

NATUS MEDICAL INC
Form 424B5
May 14, 2008
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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-150503

The information in this prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and has been declared effective. This prospectus supplement and the accompanying base prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUPPLEMENT (Subject to Completion)

Dated May 13, 2008

3,500,000 Shares

Common Stock

We are offering 3,500,000 shares of our common stock. Our common stock is traded on the NASDAQ Global Market under the symbol **BABY**. On May 12, 2008, the last reported sale price of our common stock was \$21.10 per share.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption **Risk Factors beginning on page S-10 of this prospectus supplement and page 3 of the accompanying base prospectus.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying base prospectus. Any representation to the contrary is a criminal offense.

| | <i>Per Share</i> | <i>Total</i> |
|---|------------------|--------------|
| Public offering price | \$ | \$ |
| Underwriting discount | \$ | \$ |
| Proceeds, before expenses, to Natus Medical Incorporated | \$ | \$ |

The underwriters may also purchase up to an additional 525,000 shares from us at the public offering price, less the underwriting discount and commissions, within 30 days from the date of this prospectus supplement to cover overallocments.

The underwriters expect to deliver the shares against payment in New York, New York on _____, 2008.

Joint Bookrunning Managers

Cowen and Company

UBS Investment Bank

Natixis Bleichroeder Inc.

Needham & Company, LLC

Raymond James

Roth Capital Partners

, 2008

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus are part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission (the "SEC") utilizing a shelf registration process. It is important for you to read and consider all of the information contained in this prospectus supplement and the accompanying base prospectus before making a decision whether to invest in our securities. You should also read and consider the information contained in the documents that we have incorporated by reference as described in "Where You Can Find More Information" in this prospectus supplement.

You should rely only on the information provided in this prospectus supplement and the accompanying base prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying base prospectus. We have not authorized anyone to provide you with additional or different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. We are not offering to sell or soliciting offers to buy, and will not sell, any securities in any jurisdiction where it is unlawful. You should assume that the information contained in this prospectus supplement, the accompanying base prospectus and the information contained in each document that we have previously filed and incorporated by reference in this prospectus supplement or the accompanying base prospectus, is accurate only as of the date of this prospectus supplement, the accompanying base prospectus or the document containing that information, as the case may be. Our financial condition, results of operations, cash flows or business may have changed since that date.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary provides an overview of selected information contained elsewhere in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying base prospectus and does not contain all of the information that you should consider before making a decision to invest in our common stock. You should read carefully the prospectus supplement, the accompanying base prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying base prospectus, and the registration statement of which the accompanying base prospectus is a part in their entirety before investing in our common stock, including Risk Factors and our consolidated financial statements and the notes thereto included elsewhere or incorporated by reference in this prospectus supplement and the accompanying base prospectus. As used in this prospectus, the terms we, our, us or the Company refer to Natus Medical Incorporated and its subsidiaries, taken as a whole, unless the context otherwise indicate. Unless otherwise stated, all of the information in this prospectus summary assumes that the underwriters will not exercise their over-allotment option.

Our Company

We are a leading provider of medical devices for the newborn care, hearing and neurology markets. Our revenue has grown from \$43.0 million in 2005 to \$118.4 million in 2007. For the most recent quarter ended March 31, 2008, we recorded revenue and net income of \$36.9 million and \$2.6 million, respectively, compared to revenue and net income of \$27.1 million and \$1.5 million, respectively, in the first quarter of 2007. Our revenue growth has been driven by both organic growth and acquisitions. We have completed several acquisitions since 2006, consisting of either the purchase of a company, substantially all of the assets of a company, or individual products or product lines.

In the U.S., we sell our products primarily through an over 40-person direct sales organization that includes direct sales representatives, clinical consultants and regional managers. We also utilize distributors as well as sell certain products under private label arrangements. Revenue from our direct sales channel comprised 57% of our total revenue in 2007. Outside of the U.S., we sell our products in over 80 countries, primarily through a distributor sales channel. Approximately 33% of our revenue resulted from international sales during the quarter ended March 31, 2008.

We categorize our products and services as being either devices and systems, which are generally non-recurring sources of revenue, or as supplies and services, which are generally recurring. In the quarter ended March 31, 2008, approximately 33% of our sales consisted of supplies and services.

Our Products

Our principal products fall within the following three main product families:

Hearing Products (53% of 2007 sales) Includes product lines for newborn hearing screening and diagnostic hearing assessment.

Newborn Care Products (28% of 2007 sales) Includes products for the treatment of brain injury and jaundice in newborns.

Neurology Products (14% of 2007 sales) Includes product lines for diagnostic electroencephalography (EEG) analysis, diagnostic sleep analysis (PSG) analysis, electromyography (EMG), intra-operative monitoring (IOM), and newborn brain monitoring.

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Our principal product offerings within these product families are presented in the table below:

Hearing Products

Our hearing screening and diagnostic systems for hearing assessment represent a comprehensive line of products that are used by neonatal caregivers, audiologists and ENTs, among other clinicians, to assist in the diagnosis of hearing impairments for newborns, children and adults.

Newborn Hearing Screening Products

Hearing impairment is the most common treatable chronic disorder in newborns, affecting as many as five out of every 1,000 newborns. It is estimated that 20,000 hearing-impaired babies are born in the U.S. every year, and as many as 60,000 more in the rest of the developed world. Early identification of hearing impairment and

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early intervention have been shown to improve language development significantly. We estimate that today approximately 95% of the children born in the U.S. are being screened for hearing impairment prior to discharge from the hospital. We believe, based upon our revenue and our estimate of the revenue generated by the principal competitors in this market, that newborn hearing screening is currently a \$100 million annual worldwide market, primarily comprised of single-use, disposable supplies.

We pioneered newborn hearing screening and believe that we are the worldwide market share leader in newborn hearing screening products. Our newborn hearing screening product line features the two traditional technologies used to screen newborns and infants, auditory brainstem response, or ABR, and otoacoustic emissions, or OAE. Our products utilize proprietary signal detection technologies to provide accurate and non-invasive hearing screening for newborns. These product lines, which utilize single-use disposables, include:

ALGO 5 and 3i Newborn Hearing Screeners. These automated ABR (AABR®) devices deliver thousands of soft audible clicks to the newborn's ears through sound cables and disposable earphones. Each click elicits an identifiable brain wave response, detected by disposable electrodes placed on the head of the child. In the first quarter of 2008, we introduced the ALGO 5, which provides user-friendly features such as data management, bar coding, and wireless transfer of data.

ABaer Newborn Hearing Screener. The ABaer, which is a PC-based newborn hearing screening device, offers a combination of automated ABR, OAE and diagnostic ABR technologies in one system.

AuDX and Echo-Screen. The AuDX and Echo-Screen products are hand-held OAE screening devices, and Echo-Screen can also be combined with automated ABR.

Diagnostic Hearing Assessment Products

We design and manufacture a variety of products used to screen for or diagnose hearing loss, or to identify abnormalities affecting the peripheral and central auditory nervous systems. The technologies used in most of these systems are either electrodiagnostic or OAE. Diagnostic hearing assessments are typically carried out in an audiologist's or ENT's office, and we believe, based upon our revenue and our estimate of the revenue generated by the principal competitors in this market, that this is currently a \$100 million annual worldwide market. Our primary diagnostic hearing assessment products, which are typically used with a single-use disposable, are:

Navigator PRO. The Navigator PRO for hearing assessment consists of a base system that is augmented by discrete software applications that are marketed as enhancements to the system.

AuDX PRO. The AuDX Pro is a hand-held OAE screening device with a large color display.

Scout. Scout is a PC-based OAE System.

Newborn Care Products

We manufacture a variety of products used in the medical care of newborns. These product lines include products to diagnose and treat newborn brain injury, as well as a line of phototherapy lights to treat newborn jaundice. We also sell a variety of other newborn care products to meet the needs of clinicians in the nursery and neonatal intensive care unit.

Newborn Brain Injury Products

Early diagnosis of brain injury in newborns, when combined with early intervention, has been shown to reduce the severity of these brain injuries. These brain injuries can occur in as many as three out of every 1,000 newborns and are caused by conditions such as hypoxic ischemic encephalopathy (HIE), subclinical seizures, or neurological disorders. Diagnosing these conditions shortly after birth is imperative, as patients who undergo therapy within six hours after birth show a greater potential for improved outcomes. Clinical studies have also shown that recent

advancements in two primary technologies can have a marked and positive impact upon

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newborn brain injury. These technologies are amplitude-integrated EEG and servo-controlled patient cooling. Our newborn brain injury products include:

Olympic CFM-6000 System. The Cerebral Function Monitor (CFM) provides the neurologist with the technology to diagnose neurological disorders or brain injury in the newborn. This device continuously monitors and records brain activity, aiding in the detection of HIE and seizures, and monitors the effects of drugs and other therapies. The CFM-6000 utilizes disposable electrodes to perform each test.

Olympic Cool-Cap System. The Olympic Cool-Cap is the only FDA approved device for the treatment of HIE. The Cool-Cap provides selective head cooling as a treatment for moderate to severe HIE. A four-year clinical trial for the Cool-Cap was completed in 2006, and the FDA gave approval for the product in December 2006. The system, consisting of a device and proprietary software, uses a single-patient, disposable, cooling cap during the 72-hour cooling period.

Jaundice Products

In 2004, the American Academy of Pediatrics issued new guidelines for the treatment of jaundice in newborns, recommending phototherapy as the standard of care for the treatment of hyperbilirubinemia. We currently offer the following products that meet these guidelines:

neoBLUE Product Family. This product line consists of our neoBLUE, neoBLUE Mini, and neoBLUE Cozy devices, which utilize light emitting diodes (LEDs) to generate a high-intensity, narrow spectrum of blue light that is clinically proven to be most effective in the treatment of newborn jaundice.

Bili-Lite Product Family. These devices utilize fluorescent light bulbs for the treatment of hyperbilirubinemia. The Bili-Bassinet provides intensive phototherapy from both under and over the baby for maximum surface area coverage.

Neurology Products

Our neurology products represent a comprehensive line of products that are used by physicians, nurses and medical technologists to assist in the diagnosis and monitoring of neurological disorders of the central and peripheral nervous system, and as an aid in monitoring patients under sedation or post-operative care. We believe, based upon our revenue and our estimate of the revenue generated by the principal competitors in this market, that the worldwide market addressed by our neurology products is currently a \$250 million a year market.

Diagnostic Electroencephalograph (EEG) Monitoring Products

We design, manufacture, and market a full line of computerized instruments used to help diagnose the presence of seizure disorders and epilepsy, look for causes of confusion, evaluate head injuries, tumors, infections, degenerative diseases, and metabolic disturbances that affect the brain, and assist in surgical planning. These systems and instruments work by detecting, amplifying, and recording the brain's electrical impulses through an EEG.

Our diagnostic EEG monitoring product lines for neurology consist of devices operating with our proprietary software, augmented by signal amplifiers. These products are typically used in concert as part of an EEG system, and include our NeuroWorks, Ceegrath VISION and Coherence products and proprietary signal amplifiers.

Diagnostic Polysomnography (PSG) Products

Increasing public awareness of sleep disorders has made sleep medicine a rapidly growing specialty. The analysis of respiratory patterns, brain electrical activity and other physiological data has proven critical for the diagnosis and treatment of sleep-related diseases such as sleep apnea, insomnia, and narcolepsy. Our diagnostic

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PSG monitoring products can be used individually or as part of a networked system for overnight sleep studies to assist in the diagnosis of sleep disorders. These products consist of software licenses, ambulatory monitoring systems, and laboratory systems that combine multiple capabilities, including EEG monitoring, physician review stations, and quantitative EEG analysis capabilities, and include our Sleepscan, SleepWorks and Coherence products.

Electromyography (EMG) Products

An EMG measures the electrical activity of muscles both at rest and during contraction. An EMG is done to determine if there is any disease present that damages muscle tissue, nerves, or the junctions between nerve and muscle and can also be used to diagnose the cause of weakness, paralysis, and muscle twitching. EMG is also a primary diagnosis for carpal tunnel syndrome, which is the most frequently encountered peripheral compressive neuropathy. Our EMG products include the NeuroMAX device that gathers data which is saved to a customizable report and the XCalibur system that delivers clean signals for the quick and reliable gathering of patient data.

Intra-Operative Monitoring (IOM) Product

Intra-operative monitoring is the use of electrophysiological methods such as EMG and EEG, to monitor the functional integrity of neural structures (brain, nerves, spinal cord) during surgery. The most common applications are in neurosurgery such as spinal surgery, some brain surgeries, ENT procedures and peripheral nerve surgery. Our intra-operative monitoring product, the Protektor, provides medical professionals with information necessary to make immediate and critical surgical decisions.

We have a fourth product family, other, consisting of software, other medical devices, parts and services that accounted for 5% of our sales in 2007.

Recent Acquisitions

We have announced a number of acquisitions since 2006, including:

Sonamed. We announced the signing of an agreement to acquire Sonamed in April 2008 for \$9.0 million in cash, including estimated direct costs of the acquisition. Sonamed specializes in bioelectric digital signal processing and medical informatics and designs, develops, manufactures, and markets a newborn hearing screening system for hospitals. We expect Sonamed's assets at closing to include approximately \$2.5 million in cash.

Excel-Tech (Xltek). We completed our acquisition of Xltek in November 2007 for \$64.0 million in cash, including direct costs of the acquisition. Xltek's products primarily consist of computer-based electrodiagnostic systems and disposable supplies to aid in the monitoring of neurologic and sleep disorders. Xltek reported revenue of approximately \$26.7 million during its last completed fiscal year prior to the acquisition. At closing Xltek had cash of approximately \$15.6 million and excess real estate that we believe has a value of approximately \$1.1 million, and owned the land and building housing its corporate facility.

Olympic Medical. We completed our acquisition of Olympic Medical in October 2006 for \$16.9 million in cash, including direct costs of the acquisition but not including \$2.7 million of obligations associated with the acquisition that we assumed and immediately paid. Olympic Medical manufactures professional medical equipment and supplies products focus on the neonatal and pediatric markets. Olympic Medical reported revenue of approximately \$15.0 million during its last completed fiscal year prior to the acquisition.

Deltamed. We completed our acquisition of Deltamed in September 2006 for \$4.1 million in cash, including direct costs of the acquisition. Deltamed's products primarily consist of medical devices used in the detection of neurological dysfunction. Deltamed reported revenue of approximately \$5.4 million during its last completed fiscal year prior to the acquisition.

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Bio-logic. We completed our acquisition of Bio-logic in January 2006 for \$69.3 million in cash, including direct costs of the acquisition. Bio-logic produces computer-based electrodiagnostic systems. Bio-logic reported revenue of approximately \$31.6 million during its last completed fiscal year prior to the acquisition. At the closing of this acquisition, Bio-logic had approximately \$17.9 million in cash and excess real estate that was subsequently sold for approximately \$2.5 million, and owned the land and building housing its primary facility.

Risks Affecting Us

Our business is subject to numerous risks and you should read and carefully consider the information set forth under the caption **Risk Factors** in the accompanying base prospectus beginning on page 3.

Company Information

We were incorporated in California in May 1987 and reincorporated in Delaware in August 2000. Our headquarters are located at 1501 Industrial Road, San Carlos, California 94070 and our telephone number is (650) 802-0400. Our website address is www.natus.com. The information on, or accessible through, our website is not part of this prospectus supplement.

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The Offering

| | |
|--|--|
| Common stock offered | 3,500,000 shares |
| Common stock to be outstanding after this offering | 26,399,376 shares ⁽¹⁾ |
| Use of proceeds | We expect to use the net proceeds from this offering for the repayment of our outstanding indebtedness under our existing senior secured credit facility and for general corporate purposes, which may include the financing of acquisitions of, or investments in, companies and technologies that complement our business; capital expenditures or additions to our working capital. |
| Risk Factors | See Risk Factors and other information included in this prospectus supplement and the accompanying base prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock. |
| NASDAQ Global Market symbol | BABY |

- (1) The number of shares outstanding is based on 22,899,376 shares outstanding at April 30, 2008 and excludes 2,821,988 shares of common stock underlying outstanding stock options that we have granted and 4,978,334 shares available for future equity awards under our stock awards plans, each as of April 30, 2008.

Table of Contents**Summary Consolidated Financial Data**

The following table sets forth summary consolidated statements of operations data from our unaudited consolidated financial statements for the three months ended March 31, 2008 and 2007 and from our audited consolidated financial statements for the years ended December 31, 2007, 2006 and 2005. The unaudited consolidated financial statements have been prepared on the same basis as our audited consolidated financial statements, and, in the opinion of our management, include all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information set forth therein. The summary consolidated statements of operations data presented below should be read in conjunction with our consolidated financial statements and the accompanying notes and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2007 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, in each case incorporated by reference in this prospectus supplement.

Our financial information may not be indicative of our future performance, and our results of operations for the three months ended March 31, 2008 are not necessarily indicative of results for the full fiscal year.

| | Three Months Ended | | Year Ended December 31, | | |
|---|--------------------|-------------------|-------------------------|-----------|-----------|
| | March 31, 2008 | March 31, 2007 | 2007 | 2006 | 2005 |
| (in thousands, except per share amounts) | | | | | |
| Consolidated Statements of Operations Data: | | | | | |
| Revenue | \$ 36,859 | \$ 27,050 | \$ 118,374 | \$ 89,915 | \$ 43,045 |
| Cost of revenue | 14,005 | 10,175 | 43,100 | 33,665 | 16,092 |
| Gross profit | 22,854 | 16,875 | 75,274 | 56,250 | 26,953 |
| Operating expenses: | | | | | |
| Marketing and selling | 9,876 | 6,496 | 28,202 | 21,944 | 11,396 |
| Research and development | 3,827 | 3,824 | 15,645 | 10,604 | 4,318 |
| General and administrative | 4,856 | 4,108 | 15,214 | 11,004 | 5,806 |
| Acquired in-process research and development | | | 300 | 9,800 | |
| Total operating expenses | 18,559 | 14,428 | 59,361 | 53,352 | 21,520 |
| Income from operations | 4,295 | 2,447 | 15,913 | 2,898 | 5,433 |
| Other income, net | 1 | 241 | 101 | 225 | 1,228 |
| Income before provision for income tax | 4,296 | 2,688 | 16,014 | 3,123 | 6,661 |
| Provision for income tax | 1,669 | 1,169 | 6,234 | 4,050 | 509 |
| Net income (loss) | \$ 2,627 | \$ 1,519 | \$ 9,780 | \$ (927) | \$ 6,152 |
| Net income (loss) per share: | | | | | |
| Basic | \$ 0.12 | \$ 0.07 | \$ 0.45 | \$ (0.05) | \$ 0.35 |
| Diluted | \$ 0.11 | \$ 0.07 | \$ 0.43 | \$ (0.05) | \$ 0.33 |
| Weighted average shares used in the calculation of net income (loss) per share: | | | | | |
| Basic | 21,742 | 21,466 | 21,600 | 19,548 | 17,429 |
| Diluted | 22,977 | 22,734 | 22,815 | 19,548 | 18,693 |

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The following table presents our summary consolidated balance sheet data as of March 31, 2008:

on an actual basis as presented in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008;

on a pro forma basis to reflect (1) the public offering of 885,500 shares of our common stock at a price of \$18.27 per share that we completed on April 9, 2008, pursuant to which we received net proceeds of approximately \$15.4 million after deducting underwriting discounts and the expenses of the offering and (2) the application of a portion of the net proceeds from such offering for the repayment of \$11.0 million under our senior secured credit facility with Wells Fargo Bank, National Association (Wells Fargo); and

on a pro forma as adjusted basis to give effect to (1) our receipt of the net proceeds from our sale of 3,500,000 shares of common stock in this offering at an assumed public offering price of \$ 21.10 per share (the closing price of our common stock on May 12, 2008), after deducting estimated underwriting discounts and estimated offering expenses of \$4.4 million, (2) the application of a portion of the net proceeds of this offering for the repayment of approximately \$22.9 million under our senior secured credit facility with Wells Fargo and (3) the extinguishment of \$0.3 million of capitalized pre-paid closing costs related to our senior secured credit facility with Wells Fargo.

| | As of March 31, 2008 | | |
|---|----------------------|-----------------------------|---|
| | Actual | Pro forma (in thousands) | Pro forma as adjusted ⁽¹⁾ |
| Consolidated Balance Sheet Data: | | | |
| Cash and cash equivalents | \$ 12,600 | \$ 17,000 | \$ 63,538 |
| Working capital | 22,446 | 37,846 | 92,406 |
| Total assets | 188,846 | 193,246 | 239,473 |
| Total debt | 35,610 | 24,610 | 1,694 |
| Total stockholders' equity | 118,039 | 133,439 | 202,582 |

- (1) A \$1.00 increase (decrease) in the assumed public offering price of \$21.10 per share would increase (decrease) each of (1) cash and cash equivalents, (2) working capital, (3) total assets and (4) total stockholders' equity by \$3.3 million.

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RISK FACTORS

Before deciding whether to invest in our common stock, you should read and carefully consider the information set forth under the caption "Risk Factors" in the accompanying base prospectus beginning on page 3.

FORWARD-LOOKING STATEMENTS

Various statements contained in this prospectus supplement or the accompanying base prospectus or incorporated by reference in this prospectus supplement or the accompanying base prospectus constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on current expectations and are indicated by words or phrases such as "believe," "expect," "may," "will," "should," "seek," "plan," "intend" or "anticipate" or other forward-looking terminology. Such forward-looking statements are largely on our current expectations and are inherently subject to risks and uncertainties. Our actual results could differ materially from those that are anticipated or projected as a result of certain risks and uncertainties, including, but not limited to, the factors that are described under "Risk Factors" in the accompanying base prospectus beginning on page 3.

Except as otherwise required to be disclosed in periodic reports required to be filed by public companies with the SEC pursuant to the SEC's rules, we have no duty to update these statements, and we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks and uncertainties, we cannot assure you that the forward-looking information contained in this prospectus supplement or the accompanying base prospectus will in fact transpire.

USE OF PROCEEDS

The net proceeds to us from the sale of shares offered by this prospectus supplement will be approximately \$69.5 million, based on an assumed offering price of \$21.10 per share (the closing price of our common stock on May 12, 2008) and after deducting aggregate underwriting discounts and estimated offering expenses of \$4.4 million. We expect to use the net proceeds from this offering for general corporate purposes, which may include the financing of acquisitions of, or investments in, companies and technologies that complement our business, capital expenditures and additions to our working capital. A \$1.00 increase (decrease) in the assumed public offering price of \$21.10 per share would increase (decrease) the net proceeds to us from this offering by \$3.3 million.

We also expect to use a portion of the proceeds to repay all of the remaining balance of approximately \$22.9 million under our senior secured credit facility with Wells Fargo, which we entered into in November 2007 in order to fund our acquisition of Xltek. All borrowings under this credit facility bear interest at a rate of LIBOR plus 1.75%. Quarterly principal payments in the amount of \$2.1 million are payable under our term loan and all unpaid principal and interest under our term loan and revolving line of credit are otherwise due and payable on November 28, 2010. For more information regarding our senior secured credit facility with Wells Fargo, please see the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008.

Table of Contents**CAPITALIZATION**

The following table shows our unaudited cash, cash equivalents and short-term investments and capitalization as of March 31, 2008:

on an actual basis as presented in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008;

on a pro forma basis to reflect (1) the public offering of 885,500 shares of our common stock at a price of \$18.27 per share that we completed on April 9, 2008, pursuant to which we received net proceeds of approximately \$15.4 million after deducting underwriting discounts and the expenses of the offering and (2) the application of a portion of the net proceeds from such offering for the repayment of \$11.0 million under our senior secured credit facility with Wells Fargo; and

on a pro forma as adjusted basis to give effect to (1) our receipt of the net proceeds from our sale of 3,500,000 shares of common stock in this offering at an assumed public offering price of \$21.10 per share (the closing price of our common stock on May 12, 2008), after deducting estimated underwriting discounts and estimated offering expenses of \$4.4 million, (2) the application of a portion of the net proceeds of this offering for the repayment of approximately \$22.9 million under our senior secured credit facility with Wells Fargo and (3) the extinguishment of \$0.3 million of pre-paid closing costs related to our senior secured credit facility with Wells Fargo.

This table should be read in conjunction with Prospectus Supplement Summary Consolidated Financial Data appearing elsewhere in this prospectus supplement and the information in our Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements, including the notes thereto, contained in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, which is incorporated by reference in this prospectus supplement.

| | As of March 31, 2008 | | |
|--|--|--------------|---|
| | Actual | Pro Forma | Pro Forma as Adjusted ⁽¹⁾ |
| | (in thousands, except share and per share data) | | |
| Cash and cash equivalents | \$ 12,600 | \$ 17,000 | \$ 63,538 |
| Current portion of long-term debt | 19,546 | 8,546 | 213 |
| Long-term debt | 16,064 | 16,064 | 1,481 |
| Stockholders' equity: | | | |
| Common Stock, \$0.001 par value, 120,000,000 shares authorized, actual, pro forma and pro forma as adjusted; 21,958,804 shares issued and outstanding actual, 22,844,304 shares issued and outstanding pro forma, 26,344,304 shares issued and outstanding pro forma as adjusted | 139,226 | 154,626 | 224,080 |
| Accumulated deficit | (20,188) | (20,188) | (20,499) |
| Accumulated other comprehensive income | (999) | (999) | (999) |
| Total stockholders' equity | 118,039 | 133,439 | 202,582 |
| Total liabilities and stockholders' equity | \$ 188,846 | \$ 193,246 | \$ 239,473 |

(1) A \$1.00 increase (decrease) in the assumed public offering price of \$21.10 per share would increase (decrease) each of (1) cash and cash equivalents, (2) stockholders' equity and (3) total liabilities and stockholders' equity by \$3.3 million.

Table of Contents**UNDERWRITING**

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Cowen and Company, LLC and UBS Securities LLC are the representatives of the underwriters.

| Underwriter | Number of Shares |
|----------------------------------|-----------------------------|
| Cowen and Company, LLC | |
| UBS Securities LLC | |
| Natixis Bleichroeder Inc. | |
| Needham & Company, LLC | |
| Raymond James & Associates, Inc. | |
| Roth Capital Partners, LLC | |
| Total | 3,500,000 |

The underwriting agreement provides that the obligations of the underwriters are conditional and may be terminated at their discretion based on their assessment of the state of the financial markets. The obligations of the underwriters may also be terminated upon the occurrence of the events specified in the underwriting agreement. The underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the overallotment option described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Overallotment Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to 525,000 additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the sale of common stock offered hereby. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

We estimate that the total expenses of the offering, excluding underwriting discount, will be approximately \$ and are payable by us.

| | Per Share | Total Without Over- Allotment | With Over Allotment |
|--|------------------|--|--------------------------------|
| Public offering price | | | |
| Underwriting discount | | | |
| Proceeds, before expenses, to Natus Medical Incorporated | | | |

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The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of \$ per share. The underwriters may allow, and the dealers may reallow, a discount not in excess of \$ per share to other dealers. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Market Information. The public offering price will be determined by negotiations between us and the representatives of the underwriters. In addition to prevailing market conditions, the factors to be considered in these negotiations will include:

the history of, and prospects for, our company and the industry in which we compete;

our past and present financial information;

an assessment of our management; our past and present operations, and the prospects for, and timing of, our future revenues;

the present state of our development;

the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours. It is possible that after the offering the shares will not trade in the public market at or above the public offering price.

Our common stock is listed on the NASDAQ Global Market under the symbol **BABY**.

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

Overallotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the overallotment option. In a naked short position, the number of shares involved is greater than the number of shares in the overallotment option. The underwriters may close out any short position by exercising their overallotment option and/or purchasing shares in the open market.

Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the overallotment option. If the underwriters sell more shares than could be covered by exercise of the overallotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be

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downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

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These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the NASDAQ Global Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Lock-Up Agreements. Pursuant to certain lock-up agreements, we and our executive officers and directors have agreed, subject to certain exceptions, not to offer, sell, contract to sell, announce any intention to sell, pledge or otherwise dispose of, enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of Cowen and Company, LLC and UBS Securities LLC for a period of 90 days after the date of the pricing of the offering.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The exceptions permit us, among other things and subject to restrictions, to: (a) issue common stock or options pursuant to employee benefit plans, (b) issue common stock upon exercise of outstanding options or warrants, or (c) file registration statements on Form S-8. The exceptions permit parties to the lock-up agreements, among other things and subject to restrictions, to make certain gifts, to establish trading plans pursuant to Rule 10b5-1, to sell shares of common stock in order to offset the tax consequences of the vesting of restricted stock held by our executive officers and, with respect to one executive officer, to transfer shares of common stock if necessary to satisfy a secured lender's interest in such common stock. In addition, the lock-up provision will not restrict broker-dealers from engaging in market making and similar activities conducted in the ordinary course of their business.

United Kingdom. Each of the underwriters has represented and agreed that:

it has not made or will not make an offer of the securities to the public in the United Kingdom within the meaning of section 102B of the Financial Services and Markets Act 2000 (as amended) (FSMA) except to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or otherwise in circumstances which do not require the publication by us of a prospectus pursuant to the Prospectus Rules of the Financial Services Authority (FSA);

it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) to persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or in circumstances in which section 21 of FSMA does not apply to us; and

it has complied with and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

Switzerland. The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area. In relation to each Member State of the European Economic Area (Iceland, Norway and Lichtenstein in addition to the member states of the European Union) that has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of the securities to the

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public in that Relevant Member State prior to the publication of a prospectus in relation to the securities that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of the securities to the public in that Relevant Member State at any time:

to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;

in any other circumstances which do not require the publication by the issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

Each person in a Relevant Member State who receives any communication in respect of, or who acquires any securities under, the offer contemplated in this prospectus will be deemed to have represented, warranted and agreed to and with us and each underwriter that:

it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive; and

in the case of any securities acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (1) the securities acquired by it in the offer have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors, as that term is defined in the Prospectus Directive, or in circumstances in which the prior consent of the representatives of the underwriters has been given to the offer or resale; or (2) where securities have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of those securities to it is not treated under the Prospectus Directive as having been made to such persons.

For the purposes of the provisions in the two immediately preceding paragraphs, the expression an offer of the securities to the public in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State, and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Arab Emirates. This document has not been reviewed, approved or licensed by the Central Bank of the United Arab Emirates (the UAE), Emirates Securities and Commodities Authority or any other relevant licensing authority in the UAE including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE, in particular the Dubai International Financial Services Authority (the DFSA), a regulatory authority of the Dubai International Financial Centre (the DIFC). The issue of shares of common stock does not constitute a public offer of securities in the UAE, DIFC and/or any other free zone in accordance with the Commercial Companies law, Federal Law No. 8 of 1984 (as amended), DFSA Offered Securities Rules and the Dubai International Financial Exchange Listing Rules, accordingly or otherwise.

The shares of common stock may not be offered to the public in the UAE and/or any of the free zones including, in particular, the DIFC. The shares of common stock may be offered and this document may be issued, only to a limited number of investors in the UAE or any of its free zones (including, in particular, the DIFC) who qualify as sophisticated investors under the relevant laws and regulations of the UAE or the free zone concerned. Management of the company, and the representatives represent and warrant the shares of common stock will not be offered, sold, transferred or delivered to the public in the UAE or any of its free zones, including in particular, the DIFC.

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Electronic Offer, Sale and Distribution of Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees.

LEGAL MATTERS

The validity of the common stock being offered by this prospectus supplement will be passed upon by Fenwick & West LLP, Mountain View, California. Latham & Watkins LLP, San Diego, California, is counsel for the underwriters in connection with this offering.

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WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. This prospectus supplement and the accompanying base prospectus do not contain all of the information set forth in the registration statement on Form S-3 that we have filed with the SEC and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus supplement, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You may read and copy the registration statement, as well as any other material we file with the SEC, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including Natus Medical Incorporated. The SEC's Internet site can be found at <http://www.sec.gov>.

The SEC allows us to incorporate by reference in this prospectus supplement and the accompanying base prospectus the information contained in other documents filed separately with the SEC. This means that we can disclose important information to you by referring you to other documents filed with the SEC that contain such information. The information incorporated by reference is an important part of this prospectus supplement and the accompanying base prospectus. Information disclosed in documents that we file later with the SEC will automatically add to, update and change information previously disclosed. If there is additional information in a later filed document or a conflict or inconsistency between information in this prospectus supplement or the accompanying base prospectus and information incorporated by reference from a later filed document, you should rely on the information in the later dated document.

We incorporate by reference the documents set forth below and any documents that we may file in the future with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, until the offering contemplated by this prospectus supplement is completed:

Our Annual Report on Form 10-K for the year ended December 31, 2007, filed on March 14, 2008, including all material incorporated by reference therein;

Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, filed on May 9, 2008, including all material incorporated by reference therein;

Our Current Reports on Form 8-K filed on February 11, 2008, April 4, 2008, April 9, 2008, and April 29, 2008 and our amended Current Report on Form 8-K/A filed on February 12, 2008;

Our definitive proxy statement on Schedule 14A filed on April 28, 2008;

The description of our common stock contained in our Registration Statement on Form 8-A filed on July 17, 2001 pursuant to Section 12(g) of the Exchange Act; and

The description of our Preferred Stock Purchase Rights contained in our Registration Statement on Form 8-A filed on September 6, 2002 pursuant to Section 12(g) of the Exchange Act, as amended by Amendment No. 1 on Form 8-A/A filed on October 8, 2002 and Amendment No. 2 on Form 8-A/A filed on February 25, 2003, and as described in our Current Report on Form 8-K filed on August 17, 2006.

Any statement made in this prospectus supplement, the accompanying base prospectus or a document incorporated by reference in this prospectus supplement or the accompanying base prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying base prospectus to the extent that a statement contained in any subsequently filed document incorporated by reference herein or therein adds, updates or changes that statement. Any statement so affected will not be deemed, except as so affected, to constitute a part of this prospectus supplement or the accompanying base prospectus.

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You may obtain a copy of the filings that are incorporated by reference, excluding exhibits (but including exhibits that are specifically incorporated by reference in any such filing), free of charge, by oral or written request directed to: Natus Medical Incorporated, 1501 Industrial Road, San Carlos, California 94070-4111, attention: Assistant Secretary, telephone (650) 802-0400.

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PROSPECTUS

\$150,000,000

Common Stock

From time to time, we may sell our common stock in one or more offerings in amounts, at prices and on the terms that we will determine at the time of the offering, with an aggregate initial offering price of up to \$150,000,000.

You should read this prospectus, the information incorporated by reference in this prospectus and any prospectus supplement carefully before you invest.

Our common stock is traded on the NASDAQ Global Market under the symbol **BABY**. On May 12, 2008, the last reported sales price for our common stock was \$21.10 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the NASDAQ Global Market or any securities market or exchange of the common stock covered by the prospectus supplement.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. SEE **RISK FACTORS BEGINNING ON PAGE 3.**

The common stock may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled **Plan of Distribution** in this prospectus. If any underwriters are involved in the sale of any common stock with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in a prospectus supplement. The price to the public of such common stock and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the common stock or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 13, 2008

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You should rely only on the information contained in or incorporated by reference into this prospectus or any applicable prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of the common stock to be sold under this prospectus in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus or any applicable prospectus supplement is accurate as of any date other than the date on the front cover of this prospectus or the prospectus supplement, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Under this shelf registration process, we may sell common stock in one or more offerings up to a total dollar amount of \$150,000,000. This prospectus provides you with a general description of the common stock we may offer. Each time we offer any common stock under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of the offering. We may also add, update or change in a prospectus supplement any of the information contained in this prospectus or in documents we have incorporated by reference into this prospectus. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. You should carefully read both this prospectus and the applicable prospectus supplement together with the additional information described under Where You Can Find More Information before buying securities in this offering.

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SUMMARY

The following summary does not contain all the information that may be important to you. You should read the entire prospectus, including the financial statements and other information incorporated by reference in this prospectus, before making an investment decision.

Natus Medical Incorporated

We are a leading provider of medical devices for the newborn care, hearing and neurology markets. Our revenue has grown from \$43.0 million in 2005 to \$118.4 million in 2007. For the most recent quarter ended March 31, 2008, we recorded revenue and net income of \$36.9 million and \$2.6 million, respectively, compared to revenue and net income of \$27.1 million and \$1.5 million, respectively, in the first quarter of 2007. Our revenue growth has been driven by both organic growth and acquisitions. We have completed several acquisitions since 2006, consisting of either the purchase of a company, substantially all of the assets of a company, or individual products or product lines.

In the U.S., we sell our products primarily through an over 40-person direct sales organization that includes direct sales representatives, clinical consultants and regional managers. We also utilize distributors as well as sell certain products under private label arrangements. Revenue from our direct sales channel comprised 57% of our total revenue in 2007. Outside of the U.S., we sell our products in over 80 countries, primarily through a distributor sales channel. Approximately 33% of our revenue resulted from international sales during the quarter ended March 31, 2008.

We categorize our products and services as being either devices and systems, which are generally non-recurring sources of revenue, or as supplies and services, which are generally recurring. In the quarter ended March 31, 2008, approximately 33% of our sales consisted of supplies and services.

We were incorporated in California in May 1987 and reincorporated in Delaware in August 2000. Our principal executive offices are located at 1501 Industrial Road, San Carlos, California 94070 and our telephone number is (650) 802-0400. We currently have approximately 438 employees worldwide. Our website address is <http://www.natus.com>. The information on, or accessible through, our website is not incorporated by reference in this prospectus. Unless the context indicates otherwise, as used in this prospectus, the terms Natus, we, us and our refer to Natus Medical Incorporated, a Delaware corporation.

The Securities We May Offer

We may offer shares of our common stock with a total offering price of up to \$150 million from time to time under this prospectus, at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the common stock we may offer. Each time we offer common stock under this prospectus, we will provide a prospectus supplement that will describe the specific amount, price and other important terms of the offering. The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

We may sell our common stock directly or through underwriters, dealers or agents. We, and our underwriters, dealers or agents, reserve the right to accept or reject all or part of any proposed purchase of

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common stock. If we do offer common stock through underwriters or agents, we will include in the applicable prospectus supplement:

the names of the underwriters or agents;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

Holders of our common stock are entitled to one vote per share for the election of directors and on all matters that require stockholder approval. Subject to any preferential rights of any then outstanding preferred stock, the holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any then outstanding preferred stock. Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of our common stock, or any redemption rights.

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RISK FACTORS

Investing in our common stock involves risks. Before deciding whether to invest in our common stock, you should read and carefully consider the following risk factors before making an investment decision. In addition, you should read and carefully consider the risk factors discussed in the section entitled "Risk Factors" in the applicable prospectus supplement, as well as in any subsequent filings we make with the SEC. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

We have completed a number of acquisitions and expect to complete additional acquisitions in the future. There are numerous risks associated with acquisitions and we may not achieve the expected benefit of any of our acquisitions

Our acquisitions of products, technology assets, or businesses may have a negative impact on our business if we fail to achieve the anticipated financial, strategic, and other benefits of acquisitions or investments, and our operating results may suffer because of this.

We acquired intellectual property assets and technology patents from Pemstar Pacific Consultants during 2002; we acquired the assets of Neometrics Inc. and affiliated entities during 2003; and we acquired Fischer-Zoth in 2004. We completed the acquisitions of Bio-logic, Deltamed and Olympic Medical, and of certain assets from Nascor in 2006. In November 2007 we completed the acquisition of Xltek.

We expect to continue to pursue opportunities to acquire other businesses in future periods. The acquisitions that we have completed may not result in improved operating results for us, or in our achieving a financial condition superior to that which we would have achieved had we not completed them. Our results of operations may be adversely impacted by costs associated with our acquisitions, including one-time charges associated with restructurings or in-process research and development assets. Our acquisitions could fail to produce the benefits that we anticipate, or could have other adverse effects that we currently do not foresee. In addition, some of the assumptions that we have relied upon, such as achievement of operating synergies, may not be realized. In this event, one or more of the acquisitions could result in reduced earnings of Natus as compared to the earnings that would have been achieved by Natus if the acquisition had not occurred.

If we fail to successfully manage the combined operations of Natus and the businesses we have acquired, we may not realize the potential benefits of the acquisition. Our corporate headquarters are located in San Carlos, California. Bio-logic's primary offices are located in Illinois, Olympic Medical's operations are in Washington, Xltek's operations are located in Ontario, Canada, Neometrics' operations are located in New York, Deltamed's operations are in France, and Fischer-Zoth's operations are in Germany. The geographical distance between our various facilities may further adversely affect our ability to manage these operations. If we fail to manage these disparate operations effectively, our results of operations could be harmed, employee morale could decline, key employees could leave, and customers could cancel existing orders or choose not to place new ones. In addition, we may not achieve the synergies or other benefits of the acquisition that we anticipate. We may encounter the following additional difficulties, costs, and delays involved in integrating and managing these operations, and the operations of companies we may acquire:

Failure of customers to continue using the products and services of the combined company;

Failure to successfully develop the acquired technology into the desired products or enhancements;

Assumption of unknown liabilities;

Failure to understand and compete effectively in markets and with products or technologies with which we have limited previous experience;

Impairment charges incurred to write down the carrying amount of intangible assets, including goodwill, generated as a result of the acquisition;

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Decreased liquidity, restrictive bank covenants, and incremental financing costs associated with debt we may incur to complete future acquisitions; and

Diversion of the attention of management from other ongoing business concerns.

Our acquisitions of products, technology assets, or businesses may have a negative impact on our business if we fail to achieve the anticipated financial, strategic, and other benefits of acquisitions or investments, and our operating results may suffer because of this.

In November 2007 we completed the acquisition of Xltek for cash and used substantially all of our available cash and entered into a credit facility to fund the acquisition

We used virtually all of our then-available cash resources to complete the acquisition of Xltek, and also incurred indebtedness under a new bank facility for a portion of the purchase price. This usage of cash had an adverse impact on our liquidity and forced us to place more reliance on cash flow from operations for our liquidity. If our cash flow from operations is not sufficient for our needs, our business could be adversely affected. If we are required to seek additional external financing to support our need for cash, we may not have access to financing on terms that are acceptable to us, or at all. Alternatively, we may feel compelled to access additional financing on terms that are dilutive to existing holders of our common stock or that include covenants that restrict our business, or both.

The senior secured borrowing facility that we established to obtain a portion of the funds needed to complete the acquisition of Xltek contains various covenants that directly or indirectly restrict our ability to engage in activities that we may otherwise believe to be in the best interest of the Company. The loan is secured by the assets of the Company, and this security interest may also negatively impact our flexibility to engage in financing or other activities in future periods.

Our growth in recent years has depended substantially on the completion of acquisitions and we may not be able to complete acquisitions of this nature or of a relative size in the future to support a similar level of growth

The acquisitions that we have completed have been the primary source of our growth in revenue over the last four years. We expend considerable effort in seeking to identify attractive acquisition candidates and, upon doing so, to convince the potential target to consider a sale to us and, ultimately, to negotiate mutually agreeable acquisition terms. If we are not successful in these efforts in the future, our growth rate will not increase at a rate corresponding to that which we have achieved in recent years. Further, as we grow larger it will be necessary to complete the acquisition of larger companies and product lines to support a growth similar to that which we have achieved in the past. The market for attractive acquisitions is competitive and others with greater financial resources than we have may be better positioned than we are to acquire desirable targets. Further, we may not be able to negotiate acquisition terms with target companies that will allow us to achieve positive financial returns from the transaction.

Following our acquisitions we have implemented integration and restructuring activities that could be disruptive to our operations, and we could fail to achieve the synergies and cost savings the activities are designed to produce

Following our acquisition of Xltek we initiated an integration plan that resulted in a reduction in force and realignment of our domestic sales force. In addition, in February 2008, we adopted an integration and restructuring plan that is designed to eliminate redundant costs resulting from our acquisitions and to improve efficiencies in operations. This plan will be implemented over the first three quarters of 2008.

The realignment of our domestic sales organization could be disruptive to our sales efforts while this new structure is implemented, and once implemented may not be effective. In addition, our integration and restructuring activities may not result in the acquisition synergies or cost savings these activities are designed to produce and could, among other things, impair new products development and our support of existing products.

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We have initiated changes to our information systems that could disrupt our business and our financial results

We plan to continuously improve our enterprise resource planning, customer relationship management, and document lifecycle management systems to support the form, functionality, and scale of our business. These types of transitions frequently prove disruptive to the underlying business of an enterprise and may cause us to incur higher costs than we anticipate. Failure to manage a smooth transition to the new systems and the ongoing operations and support of the new systems could materially harm our business operations.

For example, we are currently in the process of implementing the rollout of an enterprise resource planning application (ERP) in our North American operating divisions. Until we have completed the ERP implementation, we will be dependent on multiple platforms. We may experience difficulties in implementing the ERP and we may fail to gain the efficiencies the implementation is designed to produce. The implementation could also be disruptive to our operations, including the ability to timely ship and track product orders to customers, project inventory requirements, manage our supply chain, and otherwise adequately service our customers.

Future changes in technology or market conditions could result in adjustments to our recorded asset balance for intangible assets, including goodwill, resulting in additional charges that could significantly impact our operating results

At December 31, 2007, we had significant intangible assets, including goodwill and other acquired intangible assets. The determination of related estimated useful lives and whether these assets are impaired involves significant judgments. Our ability to accurately predict future cash flows related to these intangible assets might be hindered by events over which we have no control. Due to the highly competitive nature of the medical device industry, new technologies could impair the value of our intangible assets if they create market conditions that adversely affect the competitiveness of our products. Any future determination that these assets are carried at greater than their fair value could result in substantial impairment charges, which could significantly impact our operating results.

Our acquisitions have included in-process research and development assets (IPR&D assets) for which we hope to generate future cash flows; our results of operations could be adversely affected if we are unable to bring these assets to market

Through our acquisitions of other businesses, we have acquired IPR&D assets from which we hope to generate future cash flows. There is inherent risk in bringing these IPR&D assets to market and we may be unable to realize the full value we have assigned to them. We may be unable to complete the development of these IPR&D assets within a timely manner, or we may encounter technological difficulties that prevent us from completing their development. If we are unable to derive future revenue from our IPR&D assets, our results of operations could be adversely impacted.

We may not be able to preserve the value of our intellectual property because we may not be able to protect access to it or we may lose our intellectual property rights due to expiration of our licenses or patents

If we fail to protect our intellectual property rights or if our intellectual property rights do not adequately cover the technology we employ, other medical device companies could sell products with features similar to ours, and this could reduce demand for our products. We protect our intellectual property through a combination of patent, copyright, trade secret and trademark laws. Despite our efforts to protect our proprietary rights, others may attempt to copy or otherwise improperly obtain and use our products or technology. Policing unauthorized use of our technology is difficult and expensive, and we cannot be certain that the steps we have taken will prevent misappropriation. Our means of protecting our proprietary rights may be inadequate. Enforcing our intellectual property rights could be costly and time consuming and may divert our management's attention and resources. Failing to enforce our intellectual property rights could also result in the loss of those rights.

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If healthcare providers are not adequately reimbursed for procedures conducted with our devices or supplies, or if reimbursement policies change adversely, we may not be successful marketing and selling products or technologies

Clinicians, hospitals, and government agencies are unlikely to purchase our products if clinicians are not adequately reimbursed for the procedures conducted with our devices or supplies. Unless a sufficient amount of conclusive, peer-reviewed clinical data about our products has been published, third-party payors, including insurance companies and government agencies, may refuse to provide reimbursement. Furthermore, even if reimbursement is provided, it may not be adequate to fully compensate the clinicians or hospitals. Some third-party payors may impose restrictions on the procedures for which they will provide reimbursement. If healthcare providers cannot obtain sufficient reimbursement from third-party payors for our products or the screenings conducted with our products, we may not achieve significant market acceptance of our products. Acceptance of our products in international markets will depend upon the availability of adequate reimbursement or funding within prevailing healthcare payment systems. Reimbursement, funding, and healthcare payment systems vary significantly by country. We may not obtain approvals for reimbursement in a timely manner or at all.

Adverse changes in reimbursement policies in general could harm our business. We are unable to predict changes in the reimbursement methods used by third-party healthcare payors, particularly those in countries and regions outside the U.S. For example, some payors are moving toward a managed care system in which providers contract to provide comprehensive healthcare for a fixed cost per person. In a managed care system the cost of our products may not be incorporated into the overall payment for patient care or there may not be adequate reimbursement for our products separate from reimbursement for other procedures.

If we fail in our efforts to educate clinicians, government agency personnel, and third-party payors on the effectiveness of our products, we will not achieve future sales growth

It is critical to the success of our sales efforts that we educate a sufficient number of clinicians, hospital administrators, and government agencies about our products and the costs and benefits of their use. The commercial success of our products depends upon clinician, government agency and other third-party payor confidence in the economic and clinical benefits of our products as well as their comfort with the efficacy, reliability, sensitivity and specificity of our products. We believe that clinicians will not use our products unless they determine, based on published peer-reviewed journal articles and experience, that our products provide an accurate and cost-effective alternative to other means of testing or treatment. Our customers may choose to use competitive products, which may be less expensive or may provide faster results than our devices. Clinicians are traditionally slow to adopt new products, testing practices and clinical treatments, partly because of perceived liability risks and the uncertainty of third-party reimbursement. If clinicians, government agencies and hospital administrators do not adopt our products, we may not maintain profitability. Factors that may adversely affect the medical community's acceptance of our products include:

Publication of clinical study results that demonstrate a lack of efficacy or cost-effectiveness of our products;

Changing governmental and physician group guidelines;

Actual or perceived performance, quality, price, and total cost of ownership deficiencies of our products relative to other competitive products;

Our ability to maintain and enhance our existing relationships and to form new relationships with leading physicians, physician organizations, hospitals, state laboratory personnel, and third-party payors;

Changes in state and third-party payor reimbursement policies for our products; and

Repeal of laws requiring universal newborn hearing screening and metabolic screening.

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Increased sales through group purchasing organizations and sales to high volume purchasers may reduce our average selling prices, which would reduce our revenue and gross profits

We have entered, and expect in the future to enter into agreements with customers who purchase high volumes of our products. Our agreements with these customers may contain discounts from our normal selling prices and other special pricing considerations, which could cause our revenue and profits to decline. In addition, we have entered into agreements to sell our products to members of group purchasing organizations, or GPOs, which negotiate volume purchase prices for medical devices and supplies for member hospitals, group practices and other clinics. While we make sales directly to GPO members, the GPO members receive volume discounts from our normal selling price and may receive other special pricing considerations from us. Sales to members of all GPOs accounted for approximately 35%, 31% and 28% of our total revenue during 2007, 2006 and 2005, respectively, and sales to members of one GPO, Novation LLC, accounted for approximately 9%, 12% and 15% of our total revenue in 2007, 2006 and 2005, respectively. Other of our existing customers may be members of GPOs with which we do not have agreements. Our sales efforts through GPOs may conflict with our direct sales efforts to our existing customers. If we enter into agreements with new GPOs and some of our existing customers begin purchasing our products through those GPOs, our revenue and profits could decline.

Demand for some of our products depends on the capital spending policies of our customers, and changes in these policies could harm our business

A majority of customers for our products are hospitals, physician offices, and clinics. Many factors, including public policy spending provisions, available resources, and economic cycles have a significant effect on the capital spending policies of these entities and therefore the amount that they can spend on our equipment products. If budget resources limit the capital spending of our customers, they will be unlikely to either purchase any new equipment from us or upgrade to any of our newer equipment products. These factors can have a significant adverse effect on the demand for our products.

Our markets are very competitive and in the United States we sell certain of our products in a mature market

We face competition from other companies in all of our product lines. Our competitors range from small, privately-held companies to multinational corporations and their product offerings vary in scope and breadth. We do not believe that any single competitor is dominant in any of our product lines.

The markets for certain of our products in the U.S., including the newborn hearing screening and electroencephalograph monitoring markets, are mature and we are unlikely to see significant growth for such products in the U.S. In the U.S. we derive a significant portion of our revenue from the sale of disposable supplies that are used with our hearing screening devices. Because these disposable supply products can generate high margins, we expect that our products, particularly our hearing screening disposable supply products, could face increasing competition, including competitors offering lower prices, which could have an adverse affect on our revenue and margins.

We believe that our primary competitive strengths relate to the functionality and reliability of our products, our recognized brands, and our developed sales channels. Our competitors may have certain competitive advantages, which include the ability to devote greater resources to the development, promotion, and sale of their products. Consequently, we may need to increase our efforts, and related expenses for research and development, marketing, and selling to maintain or improve our position.

We expect recurring sales to our existing customers to generate a majority of our revenue in the future, and if our existing customers do not continue to purchase products from us, our revenue may decline.

Our operating results may decline if we do not succeed in developing, acquiring and marketing additional products or improving our existing products

We intend to develop additional products and technologies, including enhancements of existing products, for the screening, detection, treatment, monitoring and tracking of common medical ailments. Developing new

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products, and improving our existing products, to meet the needs of current and future customers requires significant investments in research and development. If we fail to successfully sell new products, update our existing products, or timely react to changes in technology, our operating results may decline as our existing products reach the end of their commercial life cycles.

Our plan to expand our international operations will result in increased costs and is subject to numerous risks; if our efforts are not successful, this could harm our business

We have expanded our international operations through acquisitions and plan to expand our international sales and marketing efforts to increase sales of our products in foreign countries. We may not realize corresponding growth in revenue from growth in international unit sales, due to the lower average selling prices we receive on sales outside of the U.S. Even if we are able to successfully expand our international selling efforts, we cannot be certain that we will be able to create or increase demand for our products outside of the U.S. Our international operations are subject to other risks, which include:

Impact of possible recessions in economies outside the U.S.;

Political and economic instability, including instability related to war and terrorist attacks in the U.S. and abroad;

Contractual provisions governed by foreign law, such as local law rights to sales commissions by terminated distributors;

Decreased healthcare spending by foreign governments that would reduce international demand for our products;

A strengthening of the U.S. dollar relative to foreign currencies that could make our products less competitive because most of our international sales are denominated in the U.S. dollar;

Greater difficulty in accounts receivable collection and longer collection periods;

Difficulties of staffing and managing foreign operations;

Reduced protection for intellectual property rights in some countries and potentially conflicting intellectual property rights of third parties under the laws of various foreign jurisdictions;

Difficulty in obtaining and maintaining foreign regulatory approval; and

Attitudes by clinicians, and cost reimbursement policies, towards use of disposable supplies that are potentially unfavorable to our business.

If guidelines mandating universal newborn hearing screening do not continue to develop in foreign countries and governments do not mandate testing of all newborns as we anticipate, or if those guidelines have a long phase-in period, our revenue may be adversely impacted

We estimate that approximately 95% of the children born in the U.S. are currently being tested for hearing impairment prior to discharge from the hospital. To date, there has been only limited adoption of newborn hearing screening prior to hospital discharge by foreign governments, and the phase-in period generally spans several years. The widespread adoption of guidelines depends, in part, on our ability to educate foreign government agencies, neonatologists, pediatricians, third-party payors, and hospital administrators about the benefits of universal newborn

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hearing screening as well as the use of our products to perform the screening and monitoring. Our revenue from our newborn hearing screening product lines may not grow if foreign governments do not require universal newborn hearing screening prior to hospital discharge, if physicians or hospitals are slow to comply with those guidelines, or if governments provide for a lengthy phase-in period for compliance.

Because we rely on distributors or sub-distributors to sell our products in most of our markets outside of the U.S., our revenue could decline if our existing distributors reduce the volume of purchases from us, or if our relationship with any of these distributors is terminated

We currently rely on our distributors or sub-distributors for a majority of our sales outside the U.S. Our reliance on international distributors has increased because of our decisions in 2004 and 2005 to close our

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Japanese and U.K. sales subsidiaries and sell through distributors in those countries, and because of our acquisition of Fischer-Zoth, which sells its products through distributors in Europe and Asia. We may also sell Deltamed products through distributors in countries outside of France and Germany. Some distributors also assist us with regulatory approvals and education of clinicians and government agencies. We intend to continue our efforts to increase our sales in Europe, Japan, and other developed countries. If we fail to sell our products through our international distributors, we would experience a decline in revenues unless we begin to sell our products directly in those markets. We cannot be certain that we will be able to attract new international distributors to market our products effectively or provide timely and cost-effective customer support and service. Even if we are successful in selling our products through new distributors, the rate of growth of our revenue could be harmed if our existing distributors do not continue to sell a large dollar volume of our products. None of our existing distributors are obligated to continue selling our products.

We may be subject to foreign laws governing our relationships with our international distributors. These laws may require us to make payments to our distributors if we terminate our relationship for any reason, including for cause. Some countries require termination payments under local law or legislation that may supersede our contractual relationship with the distributor. Any required payments would adversely affect our operating results.

Our operating results may suffer because of our exposure to foreign currency exchange rate fluctuations and may require us to engage in foreign currency hedging

Substantially all of our sales contracts with our U.S. based customers provide for payment in U.S. dollars. In addition, sales to most of our international distributors provide for payment in U.S. dollars. However, substantially all of the revenue and expenses of our foreign subsidiaries are denominated in the applicable foreign currency. To date we have not undertaken any significant foreign currency transactions to hedge these currency risks and, as a result, our future revenue and expenses may be subject to volatility due to exchange rate fluctuations that could result in foreign exchange gains and losses associated with foreign currency transactions and the translation of assets and liabilities denominated in foreign currencies.

If we lose our relationship with any supplier of key product components or our relationship with a supplier deteriorates or key components are not available in sufficient quantities, our manufacturing could be delayed and our business could suffer

We contract with third parties for the supply of some of the components used in our products and the production of our disposable products. Some of our suppliers are not obligated to continue to supply us. We have relatively few sources of supply for some of the components used in our products and in some cases we rely entirely on sole-source suppliers. In addition, the lead-time involved in the manufacturing of some of these components can be lengthy and unpredictable. For example, during 2005, we relied on a single supplier of cables used in our ALGO hearing screening devices to help us complete a field replacement program of those cables. If our suppliers become unwilling or unable to supply us with components meeting our requirements, it might be difficult to establish additional or replacement suppliers in a timely manner, or at all. This would cause our product sales to be disrupted and our revenue and operating results to suffer.

Replacement or alternative sources might not be readily obtainable due to regulatory requirements and other factors applicable to our manufacturing operations. Incorporation of components from a new supplier into our products may require a new or supplemental filing with applicable regulatory authorities and clearance or approval of the filing before we could resume product sales. This process may take a substantial period of time, and we may not be able to obtain the necessary regulatory clearance or approval. This could create supply disruptions that would harm our product sales and operating results.

We depend upon key employees in a competitive market for skilled personnel, and, without additional employees, we cannot grow or maintain profitability

Our products and technologies are complex, and we depend substantially on the continued service of our senior management team. The loss of any of our key employees could adversely affect our business and slow our

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product development process. Our future success also will depend, in part, on the continued service of our key management personnel, software engineers, and other research and development employees and our ability to identify, hire, and retain additional personnel, including customer service, marketing, and sales staff. Hiring research and development, engineering, sales, marketing and customer service personnel in our industry is very competitive due to the limited number of people available with the necessary technical skills and understanding of our product technologies. We may be unable to attract and retain personnel necessary for the development of our business.

Our ability to market and sell products depends upon receipt of domestic and foreign regulatory approval of our products and manufacturing operations. Our failure to obtain or maintain regulatory approvals and compliance could negatively affect our business

Our products and manufacturing operations are subject to extensive regulation in the United States by the FDA and by similar regulatory agencies in many other countries in which we do business. Our products are classified as medical devices. Medical devices are subject to extensive regulation by the FDA pursuant to regulations that are wide ranging and govern, among other things: design and development; manufacturing and testing; labeling; storage and record keeping; advertising, promotion, marketing, sales, distribution, and export; and surveillance and reporting of deaths or serious injuries.

Unless an exemption applies, each medical device that we propose to market in the U.S. must first receive one of the following types of FDA premarket review authorizations:

Clearance via Section 510(k) of the Food, Drug, and Cosmetics Act of 1938, as amended; or

Premarket approval via Section 515 of the Food, Drug, and Cosmetics Act if the FDA has determined that the medical device in question poses a greater risk of injury.

The FDA will clear marketing of a medical device through the 510(k) process if it is demonstrated that the new product is substantially equivalent to other 510(k)-cleared products. The premarket approval application process is more costly, lengthy and uncertain than the 510(k) process, and must be supported by extensive data, including data from preclinical studies and human clinical trials. The FDA may not grant either Section 510(k) clearance or premarket approval for any product we propose to market. Further, any modification to a 510(k)-cleared device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, design, or manufacture, requires a new 510(k) clearance or, possibly, approval of a premarket approval application. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review any manufacturer's decision. If the FDA requires us to seek 510(k) clearance or premarket approval application for modification of a previously cleared product for which we have concluded that new clearances or approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties. Further, our products could be subject to recall if the FDA determines, for any reason, that our products are not safe or effective.

Delays in receipt or failure to receive clearances or approvals, the loss of previously received clearances or approvals, or the failure to comply with existing or future regulatory requirements could adversely impact our operating results. If the FDA finds that we have failed to comply with these requirements, it can institute a wide variety of enforcement actions, ranging from a public warning letter to more severe sanctions such as:

Fines, injunctions and civil penalties;

Recall or seizure of our products;

Issuance of public notices or warnings;

Imposition of operating restrictions, partial suspension, or total shutdown of production;

Refusal of our requests for Section 510(k) clearance or premarket approval of new products;

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Withdrawal of Section 510(k) clearance or premarket approvals already granted; or

Criminal prosecution.

Domestic regulation of our products and manufacturing operations, other than that which is administered by the FDA, includes the Environmental Protection Act, the Occupational Safety and Health Act, and state and local counterparts to these Acts.

Our business would be harmed if the FDA determines that we have failed to comply with applicable regulations governing the manufacture of our products and/or we do not pass an inspection

We and our suppliers are required to demonstrate and maintain compliance with the FDA's Quality System Regulation. The Quality System Regulation sets forth the FDA's requirements for good manufacturing practices of medical devices and includes requirements for, among other things, the design, testing, production processes, controls, quality assurance, labeling, packaging, storage and shipping of such products. In addition we and our suppliers must engage in extensive recordkeeping and reporting and must make available our manufacturing facility and records for periodic unscheduled inspections by federal, state, and foreign agencies, including the FDA.

We cannot assure you that we and our suppliers are or will continue to be in full compliance with the Quality System Regulation, and that we will not encounter any manufacturing difficulties. For example in October 2007 we received a warning letter from the FDA that focused on process deficiencies at our Olympic facility in Seattle, Washington. As a result, we initiated a voluntary plant shutdown of the Olympic facility for the month of November 2007. After reviewing processes at the facility, we responded to the FDA's warning letter in late November 2007. To date, the FDA has not further communicated with us concerning this matter, but they could decide that we undertook insufficient remedial actions. We resumed manufacturing at our Olympic facility in December 2007.

Failure of our third party suppliers and manufacturers or us to comply with applicable regulations could result in sanctions being imposed on us, including, among other things, fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delays, suspension or withdrawal of approvals, seizures or recalls of products, and manufacturing restrictions, any of which could harm our business.

We have received clearance from the FDA to market a new product that will potentially expose us to greater products liability exposure and FDA regulation

The FDA classifies medical devices into one of three classes, depending on the degree of risk associated with each medical device and the extent of controls that are needed to ensure safety and effectiveness. Devices deemed to pose lower risk are placed in either class I or class II. Devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or a device deemed to be not substantially equivalent to a previously cleared 510(k) device, are placed in class III, and generally require premarket approval from the FDA before they may be marketed.

In December 2006 we received premarket approval from the FDA to market the Olympic Cool-Cap, a product designed to lower the cerebral temperature of newborns born with a particular medical condition. This product is a Class III minimally invasive medical device, and as such we may be subject to an increased product liability risk relative to our other Class I and Class II non-invasive products. In addition, this type of product is subject to greater FDA oversight than our other products and there is greater risk that sales of the product could be interrupted due to the premarket approval processes of the FDA and other regulatory bodies.

Our business may suffer if we are required to revise our labeling or promotional materials, or the FDA takes an enforcement action against us for off-label uses

We are prohibited by the FDA from promoting or advertising our medical device products for uses not within the scope of our clearances or approvals, or from making unsupported promotional claims about the

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benefits of our products. If the FDA determines that our claims are outside the scope of our clearances, or are unsupported, it could require us to revise our promotional claims or take enforcement action against us. If we were subject to such an action by the FDA, our sales could be delayed, our revenue could decline, and our reputation among clinicians could be harmed. Likewise, if we acquire new products, either through the purchase of products, technology assets, or businesses, that are subsequently deemed to have inadequate supporting data, then we may be required to: (i) obtain adequate data, which could be costly and impede our ability to market these products, or (ii) modify the labeling on these products, which could impair their marketability, as described above.

If we fail to comply with healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected

We do not provide healthcare services, control the referral of patients for healthcare services, nor bill Medicare, Medicaid or other third-party payors; however, due to the breadth of many healthcare laws and regulations, we could be subject to healthcare fraud regulation and enforcement by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include: (i) the federal healthcare programs Anti-Kickback Law, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order, or recommendation of, any good or service for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs; (ii) federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent, and which may apply to entities like us which provide coding and billing advice to customers; or (iii) state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, many of which differ from each other in significant ways, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that their provisions are open to a variety of interpretations. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

Our operating results would suffer if we were subject to a protracted infringement claim

The medical technology industry has, in the past, been characterized by a substantial amount of litigation and related administrative proceedings regarding patents and intellectual property rights. We expect that medical screening and diagnostic products may become increasingly subject to third-party infringement claims as the number of competitors in our industry segment grows and the functionality of products in different industry segments overlap. Third parties such as individuals, educational institutions or other medical device companies may claim that we infringe their intellectual property rights. Any claims, with or without merit, could have any of the following negative consequences:

Result in costly litigation and damage awards;

Divert our management's attention and resources;

Cause product shipment delays or suspensions; or

Require us to seek to enter into royalty or licensing agreements.

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A successful claim of infringement against us could result in a substantial damage award and materially harm our financial condition. Our failure or inability to license the infringed or similar technology, or design and build non-infringing products, could prevent us from selling our products and adversely affect our business and financial results.

We license intellectual property rights from third parties and would be adversely affected if our licensors do not appropriately defend their proprietary rights or if we breach any of the agreements under which we license commercialization rights to products or technology from others

We license rights from third parties for products and technology that are important to our business. If our licensors are unsuccessful in asserting and defending their proprietary rights, including patent rights and trade secrets, we may lose the competitive advantages we have through selling products that we license from third parties. Additionally, if it is found that our licensors infringe on the proprietary rights of others, we may be prohibited from marketing our existing products that incorporate those proprietary rights. Under our licenses, we are subject to commercialization and development, sublicensing, royalty, insurance and other obligations. If we fail to comply with any of these requirements, or otherwise breach a license agreement, the licensor may have the right to terminate the license in whole or to terminate the exclusive nature of the license.

Product liability suits against us could result in expensive and time consuming litigation, payment of substantial damages, and an increase in our insurance rates

The sale and use of our products could lead to the filing of a product liability claim by someone claiming to have been injured using one of our products or claiming that one of our products failed to perform properly. A product liability claim could result in substantial damages and be costly and time consuming to defend, either of which could materially harm our business reputation or financial condition. Our product liability insurance may not protect our assets from the financial impact of defending a product liability claim. Any product liability claim brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing any coverage in the future.

We have experienced seasonality in the sale of our products

We experience seasonality in our revenue. For example, our sales typically decline from our fourth fiscal quarter to our first fiscal quarter, due to patterns in the capital budgeting and purchasing cycles of our current and prospective customers, many of which are government agencies. We may also experience declining sales in the third fiscal quarter due to summer holiday and vacation schedules. We anticipate that we will continue to experience these seasonal fluctuations, which may lead to fluctuations in our quarterly operating results. We believe that you should not rely on our results of operations for interim periods as an indication of our expected results in any future period.

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FORWARD-LOOKING INFORMATION

This prospectus and the documents incorporated herein by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, regarding, among other things, our expectations, beliefs, plans, intentions, future operations, financial condition and prospectus, and business strategies. The words *may*, *will*, *continue*, *estimate*, *project*, *intend*, *believe*, *expect*, *anticipate*, and other similar expressions generally identify forward-looking statements. Forward-looking statements in or incorporated by reference into this prospectus include, but are not limited to, statements regarding the following: the effectiveness and advantages of our products, factors relating to demand for and economic advantages of our products, our plan to develop and acquire additional technologies, products or businesses, our expectations regarding growth in international sales, our marketing, technology enhancement and product development strategies, our intention to enter into agreements with group purchasing organizations, our intention to seek strategic partners, our belief that we bring products to market efficiently, development of technologies into successful products, our estimate of the length of time for patents to issue, identity of our competition and factors for competition, our compliance with regulatory requirements and laws, and our plan to seek approval to sell our products in additional countries.

Forward-looking statements are not guarantees of future performance and are subject to substantial risks and uncertainties that could cause the actual results predicted in the forward-looking statements as well as our future financial condition and results of operations to differ materially from our historical results or currently anticipated results. Investors should carefully review the information incorporated by reference under the caption *Risk Factors* in this prospectus, any accompanying prospectus supplement and in our other filings with the SEC.

Although our forward-looking statements reflect good faith beliefs of our management, these statements are based only on facts and circumstances currently known to us. As a result, we cannot guarantee future results, events, levels of activity, performance or achievement as expressed in or implied by our forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

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USE OF PROCEEDS

Except as described in any prospectus supplement, we currently intend to use the net proceeds from the sale of common stock under this prospectus for general corporate purposes including potential acquisitions of, or investments in, companies and technologies that complement our business, capital expenditures and additions to our working capital and the repayment of any outstanding balance under our Amended and Restated Credit Facility with Wells Fargo Bank, National Association. Pending these uses, we expect to invest the net proceeds in accordance with our investment policy. Our investment policy permits us to invest funds in:

corporate securities, including commercial paper, rated A1, P1 or better, and corporate debt instruments, including medium term notes and floating rate notes issued by foreign and domestic corporations, that pay in U.S. dollars and carry a rating of A or better;

bank certificates of deposit and banker's acceptances that are rated at least A1 or P1;

U.S. Treasury bills, notes and bonds and U.S. AAA-rated agency securities that carry the direct or implied guarantee of the U.S. government, including notes, discount notes, medium term notes and floating rate notes;

asset-backed securities rated A or better;

repurchase agreements with major banks and dealers that are recognized as primary dealers by the Federal Reserve Bank of New York;

money market mutual funds that offer daily purchase and redemption; and

tax exempt/tax advantage investments in money market funds, variable rate demand notes and municipal notes or bonds.

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PLAN OF DISTRIBUTION

We may sell the common stock covered by this prospectus in any of three ways (or in any combination thereof): (i) to or through underwriters or dealers; (ii) directly to a limited number of purchasers or to a single purchaser; or (iii) through agents.

A prospectus supplement will set forth the specific terms of the offering of the common stock covered by this prospectus, including:

the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;

any over-allotment options under which underwriters may purchase additional securities from us;

any underwriting discounts or commissions or agency fees and other items constituting underwriters or agents compensation;

the initial public offering price of the common stock and the proceeds to us and any discounts, commissions or concessions allowed or reallocated or paid to dealers; and

any securities exchanges or markets on which the common stock may be listed.

Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

Underwriters may offer and sell the common stock from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. If underwriters are used in the sale of any common stock, the common stock will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions described above. The common stock may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Generally, the underwriters' obligations to purchase the common stock will be subject to certain conditions precedent. The underwriters will be obligated to purchase all of the common stock they have committed to purchase if they purchase any of the common stock. We may use underwriters with whom we have a material relationship. We will describe the nature of any such relationship in a prospectus supplement, naming the underwriter.

We may sell common stock through agents from time to time. A prospectus supplement will name any agent involved in the offer or sale of the common stock and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

Any dealers or agents that are involved in selling the common stock may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the common stock from us at a public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents or underwriters may be required to make in respect thereof. Agents and underwriters may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

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Any underwriter may engage in over-allotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying securities so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

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LEGAL MATTERS

The validity of the common stock being offered by this prospectus will be passed upon by Fenwick & West LLP.

EXPERTS

The consolidated financial statements and the related financial statement schedule, incorporated in this Prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2007, and the effectiveness of Natus Medical Incorporated's internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference, which reports (1) express an unqualified opinion on the financial statements and the financial statement schedule and includes an explanatory paragraph relating to the adoption of Financial Accounting Standard Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, and Statement of Financial Accounting Standards 123R, *Share-Based Payment*, and (2) express an unqualified opinion on the effectiveness of internal control over financial reporting. Such consolidated financial statements and the financial statement schedule have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

The consolidated balance sheets of Excel-Tech Ltd. as of January 31, 2007 and 2006 and the related consolidated statements of operations and deficit and cash flows for each of the years in the three-year period ended January 31, 2007, have been incorporated herein by reference in reliance upon the report of Ernst & Young LLP, an independent registered public accounting firm, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the SEC's Public Reference Room in Washington, D.C. by calling the SEC at 1-800-SEC-0330.

The SEC allows us to incorporate by reference in this prospectus the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. Any statement contained in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded, for purposes of this prospectus, to the extent that a statement contained in or omitted from this prospectus, or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the offering is completed:

Our Annual Report on Form 10-K for the year ended December 31, 2007 filed on March 14, 2008, including all material incorporated by reference therein;

Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 filed on May 9, 2008, including all material incorporated by reference therein;

Our Current Reports on Form 8-K filed on February 11, 2008, April 4, 2008, April 9, 2008, and April 29, 2008, and our amended Current Report on Form 8-K/A filed on February 12, 2008;

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Our definitive proxy statement on Schedule 14A filed on April 28, 2008;

The description of our common stock contained in our Registration Statement on Form 8-A filed on July 17, 2001 pursuant to Section 12(g) of the Exchange Act; and

The description of our Preferred Stock Purchase Rights contained in our Registration Statement on Form 8-A filed on September 6, 2002 pursuant to Section 12(g) of the Exchange Act, as amended by Amendment No. 1 on Form 8-A/A filed on October 8, 2002 and Amendment No. 2 on Form 8-A/A filed on February 25, 2003, and as described in our Current Report on Form 8-K filed on August 17, 2006.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request of such person, a copy of any and all of the documents that have been incorporated by reference in this prospectus (not including exhibits to such documents, unless such exhibits are specifically incorporated by reference in this prospectus or into such documents). Such request may be directed to Natus Medical Incorporated, 1501 Industrial Road, San Carlos, California 94070, (650) 802-0400.

All documents that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before termination of the offering of the common stock offered in this prospectus shall be deemed incorporated by reference into this prospectus and be a part of this prospectus from the respective dates of filing such documents.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act covering the securities described in this prospectus. This prospectus does not contain or incorporate by reference all of the information included in the registration statement, some of which is contained in exhibits included with or incorporated by reference into the registration statement. The registration statement, including the exhibits contained or incorporated by reference therein, can be read at the SEC's website or at the SEC office referred to above. Any statement made or incorporated by reference in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

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3,500,000 Shares

Common Stock

PROSPECTUS SUPPLEMENT

Joint Bookrunning Managers

Cowen and Company

UBS Investment Bank

Natixis Bleichroeder Inc.

Needham & Company, LLC

Raymond James

Roth Capital Partners

, 2008