GENETIC TECHNOLOGIES LTD
Form 20-F
October 24, 2012
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 20-F

o **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended June 30, 2012

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

o **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report . . . . . .

For the transition period from to

Commission file number 0-51504

GENETIC TECHNOLOGIES LIMITED
(Exact name of Registrant as specified in its charter)

N/A
(Translation of Registrant s name into English)

AUSTRALIA
(Jurisdiction of incorporation or organization)

60-66 Hanover Street, Fitzroy, Victoria, 3065, Australia
Telephone: 011 61 3 8412 7000; Facsimile: 011 61 3 8412 7040
(Address of principal executive offices)

Thomas G. Howitt
Telephone: 011 61 3 8412 7050; Facsimile: 011 61 3 8412 7040
Email: tom.howitt@gtglabs.com
60-66 Hanover Street, Fitzroy, Victoria, 3065, Australia
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act. None

Securities registered or to be registered pursuant to Section 12(g) of the Act.

American Depositary Shares each representing 30 Ordinary Shares and evidenced by American Depositary Receipts
Title of each class

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Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act. None

Number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report.

464,771,819 Ordinary Shares

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

o Yes x No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

o Yes x No

Note Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

x Yes o No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer o	Non-accelerated filer x

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP o	International Financial Reporting Standards as issued by the International Accounting Standards Board x	Other o

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

o Item 17 o Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

o Yes x No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

o Yes o No

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INTRODUCTION

In this Annual Report, the Company, Genetic Technologies , we, us and our refer to Genetic Technologies Limited and its consolidated subsidiaries.

Our consolidated financial statements are set out on pages F1 to F40 of this Annual Report (refer to Item 18 Financial Statements).

References to the ADSs are to our ADSs described in Item 12.D American Depositary Shares and references to the Ordinary Shares are to our Ordinary Shares described in Item 10.A Share Capital .

Our fiscal year ends on June 30 and references in this Annual Report to any specific fiscal year are to the twelve month period ended on June 30 of such year.

FORWARD-LOOKING STATEMENTS

This Annual Report contains forward-looking statements that involve risks and uncertainties. We use words such as anticipates , believes , plans , expects , future , intends and similar expressions to identify such forward-looking statements. This Annual Report also contains forward-looking statements attributed to certain third parties relating to their estimates regarding the growth of Genetic Technologies and related service markets and spending. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Annual Report. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us described below under the caption Risk Factors and elsewhere in this Annual Report.

Although we believe that the expectations reflected in such forward-looking statements are reasonable at this time, we can give no assurance that such expectations will prove to be correct. Given these uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Important factors that could cause actual results to differ materially from our expectations are contained in cautionary statements in this Annual Report including, without limitation, in conjunction with the forward-looking statements included in this Annual Report and specifically under Item 3.D Risk Factors .

All subsequent written and oral forward-looking statements attributable to us are expressly qualified in their entirety by reference to these cautionary statements.

ENFORCEMENT OF LIABILITIES AND SERVICE OF PROCESS

We are incorporated under the laws of Western Australia in the Commonwealth of Australia. The majority of our directors and executive officers, and any experts named in this Annual Report, reside outside the U.S. Substantially all of our assets, our directors and executive officers assets and such experts assets are located outside the U.S. As a result, it may not be possible for investors to affect service of process within the U.S. upon us or our directors, executive officers or such experts, or to enforce against them or us in U.S. courts, judgments obtained in U.S. courts based upon the civil liability provisions of the federal securities laws of the U.S. In addition, we have been advised by our Australian solicitors that there is doubt that the courts of Australia will enforce against us, our directors, executive officers and experts named herein, judgments obtained in the U.S. based upon the civil liability provisions of the federal securities laws of the U.S. or will enter judgments in original actions brought in Australian courts based upon the federal securities laws of the U.S.

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PART I

Item 1. Identity of Directors, Senior Management and Advisers

Item 1.A Directors and Senior Management

The Directors of the Company as of the date of this Annual Report are as follows:

Name	Position/Function	Business Address
Dr. Melvyn J. Bridges	Non-Executive Chairman	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Tommaso Bonvino	Non-Executive Director	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Dr. Malcolm R. Brandon	Non-Executive Director	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Gregory W. Brown	Non-Executive Director	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Dr. Mervyn Cass	Non-Executive Director	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Huw D. Jones	Non-Executive Director	60-66 Hanover Street Fitzroy Victoria 3065

		Australia

The members of Senior Management of the Company as of the date of this Annual Report are as follows:

Name	Position/Function	Business Address
Dr. Paul D.R. MacLeman	Chief Executive Officer	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Thomas G. Howitt	Chief Financial Officer and Company Secretary	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Alison J. Mew	Chief Operating Officer	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Dr. David J. Sparling	Vice President Legal and Corporate Development	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Gregory J. McPherson	Vice President Sales and Marketing	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Ivan Jasenko	Quality and Regulatory Manager	60-66 Hanover Street Fitzroy Victoria 3065 Australia
Mark J. Ostrowski	Senior Vice President Sales and Marketing (Phenogen Sciences Inc.)	9115 Harris Corners Parkway Suite 320 Charlotte North Carolina 28269 USA

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Item 1.B Advisers

Our principal bankers, accountants and legal advisers are as follows:

Name of Adviser	Function	Business Address
National Australia Bank Limited	Bankers - Australia	Level 2, 151 Rathdowne Street Carlton Victoria 3053 Australia
Bank of America, N.A.	Bankers - USA	155 Town Centre Drive Mooresville North Carolina 28117 USA
Middletons	General Counsel	525 Collins Street Melbourne Victoria 3000 Australia
Sheridan Ross PC	Licensing and Patent Attorneys	1560 Broadway, Suite 1200 Denver Colorado 80202-5141 USA
Greenberg Traurig, LLP	U.S. Securities Counsel	200 Park Avenue New York New York 10166 USA

Item 1.C Auditor

The auditor of the Group s financial statements for the years ended June 30, 2012, 2011 and 2010 was PricewaterhouseCoopers, whose address is 2 Southbank Boulevard, Southbank, Victoria, 3006, Australia. PricewaterhouseCoopers is the Company s current independent registered public accounting firm, an appointment ratified at the Annual General Meeting held on November 25, 2009.

Item 2. Offer Statistics And Expected Timetable

Not applicable.

Item 3. Key Information

Item 3.A Selected Financial Data

The following selected financial data for the five years ended June 30, 2012 is derived from the audited consolidated financial statements of Genetic Technologies Limited, prepared in accordance with International Financial Reporting Standards (IFRS), which became effective for our Company as of our fiscal year ended June 30, 2006.

The balance sheet data as of June 30, 2012 and 2011 and the statement of comprehensive income data for the 2012, 2011 and 2010 fiscal years are derived from our audited consolidated financial statements which are included in this Annual Report. Balance sheet data as of June 30, 2010, 2009 and 2008 and statement of comprehensive income data for the 2009 and 2008 financial years are derived from our audited consolidated financial statements which are not included in this Annual Report. The data should be read in conjunction with the consolidated financial statements, related notes and other financial information included herein.

All amounts are stated in Australian dollars as of June 30, as noted.

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GENETIC TECHNOLOGIES LIMITED

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

FOR 2012, 2011, 2010, 2009 AND 2008

	Year ended June 30, 2012 AUD	Year ended June 30, 2011 AUD	Year ended June 30, 2010 AUD	Year ended June 30, 2009 AUD	Year ended June 30, 2008 AUD
Revenue from operations					
Genetic testing services	3,691,215	4,594,960	4,915,528	4,599,286	3,918,692
Less: cost of sales (refer note below)	(1,948,625)	(2,034,916)	(2,722,975)	(2,760,359)	
Gross profit from operations	1,742,590	2,560,044	2,192,553	1,838,927	3,918,692
Other revenue	2,526,599	13,680,741	3,739,747	5,391,714	10,730,743
Gain on deconsolidation of subsidiary	5,113,175				
Selling and marketing expenses	(4,384,184)	(3,018,947)	(2,679,979)	(2,765,060)	(2,576,607)
General and administrative expenses	(5,608,038)	(3,696,165)	(3,196,488)	(4,282,275)	(4,234,500)
Licensing, patent and legal costs	(1,267,838)	(4,097,323)	(3,923,102)	(4,017,721)	(4,780,463)
Laboratory, research and development costs	(4,029,369)	(4,380,866)	(6,258,871)	(6,116,450)	(9,677,723)
Finance costs	(45,217)	(81,934)	(100,422)	(89,499)	(66,763)
Share of net loss of associates accounted for using the equity method	(132,037)				
Non-operating income and expenses	787,491	(85,771)	425,239	1,407,829	1,234,983
Profit/(loss) from continuing operations before income tax	(5,296,828)	879,779	(9,801,323)	(8,632,535)	(5,451,638)
Net profit from discontinued operation		21,562	446,114	774,214	
Profit/(loss) before income tax	(5,296,828)	901,341	(9,355,209)	(7,858,321)	(5,451,638)
Income tax expense					
Profit/(loss) for the year	(5,296,828)	901,341	(9,355,209)	(7,858,321)	(5,451,638)
Other comprehensive income/(loss)					
Realized gain on sale of available-for-sale investments transferred from reserve			(170,000)		
Unrealized gain on available-for-sale investments				170,000	
Exchange gains/(losses) on translation of controlled foreign operations	(6,818)	(85,079)	(8,623)	(13,408)	(32,624)
Exchange gains/(losses) on translation of non-controlled foreign operations	(296)	(11,585)	3,404	6,133	(9,161)
Other comprehensive income/(loss) for the year, net of tax	(7,114)	(96,664)	(175,219)	162,725	(41,785)
Total comprehensive profit/(loss) for the year	(5,303,942)	804,677	(9,530,428)	(7,695,596)	(5,493,423)
Profit/(loss) for the year is attributable to:					
Owners of Genetic Technologies Limited	(5,287,523)	910,002	(9,343,766)	(7,841,073)	(5,446,089)
Non-controlling interests	(9,305)	(8,661)	(11,443)	(17,248)	(5,549)
Total profit/(loss) for the year	(5,296,828)	901,341	(9,355,209)	(7,858,321)	(5,451,638)
Total comprehensive profit/(loss) for the year is attributable to:					

Owners of Genetic Technologies Limited	(5,294,341)	824,923	(9,522,389)	(7,684,481)	(5,478,713)
Non-controlling interests	(9,601)	(20,246)	(8,039)	(11,115)	(14,710)
Total profit/(loss) for the year	(5,303,942)	804,677	(9,530,428)	(7,695,596)	(5,493,423)

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GENETIC TECHNOLOGIES LIMITED

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (cont.)

FOR 2012, 2011, 2010, 2009 AND 2008

	Year ended June 30, 2012 AUD	Year ended June 30, 2011 AUD	Year ended June 30, 2010 AUD	Year ended June 30, 2009 AUD	Year ended June 30, 2008 AUD
Earnings/(loss) per share (cents per share)					
Basic and diluted net profit/(loss) per ordinary share	(1.15)	0.22	(2.46)	(2.10)	(1.50)
Weighted-average shares outstanding	460,402,869	404,605,152	380,965,204	373,906,149	373,906,149

Note: A standard costing system was implemented effective July 1, 2008 which allowed the Company to calculate the direct labor and materials used in each of the genetic tests offered. As a result, the 2009 financial year was the first year that cost of sales information was separately identified in the statement of comprehensive income. Prior to July 1, 2008, data was not collected in a way that allowed reclassification and therefore the Company has determined it is not practicable to recreate the information. Refer Item 8D for further information.

GENETIC TECHNOLOGIES LIMITED

CONSOLIDATED BALANCE SHEET DATA
FOR 2012, 2011, 2010, 2009 AND 2008

	As of June 30, 2012 AUD	As of June 30, 2011 AUD	As of June 30, 2010 AUD	As of June 30, 2009 AUD	As of June 30, 2008 AUD
Assets					
Current assets	9,949,795	6,255,344	4,502,161	10,103,166	15,893,852
Non-current assets	6,491,956	2,667,010	3,777,411	7,874,565	8,200,726
Total assets	16,441,751	8,922,354	8,279,572	17,977,731	24,094,578
Liabilities					
Current liabilities	(1,930,568)	(2,025,629)	(2,478,943)	(3,779,385)	(3,047,002)
Non-current liabilities	(108,541)	(82,730)	(82,933)	(86,301)	(262,503)
Total liabilities	(2,039,109)	(2,108,359)	(2,561,876)	(3,865,686)	(3,309,505)
Net assets	14,402,642	6,813,995	5,717,696	14,112,045	20,785,073
Equity					
Contributed equity	83,280,142	72,378,105	72,378,105	71,285,663	70,243,996
Reserves	3,719,419	1,697,914	1,529,142	1,701,899	1,588,804

Accumulated losses	(72,751,549)	(67,464,026)	(68,374,028)	(59,030,262)	(51,189,189)
Non-controlling interests	154,630	202,002	184,477	154,745	141,462
Total equity	14,402,642	6,813,995	5,717,696	14,112,045	20,785,073

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Exchange rates

The following table sets forth, for the periods and dates indicated, certain information concerning the noon buying rate in New York City for Australian dollars expressed in U.S. dollars per $1.00 as certified for customs purposes by the Federal Reserve Bank of New York.

Period ended	At period end	Average rate	High	Low
Yearly data				
June 2008	0.9562	0.8965	0.9644	0.7672
June 2009	0.8055	0.7513	0.9797	0.6073
June 2010	0.8480	0.8820	0.9369	0.7751
June 2011	1.0732	0.9905	1.0732	0.8380
June 2012	1.0236	1.0323	1.1026	0.9453
Monthly data				
June 2012	1.0236	0.9986	1.0236	0.9688
July 2012	1.0522	1.0300	1.0522	1.0131
August 2012	1.0334	1.0475	1.0591	1.0301
September 2012	1.0388	1.0406	1.0561	1.0195
October 2012 (note)	1.0228	1.0250	1.0374	1.0188

Note: Data for the month of October 2012 covers the period from October 1, 2012 to October 12, 2012.

Item 3.B Capitalization and Indebtedness

Not applicable.

Item 3.C Reasons for the Offer and Use of Proceeds

Not applicable.

Item 3.D Risk Factors

Before you purchase our ADSs, you should be aware that there are risks, including those described below. You should consider carefully these risk factors together with all of the other information contained elsewhere in this Annual Report before you decide to purchase our ADSs.

Risks Related to Us

Our stock price is volatile and can fluctuate significantly based on events not in our control and general industry conditions. As a result, the value of your investment may decline significantly.

The biotechnology sector can be particularly vulnerable to abrupt changes in investor sentiment. Stock prices of companies in the biotechnology industry, including ours, can swing dramatically, with little relationship to operating performance. Our stock price may be affected by a number of factors including, but not limited to:

- product development events;
- the outcome of litigation;
- decisions relating to intellectual property rights;
- the entrance of competitive products or technologies into our markets;
- new medical discoveries;
- the establishment of strategic partnerships and alliances;
- changes in reimbursement policies or other practices related to the pharmaceutical industry; or
- other industry and market changes or trends.

Since our listing on the Australian Securities Exchange in August 2000, the price of our Ordinary Shares has ranged from a low of $0.02 to a high of $1.05 per share. Further fluctuations are likely to occur due to events which are not within our control and general market conditions affecting the biotechnology sector or the stock market generally.

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In addition, low trading volume may increase the volatility of the price of our ADSs. A thin trading market could cause the price of our ADSs to fluctuate significantly more than the stock market as a whole. For example, trades involving a relatively small number of our ADSs may have a greater impact on the trading price for our ADSs than would be the case if the trading volume were higher.

The following chart illustrates the fluctuation in the price of our shares (in Australian dollars) over the last five years:

The fact that we do not expect to pay cash dividends may lead to decreased prices for our stock.

We have never paid a cash dividend on our Ordinary Shares and we do not anticipate paying a cash dividend in the foreseeable future. We intend to retain future cash earnings, if any, for reinvestment in the development and expansion of our business. Whether we pay cash dividends in the future will be at the discretion of our Board of directors and may be dependent on our financial condition, results of operations, capital requirements and any other factors our Board of directors decides is relevant. As a result, an investor may only recognize an economic gain on an investment in our stock from an appreciation in the price of our stock.

You may have difficulty in effecting service of legal process and enforcing judgments against us and our Management.

We are a public company limited by shares, registered and operating under the Australian *Corporations Act 2001*. The majority of our directors and officers named in this Annual Report reside outside the U.S. Substantially all, or a substantial portion of, the assets of those persons are also

located outside the U.S. As a result, it may not be possible to affect service on such persons in the U.S. or to enforce, in foreign courts, judgments against such persons obtained in U.S. courts and predicated on the civil liability provisions of the federal securities laws of the U.S. Furthermore, substantially all of our directly-owned assets are located outside the U.S., and, as such, any judgment obtained in the U.S. against us may not be collectible within the U.S. There is doubt as to the enforceability in the Commonwealth of Australia, in original actions or in actions for enforcement of judgments of U.S. courts, of civil liabilities predicated solely upon federal or state securities laws of the U.S., especially in the case of enforcement of judgments of U.S. courts where the defendant has not been properly served in Australia.

Because we are not necessarily required to provide you with the same information as an issuer of securities based in the United States, you may not be afforded the same protection or information you would have if you had invested in a public corporation based in the United States.

We are exempt from certain provisions of the Securities Exchange Act of 1934, as amended, commonly referred to as the Exchange Act, that are applicable to U.S. public companies, including (i) the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q or current reports on Form 8-K; (ii) the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act; and (iii) the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time. The exempt provisions would be available to you if you had invested in a U.S. corporation.

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However, in line with the Australian Securities Exchange regulations, we disclose our financial results on a semi-annual basis which are required to have a limited review semi-annually and to be fully audited annually. The information, which may have an effect on our stock price on the Australian Securities Exchange, will also be disclosed to the Australian Securities Exchange and the Securities Exchange Commission. Other relevant information pertaining to our Company will also be disclosed in line with the Australian Securities Exchange regulations and information dissemination requirements for listed companies. We will provide our semi-annual results and other material information that we make public in Australia in the U.S. under the cover of an SEC Form 6-K. Nevertheless, you may not be afforded the same protection or information, which would be made available to you, were you investing in a United States public corporation because the requirements of a Form 10-Q and Form 8-K are not applicable to us.

If significant liquidity does not eventuate for our ADSs on NASDAQ, your ability to resell your ADSs could be negatively affected because there would be limited buyers for your interests.

Historically, there was virtually no trading in our ADSs through the pink sheets after the establishment of our Level I ADR Program. However, subsequent to the Level II listing of our ADSs on the NASDAQ Global Market on September 2, 2005, the trading volumes of our ADSs have increased. The Company subsequently transferred the listing of its ADSs to the NASDAQ Capital Market effective as from June 30, 2010. An active trading market for the ADSs, however, may not be maintained in the future. If an active trading market is not maintained, the liquidity and trading prices of the ADSs could be negatively affected.

In certain circumstances, holders of ADRs may have limited rights relative to holders of Ordinary Shares.

The rights of holders of ADSs with respect to the voting of Ordinary Shares and the right to receive certain distributions may be limited in certain respects by the deposit agreement entered into by us and The Bank of New York Mellon. For example, although ADS holders are entitled under the deposit agreement, subject to any applicable provisions of Australian law and of our Constitution, to instruct the depositary as to the exercise of the voting rights pertaining to the Ordinary Shares represented by the American Depositary Shares, and the depositary has agreed that it will try, as far as practical, to vote the Ordinary Shares so represented in accordance with such instructions, ADS holders may not receive notices sent by the depositary in time to ensure that the depositary will vote the Ordinary Shares. This means that, from a practical point of view, the holders of ADRs may not be able to exercise their right to vote. In addition, under the deposit agreement, the depositary has the right to restrict distributions to holders of the ADSs in the event that it is unlawful or impractical to make such distributions. We have no obligation to take any action to permit distributions to holders of our American Depositary Receipts, or ADRs. As a result, holders of ADRs may not receive distributions made by us.

Our Company has a history of incurring losses.

The business now called Genetic Technologies Limited was founded in 1989. Up until the year ended June 30, 2011, we have incurred operating losses in every year of our existence. We incurred net losses of $5,446,089 for year ended June 30, 2008, net losses of $7,841,073 for year ended June 30, 2009, net losses of $9,343,766 for year ended June 30, 2010, a net profit of $910,002 for year ended June 30, 2011 and net losses of $5,287,523 for year ended June 30, 2012. As of June 30, 2012, we have accumulated losses of $72,751,549 and the extent of any future losses and whether or not the Company can generate profits remains uncertain.

Risks Related to our Industry

Our sales cycle is typically lengthy.

The sales cycle for our testing products and license generation is typically lengthy. As a result, we may expend substantial funds and management effort with no assurance of successfully selling our products or services or granting new licenses. Our ability to obtain customers for our genetic testing services depends significantly on the perception that our services can help accelerate efforts in genomics. The sales cycle is typically lengthy. Our sales effort requires the effective demonstration of the benefits of our services to, and significant training of, many different departments within a potential customer. In addition, we sometimes are required to negotiate agreements containing terms unique to each customer. With respect to license generation, it is common for negotiations with licensees to take many months before a license is eventually granted. Our business could also be adversely affected if we expend money without any return.

If our competitors develop superior products, our operations and financial condition could be affected.

We are currently subject to limited competition from biotechnology and diagnostic companies, academic and research institutions and government or other publicly-funded agencies that are pursuing products and services which are substantially similar to our genetic testing services, or which otherwise address the needs of our customers and potential customers. Our competitors in the testing market include private and public sector enterprises located in Australia, the U.S. and elsewhere. Many of the organizations competing with us have greater experience in the areas of finance, research and development, manufacturing, marketing, sales, distribution, technical and regulatory matters than we do. In addition, many current and potential competitors have greater name / brand recognition and more extensive collaborative relationships. However, because of our patents, we have virtually no competition in the licensing area.

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Our competitive position in the genetic testing area is based upon, amongst other things, our ability to:

- create and maintain scientifically-advanced technology and offer proprietary products and services;
- attract and retain qualified personnel;
- obtain patent or other protection for our products and services;
- obtain required government approvals and other accreditations on a timely basis; and
- successfully market our products and services.

If we are not successful in meeting these goals, our business could be adversely affected. Similarly, our competitors may succeed in developing technologies, products or services that are more effective than any that we are developing or that would render our technology and services obsolete, noncompetitive or uneconomical.

For a full discussion of competition see Item 4.B Competition .

We rely heavily upon our patents and proprietary technology and any future claims that our patents are invalid could seriously affect our licensing business and adversely affect our revenues and our financial condition.

We rely upon our portfolio of patent rights, patent applications and exclusive licenses to patents and patent applications relating to genetic technologies. We expect to aggressively patent and protect our proprietary technologies. However, we cannot be certain that any additional patents will be issued to us as a result of our domestic or foreign patent applications or that any of our patents will withstand challenges by others. Patents issued to, or licensed by, us may be infringed or third parties may independently develop the same or similar technologies. Similarly, our patents may not provide us with meaningful protection from competitors, including those who may pursue patents which may prevent, limit or interfere with our products or will require licensing and the payment of significant fees or royalties by us to such third parties in order to enable us to conduct our business. We may sue or be sued by third parties regarding our patents and other intellectual property rights. These suits are often costly and would divert valuable funds and technical resources from our operations and cause distraction to Management.

We have important relationships with external parties over whom we have limited control.

We have relationships with academic consultants and other advisers who are not employed by us. Accordingly, we have limited control over their activities and can expect only limited amounts of their time to be dedicated to our activities. These persons may have consulting, employment or advisory arrangements with other entities that may conflict with or compete with their obligations to us. Our consultants typically sign agreements that provide for confidentiality of our proprietary information and results of studies. However, in connection with every relationship, we may not be able to maintain the confidentiality of our technology, the dissemination of which could hurt our competitive

position and results of operations. To the extent that our scientific consultants develop inventions or processes independently that may be applicable to our proposed products, disputes may arise as to the ownership of the proprietary rights to such information, and we may not win those disputes.

If we are unable to protect our proprietary assets, we may not be able to commercialize products or services.

Our commercial success partially depends on our ability to obtain patent protection for many aspects of our business, including the products, methods and services we develop. Patents issued to us may not provide us with substantial protection or be commercially beneficial to us. The issuance of a patent is not conclusive as to its validity or its enforceability. In addition, our patent applications or those we have licensed, may not result in issued patents. If our patent applications do not result in issued patents, our competitors may obtain rights to commercialize our discoveries which could harm our competitive position. We also may apply for patent protection on novel genetic variations in known genes and their uses, as well as novel uses for previously identified genetic variations discovered by third parties. In the latter cases, we may need a license from the holder of the patent with respect to such genetic variations in order to make, use or sell any related products. We may not be able to acquire such licenses on terms acceptable to us, if at all.

Certain parties are attempting to rapidly identify and characterize genes and genetic variations through the use of sequencing and other technologies. To the extent that any patents are issued to other parties on such partial or full-length genes or genetic variations or uses for such genes or genetic variations, the risk increases that the sale of products or services developed by us or our collaborators may give rise to claims of patent infringement against us. Others may have filed and, in the future, are likely to file patent applications covering many genetic variations and their uses. Any such patent applications may have priority over our patent applications and could further require us to obtain rights to previously issued patents covering genetic variations. Any license that we may require under any such patent may not be made available to us on commercially acceptable terms, if at all.

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We may be sued for infringing on the intellectual property rights of others. We could also become involved in interference proceedings in the United States Patent and Trademark Office to determine the relative priority of our patents or patent applications and those of the other parties involved in the interference proceeding. Intellectual property proceedings are costly, and could affect our results of operations. These proceedings can also divert the attention of managerial and technical personnel. If we do not prevail in any intellectual property proceeding, in addition to any damages we might have to pay, we could be required to stop the infringing activity, or obtain a license to or design around the intellectual property in question. In interference proceedings, our patent rights could be invalidated and the scope of our patents could be limited. If we are unable to obtain licenses to intellectual property rights that we need to conduct our business, or are unable to design around any third party patent, we may be unable to sell some of our products, which will result in reduced revenue.

We have in the past and may in the future become a party to litigation involving patents and intellectual property rights. We have previously commenced litigation against a number of parties to protect our rights pertaining to our intellectual property. We may in the future receive claims of infringement of intellectual property rights from other parties. If we do not prevail in any future legal proceedings, we may be required to pay significant monetary damages. In addition, we could also be prevented from using certain processes or prevented from selling certain configurations of our products or services that were found to be within the scope of the patent claims. In the event we did not prevail in any future proceeding, we would either have to obtain licenses from the other party, avoid certain product configurations or modify some of our products, services and processes to design around the patents. Licenses could be costly or unavailable on commercially reasonable terms. Designing around patents or focusing efforts on different configurations could be time consuming, and we may have to remove some of our products or services from the market while we were completing redesigns. Accordingly, if we are unable to settle future intellectual property disputes through licensing or similar arrangements, or if any such future disputes are determined adversely to us, our ability to market and sell our products and services could be harmed. This would in turn reduce demands for our services and harm our financial condition and results of operations.

In addition, in order to protect or enforce our patent rights or to protect our ability to operate our business, we may need to initiate other patent litigation against third parties. These lawsuits could be expensive, take significant time to resolve, and could divert Management s attention from other business concerns. These lawsuits could result in the invalidation or limitation in the scope of our patents or forfeiture of the rights associated with our patents. We may not prevail in any such proceedings and a court may find damages or award other remedies in favor of our opposing party in any of these suits. During the course of any future proceedings, there may be public announcements of the results of hearings, motions and other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of our stock to decline.

We may be subject to professional liability suits and our insurance may not be sufficient to cover damages. If this occurs, our business and financial condition may be adversely affected.

Our business exposes us to potential liability risks that are inherent in the testing, manufacturing, marketing and sale of genetic tests. The use of our products and product candidates, whether for clinical trials or commercial sale, may expose us to professional liability claims and possible adverse publicity. We may be subject to claims resulting from incorrect results of analysis of genetic variations or other screening tests performed using our services. Litigation of such claims could be costly. We could expend significant funds during any litigation proceeding brought against us. Further, if a court were to require us to pay damages to a plaintiff, the amount of such damages could significantly harm our financial condition. Although we have public and product liability insurance coverage under broadform liability and professional indemnity policies, for an aggregate amount of $60,000,000, the level or breadth of our coverage may not be adequate to fully cover potential liability claims. To date we have not been subject to any claims, or ultimately liability, in excess of the amount of our coverage. In addition, we may not be able to obtain additional professional liability coverage in the future at an acceptable cost. A successful claim or series of claims brought against us in excess of our insurance coverage and the effect of professional liability litigation upon the reputation and marketability of our technology and products, together with the diversion of the attention of key personnel, could negatively affect our business.

We use potentially hazardous materials, chemicals and patient samples in our business and any disputes relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development, production and service activities involve the controlled use of hazardous laboratory materials and chemicals, including small quantities of acid and alcohol, and patient tissue and blood samples. We do not knowingly deal with infectious samples. We, our collaborators and service providers are subject to stringent Australian federal, state and local laws and regulations governing occupational health and safety standards, including those governing the use, storage, handling and disposal of these materials and certain waste products. However, we could be liable for accidental contamination or discharge or any resultant injury from hazardous materials, and conveyance, processing, and storage of and data on patient samples. If we, our collaborators or service providers fail to comply with applicable laws or regulations, we could be required to pay penalties or be held liable for any damages that result and this liability could exceed our financial resources. Further, future changes to environmental health and safety laws could cause us to incur additional expense or restrict our operations. We have never had a reportable serious injury through the date of this Annual Report.

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In addition, our collaborators and service providers may be working with these types of hazardous materials, including hazardous chemicals, in connection with our collaborations. In the event of a lawsuit or investigation, we could be held responsible for any injury caused to persons or property by exposure to, or release of, these patient samples that may contain viruses and hazardous materials. The cost of this liability could exceed our resources. While we maintain broadform liability insurance coverage for these risks, in the amount of up to $40,000,000, the level or breadth of our coverage may not be adequate to fully cover potential liability claims. To date, we have not been subject to claims, or ultimately liability, in excess of the amount of our coverage. Our broadform insurance coverage also covers us against losses arising from an interruption of our business activities as a result of the mishandling of such materials. We also maintain workers compensation insurance, which is mandatory in Australia, covering all of our workers in the event of injury.

We depend on the collaborative efforts of our academic and corporate partners for research, development and commercialization of some of our products. A breach by our partners of their obligations, or the termination of the relationship, could deprive us of valuable resources and require additional investment of time and money.

Our strategy for research, development and commercialization of some of our products has historically involved entering into various arrangements with academic and corporate partners and others. As a result, our strategy depends, in part, upon the success of these outside parties in performing their responsibilities. Our collaborators may also be our competitors. We cannot necessarily control the amount and timing of resources that our collaborators devote to performing their contractual obligations and we have no certainty that these parties will perform their obligations as expected or that any revenue will be derived from these arrangements.

If our collaborators breach or terminate their agreement with us or otherwise fail to conduct their collaborative activities in a timely manner, the development or commercialization of the product candidate or research program under such collaborative arrangement may be delayed. If that is the case, we may be required to undertake unforeseen additional responsibilities or to devote unforeseen additional funds or other resources to such development or commercialization, or such development or commercialization could be terminated. The termination or cancellation of collaborative arrangements could adversely affect our financial condition, intellectual property position and general operations. In addition, disagreements between collaborators and us could lead to delays in the collaborative research, development, or commercialization of certain products or could require or result in formal legal process or arbitration for resolution. These consequences could be time-consuming and expensive and could have material adverse effects on us.

Other than our contractual rights under our license agreements, we may be limited in our ability to convince our licensees to fulfill their obligations. If our licensees fail to act promptly and effectively, or if a dispute arises, it could have a material adverse effect on our results of operations and the price of our Ordinary Shares and ADSs.

We rely upon scientific, technical and clinical data supplied by academic and corporate collaborators, licensors, licensees, independent contractors and others in the evaluation and development of potential therapeutic methods. There may be errors or omissions in this data that would materially adversely affect the development of these methods.

We may seek additional collaborative arrangements to develop and commercialize our products in the future. We may not be able to negotiate acceptable arrangements in the future and, if negotiated, we have no certainty that they will be on favorable terms or if they will be successful. In addition, our partners may pursue alternative technologies independently or in collaboration with others as a means of developing treatments for the diseases targeted by their collaborative programs with us. If any of these events occurs, the progress of the Company could be adversely affected and our results of operations and financial condition could suffer.

Problems associated with international business operations could affect our ability to license our technology and our results of operations.

We seek to license our intellectual property and to market our growing range of other products and services on a global scale, including in countries that are considered to provide significantly less protection to intellectual property than the United States and Australia. In addition, a number of other risks are inherent in international transactions and commerce, including political and economic instability, foreign currency exchange fluctuations and changes in tax laws.

Government regulation of genetic research or testing may adversely affect the demand for our services and impair our business and operations.

Apart from accreditation requirements, we are generally not subject to regulation. From time to time, federal, state and/or local governments adopt regulations relating to the conduct of genetic research and genetic testing. In future, these regulations could limit or restrict genetic research activities as well as genetic testing for research or clinical purposes. In addition, if such regulations are adopted, these regulations may be inconsistent with, or in conflict with, regulations adopted by other government bodies. Regulations relating to genetic research activities could adversely affect our ability to conduct our research and development activities. Regulations restricting genetic testing could adversely affect our ability to market and sell our products and services. Accordingly, any regulations of this nature could increase the costs of our operations or restrict our ability to conduct our testing business and might adversely affect our operations and financial condition.

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Gene Patenting Debate in Australia

In 2008, the Australian Senate commenced an inquiry into the issues surrounding the patenting of genes. The inquiry was due to report its findings in early 2009. On September 30, 2010, the Senate re-referred the matter to the Senate Community Affairs Committee for inquiry and report. Having extended the timeline on several occasions, the Senate inquiry was then interrupted by an Australian Federal election in October 2010.

On November 26, 2010, the report arising from the Senate s inquiry into gene patents was released. It tabled 16 recommendations primarily aimed at making amendments to existing provisions of the Patents Act, while minimizing unforeseen consequences of changes to biotechnology sector, including the potential prohibition on patenting biological materials.

The Senate Report also noted a number of events that may affect further decisions, such as the Private Member s Bill that was introduced into the Federal Parliament. The Private Member s Bill was referred immediately to the Legal and Constitutional Affairs - Legislation Committee for inquiry and report by June 16, 2011. The Report also said the Committee heard conflicting evidence as to whether a prohibition on the patenting of genes and other biological materials (a) would be effective, and (b) would not lead to unforeseen consequences in other fields of technology, particularly biotechnology, research and development.

The *Patent Amendment (Human Genes and Biological Materials) Bill 2010* (the Bill) was introduced in the Lower House of the Australian Parliament on October 18, 2010. On November 26, 2010, the Senate referred the Bill to the Legal and Constitutional Affairs - Legislation Committee. The Committee received 122 submissions and held two public hearings for inquiry where 31 witnesses appeared at the public hearings. On September 22, 2011, the report arising from the Senate s inquiry into the Bill was released. It tabled only one recommendation: The Committee recommends that the Senate should not pass the Bill.

The *Intellectual Property Laws Amendment (Raising the Bar) Bill 2012* was passed into law on March 20, 2012. This legislation does not ban or restrict patents on genetic material other than by raising the bar for the granting of any new patents.

Australian Federal Court Patent Proceeding

In June 2010, a group of Australian plaintiffs initiated litigation in the Australian Federal Court challenging the validity of certain claims of an Australian patent owned by Myriad Genetics Inc. (Australian patent 686004 - 004). Genetic Technologies was named as a respondent to this matter by virtue of the fact that Genetic Technologies is the exclusive licensee of the BRCA patents in Australia (which includes the 004 patent).

This matter bears a resemblance to the U.S. litigation filed by the American Civil Liberties Union against Myriad s U.S. patent equivalent in which a U.S. Federal District Court ruled that isolated DNA sequences are not eligible for patent protection because of the fact that they are products of nature . On July 29, 2011, Myriad successfully appealed this decision with the Federal Circuit Court of Appeals reversing the decision of the United States District Court for the Southern District of New York. On March 26, 2012 the U.S. Supreme Court remanded the case back to the U.S. Court of Appeals for the Federal Circuit for reconsideration. On August 16, 2012, the U.S. Court of Appeals for the

Federal Circuit ruled on the Myriad case in the U.S., upholding the patentability of gene patents.

On September 30, 2011, Genetic Technologies filed documents with the Australian Federal Court to the effect that the Company submits to the orders of the Court and takes no further part in the proceedings. The parties are now awaiting judgment in this case.

We rely on the services of individuals who possess special skills and experience.

Much of the future success of the Company depends on the continued service and availability of skilled personnel, including members of its senior executive team, and those in technical, marketing and staff positions. While we actively recruit new employees with such skills and experience to reduce our reliance on these individuals, skilled personnel, with specific experience in the biotechnology industry, are in high demand and competition for their talents is intense.

Ethical and other concerns surrounding the use of genetic information may reduce the demand for our services.

Public opinion regarding ethical issues related to the confidentiality and appropriate use of genetic testing results may influence government authorities to call for limits on, or regulation of the use of, genetic testing. In addition, such authorities could prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Furthermore, adverse publicity or public opinion relating to genetic research and testing, even in the absence of any governmental regulation, could reduce the potential markets for our services, which could materially and adversely affect our revenues.

Although we are a leader in the field of genetics in Australia, we do not undertake any activities in the contentious areas of cloning, stem cell research or other gene-altering areas. As such, many of the ethical issues that may be relevant to other participants in the genetics industry are not necessarily applicable to us.

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Out-licensing of our intellectual property

The patenting of genes and issues surrounding access to genetic knowledge are the subjects of extensive and ongoing public debate in many countries. By way of example, the Australian Law Reform Commission has previously conducted two inquiries into the social uses of genetic information. The patents we hold over uses of non-coding DNA have broad scope and have also been the subject of debate and some criticism in the media. A risk we face is that individuals or organizations in one or more of the countries in which these patents have issued could take legal action to seek their amendment, revocation or invalidation, something which has happened previously on several occasions in various jurisdictions, though we have prevailed in all such cases.

Furthermore, any time that we initiate legal action against parties that infringe our patents we face a risk that the infringer will defend itself through a counter-claim of patent invalidity or other such claims. Subsequent legal action could potentially overturn, invalidate or limit the scope of our patents.

Under the relevant Patent Acts in most of the countries in which our non-coding patents have issued, the relevant judicial system has rights to impose compulsory licensing. The relevant governments typically hold march-in rights by which they may unilaterally choose to exploit the technology. To the extent that the Company s non-coding technology is used in the conduct of research, we also face risks, uncertainty and controversy over the licensing of our technology to those conducting research. Whether or not researchers should be exempted from obligations to take licenses to relevant patents was the subject of another government inquiry conducted by the Australian Council for Intellectual Property who recommended the creation of a research exemption.

For further information relevant to this subject, refer to the section entitled *Gene Patenting Debate in Australia* earlier in this section 3.D.

Our genetic testing activities

There is a view held by some elements of the medical and academic communities that the marketing of some of our cancer predisposition and risk assessment tests is done solely with a commercial objective in mind. In essence, some parties have indicated that, in their view, the risk of inheriting certain types of cancer is too low to warrant the marketing of genetic testing services to the wider cancer community where such promotion may increase anxiety unnecessarily. Guidelines laid down by the Australian National Health Medical Research Council also prevent us from promoting our testing in a manner which may cause any unnecessary alarm .

In recent years, health care payors as well as federal and state governments have focused on containing or reducing health care costs. We cannot predict the effect that any of these initiatives may have on our business. In particular, gene-based therapeutics, if successfully developed and commercialized, are likely to be costly compared to currently available drug therapies. Health care cost containment initiatives focused either on gene-based therapeutics or on genetic testing could result in the growth in the clinical market for genetic testing being curtailed or slowed. In addition, health care cost containment initiatives could also cause pharmaceutical companies to reduce research and development spending. In either case, our business and our operating results could be adversely affected. Further, genetic testing in clinical settings is often billed to third-party payors, including private insurers and governmental organizations. If our current and future clinical products and services are not considered cost-effective by these payors, reimbursement may not be available to users of our services. In this event, potential customers would be much less likely to use our services and our business and operating results could be harmed.

In regards to other medical tests we offer, increased competition from countries such as China and India is likely to make inroads to our marketplaces, offering lower priced tests which may decrease our profitability. Within Australia, the continued performance by public institutions of certain medical diagnostic tests also carries the risk that those institutions may acquire the latest generation of robotic test platforms which are able to perform tests at substantially lower costs. In some cases, these institutions are heavily subsidized by the government and therefore do not have the same commercial and amortization cost bases of a publicly listed company such as Genetic Technologies. As such, they may be able to offer tests at a lower price than we can.

Launch of BREVAGenTM

With the acquisition of our BREVAGenTM breast cancer risk assessment test in 2010 and its subsequent launch in June 2011, a number of potential commercial risks have been identified. The test exists in a new area of genetic testing, being a prognostic test, and it will take time for us to establish credibility and educate the potential customer groups we have identified. This may result in a lag in establishing reasonable rates of sales which may be aggravated by any resistance associated with price sensitivity. Despite various studies and review publications, clinician adoption of the test on a regular basis requires substantial resources and effort.

Establishing a new U.S. company, such as we have done with Phenogen Sciences Inc., requires staffing with qualified and experienced salespeople and the identification of territories in which to start selling the test. These salespeople require time to establish customer contact and to convert sales. Invariably, a percentage of new sales staff we hire are not be able to adapt to the new sales environment and need to be replaced after the first stage of selling; further hampering steady sales growth. Even though the Company s Australian laboratory has now been CLIA certified, U.S. government health care programs could potentially restrict our ability to offer the test in the U.S., thereby restricting our available market.

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The U.S. healthcare reimbursement system with which we interact is highly complex, involving a series of independent insurers, together with the insured and other third parties involved to assist with credentialing and the administration of the payment processes. Establishing benchmarks with insurers is a time consuming process which could delay the receipt of initial payments until such time as rules with each provider can be established.

Item 4. Information on the Company

Item 4.A History and Development of the Company

We were incorporated under the laws of Western Australia on January 5, 1987 as Concord Mining N.L. and operated as a mining company. On August 13, 1991, we changed our name to Consolidated Victorian Gold Mines N.L. On December 2, 1991, we changed our name to Consolidated Victorian Mines N.L. On March 15, 1995, we changed our name to Duketon Goldfields N.L.

On October 15, 1999, the Company s corporate status was changed from a No Liability Company to a company limited by shares. On August 29, 2000, following the acquisition of Swiss company GeneType AG, we changed our name to Genetic Technologies Limited, which is our current name. At that time, we phased out our mining activities and became a biotechnology company, following which our stock exchange listing was duly transferred from the mining board of the ASX to the industrial board and our shares were thereafter classified under the industry group Health and Biotechnology , completing our transformation from a mining company into a biotechnology company. Our current activities in biotechnology primarily concentrate on three clearly defined areas of activity which are covered under Item 4.B Business Overview .

Our Australian Company Number (ACN) is 009 212 328. Our Australian Business Number (ABN) is 17 009 212 328. We operate pursuant to our constitution, the Australian *Corporations Act 2001*, the Listing Rules of the Australian Securities Exchange, the Marketplace Rules of NASDAQ and, where applicable, local, state and federal legislation in the countries in which we operate.

Our registered office, headquarters and laboratory are all located at 60-66 Hanover Street, Fitzroy, Victoria, 3065 Australia. Our telephone number is +61 3 8412 7000. Our website address is www.gtglabs.com. The offices of our U.S. subsidiary, Phenogen Sciences Inc., are located at 9115 Harris Corners Parkway, Suite 320, Charlotte, North Carolina, 28269 U.S.A. The telephone number for the Phenogen Sciences office is +1 877 992 7382. Information on our websites and websites linked to them do not constitute part of this Annual Report.

In July 2008, we acquired all of the issued shares of Frozen Puppies Dot Com Pty. Ltd. based in Calga, New South Wales, which was Australia s leading provider of canine reproductive services for a total consideration of $1,550,097, comprising a combination of shares in the Company (with a value of $1,041,667) and cash. During the year ended June 30, 2010, a decision was made by the Company to strategically realign its animal business and to focus on the provision of animal genetic tests, rather than the services that were acquired as part of the acquisition of the Frozen Puppies Dot Com business in 2008. Following the disposal of assets related to the reproductive services business during the 2011 financial year, the associated business was discontinued and, as a result, Frozen Puppies Dot Com Pty. Ltd. was subsequently deregistered on June 1, 2011.

On April 14, 2010, we announced that we had acquired certain assets from Perlegen Sciences, Inc. in California, with the main asset being the BREVAGen breast cancer risk assessment test (BREVAGen). In addition to the BREVAGen test, we also acquired a suite of patents valid to 2022 which augment and extend our current non-coding patent portfolio. On June 28, 2010, we incorporated a wholly-owned subsidiary named Phenogen Sciences Inc. in the State of Delaware which commenced selling the BREVAGen test in the U.S. marketplace in June 2011.

It is a priority for the Company to continue to identify additional parties who would benefit from taking a license to the Company s non-coding patents. We are now pursuing negotiations with a number of companies and organizations in U.S.A. and Europe that would benefit from taking a license to our non-coding patents or from collaborations with our genetic testing business.

In order to increase the rate at which these licenses can be secured, the licensing team at the Company s headquarters in Melbourne, Australia has been expanded in recent years by the appointment of additional staff to accelerate the preparation of dossiers on potential licensees. Internationally, we have established an arrangement with Colorado-based law firm Sheridan Ross PC to assist the Company as its assertion partner in the U.S.A. and Europe. Refer Item 4.B below for details.

Item 4.B Business Overview

We are a biotechnology company focused on expanding our genetic testing business in the Asia-Pacific region and, with the addition of the BREVAGenTM breast cancer risk assessment test, in the U.S.A. and later in Europe. In addition, we are now pursuing commercial opportunities in other areas of activity:

(i) out-licensing our non-coding patents globally; and

(ii) supporting a late-stage research and development project in which we are already involved.

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Industry background

The Human Genome Project announced (in April 2003) the completion of the first draft of the entire sequence of the human genome. The biotechnology industry has since worked to build upon the vast amount of knowledge generated by that program in order to develop a better understanding of the genetic basis of human health and disease. Increasingly, genetics is being shown to play a key role in the diagnosis and treatment of many diseases in humans, as well as diseases in animals and plants. This increasing understanding of genetics is providing new information for understanding such predisposing or causative factors in many diseases.

Prior to the Human Genome Project, the successful mapping of the Mouse Genome (published in December 2002) permitted, for the first time, a detailed comparison of human genes and mouse genes. One of the key findings that has arisen from this work is the significant role that non-coding DNA plays in controlling gene function in both human genes and mouse genes. For some scientists, but not for our Company, the discovery of the great significance of non-coding DNA to gene function were new, significant and totally unexpected.

A major focus in science is now the identification and analysis of genetic variations and disease-associated genes within the genome. These genetic variations, or polymorphisms, in the DNA sequences vary between individuals. The most common genetic variations are Single Nucleotide Polymorphisms, or SNPs, which are merely a difference in a single nucleotide. The first draft of the human genome identified over 1.4 million SNPs that can be useful as positional signposts for disease-associated DNA sequences in a gene or as markers to map genes along a chromosome. A significant number of these SNPs (perhaps more than 97%) are now known to be non-coding.

Genomics

A genome is an organism s complete set of DNA and the study of that DNA is called genomics. Genomes vary in size, with bacteria displaying the smallest known genome at 600,000 DNA base pairs, while human and mouse genomes have over 3 billion. The DNA of the human genome is organized into 24 distinct chromosomes that contain from 50 million to 250 million base pairs on each chromosome. The DNA on each chromosome contains genes that are specific sequences that encode proteins that actually perform the work within a cell and also make up the cell itself. Surprisingly, only about 2% to 5% of the human genome is organized into coding DNA, with the remainder being considered to be non-coding DNA. The global patent portfolio on which our out-licensing activities is based is centered on proprietary methods for utilizing the valuable information contained within these non-coding regions.

Genetic variability

Almost 99.9% of an individual s genome is identical to that of every other individual s genome. However, even slight variations in sequence can drastically change how a gene functions. Variations can lead to harmless changes, such as blue eyes instead of brown, or to major diseases such as cancer, cystic fibrosis, or cardiovascular disease. Genetic variations can also be responsible for many of the differences in the ways individuals respond to drug therapies. As a result of this knowledge, routine analysis of SNPs and other genetic variations is expected to play an increasingly important role in the discovery and development of new drugs, as well as in a variety of diagnostic therapeutic and other medical and life science applications. Industry sources estimate there are millions of genetic variations in the human genome, creating demand for products and technologies that can quickly and accurately detect and analyze these variations. It is thought that the medicine of the future will be dispensed to a patient based on his or her own specific DNA variations. This type of personalized medicine will require sophisticated genetic

tests to determine the genetic composition of an individual, and it is now recognized that such genetic make-up depends not only on the form of the coding DNA, but also the form of the associated non-coding DNA.

Genetic tests

Most genes come in many different forms, called alleles. One or more allele may be associated with a particular disease state. Genetic testing involves the direct examination of an individual s DNA for a DNA marker associated with the allele of interest. The determination of the particular alleles an individual has within his or her DNA is called genotyping.

The most commonly tested marker of a particular allele is a SNP. As much as 98% of the human genome is considered to be non-coding DNA, the majority of the identified 1.4 million SNPs are also located in non-coding regions of DNA. We believe that a license to our proprietary methods of analyzing non-coding regions of DNA will be absolutely necessary for many of the genetic tests of the future. Similarly, tests for genetic abnormalities or mutations may involve not just individual SNPs, but also groups of SNPs or even larger sequences of DNA, and such abnormal sequences - large or small - may be located either in the coding region alone, or in the non-coding region alone, or in both the coding and non-coding regions of the gene (or genes) under examination. Clearly, the variations within genes that may be responsible for a disease are now known to be much more complicated than was previously understood, and the role of non-coding DNA is now being found to be highly relevant in a growing number of diseases. This similarly applies to genetic disorders in animals and plants. Accordingly, in future, more and more genetic testing will look not only at coding variations, but also at the non-coding variations within a particular gene.

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Building the Genetic Testing Business

Background and history of the paternity testing business

In the early 1990 s, GeneType AG established a small service testing laboratory in Melbourne, Australia, initially to show-case its non-coding inventions, but also to generate revenue to help support and fund its ambitious research programs in those early days. Following the acquisition of several other small DNA testing laboratories in Australia, GeneType AG consolidated its genetic testing business such that the Company is now the largest provider of paternity and related testing services in Australia. Further, our service testing laboratory in Fitzroy (an inner suburb of Melbourne, Victoria) is the leading non-Government genetic testing service provider in Australia. We now have extensive experience in providing DNA-based individuality testing for the resolution of disputed paternity, the determination of familial relationships for immigration purposes and for forensic analysis.

The most common type of DNA testing is paternity testing - where we determine the father of a given child. In order to perform this test we take a sample from the mother, alleged father and child. The test can also be performed without the mother s sample but this makes the analysis somewhat more complex and the price for the test increases accordingly.

Other types of tests we can offer include:

- Y chromosome testing - determines if two males come from the same paternal line, i.e. have a common father or grandfather.
- Mitochondrial DNA testing - determines if two people come from the same maternal line.
- Sibship testing - determines if people are full siblings, i.e. have the same mother and father.
- Maternity testing - determines the mother of a given child.
- DNA typing - reveals the DNA makeup of an individual.
- Grandparent analysis - determines the grandparents of a given child. This is mainly used when the father of a child is deceased and a will is being contested.
- Antenatal DNA testing - determines the father of an as-yet unborn child.
- Semen analysis - determines if semen is present on, for example, an article of clothing. If it is, we can DNA type this sample and compare it to a reference sample.

We issue reports for the Family Court in Australia and provide similar services internationally for the Department of Immigration and Citizenship (DIAC). We are one of only two DNA testing laboratories in Australia recognized by DIAC to provide DNA tests for immigration

purposes.

Over time, we have gained a reputation as a leading genetic testing laboratory, and progressively, we have received specimens for testing from other countries, most of which are located in the Asia-Pacific region. In addition, we have received requests to perform tests outside of the area of human paternity which has led to the expansion of our testing services, as summarized below.

Expansion of testing services beyond paternity testing

(1) Medical testing - the strategic alliance with Myriad Genetics Inc. delivered to the Company exclusive rights in Australia and New Zealand to perform DNA testing for susceptibility to a range of cancers. In April 2003, we established our cancer susceptibility testing facility within our Australian laboratory. In June 2003, this facility was granted provisional accreditation by the National Association of Testing Authorities, Australia (NATA). This important area of testing has since gained momentum, with the addition of new equipment and new employees joining the Company.

In November 2003, the Company joined the world-wide genetic testing network GENDIA as the sole reference laboratory for the network in Australia and New Zealand. GENDIA consists of more than 50 laboratories from around the world, each contributing expertise in their respective disciplines to create a network capable of providing more than 2,000 different genetic tests. This has provided the Company with the ability to offer comprehensive testing services to its customer base in the Asia-Pacific region as well as increasing our exposure to other markets.

In November 2004, the Company announced a strategic alliance with Australian biotechnology company Bionomics Limited for the commercialization of the diagnostic genetic test for the condition Severe Myoclonic Epilepsy in Infancy. This test was the first to expand the Company s human molecular diagnostics focus beyond cancer susceptibility testing. In July 2006, we further cemented our position as Australia s leading independent provider of complex genetic testing services with NATA granting further accreditation of our Melbourne laboratory to provide a wide range of complex genetic tests. Genetic analysis for the predisposition and diagnosis of a wide range of disease states is increasingly being used by clinicians in standard medical practice. We committed to providing the gold standard in testing technology, with superior turn-around times and a substantially more cost efficient service. Attainment of the further accreditation by NATA in the area of complex gene sequencing testing services has enabled various government funded genetics services to utilize the Company s testing service to improve patient care.

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Having established an excellent laboratory service with significant excess capacity, the Company announced in July 2008 that a commercial decision had been made to enforce the rights granted to it under an exclusive license from Myriad to perform diagnostic testing of the BRCA1 and BRCA2 genes in Australia and New Zealand. However, following the removal of five Directors from the Board at the Company s Annual General Meeting on November 19, 2008, the new Board undertook a formal review of the Company s decision to enforce its BRCA testing rights and subsequently resolved to immediately revert to its original decision to allow other public laboratories in Australia to freely perform BRCA testing.

In October 2009, a new strategic direction was established to focus efforts in creating a portfolio of tests that would be aimed at assisting medical clinicians with cancer management. This would comprise tests that were created by the Company and in-licensed from third parties which would then be marketed by Genetic Technologies in the Asia-Pacific region. In November 2009, distribution agreements were executed with Trimgen and Rosetta Genomics of the U.S. to acquire distribution rights for their tests across Oceania. In addition to the current test portfolio, GTG began introducing itself to the global oncology market via regular attendance at international medical conferences and direct to market selling activities. An additional agreement to acquire local distribution rights from Response Genetics of the U.S. was then executed by the Company in January 2010.

In December 2009, Genetic Technologies negotiated an exclusive option to investigate the purchase of various assets from Perlegen Sciences, Inc. of Mountain View, California which included a breast cancer non-familial risk assessment test, BREVAGen . Those assets were subsequently purchased by the Company in April 2010. Work then began on validating the test in GTG s Australian laboratory as well as initiating the process for obtaining CLIA certification which would enable the Company to undertake the testing of samples received from the U.S. market. By July 2010, a new U.S. subsidiary named Phenogen Sciences Inc. had been incorporated by the Company in Delaware to market and distribute the BREVAGen test across mainland U.S.A. In April 2011, the Company announced that it had gained certification of its Australian laboratory under the U.S. Clinical Laboratories Improvements Amendments, as regulated by the Centers for Medicare and Medicaid in Baltimore, Maryland. This certification, which enables the Company to accept and test samples from U.S. residents, was the culmination of preparations required for the U.S. launch of the Company s BREVAGen test which occurred in June 2011. Phenogen Sciences has since established an office in Charlotte, North Carolina and employed a number of key personnel, including an experienced local sales force which has since grown to ten, who service territories located in 49 of the 50 U.S. States (excluding New York, for which further approvals are required and are currently being sought).

(2) Animal testing - in May 2003, we acquired the assets of Genetic Science Services to expand the range of tests we can offer to include relevant genetic testing in animals - for example, progeny testing in horses, dogs, deer, sexing in birds, and animal disease identification and susceptibility testing for a range of animals, including exotic and zoo animals. This acquisition also allowed the Company to support research projects involving other animals.

In addition to NATA accreditation for complex genetic analysis mentioned above, in 2006 GTG also received NATA accreditation for the provision of canine forensic analysis services. We are the only laboratory in Australia to receive such accreditation. This accreditation ensures that we will continue to be the laboratory of choice for all canine forensic analysis, especially where prosecutions are initiated for dog attacks. In the state of Victoria alone, there are in excess of 7,000 dog incidents reported annually. This accreditation, together with the recent announcement of a genetic test to determine the breed of dogs, places the Company in a strong position to provide genetic analysis services to local councils around Australia. During 2008, the Company launched its Dog Attack Pack, a forensic tool enabling local government officers to collect samples from dog attacks and BITSA , a breed identification test that uses DNA analysis to provide a history of a dog s breed.

In July 2008, we acquired Frozen Puppies Dot Com Pty. Ltd., an Australian company specializing in canine reproductive services, following which the Company expanded its facilities into territories outside of Australia and developed relationships with breeders and associations in China, Japan, New Zealand and elsewhere. Staff were employed to manage the Company s activities in these territories and purpose-built

facilities were established on the outskirts of Beijing, China and in several States of Australia. However, during the year ended June 30, 2010, a decision was made by the Company to strategically realign its animal business and to focus on the provision of animal genetic tests, rather than the services that were acquired as part of the acquisition of the Frozen Puppies Dot Com business in 2008. As a result, most of the centers and related assets were sold off and, following these disposals, Frozen Puppies Dot Com Pty. Ltd. was subsequently deregistered in June 2011.

In September 2009, GTG again won a tender for being the exclusive provider of genetic services to Greyhounds Australasia. At this time, the Company s animals business was re-launched through a new website; www.animalnetwork.com.au which provides information on genetic tests, a database of breeder dog results supplied from GTG tests, services and the ability to order tests online.

By late 2009, the new strategy for GTG of focusing on genetic health started to impact the way resources would be used in the animals business. This change in strategic direction meant that many ad-hoc and small / infrequent volume animal tests were eliminated from the animal testing portfolio. A decision to focus solely on canine genetic tests meant an increase in establishing relationship with new channel partners. In the Veterinary market, Gribbles was appointed as the Company s exclusive distribution partner for Australia and New Zealand. In the animal welfare area, our relationship with Lort Smith Animal Hospital continued and additional relationships established with the Animal Welfare Leagues in New South Wales and South Australia and the New Zealand Kennel Club. Outside the main cities, distribution agreements were set up with ART in Rockhampton, Queensland.

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(3) Forensic testing - recognizing the increasing use of DNA analysis in forensics and the demand this would place on existing government laboratories, in February 2004, the Company successfully gained forensics accreditation from the National Association of Testing Authorities, Australia (NATA). We were the first non-government laboratory in Australia to be awarded this accreditation. Since then, we have developed a highly efficient and technologically advanced forensics laboratory. This capability was substantially advanced by our recent non-coding licensing deal with Applera Corporation under which we secured equipment and supplies essential to conducting forensics analysis. Together with these resources and our experience in DNA analysis, the Company is becoming a major provider of DNA analysis services to the Australian forensics community.

In April 2006, we announced that we had been awarded a contract to supply the New South Wales (N.S.W.) Police Force with DNA analysis services, under which we provided services for an initial trial period of three months. Following this successful trial, we executed a three year contract with the NSW Police Force in January 2008 for DNA analysis services for their volume crime samples, such as burglary and motor vehicle theft. This contract represented a major breakthrough for the Company and was the first time in Australia that any Police Force had awarded a long-term contract to outsource the testing of their crime samples. The initial term of the contract with the NSW Police Force ended in January 2011. The contract has since been extended to January 2013. The feedback regarding the contracted work to date has been wholly positive and the turnaround time targets stipulated in the current contract have been well exceeded.

We believe that a significant opportunity exists for the Company to assist other policing authorities to expeditiously process DNA samples and discussions have been held with two other State-based Police forces to investigate how GTG s forensic capability could be utilized in their operations. In addition, forensics work is being gained through the private legal market.

(4) Plant testing - in March 2002, we formed a joint venture with the Victorian State Government s Department of Primary Industry, for the purpose of providing a high throughput genotyping service for plant testing - in order to help plant breeders identify the genes responsible for the detection of commercially relevant traits, such as resistance to disease, accelerated growth and the improvement of crop yields. A new company, AgGenomics Pty. Ltd., was formed, with us as the majority shareholder and the State agency as the minority partner. After a number of years in business, AgGenomics Pty. Ltd. was deregistered on June 20, 2012.

Our Patent Portfolio

The acquisition of GeneType AG in August 2000 gave our Company ownership rights to a potentially significant portfolio of issued patents. During the intervening years, this portfolio has since been expanded by both organic growth and the acquisition of intellectual property assets from third parties. The major families of patents in the portfolio as of the date of this Annual Report include:

(a) Intron Sequence Analysis;

(b) Genomic Mapping;

(c) Perlegen;

(d) BREVAGenTM;

(e) Laboratory Techniques;

(f) Ancestral Haplotypes;

(g) Athletic Performance;

(h) Nematode Project; and

(i) RareCellect Project.

(a) The Intron Sequence Analysis patents allow for the detection of specific motifs within the genetic material in the non-coding regions of DNA which have been shown may be linked to certain alleles or haplotypes within the coding region of the gene. In other words, whereas most geneticists previously looked at the genetic information located within the coding region alone, our inventions have provided a means of also looking at additional useful information which is located within the non-coding part of the gene, and which is now known to also be important in influencing gene function and, in particular, protein production. It is also now known that more than 100 human diseases are associated with genetic changes in the non-coding part of a particular gene and which are linked to the function of the coding part of that gene.

(b) The Genomic Mapping patents describe methods for analyzing genetic material collected from various selected populations to identify and locate genes and markers of interest, by identifying highly polymorphic sites throughout the genome and particular haplotypes associated with such sites, all based on a reading of sequence information in both the coding and the non-coding portions of the genome.

(c) The Perlegen patents describe the family of patents that were acquired from Perlegen Sciences, Inc. that provide methods for discovering genetic associations to disease and which build on and augment the Genomic Mapping patents.

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(d) **The BREVAGenTM patents** describe a combination of method and product filings which describes a breast cancer risk assessment test based on both genetic and clinical factors to deliver an improved understanding of an individual s risk of contracting breast cancer.

(e) **The Laboratory Techniques patents** describe a method for identifying band positions in an electrophoretic separation by also including a control, which serves as an internal standard.

(f) **The Ancestral Haplotypes patents** describe a method for determining ancestral haplotypes using haplospecific geometric elements within the major histocompatibility complex multi-gene cluster and methods of genetic analysis involving the amplification of complimentary duplicons. These patents were acquired by the Company from the C.Y. O Connor ERADE Village Foundation in Western Australia.

(g) **The Athletic Performance patents** describe a method that enables aspects of athletic performance to be predicted based on detection of various forms of the alpha actinin 3 (ACTN3) gene. These patents were acquired from the University of Sydney in New South Wales.

(h) **The Nematode Project patents** describe means to identify and to control a variety of species of parasites. The patent applications describe the use of modern genetic technologies to identify celluar targets for two novel classes of chemicals which can be used to control the major parasitic worms of sheep and cattle. These nematodes are responsible for extensive economic losses to the sheep and cattle industries and are rapidly developing resistance to the existing chemicals.

(i) **The RareCellect Project patents** comprise a suite of patents, the older ones of which describe a novel and safe method for the isolation and collection of fetal cells from the peripheral blood of a pregnant woman, utilizing various HLA or other markers plus flow cytometry - all without any invasive procedure that might endanger the mother or the child. Together with more recent patents, these form the basis of the intellectual property associated with the RareCellect project.

The many issued, allowed and pending patents claimed by GeneType AG, and which are now owned by our Company, distinguish us from competitors by giving us the legal right to claim ownership of proprietary methods and compositions for analysis of DNA using information contained within non-coding regions and for the isolation of fetal cells. The methods and compositions for analysis of DNA may be used to identify a particular form of a gene or to map the location of a disease-associated gene.

In total, we have 17 issued patents and 22 patent applications in the United States. Reflecting our international business strategy, we have also sought and been granted foreign patents by many other major industrialized nations, corresponding to each of the major patents already issued in the United States.

Generally, United States patents filed with the United States Patent Office prior to June 8, 1995 have a term of 17 years from the date of issuance, and 20 years from the application filing date or earlier claimed priority date in the case of patents issued from applications filed on or after June 8, 1995. For applications filed after May 29, 2000, the term is 20 years from the date of filing. A minimum term of 17 years is assured, provided the applicant causes no delays during prosecution. Patents in most other countries have a term of 20 years from the date of

filing the patent application. Our issued United States patents began to expire in 2009. We intend to continue to file patent applications as we develop new products, technologies and patentable enhancements. Prosecution practices have been implemented to avoid any applicant delays that could compromise the 17-year minimum term. There can be no guarantee that such procedures will prevent the loss of a potential patent term. This is particularly true in the short-term as the patent rules implementing the most recent patent term changes are relatively new and untested.

Complex legal and factual determinations and evolving law make patent protection uncertain. As a result, we cannot be certain that patents will be issued from any of our pending patent applications or from applications licensed to us or that any issued patents will have sufficient breadth to offer meaningful protection. In addition, our issued patents may be successfully challenged, invalidated, circumvented or rendered unenforceable so that our patent rights would not create an effective competitive barrier. Moreover, the laws of some countries may not protect our proprietary rights to the same extent as do the United States patent laws.

In addition to patent protection, we rely on trade secret protection of our intellectual property. We attempt to protect our trade secrets by entering into confidentiality agreements with third parties, employees and consultants. Our employees and consultants are required to sign agreements to assign to us their interests in discoveries, inventions, patents, trademarks and copyrights arising from their work for us. They are also required to maintain the confidentiality of our intellectual property, and refrain from unfair competition with us during their employment and for a certain period of time after their employment with us, which includes solicitation of our employees and customers. We cannot be certain these agreements will not be breached or invalidated. In addition, third parties may independently discover or invent competing technologies or reverse engineer our trade secrets or other technologies.

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In the future, we may become involved in lawsuits in which third parties file claims asserting that our technologies or products infringe on their intellectual property. We cannot predict whether third parties will assert such claims against us or against the licensors of technologies licensed to us, or our licensees, or whether those claims will hurt our business. We may be forced to defend against such claims, whether they are with or without merit or whether they are resolved in favor of or against our licensors or us and may face costly litigation and diversion of Management s attention and resources. As a result of such disputes, we may have to develop costly non-infringing technologies or enter into licensing agreements. These agreements may oblige us to accept costly terms, which could seriously limit the ability to conduct our operations and affect adversely our financial condition.

In addition, we may become involved in lawsuits in which third parties file claims asserting that one or more of our patents are invalid. We cannot predict whether third parties will assert such claims against us or against the licensees of such patents, or whether those claims will have an adverse impact on our business. We may be forced to defend against such claims, whether they are with or without merit or whether they are resolved in favor of or against our licensees or us and may face costly litigation and diversion of Management s attention.

Historically, were have initiated legal proceedings against a number of companies, including Applera Corporation. On December 12, 2005, we announced the final settlement of our patent dispute with Applera, further to a settlement conference held in San Francisco, California. The parties executed a number of binding agreements, including a final Settlement Agreement plus license agreements and a supply agreement and, subsequently, they jointly applied to Northern California District Court requesting that all claims and counterclaims in the legal action be dismissed forthwith. The total value of the consideration receivable by us is approximately $15 million, payable partly in cash and partly in kind, including agreements supplying the Company with certain Applera equipment, reagents and intellectual property rights. As of June 30, 2012, the total value of these rights was $1,615,860. Recognition of in-kind consideration as revenue is subject to us meeting certain revenue recognition criteria including, but not limited to, the measurement of fair value at the time of receipt.

Our current patent portfolio is described below. Numbers refers to either provisional, application, publication or patent number.

	Country / region	Numbers	Granted	Pending
INTRON SEQUENCE ANALYSIS				
Intron sequence analysis method for detection of adjacent and remote locus alleles as haplotypes	Australia	AU654111	•	
Earliest priority August 25, 1989		AU672519	•	
	Austria	AT144797	•	
	Belgium	EP414469	•	
	Canada	CA2023888	•	
	Denmark	DK414469	•	
	Europe	EP414469	•	
	France	EP414469	•	
	Germany	DE69029018	•	
		DD299319	•	
	Great Britain	EP414469	•	
	Greece	GR3022410	•	
	Hong Kong	HK1008053	•	
	Israel	IL95467	•	
	Italy	EP414469	•	
	Japan	JP3206812	•	
	Luxembourg	EP414469	•	
	Netherlands	EP414469	•	

	New Zealand	NZ235051	•
	Singapore	SG47747	•
	South Africa	ZA9006765	•
	Spain	ES2095859	•
	Sweden	EP414469	•
	Switzerland	EP414469	•
	United States	US5192659	•
		US5612179	•
		US5789568	•

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	Country / region	Numbers	Granted	Pending
GENOMIC MAPPING				
Genomic mapping method by direct haplotyping using intron sequence analysis	Australia	AU647806	•	
Earliest priority July 11, 1990	Austria	AT185377	•	
	Belgium	EP570371	•	
	Canada	CA2087042	•	
	Denmark	DK570371	•	
	Europe	EP570371	•	
	France	EP570371	•	
	Germany	DE69131691	•	
	Great Britain	EP570371	•	
	Ireland	IE912426	•	
	Israel	IL98793	•	
	Italy	EP570371	•	
	Japan	JP3409796	•	
	Luxembourg	EP570371	•	
	Netherlands	EP570371	•	
	New Zealand	NZ238926	•	
	South Africa	ZA9105422	•	
	Sweden	EP570371	•	
	Switzerland	EP570371	•	
	United States	US5851762	•	
PERLEGEN				
Methods for genomic analysis	Australia	AU785425	•	
Earliest priority March 30, 2001	Israel	IL148783	•	
	United States	US6969589	•	
	Canada	CA2380047		•
	Europe	EP1246114		•
	United States	US12/795361		•
Methods for identifying matched groups	United States	US7124033	•	
Earliest priority April 30, 2003				
Genetic analysis systems and methods	Australia	AU2003202919	•	
Earliest priority January 7, 2002	United States	US6897025	•	
	Canada	CA2472646		•
	Europe	EP03702032.8	•	
Life sciences business systems and methods	United States	US6955883	•	
Earliest priority March 26, 2003				
Life science business systems	United States	US7427480	•	
Earliest priority March 26, 2003				
Pharmaceutical and diagnostic business systems and methods	United States	US7135286	•	
Earliest priority March 26, 2002				
Haplotype structure of Chromosome 21 (LQTS)	United States	US7115726	•	
Earliest priority March 30, 2001				

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	Country / region	Numbers	Granted	Pending
BREVAGenTM				
Methods for genetic analysis	United States	US7127355	•	
Earliest priority March 5, 2004	United States	13/094903		•
	Japan	JP2007502088		•
Methods for genetic analysis	Australia	AU2008304485		•
Earliest priority September 27, 2007	Canada	CA2704152		•
Markers for breast cancer	Australia	AU2006320559	•	
Earliest priority November 29, 2006		AU2012202265		•
	Canada	CA2631621		•
	China	CN20068005171.0		•
	Europe	EP06838661.4	•	
		12156416.5		•
		12156418.1		•
		12156417.3		•
		12156415.7		•
	Hong Kong	HK09101235.4		•
	Israel	IL191566		•
	Japan	JP2008543446		•
	Korea	KR1020087015808		•
	United States	US12/890272		•
		US12/370972		•
Methods for breast cancer risk assessment	United States	US12/920815		•
Earliest priority June 1, 2009	World	PCT/AU2010/000675		•
LABORATORY TECHNIQUES				
Internal standards for electrophoretic separations	Austria	AT159589	•	
Earliest priority July 11, 1990	Europe	EP466479	•	
	France	EP466479	•	
	Germany	DE69127999	•	
	Great Britain	EP466479	•	
	Japan	JP4232850	•	
	Sweden	EP466479	•	
	United States	US5096557	•	
ANCESTRAL HAPLOTYPES				
Genetic analysis	Europe	EP660877	•	
Earliest priority November 1, 1991	France	EP660877	•	
	Germany	DE69232726	•	
	Great Britain	EP660877	•	
Method for determining ancestral haplotypes using haplospecific geometric elements within the major histocompatability complex multigene cluster				
Earliest priority November 1, 1991	United States	US6383747	•	
Methods of genetic analysis involving the amplification of complementary duplicons	Australia	AU2006214800		•
Earliest priority February 16, 2005	Canada	CA2597947		•

Europe	EP1848819	•
United States	US2009150080	•

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	Country / region	Numbers	Granted	Pending
ATHLETIC PERFORMANCE				
ACTN3 genotype screen for athletic performance	Australia	AU2003258390	•	
Earliest priority September 16, 2002	India	IN216886	•	
	New Zealand	NZ538890	•	
	Russia	RU2388829	•	
	United States	US7615342	•	
	Europe	EP1546403	•	
	Canada	CA2499084	•	
	Germany	EP1546403		•
	France	EP1546403		•
	Great Britain	EP1546403		•
	China	CN1732270		•
	Japan	JP2005538710		•
NEMATODE PROJECT				
High resolution analysis of genetic variation within *Cryptosporidium parvum*	Australia	AU2003250619	•	
Earliest priority August 21, 2002				
RARECELLECT® PROJECT				
Fetal cell recovery method	Australia	AU649027	•	
Earliest priority March 27, 1990	Austria	AT194166	•	
	Belgium	EP521909	•	
	Canada	CA2059554	•	
	Denmark	DK521909	•	
	Europe	EP521909	•	
	France	EP521909	•	
	Germany	DE69132269	•	
	Great Britain	EP521909	•	
	Greece	GR3034487	•	
	Ireland	IE910996	•	
	Israel	IL97677	•	
	Italy	EP521909	•	
	Japan	JP2965699	•	
	Luxembourg	EP521909	•	
	Netherlands	EP521909	•	
	New Zealand	NZ237589	•	
	Singapore	SG79188	•	
	South Africa	ZA9102317	•	
	Spain	ES2149760	•	
	Sweden	EP521909	•	
	Switzerland	EP521909	•	
	United States	US5447842	•	
Maternal antibodies as fetal cell markers to identify and enrich fetal cells from maternal blood	New Zealand	NZ537328	•	
Earliest priority May 31, 2002	Singapore	SG108133	•	
	Australia	AU2003229397	•	
	Japan	JP4589106	•	
	United States	US7785898	•	
	Canada	CA2492631		•

Europe	EP1532453	•
Hong Kong	HK1075699	•

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	Country / region	Numbers	Granted	Pending
RARECELLECT® PROJECT (cont.)				
Epigenetic DNA enrichment	Australia	2010306072		•
Earliest priority October 14, 2009	Europe	10822895.8		•
	Israel	219172		•
	United States	13/501799		•
Identification of fetal DNA and fetal cell markers in maternal plasma or serum	Australia	AU2004217872	•	
Earliest priority March 5, 2003	United States	US10/547721		•
Methods of enriching fetal cells	Europe	EP06721493		•
Earliest priority May 11, 2005	Japan	JP2008510361		•
	Canada	CA2651367		•
	United States	13/385775		•
Biological sampling device	Australia	2010207877		•
Earliest priority January 27, 2009	Canada	To be advised		•
	China	201080014151.2		•
	Europe	10735423.5		•
	Hong Kong	12105199.4		•
	Israel	514310		•
	Singapore	201105383.2		•
	United States	13/146376		•
Cell processing and/or enrichment methods	Europe	EP09712569.4		•
Earliest priority February 18, 2008	United States	US12/918015		•
	Canada	2752838		•
Methods for obtaining fetal genetic material	Australia	2010239131		•
Earliest priority April 21, 2009	Europe	10766487.2		•
	Israel	215808		•
	Singapore	201107673.4		•
	United States	13/265485		•
Methods of enriching and detecting fetal nucleic acids	Australia	2010336017		•
Earliest priority December 23, 2009	Europe	10838414.0		•
	Israel	220560		•
	United States	13/518454		•

Out-licensing our Non-coding Patents Globally

The Company is currently licensing its non-coding patents in the United States, Europe and elsewhere. This strategy was initiated in late 2000, soon after GeneType AG and its non-coding DNA patents were acquired by the Company. The first step in the process was to secure patent insurance, which we achieved in early 2001. This policy has since expired.

Thereafter, we progressively made contact with many companies in the United States and elsewhere, bringing the patents to their attention and indicating how they might benefit from a license to the Company s non-coding patents. The plan initially was to grant a number of licenses

focusing primarily on the up-front fee component, and then to progressively build recurring annuity or royalty component of subsequent licenses. When we identified companies that appeared to be infringing our patents, while also indicating they would not take a license, we put them on formal notice under our patent insurance policy. Overall, the strategy has unfolded as planned.

In recent years, this strategy had evolved further with the appointment of Colorado-based law firm Sheridan Ross PC as our assertion partner. With their assistance, the Company has now filed three patent infringement suits in the U.S. against a total of 26 separate parties with settlement and license agreements having since been executed with a number of these parties. As of the date of this Annual Report, negotiations continue with a number of the remaining parties.

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Our Licenses and Commercial Collaborations

Since commencing our licensing program back in 2002, we have granted commercial licenses to a total of 59 licensees and 6 research licenses to the following parties as of October 16, 2012, which are listed in reverse chronological order of the effective dates of the respective licenses:

Commercial licensees

59. Conexio Genomics Pty. Ltd., **Australia**
58. GeneSeek Inc., **USA**
57. Sonic Group companies, **USA**
56. Eurofins STA Laboratories Inc., **USA**
55. AutoImmun Diagnostika GmbH, **Germany**
54. Hologic Inc., **USA**
53. Attomol GmbH, **Germany**
52. Navigenics Inc., **USA**
51. Orchid Cellmark Inc., **USA**
50. ViennaLab Diagnostics GmbH, **Austria**
49. Sunrise Medical Laboratories Inc., **USA**
48. Qiagen Sciences LLC, **USA**
47. Pioneer Hi-Bred International Inc., **USA**
46. Innogenetics NV (medical diagnostic products), **Belgium**
45. Laboratoires Réunis, **Luxembourg**
44. Interleukin Genetics Inc., **USA**
43. Beckman Coulter Inc. / Clinical Data Inc., **USA**
42. Monsanto Company (cattle genetics) **USA**
41. Molecular Pathology Laboratory Network Inc., **USA**
40. EraGen Inc., **USA**
39. Gen-Probe Inc., **USA**
38. TIB MOLBIOL Syntheselabor GmbH, **Germany**
37. Millennium Pharmaceuticals Inc., **USA**
36. GeneDx (Bio Reference Laboratories Inc.), **USA**
35. General Electric Company, **USA**
34. Prometheus Laboratories Inc. **USA**
33. Kimball Genetics Inc., **USA**
32. BioSearch Technologies Inc., **USA**
31. Syngenta Crop Protection AG, **Switzerland**
30. Monsanto Company (swine genetics), **USA**
29. Thermo Fisher Scientific Inc., **USA**
28. Monsanto Company (plant genetics) **USA**
27. Sciona Inc., **USA**
26. Genosense Diagnostics GmbH, **Austria**
25. Innogenetics NV (HLA products), **Belgium**
24. Bovigen LLC, **USA**
23. Optigen LLC, **USA**
22. Applera Corporation, **USA**
18 - 21. Four agriculture groups, **New Zealand**
17. Australian Genome Research Facility Limited, **Australia**
16. Bionomics Limited, **Australia**
15. C.Y. O Connor ERADE Village Foundation, **Australia**
14. ViaLactia Biosciences Limited, **New Zealand**
13. MetaMorphix Inc., **USA** (license subsequently terminated)
12. Genzyme Corporation, **USA**
11. Ovita Limited, **New Zealand**
10. Laboratory Corporation of America Holdings, **USA**
9. TM Bioscience Corporation, **Canada**
8. Quest Diagnostics Inc., **USA**
7. ARUP, **USA**
6. Biotage AB, **Sweden**
5. Myriad Genetics Inc., **USA**
4. Perlegen Sciences Inc., **USA**
3. Nanogen Inc., **USA**
2. Sequenom Inc., **USA**
1. Genetic Solutions Pty. Ltd., **Australia**

Research licensees

6. Texas A&M University (Merlogen Inc.), **USA**
5. Colorado State University, **USA**
4. University of Technology Sydney, **Australia**
3. King s College London, **England**
2. University of Sydney, **Australia**
1. University of Utah, **USA**

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On February 16, 2010, the Company announced it had filed a patent infringement suit in respect of its non-coding DNA technologies against a number of parties in the U.S. District Court, Western District of Wisconsin. The counter-parties included Beckman Coulter Inc., Monsanto Company, Interleukin Genetics Inc., Orchid Cellmark Inc., Gen-Probe Inc., Molecular Pathology Laboratory Network Inc., Sunrise Medical Laboratories and Pioneer Hi-Bred International Inc. In April 2011, the Company was pleased to announce the successful culmination of this suit, importantly with no counterparty proceeding to trial. The various settlement and license agreements which were granted to the counterparties of this first suit generated gross fees in excess of $5.8 million and the suit was administratively closed by the Court.

On January 20, 2011, the Company announced it had filed a second patent infringement law suit in the U.S.A., this time in the U.S. District Court, Western District of Texas, Austin Division. The seven counterparties to this action, each a company associated with Sonic Healthcare Limited, are: American Esoteric Laboratories, Clinical Pathology Laboratories Inc., Clinical Pathology Laboratories Southeast, East Side Clinical Laboratories, Clinical Pathology Laboratories Mid-Atlantic, Pathology Laboratories Inc. and Sonic Healthcare U.S.A. Inc. This second suit follows the successful settlement between GTG and Sunrise Medical Laboratories (a counterparty to the first assertion suit, detailed above) which is also an entity associated with Sonic. On February 21, 2012, the Company announced the successful conclusion of the second assertion suit having executed a Settlement with the companies associated with Sonic Healthcare Limited.

On May 26, 2011, the Company announced it had filed a third patent infringement law suit in the USA, this time in the USA District Court, Western District of Colorado. The ten counterparties to this suit are: Agilent Technologies Inc., Bristol-Myers Squibb Company, Eurofins STA Laboratories Inc., GlaxoSmithKline LLC, Hologic Inc., Merial LLC, Navigenics Inc., GeneSeek Inc., Pfizer Inc. and 454 Life Sciences Corporation. Subsequent to filing this suit in Colorado, Settlement and License Agreements have been executed with Navigenics Inc., Hologic Inc., Eurofins STA Laboratories Inc. and GeneSeek Inc.

In addition to the formal U.S. assertion program, the Company is actively pursuing licenses external to these lawsuits, principally in Europe. Since the time of filing the first U.S. assertion suit, the Company has successfully concluded licensing deals with a number of non-assertion program targets from both the U.S. and Europe which collectively generated gross fees in excess of $6.5 million for the Company.

Further, on July 9, 2012, the Company announced that it had expanded the scope and jurisdictional reach of its success fee based retention arrangement with Sheridan Ross P.C. (Sheridan Ross) of Denver, Colorado pursuant to which the existing U.S. assertion arrangement with Sheridan Ross was extended to cover all of GTG s non-coding patents in all jurisdictions. Under the expanded arrangement, Sheridan Ross will be free to assist the Company in asserting all international equivalents of the U.S. non-coding patents as well as the newer non-coding patents acquired by GTG along with the purchase of BREVAGen from Perlegen Sciences Inc. in 2010. Importantly, Sheridan Ross will now be able to assist GTG with asserting its non-coding patents globally, effectively acting as lead counsel to GTG in these international efforts.

The following section describes our existing commercial and research licenses. We announced our first license to the non-coding patents to the Australian livestock testing firm Genetic Solutions Pty. Ltd., in February 2002. Since then, we have granted many additional licenses to parties located all over the world.

Commercial Licenses

Genetic Solutions License: In November 2001, we granted a license to Genetic Solutions Pty. Ltd. who paid us a non-refundable license fee in cash in return for a license to our non-coding analysis and mapping patents. The license can be terminated by either party upon any material breach of any term or condition by the other party which has not been timely cured after notice. We may also terminate the agreement in the event of the bankruptcy of the licensee or discontinuation of their business.

Sequenom License: In April 2002, we granted a license to bioinstrument maker Sequenom, Inc., who paid us a non-refundable license fee in cash and shares in return for a license to our non-coding analysis and mapping patents. The license can be terminated by either party upon any material breach of any term or condition by the other party which has not been timely cured after notice. We may also terminate the agreement in the event of the bankruptcy of the licensee or discontinuation of their business.

Nanogen License: In April 2002 we granted a license to Nanogen, Inc, of San Diego, USA, who specializes in the development of biochip applications in genetics diagnostics. Nanogen paid us a non-refundable license fee and unlisted warrants in return for a license limited to genetic research and human diagnostics. Specifically, Nanogen receives no rights to the mapping patent nor any applications in animals or plants. Since the date of the initial license, the warrants became in the money and we exercised them, acquiring Nanogen shares which we disposed of in market transactions generating further income. The license can be terminated by either party upon any material breach of any term or condition of the agreement not timely cured. We also can terminate the agreement in the event the licensee becomes involved in insolvency proceedings or if it discontinues its business for any reason.

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Perlegen License: In August 2002, we granted a license to US genome researcher, Perlegen Sciences, Inc. of Mountain View, California, which paid a non-refundable combination of cash and securities for an exclusive license limited to a specialized field known as high resolution whole genome analysis . Either party can terminate the license agreement upon any material breach of any term or condition by the other party that is not timely cured after notice. We also have the right to terminate the agreement in the event of insolvency of the licensee or if it discontinues its business for any reason.

Myriad Licenses: In October 2002, we announced a licensing agreement with Myriad Genetics, Inc., under which we granted Myriad broad rights to utilize our non-coding patents, in return for which Myriad agreed to pay us a non-refundable license fee plus future fees on an annual basis in lieu of royalties, plus the rights to bring Myriad s predictive tests to Australia and New Zealand. These tests, which include genetic susceptibility tests for breast cancer, ovarian cancer, bowel cancer, melanoma and cardiac risk are now being offered by the Company in Australia and have resulted in the expansion of our existing genetic testing facilities in Melbourne. The license can be terminated by either party upon material breach by the other party that is not cured within 30 days of notice. We also may terminate if the licensee fails to make any payment required by the agreement. Under the second of two agreements, we are granted a license to use Myriad s diagnostic services in Australia and New Zealand in exchange for an annual fee. We are obligated to use reasonable efforts to commercialize the licensed diagnostic services in Australia and New Zealand. Under the terms of this agreement, we have been granted an option in exchange for upfront payments and a continuing royalty, to expand the license in respect of full sequence testing, which has not been exercised. The term of this agreement extends until 2012. Either party can terminate the agreement upon a material breach not timely cured after notice. In addition, Myriad can terminate if we fail to make any payment required under the agreement.

Pyrosequencing Licenses: In March 2003, we announced a cross-licensing agreement with Pyrosequencing AB, of Sweden (now known as Biotage AB). Pyrosequencing received a broad non-exclusive license to our non-coding DNA analysis and mapping patents but only when used in combination with Pyrosequencing s sequencing by synthesis reagents. In return, we received a non-refundable cash up front payment, plus royalties for the life of the non-coding patents, plus three state-of-the-art analytical instruments (Pyrosequencing systems), plus other IP rights and assays from Pyrosequencing. Either party can terminate the agreement upon material breach that is not timely cured by the other party after notice. In addition, either party can terminate the agreement if the other party becomes involved in insolvency proceedings, or if the other party discontinues its business for any reason.

ARUP License: In April 2003, we announced a license to Associated Regional & University Pathologists (ARUP) of Salt Lake City, Utah. ARUP is a laboratory system owned by the University of Utah, and the first service provider actually performing human genetic testing to take a license from the Company. The license was granted in return for a one-time non-refundable license issue fee. The license is terminable by a party upon material breach by the other party that is not timely cured after notice. In addition, we have the right to terminate if the licensee becomes involved in an insolvency or discontinues its business for any reason. In May, 2003, we had also granted the University of Utah a separate research license which is terminable upon material breach by the licensee not timely cured after notice.

Quest License: In August 2003, we granted a license to our non-coding analysis patents to Quest Diagnostics Inc., based in New Jersey. The terms included a non-refundable signing fee plus ongoing annual payments in lieu of royalties from Quest for services provided by it in genetic laboratory testing in the United States, Canada and Mexico. In addition, the license is terminable by one party in the event of a material breach by the other party not cured after notice. Either party may also terminate the license in the event of an insolvency event affecting the other party or the discontinuation of business by the other party. Effective June 1, 2010, we amended the license which had been granted to Quest as part of a settlement with that company. In return for agreeing to the amendment, Quest made a further payment to Genetic Technologies.

TM Bioscience License: In December 2003, we granted a license to our non-coding analysis and mapping patents to TM Bioscience Corporation of Toronto, Canada. The terms provide for a signing fee plus ongoing annual payments as a non-refundable license fee and an annual royalty on licensed products. This was our first commercial license granted to a Canadian company. TM Bioscience is a leading

provider of diagnostic kits for human genetic testing, exported globally. The agreement is terminable by a party upon material breach by the other party that is not timely cured, and may be terminated by us in the event of dissolution or sale of the business of the licensee.

LabCorp License: In February 2004, we granted a license to our non-coding patents to Laboratory Corporation of America Holdings (known as LabCorp), a leading provider of human diagnostic services. The consideration received for the license, which covers both the non-coding analysis and mapping patents, included a non-refundable signing fee plus annual license annuity payments for the life of the patents, through 2015. LabCorp also withdrew a declaratory action in respect of our patents which had been initiated in New Jersey. The license is terminable by either party upon material breach by the other party that is not timely cured. In addition, we are entitled to terminate the agreement in the event that the licensee intentionally and knowingly promotes the licensee s reference testing to third party clinical laboratories for the purpose of circumventing the need for such laboratories to license our patents. The licensee is entitled to terminate the agreement at any time upon 30 days prior written notice and we can terminate in the event of an insolvency event involving the licensee or discontinuation of its business.

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Ovita License: In June 2004, we entered into a license agreement with Ovita Limited of New Zealand, granting them a license to our non-coding patents to the extent required in order to commercialize genetic marker tests and pedigree tests and to conduct research and development activities for new applications of our technology in connection with testing of sheep and cattle. The agreement included the payment of an initial non-refundable research license fee, a non-refundable commercial license fee and a royalty on licensed products made using our patents, payable calculated on gross sales. The license is terminable by a party for material breach that is not cured by the other party, by licensee upon 30 days written notice to us and by either party in the event of discontinuation of its business, an insolvency event or failure to pay amounts due and owing to the other.

Genzyme License: Effective as of September 17, 2004, we granted a license to our non-coding patents to Genzyme Corporation, based in Cambridge, Massachusetts, in order for the licensee to perform preclinical and human research and human genetic testing. The grant of the license was in exchange for a non-refundable license issue fee consisting of a cash component and an in-kind component. The in-kind component consisted of a license agreement in respect of patents owned by Johns Hopkins University and licensed by the licensee. In addition, Genzyme is obligated to pay to us license annuity fees in lieu of a royalty for each year of the term. Either party can terminate the agreement upon material breach not timely cured, in the event of insolvency of the licensee, or by the licensee at any time upon 30 days written notice to us.

MetaMorphix Agreements: In September 2004, we executed two agreements with MetaMorphix, Inc., based in Maryland and specializing in the genetics and genomics of certain animal species, particularly cattle and dogs. Under the first such agreement, we granted a license to use our non-coding patents in order to commercialize applications of diagnostic assays for use in the livestock, aquaculture and companion animal industries. The licensee is obligated to pay us annually increasing license annuity fees in lieu of a royalty, as well as a non-refundable license issue fee. Either party can terminate the agreement upon a material breach not timely cured, or by us upon the licensee s discontinuation of its business for any reason. Under the second license, to which MMI Genomics, Inc. (a subsidiary of MetaMorphix) is also a party, we were granted a license to the licensor s patents and associated know-how in order to perform internal DNA-based diagnostic assays for use in our cattle and canine identity and parentage verification services. We have subsequently paid the licensor a non-refundable license fee. The licensor s obligations include ongoing support for the license and know-how. The agreement is terminable by either party upon material default by the other party that is not timely cured, or by the licensor in the event we discontinue our cattle and canine identity and parentage verification genotyping services business for any reason. The license to our non-coding patents that was previously granted to MetaMorphix was terminated in October 2009 as a result of a material unremedied breach by that company.

ViaLactia License: In September 2003, we reached agreement with ViaLactia Biosciences (NZ) Limited of Auckland, New Zealand regarding the terms of a research and commercial license to the Company s non-coding patents. ViaLactia is a wholly-owned subsidiary of Fonterra, New Zealand s largest dairy cooperative. The license was formally concluded in December 2003. The purpose of the license is to permit ViaLactia to conduct internal research activities and development of applications of our technology in the dairy industry, including new applications concerning dairy cattle, pasture grasses, mice as models for dairy cattle and yeast and bacteria as applied to the dairy industry. The license is terminable by either party upon material default of the other party that is not timely cured, without other penalty.

C.Y. O Connor ERADE Village Foundation: In October 2003, we announced that we had signed heads of agreement to establish a broad strategic alliance with the C.Y. O Connor ERADE Village Foundation, a leader in biotechnology innovation based in Perth, Western Australia. Definitive documentation was concluded in June 2004. Under the terms of the agreement, we acquired all of the Foundation s patents and other intellectual property in the fields of genetics and genomics, including the Foundation s issued U.S. patent 6383747 and foreign equivalents. This extensive package of intellectual property has created additional opportunities for us in support of licensing and service testing. As part of the arrangement, the Foundation acquired a license to our non-coding patents for a fee, such that the net purchase price for us was settled by the issuance of a total of 16,666,667 of our Ordinary Shares to the Foundation based on a market value of $0.39 per share. The transaction closed in June 2004. Under the arrangement, we support the ongoing genetics and genomics programs of the Foundation. Initially, five projects were selected for priority attention and we will provide $4.5 million to the Foundation, spread over five years, to help fund such research and development of new intellectual property. On July 7, 2004, the Company supplied a letter of credit for $450,000 for the term of the agreement. Under the agreements, we are the primary commercialization vehicle for all new inventions, patents, intellectual property and business opportunities arising at the Foundation in the field of genetics or genomics. We are also obligated to pay royalties to the Foundation on gross

revenue derived from the Foundation IP. We may terminate the license following any breach of the license by the licensee, either party can terminate following a material breach that is not timely cured or following an insolvency event of the other party. On June 15, 2009, being the fifth anniversary of the Effective Dates of the various underlying agreements between the Company and the Foundation, the agreements terminated. As a result, the letter of credit for $450,000 which had been supplied by the Company was withdrawn.

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Bionomics Licenses: Effective November 5, 2004, we entered into two agreements with Bionomics Limited, a public company based in Adelaide, South Australia. Under the first such agreement, we granted a non-exclusive, royalty-free license to Bionomics to use our non-coding patents in order to (i) perform research and development activities relating to and arising from the identification of genetic factors that may influence epilepsy and (ii) commercialize the results of those research and development activities including, without limitation, epilepsy diagnostic assays. Bionomics paid us a non-refundable license fee on signing. Either party can terminate the agreement upon a material breach not timely cured. Under the second agreement with Bionomics, we were granted a license to use certain intellectual property rights, including patent rights and associated know-how, relating to epilepsy gene discoveries and epilepsy diagnostic assays subject to minimum annual royalties. We paid Bionomics a non-refundable license fee. The agreement is terminable by either party upon material default by the other party that is not timely cured.

Australian Genome Research Facility License: Effective December 31, 2004, we granted a license to the non-coding patents to Australian Genome Research Facility Ltd. (AGRF) pursuant to which AGRF can use the patents on a non-exclusive basis for the purpose of performing genotyping services. The license requires an advance non-refundable license fee and an annual non-refundable annuity for the term of the license in lieu of a royalty, which continues until sooner terminated or the licensee no longer utilizes the patent. The agreement is terminable by mutual agreement, or by us in the event of a breach of a term or condition by the licensee or if it is subject to an insolvency event.

New Zealand Licenses: Effective June 30, 2005, we entered into a license agreement with four commercial parties in New Zealand: AgResearch Limited, The Horticulture and Food Research Institute of New Zealand Limited, New Zealand Forest Research Limited and Livestock Improvement Corporation Limited. Under the terms of the agreement, the parties were granted licenses to our non-coding patents in consideration for which they paid us a non-refundable license issue fee.

Applera Licenses: Effective December 8, 2005, we entered into various agreements with Applera Corporation of Norwalk, Connecticut as part of a settlement of a patent dispute. The binding agreements include a final Settlement Agreement plus license agreements and a supply agreement. The total consideration receivable by us was paid partly in cash and partly in kind - including agreements supplying the Company with certain Applera equipment, reagents and intellectual property rights. Recognition of in-kind consideration as revenue is subject to us meeting certain revenue recognition criteria including, but not limited to, the measurement of fair value at the time of receipt.

Optigen Licenses: Effective May 23, 2006, we executed an agreement with Optigen, LLC of Ithaca, New York. Under the agreement, Genetic Technologies granted Optigen a non-exclusive license to our non-coding patents for applications in dogs, and Optigen granted the Company the exclusive right to offer and perform the complete range of Optigen genetic tests for diseases in dogs in the Asia-Pacific region. The addition of the Optigen tests substantially expanded the range of genetic tests offered by us to the canine industry in our region. The license granted by us to Optigen provides Optigen with access to our non-coding technology, covering all relevant genetic tests and research activities conducted by Optigen, in dogs.

Bovigen License: Effective June 1, 2006, we granted a license to the non-coding patents to Bovigen, LLC of Harahan, Louisiana. Under the agreement, Bovigen will use the Company s non-coding technology to build its business of offering genetic tests to the American livestock industry to determine the presence or absence of certain desirable traits in individual cattle. The rights that we licensed to Bovigen were granted non-exclusively, and are limited to applications in cattle in the USA, Canada and South America. In consideration for granting the license, Bovigen paid us an up-front signing fee and will pay ongoing royalties on the future sales by Bovigen for the life of the non-coding patents.

Innogenetics Licenses: Effective June 30, 2006, we granted a license to the Company s non-coding patents to Innogenetics NV of Ghent, Belgium. Innogenetics is a significant supplier of genetic testing kits in Europe and is listed on the Belgium and German stock exchanges. In

consideration for granting the license, Innogenetics paid us an up-front signing fee and will pay ongoing annuities for the life of the non-coding patents. The agreement is terminable by mutual agreement, or by us in the event of a breach of a term or condition by the licensee or if it is subject to an insolvency event. Effective November 8, 2010, we granted a second license to the Company s non-coding patents to Innogenetics as part of a settlement of a dispute which, this time, covers its work in molecular diagnostics products.

Genosense License: Effective December 1, 2006, we granted a license to the Company s non-coding patents to Genosense Diagnostics GmbH, a leading anti-aging and preventive genetic diagnostics company based in Vienna, Austria. In consideration for granting the license, Genosense paid us an up-front signing fee and will pay ongoing annuities for the life of the non-coding patents. The agreement is terminable by mutual agreement, or by us in the event of a breach of a term or condition by the licensee or if it is subject to an insolvency event.

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Sciona License: Effective February 16, 2007, we granted a license to the Company s non-coding patents to Sciona, Inc. based in Boulder, Colorado. This license runs for nine years and is the first step in a progressive co-operation between us and Sciona in relation to the emerging lifestyle and life-extension markets. We received a signing fee plus annual payments from Sciona, increasing with time. We were also granted the right to market the Sciona range of products in the Asia-Pacific region, and to perform the relevant genetic tests at our laboratory in Melbourne. Sciona is a leading provider of personalised genetic tests which focus primarily on lifestyle and nutritional adjustments to enhance health and longevity. The agreement is terminable by mutual agreement, or by us in the event of a breach of a term or condition by the licensee or if it is subject to an insolvency event. During 2009, Sciona was placed into receivership.

Monsanto Licenses: Effective June 20, 2007, we granted a license to the Company s non-coding patents to Monsanto Company, based in St. Louis, Missouri. As part of the license, which covers Monsanto s work in plants, Monsanto made an up-front cash payment which, under the terms of the license, cannot be disclosed. Effective August 22, 2007, we granted a second license to Monsanto which, this time, covers its work in swine. In respect of this second license, Monsanto paid us a further up-front payment. Effective July 30, 2010, we granted a third license to the Company s non-coding patents to Monsanto which, this time, covers its work in cattle. In respect of this third license, Monsanto paid us a third up-front payment.

Thermo Fisher Scientific License: Effective June 29, 2007, we granted a license to the Company s non-coding patents to Thermo Fisher Scientific Inc., based in Waltham, Massachusetts. Thermo Fisher is the parent company of Athena Diagnostics, Inc., a genetic testing laboratory based in Worcester, Massachusetts, with whom we had been in discussions for some time. As part of the license, Thermo Fisher made an up-front cash payment which, under the terms of the license, cannot be disclosed.

Syngenta License: Effective September 28, 2007, we granted a license to the Company s non-coding patents to Syngenta Crop Protection AG, based in Basel, Switzerland. Syngenta is a large plant and seed company, active in more than 90 countries, with more than 19,000 employees. As part of the license, Syngenta made an up-front cash payment which, under the terms of the license, cannot be disclosed.

BioSearch License: Effective September 30, 2007, we granted a license to the Company s non-coding patents to BioSearch Technologies Inc., based in Novato, California. As part of the license, pursuant to which BioSearch is permitted to distribute certain DNA structures, known as oligos or probes, to end users worldwide for research purposes only, BioSearch made an up-front cash payment which, under the terms of the license, cannot be disclosed.

Kimball License: Effective November 16, 2007, we granted a license to the Company s non-coding patents to Kimball Genetics Inc., based in Denver, Colorado. As part of the license, Kimball made an up-front cash payment which, under the terms of the license, cannot be disclosed.

Prometheus License: Effective December 23, 2007, we granted a license to the Company s non-coding patents to Prometheus Laboratories Inc., based in San Diego, California. As part of the license, Prometheus made an up-front cash payment which, under the terms of the license, cannot be disclosed.

GE License: Effective January 14, 2008, we executed a Settlement and License Agreement with General Electric Company (and indirectly its subsidiary GE Healthcare Bio-Sciences Corp.), based in Piscataway, New Jersey. The agreement between the Company and GE Healthcare involves a settlement of all disputes between the parties and the granting of a license to GTG s non-coding patents. As part of the agreement, GE

Healthcare made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

GeneDx License: Effective October 1, 2008, we granted a license to the Company s non-coding patents to GeneDx, a subsidiary of Bio Reference Laboratories Inc., based in Gaithersburg, Maryland. The license granted permits GeneDx to perform PTEN testing until the patent expires in March 2010. As part of the license, GeneDx made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Millennium License: Effective October 22, 2008, we granted a license to the Company s non-coding patents to Millennium Pharmaceuticals Inc., based in Cambridge, Massachusetts. As part of the license, Millennium made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

TIB MOLBIOL License: Effective December 8, 2008, we granted a license to the Company s non-coding patents to TIB MOLBIOL Syntheselabor GmbH, based in Berlin, Germany. As part of the license, TIB MOLBIOL made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

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Gen-Probe License: Effective April 29, 2010, we granted a license to the Company s non-coding patents as part of a settlement agreement to Gen-Probe Inc., based in San Diego, California. As part of the license, Gen-Probe made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

EraGen License: Effective April 30, 2010, we granted a license to the Company s non-coding patents as part of a settlement agreement to EraGen Biosciences Inc., based in Madison, Wisconsin. As part of the license, EraGen made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Molecular Pathology License: Effective June 18, 2010, we granted a license to the Company s non-coding patents as part of a settlement agreement to Molecular Pathology Laboratory Network Inc., based in Maryville, Tennessee. As part of the license, Molecular Pathology made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Beckman Coulter / Clinical Data License: Effective August 24, 2010, we granted a license to the Company s non-coding patents as part of a settlement agreement to Beckman Coulter Inc. and Clinical Data Inc., based in Brea, California and Newton, Massachusetts, respectively. As part of the license, both parties made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Interleukin License: Effective October 1, 2010, we granted a license to the Company s non-coding patents as part of a settlement agreement to Interleukin Genetics Inc., based in Waltham, Massachusetts. As part of the license, Interleukin made an up-front cash payment and one further cash payment in 2011 both of which, under the terms of the agreement, cannot be disclosed.

Laboratoires Réunis License: Effective October 20, 2010, we granted a license to the Company s non-coding patents as part of a settlement agreement to Laboratoires Réunis, based in Junglinster, Luxembourg. As part of the license, Laboratoires Réunis made an up-front cash payment together with subsequent instalment payments which, under the terms of the agreement, cannot be disclosed.

Pioneer Hi-Bred License: Effective November 29, 2010, we granted a license to the Company s non-coding patents to Pioneer Hi-Bred International Inc. Pioneer is a DuPont corporation based in Johnston, Iowa. As part of the license, Pioneer made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Qiagen License: Effective December 22, 2010, we granted a license to the Company s non-coding patents to Qiagen Sciences LLC as part of a settlement agreement. Qiagen is a company based in Germantown, Maryland. As part of the license, Qiagen made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Sunrise License: Effective January 17, 2011, we granted a license to the Company s non-coding patents to Sunrise Medical Laboratories Inc. as part of a settlement agreement. Sunrise is a company based in Hicksville, New York. As part of the license, Sunrise made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

ViennaLab License: Effective March 25, 2011, we granted a license to the Company s non-coding patents to ViennaLab Diagnostics GmbH as part of a settlement agreement. ViennaLab is a company based in Vienna, Austria. As part of the license, ViennaLab made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Orchid Cellmark License: Effective March 31, 2011, we granted a license to the Company s non-coding patents to Orchid Cellmark Inc. as part of a settlement agreement. Orchid Cellmark is a company based in Princeton, New Jersey. As part of the license, Orchid Cellmark made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Navigenics License: Effective June 29, 2011, we granted a license to the Company s non-coding patents to Navigenics Inc. as part of a settlement agreement. Navigenics is a company based in Foster City, California. As part of the license, Navigenics made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Attomol License: Effective August 15, 2011, we granted a license to the Company s non-coding patents to Attomol GmbH as part of a settlement agreement. Attomol is a company based in Bronkow, Germany. As part of the license, Attomol made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Hologic License: Effective October 18, 2011, we granted a license to the Company s non-coding patents to Hologic Inc. as part of a settlement agreement. Hologic is a company based in Bedford, Massachusetts. As part of the license, Hologic made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

AutoImmun Diagnostika License: Effective November 18, 2011, we granted a license to the Company s non-coding patents to AutoImmun Diagnostika GmbH, a company based in Strassberg, Germany. As part of the license, AutoImmun Diagnostika made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

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Eurofins STA Laboratories License: Effective January 31, 2012, we granted a license to the Company s non-coding patents to Eurofins STA Laboratories Inc., a company based in Longmont, Colorado, as part of a settlement agreement. As part of the license, Eurofins made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Sonic Group License: Effective February 15, 2012, we granted a license to the Company s non-coding patents to seven US-based companies associated with Sonic Healthcare Limited of Sydney, Australia, as part of a settlement agreement. As part of the license, the various companies made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

GeneSeek License: Effective May 4, 2012, we granted a license to the Company s non-coding patents to GeneSeek Inc., a company based in Lincoln, Nebraska, as part of a settlement agreement. As part of the license, GeneSeek made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Conexio Genomics License: Effective August 31, 2012, we granted a license to the Company s non-coding patents to Conexio Genomics Pty. Ltd., a company based in Fremantle, Western Australia. As part of the license, Conexio made an up-front cash payment which, under the terms of the agreement, cannot be disclosed.

Research Licenses

University of Utah License: On April 30, 2003, we granted a research license to the University of Utah, in Salt Lake City, Utah. This is a royalty-free license to permit the University to conduct research in exchange for a nominal fee.

University of Sydney License: In July 2003, we granted a research license to the University of Sydney, in Australia. We subsequently entered into a further agreement (dated September 4, 2003) with the University of Sydney pursuant to which we received the exclusive right to commercialize a new and potentially significant genetic invention made by a professor in the Neurogenetics Research Unit and the University s Faculty of Medicine. This Australian invention is intended to permit an improved understanding of the genetic factors underlying superior athletic and sports performance, based on the presence or absence of the ACTN3 gene. Under the terms of this agreement, we made an upfront payment, agreed to pay a royalty on net sales of the invention by us and a fee on first grant of a patent for the invention or any patent rights in any country and a further payment of part of any consideration of whatever kind received by us under a license of the assigned intellectual property.

King s College License: In December 2003, we granted a license to our non-coding patents to King s College, London, in the United Kingdom. Under the terms of the license, King s College will be able to apply the non-coding patents to its internal research programs. The license is terminable by either party upon any material breach not timely cured, without penalty. King s College is considered a leader in the field of researching the genetic basis of various psychiatric and psychological disorders, including schizophrenia, anxiety / depression and certain attention deficit disorders. Future commercial applications arising from research at King s College would require an additional commercial license from us. In March 2004, we initiated a joint research project in the United Kingdom to explore the functionality of certain non-coding DNA elements, initially with special focus on the genetics of breast cancer susceptibility and the genetics of certain neuro-psychiatric conditions, such as schizophrenia. The project was funded by us for a further period of six months, in an amount of GBP53,000 that was paid in two instalments. In May 2005, we extended the project for the period from June 1, 2005 to December 31, 2005 and agreed to fund the costs

incurred by King s College during that period up to a maximum amount of GBP51,360. In February 2006, the Company agreed to further extend its research agreement with King s College for the period from February 1, 2006 to August 31, 2006 and agreed to fund the costs incurred by King s College during that period up to a maximum amount of GBP63,700. Following the conclusion of this funding round, the project was terminated.

University of Technology License: Effective December 23, 2003, we granted a research license to the University of Technology, Sydney, to permit the University to conduct internal research activities to research, identify, map and develop tests for genetic markers and genes of interest. Either party has the right to terminate the agreement upon the occurrence of a material breach that is not timely cured, without other penalty.

Colorado State University License: Effective May 14, 2004, we granted a research license to the Colorado State University. This is a royalty-free license to permit the University to conduct research in exchange for a nominal fee.

Texas A&M University License: Effective February 7, 2007, we granted a research license to Merlogen LLC, a company associated with Texas A&M University. As part of the license, we received a nominal fee and received rights to use certain technologies in the field of animal genetics.

In addition to the above agreements, we continue to negotiate licensing terms to grant licenses to our non-coding patents to many companies, large and small, and also to government and private institutes, in many countries. Refer above for details of the Company s current assertion program.

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Our Support for Significant Research Projects

During the year ended June 30, 2012, Genetic Technologies supported two major research programs (RareCellect and ImmunAid), details of which have been provided below. In previous years, other projects, which have since been terminated, have also been supported by the Company. Some projects have arisen from new inventions made by the Company while some have been made by others who have approached the Company seeking collaboration and support for their activities.

As of the date of this Annual Report, the Company is still supporting the RareCellect project. However, on April 12, 2012, the Company s former subsidiary, ImmunAid Pty. Ltd., which manages the ImmunAid project, was deconsolidated from the Group following a successful fundraising of $1,000,000 by that company. As a result, the ImmunAid project is no longer managed or supported by the Group. Following the raising of the new equity by ImmunAid Pty. Ltd., the Company s remaining 45.5% interest in that company was revalued to $4,546,951 in the Company s balance sheet as of June 30, 2012 (refer Note 33 of the attached financial statements).

By its very nature, research is unpredictable and involves a considerable element of risk. Such risks may relate to scientific concepts, the implementation of the science, the protection of any inventions made and the success or otherwise in persuading others to respect the intellectual property acquired or created by the Company. Specifically, patents filed may not issue or may later be challenged by others. Even if patents issue, the methods described may, with time, be superseded by alternative methods which may prove to be commercially more attractive. Even if patents issue and the methods developed are successfully reduced to practice and can be shown to be commercially relevant, there is still no assurance that other parties will respect the patents or will take licenses to use the intellectual property. In such circumstances, it is possible that legal action will be necessary to enforce the Company s rights. Such action, in turn, raises a new series of risks including potentially significant legal costs and uncertain outcomes.

To the extent that delays are encountered in concluding the research projects, additional costs may be incurred. Further, the projected revenues from the projects may also be deferred, potentially impacting on the Company s liquidity. In such cases, the Company may seek to partner with outside parties, who will contribute to the costs of research in return for an interest in the project, or the Company may seek to raise additional working capital from the Market. In a worst case scenario, the projects may well be closed down with no valuable intellectual property having been created for the Company.

RareCellect™ Project

In March 2001, the Company began to develop and commercialize patents held by GeneType AG, a subsidiary of Genetic Technologies, relating to the recovery of fetal cells circulating in the peripheral blood of a pregnant woman. These patents, with an earliest priority date of March 27, 1990, have been granted or allowed in most countries where filed, including the United States, United Kingdom, France, Germany, Australia and Japan.

It has long been recognized that a simple, universally applicable, non-invasive means of obtaining fetal genetic material for prenatal diagnostic testing would represent a major advance over existing practices such as the more invasive amniocentesis and chorionic villus sampling (CVS). Both amniocentesis and CVS are invasive and carry a miscarriage rate of between 0.5% and 2% depending on the operator. A safer, non-invasive means of obtaining fetal genetic material could be widely adopted throughout the developed world. As part of the

RareCellectTM project, the Company has designed and tested a proprietary sampling device that can safely and reliably collect fetal material from the cervix, and has combined this with a proprietary processing technology that delivers either fetal cellular and/or genetic material which is suitable for analysis to identify genetic disorders using currently available technologies.

The Company is now actively pursuing out-licensing/co-development partnering options for the RareCellect Project.

Background and unmet need

Genetic disorders account for a significant health burden across the world. In the developed world, it is increasingly common for women to have babies later in life (25% of these births are born to women over 35 years of age), and this can significantly increase the risk of genetic disorders in their offspring.

Current pre-natal testing involves non-invasive screening and invasive diagnostic testing. Screening uses ultrasound of the fetus and maternal serum testing and can be performed from 11 to 13 weeks of pregnancy. Although safe, these tests are not reliable, with a detection rate of between 70% and 95% (between 5% and 30% of abnormalities are not detected), and a false positive rate of 5% (women with healthy babies being subjected to unnecessary invasive testing). Diagnostic testing requires the removal of fetal material using chorionic villus sampling (from 10 to 12 weeks gestation) or amniocentesis (from 15 to 18 weeks gestation). Each of these surgical procedures is invasive and carries a significant risk to both the fetus and the mother. Miscarriage rates, which can be as high as 2%, are dependent on the skill of the operator and the gestation age. As a direct result of the risky nature of these procedures, diagnostic testing tends to be limited to high-risk patients including women over the age of 35, and results may take as long as two weeks to obtain.

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The Company now believes that there is a clear unmet need in prenatal testing for low risk (for both mother and fetus) chromosomal/genetic testing system to safely and accurately sample genetic material from the fetus at as early as six to seven weeks gestation.

The RareCellect solution

The Company has developed a proprietary sampling device using materials and design features which will ensure safe, non-traumatic sampling of the optimal region of the cervix to yield fetal genetic material. Prototypes of the device have been manufactured and tested on over 250 women to sample fetal material during early stages of pregnancy (6 to 12 weeks). The device is protected by a U.S. provisional patent. The Company has also developed processing methods that can deliver fetal cells or DNA in a form that is suitable for testing using any of the currently approved diagnostic methodologies. These processing methods are also covered by provisional patents.

Commercial opportunity

The Company believes that RareCellect offers a unique opportunity to successfully penetrate the $2 billion global prenatal testing market, with the potential for market launch within three to five years. By offering a safe sampling and processing methodology that provides sufficient fetal material for subsequent analysis, it has the potential to displace currently available invasive diagnostic procedures. Amniocentesis and chorionic villus sampling represent an estimated $1 billion market per annum in the U.S. alone. A non-invasive and safe alternative to amniocentesis / CVS could replace and even expand (to lower risk pregnancies) this market.

A comprehensive memorandum detailing technical aspects of the technology and the commercial potential of the project has been compiled, as has a virtual data room containing a full data package on the project. As detailed above, a number of international parties who operate in the RareCellect space have now been identified with a view to partnering the project by way of out-license or co-development arrangement on acceptable commercial terms.

Markets and competition: There are some four million pregnancies per year in the United States alone. It is already the case that some form of antenatal screening is provided for most pregnancies in developed countries. The trend towards increasing numbers of women becoming pregnant later in life is resulting in an increasing risk of chromosomal aberrations in these pregnancies. Given the expense, inconvenience and inaccuracy of current screening strategies, and the risks associated with subsequent invasive diagnostic procedures, it seems probable that a reliable, accurate, non-invasive, and relatively inexpensive diagnostic test would be rapidly adopted and applied in all pregnancies early in the pregnancy which would substantially increase the current markets. This conclusion has, of course, been reached by a number of other parties. There are currently several competing groups actively pursuing different methods for the isolation of fetal DNA from maternal blood.

Government regulation: The provision of clinical testing services and in vitro diagnostic medical devices is subject to extensive regulatory requirements in most developed countries. In the United States, the Centers for Medicare and Medicaid Services (CMS) regulates all laboratory testing (except research) performed on humans in the United States through the Clinical Laboratory Improvement Amendments (CLIA). The Food and Drug Administration (FDA) regulates clinical trials and medical devices. In Australia, the regulation of clinical trials and medical devices is performed by the Therapeutic Goods Administration (TGA). Accreditation of laboratories offering pathology services is granted by the Health Insurance Commission, based on a report of assessment by the National Association of Testing Authorities, Australia (NATA). In addition, in the State of Victoria, where the Company has its headquarters, accreditation may also be obtained from the Pathology Services

Accreditation Board, again subject to favorable assessment by NATA.

Competition

Licensing

Our out-licensing business principally covers two families of non-coding DNA patents. As we are the sole owners of these patents there is, by definition, no direct competition in this activity. However, to some degree, there are alternate technologies in the market place which can be used to perform genetic analysis and genomic mapping and so in this regard we do face indirect competition and a potential risk of technological obsolescence. A risk of patent invalidation always exists with the possibility of the discovery of previously unknown prior art, as well as the risk of patent re-examination. Apart from these risks, the inevitable expiry of our non-coding family of patents in future years remains, at which time our ability to generate future license revenues from these particular patents may be restricted. It is anticipated that, over time however, licensing of additional patents filed by the Company in other areas of genetics and our other research projects may replace revenues currently generated from the licensing of these non-coding patents.

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During the year ended June 30, 2009, we successfully prevailed in legal proceedings with respect to a Nullity Action in the German Patent Court regarding the equivalent to U.S. Patent No. 5,612,179 (the 179 patent). We subsequently responded to questions raised by the U.S. Patents and Trademarks Office (USPTO) in relation to a Request for Re-examination of seven of the thirty six claims contained in 179 patent and, on May 10, 2010, we announced that we had received formal notification from the USPTO that it had upheld, without amendment, all of the claims which formed the basis of the re-examination action of the Company s core non-coding DNA patent.

On July 9, 2012, the Company announced that it had received formal notification from the USPTO that it had received and granted a request for *ex parte* re-examination of claims 1-18 and 26-32 of the 179 patent brought by Merial L.L.C. of Duluth, Georgia (Merial). Requesting re-examination is a common strategy employed by defendants in patent infringement proceedings and, as such, it is not unexpected from Merial who is currently a defendant in the action originally brought by the Company in the U.S. District Court for the District of Colorado for infringement of the 179 patent. The 179 patent is very robust, having successfully been through a re-examination with the USPTO in 2010 which resulted in the re-issuing of the patent in full with all claims upheld, as mentioned above. The Company believes that the claims of the 179 patent will again be upheld in the current re-examination and, as was the case in previous challenges, it will actively defend this matter in order to have the patent upheld.

Genetic testing - paternity

The size of the Australian DNA paternity testing market can only be estimated, as the tests fall outside of the Australian public health (Medicare) regime and hence no central records are kept. Our best estimate is that the total size of the market is about 5,000 to 6,000 tests per year which, if correct, would give the Company approximately a 50 percent total market share. There are presently a number of other laboratories that offer these tests in Australia, all of which are NATA accredited. The Australian market for paternity testing is now saturated and, since the entry of two of the three major pathology companies in the later part of 2003, our ability to generate growing revenues from this market has reduced. At present, our market share has stabilized.

Other competitors in this marketplace include: DNAlabs (a wholly-owned subsidiary of Sydney IVF), Sonic Health Care (a division of Sonic, the second largest pathology provider in Australia), Healthscope - formerly Gribbles (the third largest pathology provider in Australia), Victorian Institute of Forensic Medicine (this is the Coroner s laboratory in Victoria), John Tonge Centre (this is the Coroner s laboratory in Queensland), Medvet Science (owned by the South Australian State Government), DNA Solutions (which sells its services over the internet) and DNA-Bioscience.

Genetic testing - diagnostics

As the sole licensee in Australia and New Zealand for the genetic test for the predisposition for familial breast cancer, we do not have any commercial competitors in this area but Healthscope also supply genetic tests to the healthcare market. In the public arena, tests are provided by the pathology departments of certain public hospitals. They are not true competitors in that the numbers of such tests that can be performed is restricted due to limited Government funding, but they do constitute the majority of tests conducted in this field. State Health Departments fund tests for the public sector based on various criteria and skewed to the most at risk profiles.

Genetic testing - forensics

Forensic DNA testing is defined to include DNA tests, the results of which can be relied upon as evidence in a court of law. To meet the strict standards of court evidence, forensic testing can only be conducted through NATA accredited laboratories that have been approved for such work. We were the first non-government owned, NATA accredited forensics laboratory in Australia. At the moment, virtually all forensic testing is conducted through state government owned laboratories. In some cases, these laboratories have backlogs and do not generally undertake private DNA forensic tests. As such, we are one of a few accredited laboratory currently providing forensic testing services to the public and private markets. To resolve the backlog problem, various state governments have already suggested that they plan to investigate the possibility of outsourcing the testing of forensic samples to the private sector. In January 2008, the Company announced that it had been awarded a three year contract to supply New South Wales Police with DNA analysis services, a contract that has since been extended until January 2013.

Genetic testing - animals

GTG offers a DNA testing service across a number of animal species, particularly with respect to establishing an animal s pedigree and parentage. This test is common across animal species and is not proprietary. Accordingly, any laboratory that can provide a DNA parentage / pedigree test is able to enter this market. GTG has also developed a large portfolio of genetic tests for the canine area. These tests are also sold by the Company in various parts of Asia including Japan and China.

Some major pathology companies in Australia have already established vet pathology businesses and almost all have expertise in human DNA profiling and at least one such company has commenced offering canine genetic tests. Currently, the major canine pathology company in Australia has a relationship with GTG whereby it sends all of its canine genetic testing to GTG.

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Research

Whilst a number of companies around the world are active in the area of prenatal testing, there are currently no commercially available products that compete directly with the RareCellectTM cervical sampling technology.

Environmental Regulations

The Company s operations are subject to environmental regulations under Australian State legislation. In particular, the Company is subject to the requirements of the *Environment Protection Act 1993*. A license has been obtained under this Act to produce listed waste.

Item 4.C Corporate Structure

The diagram below shows the corporate structure of the Genetic Technologies group as of the date of this Annual Report:

Genetic Technologies is the holding company of the Group and is listed on the Australian Securities Exchange, under the code GTG and, via its ADRs, on the NASDAQ Capital Market, under the ticker symbol GENE.

Item 4.D Property, Plant and Equipment

As of the date of this Report, the Company has executed two leases in respect of premises occupied by the Group.

Fitzroy, Victoria

Genetic Technologies Limited rents the offices and laboratory premises which are located at 60-66 Hanover Street, Fitzroy, Victoria, Australia (an inner suburb of Melbourne) from Crude Pty. Ltd. The lease is due to expire on August 31, 2015. The anticipated total rental charge in respect of the year ending June 30, 2013 is approximately $337,300. Genetic Technologies Limited does not have an option to purchase the leased premises at the expiry of the lease period.

Charlotte, North Carolina

Phenogen Sciences Inc., a wholly-owned subsidiary of Genetic Technologies Limited, rents office premises which are located at 9115 Harris Corners Parkway, Suite 320, Charlotte, North Carolina, USA from New Boston Harris Corners LLC. The lease is due to expire on October 31, 2013. The anticipated total rental charge in respect of the year ending June 30, 2013 is approximately USD 32,500. Phenogen Sciences Inc. does not have an option to purchase the leased premises at the expiry of the lease period.

Item 5. Operating and Financial Review and Prospects

You should read the following discussion and analysis in conjunction with Item 3.A Selected Financial Data and our financial statements, the notes to the financial statements and other financial information appearing elsewhere in this Annual Report. In addition to historical information, the following discussion and other parts of this Annual Report contain forward-looking statements that reflect our plans, estimates, intentions, expectations and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. See the Risk Factors section of Item 3 and other forward-looking statements in this Annual Report for a discussion of some, but not all, factors that could cause or contribute to such differences.

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Item 5.A Operating Results

Overview

Our Formation

GeneType AG was incorporated in Zug, Switzerland on February 13, 1989 to exploit the commercialization of the hypothesis that the non-coding region of the human HLA gene complex of chromosome 6 is a valuable and highly ordered reservoir of useful genetic information, largely overlooked by the rest of the world at that time.

Genetic Technologies Limited was incorporated on January 5, 1987 as Concord Mining NL in Western Australia. On August 13, 1991, we changed our name to Consolidated Victorian Gold Mines NL to better reflect the operations of the Company at the time. On December 2, 1991, we again changed our name to Consolidated Victorian Mines NL. On March 5, 1995, we again changed our name to Duketon Goldfields NL. On October 15, 1995, we changed our status from a No Liability company to a company limited by shares and the name became Duketon Goldfields Limited. On August 29, 2000, we changed our name to Genetic Technologies Limited, which is the current name of the Company.

On August 29, 2000, Duketon Goldfields Limited received shareholder approval to change its activities from a mining company to a biotechnology and genetics company on the acquisition of all the issued capital of GeneType AG of Switzerland. Following the acquisition of GeneType AG, the new combination has been engaged in the researching, developing and commercialization of genetic concepts primarily related to our intron sequence patents and genomic mapping patents. We are also the largest accredited paternity testing laboratory in Australia which GeneType has been operating since 1990. Over the past seven years, the Company has granted licenses to its patents and expects to derive revenue from further licensing of its patents. Prior to the merger with GeneType AG, the mining exploration activities had ceased and were being progressively disposed of by August 2000. The Company was basically an investment shell and following the completion of the merger the old shareholders of GeneType AG were in control of the company which formed the basis for treating the acquisition of GeneType AG as a reverse acquisition.

Formerly a Development Stage Enterprise

Until 2002, we were a development stage enterprise. We had been developing our technology that resulted in the granting of seven families of patents in the U.S.A. which we have now actively started to commercialize and enforce. Since inception up to June 30, 2012, we have incurred $72,751,549 in accumulated losses. Our losses have resulted principally from costs incurred in research and development, general and administrative and sales and marketing costs associated with our operations. Refer to the Consolidated Statements of Operations in Item 18.

The research and development costs incurred prior to August 2000 were funded by the shareholders of GeneType AG. On completion of the merger of Duketon Goldfields Limited and GeneType AG in August 2000, to form Genetic Technologies Limited, existing funds of approximately $6 million within Genetic Technologies Limited were applied towards the Group s research and development and general and administrative expenses. The Company has since completed several placements of shares, including one in August 2003 and one in July 2011,

and there have been other amounts raised from the exercise of unlisted options, principally in April 2005. We have primarily depended on these sources of funds to meet our financing needs. However, we now license our non-coding technology and provide a series of genetic tests, both of which generate revenue to fund our expenses.

In 2011, we generated our first net profit after tax. However, the extent to which we continue to generate profits will, amongst other things, depend on the quantum of license fees received from the licensing of our patents, the amount of annuities and royalties we receive from past licenses, the success we have with respect to the commercialization of our research projects, the rate at which our new genetic tests are taken up by our customers, and in particular the BREVAGenTM test in the U.S. market, and generally the number of genetic tests we conduct.

Where we derive our revenues

Our major source of revenues up to June 30, 2002 were grants received from the Australian Government under the START Program licensing, fees from licensing the non-coding patents, DNA paternity testing services income in Australia and interest income from our cash on deposit and other cash equivalents. Since 2002, our revenues have been derived principally from the sale of genetic tests and the granting of licenses to our non-coding technology. During that period, our licensing program has been successful in securing licenses from a total of 59 commercial licensees and 6 research licensees (see Item 4.A for a complete list). In June 2011, we launched the BREVAGenTM breast cancer risk assessment test in the U.S. marketplace and, as we expand the local sales force into new and larger territories such as California and Florida during the 2013 financial year, we anticipate that the revenues from the sale of this test will increase.

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Fiscal year

As an Australian company, our fiscal, or financial, year ends on June 30 each year. We produce audited consolidated accounts at the end of June each year and provide reviewed half-yearly accounts for the periods ending on December 31 each year, both of which are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board.

Recent Accounting Pronouncements

In respect of the year ended June 30, 2012, the Group has assessed all new accounting standards mandatory for adoption during the current year, noting no new standards which would have a material affect on the disclosure in these financial statements. There has been no affect on the profit and loss or the financial position of the Group. Certain new accounting standards and interpretations have been published that are not mandatory for June 30, 2012 reporting periods. The Group s and the parent entity s assessment of the impact of these new standards and interpretations is set out in Note 2(b) of the attached financial statements.

Critical Accounting Policies

The accounting policies which are applicable to the Group and the parent entity are set out in Notes 2(c) to 2(ae) of the attached financial statements.

Comparison of the year ended June 30, 2012 to the year ended June 30, 2011

Revenues from operations

Our revenues from continuing operations (which include fees from the sale of genetic testing services) decreased by 20%, or $903,745, as compared to the 2011 financial year. More than 80% of this decline ($729,658) was attributable to a sharp fall in the number of forensics samples received as part of changes with our contract with the New South Wales Police Force. Declines in revenues from breast cancer risk testing ($124,440), together with other paternity testing ($72,993), also contributed to the decrease, both of which were due to increased price competition from our competitors. Revenues received from canine disease testing grew by $30,551 as compared to the 2011 financial year. The launch of the Company s new BREVAGenTM breast cancer risk assessment test in July 2011 contributed $42,292 to total genetic testing revenues. Looking forward, we anticipate growth in the number of these new breast cancer risk tests being sold in the U.S. marketplace as we expand the local sales force into new and larger territories such as California and Florida during the 2013 financial year. During the 2012 financial year, revenues from continuing operations principally formed part of the Australian geographic segment.

Cost of sales

Our cost of sales from continuing operations (which include direct costs incurred in performing our genetic testing services) decreased by 4%, or $86,291, from the 2011 financial year. While there was an expected decrease in the forensics cost of sales of $249,004 due to the reduction in the number of tests performed, there was an offsetting increase in the negative labour variance of $240,000. While there was an overall increase in the cost of sales relating to reagents and labour, there was an offsetting decrease due to a significant reduction in stock write-offs during the 2012 financial year.

Gain on deconsolidation of subsidiary

In April 2012, the Company announced that its former subsidiary, ImmunAid Pty. Ltd. (ImmunAid), had successfully raised $1,000,000 in a private placement from U.S., European and Australian sophisticated investors. As a result of this issue, the equity interest in ImmunAid held by the Company fell below 50% and, due to the resulting loss of control, ImmunAid was deconsolidated from the Genetic Technologies Group on that date. After allowing for certain capital restructuring and the payment of capital raising expenses, the pricing of this financing round, which was participated in by independent, arm s-length parties, placed a value on GTG s stake in ImmunAid of in excess of $4.5 million. In turn, this transaction created a one-off gain on deconsolidation of $5,113,175.

Other revenue

Other revenue includes the total revenues generated from our licensing activities. For the 2012 financial year, the Company s licensing revenues were $2,526,599 which represented a decrease of 82% as compared to the result from the previous year of $13,680,741. During the 2012 financial year, we executed Settlement and License Agreements with six parties: Attomol GmbH, Hologic Inc., AutoImmun Diagnostika GmbH, Eurofins STA Laboratories Inc., companies associated with Sonic Healthcare Limited and GeneSeek Inc., under which those companies have been granted non-exclusive rights to a number of GTG patents, including non-coding analysis and gene mapping. As with the 2011 financial year, we continued to receive income from the Applera settlement. Revenues received during 2012 from that settlement, which totaled $185,339, came in the form of equipment and reagent credits and represented a decrease of $341,030 over the previous year. Included in the total licensing revenues is royalty and annuity income of $1,774,541, which increased by $408,860 during the 2012 year. Licensing revenues form part of the Australian geographic segment.

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The 2012 financial year presented some challenges for the Company s licensing program, including an *ex parte* re-examination proceeding for the `179 patent (the patent s second re-examination), certain changes to U.S. legislation and developments in U.S. case law, all of which have contributed to delays in reaching settlements with infringing parties. The re-examination request is a common strategy employed by defendants in patent infringement proceedings and the Company is confident that, as in first re-examination, the `179 patent will again be re-issued in full with all claims upheld. Genetic Technologies will actively defend the re-examination and will continue to vigorously pursue U.S. entities which use the Company s proprietary non-coding DNA technology. As a result, the Company expects to regain momentum in its U.S. assertion program during the 2013 financial year.

Outside the United States, the Company has taken active steps to expand the reach of the success fee based assertion arrangement with its Colorado-based lawyers, Sheridan Ross P.C. Originally limited to actions brought only in the U.S., and limited in scope to cover only the Company s 5,612,179, 5,851,762, 5,192,659 and 5,789,568 U.S. patents, the expanded assertion arrangement now covers all of GTG s non-coding patents in all jurisdictions. Sheridan Ross is now able to assist Genetic Technologies with asserting its non-coding patents globally, effectively acting as lead counsel to GTG in these international efforts. Europe in particular is a jurisdiction where the Company has secured substantial licensing revenues in the past, but there remain numerous large infringers who have not as yet taken licenses. These efforts may include litigation, and the Company expects the global assertion program to begin to regularize the activities of selected European targets in the 2013 financial year.

Selling and marketing expenses

Selling and marketing expenses increased by $1,365,237 (45%) to $4,384,184 during the 2012 financial year. Considerable expenses ($3,048,099) were incurred this financial year as part of the establishment and expansion of the Company s U.S. subsidiary Phenogen Sciences Inc., as compared with $1,457,300 incurred during the preceding financial year. While this was an increase of $1,590,799 over the previous financial year, there were offsetting reductions in Australia due to personnel reductions and falls in other salary related costs of $152,221.

General and administrative expenses

General and administrative expenses increased by $1,911,873 (52%) to $5,608,038 during the financial year. A significant one-off share based payment expense of $1,759,980 associated with transactions concerning shares in ImmunAid Pty. Ltd. (refer Note 30 of the attached financial statements for details), together with modest salary increases, accounted for the majority of this increase. These increases were offset by a reduction in legal fees during the 2012 financial year of $182,402.

Licensing, patent and legal costs

Licensing, patent and legal costs decreased significantly by $2,829,485 (69%) to $1,267,838 during the 2012 financial year. This reduction was attributable to the reduction in the value of new licenses granted during the financial year which resulted in material reduction in the quantum of commissions payable of $2,565,969, together with a reduction in associated legal fees of $278,715.

Laboratory, research and development costs

Laboratory, research and development costs decreased by $351,497 (8%) to $4,029,369 during the 2012 financial year. Occupancy costs decreased by $135,774 due to the closure of sales offices previously occupied by the Company s reproductive services business, which were closed following a decision by the Company to strategically realign its overall testing business and to focus on the provision of animal genetic tests, rather than the services that were acquired as part of the acquisition of the Frozen Puppies Dot Com business during the 2009 financial year. In the 2011financial year, impairment charges relating to the plant and equipment ($115,413) and inventories ($6,232) used in the Frozen Puppies business were incurred that were not incurred during the 2012 financial year. In addition, the prior financial year figure included $377,648 of plant and equipment which was acquired from Applera that was impaired following a decision to exchange surplus laboratory equipment with an Australian-based subsidiary of that company. During the 2012 financial year, the Company recognized an impairment charge in respect of certain intangible assets of $104,338. This expense was offset by a reduction in depreciation expense of $115,774 as more equipment became fully written down.

Finance costs

Finance costs decreased by $36,717 (45%) during the 2012 the financial year due to a reduction in the liabilities associated with plant and equipment that had been financed under hire purchase agreements.

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Other income and expenses

Other income and expenses included the following movements:

- Interest income increased by $409,784 (205%) during the financial year due to the increase in cash and cash equivalents held by the Company which themselves had increased significantly during the year due to the issue of 60,000,000 ordinary shares in the Company that raised a total of $11,700,000, before the payment of $805,463 in associated costs.

- Foreign exchange gains incurred during financial year of $141,364 compared with foreign exchange losses in the prior year of $68,057. This represented a net increase in overall exchange gains of $209,421, or 308%, which was partly attributable to the fact that roughly half of the cash received from the above issue of shares in the Company was received in U.S. dollars and converted to Australian dollars shortly after being received at a favorable AUD to USD exchange rate. Most of the Company s total foreign exchange gains for the year arose from this single conversion.

- The profit arising from the disposal of fixed assets of $31,455 during the 2012 financial year compared to a loss of $217,737 in the prior year. The gain on sale this financial year arose from the sale of an item of plant and equipment that had previously been fully written down. The loss in the prior financial year comprised items of equipment acquired under the Supply Agreement with Applera ($373,677), offset by write-backs of charges associated with items of equipment used in the Company s reproductive services business ($105,413).

Net profit from discontinued operations

During the 2010 financial year, the Company s reproductive services business was terminated following a decision to realign the business and to focus on the provision of animal genetic tests, rather than the services that were acquired as part of the acquisition of the Frozen Puppies business in 2008. Due to this decision, the net profit was $21,562 for this area of the business during the prior financial year. As the business had previously been terminated, there was no similar amount incurred during the 2012 financial year.

Comparison of the year ended June 30, 2011 to the year ended June 30, 2010

Revenues from operations

Our revenues from operations (which include fees from the sale of genetic testing services) decreased by 7%, or $320,568, as compared to the 2010 financial year. The business of reproductive services, which formed the basis of the business owned by Frozen Puppies Dot Com Pty. Ltd., was discontinued during this period. Its results have therefore been excluded from this comparison as the amounts were reported under the heading of discontinued operations . Breast cancer testing (up $95,677), together with other medical testing (up $51,730) contributed to the

decrease. Our recently-introduced METS test contributed $27,000 to this area of revenue growth. Looking forward, we envisage encouraging growth in the volume of tests conducted in future following the scheduled launch of the Company s new BREVAGenTM breast cancer risk test in the U.S. during the 2012 financial year. The income we earned from paternity testing fell by $208,737 from the 2010 financial year due to greater competition. Canine disease testing also fell by $85,094 as revenues from the 2010 financial year included amounts received form a substantial Chinese contract which ceased during that year. Forensic testing also fell during the financial year by $154,912 due to changes with our contract with the New South Wales Police Force. Revenues from operations principally form part of the Australian geographic segment.

Cost of sales

Our cost of sales from operations (which include costs of genetic testing services) decreased by 25%, or $688,059, from the 2010 financial year. As stated above, the business of reproductive services, which formed the basis of the business owned by Frozen Puppies Dot Com Pty. Ltd., was discontinued during this period. It was therefore excluded from this comparison as the amounts were reported under the heading of discontinued operations . $198,144 of the decrease in cost of sales was attributable to the reduction in depreciation expenses due to major assets which are now fully depreciated. $271,694 of the overall decrease was due to a reduction of direct labor allocated to the cost of sales caused by a reallocation of staff between different business segments.

Other revenue

Other revenue includes the total revenues generated from our licensing activities. For the 2011 financial year, the licensing revenues were $13,680,741 which represented an increase of 266% on the result from the previous year of $3,739,747. Following the filing by the Company of a patent infringement suit in the U.S. against nine separate parties in February 2010, there have been two other filings made during the current financial year, one involving six parties that was filed in January 2011 in the U.S. District Court for the Western District of Texas, whilst the other, involving ten parties, was filed in May 2011 in the U.S. District Court for the District of Colorado.

The number of new licenses granted during the financial year increased significantly. New licenses were granted as part of settlement and license agreements with companies including to Monsanto, Beckman Coulter and Clinical Data, Interleukin, Innogenetics, Pioneer, Qiagen, Sunrise, Orchid Cellmark, Vienna Lab and Navigenics. Subsequent to year end, two further licenses have been granted by the Company (refer Item 4.B for further details).

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As with the 2010 financial year, we continued to receive income from the Applera settlement. Revenues received during 2011, which totaled $526,369, came in the form of equipment and reagent credits and represented a decrease of $85,052 over the previous year. Included in the total licensing revenues is royalty and annuity income of $1,365,681, which decreased by $315,763 during the 2011 year. Licensing revenues form part of the Australian geographic segment.

Selling and marketing expenses

Selling and marketing expenses increased by $338,968 (13%) to $3,018,947 during the financial year. While considerable expenses were incurred in the establishment of the Company s U.S. subsidiary Phenogen Sciences Inc. ($1,457,300) there were offsetting reductions due to the discontinuation of the reproductive services area of the business ($815,033) in Australia, a reduction in expenses in our Beijing office ($87,445) and a reduction of expenses from our New Zealand branch ($58,662). Adverting of our paternity area of the business (which fell by $60,834) and consulting fees (which fell by $90,670) were other areas in where a reduction occurred.

General and administrative expenses

General and administrative expenses increased by $499,677 (16%) to $3,696,165 during the financial year. $331,437 of this increase was due to a significant increase in consultancy fees.

Licensing, patent and legal costs

Licensing, patent and legal costs increased by $174,221 (4%) to $4,097,323 during the financial year. While the overall movement was small, commissions payable in respect of new licenses were $2,554,273 more than previous financial year. This increase was in line with the substantial increase in gross fees generated from the granting of additional new licenses during the year. This increase was offset by a significant reduction in the amortization expenses of $2,743,427 due to the Company s non-coding patent families becoming fully amortized during the 2010 financial year.

Laboratory, research and development costs

Laboratory, research and development costs decreased by $1,878,005 (30%) to $4,380,866 during the 2011 financial year. During the 2010 financial year, the Company recognized an impairment loss on goodwill of $1,264,603. The impairment charge, which related to the Company s reproductive services business, arose following a decision by the Company to strategically realign the business and to focus on the provision of animal genetic tests, rather than the services that were acquired as part of the acquisition of the Frozen Puppies Dot Com business during the 2009 financial year. Plant and equipment ($115,413) and inventories ($6,232) were also impaired due to the decision to exit this business. In addition, $377,648 of plant and equipment which was acquired from Applera was impaired following a decision to exchange surplus laboratory equipment with an Australian-based subsidiary of that company.

Finance costs

Finance costs decreased by $18,488 (18%) over the financial year due to the reduction in assets financed under hire purchase.

Non-operating income and expenses

Non-operating income and expenses included the following movements:

- Interest income decreased by $11,408 (5%) during the financial year due to the decrease in cash balances held by the Company.

- Foreign exchange losses incurred during financial year of $68,057 compared with foreign exchange gain in prior year of $10,517. This represented a net increase in loss of ($78,574) or 747% and was due to the movement in exchange rates, particularly the fall in U.S. dollar against the Australian dollar.

- The loss on fixed assets of $217,737 in financial year compared to $6,904 in prior year. The loss in the current financial year comprised of items of equipment acquired under the Supply Agreement with Applera Corporation ($373,677), offset by write-backs of items of equipment associated with the Company s reproductive services business ($105,413).

- In the prior year, there was a gain on the disposal of investments of $210,195. There was no similar amount in the current financial year.

Net profit from discontinued operations

During the 2010 financial year, the Company s reproductive services business was terminated following a decision to realign the business and to focus on the provision of animal genetic tests, rather than the services that were acquired as part of the acquisition of the Frozen Puppies business in 2008. Due to this decision the net profit was only $21,562 for this area of the business during the financial year compared to a net profit of $446,114 in the prior period when the segment was fully operational.

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Item 5.B Liquidity and Capital Resources

Summary

Our overall cash position depends on numerous factors, including the success of licensing our non-coding patents, the numbers of genetic tests processed by our laboratory, completion of our product research and development activities, ability to commercialize our products, market acceptance of our products and services and how we choose to commercially exploit our technology. We expect to devote additional capital resources to the expansion of our licensing program on a worldwide basis, deploy further resources to expand our U.S. operations and the marketing of our BREVAGenTM test, continue our research and development programs with a view to commercializing our technology in our target markets, hire and train additional staff, and to generally expand our global business operations. Each of these activities will inevitably involve the outflow of cash reserves.

During the year ended June 30, 2012, we incurred comprehensive losses of $5,303,942. During the year ended June 30, 2011, we generated a comprehensive profit of $804,677. During the year ended June 30, 2010, we incurred comprehensive losses of $9,530,428. We anticipate incurring additional costs during the next twelve months as we further expand the Company s BREVAGenTM breast cancer risk assessment test in the U.S. market and elsewhere and generally broaden the range of products we offer and increase the number of the markets in which they are sold, and commercialize our last remaining research and development project. The extent to which we will generate profits in future years will depend largely on the success of the licensing of our non-coding technologies and the expansion of our genetic testing business in the various global markets in which we operate now and in the future.

Since inception, our operations have been financed primarily from capital contributions by our stockholders, proceeds from our licensing activities and revenues from operations, grants, and interest earned on the Company s cash and cash equivalents.

During the year ended June 30, 2012, the Company s net cash flows used in continuing operations were $7,674,174. During the year ended June 30, 2011, the Company generated net cash flows from continuing operations of $2,217,725, whilst during the year ended June 30, 2010, the Company s net cash flows used in continuing operations were $4,710,189. The Company s cash and cash equivalents were $8.9 million as of June 30, 2012. As disclosed in Note 2(a) of the attached financial statements, the Directors have undertaken an assessment of the Company s ability to pay its debts as and when they fall due. As part of this assessment, the Directors have had regard to the Company s cash flow forecasts for the twelve month period from the date of the attached Financial Report and the cash balance on hand as at that date. The Directors recognize that there is uncertainty in the consolidated entity s cash flow forecasts as they relate to the timing and quantum of licensing income received. However, the Directors believe that the consolidated entity will be able to maintain sufficient cash reserves beyond the twelve month period from the date of this Annual Report through a range of available options as disclosed in the above Note. Further, as the Company s operations continue to expand, we anticipate that the revenues generated should assist the Company to once again achieve a cash positive result from operations.

Our net cash from / (used in) operating activities was $(7,674,174), $2,233,279 and $(4,302,880) for the years ended June 30, 2012, 2011 and 2010, respectively. Cash from / (used in) operating activities for each period consisted primarily of losses incurred in operations reduced by depreciation and amortization expenses, share based payments expenses, foreign exchange movements and unrealized profits and losses relating to investments. In approximate order of magnitude, cash outflows typically consist of staff-related costs, selling and marketing expenses, service testing expenses, general and administrative expenses, legal/patent fees and research and development costs.

Our net cash from / (used in) investing activities was $492,177, $5,030 and $(1,039,483) for the years ended June 30, 2012, 2011 and 2010, respectively. Typically, cash used in investing activities related to the acquisition of laboratory equipment. In addition, the agreement reached with Applera Corporation in December 2005 has provided us with significant credits for laboratory equipment and reagents produced by that company. As of June 30, 2012, the balance of credits due under the various agreements with Applera Corporation was $1,615,860.

Our net cash from / (used in) financing activities was $10,851,070, $(314,762) and $786,243 for the years ended June 30, 2012, 2011 and 2010, respectively. In respect of the year ended June 30, 2012, the Company generated net cash flows of $10,902,037 from the issue of 60,000,000 ordinary shares. In all three years, outflows from financing activities included the repayment of hire purchase principal in respect of various items of laboratory equipment.

Apart from the purchase of plant and equipment of $76,314 in 2012, $139,678 in 2011 and $144,796 in 2010, we had no material capital expenditures for the years ended June 30, 2012, 2011 and 2010, other than the costs associated with the purchase of assets from Perlegen Sciences, Inc. in 2010.

On January 14, 2005, the Company executed a Master Asset Finance Agreement with National Australia Bank Limited in respect of a $2.5 million asset hire purchase facility (the Facility). As of June 30, 2012, the Company had an outstanding liability in respect of the acquisition of laboratory equipment and associated maintenance contracts under the Facility amounting to $17,748. The use of this Facility enables the Company to better match the cost of the equipment with the future revenues to be generated from it in a cost-effective manner and minimizes the outflow of valuable cash.

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Future cash requirements

We expect that operating expenses and, to a lesser extent, capital expenditures will be a material use of our cash resources in future. As of June 30, 2012, we had cash and cash equivalents totaling approximately $8.9 million. As disclosed above, the Directors have undertaken an assessment of the Company s ability to pay its debts as and when they fall due. As part of this assessment, the Directors have had regard to the Company s cash flow forecasts for the twelve month period from the date of the attached Financial Report and the cash balance on hand as at that date. The Directors recognize that there is uncertainty in the consolidated entity s cash flow forecasts as they relate to the timing and quantum of licensing income received. However, the Directors believe that the consolidated entity will be able to maintain sufficient cash reserves beyond the twelve month period from the date of this Annual Report through a range of available options as disclosed in Note 2(a) of the attached financial statements. We do not have any lines of credit apart from the equipment finance facility with National Australia Bank Limited (NAB) and nominal credit card facilities with NAB and Bank of America, N.A. which, as of June 30, 2012, had total available credit of $183,347. We anticipate generating additional cash in future years from our licensing activities and the continued expansion of our operational businesses.

Operating leases

We are obligated under two operating leases for periods expiring through August 31, 2015. These leases relate to the premises occupied by the Company in Fitzroy, Victoria, Australia and by its U.S. subsidiary, Phenogen Sciences Inc., in Charlotte, North Carolina, U.S.A. The following table summarises the future minimum lease payments in respect of the two operating leases that had remaining non-cancellable lease terms in excess of one year as of June 30, 2012:

Year ending June 30,		
2013	$	370,837
2014		362,809
2015		365,901
2016		61,377
Total minimum lease payments	$	1,160,924

Rent expense and associated body corporate expenses totaling $84,583 and $579,806 for the years ended June 30, 2011 and 2010, respectively, were paid to Bankberg Pty. Ltd., a company associated with former Director and major shareholder, Dr. Mervyn Jacobson, in respect of the Company s office and laboratory expenses in Fitzroy, Victoria, Australia.

The following is a schedule of future minimum hire purchase payments for equipment finance that had remaining non-cancelable lease terms in excess of one year as of June 30, 2012:

Minimum hire purchase payments		
[redacted]		
Total minimum hire purchase payments	$	17,981
[redacted]		
Aggregate hire purchase expenditure contracted for as at reporting date	$	17,748
[redacted]		

Current liability	$	17,748
[redacted]		
Total expenditure commitments	$	17,748

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