



GENETIC TECHNOLOGIES LIMITED

(NASDAQ: GENE, ASX:GTG)

January 2011



Forward Looking Statements



This presentation may contain forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933 and Section 21E of the U.S. Securities Exchange Act of 1934 with respect to the financial condition, results and business achievements/performance of Genetic Technologies Limited and certain of the plans and objectives of its management. These statements are statements that are not historical facts. Words such as “should”, “expects”, “anticipates”, “estimates”, “believes” or similar expressions, as they relate to Genetic Technologies Limited, are intended to identify forward-looking statements. By their nature, forward-looking statements involve risk and uncertainty because they reflect Genetic Technologies’ current expectations and assumptions as to future events and circumstances that may not prove accurate. There is no guarantee that the expected events, trends or results will actually occur. Any changes in such assumptions or expectations could cause actual results to differ materially from current expectations.



- Substantial near-term global growth opportunities in cancer diagnostics
- Existing annuities & growing revenues from non-coding DNA IP out-licensing
 - Increasing substantially through US IP assertion suit
 - Successes in Europe also
 - 9 Licenses granted 2010
- 20 year old Aust/NZ molecular diagnostics and genetics business, with historically low share price
- Expanding global business through acquisition, development & deployment of high value diagnostic assets

Investment Snapshot



- GTG to soon launch world's first validated test for non-familial breast cancer globally:
 - BREVAGen™ has attractive CoGS and rapid payback
 - Purchased all key assets from Perlegen Inc. incl. BREVAGen™ for less than \$1.5m during financial crisis, Perlegen total investment – \$328m
 - Target market is global, characterized & large
 - US launch planned first quarter 2011
- GTG has an established genetics business with infrastructure and reliable, largely contracted operational revenues
- Existing annuities & growing revenues from non-coding DNA IP out-licensing
 - Increasing substantially and beyond through US IP assertion suit
 - 9 Licenses granted 2010

BREVA Gen™ – Launch This Quarter



Novel, validated non-familial breast cancer risk test:

- Preparing for US launch Q1 2011
- Oct10 JNCI validation study
- High profile KOLs engaged
- Large validation populations
- Substantial global opportunity
- US reimbursement strategy in place

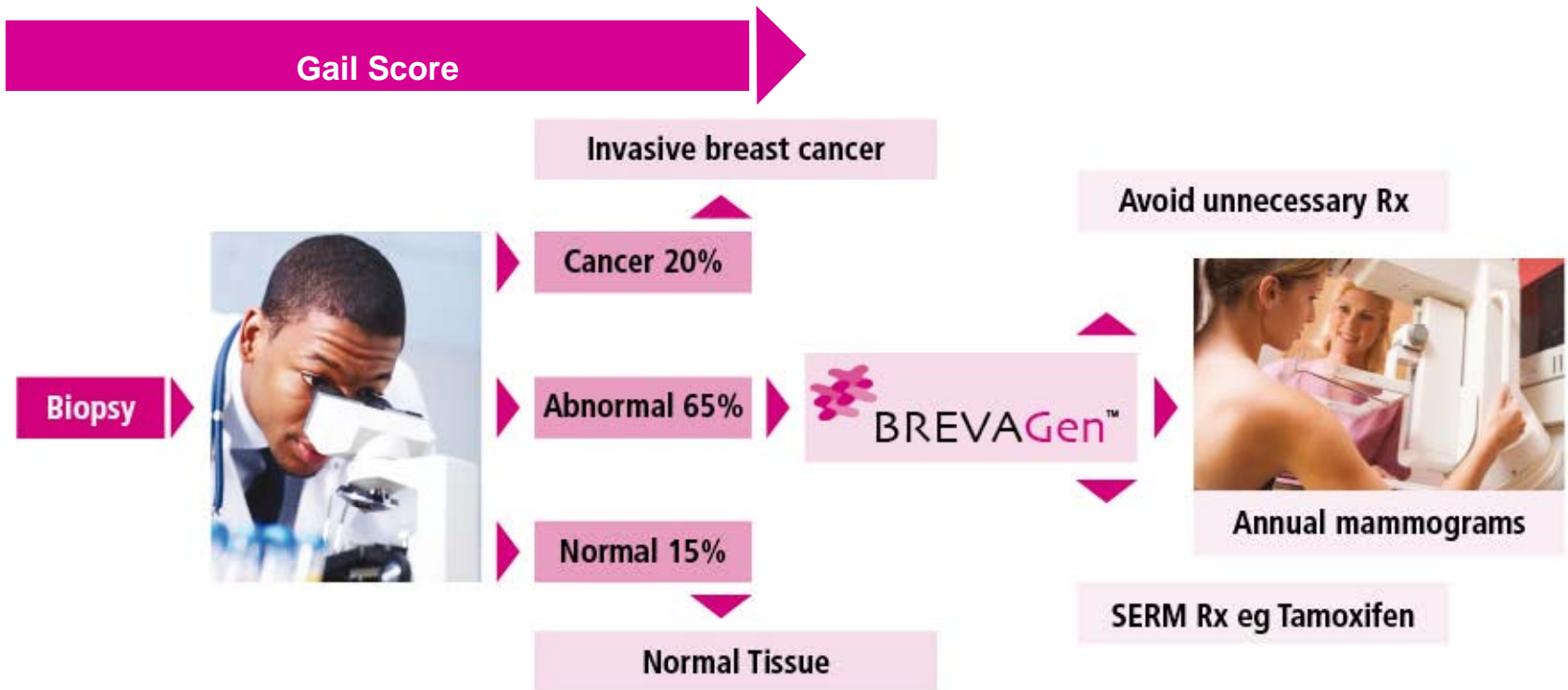


BREVAGen™ – What it Means Clinically



- Genetic breast cancer prognostic test
- Test combines population risk factors (Gail Score) with genetic risk factors (7 SNP biomarkers) to give integrated individual breast cancer risk assessment
- BREVAGen™ is first fully peer reviewed validated test of its kind
- BREVAGen™ test informs personalized clinical decision support for non-familial risk of breast cancer, allowing better patient monitoring & targeted preventive therapy

BREVA Gen™ – Fits Into Existing ASCO and ACS Breast Cancer Guidelines



1.6m breast biopsy patients pa (USA)
→ 1m patients at indeterminate risk on histopathology
BREVA Gen re-classifies ~25% of these & thus enables preventive SERM therapy
SERMs 69% effective at preventing ER+ BCa

Published Validation Paper



- Published, Journal of the National Cancer Institute Oct 2010
- First SNP panel prognostic test to secure a pivotal paper in a top tier journal

“Combining validated common genetic risk factors with clinical risk factors resulted in modest improvement in classification of breast cancer risks in white non-Hispanic postmenopausal women. Classification performance was further improved by focusing on women at intermediate risk.”

- *“Study demonstrates that the combined risk estimation model approach has clinical validity in postmenopausal, white women.”*
David Hinds, lead author



Qualified Market Opportunity



- US market for existing breast cancer molecular diagnostics ~\$690m* in 2006 & grown ~18% CAGR since
- Referenced by
 - BRACAnalysis (Myriad Inc) sales ~\$260m
 - OncotypeDx (Genomics Health) ~\$160m
 - Other players (Genzyme[◇], Clariant[◇], etc) made up the balance
- BREVAGen™ US market target is 1m patients pa (65% of 1.6m breast biopsy patients)

* Ref: U.S. Markets for Breast Disease Detection and Diagnostic Technologies March 2006, Report #A404.

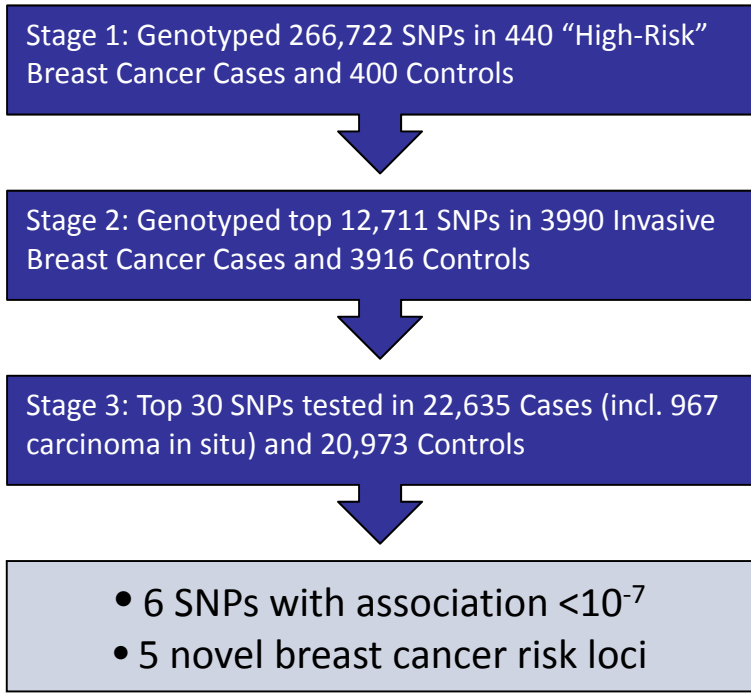
◇ Transacted in 2010 for substantial revenue multiples

BREVAGen™ SNP Panel

Large Discovery & Validation Data Sets



SNP Discovery



Prospective Independent Validation

Cohort/Sponsor	# Pts	SNPs Studied	Association
WHI/Perlegen	3,328	FGFR2, TNRC9, MAP3K1, LSP1, 8q24, FGF10	BCa risk
Icelandic/deCODE	13,163	FGFR2	BCa risk
Icelandic/deCODE	39,161	TNRC9	BCa risk
POSH/U Southampton	899	FGFR2, TNRC9, MAP3K1, LSP, 8q24	ER+ BCa risk and prognosis
SBCS/Shanghai	3,027	FGFR2, TNRC9	BCa risk; Asian
Cambridge	2498	FGFR2	BCa risk; African-American

To Date: 20+ published studies in over 50,000 women

DISCOVERY: Easton DF et al.; *Genome-wide association study identifies novel breast cancer susceptibility loci*; Nature 447:1087-93, 2007.

VALIDATION: Mealiffe ME, et al., *Assessment of Clinical Validity of a Breast Cancer Risk Model Combining Genetic and Clinical Information*; (2010). Journal of the National Cancer Institute 102: 1-10.

Compelling Pharmacoeconomics



Presented as a poster ASCO 2010 (Chicago), Archimedes Group + GTG

Intervention	Woman's Age	Cost per Life Year	Cost per Quality Adjusted Life Year
BREVAGen™ vs. Gail Alone*	40-49	\$14,300	\$3,900**
BREVAGen™ vs. Gail Alone*	50-59	\$17,600	\$3,800
BREVAGen™ vs. Gail Alone*	60-69	\$72,100	\$7,500
Standard of Care			
Annual Mammography only vs. no screening	40-79		\$42,553
Annual Mammography & CBE vs. no screening	40-79		\$56,561

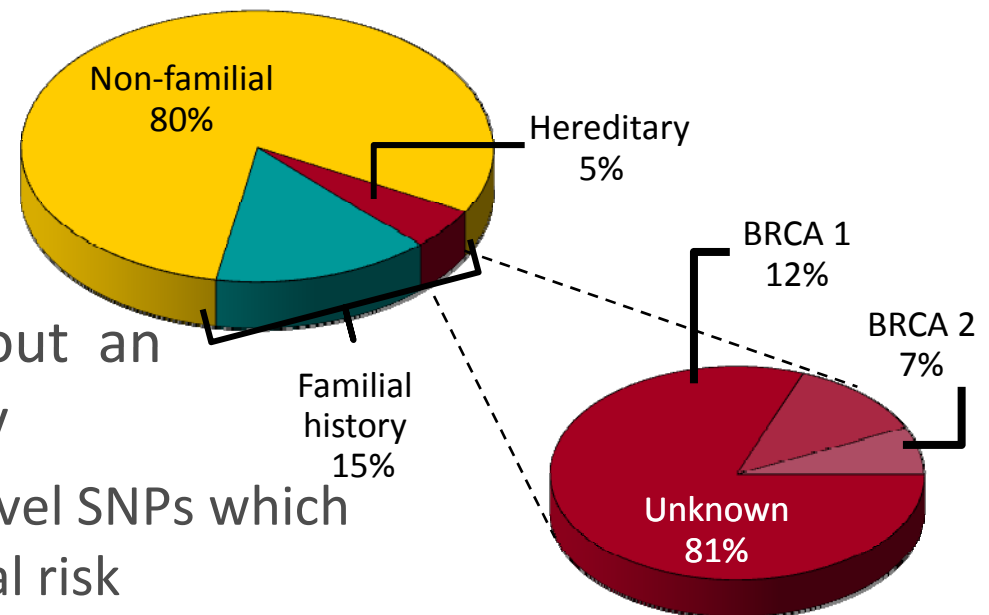
* Independent analysis by Archimedes, Inc. (Kaiser's health economics arm), using NCI model for breast cancer epidemiology, known specific risks for SNPs and Gail scores, costs for testing and tamoxifen, plus known prevention effectiveness and SAE rates, costs, & QALYs (presented as a poster, ASCO 2010, Chicago)

** Threshold for reimbursement cost effectiveness is <\$50k per QALY

Genetics of Breast Cancer Risk



- Genes can either be detected as
 - Mutations (BRCA1 & BRCA2) or
 - Single nucleotide polymorphisms, indicating a higher with cancer risk
- To date; BRCA testing has been well utilized yet the vast majority of breast cancer occurs without an indication of family history
 - GWAS have identified novel SNPs which are related to non-familial risk

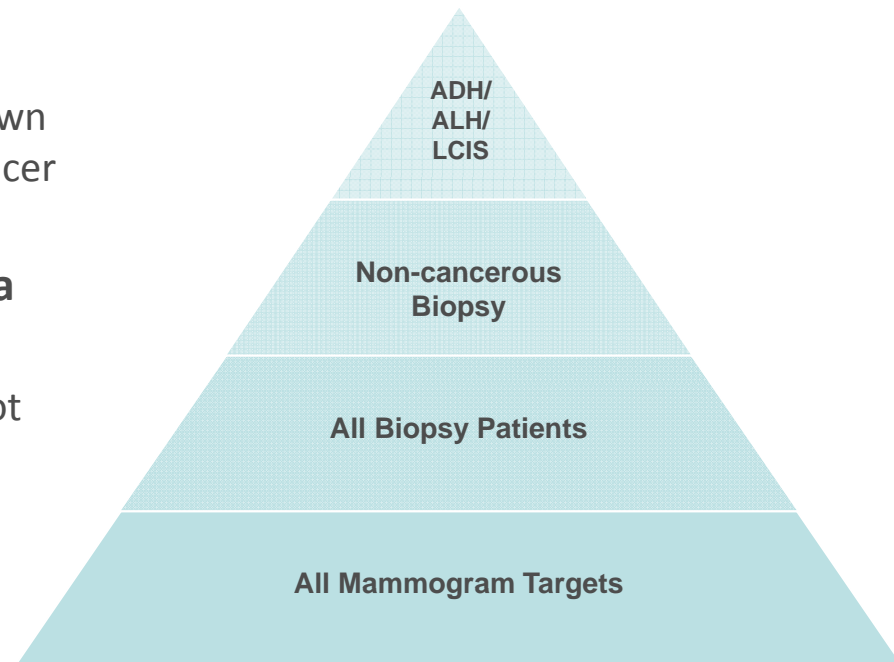


AJHG 1998;62:676-89
JCO 2002;20:1480-1490
Nat Rev Cancer 2004;4(9):665-76

Target Patient Groups



- Three target markets have been identified:
 1. **BRCA negative patients**
 - 80-90% of BRCA results are negative
 2. **Breast Biopsy patients**
 - Patients undergoing are known to have increased breast cancer risk
 3. **Women over 35 who have a family history of cancer**
 - One or more relatives but not classified as 'high risk'



Stages of Sales Channel Growth

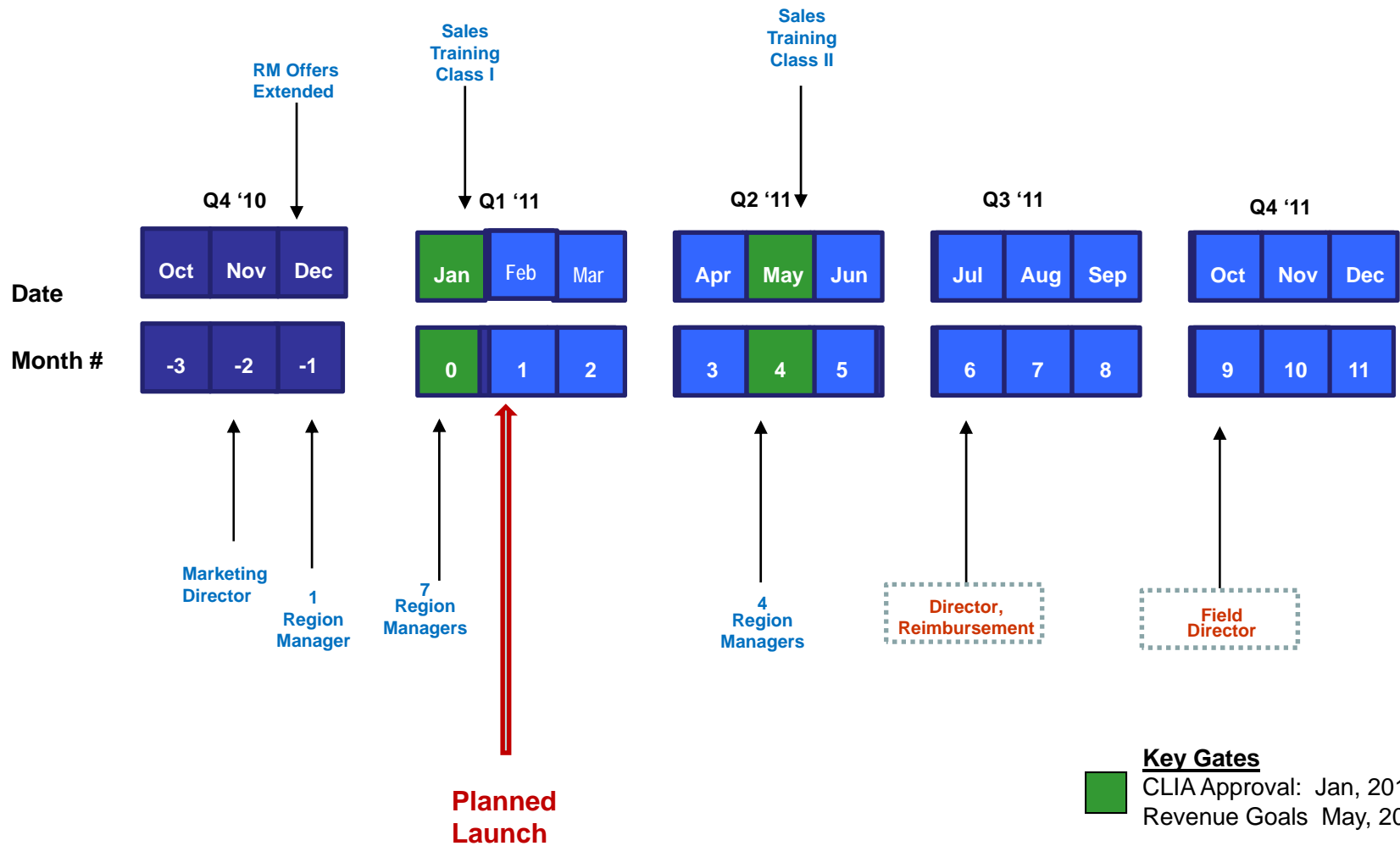


- Initial target market **Year 1-3**
 - MD's with high numbers of BRCA patient tests
 - 80-90% of BRCA results are negative
 - 1,521 High Value MD/OBGYN's identified

- Second target market **Year 2-4**
 - MD's in Breast Biopsy procedures
 - 1m indeterminate biopsy patients per annum
 - 82,000 relevant MD population

- Third target market **Year 3-5**
 - Women concerned with Breast cancer risk – over 35yrs of age

Sales and Marketing Deployment



Business Overview – Licensing





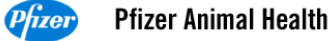











- Non-coding DNA patent estate is one of GTG's core assets
 - \$60m+ licensing revenue received to date
 - Ongoing annuity stream of \$9.2m to end of '762 patent in 2015
 - Foundational patent families protecting the use of non-coding DNA
 - '179, "Intron Sequence Analysis"*
 - '762, "Genomic Mapping"
 - '063, "Methods For Genetic Analysis"
 - '589, "Methods of Genomic Analysis"
 - '205, "Genetic Analysis Systems and Methods"
- Acquired 2010, extant to 2022
- Assertion strategy US
 - Single party negotiations EU & RoW

* Upheld in full upon USPTO *ex-partes* re-exam, 2010

Licensees



50+ licensees across range of industries
 - Many have delivered synergistic business opportunities

Agriculture	Medical	Instruments	Research
   	    	   	  

Patent Assertion Program



- Partnership with Sheridan Ross PC, a full service intellectual property law firm based in Colorado
- IP assertion program activated & first suit filed in US District Court, Western District of Wisconsin Feb 2010
 - 9 assertion targets selected for first assertion phase
 - 6 year 'claim-back' in US after patent expiry
 - Off balance sheet financing
 - Delivering results (*see table at R*); 6 settlements to date, more outside of this in Europe and non-assertion US
- **2nd & 3rd suits in late planning stages**

Parties joined suit #1:

- ✓ Beckman Coulter
- ✓ Gen-Probe
- ✓ Interleukin Genetics
- ✓ Molecular Pathology Laboratory Network
- ✓ Monsanto
- ✓ Pioneer Hi-Bred
- Orchid Cellmark
- PIC USA
- Sunrise Medical Laboratories

✓ = settled

Regulatory & Reimbursement



- CLIA dossiers submitted – first Australian facilities to service US market
 - Test validation complete with new substrate platform
- Premier Source (San Mateo, CA) engaged to provide payer management services & reimbursement strategy support : commencing with stacked procedural codes
- Regulatory & clinical strategy to move to file 5.10(k) &/or comply with anticipated upgraded CMS requirements under development

Prominent KOLs Involved



Kevin S Hughes, M.D., FACS

Surgical Director, Breast Screening
Co-Director, Avon Comprehensive
Breast Evaluation Center
Massachusetts

Allison W. Kurian, M.D., M.Sc.

Assistant Professor of Medicine (Oncology)
Stanford University School of Medicine

Richard Frieder, MD

Associate Clinical Professor
Department of Obstetrics and Gynecology
David Geffen School of Medicine at UCLA

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Tampa, FL 33613

- Key Opinion Leaders (KOLs) crucial to success
- High profile Clinical Advisory Board (CAB) members are assembled to support product sales
- Key CAB board members and KOLs are being retained

Further in discussions

Infrastructure



Genetic Technologies Ltd Fitzroy VIC Australia

Technical & corporate support , and globally accredited efficient sample processing.
CLIA Cert pending.



Phenogen Sciences Inc Charlotte NC USA

Sales & marketing, customer support,
reimbursement mgt
and sample accessioning.



Competitors



- DeCode (Iceland)

- *Launched in October 2008 by deCODE Genetics, no validation*
- *deCODE Breast Cancer test assesses a woman's risk based on 7 common SNPs, ordered only via MDs. Price = \$1,650*
- *Emerged from Chapter 11 in April 2010 as a private company (Saga Investments)*

- InterGenetics (Oklahoma City)

- *Breast cancer test is based on 22 SNPs, no validation*
- *Limited sales and marketing presence*
- *Self generated regulatory difficulties*

- Other, largely DTC

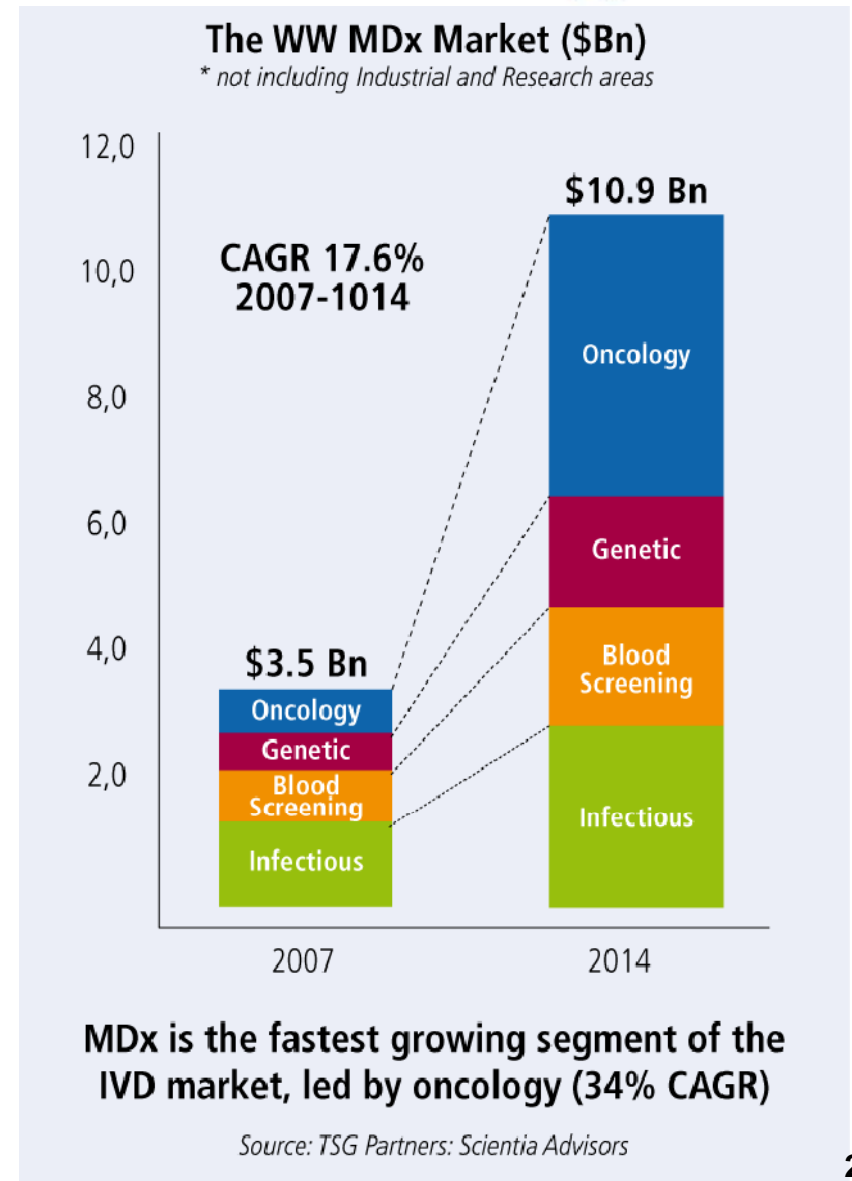
- Navigenics
- 23&Me

In contrast, all the SNPs in the BREVAGen panel have P values better than 10^{-7} in whole genome association studies in 50,000 women. The original underlying studies have been published in top-tier scientific journals & several follow-up papers have also been published in the scientific literature.

Oncology Focus



- New technologies driving targeted interventions & extending lives
- Molecular diagnosis of cancer is most attractive segment of the Dx industry
- Focused market & efficient sales process
- Strong accelerating growth forecast next 4 years
- Historical PacRim focus
- **US & EU market exposure via BREVAGen™ and follow-on products**



* MDx = molecular diagnostics

Cancer Management Strategy



- Unique portfolio approach
- Assembling best in class cancer management tools for PacRim deployment
- Developing &/or acquiring products with global protection, application & scope

Pacific Rim Business



- Contracted provider to NSW Police Force for volume crime forensic testing
- 50+% market share Aust/NZ paternity testing
- Exclusive provider genetic testing most PacRim canine breed clubs
- Leading contracted provider of paternity tests to lawyers, Dept of Immigration, Legal Aid and general public



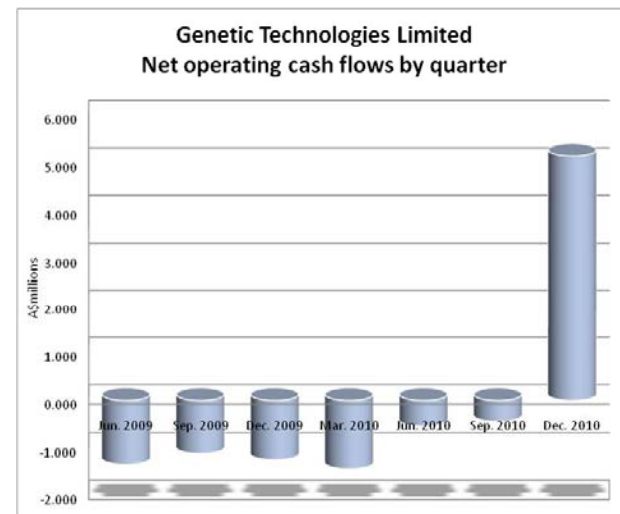
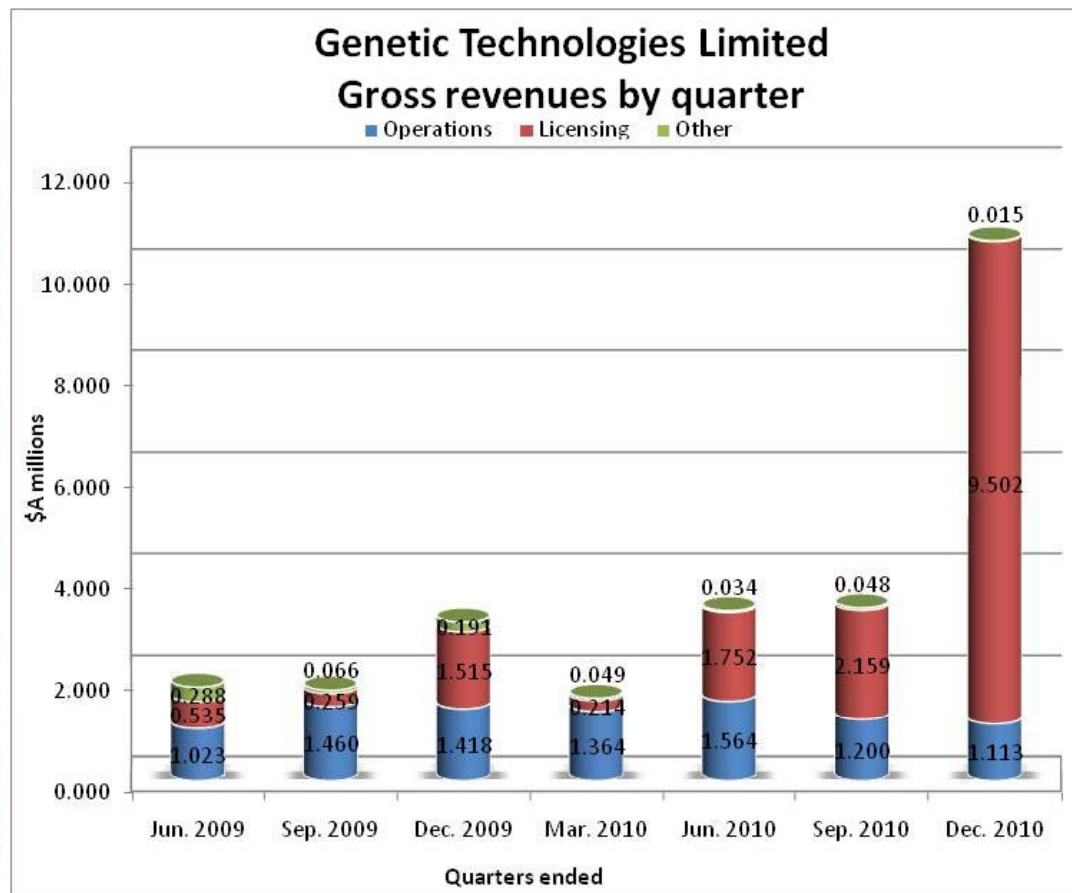
Underwrites revenues in the short to medium term



Financial Trends (by quarter)



- Rising revenues
- Better cost control
- Trend to positive cash flows



Unaudited forecasts

Financial Snapshot Dec 2010



Financials (year to Dec31)

(AUD millions)	<u>2010</u>	<u>2009</u>
Operations revenue	5.23	5.38
Licensing revenue	13.62	6.01
Net income / (loss)	(2.32)	(7.85)
EPS (USD per ADR)	(0.17)	(0.56)
Cash	8.40	5.56

Share Register

- Shares outstanding 404.6m
- Top 20 shareholders 76%
- Total shareholders 2,850
- Options outstanding (*) 14.3m
- (*) Employee options only
- Market cap (31st Dec) USD13.9m



Trending to profitability and positive cash flows

Unaudited forecasts

Summary



- GTG to soon launch first validated test for non-familial breast cancer globally
 - BREVAGen™ has attractive CoGS, ROI & rapid payback
 - Target market is global, characterized and large
 - Launch in US first quarter 2011
- GTG has a sound established business with reliable, growing operational & licensing revenue streams
 - GTG is publicly traded & driving growth to profitability
- With current low share price, new investors in GTG gain access to BREVAGen™ and broad suite of other established and growing revenue streams

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