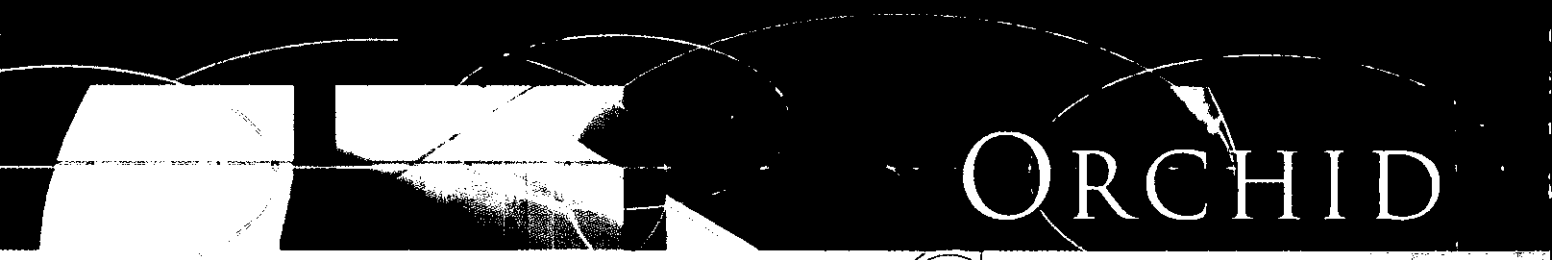
2007
ANNUAL
REPORT

CORPORATE PROFILE

Orchid Cellmark is a leading provider of human identity DNA testing services primarily for forensic and family relationship applications. Orchid Cellmark is one of the largest providers of forensic DNA testing services and its DNA laboratory results are used by the police and the criminal justice system to assist with the identification of perpetrators and the exclusion of suspects, as well as for the exoneration of individuals who may have been wrongfully convicted. Orchid Cellmark provides DNA family relationship testing to public and private child services organizations and to individuals seeking to verify parentage. The Company also serves immigration and security authorities for DNA testing as an important tool for verifying the identification of individuals seeking entry to, or residence in, our geographic markets. Orchid Cellmark's strong market positions in these segments reflect the reputation for quality and customer service that the Company's accredited laboratories have built in its two decades of operations.



ORCHID
CELLMARK

TO OUR STOCKHOLDERS

2007 was a year of progress on many fronts as we continued the turnaround of Orchid Cellmark that began in 2006. We continue to focus on excellence in execution in terms of improving operational efficiencies, implementing cost reductions and pursuing business with profit potential. We capitalized on our operational advances and strong cash position and acquired ReliaGene Technologies in October 2007. We also demonstrated that we can successfully pursue new U.K. forensics business on a direct basis through our recent success in being awarded a significant portion of the DNA-related work in the North West/South West and Wales regional tender. Looking at 2007 relative to 2006, we feel we did well both strategically and financially. Our 2007 operating loss decreased by approximately two-thirds and the purchase of ReliaGene is consistent with our plan to grow the Company through acquisitions as well as organically. In 2008, we will continue with our logical and disciplined approach to capitalize on growing market opportunities in a market that is in a state of transition.

In 2007, total revenues were $60.3 million compared to $56.9 million for the full year of 2006. Revenues for the full year of 2007 increased due to increases in U.S. and U.K. forensic revenues and the impact of the ReliaGene acquisition. These increases were partially offset by decreases in our non-core U.K. agricultural business, and to a lesser degree, our government and private paternity business in the U.S. The decrease in U.K. agricultural business was largely a result of lower volume resulting from the policy change to test only male sheep under the U.K. government's National Scrapie Plan. Gross margin for the full year of 2007 was 33% compared to a gross margin for the full year of 2006 of 30%. The increase in gross margin for the full year of 2007 compared to 2006 primarily reflects improved pricing in U.S. forensic casework and CODIS testing services and operating cost efficiencies, partially offset by reduced gross margin contribution associated with the reduced U.K. agricultural testing services. Total operating expenses, excluding cost of service revenue, decreased from $29.2 million in 2006 to $24.2 million in 2007. These declines were primarily due to a decline in U.S. general and administrative, marketing and sales, and restructuring expenses resulting from our continued focus on reducing expenses. The Company's operating loss for the full year of 2007 was $4.1 million compared to $12.0 million in 2006. The $7.9 million decrease in the operating loss for the full year of 2007 compared to 2006 primarily reflects stronger gross margins for the full year of 2007 coupled with lower operating expenses. Orchid Cellmark reported a net loss for the full year of 2007 of $3.0 million, or $(0.10) per share, compared to a net loss of $11.3 million in 2006, or $(0.45) per share. At December 31, 2007, cash and cash equivalents were $20.9 million and restricted cash was $958 thousand.

A major accomplishment this year was the acquisition of ReliaGene, a provider of forensic and paternity DNA testing services based in New Orleans, Louisiana. The net aggregate purchase price was $5.4 million in cash and 560,539 shares of Orchid Cellmark common stock, which was less than a 2% dilution. We are in the process of integrating ReliaGene and its key people into our existing U.S. facilities and expect this integration to be completed ahead of schedule, in July 2008. We believe that this acquisition will add volume to our business because there is little customer overlap between the two businesses, in addition to providing attractive opportunities for synergies and strengthening our organization through the addition of quality technical personnel.

In the U.S., we continue to implement operational efficiencies through concentrating on decreasing operating expenses and right-sizing our facilities. Our East Lansing, Michigan facility continues to be a model of efficiency. Capacity in our Dallas, Texas forensics facility has been trimmed to be consistent with gross margin objectives and to capitalize on efficiency gains. This facility has improved its turnaround time from months to a few weeks. Efficiency standards in our Nashville, Tennessee forensics operations have improved significantly in 2007. In our Dayton, Ohio paternity facility, gross margins have improved quarter to quarter throughout 2007. All of these accomplishments are a direct result of the commitment, hard work and dedication to excellence of our employees.

In the U.K., we continue to focus on providing our services directly to police forces and we have been successful in winning competitive bids on several forensic contracts to provide such direct services to additional police forces throughout the U.K. After a lengthy competitive bidding process in 2007, in February 2008, our U.K. facility was awarded a significant portion of the North West/South West and Wales regional tender in the U.K. Under the terms of the award, we will provide testing services for database crime scene samples, forensic casework and PACE samples for several police forces that

tendered their work. Work under this award is expected to commence in the second quarter of 2008 after completion of contracts with each of the police forces. In addition, we expect the remaining 29 police forces in the U.K. to tender their work through the U.K.'s National Procurement Plan, a centralized bidding process to be implemented this year. We are currently planning our strategy for submitting bids through this plan and expect the police forces to tender their work in the 18-month period following implementation of the plan. We believe that the National Procurement Plan is yet another opportunity for us to gain significant new business.

Overall, the U.S. DNA identity testing market is in a state of transition with pricing pressures on both the government paternity and forensics businesses and we are fostering the consolidation of the markets that we serve. We expect that this pricing pressure will continue. We are also seeing the growing expansion and utilization of forensic DNA testing in the U.S. We believe more and more states will approve all arrestee legislation, which we anticipate will stimulate the long-term growth that we are striving to achieve. We further believe that federal and state legislation will drive broader use of forensic DNA testing as the vast majority of DNA evidence in the U.S. remains untested. We should be well positioned to capitalize on these significant opportunities.

Likewise, the forensics market in the U.K. is in a state of transition as an increasing amount of work is awarded through the tendering process. We believe we are well positioned to capitalize on this transition, as evidenced by our success with the recent regional tender. We expect our agriculture revenue in the U.K. to continue to decrease due to lower volume resulting from the policy change to test only male sheep under the U.K. government's National Scrapie Plan.

All in all, I believe we are making good progress on many fronts, but the very nature of our business is such that it is sometimes quite variable and it is clearly in a state of transition. We have developed a logical and disciplined approach to capitalize on growing market opportunities. In 2007, we maintained a good cash position and demonstrated that we can compete well in the U.K. on a direct basis with other U.K. forensics companies that are much larger than us as seen by the award to Orchid Cellmark of a significant portion of the DNA related work in the regional tender. In addition, we demonstrated our ability to seek, acquire and effectively integrate businesses into our operations.

Looking to the future, we plan to continue investing in the long-term growth of the Company. We will look to capitalize on our leadership position in the DNA testing services markets in both the U.S. and the U.K. to grow our core business and to explore new markets. We also intend to continue expanding our core DNA businesses through acquisitions. We will maintain our focus on operational excellence in order to implement further cost reductions and operational efficiencies. We will seek to expand our service offerings by acquiring or developing DNA-based and other complementary technologies, particularly in the forensics market.

I would like to thank our stockholders who continued to support the Company in 2007 and our employees, whose excellence and leadership are fundamental to expanding the markets for DNA identity testing. Finally, I want to express our deepest thanks to our customers whose confidence inspires us to provide high quality DNA testing services.

In conclusion, I believe Orchid Cellmark has the brand and critical mass to capitalize on the market transitions in the U.S. and U.K. The year 2007 demonstrated that we have the foundation and fundamentals to take advantage of the new emerging opportunities in the worldwide DNA identity testing marketplace.

Sincerely,

Thomas A. Bologna

President and Chief Executive Officer
Orchid Cellmark Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2007

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number: 000-30267

ORCHID CELLMARK INC.
(Exact name of registrant as specified in its charter)

Delaware	**22-3392819**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
4390 US Route One, Princeton, NJ	**08540**
(Address of principal executive offices)	**(Zip code)**

Registrant's telephone number, including area code: (609) 750-2200

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.001 Par Value Per Share	**The NASDAQ Stock Market LLC**
Preferred Share Purchase Rights	**The NASDAQ Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Exchange Act:

None
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

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. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) computed by reference to the price at which the common stock was last sold as of the last business day of the registrant's most recently completed second fiscal quarter was approximately $136,194,000.

As of March 5, 2008, the registrant had 29,966,312 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required in Part III of this Annual Report on Form 10-K is incorporated by reference from the registrant's Proxy Statement for the Annual Meeting of Stockholders to be held on June 5, 2008.

ORCHID CELLMARK INC.

FORM 10-K

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PART I

The following Business section contains forward-looking statements, which involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors. See Item 1A. Risk Factors below for a discussion of these factors.

Orchid Cellmark Inc. including all its subsidiaries and affiliates are collectively referred to herein as the "Company," "us" or "we."

Item 1. BUSINESS

We are engaged in the provision of DNA testing services that generate genetic profile information by analyzing an organism's unique genetic identity.

The process of identifying unique variations in a genome is referred to as DNA testing. An individual's identity can be confirmed with almost absolute certainty through DNA testing. First used to establish human identity in 1985, DNA testing has become the standard method used for forensic identification and to confirm paternity and other family relationships. In recent years, DNA testing has also been used in agricultural applications for selective trait breeding and related applications. DNA testing is sometimes also referred to in the industry as DNA fingerprinting, DNA typing, DNA profiling or genotyping.

Our business is primarily focused on DNA testing for human identity and to a lesser degree for agricultural applications. In the human identity area, we provide DNA testing services for forensic, family relationship and, to a lesser extent, security applications. Forensic DNA testing is primarily used in the following ways: to establish and maintain DNA profile databases of individuals arrested or convicted of crimes; to analyze and compare evidence from crime scenes with these databases to identify possible suspects; and to confirm that a suspect committed a particular crime or to exonerate a falsely accused or convicted person. Forensic DNA testing can also be used to confirm a victim's identity, particularly in mass disasters. Family relationship DNA testing is used to establish whether two or more people are genetically related. It is most often used to determine a biological father in a paternity case. It can also be used to confirm a genetic relationship for purposes of immigration and adoption, estate settlement, genealogy and ancestry. DNA testing has also been used by individuals and employers in security applications to establish and store a person's genetic profile for identification purposes in the event of an emergency or accident. In agricultural applications, we provide DNA testing services for selective trait breeding and traceability applications. We provide agricultural susceptibility testing to enable farmers to breed sheep resistant to scrapie, a fatal, degenerative disease that affects the nervous systems of sheep and goats. We also provide genetic marker analysis in animals that can be used to confirm relationship, trace meat back to the farm of origin and breed animals with particular commercially desirable qualities.

On October 31, 2007, we acquired the common stock of ReliaGene Technologies, Inc., or ReliaGene, a provider of forensic and paternity DNA testing services based in New Orleans, Louisiana. The acquisition was made pursuant to a Stock Purchase and Sale Agreement with the shareholders of ReliaGene. The aggregate purchase price was $5.6 million in cash and 560,539 shares of our common stock valued at $2.9 million. The purchase price was adjusted downward by $158 thousand based on ReliaGene's working capital at closing. Such amount was delivered to us out of an escrow account. The purchase price is further subject to adjustment based on ReliaGene's future revenue levels and all of the common stock issued for the acquisition was placed in escrow for the revenue adjustment and to satisfy the sellers' indemnification obligations.

We have operations in the United States, or the US, and in the United Kingdom, or the UK, and the majority of our current customers are based in these two countries. We provide our DNA testing services to various government agencies, private individuals and commercial companies. During the years ended December 31, 2007, 2006 and 2005, we recorded total revenues of $60.3 million, $56.9 million and $61.6 million, respectively,

of which $30.3 million, $29.3 million and $32.4 million, respectively, were from our US operations. We recorded international revenues, primarily in the UK, of $30.0 million, $27.6 million and $29.2 million for the years ended December 31, 2007, 2006 and 2005, respectively.

Our principal executive offices are located at 4390 US Route One, Princeton, New Jersey, 08540. Our telephone number is (609) 750-2200 and our website address is *www.orchid.com*. Our Corporate Code of Business Conduct and Ethics as well as our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and all amendments to these reports, which have been filed with the Securities and Exchange Commission, or SEC, are available free of charge through the Investors section on our web site as soon as reasonably practicable after such materials have been electronically filed with, or furnished to, the SEC. The public may also read and copy any materials we file with the SEC at the SEC's Public Reference Room, 100 F Street, NE, Room 1580, Washington, D.C. 20549. The public may also obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Because we file reports and other information with the SEC electronically, the public may obtain access to those documents at the SEC's Internet web site: *www.sec.gov*. We include our web site address in this Annual Report on Form 10-K as an inactive textual reference only.

Background

All living organisms contain DNA, which encodes genetic information in cells. DNA determines the structure, function and behavior of cells and individual hereditary characteristics. DNA was first used to confirm human identity in 1985 and has since been used to revolutionize many applications involving individual identification, particularly in connection with forensic investigations. The introduction of DNA testing into the criminal justice system, both in the US and abroad, has been characterized as the most significant improvement in forensic science since the introduction of fingerprinting over 100 years ago. DNA evidence left behind at a crime scene affords prosecutors a means of identifying a suspect with almost absolute certainty. In addition, DNA evidence has proved to be the best currently available method for a wrongfully accused individual to prove his or her innocence. Studies published by the Federal Bureau of Investigation, or FBI, indicate that approximately 30% of primary suspects arrested in sexual assault cases are excluded from the suspect pool based on the use of DNA testing. Also, post-conviction DNA testing of previously untested evidence has resulted in more than 190 prisoners being exonerated to date in the US, including more than a dozen that were death row inmates.

After the first phase of the human genome sequence was completed in 2000, attention turned from mapping the sequence of the genome to identifying genetic differences between individuals and applying this knowledge to the healthcare and other related fields. In recent years, scientists have analyzed large portions of DNA to determine the sequence of nucleotide bases within the human genome and within the genomes of plant and animal species. Scientists hope to understand and use this molecular level knowledge to transform traditional approaches to medicine, agriculture and other fields. The increasing availability of non-human genomic data is driving the use of genetic variability information for animal identification, which is expected to produce improved characteristics in livestock or crops and protect humans against animal-borne diseases.

Technologies Utilized

All DNA testing currently used for identity purposes examines specific segments of DNA that exhibit variability between different individuals and animals. Two forms of such variability are known as Short Tandem Repeats, or STRs, which we utilize in DNA testing services for forensic, family relationship and security applications, and single nucleotide polymorphisms, or SNPs, which we utilize in DNA testing services for agricultural applications.

STRs

An STR is a portion of DNA in which small segments are repeated a variable number of times. Typically, there are 10 to 25 possible variations of a given human STR marker, with each person having just one or two

variations, which can be used in forensic, family relationship and security testing. By looking at a moderate number of STRs, a DNA profile is determined that is virtually unique for each individual. STRs are the most common genetic markers used to determine identity in forensic, paternity and security applications.

A DNA profile can be determined from any type of biological specimen containing nuclear DNA, including blood or a tissue sample, such as a cheek swab. These specimens may be used for determining profiles of suspects, victims and criminals and for paternity testing. The STR markers used to establish a person's identity are selected specifically to be able to confirm identity without inadvertently providing other information about the individual, such as information concerning the individual's current health or susceptibility to certain diseases or adverse responses to medications.

A DNA profile can also be determined from DNA contained in biological evidence from a crime scene, such as blood stains, semen, hair, skin, bone, teeth and even minute traces of saliva resident on cigarette butts or postage stamps. DNA profiles derived from crime scene evidence can be compared with that of a suspect or victim, and can be catalogued in a database for future comparison, much like fingerprints. DNA testing can also be used to confirm that a suspect committed a particular crime or exonerate a falsely accused or convicted person. In various countries around the world, DNA samples are collected from criminals, profiled and entered into national databases. Evidence from crime scenes in which no suspect has yet been identified can be analyzed and compared with this database to possibly identify a suspect. In the US, there are 13 standard STR markers that are analyzed by public and private forensic laboratories to establish DNA profiles. These profiles can then be uploaded to the FBI-managed national criminal database known as the Combined DNA Index System, or CODIS, as well as to individual state databases.

DNA testing may also be used in paternity and other family relationship testing. Since DNA markers are inherited, the profile of a child can be compared with that of the alleged father to confirm or exclude him as the child's biological father. Similarly, DNA markers can prove family relationships for several other purposes including individuals immigrating to a country or for children being adopted. Individuals and employers have also used DNA testing to establish and store a person's genetic identity for future reference in the event of an emergency or accident.

SNPs

The second form of variability in DNA involves a change in a SNP, which is the most common form of genetic variation. By looking at a moderate number of SNPs, usually between 50 and 70, a unique genetic profile can be determined for an animal or other organism. We use SNPs to determine commercially desirable qualities, such as disease resistance, in animals. For example, we identify SNPs in sheep in order to determine which sheep have susceptibility or resistance to the animal disease scrapie. By identifying sheep that are susceptible to scrapie, the disease may ultimately be bred out of the sheep population. Analyzing SNPs in animals can also provide breeders with genetic data relating to such characteristics as meat quality and milk production.

Testing Services

In the human identity area, we provide DNA testing services for forensic, family relationship and, to a lesser extent, security applications. In agricultural applications, we provide DNA testing services for selective trait breeding and traceability applications.

Based on our review of publicly available information regarding contract sizes and competitor activity, supplemented by industry publications and third-party market assessment data, we believe we are one of the largest providers of forensic and family relationship testing in the US, and we are also a recognized leading provider of such services in the UK. Based on these same sources, we believe that the US and UK are some of the largest existing markets for DNA testing services today, and the majority of our current customers are based in these countries. We conduct forensic DNA testing primarily for government agencies. We perform family

relationship testing services for both government agencies and private individuals. We market security DNA testing services to government agencies, commercial companies and private individuals. We perform agricultural DNA testing services for government agencies and commercial companies. We have five accredited laboratories in the US and one in the UK, which provide all of our DNA testing services.

In the US and UK, a significant amount of our current testing activity is under established contracts with a number of different government agencies. These contracts are usually awarded through a sealed bid process and, when awarded, typically have a term from one to three years. We believe that our experience as a reliable provider of services to government agencies is a valued credential that can be used in securing both new contracts and renewing existing contracts.

We intend to continue to develop and evaluate new technologies for enhancing our laboratory processes, including instrumentation, automation and new testing methodologies, which we expect will enable us to reduce our costs and improve the quality of our service offerings. All of the reagents and instruments utilized in our services are highly specialized. We are currently in the last year of a three-year purchase agreement with one supplier through which we purchase the majority of reagents and other components for use in our DNA testing services. While comparable reagent kits and instruments are available from multiple suppliers in the event of a supply problem, switching suppliers would require obtaining the approval of certain of our customers and may necessitate changing instruments on which we perform DNA testing services, which could require significant capital investment.

Human Identity DNA Testing Services

Forensic DNA Testing Services

We are a leading forensic DNA testing provider and, having tested numerous high profile forensic cases, are known for the high quality of our services and the expertise of our staff. We test a variety of forensic evidence samples collected at crime scenes, also known as casework. Testing services may be provided to implicate or exclude a known suspect, or may be provided in the absence of a suspect to generate a DNA profile of a perpetrator for use in searching criminal DNA databases. Although the majority of forensic testing services are done for criminal justice agencies, we also provide testing services for defense attorneys. Casework testing may be provided on an individual case basis or under contract. Contract services are usually awarded through a competitive bid process in which specifications are issued in the form of a request for proposal, or RFP, and vendors respond with a sealed bid by a specified date. These contracts typically have a term of one to three years.

In addition to casework testing, we also provide DNA identification profiles of individuals for inclusion in national, state and local criminal DNA databases. In the US, DNA specimens are collected from arrestees and convicted criminals and are tested by our laboratories to provide DNA profiles for inclusion in the CODIS database, as well as individual state databases. In the UK, under the UK Police and Criminal Evidence Act, or PACE, DNA specimens are also collected from arrestees and are tested in our UK laboratory to provide DNA profiles for inclusion in the National DNA Database, or NDNAD. DNA evidence from criminal cases with no known suspects may be screened against these databases to help identify a possible suspect.

In the US, the CODIS database currently stores the DNA profiles of over 4.5 million convicted offenders and over 170,000 forensic case DNA profiles. To date, more than 46,000 criminal investigations have been aided in the US by matching DNA profiles generated from crime scene evidence against the CODIS database. In the UK, the NDNAD currently stores more than 3.9 million DNA profiles, and through the use of this database more than 320,000 suspect to crime scene matches have been made since the database's inception in 1995. We anticipate volume growth in CODIS and NDNAD work based on legislation in both the US and the UK, increased federal funding in the US, and improved utility of the growing CODIS and NDNAD databases. In the US, there has been a significant increase in the number of contracts awarded by states to address the backlog of cases with no known suspect for screening against the CODIS database. At this time, 44 states have passed felon

DNA testing legislation and seven states have passed arrestee DNA testing legislation. DNA testing is also starting to be used in the US for non-violent crimes like burglary and auto theft. The UK has had considerable success using DNA evidence to solve property crimes, which comprise the vast majority of the more than 320,000 suspect to crime scene matches.

Our forensic testing services are performed in our accredited facilities located in Nashville, Tennessee, Dallas, Texas, New Orleans, Louisiana and in Abingdon, UK. We are currently in the process of integrating the testing services performed in the New Orleans facility acquired from ReliaGene into our other facilities. We anticipate that our current facilities should serve our near term capacity needs for forensic testing services. We have selectively focused certain services in specific facilities, where appropriate, to maximize economies of scale, and at the same time have implemented activities to decrease costs and increase capacity.

Our forensic testing facilities in the US are accredited by the American Society of Crime Lab Directors/ Laboratory Accreditation Board, or ASCLD/LAB, and the National Forensic Science Testing Center, or NFSTC. All of our forensic testing facilities also maintain ISO 17025 Forensic Quality Services, or FQS-I, accreditation and our UK forensic testing laboratory also maintains ISO 9001:2000 accreditation.

The value of DNA testing in solving crimes is increasingly being recognized and we anticipate that federal and state governments in the US and national and local governments in the UK will allocate greater resources to support wider use of DNA testing. This is evidenced by the US legislation known as "The Justice for All Act of 2004," encompassed in the President's DNA Testing Initiative, in which the federal government indicated its intent to allocate more than $1 billion over fiscal years 2005 to 2009 towards reducing the backlog of forensic testing that currently exists in the US criminal justice system. Additional federal legislation in the US was passed that allows for a significant expansion of forensic DNA testing of arrestees and includes provisions for DNA testing of illegal immigrants. Through a process directed by the National Institute of Justice, or NIJ, states may apply for federal funds to assist in testing the enormous backlog of untested cases with no known suspect. Substantial portions of the funds awarded to the states are designated for outsourcing to private sector laboratories. Contracts are then awarded by the states receiving the federal funds under competitive procurement. Such contracts are awarded based on a matrix of criteria including price, experience, capacity and quality, and are usually for a term of one to three years with options to extend under certain circumstances. Virtually all contracts require ASCLD/LAB, ISO 17025 FQS-I or NFSTC accreditation. We provide a full range of forensic DNA testing services to UK police forces, from the routine analysis of DNA samples for submission to the NDNAD to the analysis of evidence for the most serious crimes. This testing is provided through our UK facility. UK government funding for DNA analysis increased significantly in the past few years through its DNA Expansion Plan.

We perform forensic testing services for several police forces throughout the UK through our agreement with Forensic Alliance Ltd., or FAL. This arrangement accounted for approximately 21% of our total revenues for the fiscal year ended December 31, 2007. FAL is a company providing a range of forensic testing services to a number of police forces in the UK, including certain forensic DNA testing services previously carried out by us on a subcontract basis. In 2005, FAL was acquired by LGC Ltd., or LGC, a provider of analytical and diagnostic services and one of our competitors in providing DNA testing services in the UK. Our agreement with FAL was terminated effective July 15, 2007 and we then entered into a series of temporary agreements with LGC, the latest of which expires April 30, 2008. Although we have been continuing to provide services through these temporary agreements, we expect LGC to provide directly, commencing over the next two months, substantially all of the DNA testing services presently provided by us to two key police forces in the UK and a portion of the DNA testing services for a third key police force that we presently service. We expect to provide some DNA services to the police forces that we served under our FAL arrangement through pilot work. We continue to focus, however, on providing our services directly to UK police forces and we have been successful in winning competitive bids on several forensic contracts to provide such direct services to different UK police forces. In February 2008, our UK facility was awarded a significant portion of the North West/South West and Wales regional tender in the UK. Under the terms of the award, we will provide testing services for database crime

scene, forensic casework and PACE samples for several police forces that tendered their work. This award followed a lengthy competitive bidding process. Work under this award is expected to commence in the second quarter of 2008 after completion of contracts with each of the police forces. In addition, we expect approximately 29 police forces in the UK to tender their work through the UK's National Procurement Plan, a formalized bidding process to be implemented this year. We are currently planning our strategy for submitting bids through this plan and expect the police forces to tender their work in the 18-month period following implementation of the plan.

Each of our forensic DNA testing facilities has broad capabilities in handling the complex evidence samples related to casework. Further, we have developed, and continue to develop, processes and procedures designed to allow us to handle larger testing volumes to the extent required under specific contracts, or in response to the expanding initiatives to reduce the backlog of no-suspect cases. We have continued to expand our service offerings in forensic testing with new technology or novel approaches for special cases, new services to help solve non-violent crimes and our DNA Express Service, which provides accelerated testing services at a premium price in the US market. Specialty testing services include Y chromosome STR analysis, which is important in sexual assault analysis, as well as mitochondrial DNA testing and SNP based testing, both of which are beneficial in analyzing very small or extremely degraded DNA samples.

Family Relationship DNA Testing Services

Family relationship DNA testing is used to establish that two or more people are genetically related, and is most often used to determine a biological father of a particular child in a paternity case. It can also be used to confirm a genetic relationship for purposes of immigration, adoption, estate settlement, genealogy, ancestry and storing genetic profiles. We offer paternity DNA testing services to both governmental agencies and private customers. Laboratory testing is done in our accredited laboratories located in East Lansing, Michigan, Dayton, Ohio, New Orleans, Louisiana and Abingdon, UK. We are currently in the process of integrating the testing services performed in the New Orleans facility acquired from ReliaGene into our other facilities.

Government paternity testing

The government paternity testing market in the US and UK, which comprises the majority of our paternity testing services, involves tests ordered by state or county governmental agencies commonly referred to as Child Support Enforcement Agencies, or CSEAs. In the US, CSEAs are required by law to identify the biological father of a child if the child is born out of wedlock, or in the case of divorce, if a presumptive father files a successful motion to have biological paternity questioned. In the US, effective October 1, 2006, the federal government decreased its reimbursement percentage of the costs of paternity testing incurred by CSEAs from 90% to 66%, which has caused us to experience severe pricing pressure in our government funded paternity services. The federal government reimburses the CSEAs, provided they abide by certain federal regulations. These regulations, which have aided the expansion of the market, provide incentives to the CSEAs to increase effectiveness and efficiency in their paternity establishment measures. We provide services to our government paternity clients under contracts which typically have a term of one to three years and are awarded in a competitive bidding process. The contract bidding process is highly competitive and the criteria used to determine the awards vary. Typically, specifications are issued in the form of a RFP and vendors respond with a sealed bid by a specified date. In some cases, contracts are awarded solely on the basis of price, while in other cases, a scoring matrix to achieve the desired mix of price, quality and service is used. In the UK, there is only one child support agency, administered by the Department for Work and Pensions, responsible for helping to identify the biological father of a child. We were selected in a competitive bidding process as the exclusive provider of such paternity testing services to this agency in 2005.

Private paternity testing

Private paternity testing is relationship DNA testing marketed and provided to private individuals. Our private paternity DNA testing services are provided in the US and UK to individuals and legal and healthcare

professionals. In addition to offering services directly to individuals, we have relationships with firms and individuals acting as our marketing agents in the US. We typically supply products and materials to these marketing agents and in return, the agent agrees to exclusively utilize our services for their customers seeking private paternity testing.

Immigration and other DNA testing

We also provide testing services to private individuals wishing to immigrate to the UK, US and Canada as well as to certain foreign government immigration agencies. This testing is done to verify claimed family relationships for visa applications. We provide this testing under contract or from an approved vendor list.

Our other DNA testing services include testing which is designed to help ensure that workers on high-risk assignments could be accurately identified in the event of an emergency or accident, to confirm Native American genetic lineage for tribal enrollment and DNA profiling to allow individuals to preserve their genetic history.

Agricultural DNA Testing Services

Scrapie Genotyping

Through our facility in the UK, we currently conduct genotyping services under the UK government's project to help British farmers breed sheep with reduced susceptibility to the animal disease scrapie. The project is part of the innovative National Scrapie Plan, or NSP, for the UK developed by the Department for Environment, Food and Rural Affairs, or DEFRA, in conjunction with the Agriculture and Rural Affairs Departments in Scotland and Wales. Scrapie, one of the transmissible spongiform encephalopathies, is an untreatable, fatal disease, similar to mad-cow disease, that affects sheep worldwide. DEFRA is providing the testing of sheep free of charge to sheep farmers as part of the NSP in order to help farmers breed sheep that are less susceptible to this disease. With an estimated UK sheep population of over 40 million, scrapie has the potential to cause significant economic losses to farmers. Prevention of the disease agent's ability to maintain itself is viewed as the most effective way to limit the spread of the disease. Sheep with SNPs associated with a genetic resistance to scrapie are selected as breeding stock. Over time, farmers expect to produce flocks with greatly reduced vulnerability to the condition and, in turn, decrease the risk of animal diseases disseminating into the food supply. In association with farming practices, scrapie testing typically experiences a seasonality such that testing peaks at the end of the summer. Under the terms of our agreement with DEFRA, which extends through December 2008, we are the exclusive supplier of genotyping services offered to sheep farmers under the NSP. Although we are the exclusive supplier of genotyping services under the NSP, we expect our future revenues under our contract with DEFRA to be lower than those achieved during comparable periods in 2007 and 2006, due to DEFRA's decision to limit testing to male sheep. Our UK facility also provides genotyping for the Northern Ireland Scrapie Plan and the Irish National Genotype Programme.

Other Agricultural Genotyping

General concerns over animal borne pathogens entering the human food supply have led to a new market opportunity using DNA testing for meat traceability for the food industry. We believe that these general concerns may continue to expand interest in food safety and increase demand for our agricultural testing services. In addition, due to an increase in demand for better quality meat products globally and the increasing availability of SNPs associated with certain qualities such as marbling in meat and meat products, we expect that there may be new opportunities to develop assays to detect meat qualities and to perform ongoing agricultural genotyping services for the commercial meat industry. We also continue to develop similar assays utilizing this technology for use on other animals that would either identify disease susceptibility, enable diseased meat traceability or detect certain quality traits. We provide these other agricultural testing services at our facility in the UK.

Intellectual Property

We currently own, or have exclusive licenses to, 57 US issued patents and 67 foreign issued patents, and have received a notice of allowance for two additional patent applications. Additionally, we have 54 pending

patent applications, of which 12 are US applications and 42 are foreign patent applications. Of our existing patent portfolio, both issued and pending, approximately one-half primarily relates to microfluidic technology. The microfluidic technology patents do not relate to our business of DNA testing services. The remainder of our patent portfolio includes methods to identify and utilize SNPs. We have sought and intend to continue to seek patent protection for novel uses of SNPs in the genetic testing field. In cases where novel uses of SNPs have already been patented by a third party, we may need to obtain a license for the use of this technology to make use of or sell services or products using such technology. As of December 31, 2007, the majority of patents that we own or exclusively license have approximately seven years remaining before they expire.

Our patent strategy is to protect existing intellectual property relevant to our focused business of DNA testing services. We rely on both patent and trade secret protection of our intellectual property. However, we cannot be certain that patents will be issued from any of our patent applications or that any issued patents will have sufficient breadth to offer meaningful protection. In addition, issued patents owned by us or patents licensed to us may be successfully challenged, invalidated, circumvented or determined to be unenforceable so that our patent rights would not create an effective competitive barrier. The laws of some foreign countries may not protect our proprietary rights to the same extent as US laws. Our strategy will continue to concentrate on protection of our intellectual property as it relates to our DNA testing services. Our existing patent portfolio continues to reflect our international scope and includes pursuing patent protection mainly in North America and Europe.

We continue to maintain a number of out-license agreements that rely on technology we own claimed under US patent numbers 5,888,819, 6,013,431 and 6,004,744. We also provide agricultural testing services that rely on the technology claimed in the aforementioned patents, as well as technology we exclusively license claimed under patent number 5,846,710. We license these patents under exclusive agreements with Saint Louis University.

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

We have 37 trademarks for which we have received registrations or notices of allowance in the US and elsewhere. We also have one trademark application pending. Some of the key trademarks for which we have either received registrations or notices of allowance include the Orchid logo, Orchid Cellmark, 1-800-DNA-TEST and Ready-to-Know.

This Annual Report on Form 10-K contains references to some of our trademarked products and services, for which we have filed registration applications with the US Patent and Trademark Office. All other trademarks or trade names referred to in this Annual Report on Form 10-K are the property of their respective owners.

Government Regulation

In the US, the paternity and forensic testing industries are not regulated by any governmental agency. Rather, each industry establishes and maintains standards and quality through voluntary third-party accreditation. The most widely recognized body covering paternity testing is the American Association of Blood Banks, or AABB. For forensic testing, the principal US entities that afford accreditation are ASCLD/LAB and NFSTC. All of our US facilities are accredited by the appropriate agency relative to the type of testing performed at that facility. Many of our contracts require us to maintain some or all of these accreditations.

In the UK, the NDNAD requires us, as a provider of forensic testing in the UK, to comply with the ISO 17025 standards described above.

In the US and UK, we are also subject to numerous environmental and safety laws and regulations, including those governing the use and disposal of hazardous materials. The cost of any possible violation of these regulations could have an adverse effect on our business and results of operations.

Employees

As of December 31, 2007, we had 410 employees. None of our employees are represented by a collective bargaining agreement, nor have we experienced any work stoppages. We believe that we maintain good relationships with our employees. Our success will depend in part on our ability to attract and retain skilled and experienced employees, including our ability to recruit an adequate number of trained DNA analysts.

Competition

In each of our markets, we compete with other companies offering services that are similar to those that we offer. In addition, in the US, government laboratories also provide forensic DNA testing services for their jurisdictions, which is a significant share of the testing done. Some of our competitors have greater financial, operational, sales and marketing resources and more experience in research and development and commercialization than we have. Moreover, some competitors may have greater name recognition than we do, and may offer discounts on their services or products as a competitive tactic.

In the field of forensic DNA testing, our competitors include the following entities: Global Options Group, Identigene, Commonwealth Biotechnologies and Laboratory Corporation of America in the US, along with Forensic Science Service and LGC in the UK. Our competitors in the field of family relationship testing include the following entities: Laboratory Corporation of America, DNA Diagnostics, Identigene, Genetree and Paternity Testing Corporation in the US, along with Crucial Genetics, Anglia DNA, LGC, Forensic Science Service, DadCheck, DNA Bioscience, The Paternity Company, DNA Now and DNA Diagnostics in the UK. In agricultural DNA testing, our competitors include Genaissance (part of Clinical Data, Inc.) and LGC.

Item 1A. RISK FACTORS

If any of the matters included in the following risks were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially adversely affected. In such case, the value of our common stock could decline and you could lose all or part of your investment.

Risks Related to Our Business

If we fail to maintain the service contracts we have with various governmental agencies or fail to enter into additional contracts, we would lose a significant source of revenues.

We currently derive almost all of our revenues from the forensic, family relationship and agricultural testing fields. These services are heavily dependent upon contracts with various governmental agencies, which are typically open to bid and usually have a term from one to three years. The process and criteria for these awards are typically complex and highly competitive, particularly with respect to the price of the services offered. Bid awards also are subject to protests which can be expensive to prosecute or defend and which may delay the awarding of a contract. Although we have not previously been debarred or disqualified for breach or non-performance of any contract, if such debarment or disqualification were to occur we may not be awarded future government contracts. For example, we expect approximately 29 police forces in the UK to tender their work through the UK's National Procurement Plan over the next year or two. If we are unable to successfully bid on a significant portion of this work, our UK revenues and results of operations could be adversely affected. We

may not be able to maintain any of our existing governmental contracts or be the successful bidder on any additional governmental contracts which may become available in the future, or we may not be able to negotiate terms acceptable to us in connection with any governmental contract awarded to us, which could adversely affect our results of operations and financial condition.

We currently receive a significant percentage of our annual gross revenue through our relationships with one customer.

We have performed forensic testing services for several police forces throughout the UK through our agreement with FAL. This arrangement accounted for approximately 21% of our total revenues for the fiscal year ended December 31, 2007. In 2005, FAL was acquired by LGC, a provider of analytical and diagnostic services and one of our competitors in providing DNA testing services in the UK. Our agreement with FAL was terminated effective July 15, 2007 and we then entered into a series of temporary agreements with LGC, the latest of which expires April 30, 2008. Although we have been continuing to provide services through these temporary agreements, we expect LGC to provide directly, commencing over the next two months, substantially all of the DNA testing services to two key police forces in the UK and a portion of the DNA testing services for a third key police force that we presently service. If we are unable to regain some or all of the work that we are at risk of losing under our arrangement with LGC or if we are unable to successfully implement plans to enable us to directly provide our services to UK police forces, including having in place in a timely manner the necessary personnel and infrastructure, or are unsuccessful in securing a sufficient number of agreements directly with UK police forces, our business would be materially adversely affected.

We currently rely primarily on a single supplier for the majority of reagents and other components for the performance of our DNA testing services.

We are currently in the last year of a three-year purchase agreement with one supplier through which we purchase the majority of reagents and other components for use in our DNA testing services. In the event that we are unable to obtain supplies from this supplier, we do have the ability to purchase reagents and components from other suppliers. However, if we had to switch to a different supplier or multiple suppliers, we would be required to obtain the approval of certain of our customers and we may be required to also change the instruments on which we perform DNA testing services, which could require significant capital investment. In addition, we receive substantial discounts based upon reaching a specific threshold of purchases per year of reagents and other components from this supplier. If we fail to reach the required threshold of purchases in any one year, our future discounts on purchases of reagents and other components from this supplier would decrease, which could have an adverse effect on our financial results.

Our future sales and marketing efforts may not be successful in achieving revenue growth.

We plan to continue to market our services to governmental agencies, commercial companies and private individuals. Our ability to successfully obtain new business, and where appropriate, enter into and maintain agreements with our customers, depends in part on the quality and pricing of our services. If we are unable to successfully implement our marketing plans, fail to maintain or enhance the quality of our services, or fail to offer attractive pricing for our services, our results of operations and financial condition could be adversely affected.

We have limited sales and marketing resources, and as a result, we may not achieve our expected revenue growth.

We currently have limited sales and marketing resources and we are subject to the possibility that our competitors may recruit our employees. As of December 31, 2007, none of our key sales and marketing employees had employment contracts with us. We also do not maintain key man life insurance policies for any of

these individuals. Our sales and marketing resources are used to market our services to governmental agencies, commercial companies and private individuals. If our limited sales and marketing resources become inadequate, our expected revenue growth and financial condition could be adversely affected.

We cannot guarantee the receipt of revenue from our government contracts.

We regularly compete in an open bid forum in order to secure or renew contracts with various law enforcement and governmental agencies for the provision of DNA-based testing services. A contract award may have limits imposed by the applicable agency on amounts that may be paid out under the contract, and we are not always able to rely on a fixed amount of revenue based on services provided under the contract. For example, there may be a regulatory or other administrative basis beyond our control for which we do not receive the anticipated number of samples to be tested under a contract, which may have an adverse outcome on services billed or revenue received during a given fiscal period. For example, DEFRA recently decided to limit testing to male sheep under the NSP, which negatively impacted and will continue to negatively impact our agricultural revenues. Also, many contracts with governmental agencies allow for the agency to terminate a contract at any time if funding is not available to pay for our services.

We cannot guarantee the timing of revenue from the North West/South West and Wales regional tender.

In February 2008, our UK facility was awarded a significant portion of the North West/South West and Wales regional tender in the UK. Under the terms of the award, we will provide testing services for database crime scene, forensic casework and PACE samples for several police forces that tendered their work. We currently expect work under this award to commence in the second quarter of 2008 after the completion of contracts with each of the police forces. Some of the work under this award may be subject to the hiring or compensatory obligation under the UK's Transfer of Undertakings (Protection of Employment), or TUPE, regulations. TUPE is the UK employment legislation that governs the transfer of employment obligations from one party to another. If we are unable to promptly enter into agreements with the police forces to provide forensic services, revenues under this tender award may be delayed which could adversely affect our results of operations. In addition, regulatory or other administrative issues beyond our control may delay the receipt of work under the award, which may have an adverse outcome on revenue received during a given fiscal period.

If we are not successful in integrating ReliaGene, we may not be able to operate efficiently after the acquisition.

Achieving the benefits of our acquisition of ReliaGene will depend in part on the successful integration of our operations and personnel in a timely and efficient manner. The integration process requires coordination of different development, laboratory and commercial teams, and involves the integration of systems, applications, policies, procedures, business processes, technologies, products and operations. This may be a difficult and unpredictable process. If we cannot successfully integrate our operations and personnel, we may not realize the expected benefits of the acquisition.

Integrating ReliaGene may divert management's attention away from our operations.

Successful integration of ReliaGene into our operations, products and personnel may place a significant burden on our management and our internal resources. The integration will require efforts from each company, including the coordination of their general and administrative functions. For example, integration of administrative functions includes coordinating employee benefits, payroll, financial reporting, purchasing and disclosure functions. Delays in successfully integrating and managing employee benefits could lead to dissatisfaction and employee turnover. Problems in integrating purchasing and financial reporting could result in control issues, including unplanned costs. In addition, the integration of ReliaGene into our organization may result in greater competition for resources. The diversion of management's attention and any difficulties encountered in the transition and integration process could harm our business, financial condition and operating results.

We expect to incur additional costs in connection with integrating ReliaGene into our business.

We estimate that we will incur additional costs integrating our operations, products and personnel with those of ReliaGene, which cannot be estimated accurately at this time. If the total costs of the acquisition and integration exceed our estimates, or the benefits of the acquisition do not exceed the total costs of the acquisition, our financial results could be adversely affected.

Future acquisitions or mergers could disrupt our ongoing operations, increase our expenses and adversely affect our revenues.

Although we have no commitments or agreements with respect to any acquisitions or mergers at present, we anticipate that a portion of our future growth may be accomplished either by acquiring or merging with existing businesses. Factors that will affect the success of any potential acquisition or merger to be made by us include our ability to integrate acquired personnel, operations, products and technologies into our organization effectively, to motivate personnel and to retain customers of acquired or merged businesses. We may not be able to identify suitable acquisition or merger opportunities, obtain necessary financing for an acquisition on acceptable terms or successfully integrate acquired personnel and operations. While we have not experienced material disruption to our ongoing business or distraction to our management and employees as a result of past acquisitions, we may experience such disruptions or distractions in the future.

Our failure to comply with applicable government and industry regulations or to maintain accreditations may affect our ability to develop, produce or market our potential services and may adversely affect our results of operations.

All of our laboratories maintain required industry accreditations for paternity and forensic testing both in the US and the UK, and voluntary accreditation by the New York State Department of Health and by the Standards Council of Canada. In addition, our UK laboratory must maintain ISO 17025 accreditation in order to continue to provide forensic testing services. We cannot assure you that we will be able to maintain our accreditations. The loss of our accreditations could adversely affect our existing contracts which, in many cases, require that we maintain these accreditations, and could adversely affect our ability to enter into new contracts. As a result, our revenues could be eliminated or significantly reduced.

Our development and testing activities also involve the controlled use of hazardous materials. We are subject to laws and regulations governing the use, storage, handling and disposal of such materials and certain waste products, as well as the conveyance, processing and storage of biological specimens. If we were in violation of any laws or regulations pertaining to the handling or use of hazardous materials, the remediation costs could be significant and could have an adverse effect on our operations and financial condition.

International sales are subject to increased costs and other risks, which could affect our revenues.

Our business includes international sales which are subject to certain inherent risks, including difficulties in collecting accounts receivable, potentially longer payment cycles, increased costs associated with maintaining international marketing efforts, currency fluctuations as they impact reported results, changes in regulatory requirements and difficulties in enforcement of contractual obligations and intellectual property rights. During 2007, we derived nearly 50% of our revenues from international sales. The significant percentage of our revenue derived from our UK operations makes us vulnerable to future fluctuations in the exchange rate, and while there is currently no material adverse impact to our financial results due to fluctuations in the exchange rate, future material adverse exchange rate movements would have an unfavorable translation impact on our consolidated financial results.

We had an accumulated deficit of $320 million as of December 31, 2007. If we fail to reach profitability and need to raise additional capital to fund our current and future operating plans or obtain such capital on unfavorable terms, then we may have to take further cost-cutting measures.

We have expended significant resources developing our facilities and funding commercialization activities. As a result, we have incurred significant losses to date. We had net losses of $3.0 million, $11.3 million and $9.4 million for the years ended December 31, 2007, 2006 and 2005, respectively. We anticipate that our existing cash on hand

will be sufficient to fund our operations at least through the next twelve months. If we fail to reach cash flow self sufficiency, we may need to raise additional funds through the sale of equity, convertible debt or equity-linked securities and/or we may have to further review our existing operations to determine new cost cutting measures, such as further consolidation of operational facilities and/or reductions in staff. We may not be able to raise additional funds or raise funds on terms that are acceptable to us, if at all. If future financing is not available to us, or is not available on terms acceptable to us, we may not be able to fund our future financing needs. If we raise funds through equity or convertible securities, our stockholders may experience dilution and our stock price may decline.

We may be held liable for any inaccuracies associated with our services, which may require us to defend ourselves in costly litigation.

We provide forensic, family relationship and agricultural testing services. Claims may be brought against us for incorrect identification of family relationships or other inaccuracies. Litigation of these claims in most cases is covered by our existing insurance policies. However, we could expend significant funds during any litigation proceeding brought against us and litigation can be a distraction to management. If a court were to require us to pay damages that are not covered by our existing insurance policies, the amount of such damages could significantly harm our financial condition, and even if covered, damages could exceed our insurance policy coverage limits. We currently maintain professional liability insurance with a maximum coverage limitation of $10 million. We have been named a defendant in a number of minor suits relating to our DNA testing services, including claims of incorrect results. None of the outcomes of these suits have had a material adverse effect on our business to date.

Our improvement of existing technologies and our ability to capture and develop future technologies to be utilized in our service offerings may not be commercially successful, which could adversely affect our revenues.

We are currently developing and commercializing a limited number of services based on our technologies in DNA testing of humans and for agricultural purposes. These services involve uses of products, software and technologies that require validation for commercial application, and we cannot assure you that we or our customers will be able to recognize a cost-effective, commercial benefit in using our technology. In addition, any assays we develop utilizing SNP analysis technology may not be useful in assisting in food safety testing. Only a limited number of companies have developed or commercialized services based on SNP technology to date. Accordingly, even if we or our customers are successful in developing effective assays utilizing SNP technology for food safety testing, we cannot assure you that these discoveries will lead to commercially successful service offerings. If we fail to successfully develop our SNP technologies or any services based on such technologies, we may not achieve a competitive position in the market.

We may be unable to hire an adequate number of DNA analysts or successfully apply new technology.

Our growth and future operating results will depend, in part, upon our ability to recruit an adequate number of trained DNA analysts. Our growth and future operating results will also depend, in part, upon our ability to apply new technologies to automate and improve our DNA testing services to take advantage of new technologies. There can be no assurance that our development efforts will result in any additional commercially viable or successful improvements or efficiencies to our testing processes. Any potential improvements to the testing process may require substantial additional investment and possibly regulatory approvals, prior to implementation. Our inability to recruit trained DNA analysts, to develop improvements to our testing processes, to increase efficiencies, or to achieve market acceptance of such improvements could have a material adverse effect on our business, financial condition and results of operations.

Our ability to provide services may be seriously impaired by the occurrence of a natural disaster affecting any one or more of our laboratories.

Should we experience the occurrence of a natural disaster affecting one or more of our laboratories such that we would be unable to continue to provide services out of a particular facility for an extended period of time, and we were not able to scale up operations at our other facilities in order to continue to provide such services, we

would be at risk of losing significant contractual revenue from governmental agencies. Many of our governmental agency contracts allow for the agency to terminate the contract early if we became unable to continue to render such services for an extended period of time, usually 90 days or more, for any reason, including the occurrence of a natural disaster. While we have multiple facilities, and may be able to shift operations from one facility to another in the event of a natural disaster, thereby mitigating the effects thereof, we cannot assure you that any such transition will take place.

Although we carry insurance for recovery in the instance of a natural disaster, the limits of this insurance are $24 million, and it is possible that our coverage will not be the same in all locations or that a loss in such an instance could exceed our ability to recover such costs.

Our success will depend partly on our ability to operate without misappropriating the intellectual property rights of others.

We may be sued for infringing, or may initiate litigation to determine that we are not infringing, on the intellectual property rights of others. Intellectual property litigation is costly, and could adversely affect our results of operations. If we do not prevail in any intellectual property litigation, we might have to pay damages, and we could be required to stop the infringing activity, or be required to obtain a license to or design around the intellectual property in question. If we are unable to obtain a required license on acceptable terms, or are unable to practice non-infringing technologies or processes, we may be unable to sell some of our services, which would result in reduced revenues. We are named a defendant in a patent litigation matter. However, we believe we had the right to practice such technology by virtue of a third-party agreement, and we are actively engaged in defending this litigation. Other than the foregoing, we are not aware of any assertions that we are misappropriating the intellectual property rights of others.

If we cannot enter into new development or licensing agreements, we may be unable to further enhance our service offerings.

Our strategy for developing and commercializing technologies and services based on our discoveries depends upon our ability to enter into development and licensing arrangements. Our ability to enter into advantageous licensing or development agreements will depend in part upon whether or not companies that have technology complimentary to ours are willing or able to enter into an agreement with us, and on our ability to allocate financial resources to such investment. We also may have to rely on our collaborators and licensees or licensors for marketing or distribution of our services. If we are unable to enter into such development and licensing arrangements or implement our strategy to develop and commercialize additional services, it would have a material adverse effect on our results of operation and financial condition. If we enter into collaborations or licensing arrangements, we may be forced to relinquish rights to certain of our technologies, or grant licenses to third parties on terms that are unfavorable to us.

If our patent applications do not result in issued patents, our competitors may obtain rights to commercialize our discoveries, which would harm our competitive position.

Our success will depend, in part, on our ability to obtain patent protection on our proprietary technologies and services and to enforce such protection. We may not be able to obtain new patents for these technologies and services. We also may not have the resources to aggressively protect and enforce existing patent protection. We may need to obtain a license from certain third parties with respect to any patent covering technologies or methodologies which we wish to incorporate into our service offerings, but we may not be able to acquire such licenses on terms acceptable to us, if at all.

The scope of our issued patents may not provide us with adequate protection of our intellectual property, which would harm our competitive position.

Any issued patents that cover our proprietary technologies may not provide us with substantial protection or be commercially beneficial to us. The issuance of a patent may be challenged with respect to its validity or its

enforceability. The US Patent and Trademark Office (or a court of appropriate jurisdiction), or any one of a number of foreign patent offices where we have pursued patent protection, may invalidate one or more of our patents. In addition, third parties may have patents of their own which could, if asserted, prevent us from practicing our proprietary technologies, including the methods we use to conduct genotyping. If we are otherwise unable to practice our patented technologies, we may not be able to commercialize our technologies or services. We currently believe that there may be at least one company actively infringing our proprietary single base primer extension technology. However, we have not completed an analysis of this third party's practices or of the practices of any other third parties and cannot form a conclusion at this time as to infringement.

We may need to initiate lawsuits to protect or enforce our patents and other intellectual property rights, which could result in the forfeiture of these rights.

In order to protect or enforce our patent rights, we may need to initiate patent litigation against third parties. These lawsuits could be expensive, take significant time and divert management's attention from other business concerns. These lawsuits could result in the invalidation or a limitation in the scope of our patents or forfeiture of the rights associated with our patents. We cannot assure you that we will prevail in any future litigation or that a court will not find damages or award other remedies in favor of the opposing party in any of these suits. During the course of these suits, 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.

Other rights and measures that we rely upon to protect our intellectual property may not be adequate to protect our services and could reduce our ability to compete in the market.

In addition to patents, we rely on a combination of trade secrets, copyright and trademark laws, non-disclosure agreements and other contractual provisions and technical measures to protect our intellectual property rights. While we require employees, collaborators, consultants and other third parties to enter into confidentiality and/or non-disclosure agreements where appropriate, any of the following could still occur:

- the agreements may be breached;
- we may have inadequate remedies for any breach;
- proprietary information could be disclosed to our competitors; or
- others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technologies.

To our knowledge, we have never been materially harmed by a breach under any of the circumstances listed above. However, if our intellectual property is disclosed or misappropriated, it would harm both our ability to protect our rights and our competitive position. The pursuit of a remedy for such an alleged breach may require a substantial amount of our resources, time, effort and expenses.

Our ability to utilize our net operating loss carryforwards may be limited.

As of December 31, 2007, our net operating loss, or NOL, carryforwards were $245.4 million and $152.4 million for federal and state income tax purposes, respectively. Some of the federal and state NOL carryforwards we have generated or acquired have begun to expire. Utilization of our NOL carryforwards to offset future taxable income, if any, may be substantially limited due to "change of ownership" provisions in the Tax Reform Act of 1986, or the Act. The Act provides for a limitation on the annual use of NOL carryforwards and research and development credits following certain ownership changes, as defined by the Act, which could significantly limit our ability to utilize or sell these carryforwards and research and development credits. We have determined that an ownership change, as defined by the Act, occurred in 1999 and as a result $41.4 million of our NOL carryforwards is limited. We may have experienced other ownership changes, as defined by the Act, as a result of past financings and may experience others in connection with future financings. Accordingly, our ability to utilize the aforementioned federal NOL carryforwards may be further limited in the future.

Risks Associated with Our Common Stock

Future issuance of our securities may dilute the rights of our stockholders.

Our Board of Directors has the authority to issue shares of preferred stock and to determine the price, preferences, privileges and other terms of those shares. Our Board of Directors may exercise this authority without any further approval of our stockholders. Additionally, if we need to raise additional funds through the sale of equity, convertible debt or equity-linked securities, your percentage ownership in us on a diluted basis will be reduced. These transactions may dilute the value of our outstanding common stock. We may also issue securities that have rights, preferences and privileges senior to our common stock.

We have various mechanisms in place that stockholders may not consider favorable, which may discourage takeover attempts and may prevent or frustrate attempts by stockholders to change our direction or management.

Certain provisions of our certificate of incorporation and by-laws, as well as Section 203 of the Delaware General Corporation Law and our adoption of a stockholder rights plan, may discourage, delay or prevent a change in control or the ability of stockholders to change our direction or management, even if the changes would be beneficial to stockholders. These provisions include:

- authorizing the issuance of "blank check" preferred stock that could be designated and issued by our Board of Directors to increase the number of outstanding shares and thwart a takeover attempt;
- creating a classified board of directors with staggered, three-year terms, which may lengthen the time required to gain control of our Board of Directors;
- prohibiting cumulative voting in the election of directors, which will allow a majority of stockholders to control the election of all directors;
- requiring super-majority voting to effect certain amendments to our certificate of incorporation and by-laws;
- limiting who may call special meetings of stockholders;
- prohibiting stockholder action by written consent, which requires all actions to be taken at a meeting of stockholders; and
- establishing advance notice requirements for nominations of candidates for election to our Board of Directors or for proposing matters that can be acted upon by stockholders at stockholder meetings.

In addition, pursuant to our stockholder rights plan, each share of our common stock has an associated preferred share purchase right. The rights will not trade separately from the common stock until, and are exercisable only upon, the acquisition or the potential acquisition through tender offer by a person or group of 15% or more of our outstanding common stock.

Our stock price has been, and likely will continue to be, volatile and your investment may suffer a decline in value.

The market prices for securities of companies quoted on The Nasdaq Stock Market, including our market price, have in the past been, and are likely to continue in the future to be, very volatile. Between January 1, 2006 and December 31, 2007, the closing price of our common stock ranged from a low of $2.05 to a high of $8.12. The market price of our common stock has been, and likely will continue to be, subject to substantial volatility depending upon many factors, many of which are beyond our control, including:

- announcements regarding the results of development efforts by us or our competitors;
- announcements regarding the acquisition of technologies or companies by us or our competitors;

- changes in our existing development or licensing arrangements or formation of new development or licensing arrangements;
- the loss of existing business;
- our inability to secure new contractual relationships for our genotyping services or new volume of testing samples at acceptable prices;
- technological innovations or new service offerings developed by us or our competitors;
- changes in our intellectual property portfolio;
- developments or disputes concerning our proprietary rights;
- issuance of new or changed securities analysts' reports and/or recommendations applicable to us;
- additions or departures of our key personnel;
- our operating losses; and
- continued economic uncertainty with respect to the valuation of certain technology companies and other market conditions.

Fluctuations in our operating results may negatively impact our stock price.

Our revenues and results of operations have fluctuated significantly in the past and these fluctuations are likely to continue in the future due to a variety of factors, many of which are outside of our control. These factors include:

- the timing of US federal funding for forensic DNA testing through the NIJ;
- our ability to secure new contractual relationships for forensic, family relationship and agricultural testing or retain existing relationships upon contract expirations;
- the volume and timing of testing samples received in our laboratories for testing services;
- the inherent seasonality in our agricultural testing business;
- the number of trained DNA analysts which are available to process the samples for testing services;
- the number, timing and significance of new services introduced by our competitors;
- our ability to develop, market and introduce new services on a timely basis;
- our ability to maintain and grow the volume of forensic testing services in the UK through directly providing our services to UK police forces;
- changes in the cost, quality and availability of intellectual property and components required to perform our services; and
- availability of commercial and government funding to researchers who use our services.

Fixed operating costs associated with our technologies and services, as well as personnel costs, marketing and sales programs and overhead costs, account for a substantial portion of our operating expenses. We cannot adjust these expenses quickly in the short term. If our testing volumes and related pricing decline due to market pressure, our revenues will decline and we may not be able to reduce our operating expenses accordingly. Our loss of revenues and failure to reduce operating expenses would harm our operating results. In addition, market and other conditions may require certain non-cash charges such as impairment charges related to long-lived assets and restructuring charges to be recorded by us in future periods. If our operating results in any quarter or quarters fail to meet the expectations of public market analysts or investors, the market price of our common stock is likely to fall.

We cannot assure you that your investment in our common stock will not fluctuate significantly. One or more of these factors could significantly harm our business and cause a decline in the price of our common stock in the public market.

Item 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

Item 2. PROPERTIES

In Princeton, New Jersey, we lease an approximately 11,000 square foot facility, which serves as our corporate headquarters. We lease an approximately 22,000 square foot facility in Dallas, Texas, an approximately 18,000 square foot facility in Nashville, Tennessee, an approximately 17,000 square foot facility in Dayton, Ohio, an approximately 9,000 square foot facility in East Lansing, Michigan and an approximately 20,000 square foot facility in New Orleans, Louisiana. In addition, we lease a total of approximately 45,000 square feet in two buildings located in Abingdon, UK. We currently believe our facilities are sufficient to meet our space requirements through at least the next twelve months.

Item 3. LEGAL PROCEEDINGS

On or about November 21, 2001, a complaint was filed in the United States District Court for the Southern District of New York naming us as a defendant, along with certain of our former officers and underwriters. An amended complaint was filed on April 19, 2002. The complaint, as amended, purportedly was filed on behalf of persons purchasing our stock between May 4, 2000 and December 6, 2000, and alleges violations of Sections 11, 12(a)(2) and 15 of the Securities Act of 1933, as amended, and Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The amended complaint alleges that, in connection with our May 5, 2000 initial public offering, or IPO, the defendants failed to disclose additional and excessive commissions purportedly solicited by and paid to the underwriter defendants in exchange for allocating shares of our stock to preferred customers and alleged agreements among the underwriter defendants and preferred customers tying the allocation of IPO shares to agreements to make additional aftermarket purchases at pre-determined prices. Plaintiffs claim that the failure to disclose these alleged arrangements made our registration statement on Form S-1 filed with the SEC in May 2000 and the prospectus, a part of the registration statement, materially false and misleading. Plaintiffs seek unspecified damages. We believe that the allegations are without merit and have, and intend to continue to, vigorously defend ourselves against plaintiffs' claims. In this regard, on or about July 15, 2002, we filed a motion to dismiss all of the claims against us and our former officers. On October 9, 2002, the Court dismissed without prejudice only our former officers, Dale R. Pfost and Donald R. Marvin, from the litigation in exchange for us entering into a tolling agreement with plaintiffs' executive committee. On February 19, 2003, we received notice of the Court's decision to dismiss the Section 10(b) claims against us. Plaintiffs and the defendant issuers involved in this IPO securities litigation, including us, have agreed in principal on a settlement that, upon a one-time surety payment by the defendant issuers' insurers, would release the defendant issuers and the individual officers and directors from claims and any future payments or out-of-pocket costs. On March 10, 2005, the Court issued a memorandum and order (i) preliminarily approving the settlement, contingent on the parties' agreement on modifications of the proposed bar order in the settlement documents, (ii) certifying the parties' proposed settlement classes, (iii) certifying the proposed class representatives for the purposes of the settlement only and (iv) setting a further hearing for the purposes of (a) making a final determination as to the form, substance and program of notice of proposed settlement and (b) scheduling a public fairness hearing in order to determine whether the settlement can be finally approved by the Court. On April 24, 2006, the Court held a fairness hearing and took the motion for final approval under advisement.

In related proceedings against the underwriters, the United States Court of Appeals for the Second Circuit ruled on December 5, 2006 that the District Court's certification of class actions against the underwriters in six

"focus" cases was vacated and remanded for further proceedings. In so doing, the Second Circuit ruled that "the cases pending on this appeal may not be certified as class actions." On April 6, 2007, the Second Circuit denied the plaintiffs' petition for rehearing, and no further appeals have been taken.

As a result of the Second Circuit's ruling, the plaintiffs and the issuers stipulated on June 22, 2007 that the Stipulation and Agreement of Settlement with Defendant Issuers and Individuals, which was originally submitted to the District Court on June 10, 2004, was terminated, which resolved the motion for final approval of the class action settlement with the issuers and individual defendants. The District Court entered the parties' stipulation as an Order on June 25, 2007. As a result of these developments, the plaintiffs have filed amended complaints against the underwriters and "focus case" issuers and individuals and are attempting to certify a class action.

We are a defendant in litigation pending in the Southern District of New York entitled Enzo Biochem, Inc. et al. v. Amersham PLC, et al, filed in October 2002. By their complaint, plaintiffs allege that certain defendants (i) breached their distributorship agreements by selling certain products for commercial development (which they allege was not authorized), (ii) infringed plaintiffs' patents through the sale and use of certain products, and (iii) are liable for unfair competition and tortious interference with contractual relations. We did not have a contractual relationship with plaintiffs, but we are alleged to have purchased the product at issue from one of the other defendants. We have sold the business unit that was allegedly engaged in the unlawful conduct. As a result, there is no relevant injunctive relief to be sought from us. The complaint seeks damages in an undisclosed amount. Most of the fact discovery in the case has been taken, and a Markman hearing to construe the patent claims was conducted in early July 2005. On July 17, 2006, the Court ruled in our favor on its construction of the patents asserted against us, and the co-defendants, including us, moved for summary judgment on all claims against us in January 2007. A hearing on the defendants' motions for summary judgment occurred on July 17-18, 2007, and the Court reserved ruling on the motions, taking them under advisement.

In other litigation brought by Enzo against another defendant under the same patents asserted against us, a Connecticut Federal Court has invalidated the patents asserted there and asserted against us in the New York case. That decision is on appeal. As a result of these developments, the defendants in the Enzo v. Amersham et al. case have requested a conference before the Court in order to determine how to proceed. Such conference was held on March 4, 2008 and the Court has not yet ruled on such determination.

Additionally, we have certain other claims against us arising from the normal course of our business. The ultimate resolution of such matters, including those cases disclosed above, in the opinion of management, will not have a material effect on our financial position and liquidity, but could have a material impact on our results of operations for any reporting period.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the fourth quarter of the year ended December 31, 2007.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on the Nasdaq Global Market under the symbol "ORCH." The following table sets forth, for the periods indicated, the high and low closing prices for our common stock as reported by Nasdaq:

	Common Stock	
	High	Low
2007:		
First Quarter	$6.25	$3.15
Second Quarter	7.03	4.53
Third Quarter	6.14	4.75
Fourth Quarter	5.57	4.19
2006:		
First Quarter	$8.12	$5.66
Second Quarter	5.50	2.30
Third Quarter	2.78	2.05
Fourth Quarter	3.67	2.27

On March 5, 2008, the closing sale price of our common stock was $3.89

Stockholders

As of March 5, 2008, there were 331 stockholders of record.

Dividends

We have not paid dividends to our common stockholders since our inception and do not plan to pay cash dividends in the foreseeable future, as we currently intend to retain earnings, if any, to finance our growth.

Item 6. SELECTED FINANCIAL DATA

	Year ended December 31				
	2007	2006	2005	2004	2003
	(In thousands, except per share data)				
Consolidated statements of operations data:					
Total revenues	$60,303	$ 56,854	$ 61,609	$62,499	$ 50,627
Operating expenses:					
Cost of service revenues	40,230	39,705	37,496	34,963	29,014
Research and development	1,045	1,228	1,616	1,632	3,193
Marketing and sales	6,021	6,766	8,744	7,041	6,087
General and administrative	15,385	18,980	20,383	22,360	23,517
Impairment of assets	—	—	255	393	837
Restructuring	(75)	437	2,514	1,130	76
Amortization of intangible assets	1,806	1,765	1,763	1,785	1,807
Total operating expenses	64,412	68,881	72,771	69,304	64,531
Operating loss	(4,109)	(12,027)	(11,162)	(6,805)	(13,904)
Total other income (expense), net	1,162	899	2,069	(103)	1,218
Loss from continuing operations before income taxes	(2,947)	(11,128)	(9,093)	(6,908)	(12,686)
Income tax expense	(20)	(143)	(346)	(1,121)	(1,645)
Loss from continuing operations	(2,967)	(11,271)	(9,439)	(8,029)	(14,331)
Loss from discontinued operations	—	—	—	(783)	(9,237)
Net loss	(2,967)	(11,271)	(9,439)	(8,812)	(23,568)
Dividends to Series A preferred stockholders	—	—	—	(14)	(534)
Accretion of Series A redeemable convertible preferred stock discount resulting from conversions	—	—	—	(1,129)	(2,645)
Beneficial conversion feature of Series A redeemable convertible preferred stock	—	—	—	—	(744)
Net loss allocable to common stockholders	$ (2,967)	$(11,271)	$ (9,439)	$ (9,955)	$(27,491)
Basic and diluted net loss per share allocable to common stockholders	$ (0.10)	$ (0.45)	$ (0.39)	$ (0.46)	$ (2.14)
Shares used in computing basic and diluted net loss per share allocable to common stockholders	29,583	24,892	24,284	21,828	12,831

	December 31				
	2007	2006	2005	2004	2003
Consolidated balance sheet data:					
Cash, cash equivalents and short-term investments	$20,918	$24,144	$23,198	$30,486	$ 9,938
Working capital	25,455	29,973	22,835	33,047	7,540
Total assets	62,129	60,616	61,669	75,622	59,429
Long-term debt, less current portion	337	—	—	—	415
Series A redeemable convertible preferred stock	—	—	—	—	3,897
Total stockholders' equity	52,433	50,906	45,477	58,250	31,147

The following transactions had a material effect on the comparability of the data presented in the consolidated financial data above: the acquisition of ReliaGene on October 31, 2007, the sale of Series A redeemable convertible preferred stock in March 2003, the decision in 2003 to realign our former GeneShield business and the decision in 2002 to sell our former Diagnostics business. The results of the Diagnostics business have been classified as discontinued operations and the related assets and liabilities are included as held for sale as of December 31, 2003.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis of Financial Condition and Results of Operations as of December 31, 2007 and for the years ended December 31, 2007, 2006 and 2005 should be read in conjunction with our Consolidated Financial Statements and related Notes thereto and the Selected Financial Data included elsewhere in this Annual Report on Form 10-K.

OVERVIEW

We are engaged in the provision of DNA testing services that generate genetic profile information by analyzing an organism's unique genetic identity. We focus our business on DNA testing primarily for human identity and, to a lesser extent, agricultural applications. In the human identity area, we principally provide DNA testing services for forensic, family relationship and, to a lesser extent, security applications. Forensic DNA testing is primarily used to confirm that a suspect committed a particular crime, to exonerate an innocent person or to establish or maintain databases of individuals convicted of crimes or, in some instances, arrested in connection with crimes. Family relationship DNA testing is used to establish whether two or more people are genetically related. DNA testing is used by individuals and employers in security applications to establish or store a person's genetic profile for identification purposes in the event of an emergency or accident. In agricultural applications, we provide DNA testing services for food safety and selective trait breeding.

We have operations in the United States, or US, and in the United Kingdom, or UK, and the majority of our current customers are based in these two countries. Our forensic, family relationship and security DNA testing services are conducted in both the US and the UK, while all of our agricultural DNA testing services are conducted in the UK. Based on our review of publicly available information regarding contract sizes and competitor activity, supplemented by industry publications and third-party market assessment data, we believe that the US and UK are two of the largest existing markets for DNA testing services today. In the US and UK, a significant amount of our current testing activity is under established non-exclusive contracts with government agencies. These contracts are usually awarded through a sealed bid process and, when awarded, typically have a term from one to three years. We believe that our experience and reputation as a reliable provider of services to government agencies is a valued credential that can be used in securing both new contracts and renewing existing contracts.

In connection with our strategy to expand our business organically as well as through acquisitions, on October 31, 2007, we acquired the common stock of ReliaGene Technologies, Inc., or ReliaGene, a provider of forensic and paternity DNA testing services based in New Orleans, Louisiana. The acquisition was made pursuant to a Stock Purchase and Sale Agreement with the shareholders of ReliaGene. The aggregate purchase price was $5.6 million in cash and 560,539 shares of our common stock valued at $2.9 million. The purchase price was adjusted downward by $158 thousand based on ReliaGene's working capital at closing. Such amount was delivered to us out of an escrow account in January 2008. The purchase price is further subject to adjustment based on ReliaGene's future revenue levels and all of the common stock issued for the acquisition was placed in escrow for the revenue adjustment and to satisfy the sellers' indemnification obligations. There is no significant customer overlap between us and ReliaGene and we believe the combined forensic and paternity laboratory testing volumes should increase our operational efficiencies.

Our operations in the US accounted for 50%, 52% and 53% of our total revenues for the years ended December 31, 2007, 2006 and 2005, respectively. We have implemented measures to improve our US financial

results through a strategy designed to obtain new contracts with average sales prices that allow us to cover our variable and overhead costs and improve our gross margin. During 2007, we have been able to increase our average selling price per sample in our US forensic contracted casework and database testing services, as compared to 2006; however, we continue to experience significant price competition in both our forensic database and paternity testing businesses. In addition, we are focused on improving our operational execution to increase throughput in our laboratories and lower aggregate operating costs. In particular, in our forensics business we have reduced our sample processing time and decreased the number of samples that need to be retested. Our focus on improved pricing and operational excellence has improved our gross margins and significantly reduced the amount of cash used in our operations.

Our operations in the UK accounted for 50%, 48% and 47% of our total revenues for the years ended December 31, 2007, 2006 and 2005, respectively. For the years ended December 31, 2007, 2006 and 2005, 42%, 48% and 60%, respectively, of our UK revenues and 21%, 23% and 29%, respectively, of our total revenues were derived through our agreement with Forensic Alliance Ltd., or FAL. FAL is a company providing a range of forensic testing services to a number of police forces in the UK, including certain forensic DNA testing services previously carried out by us on a subcontract basis. In 2005, FAL was acquired by LGC Ltd., or LGC, a provider of analytical and diagnostic services and one of our competitors in providing DNA testing services in the UK. Our agreement with FAL was terminated effective July 15, 2007 and we then entered into a series of temporary extension agreements with LGC, the latest of which expires April 30, 2008.

Although we have been continuing to provide services through these temporary extension agreements, we expect LGC to provide directly, commencing over the next two months, substantially all of the DNA testing services to two key police forces in the UK and a portion of the DNA testing services for a third key police force that we presently service. We expect to provide some DNA services to the police forces that we served under our FAL arrangement through pilot work. We continue to focus, however, on providing our services directly to UK police forces and we have been successful in winning competitive bids on several forensic contracts to provide such direct services to different UK police forces. In February 2008, our UK facility was awarded a significant portion of the North West/South West and Wales regional tender in the UK. Under the terms of the award, we will provide testing services for database crime scene, forensic casework and PACE samples for several police forces that tendered their work. This award followed a lengthy competitive bidding process. Work under this award is expected to commence in the second quarter of 2008 after completion of contracts with each of the police forces. We believe that the actions we have taken to date have placed us in a position to successfully transition from our prior relationship with FAL to directly providing these services to police forces in the UK. In addition, we expect approximately 29 police forces in the UK to tender their work through the UK's National Procurement Plan, a formalized bidding process to be implemented this year. We are currently planning our strategy for submitting bids through this plan and expect the police forces to tender their work in the 18-month period following implementation of the plan. We believe that the actions we have taken to date have placed us in a position to successfully transition from our prior relationship with FAL to directly providing these services to police forces in the UK.

Operating Highlights

Our revenues are predominately generated from DNA testing services provided to our customers. Our costs and expenses include costs of service revenues, research and development expenses, marketing and sales expenses, general and administrative expenses, amortization expense and other income and expense. Costs of service revenues consist primarily of salaries and related personnel costs, laboratory supplies, fees paid for the collection of samples, depreciation and facility expenses. Research and development expenses consist primarily of salaries and related costs, laboratory supplies and other expenses related to the design, development, testing and enhancement of our services. Marketing and sales expenses consist of salaries and benefits for marketing and sales personnel within our organization and all related costs of selling and marketing our services. General and administrative expenses consist primarily of salaries and related expenses for executive, finance and administrative personnel, professional fees, insurance and other corporate expenses.

Our operating results improved for the year ended December 31, 2007 as compared to 2006. Overall, for the year ended December 31, 2007 as compared to the year ended December 31, 2006, total revenues increased approximately 6% and gross margin, as percentage of service revenues, increased to approximately 33% from approximately 30%. The increase in revenues and gross margin was primarily a result of increased revenues in our UK and US forensics testing services and the impact of the acquisition of ReliaGene during the year ended December 31, 2007 as compared to 2006. The increase in revenues and gross margin was partially offset by lower revenues in our UK agricultural testing services and our government and private paternity testing services in the US, as well as increased laboratory personnel costs. For the year ended December 31, 2007, our operating expenses, other than cost of service revenues, declined by approximately 17% as compared to 2006, primarily due to decreased general and administrative, marketing and sales and restructuring expenses, due to our focus on cost containment.

RESULTS OF OPERATIONS

Years ended December 31, 2007 and 2006

The following table sets forth a year-over-year comparison of the components of our net loss for the years ended December 31, 2007 and 2006:

	2007	2006	$ Change	% Change
		(In thousands)		
Total revenues	$60,303	$ 56,854	$ 3,449	6%
Cost of service revenues	40,230	39,705	525	1
Research and development	1,045	1,228	(183)	(15)
Marketing and sales	6,021	6,766	(745)	(11)
General and administrative	15,385	18,980	(3,595)	(19)
Restructuring expense (benefit)	(75)	437	(512)	>(100)
Amortization of intangible assets	1,806	1,765	41	2
Total other income, net	1,162	899	263	29
Income tax expense	20	143	(123)	(86)
Net loss	(2,967)	(11,271)	8,304	(74)

Revenues

Total revenues for the year ended December 31, 2007 of $60.3 million represented an increase of approximately $3.4 million, or approximately 6%, as compared to revenues of $56.9 million for 2006.

Our US service revenues for the year ended December 31, 2007 of $30.1 million increased by $1.1 million, or approximately 4%, as compared to $29.0 million for 2006, primarily due to increased volume in our US forensic testing services and the impact of the acquisition of ReliaGene. This increase was slightly offset by declines in volume for our government and private paternity testing services.

Revenues from our UK-based testing services increased by $2.4 million, or approximately 9%, to $30.0 million during the year ended December 31, 2007, as compared to $27.6 million for 2006. Our UK-based revenues increased due to increased volume and pricing in forensics testing services; particularly major crime, non-violent crime and UK PACE database testing services. The non-violent crime testing services and PACE database testing services increased primarily due to new contracts we were awarded in 2006 to provide services directly to several different UK police forces. The increase in forensic testing services revenues was partially offset by decreased agriculture revenues as a result of lower volume. Agriculture revenues decreased primarily due to a decision made by the Department for Environment, Food and Rural Affairs, or DEFRA, to limit scrapie testing to male sheep, and to a lesser extent, to an outbreak of foot and mouth disease which prevented the collection of tens of thousands of samples. For the year ended December 31, 2007, as compared to 2006, our UK revenues were also favorably impacted by approximately 9%, as a result of the exchange rate movement of the British pound as compared to the US dollar.

Under the terms of our agreement with DEFRA, which extends through December 2008, we are the exclusive supplier of genotyping services offered to sheep farmers under the UK government's National Scrapie Plan, or NSP, which is designed to help British farmers breed sheep with reduced genetic susceptibility to the disease. Although we are the exclusive supplier of genotyping services under the NSP, we expect our future revenues under our contract with DEFRA to be lower than those achieved during comparable periods in 2007 and 2006, due to DEFRA's decision to limit testing to male sheep.

We performed forensic testing services for several police forces throughout the UK through our subcontractor agreement with FAL. Revenues derived through the FAL agreement accounted for approximately 21% and 23% of our total revenues and approximately 42% and 48% of our UK revenues for the years ended December 31, 2007 and 2006, respectively. In 2005, FAL was acquired by LGC, a provider of analytical and diagnostic services and one of our competitors in providing DNA testing services in the UK. Our agreement with FAL was terminated effective July 15, 2007 and we then entered into a series of temporary extension agreements with LGC, the latest of which expires April 30, 2008. Although we have been continuing to provide services through these temporary extension agreements, we expect LGC to provide directly, commencing over the next two months, substantially all of the DNA testing services directly to two key police forces in the UK and a portion of the DNA testing services for a third key police force that we presently service. We expect to provide some DNA services to the police forces that we served under our FAL arrangement through pilot work. We continue to focus, however, on providing our services directly to UK police forces and we have been successful in winning competitive bids on several forensic contracts to provide such direct services to different UK police forces. In February 2008, our UK facility was awarded a significant portion of the North West/South West and Wales regional tender in the UK. Under the terms of the award, we will provide testing services for database crime scene, forensic casework and PACE samples for several police forces that tendered their work. This award followed a lengthy competitive bidding process. Work under this award is expected to commence in the second quarter of 2008 after completion of contracts with each of the police forces. In addition, we expect approximately 29 police forces in the UK to tender their work through the UK's National Procurement Plan, a formalized bidding process to be implemented this year. We are currently planning our strategy for submitting bids through this plan and expect the police forces to tender their work in the 18-month period following implementation of the plan.

During the years ended December 31, 2007 and 2006, we recognized $255 thousand and $288 thousand, respectively, in other revenues, specifically license revenues.

Cost of Service Revenues

Cost of service revenues was $40.2 million, or approximately 67% of service revenues, for the year ended December 31, 2007, compared to $39.7 million, or approximately 70% of service revenues, for the year ended December 31, 2006. The increase in cost of service revenues primarily reflects increased laboratory personnel costs, partially offset by decreased depreciation expense. For the year ended December 31, 2007, as compared to 2006, our UK cost of service revenues increased by approximately 9% as a result of the exchange rate movement of the British pound as compared to the US dollar. The increase in gross margin percentage from 30% in 2006 to 33% in 2007 is a result of improved pricing in US forensic casework and CODIS testing services and improvements in operating efficiencies, partially offset by reduced gross margin contribution associated with the reduced UK agricultural testing services.

Research and Development

Research and development expenses for the year ended December 31, 2007 and 2006 were $1.0 million, a decrease of $183 thousand as compared to $1.2 million during 2006. The decrease in research and development expenses was primarily due to reduced personnel costs.

Marketing and Sales

Marketing and sales expenses for the year ended December 31, 2007 were $6.0 million, a decrease of $745 thousand as compared to $6.8 million during the prior year. The decrease in marketing and sales expenses was primarily due to decreased spending in radio advertising related to our marketing and sales programs in our private paternity testing business and decreased personnel costs. The radio advertising campaign was discontinued in the second quarter of 2006.

General and Administrative

General and administrative expenses for the year ended December 31, 2007 were $15.4 million, a decrease of $3.6 million, as compared to $19.0 million during 2006. The decrease in general and administrative expenses primarily included decreases in consulting and professional fees, including audit expenses, as well as decreases in insurance, legal and bad debt expenses. In particular, the first quarter of 2006 included certain consulting and professional fees which we did not incur in 2007.

Restructuring

We recorded a restructuring benefit of $75 thousand for the year ended December 31, 2007 as a result of favorable settlement of an employee obligation that was accrued at December 31, 2006. Restructuring expenses for the year ended December 31, 2006 were $437 thousand, primarily consisting of employee severance costs resulting from workforce reductions in our Princeton, New Jersey corporate office and for facility obligation costs for our former Germantown, Maryland and Dallas, Texas facilities.

Amortization of Intangible Assets

During both of the years ended December 31, 2007 and 2006, we recorded $1.8 million of amortization expense.

Total Other Income, Net

Interest income for the year ended December 31, 2007 was $1.0 million, compared to $617 thousand during the prior year, due to higher average cash balances in 2007.

Other income for the year ended December 31, 2007 was $138 thousand, primarily a result of a non-cash gain from a reduction in the fair value of a lease guarantee liability, partially offset by accruals of certain non-operating expenses. Other income for the year ended December 31, 2006 was $282 thousand, which primarily consisted of non-cash gains resulting from the reversal of certain non-operating accounts payable and accrued expenses and a reduction in the fair value of a lease guarantee liability, partially offset by accruals of certain non-operating expenses, losses on disposal of fixed assets and an impairment charge on available-for-sale securities that were determined to be other-than-temporarily impaired.

Income Tax Expense

During the years ended December 31, 2007 and 2006, we recorded income tax expense of $20 thousand and $143 thousand, respectively. For the year ended December 31, 2007, we recognized current foreign tax expense of $1.1 million and deferred foreign tax expense of $68 thousand, primarily for our profitable business in the UK. In addition, we recorded a tax benefit of $1.1 million associated with the sale of some of our state net operating loss, or NOL, carryforwards. No tax benefit was recorded relating to our US business' losses as management deemed that it was not likely than such tax benefit would be realized.

For the year ended December 31, 2006, we recognized current foreign tax expense of $1.1 million, primarily for our profitable business in the UK, and $214 thousand of deferred foreign tax benefit, primarily for our

profitable businesses in the UK and Canada. In 2006, we reversed $215 thousand of a tax reserve, with the impact included in the above current foreign tax expense amount, for tax return positions taken on our UK subsidiary tax return filings with respect to intercompany transactions due to the closing of the statute of limitations for our 2004 UK tax return. In addition, we recorded a tax benefit of $749 thousand associated with the sale of some of our state NOL carryforwards. No tax benefit was recorded relating to our US business' losses as management deemed that it was not likely than such tax benefit would be realized.

Net Loss

For the year ended December 31, 2007, we reported a net loss of $3.0 million, which represented a decrease of 74% as compared to a net loss of $11.3 million for the year ended December 31, 2006.

Years ended December 31, 2006 and 2005

The following table sets forth a year-over-year comparison of the components of our net loss for the years ended December 31, 2006 and 2005:

	2006	2005	$ Change	% Change
		(In thousands)		
Total revenues	$ 56,854	$61,609	$(4,755)	(8)%
Cost of service revenues	39,705	37,496	2,209	6
Research and development	1,228	1,616	(388)	(24)
Marketing and sales	6,766	8,744	(1,978)	(23)
General and administrative	18,980	20,383	(1,403)	(7)
Impairment of assets	—	255	(255)	(100)
Restructuring	437	2,514	(2,077)	(83)
Amortization of intangible assets	1,765	1,763	2	0
Total other income, net	899	2,069	(1,170)	(57)
Income tax expense	143	346	(203)	(59)
Net loss	(11,271)	(9,439)	(1,832)	19

Revenues

Total revenues for the year ended December 31, 2006 of $56.9 million represented a decrease of approximately $4.8 million, or approximately 8%, as compared to revenues of $61.6 million for 2005.

Our US service revenues for the year ended December 31, 2006 of $29.0 million declined by $2.2 million, or approximately 7%, as compared to $31.2 million for 2005, primarily due to declines in pricing and volume for our government paternity testing services. This decline was slightly offset by increased volume for our US forensic testing services.

Revenues from our UK-based testing services declined by $1.6 million, or approximately 6%, to $27.6 million during the year ended December 31, 2006, as compared to $29.2 million for 2005. Specifically, our UK-based testing services declined due to reduced volume and pricing in non-violent crime testing services and reduced volume in agriculture testing services, with such declines partially offset by increased revenues from government paternity testing due to increased volume and pricing. For the year ended December 31, 2006, as compared to the same period in 2005, our UK revenues were favorably impacted by approximately 1%, as a result of the exchange rate movement of the British Pound as compared to the US dollar.

During the year ended December 31, 2006, we recognized $288 thousand in other revenues, specifically license revenues, as compared to $1.2 million for 2005. The decline in other revenues is principally due to lower royalties received on our microfluidic technology patents during the year ended December 31, 2006. Our microfluidic technology patents do not relate to our business of DNA testing services. Effective September 1,

2005, Motorola, Inc., or Motorola, converted its exclusive license to our microfluidic technology to a non-exclusive license agreement. Under the exclusive license, Motorola paid us a minimum annual fee of $1.0 million, while the non-exclusive license payments are 4% of sales of products incorporating our technology by Motorola.

Cost of Service Revenues

Cost of service revenues were $39.7 million, or approximately 70% of service revenues, for the year ended December 31, 2006, compared to $37.5 million, or approximately 62% of service revenues, for 2005. The increase in cost of service revenues and cost of service revenues as a percentage of service revenues primarily reflects declines in pricing and volumes for our US government paternity testing services and UK non-violent crime testing services, as well as increased laboratory personnel costs.

Research and Development Expenses

Research and development expenses for the year ended December 31, 2006 were $1.2 million, a decrease of $388 thousand from $1.6 million for 2005. The decrease was primarily a result of spending reductions following the closure of our former Germantown, Maryland facility in September 2005.

Marketing and Sales

Marketing and sales expenses for the year ended December 31, 2006 were $6.8 million, as compared to $8.7 million for 2005. The decrease in marketing and sales expenses of $2.0 million was primarily due to decreased personnel costs, travel costs and spending in radio advertising related to our marketing and sales programs in our private paternity testing business.

General and Administrative

General and administrative expenses for the year ended December 31, 2006 were $19.0 million, a decrease of $1.4 million, as compared to $20.4 million for the comparable period of the prior year. The decrease in general and administrative expenses for the year ended December 31, 2006 included decreases in travel, recruiting, rent, depreciation and personnel costs, due to our focus on cost containment. The decreases were partially offset by increases in consulting expenses and stock-based compensation recorded in accordance with Statement of Financial Accounting Standards, or FAS, No. 123(R), *Share-Based Payment,* or FAS 123(R).

Restructuring

Restructuring expenses for the year ended December 31, 2006 were $437 thousand, a decrease of $2.1 million, as compared to $2.5 million for the comparable period of the prior year. The restructuring costs in 2006 primarily consisted of employee severance costs resulting from workforce reductions in our Princeton, New Jersey corporate office and for facility obligation costs for our former Germantown, Maryland and Dallas, Texas facilities. The restructuring costs in 2005 were primarily for employee severance costs related to workforce reductions in our corporate office and the Germantown, Maryland facility, as well as for other costs related to the closure of the Germantown, Maryland facility.

Amortization of Intangible Assets

During each of the years ended December 31, 2006 and 2005, we recorded $1.8 million of amortization expense.

Total Other Income, Net

Interest income for the year ended December 31, 2006 was $617 thousand, compared to $522 thousand during the same period of the prior year, primarily due to higher interest rates.

We did not incur any interest expense in 2006, as our outstanding long-term debt was paid in full during the third quarter of 2005. Interest expense for the year ended December 31, 2005 was $81 thousand.

Other income for the year ended December 31, 2006 was $282 thousand, which primarily consisted of non-cash gains resulting from the reversal of certain non-operating accounts payable and accrued expenses and a reduction in the fair value of a lease guarantee liability, partially offset by accruals of certain non-operating expenses, losses on disposal of fixed assets and an impairment charge on available-for-sale securities that were determined to be other-than-temporarily impaired.

Other income for the year ended December 31, 2005 was $1.6 million, which primarily consisted of a non-cash gain on the acquisition of treasury stock in connection with the settlement of escrow claims and the return of treasury shares associated with our December 2001 acquisition of Lifecodes Corporation.

Income Tax Expense

During the years ended December 31, 2006 and 2005, we recorded income tax expense of $143 thousand and $346 thousand, respectively. For the year ended December 31, 2006, we recognized current foreign tax expense of $1.1 million, primarily for our profitable business in the UK, and $214 thousand of deferred foreign tax benefit, primarily for our profitable businesses in the UK and Canada. In 2006, we reversed $215 thousand of a tax reserve, with the impact included in the above current foreign tax expense amount, for tax return positions taken on our UK subsidiary tax return filings with respect to intercompany transactions due to the closing of the statute of limitations for our 2004 UK tax return. In addition, we recorded a tax benefit of $749 thousand associated with the sale of some of our state NOL carryforwards. No tax benefit was recorded relating to our US business' losses as management deemed that it was not likely than such tax benefit would be realized.

For the year ended December 31, 2005, we recognized a current foreign tax expense of $1.1 million and $50 thousand of deferred foreign tax benefit, primarily for our profitable business in the UK. Prior to 2005, we had recorded tax reserves for tax return positions taken on our UK subsidiary tax return filings with respect to intercompany transactions. In 2005, we reversed $1.5 million of this tax reserve, with the impact included in the above current foreign tax expense amount, due to the closing of the statute of limitations for our 2002 UK tax return and an assessment of our remaining tax position with respect to tax return positions taken on our 2003 and 2004 UK subsidiary tax return filings. In addition, we recorded a tax benefit of $718 thousand associated with the sale of some of our state NOL carryforwards.

Net Loss

For the year ended December 31, 2006, we reported a net loss of $11.3 million, which represented an increase of 19% as compared to a net loss of $9.4 million for the year ended December 31, 2005.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2007, we had $20.9 million in cash and cash equivalents as compared to $24.1 million as of December 31, 2006. Working capital decreased to $25.5 million at December 31, 2007 from $30.0 million at December 31, 2006, primarily a result of cash spent to acquire ReliaGene. As of December 31, 2007, we had $240 thousand in short-term debt obligations and $525 thousand in long-term debt obligations, of which $188 thousand was classified as a current liability in the consolidated balance sheet.

Sources of Liquidity

Our primary sources of liquidity have been issuances of our securities and other capital raising activities.

The following table sets forth a year-over-year comparison of the components of our liquidity and capital resources for the years ended December 31, 2007 and 2006:

	(In thousands)		$	%
	2007	2006	Change	Change
Cash provided by (used in):				
Operating activities	$ 3,020	$(11,621)	$ 14,641	> (100)%
Investing activities	(6,152)	(1,580)	(4,572)	> 100
Financing activities	(385)	13,062	(13,447)	> (100)

Net cash provided by operations for the year ended December 31, 2007 was $3.0 million compared with net cash used in operations of approximately $11.6 million for the prior year. The change in operating cash flows was mainly a result of a decreased net loss, improved collections of our accounts receivable and a decrease in paying down our accounts payable and accrued expenses for the year ended December 31, 2007 as compared to 2006. Investing activities during the year ended December 31, 2007 primarily consisted of $5.0 million spent to acquire ReliaGene and $1.2 million of capital expenditures, as compared to $2.5 million in capital expenditures, partially offset by the release of $778 thousand of restricted cash for the prior year. Financing activities during the year ended December 31, 2007 consisted of issuance costs related to a private placement of common stock in a prior period of $77 thousand and $332 thousand in debt and patent obligation payments, partially offset by proceeds of $24 thousand from the issuance of common stock due to the exercise of stock options, while financing activities for 2006 consisted of net proceeds from issuances of common stock of $13.2 million, partially offset by $150 thousand in patent obligation payments.

ReliaGene Debt

As part of the acquisition of ReliaGene on October 31, 2007, we assumed $948 thousand in debt comprised of a line of credit and various notes payable with outstanding balances of $260 thousand and $688 thousand, respectively. The line of credit has a maximum credit limit of $750 thousand secured by ReliaGene accounts receivable and equipment, a maturity date of April 19, 2008, an interest rate of 7.25% and a December 31, 2007 outstanding balance of $240 thousand, classified as short-term debt on the consolidated balance sheet. The notes payable, which are secured by ReliaGene's equipment, have interest rates ranging from 6.75% to 8.50% and maturity dates ranging from June 30, 2009 through September 5, 2011. As of December 31, 2007, the outstanding balance for the notes payable was $525 thousand, of which $188 thousand was classified as current portion of long-term debt on the consolidated balance sheet.

November 2006 Private Placement

On November 21, 2006, we completed a common stock private placement to certain new and existing institutional investors which raised $14.0 million in gross proceeds ($13.1 million in net proceeds after direct transaction costs). We sold approximately 4,875,000 shares of common stock at $2.88 per share in the private placement. We filed a registration statement on Form S-1 covering the resale of the shares of common stock sold in the private placement, which was originally declared effective by the Securities and Exchange Commission, or SEC, on December 29, 2006. We have since filed a post-effective amendment to this registration statement, which was declared effective by the SEC on April 11, 2007.

Restricted Cash

As of December 31, 2007, cash restricted for one of our operating leases and a government contract, in the amount of $958 thousand, is reflected as a non-current asset in the consolidated balance sheet.

Expected Uses of Liquidity in 2008

Throughout 2008, we plan to continue making investments in our business. We expect the following to be significant uses of liquidity: cost of service revenues, salaries and related personnel costs, laboratory supplies,

fees for the collection of samples, facility expenses, marketing expenses, general and administrative costs and the costs associated with the integration of ReliaGene into our business. Actual expenditures may vary substantially from our estimates. In addition, we may make additional investments in future acquisitions of businesses or technologies which would increase our capital expenditures.

We believe that our existing cash on hand will be sufficient to fund our operations at least through the next twelve months. We may need to raise additional capital to fund future growth opportunities or to operate our ongoing business activities if our future results of operations fall below our expectations. However, we may not be able to raise additional funds or raise funds on terms that are acceptable to us. If future financing is not available to us, or is not available on terms acceptable to us, we may not be able to fund our future needs. If we raise funds through equity or convertible securities, our stockholders may experience dilution and our stock price may decline.

We cannot assure you that our business or operations will not change in a manner that would consume available resources more rapidly than anticipated. We also cannot assure you that we will not require substantial additional funding before we can achieve profitable operations. We also may need additional capital if we seek to acquire other businesses or technologies.

Contractual Obligations and Commercial Commitments

We maintained multiple contractual commitments as of December 31, 2007 which will support our future business operations. Such commitments relate to noncancelable operating lease arrangements, debt obligations and a lease guarantee. We have identified and quantified the most significant of these commitments in the following table.

	Payments due by period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
			(In thousands)		
Contractual obligations:					
Operating lease obligations (1)	$6,380	$2,086	$2,793	$893	$608
Debt obligations (2)	765	428	317	20	—
Other long-term liabilities (3)	739	270	469	—	—
Total contractual obligations	$7,884	$2,784	$3,579	$913	$608

(1) Such amounts represent future minimum rental commitments for office space and equipment leased under noncancelable operating lease arrangements.

(2) Such amounts represent amounts payable under our line of credit and various notes payable.

(3) Such amounts represent an unconditional guarantee related to the lease for the Stamford, Connecticut based laboratory, which was assigned in connection with the sale of our former Diagnostics business unit. We were required to sign this guarantee as a condition of the sale. We reflected the fair value of the guarantee at the time of the sale of the Diagnostics business of approximately $1.6 million as a reduction to the net realizable value of these assets and liabilities. We valued the guarantee based on the existing terms and conditions of the lease, an estimated vacancy of the space for ten months prior to subleasing the space and expected rental income from the sublease of the space. The lease terminates in April 2010. Minimum remaining rents under the assigned lease total approximately $1.3 million.

Limitation on the Use of Our NOL Carryforwards

As of December 31, 2007, our NOL carryforwards were $245.4 million and $152.4 million for federal and state income tax purposes, respectively. Some of the federal and state NOL carryforwards we have generated or acquired have begun to expire. Utilization of our NOL carryforwards to offset future taxable income, if any, may be substantially limited due to "change of ownership" provisions in the Tax Reform Act of 1986, or the Act. The

Act provides for a limitation on the annual use of NOL carryforwards and research and development credits following certain ownership changes, as defined by the Act, which could significantly limit our ability to utilize these carryforwards and research and development credits. We have determined that an ownership change, as defined by the Act, occurred in 1999 and as a result $41.4 million of our NOL carryforwards is limited. We may have experienced other ownership changes, as defined by the Act, as a result of past financings and may experience others in connection with future financings. Accordingly, our ability to utilize the aforementioned federal NOL carryforwards may be further limited in the future. If our NOL carryforwards are limited or expire, we would not be able to offset future earnings with these NOL carryforwards which could negatively impact our liquidity in the future.

Critical Accounting Policies

Our critical accounting policies are as follows:

- revenue recognition
- stock-based compensation
- valuation of long-lived and intangible assets and goodwill
- income taxes

Revenue Recognition

We recognize DNA laboratory services revenues at the time test results are completed and reported, persuasive evidence of an arrangement exists, the price to the buyer is fixed or determinable and collectibility is reasonably assured. Deferred revenues represent the unearned portion of payments received in advance of tests being completed and reported. Unbilled receivables represent revenue which has been earned on completed and reported tests, but has not been billed to the customer. Revenues from license arrangements, including license fees creditable against future royalty obligations of the licensee, are recognized when an arrangement is entered into if we have no significant continuing involvement under the terms of the arrangement. If we have significant continuing involvement under such an arrangement, license fees are deferred and recognized over the estimated performance period. Management has made estimates and assumptions relating to the performance period, which are subject to change. Changes in these estimates and assumptions could affect the amount of revenues from licenses reported in any given period.

Stock-Based Compensation

Effective January 1, 2006, we adopted the provisions of, and account for stock-based compensation in accordance with, FAS 123(R). Under the fair value recognition provisions of this statement, stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which is the vesting period. We have applied the modified prospective method of adoption, under which prior periods are not restated for comparative purposes. Under the modified prospective method, FAS 123(R) applies to new awards and to awards that were outstanding as of December 31, 2005 that are subsequently modified, repurchased or cancelled. Compensation expense recognized during the year ended December 31, 2006 includes expense for all share-based payments granted prior to, but not yet vested as of, December 31, 2005, based on the grant date fair value estimated in accordance with the provisions of FAS No. 123, *Accounting for Stock-Based Compensation*, and expense for all share-based payments granted during the year ended December 31, 2006, based on the grant-date fair value estimated in accordance with the provisions of FAS 123(R). Stock-based compensation is classified within cost of service revenues, research and development, marketing and sales and general and administrative on the consolidated statement of operations.

Stock options granted to employees, which are granted with an exercise price equal to or greater than the fair market value of our common stock at the date of grant, in general vest in four years in equal monthly installments and have a maximum term of ten years. Stock options granted to our Board of Directors in general vest in three years in equal monthly installments and have a maximum term of ten years.

We use the Black-Scholes option pricing model to estimate the fair value of options granted, which requires the input of highly subjective assumptions. These assumptions include estimating the length of time employees will retain their vested stock options before exercising them, the estimated volatility of our common stock price over the expected term, the number of options that will ultimately not vest and the expected dividend yield. Changes in the subjective assumptions can materially affect the estimate of the fair value of stock-based compensation and, consequently, the related amount recognized in the consolidated statements of operations. The expected volatility assumption is based on the daily historical volatility of our stock price, over the expected term of the option. Our stock options are considered "plain vanilla" options based on the guidance in SEC Staff Accounting Bulletin, or SAB, No. 107, *Share-Based Payment*, or SAB 107, and as such we have elected to use the "simplified" method, whereby we have assumed that all options will be exercised midway between the vesting date and the contractual term of the option to determine the expected term of the option. In December 2007, the SEC issued SAB No. 110, *Share-Based Payment*, or SAB 110, to amend the SEC's views discussed in SAB 107 regarding the use of the simplified method in developing an estimate of expected life of share options in accordance with FAS 123(R). SAB 110 is effective for us beginning in the first quarter of fiscal year 2008. We will continue to use the simplified method until we have the historical data necessary to provide a reasonable estimate of expected life in accordance with SAB 107, as amended by SAB 110. We have not paid dividends since our inception, nor do we expect to pay any dividends for the foreseeable future, thus the expected dividend yield assumption is zero. As stock-based compensation expense recognized in the consolidated statement of operations is based on awards ultimately expected to vest, the amount of expense has been reduced for estimated forfeitures. FAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures are estimated based on historical experience.

Valuation of Long-Lived and Intangible Assets and Goodwill

We assess the impairment of amortizable identifiable intangibles and long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include the following:

- significant underperformance relative to expected historical or projected future operating results;
- significant changes in the manner of our use of the acquired assets or the strategy for our overall business;
- significant negative industry or economic trends; and
- significant decrease in the market value of the assets.

The impairment test is based upon a comparison of the estimated undiscounted cash flows to the carrying value of the long-lived assets. If we determine that the carrying value of long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment based on projected discounted cash flows. The cash flow estimates used to determine the impairment, if any, contain management's best estimate using appropriate assumptions and projections at that time. Net amortizable intangible assets and long-lived assets amounted to $17.1 million as of December 31, 2007.

We assess goodwill for impairment at least annually in the fourth quarter, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. If the book value of a reporting unit exceeds its fair value, the implied fair value of goodwill is compared with the carrying amount of goodwill. If the carrying amount of goodwill exceeds the implied fair value of goodwill, an impairment loss is recorded in an amount equal to that excess.

Income Taxes.

We have generated NOL carryforwards for tax purposes since inception. As of December 31, 2007, these NOL carryforwards have resulted in NOL carryforwards of $245.4 million and $152.4 million for federal and state

income tax purposes, respectively. In addition, certain charges recorded in the current and prior years were not currently deductible for income tax purposes. These differences result in gross deferred tax assets. We must assess the likelihood that the gross deferred tax assets, net of any deferred tax liabilities, will be recovered from future taxable income. To the extent we believe the recovery is not likely, we have established a valuation allowance.

Significant management judgment is required in determining this valuation allowance. We have recorded a valuation allowance of $100.9 million as of December 31, 2007, due to uncertainties related to our ability to utilize some of our net deferred tax assets, primarily consisting of NOL carryforwards, before they expire. The valuation allowance is based on our estimates of taxable income and the period over which the net deferred tax assets will be recoverable.

Conversely, if we are profitable in the future at levels which cause management to conclude that it is more likely than not that we will realize all or a portion of the net deferred tax assets for which a valuation has been recorded, we would record the estimated net realizable value of the net deferred tax asset at that time and would then record income taxes on our US operations at a rate equal to our combined federal and state effective rate of approximately 40%.

We adopted the provisions of Financial Accounting Standards Board, or FASB, Interpretation No. 48, *Accounting for Uncertainty in Income Taxes,* or FIN 48, on January 1, 2007. As a result of the implementation of FIN 48, we recognized no material adjustment in the liability for unrecognized income tax benefits. As of January 1, 2007 and December 31, 2007, the unrecognized tax benefits amounted to approximately $175 thousand, including an immaterial amount for accrued interest and penalties related to uncertain tax positions, all of which would affect our effective tax rate if recognized. We recognize interest and penalties related to uncertain tax positions in income tax expense. The tax years 2005-2006 remain open to examination by the UK taxing authorities and the tax years 2004-2006 remain open to examination by the US taxing authorities. In addition, the US taxing authorities may examine the tax years from our inception in 1995 through 2003, but are barred from adjusting our tax liabilities in excess of the net operating losses generated in any of those tax years.

Recently Issued Accounting Pronouncements

In September 2006, the FASB issued FAS No. 157, *Fair Value Measurements,* or FAS 157. FAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. This statement is applicable whenever another accounting pronouncement requires or permits assets and liabilities to be measured at fair value. FAS 157 does not expand or require any new fair value measures, however, the application of this statement may change current practice. The requirements of FAS 157 are first effective for our fiscal year beginning January 1, 2008. However, in February 2008, the FASB decided that an entity need not apply this standard to non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis until the subsequent year. Accordingly, our adoption of this standard on January 1, 2008 is limited to financial assets and liabilities. We do not believe the initial adoption of FAS 157 will have a material effect on our financial condition or results of operations. However, we are still in the process of evaluating this standard with respect to its effect on non-financial assets and liabilities and therefore have not yet determined the impact that it will have on our consolidated financial statements upon full adoption.

In February 2007, the FASB issued FAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, or FAS 159. FAS 159 provides companies with an option to measure, at specified election dates, many financial instruments and certain other items at fair value that are not currently measured at fair value. An entity that adopts FAS 159 will report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. FAS 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. We will be required to adopt FAS 159 for our fiscal year beginning January 1, 2008. We do not believe the adoption of FAS 159 will have a material impact on our consolidated financial statements.

In December 2007, the FASB issued FAS No. 141 (revised 2007), *Business Combinations*, or FAS 141(R), which replaces FAS No. 141, *Business Combinations*. FAS 141(R) establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any non-controlling interest in the acquiree and the goodwill acquired. This statement also establishes disclosure requirements which will enable users to evaluate the nature and financial effects of the business combination. FAS 141(R) applies prospectively to our business combinations for which the acquisition date is on or after January 1, 2009.

In December 2007, the FASB issued FAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements*, or FAS 160. FAS 160 states that accounting and reporting for minority interests will be recharacterized as noncontrolling interests and classified as a component of equity. This statement also establishes reporting requirements that provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. FAS 160 applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, but will affect only those entities that have an outstanding noncontrolling interest in one or more subsidiaries or that deconsolidate a subsidiary. We will be required to adopt FAS 160 for our fiscal year beginning January 1, 2009. We are currently evaluating the potential impact, if any, of the adoption of FAS 160 on our consolidated financial statements.

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements. Such statements are based on management's current expectations and are subject to a number of factors and uncertainties that could cause actual results or outcomes to differ materially from those described in such forward-looking statements. These statements address or may address the following subjects:

- our expectation of the amount and timing of future revenues, expenses and other items affecting the results of our operations;
- our expectation that, with the increasing availability of non-human genomic data, improved characteristics in livestock or crops will be produced to protect humans against animal-borne diseases;
- our belief that scientists hope to understand and use DNA molecular level knowledge to transform traditional approaches to medicine, agriculture and other fields;
- our belief that, by identifying sheep that are susceptible to the disease scrapie, the disease may ultimately be bred out of the sheep population;
- our expectation that work under the North West/South West and Wales regional tender will commence in the second quarter of 2008;
- our belief that the actions taken by us to date have placed us in a position to successfully transition from our prior relationship with LGC and FAL to directly providing DNA testing services to police forces in the UK;
- our belief that we are one of the largest providers of forensic and family relationship testing in the US and that we are also a recognized leading provider of such services in the UK;
- our belief that the US and UK are some of the largest existing markets for DNA testing services today;
- our belief that our experience as a reliable provider of services to government agencies is a valued credential that can be used in securing both new contracts and renewing existing contracts;
- our intention to develop and evaluate new technologies to enhance our laboratory processes, including instrumentation, automation and new testing methodologies;
- our expectation that our instrumentation, automation and new testing methodologies will enable us to reduce our costs for and improve the quality of our service offerings;

- our anticipation that forensic DNA testing will grow based on legislation both in the US and the UK, increased federal funding in the US and improved utility of the growing CODIS and NDNAD databases;
- our anticipation that our current facilities should serve our near term capacity needs;
- our anticipation that federal and state governments in the US and national and local governments in the UK will allocate greater resources to support wider use of DNA testing;
- our expectation that we will be able to timely and successfully integrate ReliaGene's business;
- our expectation that the award of the North West/South West and Wales regional tender in the UK will result in significant revenues;
- our expectations regarding the UK's National Procurement Plan;
- our belief that the general concern over animal-borne pathogens entering the human food supply may continue to expand interest in food safety and this concern may lead to a new market opportunity;
- our expectation that that there will be new opportunities for us to both develop assays to detect meat qualities, and to perform ongoing agricultural genotyping services for the commercial meat industry;
- our intention to seek and continue to seek patent protection for novel uses of SNPs in the genetic testing field;
- our intention to continue to concentrate on protection of our intellectual property as it relates to our DNA testing services;
- our expectation that our existing cash on hand will be sufficient to fund our operations at least through the next twelve months;
- our anticipation that a portion of our future growth may be accomplished either by acquiring or merging with existing businesses;
- our plan to continue to market our services to governments, commercial companies and private individuals;
- our intention to continue to vigorously defend ourselves against plaintiff's claims in litigation relating to our May 5, 2000 IPO;
- our belief that litigation claims arising against us from the normal course of business will not have a material effect on our financial position and liquidity, but could have a material impact on our results of operations for any reporting period;
- our expectation to not pay any dividends in the foreseeable future;
- our intention to retain earnings, if any, to finance our growth;
- our expectation that severe pricing pressure in our government funded paternity testing services will continue;
- our expectation that revenues under our contract with DEFRA will decline in 2008 as compared to 2007 and 2006;
- our plan to continue to make substantial investments in our business;
- our expectation about our significant uses of liquidity;
- our anticipation that we do not need to raise additional capital in 2008;
- our expectation that the adoption of FAS 157 and FAS 159 will not have a material impact on our consolidated financial statements; and
- our expectation that our disclosure controls and procedures or our internal control over financial reporting will not prevent all error and all fraud.

While management makes its best efforts to be accurate in making forward-looking statements, such statements are subject to risks and uncertainties that could cause actual results to vary materially, including the risks and uncertainties discussed throughout this Annual Report on Form 10-K and the cautionary information set forth under the heading "Risk Factors" appearing in Item 1A of this Annual Report on Form 10-K. We disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity

Our exposure to market risk is principally confined to our cash equivalents, which are conservative in nature, with a focus on preservation of capital. Due to the short-term nature of our investments and our investment policies and procedures, we have determined that the risks associated with interest rate fluctuations related to these financial instruments are not material to our business. As of December 31, 2007, we had $525 thousand in fixed rate long-term notes payable and $240 thousand in a variable rate short–term line of credit. We performed a sensitivity analysis assuming a hypothetical 10% change in the variable debt interest rates and assuming we held $240 thousand in variable debt during the entire year ended December 31, 2007 and currently estimate that such a change would not have a material impact on our loss before income taxes for the year ended December 31, 2007.

Foreign Currency Risk

Our business derives a substantial portion of its revenues from international operations. We record the majority of our foreign operational transactions, including all cash inflows and outflows, in the local currency, British Pound. We record all of our US operational transactions, including cash inflows and outflows, in US dollars. We expect that international sales may continue to represent a significant portion of our revenue. The significant percentage of our revenue derived from our UK operations makes us vulnerable to future fluctuations in the exchange rate, and while there is currently no material adverse impact to our financial results, future material adverse exchange rate movements would have an unfavorable translation impact on our consolidated financial results. We are prepared to hedge against any fluctuations in foreign currencies should such fluctuations have a material economic impact on us, although we have not engaged in hedging activities to date. We performed a sensitivity analysis assuming a hypothetical 10% change in the value of the British Pound to US dollar currency exchange rate and currently estimate that such a change would have impacted loss before income taxes for the year ended December 31, 2007 by approximately $300 thousand.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

ORCHID CELLMARK INC. AND SUBSIDIARIES

Index to Consolidated Financial Statements and Schedule

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
Orchid Cellmark Inc.

We have audited the accompanying consolidated balance sheet of Orchid Cellmark Inc. and Subsidiaries as of December 31, 2007, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for the year then ended. Our audit of the basic financial statements included the financial statement schedule listed in the index appearing under Item 15. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Orchid Cellmark Inc. and Subsidiaries as of December 31, 2007, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Orchid Cellmark Inc. and Subsidiaries' internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 4, 2008 expressed an unqualified opinion.

/s/ GRANT THORNTON LLP

New York, New York
March 4, 2008

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
Orchid Cellmark Inc.

We have audited Orchid Cellmark Inc. and Subsidiaries' internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Orchid Cellmark Inc. and Subsidiaries' management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on Orchid Cellmark Inc. and Subsidiaries' internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Orchid Cellmark Inc. and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control—Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Orchid Cellmark Inc. and Subsidiaries as of December 31, 2007, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for the year then ended and our report dated March 4, 2008 expressed an unqualified opinion.

/s/ GRANT THORNTON LLP

New York, New York
March 4, 2008

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Orchid Cellmark Inc.:

We have audited the accompanying consolidated balance sheet of Orchid Cellmark Inc. and subsidiaries as of December 31, 2006, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for each of the years in the two-year period ended December 31, 2006. In connection with our audits of the consolidated financial statements, we also have audited the financial statement schedule, Schedule II—Valuation and Qualifying Accounts. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Orchid Cellmark Inc. and subsidiaries as of December 31, 2006, and the results of their operations and their cash flows for each of the years in the two-year period ended December 31, 2006, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set therein.

As discussed in Note 3 to the consolidated financial statements, the Company adopted the provisions of Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment,* effective January 1, 2006.

/s/ KPMG LLP

Princeton, New Jersey
March 15, 2007

ORCHID CELLMARK INC. AND SUBSIDIARIES

Consolidated Balance Sheets
December 31, 2007 and 2006
(In thousands, except share and per share data)

	2007	2006
Assets		
Current assets:		
Cash and cash equivalents	$ 20,918	$ 24,144
Accounts receivable, net of allowance of $799 and $822 as of December 31, 2007 and 2006, respectively	9,516	11,603
Inventory	1,443	1,072
Prepaids and other current assets	2,151	1,751
Total current assets	34,028	38,570
Fixed assets, net	7,440	8,469
Goodwill	9,519	2,321
Other intangibles, net	9,694	9,755
Restricted cash	958	958
Other assets	490	543
Total assets	$ 62,129	$ 60,616
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,027	$ 2,417
Accrued expenses and other current liabilities	4,611	4,342
Income taxes payable	543	1,013
Short-term debt and current portion of long-term debt	428	—
Deferred revenue	964	825
Total current liabilities	8,573	8,597
Long-term debt	337	—
Other liabilities	786	1,113
Total liabilities	9,696	9,710
Commitments and contingencies		
Stockholders' equity:		
Preferred stock; authorized 5,000,000 shares		
Series A redeemable convertible preferred stock; $0.001 per share par value; designated 5 shares; no shares issued or outstanding	—	—
Series A junior participating preferred stock; designated 1,000,000 shares; no shares issued or outstanding	—	—
Common stock; $0.001 par value; authorized 150,000,000 shares; issued 30,097,394 and 29,481,480 shares at December 31, 2007 and 2006, respectively	30	29
Additional paid-in capital	370,129	366,080
Accumulated other comprehensive income	3,852	3,408
Treasury stock at cost, 163,259 common shares at December 31, 2007 and 2006	(1,587)	(1,587)
Accumulated deficit	(319,991)	(317,024)
Total stockholders' equity	52,433	50,906
Total liabilities and stockholders' equity	$ 62,129	$ 60,616

See accompanying notes to consolidated financial statements.

ORCHID CELLMARK INC. AND SUBSIDIARIES

Consolidated Statements of Operations
Years ended December 31, 2007, 2006 and 2005
(In thousands, except per share data)

	2007	2006	2005
Revenues:			
Service revenues	$60,048	$ 56,566	$ 60,440
Other revenues	255	288	1,169
Total revenues	60,303	56,854	61,609
Operating expenses:			
Cost of service revenues	40,230	39,705	37,496
Research and development	1,045	1,228	1,616
Marketing and sales	6,021	6,766	8,744
General and administrative	15,385	18,980	20,383
Impairment of assets	—	—	255
Restructuring	(75)	437	2,514
Amortization of intangible assets	1,806	1,765	1,763
Total operating expenses	64,412	68,881	72,771
Operating loss	(4,109)	(12,027)	(11,162)
Other income (expense):			
Interest income	1,035	617	522
Interest expense	(11)	—	(81)
Other income	138	282	1,628
Total other income, net	1,162	899	2,069
Loss before income taxes	(2,947)	(11,128)	(9,093)
Income tax expense	(20)	(143)	(346)
Net loss	$ (2,967)	$(11,271)	$ (9,439)
Basic and diluted net loss per share	$ (0.10)	$ (0.45)	$ (0.39)
Shares used in computing basic and diluted net loss per share	29,583	24,892	24,284

See accompanying notes to consolidated financial statements.

ORCHID CELLMARK INC. AND SUBSIDIARIES

Consolidated Statements of Stockholders' Equity and Comprehensive Loss
Years ended December 31, 2007, 2006 and 2005
(In thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Treasury Stock	Accumulated Deficit	Total Stockholders' Equity
	Number of Shares	Amount					
Balance at January 1, 2005	24,033	$ 24	$351,590	$ 2,950	$ —	$(296,314)	$ 58,250
Net loss	—	—	—	—	—	(9,439)	(9,439)
Foreign currency translation adjustment	—	—	—	(1,699)	—	—	(1,699)
Unrealized gain on available-for-sale securities	—	—	—	8	—	—	8
Reclassification adjustment for realized gain on available-for-sale securities	—	—	—	(19)	—	—	(19)
Comprehensive loss							(11,149)
Acquisition of treasury shares from escrow settlement	—	—	—	—	(1,587)	—	(1,587)
Cancellation of common stock from purchase accounting adjustment	(46)	—	(489)	—	—	—	(489)
Issuance of common stock from exercise of stock options	79	—	348	—	—	—	348
Issuance of common stock from cashless exercise of warrants	429	—	—	—	—	—	—
Compensation expense from modification of stock options	—	—	104	—	—	—	104
Balance at December 31, 2005	24,495	24	351,553	1,240	(1,587)	(305,753)	45,477
Net loss	—	—	—	—	—	(11,271)	(11,271)
Foreign currency translation adjustment	—	—	—	1,908	—	—	1,908
Unrealized gain on available-for-sale securities	—	—	—	8	—	—	8
Reclassification adjustment for realized loss on available-for-sale securities	—	—	—	(7)	—	—	(7)
Reclassification adjustment for impairment charge on available-for-sale securities	—	—	—	259	—	—	259
Comprehensive loss							(9,103)
Issuance of common stock in private placement	4,875	5	13,165	—	—		13,170
Issuance of common stock from exercise of stock options	12	—	42	—	—	—	42
Stock-based compensation expense	100	—	1,320	—	—	—	1,320
Balance at December 31, 2006	29,482	29	366,080	3,408	(1,587)	(317,024)	50,906
Net loss	—	—	—	—	—	(2,967)	(2,967)
Foreign currency translation adjustment	—	—	—	444	—	—	444
Comprehensive loss							(2,523)
Issuance of common stock for acquisition	560	1	2,912	—	—	—	2,913
Issuance costs of common stock in private placement	—	—	(77)	—	—	—	(77)
Issuance of common stock from exercise of stock options	14	—	24	—	—	—	24
Stock-based compensation expense	41	—	1,190	—	—	—	1,190
Balance at December 31, 2007	30,097	$ 30	$370,129	$ 3,852	$(1,587)	$(319,991)	$ 52,433

See accompanying notes to consolidated financial statements.

ORCHID CELLMARK INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows
Years ended December 31, 2007, 2006 and 2005
(In thousands)

	2007	2006	2005
Cash flows from operating activities:			
Net loss	$(2,967)	$(11,271)	$(9,439)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Non-cash compensation expense	1,190	1,320	104
Depreciation and amortization	4,669	5,105	5,824
Bad debt expense	60	329	315
Loss on sale of assets	123	254	38
Impairment of assets	—	259	255
Non-cash gain on escrow settlement	—	—	(1,587)
Gain on sale of short-term investments	—	(7)	(117)
Changes in assets and liabilities:			
Accounts receivable	3,062	(1,239)	3,091
Inventory	(301)	(18)	304
Prepaids and other current assets	(292)	153	(357)
Other assets	61	(174)	(100)
Accounts payable	(744)	(1,049)	863
Accrued expenses and other current liabilities, including restructuring	(1,063)	(5,064)	(410)
Deferred revenue	19	—	(158)
Income taxes payable	(470)	(199)	(770)
Other liabilities	(327)	(20)	(184)
Net cash provided by (used in) operating activities	3,020	(11,621)	(2,328)
Cash flows from investing activities:			
Capital expenditures	(1,154)	(2,505)	(4,196)
Decrease in restricted cash	—	778	—
Proceeds from sale of assets	23	56	51
Sales of short-term investments	—	91	18,472
Acquisition of ReliaGene Technologies Inc., net of cash acquired	(5,021)	—	—
Net cash provided by (used in) investing activities	(6,152)	(1,580)	14,327
Cash flows from financing activities:			
Proceeds from issuance of common stock	24	14,081	348
Issuance costs of common stock in private placement	(77)	(869)	—
Repayment of debt	(183)	—	(371)
Payments of patent obligation liability	(149)	(150)	(150)
Net cash provided by (used in) financing activities	(385)	13,062	(173)
Effect of foreign currency translation on cash and cash equivalents	291	1,085	(740)
Net (decrease) increase in cash and cash equivalents	(3,226)	946	11,086
Cash and cash equivalents at beginning of period	24,144	23,198	12,112
Cash and cash equivalents at end of period	$20,918	$ 24,144	$23,198
Supplemental disclosure of non-cash financing and investing activities:			
Stock issued for acquisition of ReliaGene Technologies Inc	$ 2,913	$ —	$ —
Beneficial settlements of purchase accounting obligations	—	—	489
Supplemental disclosure of cash flow information:			
Cash paid during the year for interest	$ 11	$ —	$ 18
Cash paid during the year for taxes	1,477	1,686	1,508

See accompanying notes to consolidated financial statements.

(1) Summary of Significant Accounting Policies

Organization and Business Activities

Orchid Cellmark Inc. and its subsidiaries (the Company) is engaged in the provision of DNA testing services that generate genetic profile information by analyzing an organism's unique genetic identity. The Company focuses its business on DNA testing primarily for human identity and, to a lesser extent, agricultural applications. In the human identity area, the Company provides DNA testing services for forensic, family relationship and, to a lesser extent, security applications. Forensic DNA testing is primarily used to establish or maintain databases of individuals convicted of crimes or, in some instances, arrested in connection with crimes, to confirm that a suspect committed a particular crime or to exonerate an innocent person. Family relationship DNA testing is used to establish whether two or more people are genetically related. DNA testing is used by individuals and employers in security applications to establish or store a person's genetic profile for identification purposes in the event of an emergency or accident. In agricultural applications, the Company provides DNA testing services for food safety and selective trait breeding. The Company was organized under the laws of the state of Delaware on March 8, 1995.

Consolidated Financial Statements

The accompanying consolidated financial statements include the results of operations of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. All cash equivalents are held in commercial paper and money market funds. To date, the Company has not experienced any losses on its cash and cash equivalents. The Company also maintains cash restricted for one of its operating leases and a government contract. As of December 31, 2007 and 2006, $958 thousand of cash was restricted and classified as a non-current asset on the consolidated balance sheet.

Accounts Receivable and Credit Risks

Clinical laboratory testing accounts receivable is primarily comprised of amounts owed by government agencies. The Company performs periodic credit evaluation of its customers' financial condition and generally does not require a deposit from government agencies or private institutions. The Company believes that individual private customers for paternity testing represent the most significant credit risk and generally requires a deposit for all or a portion of the services to be rendered to such customer. The Company records an allowance for doubtful accounts, reducing the receivables balance to an amount it estimates is collectible from its customers. Estimates used in determining the allowance for doubtful accounts are based on historical collection experience, current trends, aging of accounts receivable, and periodic credit evaluations of the Company's customers' financial condition.

Investments

Investments consist of commercial paper, auction rate securities and certificates of deposit with purchased maturities greater than three months. In accordance with Statement of Financial Accounting Standards (FAS) No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, the Company classifies its investments as available-for-sale. Available-for-sale securities are recorded at fair value based on quoted market prices. Unrealized gains and losses are recorded as a component of accumulated other comprehensive income. The Company did not hold any available-for-sale securities at December 31, 2007 and 2006.

Fixed Assets

Fixed assets, which consist of lab equipment, furniture and fixtures, computers and software, are carried at cost, less accumulated depreciation, which is computed on the straight-line basis over the estimated useful lives of the related assets. Leasehold improvements, which are also included in fixed assets, are recorded at cost, less accumulated depreciation, which is computed on the straight-line basis over the shorter of their estimated useful lives or the lease term. Expenditures for maintenance and repairs are charged to expense as incurred.

The following is a summary of the estimated useful lives of the Company's fixed assets:

	Useful Life
Laboratory equipment	5 years
Computers and software	3 years
Furniture and fixtures	7 years
Leasehold improvements	Life of lease or useful life if shorter

Inventory

Inventory is stated at the lower of cost or market. Cost is determined by the first-in, first-out method.

Business Combinations, Goodwill and Intangible Assets

The Company accounts for business combinations under the provisions of FAS No. 141, *Business Combinations* (FAS 141), which requires that the purchase method of accounting be used for all business combinations. FAS 141 also specifies criteria intangible assets acquired in a purchase method business combination must meet to be recognized and reported apart from goodwill. Goodwill represents the excess purchase price over the fair value of the tangible net assets and intangible assets acquired in a business combination. In accordance with FAS No. 142, *Goodwill and Other Intangible Assets* (FAS 142), goodwill and intangible assets with indefinite useful lives are not amortized, but instead tested for impairment annually, or more frequently as needed when events or changes have occurred that would suggest an impairment of the asset. Impairment is assessed by determining whether the fair values of the applicable reporting units exceed their carrying values. The evaluation of fair value requires the use of projections, estimates and assumptions as to the future performance of the operations in performing a discounted cash flow analysis, as well as assumptions regarding sales and earnings multiples that would be applied in comparable acquisitions. Intangible assets acquired as a result of a business combination are recorded at their fair value at the acquisition date. Intangible assets acquired individually are recorded at their acquisition cost. Definite lived intangible assets are amortized on a straight-line basis over their estimated useful lives.

Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of

In accordance with FAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (FAS 144), the Company reviews long-lived assets and intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the undiscounted future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to dispose.

Income Taxes

The Company accounts for income taxes in accordance with the asset and liability method prescribed by FAS No. 109, *Accounting for Income Taxes* (FAS 109). Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities, and net operating loss (NOL) and credit carryforwards. Deferred tax assets and liabilities are measured using tax rates in effect for the years in which the items are expected to reverse. The measurement of deferred tax assets is reduced, if necessary, by a valuation allowance for any tax benefits which are not expected to be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that such tax rate changes are enacted. In certain situations, a taxing authority may challenge positions that the Company has adopted in the income tax filings. Accordingly, the Company may apply different tax treatment for these selected transactions in filing its tax return than for financial reporting purposes. The Company regularly assesses its position for such transactions and includes reserves for those differences in position, if appropriate. The reserves are utilized or reversed once the statute of limitations has expired or the matter is otherwise resolved.

Revenue Recognition

The Company recognizes DNA laboratory services revenues at the time test results are completed and reported if persuasive evidence of an arrangement exists, the price to the buyer is fixed or determinable and collectibility is reasonably assured. Deferred revenues represent the unearned portion of payments received in advance of tests being completed and reported. Unbilled receivables represent revenue which has been earned on completed and reported tests, but has not been billed to the customer. Revenues from license arrangements, including license fees creditable against future royalty obligations of the licensee, are recognized when an arrangement is entered into if the Company has no significant continuing involvement under the terms of the arrangement. If the Company has significant continuing involvement under such an arrangement, license fees are deferred and recognized over the estimated performance period. Management has made estimates and assumptions relating to the performance period, which are subject to change. Changes in these estimates and assumptions could affect the amount of revenues from licenses reported in any given period.

Research and Development

Costs incurred for research and product development, including salaries and related personnel costs, fees paid to consultants and outside service providers, and material costs for prototypes and test units, are expensed as incurred. The Company recognizes research and development expenses in the period incurred and in accordance with the specific contractual performance terms of such research agreements. Costs incurred in obtaining technology licenses and development of software is charged to research and development expense if the technology licensed or the software being developed has not reached technological feasibility.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States (US) requires the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates on historical experience and on other assumptions that it believes to be relevant under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. In particular, judgment is used in areas such as the allowance for doubtful accounts, impairment of long-lived assets and goodwill, accrual of bonuses, lease guarantee liability, stock-based compensation and income taxes. Actual results could differ from these estimates.

Financial Instruments

The carrying amounts of cash and cash equivalents, accounts receivable and accounts payable approximate their fair values because of the short maturity of these instruments. The fair values of all debt instruments were determined based on quoted market prices.

Foreign Currency Translation

The balance sheets of foreign subsidiaries are translated into US dollars at current year-end rates, and the statements of operations are translated at average monthly rates during each monthly period. Net exchange gains or losses resulting from the translation of foreign financial statements and the effect of exchange rate changes on intercompany transactions of a long-term investment nature are accumulated and credited or charged directly to a separate component of stockholders' equity. Any foreign currency gains or losses related to transactions are charged to other income (expense), net.

Net Loss Per Share

Net loss per share is computed in accordance with FAS No. 128, *Earnings Per Share*, by dividing the net loss allocable to common stockholders by the weighted average number of shares of common stock outstanding. The Company has certain options and warrants which have not been used in the calculation of diluted net loss per share allocable to common stockholders because to do so would be anti-dilutive. As such, the numerator and the denominator used in computing both basic and diluted net loss per share allocable to common stockholders for each year presented are equal.

Advertising

The Company expenses all advertising costs as incurred.

Sales and Value Added Taxes

Sales and value added (VAT) taxes collected from customers are excluded from revenues. The obligation is included in accrued liabilities until the taxes are remitted to the appropriate taxing authorities.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period's presentation.

Recent Accounting Pronouncements

In September 2006, the Financial Accounting Standards Board (FASB) issued FAS No. 157, *Fair Value Measurements* (FAS 157). FAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. This statement is applicable whenever another accounting pronouncement requires or permits assets and liabilities to be measured at fair value. FAS 157 does not expand or require any new fair value measures, however, the application of this statement may change current practice. The requirements of FAS 157 are first effective for the Company's fiscal year beginning January 1, 2008. However, in February 2008, the FASB decided that an entity need not apply this standard to non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis until the subsequent year. Accordingly, the Company's adoption of this standard on January 1, 2008 is limited to financial assets and liabilities. The Company does not believe the initial adoption of FAS 157 will have a

material effect on its consolidated financial statements. However, the Company is still in the process of evaluating this standard with respect to its effect on non-financial assets and liabilities and therefore has not yet determined the impact that it will have on its consolidated financial statements upon full adoption.

In February 2007, the FASB issued FAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (FAS 159). FAS 159 provides companies with an option to measure, at specified election dates, many financial instruments and certain other items at fair value that are not currently measured at fair value. An entity that adopts FAS 159 will report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. FAS 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. The Company will be required to adopt FAS 159 for its fiscal year beginning January 1, 2008. The Company does not believe the adoption of FAS 159 will have a material impact on its consolidated financial statements.

In December 2007, the FASB issued FAS No. 141 (revised 2007), *Business Combinations* (FAS 141(R)), which replaces FAS 141. FAS 141(R) establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any non-controlling interest in the acquiree and the goodwill acquired. This statement also establishes disclosure requirements which will enable users to evaluate the nature and financial effects of the business combination. FAS 141(R) applies prospectively to business combinations for which the acquisition date is on or after January 1, 2009.

In December 2007, the FASB issued FAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements* (FAS 160). FAS 160 states that accounting and reporting for minority interests will be recharacterized as noncontrolling interests and classified as a component of equity. This statement also establishes reporting requirements that provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. FAS 160 applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, but will affect only those entities that have an outstanding noncontrolling interest in one or more subsidiaries or that deconsolidate a subsidiary. The Company will be required to adopt FAS 160 for its fiscal year beginning January 1, 2009. The Company is currently evaluating the potential impact, if any, of the adoption of FAS 160 on its consolidated financial statements.

(2) Acquisition of ReliaGene Technologies Inc.

On October 31, 2007, the Company acquired the common stock of ReliaGene Technologies, Inc. (ReliaGene), a provider of forensic and paternity DNA testing services based in New Orleans, Louisiana. The acquisition was made pursuant to a Stock Purchase and Sale Agreement with the shareholders of ReliaGene. The aggregate purchase price was $5.6 million in cash and 560,539 shares of the Company's common stock. The shares of the Company's common stock were valued at $5.20 per share, which represents the five-day average stock price beginning two days before the acquisition announcement on October 22, 2007. The purchase price was adjusted downward by $158 thousand based on ReliaGene's working capital at closing. Such amount was delivered to the Company in January 2008 out of an escrow account. The purchase price is further subject to adjustment based on ReliaGene's future revenue levels and all of the common stock issued for the acquisition was placed in escrow for the revenue adjustment and to satisfy the sellers' indemnification obligations. There is no significant customer overlap between the Company and ReliaGene and the Company believes the combined forensic and paternity laboratory testing volumes should increase its operational efficiencies.

The ReliaGene acquisition was accounted for using the purchase method of accounting. Accordingly, the purchase price has been allocated to the assets acquired and liabilities assumed based on their estimated fair values as of the date of acquisition and the results of operations have been included in the Company's

consolidated financial statements from the date of acquisition. The purchase price has been allocated on a preliminary basis using information currently available. The Company engaged an outside appraisal firm to assist in determining the fair value of the long-lived tangible and identifiable intangible assets. The allocation of the purchase price to the assets and liabilities acquired will be finalized no later than the fourth quarter of fiscal 2008, as the Company obtains more information regarding asset valuations, liabilities assumed and revisions of preliminary estimates of fair values made at the date of purchase.

The aggregate consideration paid for the acquisition was as follows (in thousands):

Cash paid, net of cash acquired of $683 and working capital adjustment of $158	$4,759
Common stock issued	2,913
Transaction costs	262
Aggregate consideration paid	$7,934

The estimated valuation of acquired net assets at the acquisition date in connection with the ReliaGene acquisition is as follows (in thousands):

Current assets, net of cash acquired	$ 1,213
Fixed assets	720
Other assets	8
Identified intangible assets	1,720
Goodwill	7,176
Total assets acquired	10,837
Current liabilities	(2,531)
Long-term debt	(372)
Total liabilities assumed	(2,903)
Net assets acquired	$ 7,934

Other intangible assets consist of the following (in thousands):

	Amount	Useful Life
Customer list	$1,700	15 years
Non-compete agreements	20	2 years
	$1,720	

The following table summarizes unaudited pro forma financial information assuming the acquisition of ReliaGene had occurred on January 1, 2006. This unaudited pro forma financial information does not necessarily represent what would have occurred if the transaction had taken place on the date presented and should not be taken as representative of the Company's future consolidated results of operations or financial position.

	2007	2006
	(In thousands, except per share data)	
Total revenues	$66,719	$ 64,403
Net loss	(3,438)	(11,208)
Basic and diluted net loss per share	(0.12)	(0.45)

(3) Stock-based Compensation

During 1995, the Company established the 1995 Stock Incentive Plan (the 1995 Plan), which provided for the granting of restricted common stock or incentive and nonqualified stock options to the Company's directors, employees and consultants. An aggregate of 700,000 shares of the Company's common stock was authorized for issuance under the 1995 Plan, which expired by its terms on November 28, 2005.

During 2000, the Board of Directors and stockholders of the Company approved the 2000 Employee, Director, and Consultant Stock Incentive Plan (the 2000 Plan) for the issuance of common stock, incentive stock options and nonqualified stock options to the Company's employees, directors and consultants. The Company was originally authorized to issue options for up to 900,000 shares of the Company's common stock under the 2000 Plan. On June 8, 2005, at the Company's Annual Meeting of Stockholders, the stockholders approved the Company's Amended and Restated 2005 Stock Plan (the 2005 Plan). The 2005 Plan amended and restated in its entirety the 2000 Plan. The 2005 Plan authorizes the grant of up to approximately 1,700,000 shares plus the number of additional shares as described in the 2005 Plan, for the issuance of incentive stock options, nonqualified stock options, stock grants and other stock-based awards to the Company's employees, directors and consultants. On June 21, 2007, at the Company's Annual Meeting of Stockholders, the stockholders approved an amendment to the 2005 Plan to increase the aggregate number of shares available for issuance under the 2005 Plan by 2,000,000 shares. The 2005 Plan also specifies other terms such as eligibility, annual limits and the grant of awards thereunder. The 1995 Plan and the 2005 Plan provide that in the event of a change in control in the beneficial ownership of the Company, as defined therein, all options may, at the discretion of the compensation committee of the Company's Board of Directors, become fully vested and exercisable immediately prior to the change in control.

Stock options granted under the 2005 Plan are granted at a price equal to or greater than the fair market value of the Company's common stock at the date of grant. Stock options granted to employees in general vest over four years in equal monthly installments and have a maximum term of ten years. Stock options granted to the Company's Board of Directors in general vest over three years in equal monthly installments and have a maximum term of ten years. The Company issues new shares of its common stock upon exercise of stock options.

Prior to January 1, 2006, the Company applied the disclosure-only provisions of FAS No. 123, *Accounting for Stock-Based Compensation* (FAS 123). In accordance with the provisions of FAS 123, the Company applied Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees,* and related interpretations in accounting for its stock-based compensation plans and, accordingly, compensation cost was recorded on the date of issuance or grant only if the market price of the underlying stock exceeded the purchase or exercise price. Any deferred compensation cost was amortized over the respective vesting periods of the equity instruments, if any.

Had the Company determined compensation cost for options based on the fair value method for the year ended December 31, 2005 for its stock options under FAS 123, the Company's net loss and net loss per share would have been increased to the pro forma amounts indicated below (in thousands, except per share data):

	2005
Net loss:	
As reported	$ (9,439)
Add: Stock-based employee compensation expense included in reported net loss	104
Deduct: Total stock-based employee compensation expense determined under the fair value method for all awards	(1,727)
Pro forma under FAS 123	$(11,062)
Basic and diluted net loss per share:	
As reported	$ (0.39)
Pro forma under FAS 123	$ (0.46)

Effective January 1, 2006, the Company adopted the provisions of, and accounts for stock-based compensation in accordance with, FAS No. 123(R), *Share-Based Payment* (FAS 123(R)). Under the fair value recognition provisions of this statement, stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which is the vesting period. The Company has applied the modified prospective method of adoption, under which prior periods are not restated for comparative purposes. Under the modified prospective method, FAS 123(R) applies to new awards and to awards that were outstanding as of December 31, 2005 that are subsequently modified, repurchased or cancelled. Compensation expense recognized during the years ended December 31, 2007 and 2006 includes expense for all share-based payments granted prior to, but not yet vested as of, December 31, 2005, based on the grant date fair value estimated in accordance with the original provisions of FAS 123, and expense for all share-based payments granted subsequent to December 31, 2005, based on the grant date fair value estimated in accordance with the provisions of FAS 123(R). Stock-based compensation is classified within cost of service revenues, research and development, marketing and sales and general and administrative expense in the consolidated statement of operations. As stock-based compensation expense recognized in the consolidated statement of operations is based on awards ultimately expected to vest, the amount of expense has been reduced for estimated forfeitures. FAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures are estimated based on historical experience.

In November 2005, the FASB issued FASB Staff Position No. 123(R)-3, *Transition Election Related to Accounting for the Tax Effects of Share-Based Payment Awards*. The Company has elected not to adopt the short-cut method to calculate the beginning balance of the hypothetical additional paid-in-capital (APIC) pool of the excess tax benefits upon the Company's adoption of FAS 123(R). Utilizing the long-haul method, the Company has determined that it has no hypothetical APIC pool that can be utilized to offset future shortfalls that may be incurred.

The Company's option grants include options which qualify as incentive stock options (ISO) for income tax purposes. The treatment of the potential tax deduction, if any, related to ISOs may cause variability in the Company's effective tax rate in future periods. In the period the compensation cost related to ISOs is recorded, a corresponding tax benefit is not recorded as it is assumed that the Company will not receive a tax deduction upon the exercise of such ISOs. The Company may be eligible for tax deductions in subsequent periods to the extent that there is a disqualifying disposition of the common stock underlying the ISO. The Company also receives a

tax deduction upon the exercise of nonqualified stock options. In cases where the Company receives a tax deduction, the Company would record a tax benefit through the consolidated statement of operations in an amount not to exceed the corresponding cumulative compensation cost recorded in the consolidated financial statements for the particular option multiplied by the statutory tax rate. Any incremental tax benefit received by the Company in excess of the tax benefit recorded in the consolidated statement of operations would be recorded directly to APIC when realized.

The Company uses the Black-Scholes option pricing model to estimate the fair value of options granted, which requires the input of highly subjective assumptions. The Company's assumptions used in recognizing compensation expense in the consolidated statement of operations include estimating the length of time employees will retain their vested stock options before exercising them, the estimated volatility of the Company's common stock price over the expected term and the number of options that will ultimately not vest. Changes in the subjective assumptions can materially affect the estimate of the fair value of stock-based compensation and, consequently, the related amount of compensation expense recognized in the consolidated statement of operations.

The following weighted average assumptions were used in valuing the options granted during the years ended December 31, 2007, 2006 and 2005:

	2007	2006	2005
Risk-free interest rate	4.41%	4.98%	3.84%
Volatility	80%	85%	85%
Expected option term	6 years	6 years	5 years
Expected dividend yield	0%	0%	0%

The risk-free interest rate assumption is based upon the US Treasury yields in effect at the time of grant for a term that approximates the expected term of the option. The expected volatility assumption is based on the daily historical volatility of the Company's stock price over the expected term of the option. The Company's stock options are considered "plain vanilla" options based on the guidance in SEC Staff Accounting Bulletin (SAB) No. 107, *Share-Based Payment,* (SAB 107) and as such the Company has elected the use of the "simplified" method, whereby the Company has assumed that all options will be exercised midway between the vesting date and the contractual term of the option to determine the expected term of the option. In December 2007, the SEC issued SAB No. 110, *Share-Based Payment,* (SAB 110) to amend the SEC's views discussed in SAB 107 regarding the use of the simplified method in developing an estimate of expected life of share options in accordance with FAS No. 123(R). SAB 110 is effective for the Company beginning January 1, 2008. The Company will continue to use the simplified method until it has the historical data necessary to provide a reasonable estimate of expected life, in accordance with SAB 107, as amended by SAB 110. As the Company has not paid dividends since inception, nor does it expect to pay any dividends for the foreseeable future, the expected dividend yield assumption is zero.

Net loss for the years ended December 31, 2007 and 2006 includes $1.2 million and $1.3 million, respectively, of compensation costs related to stock-based compensation arrangements, including $207 thousand and $331 thousand related to the grant of 41,050 and 100,000 fully vested shares of common stock to the Company's Chief Executive Officer in December 2007 and 2006, pursuant to his amended employment agreement, respectively. The Company did not capitalize any of the compensation costs for the years ended December 31, 2007 and 2006 in fixed assets, inventory or other assets. The Company has not benefited from a tax deduction for stock option exercises due to net losses for the periods during which the options were exercised.

Information with respect to outstanding options under the plans is as follows:

	Shares	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value
Options outstanding at January 1, 2007	1,419,053	$ 9.09		
Granted	444,812	4.93		
Exercised	(14,235)	1.71		
Cancelled	(195,615)	8.27		
Options outstanding at December 31, 2007	1,653,925	$ 8.13	7.60	$906,000
Options exercisable at December 31, 2007	860,994	$11.27	6.42	$480,000

Additional information about the Company's share-based payments is as follows (in thousands, except per share data):

	Year ended December 31,		
	2007	2006	2005
Total intrinsic value of options exercised	$ 51	$ 13	$ 478
Net cash proceeds from the exercise of stock options	24	42	348
Weighted average grant date fair value per share of options granted	3.52	3.26	7.10

As of December 31, 2007, there was $3.1 million of unrecognized compensation cost related to stock options, which is expected to be recognized over a weighted average period of 2.66 years.

(4) Inventory

Inventory is comprised of the following at December 31, 2007 and 2006 (in thousands):

	2007	2006
Raw materials	$1,303	$ 875
Work in progress	138	189
Finished goods	2	8
	$1,443	$1,072

Raw materials consist mainly of reagents, enzymes, chemicals and plates used in genotyping. Work in progress consists mainly of case work not yet completed and DNA testing kits that are being processed. Finished goods consist mainly of DNA testing kits that have not yet been shipped.

(5) Fixed Assets

Fixed assets are comprised of the following at December 31, 2007 and 2006 (in thousands):

	2007	2006
Laboratory equipment	$ 16,096	$ 15,445
Computers and software	5,512	4,995
Furniture and fixtures	1,697	1,615
Leasehold improvements	6,861	6,460
	30,166	28,515
Less accumulated depreciation	(22,726)	(20,046)
	$ 7,440	$ 8,469

During the year ended December 31, 2005, the Company continued to strategically realign its business and evaluate potential future market segments and growth strategies. In connection with this evaluation, the Company recorded impairment changes for various fixed assets, primarily laboratory equipment, for $255 thousand in 2005.

Depreciation expense for the Company's fixed assets for the years ended December 31, 2007, 2006 and 2005 amounted to $2.9 million, $3.3 million and $4.1 million, respectively.

(6) Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities are comprised of the following at December 31, 2007 and 2006 (in thousands):

	2007	2006
VAT and other taxes	$1,164	$1,181
Employee compensation	1,133	448
Restructuring and ReliaGene acquisition related accruals	674	264
Professional fees	356	1,243
Current portion of guarantee obligation	283	283
Patent obligation	—	150
Other	1,001	773
	$4,611	$4,342

(7) Goodwill and Other Intangible Assets

The following table sets forth the activity for goodwill during the years ended December 31, 2007 and 2006 (in thousands):

Balance as of December 31, 2005	$2,177
Effect of foreign currency translation	144
Balance as of December 31, 2006	2,321
Goodwill recorded from the acquisition of ReliaGene	7,176
Effect of foreign currency translation	22
Balance as of December 31, 2007	$9,519

The Company has performed an annual assessment of goodwill as required under the provisions of FAS 142, and concluded that goodwill was not impaired.

The following table sets forth the Company's other intangible assets at December 31, 2007 and 2006 (in thousands):

	2007			2006		
	Cost (1)	Accumulated Amortization	Net	Cost (1)	Accumulated Amortization	Net
Base technology	$ 6,130	$ (4,133)	$1,997	$ 6,119	$ (3,616)	$2,503
Customer list	7,057	(3,798)	3,259	5,335	(3,280)	2,055
Trademark/tradename	4,453	(2,531)	1,922	4,435	(2,152)	2,283
Patents and know-how	4,915	(2,417)	2,498	4,913	(1,999)	2,914
Non-compete agreements	20	(2)	18	—	—	—
Totals	$22,575	$(12,881)	$9,694	$20,802	$(11,047)	$9,755

(1) Cost includes the cumulative historical effect of foreign currency translation on intangible assets acquired in a prior business combination. This cumulative historical effect of foreign currency translation amounted to $751 thousand and $698 thousand as of December 31, 2007 and 2006, respectively.

The Company's expected future amortization expense related to intangible assets over the next five years is as follows (in thousands):

2008	$1,912
2009	1,910
2010	1,902
2011	1,481
2012	745

(8) Restructuring

During the year ended December 31, 2005, the Company incurred $2.5 million of restructuring charges. Of these charges, $1.6 million was primarily related to employee severance costs resulting from workforce reductions in the corporate office and the Company's former operating facility in Germantown, Maryland, and $918 thousand of the restructuring charges was primarily related to facility closure costs for the Company's former Germantown, Maryland and Dallas, Texas facilities.

During the year ended December 31, 2006, the Company incurred $437 thousand of restructuring charges. Of these charges, $424 thousand was primarily related to employee severance costs resulting from workforce reductions in the corporate office and $143 thousand of the restructuring charges was primarily related to facility costs for the Company's former Germantown, Maryland and Dallas, Texas facilities, offset by $130 thousand in reductions related to the early termination of the Company's lease at its former Germantown, Maryland facility.

During the year ended December 31, 2007, the Company recorded a restructuring benefit of $75 thousand as a result of favorable settlement of an employee obligation. In addition, in connection with the acquisition of ReliaGene, the Company assumed $674 thousand in restructuring reserves, of which $513 thousand was related to workforce reductions and involuntary relocation and $161 thousand was related to facility costs.

A summary of the restructuring activity is as follows (in thousands):

	Workforce Reduction	Facility Costs	Total
Restructuring liability as of December 31, 2004	$ —	$ 1,848	$ 1,848
Restructuring charges recorded in 2005	1,596	918	2,514
Cash payments in 2005	(1,569)	(1,922)	(3,491)
Restructuring liability as of December 31, 2005	27	844	871
Restructuring charges recorded in 2006	424	143	567
Cash payments in 2006	(187)	(857)	(1,044)
Other reductions	—	(130)	(130)
Restructuring liability as of December 31, 2006	264	—	264
Restructuring reserve assumed in ReliaGene acquisition	513	161	674
Cash payments in 2007	(189)	—	(189)
Other reductions	(75)	—	(75)
Restructuring liability as of December 31, 2007	$ 513	$ 161	$ 674

(9) Debt

As part of the acquisition of ReliaGene, the Company assumed $948 thousand in debt, comprised of a line of credit and various notes payable with outstanding balances of $260 thousand and $688 thousand, respectively. The line of credit has a maximum credit limit of $750 thousand pledged by ReliaGene accounts receivable and equipment as collateral with carrying values of $978 thousand and $687 thousand, respectively, a maturity date of April 19, 2008, an interest rate of 7.25% and a December 31, 2007 outstanding balance of $240 thousand, classified as short-term debt on the consolidated balance sheet. The notes payable, which are secured by ReliaGene's equipment, have interest rates ranging from 6.75% to 8.50% and maturity dates ranging from June 30, 2009 through September 5, 2011. As of December 31, 2007, the outstanding balance for the notes payable was $525 thousand, of which $188 thousand was classified as current portion of long-term debt on the consolidated balance sheet.

(10) Income Taxes

The provision for income taxes is based on loss from continuing operations before income taxes reported for financial statement purposes. The components are as follows (in thousands):

	Year ended December 31,		
	2007	2006	2005
United States	$(5,912)	$(14,750)	$(14,402)
Foreign	2,965	3,622	5,309
Loss before income taxes	$(2,947)	$(11,128)	$ (9,093)

The components of income tax expense are summarized as follows (in thousands):

	Year ended December 31,		
	2007	2006	2005
Current income tax expense (benefit):			
State	$(1,149)	$ (749)	$ (718)
Foreign	1,101	1,106	1,114
Total current expense (benefit)	(48)	357	396
Deferred foreign tax expense (benefit)	68	(214)	(50)
Income tax expense	$ 20	$ 143	$ 346

During 2007, the Company recognized current foreign tax expense of $1.1 million and deferred foreign tax expense of $68 thousand, primarily for its profitable business in the United Kingdom (UK). In addition, the Company recorded a tax benefit of $1.1 million associated with the sale of some of its state NOL carryforwards during the fourth quarter of 2007. No tax benefit was recorded relating to the Company's US business' losses or other deferred tax assets as management deemed that it was not likely than such tax benefit would be realized.

During 2006, the Company recognized a tax benefit of $749 thousand from the sale of a portion of its New Jersey state NOL carryforwards. During 2006, the Company also reversed $215 thousand of a tax reserve for tax return positions taken on its UK subsidiary tax return filings due to the closing of the statute of limitations for the Company's 2004 UK tax return. In addition, the Company recognized a current foreign tax expense of $1.3 million, primarily related to its profitable business in the UK and $214 thousand of deferred foreign tax benefit, primarily related to its profitable businesses in the UK and Canada.

During 2005, the Company recognized a tax benefit of $718 thousand from the sale of a portion of its New Jersey state NOL carryforwards. In addition, the Company recognized a current foreign tax expense of $2.6 million and $50 thousand of deferred foreign tax benefit, primarily related to its profitable business in the UK. Prior to 2005, the Company had recorded tax reserves for tax return positions taken on its UK subsidiary tax return filings with respect to intercompany transactions. In the first quarter of 2005, the Company reversed $535 thousand of this tax reserve due to the closing of the statute of limitations for the Company's 2002 UK tax return. In addition, during the fourth quarter of 2005, the Company completed an assessment of its remaining exposure with respect to tax return positions taken on its 2003 and 2004 UK subsidiary tax return filing and on an estimate of its planned tax position to be utilized in filing its 2005 UK tax return. As a result of completing its assessment, the Company determined it is probable that it will sustain the majority of the tax benefit taken on the 2003 and 2004 UK tax return filing and with respect to its estimate of such tax benefit for the 2005 UK tax return filing. The Company utilized a study performed by outside consultants to assist it in reaching its conclusions with respect to this matter. Accordingly, in the fourth quarter of 2005, the Company reversed $1.0 million of tax reserves associated with tax positions taken on its 2003 and 2004 UK income tax returns and 2005 estimated tax return position for such intercompany transactions.

The Company adopted the provisions of FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48), on January 1, 2007. As a result of the implementation of FIN 48, the Company recognized no material adjustment in the liability for unrecognized income tax benefits. As of January 1, 2007 and December 31, 2007, the unrecognized tax benefits amounted to approximately $175 thousand, including an immaterial amount for accrued interest and penalties related to uncertain tax positions, all of which would affect the Company's effective tax rate if recognized. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. The tax years 2005-2006 remain open to examination by the UK

taxing authorities and the tax years 2004-2006 remain open to examination by the US taxing authorities. In addition, the US taxing authorities may examine the tax years from the Company's inception in 1995 through 2003, but are barred from adjusting the tax liabilities in excess of the net operating losses generated in any of those tax years.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

Balance at January 1, 2007	$175
Additions based on tax positions related to the current year	—
Additions for tax positions of prior years	—
Reductions for tax positions of prior years	—
Lapse of statute	—
Settlements	—
Balance at December 31, 2007	$175

The entire December 31, 2007 balance relates to unrecognized tax positions that, if recognized, would affect the annual effective tax rate and the entire balance is related to tax positions for which it is reasonably possible that the total amounts could significantly change during the twelve months following December 31, 2007, as a result of expiring statutes of limitations.

The tax effects of temporary differences and loss and credit carryforwards that give rise to significant portions of the deferred tax assets and liabilities of the Company at December 31, 2007 and 2006 are presented below (in thousands):

	2007	2006
Deferred tax assets:		
Bad debt allowance and inventory reserve	$ 291	$ 307
Stock-based compensation	460	240
Deferred revenue	222	193
NOL carryforwards	95,027	94,779
Research and development and foreign tax credits	4,584	2,562
Accrued restructuring expenses	104	108
Accrued expenses	758	377
Amortization and depreciation	1,924	1,840
Investments	308	308
Total gross deferred tax assets	103,678	100,714
Less valuation allowance	(100,878)	(98,509)
Net deferred tax assets	2,800	2,205
Deferred tax liabilities:		
Intangible assets	(2,392)	(1,729)
Net deferred taxes	$ 408	$ 476

At December 31, 2007 and 2006, valuation allowances of $100.9 million and $98.5 million, respectively, have been recognized to offset the net deferred tax assets related to the US operations of the Company, as

realization of these assets is uncertain. The net change in the valuation allowance for 2007 and 2006 was an increase of $2.4 million and a decrease of $3.2 million, respectively, related primarily to amortization, depreciation, foreign tax credits and additional NOL carryforwards incurred by the Company.

As of December 31, 2007, the Company has $245.4 million and $152.4 million of federal and state NOL carryforwards, respectively, available to offset future taxable income. Some of the federal and state NOL carryforwards the Company has generated or acquired have begun to expire. At December 31, 2007, the Company had research and development and foreign tax credit carryforwards for federal and state tax purposes of $4.6 million, which will begin expiring in 2022 and 2009, respectively. As a result of the Company's acquisitions of GeneScreen, Inc. and Lifecodes Corporation, the Company acquired federal NOL carryforwards of $4.5 million and $1.7 million, respectively, of which $1.3 million has expired. In the event that the Company becomes profitable in the future and is able to utilize these NOL carryforwards, the tax benefit from these acquired NOL carryforwards will not be reflected as income tax benefits in the results of operations, but as a reduction of intangible assets and goodwill related to these acquisitions. The Company also may receive tax benefits in the future relating to stock option deductions that will not be reflected in the results of operations.

The Tax Reform Act of 1986 (the Act) provides for a limitation on the annual use of NOL carryforwards and research and development credit carryforwards following certain ownership changes, as defined by the Act, which could significantly limit the Company's ability to utilize these carryforwards. The Company has determined that an ownership change, as defined by the Act, occurred in 1999 and as a result $41.4 million of the Company's NOL carryforwards is limited. The Company may have experienced other ownership changes, as defined by the Act, as a result of past financings and may experience others in connection with future financings. Accordingly, the Company's ability to utilize the aforementioned NOL carryforwards may be further limited in the future.

The Company recorded income tax expense of $20 thousand, $143 thousand and $346 thousand in 2007, 2006 and 2005, respectively. The following table represents a reconciliation of the Company's income tax expense to amounts computed by applying the statutory US federal income tax rate of 35% to loss before income taxes (in thousands):

	Year ended December 31,		
	2007	2006	2005
Computed expected tax benefit	$(1,031)	$(3,895)	$(3,183)
State income taxes, net of federal income tax benefit	(1,114)	(764)	(709)
Foreign tax differential	(185)	(225)	(306)
Permanent differences	397	2,814	374
Change in valuation allowance	1,953	2,213	4,170
	$ 20	$ 143	$ 346

The Company sold certain state NOL carryforwards in accordance with the state of New Jersey's Corporation Business Tax Benefit Certificate Transfer program (the Program) and generated benefits of $1.1 million, $749 thousand and $718 thousand for 2007, 2006 and 2005, respectively. The Program allows certain high technology and biotechnology companies to sell unused NOL carryforwards to other New Jersey corporation business taxpayers. Since New Jersey law provides that NOL carryforwards can be carried over for up to seven years, the Company may be able to transfer its New Jersey NOL carryforwards from the last seven years. The Program requires that the purchaser pay at least 75% of the amount of the surrendered tax benefit. During 2007, 2006 and 2005, the Company completed the sale of $15.4 million, $10.0 million and $9.6 million, respectively, of its New Jersey NOL carryforwards.

The Company has made no provision for US taxes on cumulative earnings of foreign subsidiaries as those earnings are intended to be reinvested for an indefinite period of time. The Company's cumulative undistributed earnings of foreign subsidiaries amounted to $8.9 million at December 31, 2007. Determination of the potential amount of unrecognized deferred US income tax liability related to such reinvested income is not practicable because of numerous assumptions associated with this hypothetical calculation. However, foreign tax credits would be available to reduce some portion of this amount. As of December 31, 2007 and based on tax laws in effect as of this date, it is the Company's intention to indefinitely reinvest the undistributed earnings of foreign subsidiaries.

(11) Significant Customers and Geographic Information

During the years ended December 31, 2007, 2006 and 2005, the Company generated $12.5 million or 21%, $13.1 million or 23% and $17.6 million or 29% of its total revenues, respectively, through an agreement with one customer.

The Company has significant international operations, primarily in the UK. During the years ended December 31, 2007, 2006 and 2005, the Company recorded revenues from international customers of $30.0 million, or 50%, $27.6 million, or 48%, and $29.2 million, or 47%, respectively, of total revenues. The customer noted above represented approximately 42%, 48% and 60% of total international revenues in 2007, 2006 and 2005, respectively.

At December 31, 2007 and 2006, the Company has long-lived assets of $4.0 million and $4.1 million located in the US, and $3.5 million and $4.4 million located in the UK, respectively.

(12) Common Stock Offerings

On November 21, 2006, the Company entered into definitive agreements with certain new and existing institutional investors to raise $14.0 million in gross proceeds ($13.1 million in net proceeds after direct transaction costs) in a common stock private placement. Pursuant to the agreements, the Company sold approximately 4,875,000 shares of common stock at $2.88 per share. The transaction closed on November 21, 2006. The Company filed a registration statement on Form S-1 covering the resale of the shares of common stock sold in the private placement, which was declared effective by the SEC on December 29, 2006. The Company has since filed a post-effective amendment to this registration statement, which was declared effective by the SEC on April 11, 2007.

On February 26, 2004, the Company entered into definitive agreements with new and existing institutional investors to raise $30.3 million in gross proceeds ($26.1 million in net proceeds after direct transaction costs) in a common stock private placement. Pursuant to the agreements, the Company sold approximately 3,158,000 shares of common stock at $9.60 per share and granted the investors four-year warrants to purchase an additional approximately 632,000 shares of the Company's common stock at an exercise price of $11.48 per share, all of which were outstanding at December 31, 2007. The transaction closed on February 27, 2004. The securities issued in this transaction were registered on a registration statement on Form S-1, which was declared effective on July 20, 2006. The Company determined that the securities purchase agreement does not expressly provide that the shares issued upon the exercise of the warrants must be registered and there are no express or implied remedies to the warrant holders that would indicate that the Company is required to net-cash settle the warrants in the event of delivery of unregistered shares in settlement of the contract. In accordance with the guidance in the FASB's Emerging Issues Task Force Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock*, the Company has accounted for the warrants issued in this transaction as part of permanent equity.

(13) Stockholder Rights Plan

On May 16, 2001, the Company's Board of Directors adopted a Stockholder Rights Plan (Rights Plan), which is designed to protect the Company's stockholders in the event of any takeover offer. On May 16, 2001, the Company's Board of Directors declared a dividend of one preferred stock purchase right (a Right) for each outstanding share of the Company's common stock to stockholders of record at the close of business on May 31, 2001 (the Record Date). Each Right entitles the registered holder to purchase from the Company one one-hundredth of a share of Series A junior participating preferred stock, $0.001 par value per share, at an initial purchase price of $40.00 in cash, subject to adjustment.

Initially, the Rights will be attached to all common stock certificates representing shares then outstanding, and no separate Rights certificates will be distributed. The Rights will separate from the common stock and a Distribution Date, as defined in the Rights Plan, will occur if certain events as described below transpire. Rights will also be attached to all shares of common stock issued following the Record Date but prior to the Distribution Date. The Rights are not exercisable until the Distribution Date and will expire at the close of business on May 16, 2011, unless earlier redeemed by the Company. The Distribution Date has not occurred as of December 31, 2007.

In the event that a person or a group of affiliated or associated persons becomes the beneficial owner of more than 15% of the then outstanding shares of common stock (except pursuant to an offer for all outstanding shares of common stock which the Board of Directors determines to be fair to, and otherwise in the best interests of, the Company and its stockholders), each holder of a Right will thereafter have the right to receive, upon exercise, that number of shares of common stock (or, in certain circumstances, cash, property or other securities of the Company) which equals the exercise price of the Right divided by one-half of the current market price (as defined in the Rights Plan) of the common stock at the date of the occurrence of the event. However, Rights are not exercisable following the occurrence of any of the events set forth above until such time as the Rights are no longer redeemable by the Company. In the event that the Company is acquired in a merger or other business combination transaction in which the Company is not the surviving corporation, or, more than 50% of the Company's assets or earning power is sold or transferred, each holder of a Right shall thereafter have the right to receive, upon exercise, that number of shares of common stock of the acquiring company which equals the exercise price of the Right divided by one-half of the current market price (as defined in the Rights Plan) of such common stock at the date of the occurrence of the event.

(14) Employee Stock Purchase Plan

During the year ended December 31, 2003, the Company's stockholders approved the 2003 Employee Stock Purchase Plan (the ESPP). The ESPP has not yet been implemented and there are no plans to implement the ESPP at this time. Employees who own more than 5% of our stock may not participate in the ESPP. At the beginning of an offering period, as defined in the ESPP document, each participant receives an option to purchase shares of common stock at the end of each accumulation period, at an exercise price equal to the lesser of 85% of (i) the fair market value of the common stock on the last trading day before the start of the applicable offering period, or (ii) the fair market value of the common stock on the last trading day of the accumulation period. The maximum number of shares that may be purchased by any participant in the ESPP in an accumulation period is 25,000 shares. No participant may purchase shares having an aggregate fair market value greater than $25 thousand in any calendar year. A total of 650,000 shares of the Company's common stock are reserved for issuance under the ESPP as of December 31, 2007. The ESPP may be amended, suspended or terminated at any time by the Board of Directors. Amendments affecting any increase in the number of shares available under the ESPP and any other amendment to the extent required by applicable law or regulation shall be subject to the approval of the Company's stockholders.

(15) Employee Benefit Plan

The Company sponsors a defined contribution 401(k) savings plan (the 401(k) Plan) covering all employees of the Company. Participants can contribute up to 15% of their pretax annual compensation to the 401(k) Plan, subject to certain limitations. The Company matches 50% of the participant's contribution, up to 4% of compensation. For the years ended December 31, 2007, 2006 and 2005, the Company's contributions amounted to $168 thousand, $169 thousand and $185 thousand, respectively, in accordance with the terms of the 401(k) Plan.

(16) Commitments and Contingencies

The Company leases office and laboratory facilities and certain equipment under noncancelable operating lease arrangements. Rent expense amounted to $1.9 million in 2007, $1.7 million in 2006 and $2.3 million in 2005. Future minimum rental commitments required by such leases as of December 31, 2007 are as follows (in thousands):

2008	$ 2,086
2009	1,637
2010	1,156
2011	597
2012	296
Thereafter	608
	$ 6,380

In connection with the sale of assets and liabilities of the Company's Diagnostics business to Tepnel Life Sciences PLC (Tepnel) in January 2004, the Company was required to sign an unconditional guarantee related to the lease for the Stamford, Connecticut based laboratory, which was assigned to Tepnel. The Company reflected the fair value of the guarantee of $1.6 million at the time of the sale of the Diagnostics business as a reduction to the net realizable value of these assets and liabilities. The fair value of the guarantee amounted to $739 thousand and $1.0 million, respectively, of which $456 thousand and $721 thousand, respectively, is included in other long-term liabilities in the accompanying consolidated balance sheet as of December 31, 2007 and December 31, 2006. The Company included $265 thousand and $412 thousand of income in other income for the years ended December 31, 2007 and 2006, respectively, which represents the change in the fair value of the outstanding liability. The Company valued the guarantee based on the existing terms and conditions of the lease, an estimated vacancy period of the space prior to subleasing the space, and expected rental income from the sublease of the space. The lease terminates in April of 2010. Minimum remaining rents under the assigned lease totaled $1.3 million as of December 31, 2007.

(17) Accumulated Other Comprehensive Income

The accumulated balances for each classification of items within accumulated other comprehensive income are as follows (in thousands):

	Foreign currency translation	Unrealized gains (losses) on securities	Accumulated other comprehensive income
Balance at January 1, 2005	$ 3,199	$(249)	$ 2,950
Foreign currency translation adjustment	(1,699)	—	(1,699)
Unrealized holding gain on available-for-sale securities	—	8	8
Reclassification adjustment for realized gain on available-for-sale securities	—	(19)	(19)
Balance at December 31, 2005	1,500	(260)	1,240
Foreign currency translation adjustment	1,908	—	1,908
Unrealized holding gain on available-for-sale securities	—	8	8
Reclassification adjustment for realized gain on available-for-sale securities	—	(7)	(7)
Reclassification adjustment for impairment charge on available-for-sale securities (1)	—	259	259
Balance at December 31, 2006	3,408	—	3,408
Foreign currency translation adjustment	444	—	444
Balance at December 31, 2007	$ 3,852	$ —	$ 3,852

(1) The Company performed an evaluation to determine whether its investment in certain available-for-sale securities was other than temporarily impaired, based upon the Company's ability and intent to hold for a reasonable period of time sufficient for a forecasted recovery of fair value, as of March 31, 2006. As a result of this evaluation and the absence of sufficient evidence to support a recovery of fair value within a reasonable period of time, the Company considered the investment in the available-for-sale securities to be other than temporarily impaired and recorded an impairment loss of $259 thousand related to these securities during the year ended December 31, 2006. This impairment loss is included in other income (expense) in the consolidated statement of operations.

(18) Legal Proceedings

On or about November 21, 2001, a complaint was filed in the United States District Court for the Southern District of New York naming the Company as a defendant, along with certain of its former officers and underwriters. An amended complaint was filed on April 19, 2002. The complaint, as amended, purportedly was filed on behalf of persons purchasing the Company's stock between May 4, 2000 and December 6, 2000, and alleges violations of Sections 11, 12(a)(2) and 15 of the Securities Act of 1933, as amended, and Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The amended complaint alleges that, in connection with the Company's May 5, 2000 initial public offering (IPO), the defendants failed to disclose additional and excessive commissions purportedly solicited by and paid to the underwriter defendants in exchange for allocating shares of the Company's stock to preferred customers and alleged agreements among the underwriter defendants and preferred customers tying the allocation of IPO shares to agreements to make additional aftermarket purchases at pre-determined prices. Plaintiffs claim that the failure to disclose these alleged arrangements made the Company's registration statement on Form S-1 filed with the SEC in May 2000 and the prospectus, a part of the registration statement, materially false and misleading.

Plaintiffs seek unspecified damages. The Company believes that the allegations are without merit and has, and intends to continue to, vigorously defend itself against plaintiffs' claims. In this regard, on or about July 15, 2002, the Company filed a motion to dismiss all of the claims against it and its former officers. On October 9, 2002, the Court dismissed without prejudice only the Company's former officers, Dale R. Pfost and Donald R. Marvin, from the litigation in exchange for the Company entering into a tolling agreement with plaintiffs' executive committee. On February 19, 2003, the Company received notice of the Court's decision to dismiss the Section 10(b) claims against the Company. Plaintiffs and the defendant issuers involved in this IPO securities litigation, including the Company, have agreed in principal on a settlement that, upon a one-time surety payment by the defendant issuers' insurers, would release the defendant issuers and their individual officers and directors from claims and any future payments or out-of-pocket costs. On March 10, 2005, the Court issued a memorandum and order (i) preliminarily approving the settlement, contingent on the parties' agreement on modifications of the proposed bar order in the settlement documents, (ii) certifying the parties' proposed settlement classes, (iii) certifying the proposed class representatives for the purposes of the settlement only, and (iv) setting a further hearing for the purposes of (a) making a final determination as to the form, substance, and program of notice of proposed settlement and (b) scheduling a public fairness hearing in order to determine whether the settlement can be finally approved by the Court. On April 24, 2006, the Court held a fairness hearing and took motion for final approval under advisement.

In related proceedings against the underwriters, the United States Court of Appeals for the Second Circuit ruled on December 5, 2006 that the District Court's certification of class actions against the underwriters in six "focus" cases was vacated and remanded for further proceedings. In so doing, the Second Circuit ruled that "the cases pending on this appeal may not be certified as class actions." On April 6, 2007, the Second Circuit denied the plaintiffs' petition for rehearing, and no further appeals have been taken.

As a result of the Second Circuit's ruling, the plaintiffs and the issuers stipulated on June 22, 2007 that the Stipulation and Agreement of Settlement with Defendant Issuers and Individuals, which was originally submitted to the District Court on June 10, 2004, was terminated, which resolved the motion for final approval of the class action settlement with the issuers and individual defendants. The District Court entered the parties' stipulation as an Order on June 25, 2007. As a result of these developments, the plaintiffs have filed amended complaints against the underwriters and "focus case" issuers and individuals and are attempting to certify a class action

The Company is a defendant in litigation pending in the Southern District of New York entitled Enzo Biochem, Inc. et al. v. Amersham PLC, et al, filed in October 2002. By their complaint, plaintiffs allege that certain defendants (i) breached their distributorship agreements by selling certain products for commercial development (which they allege was not authorized), (ii) infringed plaintiffs' patents through the sale and use of certain products, and (iii) are liable for unfair competition and tortious interference with contractual relations. The Company did not have a contractual relationship with plaintiffs, but is alleged to have purchased the product at issue from one of the other defendants. The Company has sold the business unit that was allegedly engaged in the unlawful conduct. As a result, there is no relevant injunctive relief to be sought from the Company. The complaint seeks damages in an undisclosed amount. Most of the fact discovery in the case has been taken, and a Markman hearing to construe the patent claims was conducted in early July 2005. On July 17, 2006, the Court ruled in the Company's favor on its construction of the patents asserted against the Company, and the co-defendants, including the Company, moved for summary judgment on all claims against it in January 2007. A hearing on the defendants' motions for summary judgment occurred on July 17-18, 2007, and the Court reserved ruling on the motions, taking them under advisement.

In other litigation brought by Enzo against another defendant under the same patents asserted against the Company, a Connecticut Federal Court has invalidated the patents asserted there and asserted against the

Company in the New York case. That decision is on appeal. As a result of these developments, the defendants in the Enzo v. Amersham et al. case have requested a conference before the Court in order to determine how to proceed. Such conference was held on March 4, 2008 and the Court has not yet ruled on such determination.

Additionally, the Company has certain other claims against it arising from the normal course of its business. The ultimate resolution of such matters, including those cases disclosed above, in the opinion of management, will not have a material effect on the Company's financial position and liquidity, but could have a material impact on the Company's results of operations for any reporting period.

(19) Quarterly Financial Data (Unaudited)

The following tables represent certain unaudited consolidated quarterly financial information for each of the quarters in 2007 and 2006. In the opinion of the Company's management, this quarterly information has been prepared on the same basis as the annual consolidated financial statements and include all adjustments (consisting only of normal recurring adjustments, except as disclosed below) necessary to present fairly the information for the periods presented (in thousands, except per share data):

	Quarters ended			
	March 31, 2007	June 30, 2007	September 30, 2007	December 31, 2007
Total revenues	$14,032	$15,732	$15,558	$14,981
Gross margin	4,513	5,526	5,504	4,530
Loss before income taxes	(1,424)	(392)	(165)	(966)
Net income (loss)	(1,683)	(745)	(707)	168
Basic and diluted net income (loss) per share	$ (0.06)	$ (0.03)	$ (0.02)	$ 0.01

	Quarters ended			
	March 31, 2006	June 30, 2006	September 30, 2006	December 31, 2006
Total revenues	$12,595	$13,613	$15,734	$14,912
Gross margin	2,391	3,694	5,710	5,354
Loss before income taxes	(6,428)	(4,020)	(502)	(178)
Net income (loss)	(6,599)	(4,230)	(1,327)	885
Basic and diluted net income (loss) per share	$ (0.27)	$ (0.17)	$ (0.05)	$ 0.03

During the fourth quarter of 2007, the Company revised its estimates for liabilities associated with accrued bonuses and the Tepnel lease guarantee and recorded a benefit of $522 thousand, included in cost of service revenue, general and administrative, sales and marketing and research and development expenses, and a benefit of $185 thousand, included in other income (expense), respectively.

Included in the Company's results of operations for the fourth quarter of 2006 are adjustments that relate to 2001 and 2002. The adjustment related to 2001, included in income tax expense, is to record a deferred tax asset totaling $174 thousand that was incorrectly omitted in a prior year. The adjustment related to 2002, included in other income (expense), is a reversal of an accrued expense obligation totaling $200 thousand that was incorrectly recorded in a prior year. The impact of these adjustments with respect to the Company's full year 2006 and prior year consolidated financial statements is immaterial. Also included in the Company's results of operations for the fourth quarter of 2006 is an additional adjustment that relates to 2002 and 2003. The adjustment, included in other income (expense), is a reversal of accounts payable obligations totaling $255 thousand that the Company now believes are unlikely to require payment.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures. As of December 31, 2007, we conducted an evaluation under the supervision and with the participation of our management, including our President and Chief Executive Officer and Vice President and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our President and Chief Executive Officer and Vice President and Chief Financial Officer concluded as of December 31, 2007 that our disclosure controls and procedures were adequate and effective.

Management's Report on Internal Control over Financial Reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control system is a process designed by, or under the supervision of, our President and Chief Executive Officer and Vice President and Chief Financial Officer and effected by our Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles.

Our internal control over financial reporting includes policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and disposition of assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with the authorization of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2007. In making this assessment, they used the control criteria framework of the Committee of Sponsoring Organizations, or COSO, of the Treadway Commission published in its report entitled *Internal Control—Integrated Framework.* Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2007.

Grant Thornton, LLP, our independent registered public accounting firm, also audited our internal control over financial reporting, and their audit report is included on page 40.

Changes in Internal Control over Financial Reporting. There were no changes in our internal control over financial reporting during the quarter ended December 31, 2007 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls. Our management, including our President and Chief Executive Officer and Vice President and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within an organization have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake.

Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. OTHER INFORMATION

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Management," "Section 16(a) Beneficial Ownership Reporting Compliance," "Code of Business Conduct and Ethics" and "Stockholder Proposals and Nominations for Director" in our Proxy Statement for the 2008 Annual Meeting of Stockholders.

Item 11. EXECUTIVE COMPENSATION

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Executive and Director Compensation," and "Management—Compensation Committee Interlocks and Insider Participation" in our Proxy Statement for the 2008 Annual Meeting of Stockholders.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Security Ownership" and "Executive and Director Compensation—Equity Compensation Plan Information" in our Proxy Statement for the 2008 Annual Meeting of Stockholders.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Certain Relationships and Related Transactions" and "Management—The Board of Directors" in our Proxy Statement for the 2008 Annual Meeting of Stockholders.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Independent Registered Public Accounting Firm" in our Proxy Statement for the 2008 Annual Meeting of Stockholders.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. Financial Statements. See Index to Consolidated Financial Statements at Item 8, page 31 of this report.

2. Financial Statement Schedules.

Schedule II. Valuation and Qualifying Accounts for the years ended December 31, 2007, 2006 and 2005.

(3) ***Exhibits***

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

Exhibit Number	Description
3.1(1)	Restated Certificate of Incorporation of the Registrant, dated May 10, 2000 (filed as Exhibit 3.1)
3.2(1)	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, dated June 12, 2001 (filed as Exhibit 3.2)
3.3(1)	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, dated June 14, 2002 (filed as Exhibit 3.3)
3.4(2)	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, dated March 30, 2004 (filed as Exhibit 4.10)
3.5(2)	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant,
3.6(1)	Certificate of Designation, Preferences, and Rights of Series A Junior Participating Preferred Stock of the Registrant, dated August 1, 2001 (filed as Exhibit 3.4)
3.7(3)	Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of the Registrant, dated March 31, 2003 (filed as Exhibit 3.1)
3.8(4)	Third Amended and Restated Bylaws of the Registrant (filed as Exhibit 3.1)
4.1(5)	Specimen certificate for share of common stock (filed as Exhibit 4.1)
4.2(6)	Rights Agreement, dated as of July 27, 2001, by and between the Registrant and American Stock Transfer & Trust Company, which includes the form of Certificate of Designation setting forth the terms of the Series A Junior Participating Preferred Stock, $0.001 par value, as Exhibit A, the form of rights certificate as Exhibit B and the summary of rights to purchase Series A Junior Participating Preferred Stock as Exhibit C. Pursuant to the Rights Agreement, printed rights certificates will not be mailed until after the Distribution Date (as defined in the Rights Agreement) (filed as Exhibit 4.1)
4.3(3)	First Amendment to Rights Agreement by and between the Registrant and American Stock Transfer & Trust Company, as rights agent, dated as of March 31, 2003 (filed as Exhibit 10.3)
4.4(3)	Form of Warrant dated March 31, 2003 issued to investors (filed as Exhibit 4.1)
4.5(7)	Form of Warrant dated February 27, 2004 between Registrant and investors (filed as Exhibit 4.1)
10.1(8)††	1995 Stock Incentive Plan, as amended, including form of stock option certificate for incentive and non-statutory stock options (filed as Exhibit 10.1)

Exhibit Number	Description
10.2(8)††	2000 Employee, Director, Consultant Stock Plan, including form of stock option agreement for non-statutory and incentive stock options (filed as Exhibit 10.2)
10.3(9)††	The Amended and Restated 2005 Stock Plan and the form of stock option agreement for non-statutory and incentive stock options (filed as Exhibits 99.1, 99.2 and 99.3, respectively)
10.4(8)††	Executive Benefit Program, including Executive Deferred Compensation Plan and Executive Severance Plan (filed as Exhibit 10.3)
10.5(10)††	Lifecodes Corporation 1992 Employee Stock Option Plan (filed as Exhibit 99.2)
10.6(10)††	Lifecodes Corporation 1995 Employee Stock Option Plan (filed as Exhibit 99.3)
10.7(10)††	Lifecodes Corporation 1998 Stock Plan (filed as Exhibit 99.4)
10.8(3)	Securities Purchase Agreement by and among the Registrant and the purchasers set forth on the execution pages thereof, dated as of March 31, 2003 (filed as Exhibit 10.1)
10.9(3)	Registration Rights Agreement, dated as of March 31, 2003 (filed as Exhibit 10.2)
10.10(7)	Form of Securities Purchase Agreement dated February 26, 2004 between the Registrant and investors (filed as Exhibit 4.2)
10.11(11)	Securities Purchase Agreement dated November 21, 2006 among the Registrant and the investors listed on the Schedule of Investors attached thereto (filed as Exhibit 10.1)
10.12(12)†	Commercial Services Agreement effective September 17, 2001 between the Registrant and the Department of Environment, Food and Rural Affairs (filed as Exhibit 10.22)
10.13(12)†	Agreement dated July 15, 2002 between the Registrant and Forensic Alliance Limited (filed as Exhibit 10.23)
10.14(12)†	Amended Patent Assignment and License Agreement dated July 7, 2003 by and between the Registrant, GeneCo Pty Ltd, Diatech Pty Ltd and Queensland University of Technology (filed as Exhibit 10.25)
10.15(12)†	Exclusive Patent License Agreement dated October 1, 2003 between the Registrant and Saint Louis University (filed as Exhibit 10.26)
10.16(12)†	Settlement Agreement dated August 6, 2002 between the Registrant and Saint Louis University (filed as Exhibit 10.27)
10.17(12)	Amendment No. 1 to Settlement Agreement dated October 1, 2003 between the Registrant and Saint Louis University (filed as Exhibit 10.28)
10.18††	Director Compensation Policy, effective January 1, 2004
10.19(15)	NWI Lease Agreement between the Registrant and NWI Warehouse Group L.P. dated February 15, 1996 for the facility located at 1400 Donelson Pike, Suite A-15, Nashville, Tennessee, 37217 (filed as Exhibit 10.1)
10.20(15)	Lease Agreement Amendment No. 1 between the Registrant and Duke-Weeks Realty L.P. dated January 23, 2001 for the facility located at 1400 Donelson Pike, Suite A-15, Nashville, Tennessee, 37217 (filed as Exhibit 10.2)
10.21(15)	Lease Agreement Amendment No. 2 between the Registrant and Duke Realty Limited Partnership dated August 8, 2005 for the facility located at 1400 Donelson Pike, Suite A-15, Nashville, Tennessee, 37217 (filed as Exhibit 10.3)
10.22(15)	Lease Agreement between the Registrant and Valwood Service Center I, Ltd. effective October 15, 2005 for the facility located at 13988 Diplomat Drive, Suite 100, Farmers Branch, Texas, 75234 (filed as Exhibit 10.4)

Exhibit Number	Description
10.23(15)	Lease Agreement between the Registrant and Valwood Service Center I, Ltd. effective December 15, 2005 for the facility located at 13988 Diplomat Drive, Suite 100, Farmers Branch, Texas, 75234 (filed as Exhibit 10.5)
10.24(16)††	Employment Agreement dated March 8, 2006 between the Registrant and Thomas A. Bologna (filed as Exhibit 99.1)
10.25(17)	Letter Agreement by and between College Road Associates, Limited Partnership and the Registrant, dated January 18, 2005 (filed as Exhibit 10.27)
10.26(17)	Amendment No. 1 to Lease Agreement by and between Bellemead Development Corporation and the Registrant, dated November 1, 2005 (filed as Exhibit 10.28)
10.27(17)†	Letter Agreement and Product Loan Agreement between the Registrant and Applied Biosystems, dated January 5, 2006 (filed as Exhibit 10.30)
10.28(18)††	Severance Agreement dated April 24, 2006 between the Registrant and Paul J. Kelly (filed as Exhibit 99.1)
10.29(19)††	Addendum to Employment Agreement dated March 8, 2006 between the Registrant and Thomas A. Bologna
10.30(20)††	Employment Agreement dated March 5, 2007 between the Registrant and Bruce F. Basarab (filed as Exhibit 10.1)
10.31††	Employment Agreement dated as of October 5, 2007 between the Registrant and James F. Smith
10.32	Stock Purchase and Sale Agreement dated as of October 19, 2007 among the Registrant and the shareholders of ReliaGene Technologies, Inc.
10.33††	Employment Agreement dated as of November 19, 2007 between the Registrant and William J. Thomas
21.1	Subsidiaries of the Registrant (filed as Exhibit 21.1)
23.1	Consent of Grant Thornton LLP
23.2	Consent of KPMG LLP
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Principal Financial and Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.2	Certifications of Principal Executive Officer and Principal Financial and Accounting Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

† Portions of this Exhibit were omitted and have been filed separately with the Secretary of the SEC pursuant to the Registrant's application requesting confidential treatment thereof.

†† Management or compensatory plan.

(1) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2002 as filed with the SEC on August 14, 2002 (File No. 000-30267).

(2) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's registration statement on Form S-8 as filed with the SEC on June 29, 2005 (File No. 333-126227).

(3) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on April 2, 2003 (File No. 000-30267).

(4) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on September 7, 2007 (File No. 000-30267).
(5) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2001 as filed with the SEC on November 14, 2001 (File No. 000-30267).
(6) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's registration statement on Form 8-A as filed with the SEC on August 3, 2001 (File No. 000-30267).
(7) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on March 8, 2004 (File No. 000-30267).
(8) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's registration statement on Form S-1, as amended, as originally filed with the SEC on February 18, 2000 (File No. 333-30774).
(9) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on June 14, 2005 (File No. 000-30267).
(10) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's registration statement on Form S-8 as filed with the SEC on January 15, 2002 (File No. 333-76744).
(11) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on November 21, 2006 (File No. 000-30267).
(12) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Annual Report on Form 10-K, as amended, for the year ended December 31, 2003 as originally filed with the SEC on March 29, 2004 (File No. 000-30267).
(13) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Annual Report on Form 10-K for the year ended December 31, 2004 as filed with the SEC on March 31, 2004 (File No. 000-30267).
(14) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2005 as filed with the SEC on May 6, 2005 (File No. 000-30267).
(15) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2005 as filed with the SEC on November 9, 2005 (File No. 000-30267).
(16) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on March 9, 2006 (File No. 000-30267).
(17) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005 as filed with the SEC on May 24, 2006 (File No. 000-30267).
(18) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Current Report on Form 8-K as filed with the SEC on April 27, 2006 (File No. 000-30267).
(19) Previously filed with the SEC as Exhibits to, and incorporated herein by reference from, the Registrant's Annual Report on Form 10-K for the year ended December 31, 2006 as filed with the SEC on March 15, 2007 (File No. 000-30267).
(20) Previously filed with the SEC as an Exhibit to, and incorporated herein by reference from, the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2007 as filed with the SEC on May 3, 2007 (File No. 000-30267).

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ORCHID CELLMARK INC.

Date: March 12, 2008

By: /s/ THOMAS A. BOLOGNA
Thomas A. Bologna
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated below and on the dates indicated.

Signatures	Title	Date
By: /s/ THOMAS A. BOLOGNA **Thomas A. Bologna**	Chief Executive Officer (Principal Executive Officer)	March 12, 2008
By: /s/ JAMES F. SMITH **James F. Smith**	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 12, 2008
By: /s/ GEORGE H. POSTE, DVM, PH.D. **George H. Poste**	Chairman of the Board	March 12, 2008
By: /s/ JAMES BEERY **James Beery**	Director	March 12, 2008
By: /s/ SIDNEY M. HECHT, PH.D. **Sidney M. Hecht, Ph.D.**	Director	March 12, 2008
By: /s/ KENNETH D. NOONAN, PH.D. **Kenneth D. Noonan, Ph.D.**	Director	March 12, 2008
By: /s/ NICOLE S. WILLIAMS **Nicole S. Williams**	Director	March 12, 2008

Schedule II

ORCHID CELLMARK INC. AND SUBSIDIARIES

Valuation and Qualifying Accounts

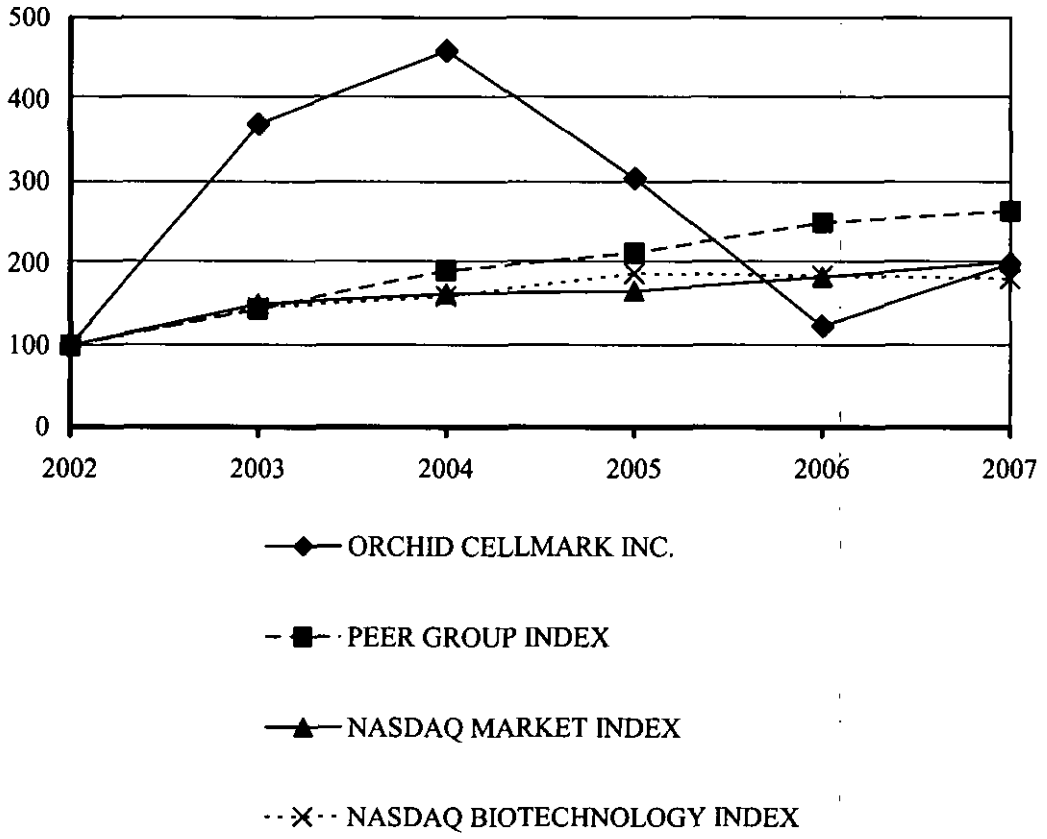
Years ended December 31, 2007, 2006 and 2005
(In thousands)

Column A	Column B	Column C		Column D	Column E
Description	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts (net) (1)	Deductions (2)	Balance at end of period
2007					
Allowance for doubtful accounts	$ 822	$ 60	$ 26	$ 109	$ 799
2006					
Allowance for doubtful accounts	$1,506	$329	$—	$1,013	$ 822
2005					
Allowance for doubtful accounts	$1,222	$315	$—	$ 31	$1,506

(1) Consists of the value of the ReliaGene allowance for doubtful accounts at the acquisition date.
(2) Deductions primarily consist of accounts receivable write-offs.

STOCK PERFORMANCE GRAPH

The following graph compares the annual percentage change in our cumulative total stockholder return on our common stock during a period commencing on January 1, 2003 and ending December 31, 2007 (as measured by dividing (A) the sum of the cumulative amount of dividends for the measurement period, assuming dividend reinvestment, and the difference between our share price at the end and the beginning of the measurement period; by (B) our share price at the beginning of the measurement period) with the cumulative total return of the Nasdaq Market Index, Nasdaq Biotech Index and the peer issuers during such period. The comparison assumes $100 invested at the per share closing price on the Nasdaq Market of our common stock and each of the indices since January 1, 2003. We have not paid any dividends on our common stock and we do not include dividends in the representation of our performance. The stock price performance on the graph below does not necessarily indicate future price performance. This graph is not "soliciting material", is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference in any of our filings under the Securities Act of 1933 or the Securities Exchange Act of 1934 whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. We obtained the information used on the graph from Morningstar, Inc., a source believed to be reliable, but we are not responsible for any errors or omissions in such information.



Note: The companies used in the comparison are: Laboratory Corporation of America, Quest Diagnostics, VCA Antech Inc. and Bio-Reference Laboratories.

CORPORATE INFORMATION

BOARD OF DIRECTORS

George Poste, D.V.M., Ph.D.
Chairman, Orchid Cellmark Inc.
Director, The Biodesign Institute at Arizona State University

James Beery
Senior of Counsel
Covington & Burling

Thomas A. Bologna
President and Chief Executive Officer
Orchid Cellmark Inc.

Sidney M. Hecht, Ph.D.
John W. Mallet Professor of Chemistry and Professor of Biology University of Virginia

Kenneth D. Noonan, Ph.D.
Partner
LEK Consulting LLP

Nicole S. Williams
Retired, Chief Financial Officer
Abraxis BioScience Inc.

OFFICERS

Thomas A. Bologna*
President and Chief Executive Officer

James F. Smith*
Vice President and Chief Financial Officer

William J. Thomas*
Vice President and General Counsel

**Executive Officer*

CORPORATE HEADQUARTERS

4390 U.S. Route One
Princeton, NJ 08540
(609) 750-2200

EUROPEAN HEADQUARTERS

Orchid Cellmark Limited
Abingdon Business Park
16 Blacklands Way
Abingdon, Oxfordshire
OX14 1DY
(44) 1235 535090

STOCK LISTING

The Company's common stock trades on the Nasdaq Global Market under the symbol ORCH

ANNUAL MEETING

The Company's Annual Meeting of Stockholders will be held on June 5, 2008 at 10:00 am at The Westin Princeton, Forrestal Village, 201 Village Boulevard, Princeton, NJ 08540

INVESTOR RELATIONS

For additional information, please contact our Investor Relations Department at (609) 750-2324 or ir@orchid.com

INDEPENDENT AUDITORS

Grant Thornton LLP
New York, NY

TRANSFER AGENT

American Stock Transfer & Trust
Shareholder Department
40 Wall Street
New York, NY 10005
(800) 937-5449

CORPORATE WEB SITE

www.orchid.com

NOTE TO INVESTORS

Except for any historical information presented herein, matters presented in this document are forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risk and uncertainties that may cause results to differ materially. Please also see page 15, 'Forward Looking Statements,' for more details. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the "Risk Factors" section included in the Company's Annual Report on Form 10-K for the year ended December 31, 2007 and other documents filed with the Securities and Exchange Commission.

ORCHID
CELLMARK

END