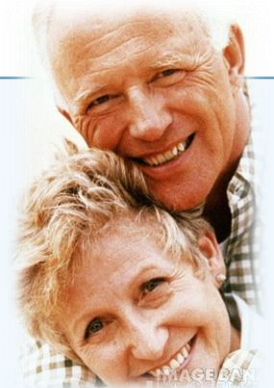
DiaGenic CNS product line

MDx

Stand alone IVD assay

ADtect®

Aids in early detection of AD



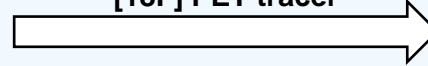
Rx

Integrated biomarkers

Companion Diagnostics

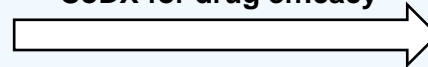
ADtect^{PLUS}®

Tailor made biomarker with
[18F] PET tracer



ADtect^{ULTRA}®

Tailor made biomarker in
CoDX for drug efficacy



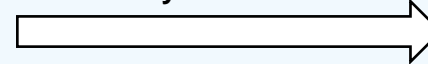
mciTECT®

MCI to AD progression biomarker



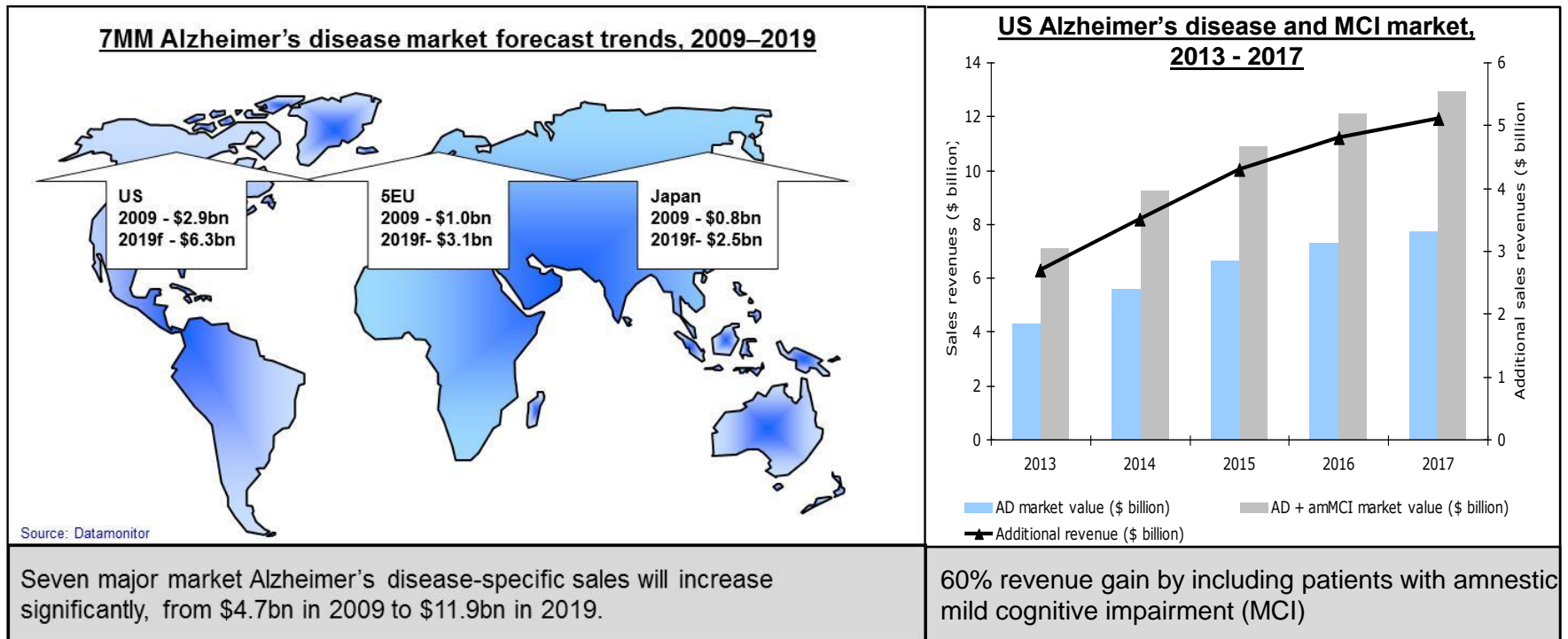
PDtect®

Aids in early detection of PD



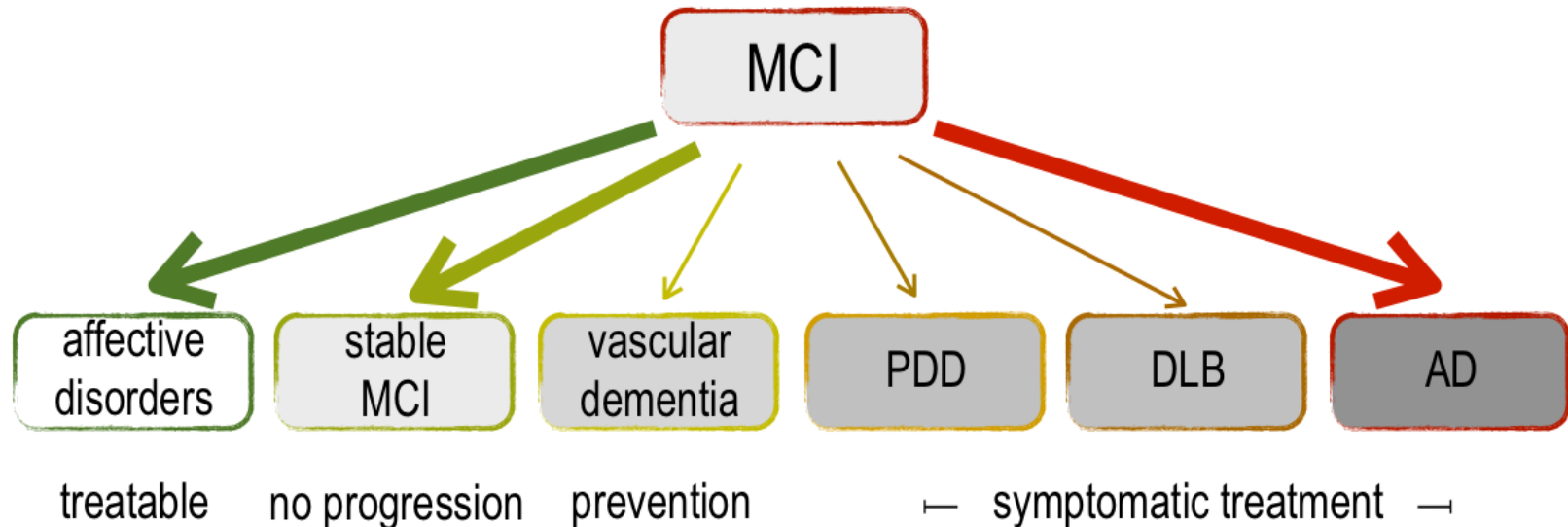
Alzheimer's disease market set to expand considerably in all major markets

MCI may increase AD market by > 60%



- The launch of potentially disease-modifying therapies, earlier diagnosis facilitated by biomarker tests and an increasingly elderly population drives growth over the next 10 years.
- Diagnostics and therapeutics in MCI may increase AD market by > 60%
- Successful drug development will increase the blood based US diagnostic market by > 500%

MCI – a heterogeneous syndrome



"The earlier in the disease process that people at risk for developing Alzheimer's are identified, the sooner we can intervene. Earlier detection will be our best opportunity to prevent continuing damage to the brain, once more effective therapies are developed."

William Thies, PhD,
Chief Medical and Scientific Officer at the Alzheimer's Association

Ongoing multicenter studies

MCI/prodromal AD development program

- ♦ Multicenter studies in collaboration with multiple university hospitals across Europe and the US:
 - UC Davis: Annual monitoring of MCI patients, controls and other dementias over 3-4 years, to include 200 MCI cases and 50 controls.
 - University of Malmö/Lund: 300 MCI patients and controls.
 - Clinical data, including CSF biomarkers and PET optionally.
 - Several sites as part of DiaGenic and EU funded studies (300 MCI cases and controls)
- ♦ >3500 unique samples (MCI/AD, PD, and technical samples from all relevant clinical groups and from age matched healthy controls)
 - Comprehensive clinical info following each sample (CRF)
 - Full DiaGenic ownership for commercial product development

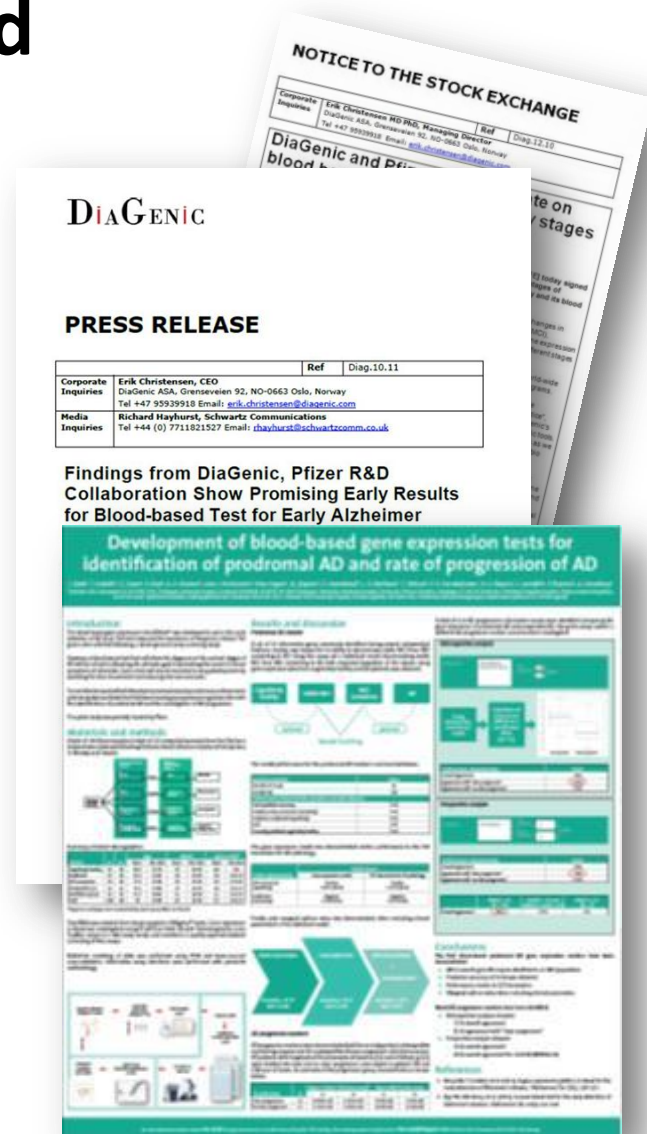


Development of blood based biomarkers for early stages of Alzheimer's disease

Promising early results reported

DiaGenic & Pfizer R&D collaboration

- ♦ The objective was to identify gene expression patterns in blood from patients who progress from MCI to Alzheimer's disease and on further disease progression
- ♦ Compared longitudinal changes in subjects with Alzheimer's disease using;
 - ♦ DiaGenic's extended gene set from whole genome studies
 - ♦ DiaGenic's blood samples from our own clinical studies on MCI patients with validated expert consensus diagnosis
 - ♦ Validated diagnostic technology platforms
 - ♦ Next generation FDA compliant instrumentation (ABI ViiA7)
- ♦ Proof of concept established
- ♦ Study results reported at the CTAD congress November 3-5th 2011



Development of blood based biomarkers for early stages of Alzheimer's disease

20-gene signature identified

Reflects known AD biological pathways



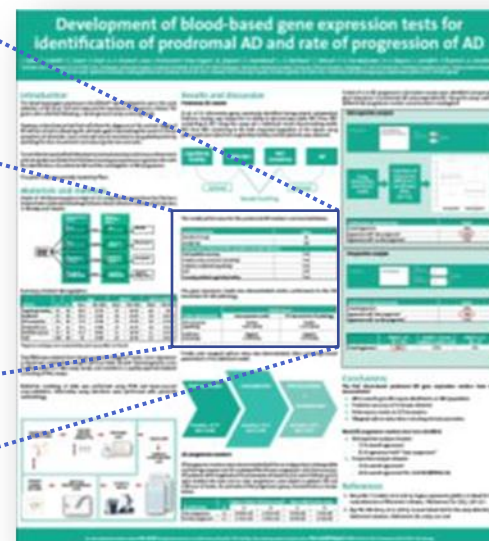
Amyloid- β	3	}	Identifies prodromal AD in an MCI population
TAU/NFT processing	4		
Neurodegeneration	3		
Cell cycle control	7		
Mitochondria	4		
Calcium regulation	5		
Apoptosis	6		
Inflammation	4		

The 20 assays also cover a wide range of known pathways associated with AD pathology, such as Amyloid-beta, pTau and mitochondrial processing. Several of the genes are involved in one or more biological pathways associated with AD pathology

Development of blood based biomarkers for early stages of Alzheimer's disease

Model performance using 20 genes

Model parameter	Value	
Sample size	129	
Performance characteristics (results on 66 MCI donors)		
Prediction accuracy	74 %	
Sensitivity	74 %	
Specificity	75 %	
Cohort (parameter)	Performance	
	Prodromal AD gene expression model	CSF biomarkers for AD pathology
MCI conversion	Positive 7 of 11 (64 %)	Positive 7 of 11 (64 %)
Stable MCI	Negative 7 of 9 (78 %)	Negative 7 of 9 (78 %)



- ♦ A gene expression signature for prodromal AD has been identified in an MCI population
 - Stable MCI and MCI converters are discriminated with an 74% accuracy.
 - Gene expression demonstrates similar performance than CSF in identifying prodromal AD in an MCI population
 - Gene expression has demonstrated better performance than cognitive and functional testing

Development of blood based biomarkers for early stages of Alzheimer's disease

Biomarkers for prodromal AD and progression rate in AD identified

Biomarker for prediction of **prodromal AD** in blood

- ◆ DiaGenic has identified a 20 gene signature in blood predicting MCI conversion to AD (prodromal AD) within 2 years, n =129. DiaGenic's prodromal AD signature significantly reduces samples size in clinical trials
 - Cost reduction by 35%-45%.
 - Homogenous cohorts secures successful completion of clinical trials



Biomarker in blood defining **AD progression**

- ◆ DiaGenic has identified a 113 gene signature in blood for rate of progression in AD
 - Correct staging in >80% of fast progression cases
 - Provides an independent marker of progression in AD
 - Prediction of AD progression rate was demonstrated
 - >90% overall agreement for subjects with mild AD
 - Potential to reduces sample size in mild AD trials





CoDx

Business Opportunities

Biomarker for Prescription drug use

**Companion Diagnostics;
Creating one-to-one
relationships**

Companion diagnostic value proposition

DiaGenic to develop key solutions for Amyloid PET producers



Characteristics

- ♦ PET imaging diagnostics are the most accurate diagnostic tool for Alzheimer Disease
- ♦ Expensive equipment and procedures

Challenges

- ♦ High cost per patient
- ♦ Capacity constraints – limited no of scanners available due to cost
- ♦ Lack of objective selection criteria for reimbursements

DIAGENIC

Value proposition

- ♦ Blood-based diagnostics as a tool for pre-selecting patients for PET
- ♦ Increases hit-rates
- ♦ Reduces capacity constraints
- ♦ Validates reimbursement

- ♦ Dialogues with producers of amyloid PET tracers on R&D collaborations since last Q3 report have advanced
 - PET producers see a potential use of blood based biomarkers together with high cost PET imaging as part of a multimodal approach of future AD management
 - Collaborative study protocols developed, clinical site reviewed and funding scenarios pursued
 - PET will ensure gene expression traceability to AD amyloid diagnostics



GE Healthcare



Bayer HealthCare
Bayer Schering Pharma

AstraZeneca



for early disease detection

DIAGENIC

Companion diagnostic value proposition

DiaGenic with key solutions for AD management



Drug development

Characteristics	Challenges	Value proposition
<ul style="list-style-type: none"> Established high-value segment, but only symptomatic treatment Significant resources from big pharma being invested in developing new drugs 	<ul style="list-style-type: none"> Recruiting the right patients for clinical trials Objective monitoring of disease progression (clinical development end-points) Patient specific treatment 	<ul style="list-style-type: none"> Objective diagnostic tests to optimise inclusion Progression based on measuring bio-markers Predict patient specific drug efficacy based on RNA profile

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Value proposition

elan

Pfizer

MERCK
Be well


Bristol-Myers Squibb

Roche

gsk
GlaxoSmithKline

Eisai Eisai Co., Ltd.

sanofi aventis
Because health matters

janssen

MERZ

AstraZeneca

Lundbeck

Lilly

PHARMACEUTICAL COMPANIES
OF **Johnson & Johnson**

DIAGENIC

FOR EARLY DISEASE SIGNATURES

Enrichment of MCI converters to AD

Reducing sample size in MCI clinical trials

- Prodromal AD population, disease modification claim, primary outcome conversion to AD supported cognitive and functional testing (CDR).
- The duration of prodromal AD trials is 2 years with annual conversion rate to AD of 12-14%
- The **theoretical example** below is based on a Phase III trial scenario with 125 MCI converters per arm required to demonstrate a statistical difference between active treatment.

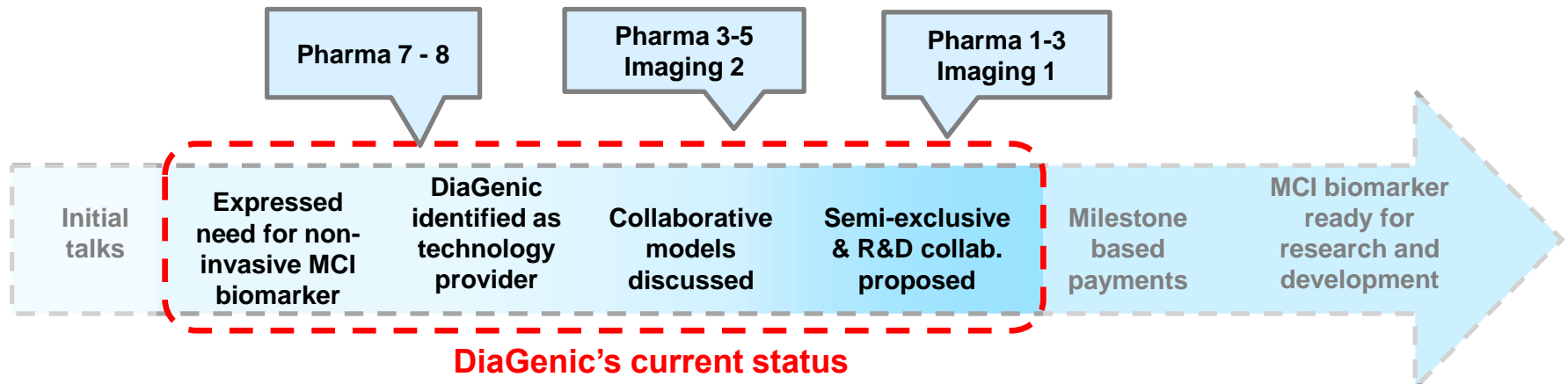
Cohort	Eligible for inclusion	MCI biomarker	Final inclusion	Estimated Conversion rate per arm
MCI	522	No	522	125 converters
MCIctect enriched	685	Yes	255	125 converters

Enrichment of target population using MCIctect – attracts pharma interest!

- ♦ Saving operational costs by 30%-40% by reducing study size
- ♦ Increasing trial success rate
 - ♦ Improved ratio responders vs. non responders in treatment arms
 - ♦ Homogenous study cohort
 - ♦ Reduce attrition and non-compliance

Delivering on the strategy

Driving multiple collaborative agreements forward



- Multiple interactions with pharma and imaging companies advancing according to plan, increased interest since last Q3 report
- Collaborative partner deals yielding:
 - R&D technology fees
 - Exclusive and non-exclusive licenses with milestone based payments
 - Product revenue from companion diagnostics
 - Integrated development of molecular diagnostic test for clinical use (FDA PMA/510k)
- Ferghana Partners appointed advisors on commercial transactions
 - Searches for potential licensees of DiaGenic's technology (CNS & cancer)
 - Key focus area MDx licence for the US market

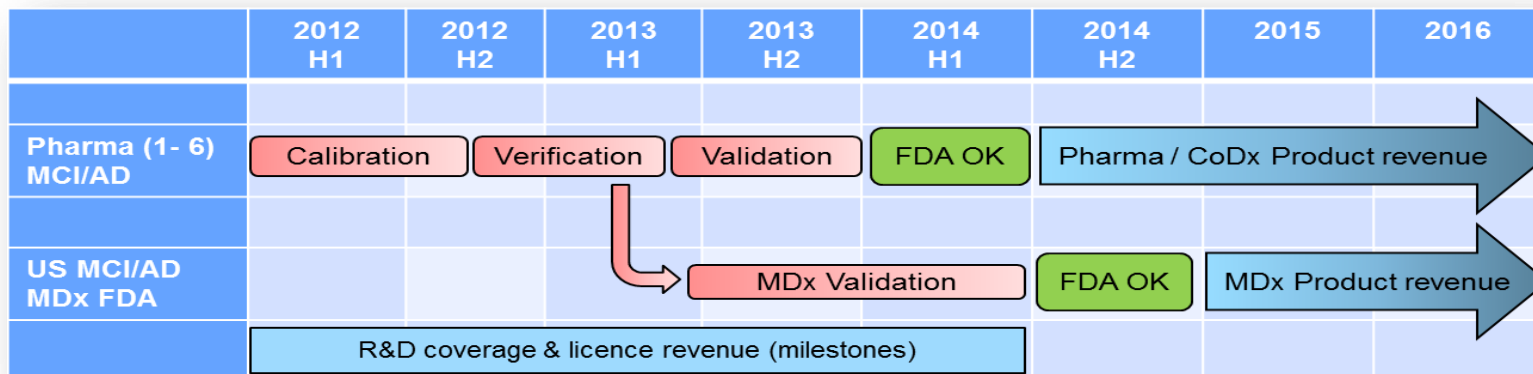
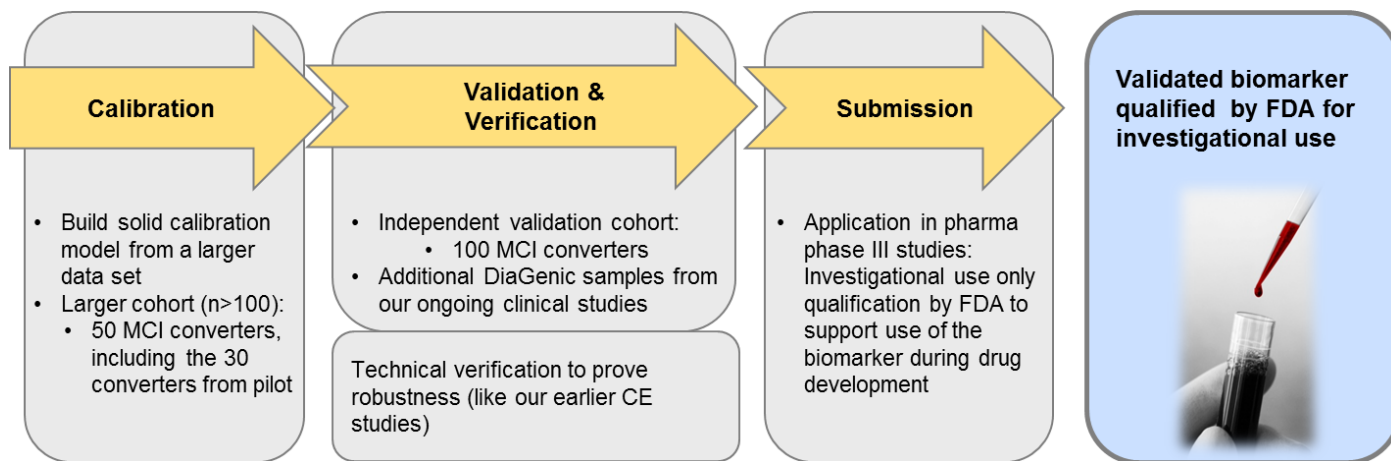
Alzheimer's Disease intellectual property

- ♦ DiaGenic is ahead of competition in blood based AD diagnostics
 - US patents effectively protects our concept/technology/tools in using gene expression in AD including MCI
 - Others can not launch or perform market preparation trials in the US
 - EU patents protects concept/technology/tools
 - Exception is continued use of exploratory technologies
 - Patent filed covering the MCI study findings
 - Includes both various types of RNA and related proteins
 - DiaGenic has freedom to operate in the field
 - Confirmed by 3rd parties

Patent overview				Family 1			Family 2			Family 3			Family 4			
				(WO 98/49342)			(WO 2004/046382)			(WO 2005/118851)			PCT application filed on January 2011			
Expiry year				2018			2024			2025			2031			
Countries/Region	G	A	P	G	A	P	G	A	P	G	A	P	G	A	P	
	US	1	0	2	0	0	1	0	0	1	0	0	0	0	0	
	Europe*	2	0	1	0	0	0	0	0	0	0	1	0	0	0	
	Europe**	0	0	0	1	0	0	1	0	0	0	0	0	0	0	
	Norway	2	0	0	0	0	1	0	0	1	0	1	0	0	0	
	Japan	1	0	0	0	0	0	1	0	0	0	0	0	0	0	
	Canada	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
	Hong Kong	2	0	0	0	0	0	1	0	0	0	1	0	0	0	
	China	0	0	0	0	0	1	0	0	1	0	0	1	0	0	
	Australia	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0
	New Zealand	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0
	India	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
	South Africa	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0
	ARIPO*	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
	G: Number of patents granted			A: Number of patents accepted by examiner			P: Number of patents in progress									
Europe*																
Designated countries: Austria, Belgium, Switzerland, Cyprus, Germany, Denmark, Spain, Finland, France, United Kingdom, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, The Netherlands, Portugal and Sweden																
Europe**																
Designated countries: Austria, Belgium, Switzerland, Cyprus, Germany, Denmark, Spain, Finland, France, United Kingdom, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Portugal, Romania, Sweden, Slovenia, Slovakia and Turkey																
ARIPO* (African Regional Intellectual Property Organization)																
Designated countries: Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Sierra Leone, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe																
List of granted patents/allowed patent applications																
US 6720138; EP 0979308; EP 1323728; NO 317247; NO 20040371; JP 4163758; HK 1026003; HK 03109502.9; AU 2003286262; NZ 540750; IN 2701/DELNP/2005; ZA 2005/03797; ZA 2006/10644; HK 1057217; NO 327084; EP 156557431; AP/P/2005/003317; AU 2005250219; US 11/628,300																

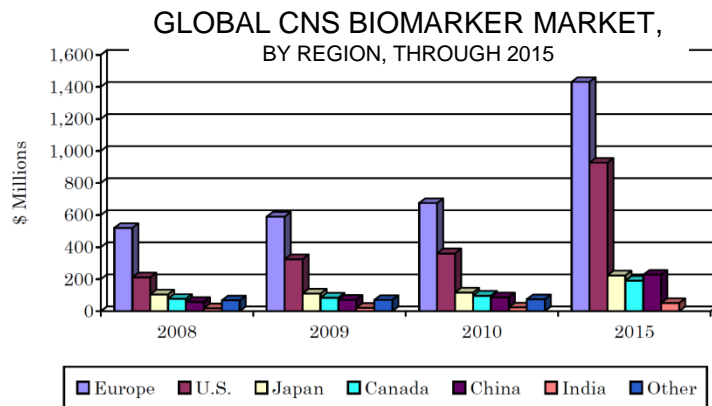
Validating the prototype biomarker for MCI converters

Taking MCI blood based biomarkers to FDA and beyond



Commercial opportunities in the US diagnostic market for DiaGenic

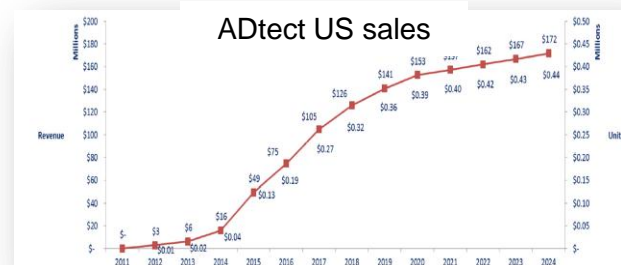
MCI/tect/ADtect - Limited competition in the attractive US market



Regions	2008	2009	2010	2015	CAGR% 2010-2015
Europe	519.9	589.2	675.2	1,430.7	16.2
U.S.	211.5	325.1	361.7	927.2	20.7
Japan	104.7	109.8	117.1	224.2	13.9
Canada	77.1	84.8	97.3	191.5	14.5
China	58.4	71.2	86.5	228.6	21.5
India	18.5	21.0	23.9	51.7	16.7
Other	68.1	70.7	74.4	116.5	9.0
Total	1,058.2	1,271.8	1,435.6	3,170.4	17.1

BCC Research October 2010: BIO074A – Central Nervous System (CNS) Biomarkers: Technologies and Global Markets

- DiaGenic have recently performed two independent surveys of the US blood based diagnostic market for our Alzheimer's tests:
 - The current marketplace with existing treatment options and test specifications:
 - Peak ADtect US sales \$170M – 195M
 - With arrival of new effective therapeutic options (includes CoDX):
 - Peak MCI/ADtect US sales \$1.200M
- **DiaGenic – a dominant player potential!**



Destum Partners 2011
Medpanel 2011

Your preferred partner for gene expression profiling in blood

Core competence and assets:

- Delivers unique biomarkers in a well defined market characterized by a large unmet medical need
- World's first company with
 - Approved blood based test in AD diagnosis
 - Prodromal AD proof of concept demonstrated
 - Progression markers identified
- Strong IP protection within blood based AD diagnosing and monitoring.
 - Broad claims protects against infringement.
- Competence and experience in all aspects of product development from discovery to regulatory
 - Strong knowhow on technologies, platforms & bioinformatics
 - R&D collaboration with reputable university hospitals in US and Europe
 - World Class Biobank
 - Good track record on receiving public grants
- Overall aim is to provide Companion Diagnostics tools for pharma and imaging companies and FDA approved diagnostic tests



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ADtect®
Alzheimer's Disease Detection

BCtect®
Breast Cancer Detection

Biomarkers
Companion Diagnostics

Pipeline
Future products

Our Technology
The scientific background

Your partner in
biomarker discovery
and development.

Gene Expression Diagnostics: A New Approach. - How a diagnostics company successfully reinvented itself.
Interview with DiaGenic CEO
[Read more](#)

Press Releases 14.10.11
Findings from DiaGenic, Pfizer R&D Collaboration Show Promising Early Results for Blood-based Test for Early Alzheimer Disease
[Read more](#)

Notice to the Oslo Stock Exchange Fri, 21 Oct 2011 17:23:23 +0200
Presentation of results for third quarter 2011
[Read more](#)

Calendar

03.11.2011 - 05.11.2011 - San Diego, CA, USA
4th Conference Clinical Trial on Alzheimer's Disease, 3th-5th November - San Diego, CA, USA
We will be happy to meet you at CTAD. DiaGenic will be presenting two posters.
[Read more](#)

11.12.2011 - 14.12.2011 - Shanghai, China
XIX World Congress on Parkinson's Disease and Related Disorders, 11th to 14th of December - Shanghai, China
DiaGenic will give an oral and poster presentation: "Gene expression profiling of peripheral blood for detection of Parkinson's disease"
[Read more](#)

Disclaimer

This presentation includes forward-looking statements regarding DiaGenic ASA, including projections and expectations, which involve risk and uncertainty. Such statements are included without any guarantees to their future realization. Although DiaGenic believes that the expectations regarding the Company reflected in such forward-looking statements are based on reasonable assumptions, no assurance can be given that such projections will be fulfilled. Any such forward-looking statement must be considered along with knowledge that actual events or results may vary materially from such predictions due to, among other things, political, economic, financial or legal changes in the markets in which DiaGenic does business, and competitive developments or risks inherent to the Company's business plans. Many of these factors are beyond DiaGenic's ability to control or predict. Given these uncertainties, readers are cautioned not to place undue reliance on any forward-looking statements. The Company does not intend, and does not assume any obligation, to update the forward-looking statements included in this presentation as of any date subsequent to the date hereof.