AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JUNE 18, 1998
REGISTRATION NO. 333-_____

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933

INCYTE PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	94-3136539
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

3174 Porter Drive
Palo Alto, California 94304
(650) 855-0555
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

ROY A. WHITFIELD
Chief Executive Officer
INCYTE PHARMACEUTICALS, INC.
3174 Porter Drive
Palo Alto, California 94304
(650) 855-0555
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
STANTON D. WONG
SALLY BRAMMELL
Pillsbury Madison & Sutro LLP
P.O. Box 7880
San Francisco, California 94120

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. [ ]

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ] _____

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ] _____

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	BE AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, $.001 par value	1,053,115 shares	32.844	$34,588,509	$10,203.61

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) based upon the average of the high and low prices of the Company's Common Stock on the Nasdaq National Market on June 12, 1998.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME

EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF ANY OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION, DATED JUNE 18, 1998

PROSPECTUS

1,053,115 SHARES

I N C Y T E

P H A R M A C E U T I C A L S, I N C.

COMMON STOCK

This Prospectus covers 1,053,115 shares (the "Shares") of Common Stock, $.001 par value (the "Common Stock"), of Incyte Pharmaceuticals, Inc. ("Incyte" or the "Company") offered for the account of certain stockholders of the Company (the "Selling Stockholders"). The Selling Stockholders acquired the Shares in connection with the acquisition by the Company of Synteni, Inc. ("Synteni") in January 1998. The Shares may be offered by the Selling Stockholders from time to time in transactions (which may include block transactions) on the Nasdaq National Market, in negotiated transactions, through a combination of such methods of sale, or otherwise, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to prevailing market prices, or at negotiated prices. The Selling Stockholders may effect such transactions by selling the Shares to or through broker-dealers, who may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders and/or the purchasers of the Shares for whom such broker-dealers may act as agents or to whom they may sell as principals, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions). The Company will not receive any of the proceeds from the sale of the Shares by the Selling Stockholders. The Company has agreed to bear all expenses of registration of the Shares, but all selling and other expenses incurred by a Selling Stockholder will be borne by that Selling Stockholder.

The Selling Stockholders and any broker-dealers, agents or underwriters that participate with the Selling Stockholders in the distribution of the Shares may be deemed to be "underwriters" within the meaning of the Securities Act of 1933, as amended (the "Securities Act"), and any commissions paid or any discounts or concessions allowed to any such persons, and any profits received on the resale of the Shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. See "Selling Stockholders" and "Plan of Distribution."

The Common Stock is traded on the
Nasdaq National Market under the symbol "INCY."

THE COMMON STOCK OFFERED HEREBY INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 3.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION, NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

No person has been authorized to give any information or to make any representations other than those contained or incorporated by reference in this Prospectus and, if given or made, such information or representations must not be relied upon as having been authorized by the Company. This Prospectus does not constitute an offer to sell or a solicitation of any offer to buy any security other than the shares of Common Stock offered by this Prospectus, nor does it constitute an offer to sell or solicitation of any offer to buy the shares of Common Stock by anyone in any jurisdiction in which such offer or solicitation is not authorized, or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create any implication that the information contained herein is correct as of any time subsequent to the date hereof.

The date of this Prospectus is _____, 1998

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy and information statements, and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy and information statements, and other information filed by the Company can be inspected and copied at the public reference facilities maintained by the Commission at 450 Fifth Street, N.W., Washington, D.C., as well as the regional offices of the Commission located at Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois, and 7 World Trade Center, Suite 1300, New York, New York. Copies of such material can be obtained from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. The Commission maintains a World Wide Web site that contains reports, proxy and information statements, and other information that are filed through the Commission's Electronic Data Gathering, Analysis and Retrieval System. This Web site can be accessed at http://www.sec.gov.

The Company has filed with the Commission a Registration Statement on Form S-3 (together with all amendments and exhibits thereto, the "Registration Statement") under the Securities Act with respect to the Common Stock offered hereby. This Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto, certain parts of which are omitted in accordance with the rules and regulations of the Commission. For further information with respect to the Company and the Common Stock, reference is made to the Registration Statement and the exhibits and schedules thereto. Statements contained in this Prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, reference is made to the copy of such contract or document filed as an exhibit to the Registration Statement, each such statement being qualified in all respects by such reference. Copies of the Registration Statement, including all exhibits thereto, may be obtained from the Commission's principal office in Washington, D.C. upon payment of the fees prescribed by the Commission, or may be examined without charge at the offices of the Commission described above.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents previously filed with the Commission are hereby incorporated by reference into this Prospectus: (i) the Company's Annual Report on Form 10-K for the year ended December 31, 1997, (ii) the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 1998, (iii) the Company's Current Report on Form 8-K, as amended on Form 8-K/A, dated January 22, 1998, (iv) the Company's Current Report on Form 8-K dated June 12, 1998, and (v) the description of the Common Stock contained in the Company's Registration Statement on Form 8-A filed under the Exchange Act on October 7, 1993. All documents subsequently filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering to which this Prospectus relates shall be deemed to be incorporated by reference into this Prospectus and to be part of this Prospectus from the date of filing thereof.

Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus and the Registration Statement of which it is a part to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated herein modifies or replaces such statement. Any statement so modified or superseded shall not be deemed, in its unmodified form, to constitute a part of this Prospectus or such Registration Statement. The Company will provide without charge to each person to whom a copy of the Prospectus has been delivered, and who makes a written or oral request, a copy of any and all of the foregoing documents incorporated by reference in the Registration Statement (other than exhibits unless such exhibits are specifically incorporated by reference into such documents). Requests should be submitted in writing or by telephone to Investor Relations, Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, California 94304, telephone (650) 845-4589.

THE COMPANY

Incyte Pharmaceuticals, Inc. designs, develops and markets genomic database products, genomic data management software tools, gene expression microarray services and genomic reagents. The Company has created a portfolio of database products, including the LifeSeq(R) gene expression and sequence database, LifeSeq FL(R) database of full-length genes, LifeSeq Atlas(TM) mapping database and PathoSeq(TM) microbial database. These databases integrate bioinformatics software with proprietary and, when appropriate, publicly available genetic information to create information-based tools used by pharmaceutical and biotechnology companies in drug discovery and development. In building the databases, the Company utilizes high-throughput, computer-aided gene sequencing and analysis technologies to identify and characterize the expressed genes of the human genome, as well as certain animal, plant and microbial genomes. Revenues recognized by the Company consist primarily of non-exclusive database access fees related to database collaboration agreements. Revenues also include software license and maintenance fees, the sales of genomic screening products and services, gene expression microarray services and fees for custom or "satellite" database services. The Company's database collaboration agreements provide for future milestone payments and royalties from the sale of products derived from proprietary information obtained through the databases. There can be no assurance that any database collaborators will ever generate products from information contained within the databases and thus that the Company will ever receive milestone payments or royalties.

The Company is pursuing the development of proteomics databases to assist pharmaceutical and biotechnology companies in determining protein expression patterns through a multiyear collaboration with Oxford GlycoSciences plc initiated in January 1998. In addition, the Company is focusing on the discovery and commercialization of molecular diagnostics through a joint venture, diaDexus, LLC ("diaDexus"), established in September 1997 in conjunction with SmithKline Beecham Corporation.

The Company was incorporated in Delaware in 1991. The Company's executive offices are located at 3174 Porter Drive, Palo Alto, California 94304 and its telephone number is (650) 855-0555.

RISK FACTORS

When used in this Prospectus, the words "expects", "anticipates", "estimates" and similar expressions are intended to identify forward-looking statements. Such statements, which include statements under the captions "Risk Factors" and "The Company" as to the adequacy of capital resources, the ability to commercialize products developed under collaborations and alliances and the performance and utility of the Company's products and services, are subject to risks and uncertainties that could cause actual results to differ materially from those projected. These risks and uncertainties include, but are not limited to, the extent of utilization of genomic information by the pharmaceutical and biotechnology industries in both research and development, risks relating to the development of new database products and their use by potential collaborators of the Company, and the risks set forth below.

THE SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK. THE FOLLOWING FACTORS SHOULD BE CONSIDERED CAREFULLY IN EVALUATING AN INVESTMENT IN THE SHARES OF COMMON STOCK OFFERED HEREBY.

UNCERTAIN EFFECTS OF THE SYNTENI MERGER. The combination of Synteni and the Company involves several potential operating and business risks, including the integration of Synteni's and the Company's businesses and management in a timely, efficient and effective manner, the timely integration of Synteni's microarray technology and services with the Company's database products and services, integration of the respective sales and marketing and research and development efforts, and any resulting loss of efficiency or loss of employees. The combined companies may not realize any revenue enhancements or cost savings or maintain Synteni's business relationships with its customers after the merger. Also, any cost savings that are realized due to the merger may be offset by increases in other expenses or operating losses, including losses due to problems in integrating the two companies. See "--Risks Associated With Acquisitions." Although the Company believes that beneficial synergies will result from the Synteni merger, the combination of the two companies' businesses, even if achieved in an efficient,

effective and timely manner, may not result in combined results of operations and financial condition superior to what would have been achieved by each company independently, and may take longer than expected. See "--History of Operating Losses; Uncertainty of Continued Profitability or Revenues."

RISKS ASSOCIATED WITH ACQUISITIONS. As part of its business strategy, the Company may from time to time acquire assets and businesses principally relating to, or complementary to, its operations. These acquisitions may include acquisitions for the purpose of acquiring specific technology. The Company acquired two companies, Genome Systems, Inc. and Combion, Inc., in 1996 and acquired Synteni in January 1998. If the Company acquires additional businesses that are not located near the Company's Palo Alto, California headquarters, the Company may experience more difficulty integrating and managing the acquired businesses' operations. These and any other acquisitions by the Company involve risks commonly encountered in acquisitions of companies. These risks include, among other things, the following: the Company may be exposed to unknown liabilities of acquired companies; the Company may incur acquisition costs and expenses higher than it anticipated; fluctuations in the Company's quarterly and annual operating results may occur due to the costs and expenses of acquiring and integrating new businesses or technologies; the Company may experience difficulty and expense of assimilating the operations and personnel of the acquired businesses; the Company's ongoing business may be disrupted and its management's time and attention may be diverted; the Company may be unable to integrate successfully or to complete the development and application of acquired technology and may fail to achieve the anticipated financial, operating and strategic benefits from these acquisitions; the Company may experience difficulties in establishing and maintaining uniform standards, controls, procedures and policies; the Company's relationships with key employees and customers of acquired businesses may be impaired, or these key employees and customers may be lost, as a result of changes in management and ownership of the acquired businesses; the Company may incur amortization expenses if an acquisition is accounted for as a purchase; and the Company's stockholders may be diluted if the consideration for the acquisition consists of equity securities. The Company may not overcome these risks or any other problems encountered in connection with acquisitions. If the Company is unsuccessful in doing so, its business, financial condition and results of operations could be materially and adversely affected.

HISTORY OF OPERATING LOSSES; UNCERTAINTY OF CONTINUED PROFITABILITY OR REVENUES. The Company has experienced substantial revenue growth since 1995 and has reported quarterly profits only since the first quarter of 1997. For the years ended December 31, 1996 and 1995, the Company had net losses of $7.3 million and $9.9 million, respectively, and as of March 31, 1998, the Company had an accumulated deficit of $28.3 million. The Company may not be able to maintain revenue growth or profitability. The Company's continued investment in new product and technology development, obligations under existing and future research and development alliances, and increased investment in marketing, sales and customer service will require a continued increase in expenditures in 1998 and beyond. Synteni's ability to contribute to the profitability of the Company will be dependent on the ability of the Company and Synteni to obtain high volume customers for Synteni's microarray services and the costs associated with increasing microarray production capacity. Prior to this merger, Synteni's microarray service agreements consisted of small volume pilot or feasibility agreements. The Company's ability to achieve and maintain significant revenues will be dependent upon its ability to obtain additional database collaborators and retain existing collaborators. The Company's ability to maintain profitability will be dependent upon its ability to obtain such database collaborators, the level of expenditures necessary for the Company to maintain and support its services to its collaborators, and the extent to which it incurs research and development, investment, acquisition-related or other expenses related to the development and provision of its products and services to database collaborators. While, as of April 1998, the Company had twenty-one database collaborations, the Company may be unable to enter into any additional collaborations. Further, the Company's database collaboration agreements typically have a term of three years. Some of these agreements require the Company to meet certain performance obligations. These agreements may not be renewed upon expiration, and a database collaboration agreement may be terminated earlier by a collaborator if the Company breaches the agreement and fails to cure such breach within a specified period. In addition, one database collaborator has the right on 30 days' written notice to terminate its database collaboration agreement. The loss of revenues from any database collaborator could have a material adverse effect on the Company's business, financial condition and results of operations.

Part of the Company's commercialization strategy is to license to database collaborators the Company's patent rights to individual partial genes or full-length cDNA sequences from the Company's proprietary sequence database,

for development as potential pharmaceutical, diagnostic or other products. Any potential product that is the subject of such a license will require several years of further development, clinical testing and regulatory approval prior to commercialization. Accordingly, the Company does not expect to receive any milestone or royalty payments from any such licenses for a substantial period of time, if at all.

FLUCTUATIONS IN OPERATING RESULTS. The Company's operating results may fluctuate significantly from quarter to quarter as a result of a variety of factors, including changes in the demand for the Company's products and services; the pricing of database access to database collaborators; the nature, pricing and timing of other products and services provided to the Company's collaborators; changes in the research and development budgets of the Company's collaborators and potential collaborators; capital expenditures; acquisition and licensing costs and other costs related to the expansion of the Company's operations, including operating losses of acquired businesses such as Synteni; the introduction of competitive databases or services; and expenses related to, and results of, litigation (including the lawsuit filed by Affymetrix, Inc. ("Affymetrix") described below under "--Litigation") and other proceedings relating to intellectual property rights. In particular, the Company has a limited ability to control the timing of database installations, there is a lengthy sales cycle required for the Company's database products, the Company's revenue levels are difficult to forecast, the time required to complete custom orders can vary significantly and the Company's increasing investments in external alliances could result in significant quarterly fluctuations in expenses due to the payment of milestones, license fees or research payments.

The Company's investments in joint ventures and businesses, particularly diaDexus, may require the Company to record losses or expenses related to its proportionate ownership interest in such entities, to record charges for the acquisition of in-process technologies, or to record charges for recognition of the impairment in the value of the securities underlying such investments. To date, exclusive of losses from joint ventures, the Company has not incurred significant losses on its long-term equity investments. One entity in which the Company has made an equity investment, OncorMed, Inc. ("OncorMed"), received a report from its independent auditors for the year ended December 31, 1997 which expressed substantial doubt as to OncorMed's ability to continue as a going concern. OncorMed has indicated to the Company that it is pursuing various financing options and the Company will continue to evaluate its investment in OncorMed and all of its long-term equity investments for impairment on a quarterly basis. In an effort to broaden its business, the Company is investing in a number of new areas, including microarray services, molecular diagnostics, pharmacogenomics and proteomics. Given that many of these address new markets or involve untested technologies, it is not known if any of them will generate revenues or if the revenues will be sufficient to provide an adequate return on the investment. Depending on the investment required and timing of such investments, expenses or losses related to these investments could adversely affect operating results.

The need for continued investment in development of the Company's databases and related products and services and for extensive ongoing collaborator support capabilities results in significant fixed expenses. If revenue in a particular period does not meet expectations, the Company may not be able to adjust significantly its level of expenditures in such period, which would have an adverse effect on the Company's operating results. The Company may also experience difficulty in forecasting levels of operating expenditures for, and integration-related expenses with respect to, subsidiaries acquired through acquisitions, at least until a substantial period of time has passed since the acquisition date. This is particularly true when attempting to forecast expenditure levels for acquired businesses that focus on technologies for which there is not yet an established market. The Company believes that quarterly comparisons of its financial results will not necessarily be meaningful and should not be relied upon as an indication of future performance. Due to the foregoing and other unforeseen factors, it is likely that in some future quarter or quarters the Company's operating results may be below the expectations of public market analysts and investors. In such event, the price of the Company's Common Stock would likely be materially and adversely affected.

COMPETITION AND TECHNOLOGICAL CHANGES. There are a finite number of genes in the human genome, and competitors may seek to identify, sequence and determine in the shortest time possible the biological function of a large number of genes in order to obtain a proprietary position with respect to the largest number of new genes discovered. There are a number of companies, other institutions, and government-financed entities engaged in gene sequencing, gene discovery, gene expression analysis, positional cloning and other genomic service businesses. Many of these companies, institutions and entities have greater financial and human resources than the Company. In addition, the Company is aware that other companies have developed genomic databases and are marketing, or have

announced their intention to market, their data to pharmaceutical companies. The Company expects that additional competitors may attempt to establish gene sequence, gene expression or other genomic databases in the future.

In addition, competitors may discover and establish patent positions with respect to gene sequences in the Company's databases. Further, certain entities engaged in gene sequencing, including Merck & Co., Inc. ("Merck") and The Institute for Genomic Research ("TIGR"), have made the results of their sequencing efforts publicly available. The Perkin-Elmer Corporation, Dr. J. Craig Venter, and TIGR announced in May 1998 the signing of a letter of intent to form a new company that has the goal of sequencing the entire human genome within three years and to make the sequence information publicly available. The patent positions of competitors or the public availability of gene sequences comprising substantial portions of the human genome or microbial or plant genomes could decrease the potential value of the Company's databases to the Company's collaborators and adversely affect the Company's ability to realize royalties or other revenue from commercialization of products based upon this genetic information.

The gene sequencing machines that are utilized in the Company's high-throughput, computer-aided gene sequencing operations are commercially available and are currently being utilized by several competitors. Some of the Company's competitors or potential competitors are in the process of developing, and may successfully develop, proprietary sequencing technologies that may be more advanced than the technology used by the Company. In addition, the Company is aware that there are a number of companies, pursuing alternative methods for generating gene expression information, including those that have developed, and are developing, microarray technologies. At least one other company currently offers microarray-based services that might be competitive with those offered by the Company. These advanced sequencing or gene expression technologies, if developed, may not be commercially available for purchase or license by the Company on reasonable terms, if at all.

A number of companies have announced their intent to develop and market software to assist pharmaceutical companies and academic researchers in the management and analysis of their own genomic data, as well as the analysis of sequence data available in the public domain. Some of these entities have access to significantly greater resources than the Company and these products may achieve greater market acceptance than the Company's products.

The Company's databases also require extensive software support and incorporate features determined by database collaborators' needs. If the Company experiences delays or difficulties in implementing its database software or collaborator-requested features, its ability to service its collaborators may be adversely affected, which might have an adverse effect on the Company's business and operating results.

The genomics industry is characterized by extensive research efforts and rapid technological progress. To remain competitive, the Company will be required to continue to expand its databases and to enhance the functionality of its bioinformatics and database software. New developments are expected to continue and discoveries by others may render the Company's services and potential products noncompetitive.

NEW AND UNCERTAIN BUSINESS. The Company's genomic database business and the use of its databases, software tools and related services to assist its collaborators and potentially improve the efficiency of the traditional drug discovery process represent a business for which there is no precedent. In addition, the Company's microarray services business represents a business for which there is no precedent. The Company's collaborators or potential collaborators may determine that the databases, software tools and microarray and related services provided by the Company are not useful or cost-effective. The Company's strategy of using high-throughput sequencing to identify genes rapidly and obtain proprietary rights in as many genes as possible and strategy of using microarrays to identify differentially expressed genes is unproven. In addition, the Company has limited experience in providing bioinformatics software and database products and services. The Company's ability to sustain profitability depends on attracting additional collaborators and retaining existing collaborators for its database, sequencing and software products and services and microarray services. The nature and price of these database, sequencing and software products and services and microarray services are such that there is a limited number of pharmaceutical and biotechnology companies that are potential collaborators for such products and services. Additional factors that may affect demand for the Company's products and services include the extent to which potential collaborators choose to conduct in-house gene sequencing and bioinformatics analysis, the emergence of competitors offering similar

services at competitive prices, the ability of the Company to service satisfactorily its existing collaborators, the extent to which the gene and related information in the Company's database is made public by, or is the subject of, patents issued to others, the Company's ability to establish and enforce proprietary rights to its products, and the emergence of technological innovations in gene sequencing, gene expression profiling or bioinformatics and relational database software that are more advanced than the technology used by and available to the Company. The Company may be unable to attract additional collaborators on acceptable terms for its products and services or develop a sustainable profitable business.

RISKS ASSOCIATED WITH STRATEGIC INVESTMENTS. The Company has funded, and intends in the future to fund, strategic equity investments in joint ventures or businesses that complement the business of the Company. These investments, such as the Company's investment in diaDexus, may require the Company to record losses and expenses related to its proportionate ownership interest in such entities, the acquisition of in-process technologies, or the impairment in the value of the securities underlying such investments. These losses may exceed amounts anticipated, which could result in the Company's operating results being below the expectations of public market analysts and investors. These investments may often be made in securities for which there is no public trading market or in securities not registered under the Securities Act and therefore subject to trading restrictions, either of which increases the Company's risk of investment and reduces the liquidity of the Company's investment. In addition, the Company could be required to invest greater amounts than initially anticipated or to devote substantial management time to the management of research and development relationships and joint ventures. The occurrence of any of the foregoing could result in a material adverse effect on the Company's business, financial condition and results of operations.

LENGTHY SALES CYCLE. The ability of the Company to obtain new collaborators for its databases, software tools and microarray and other services depends in significant part upon prospective collaborators' perceptions that the Company's databases, software tools, and services can help accelerate drug discovery efforts. The sales cycle is typically lengthy due to the education effort that is required, as well as the need to effectively sell the benefits of the Company's databases, software tools, and microarray services to a variety of constituencies within potential collaborator companies. In addition, each database collaboration and microarray services agreement involves the negotiation of agreements containing terms that may be unique to each partner, such as the scope of any licenses granted and whether satellite database services or access to multiple database modules is desired. The Company may expend substantial funds and management effort with no assurance that a database collaboration will result.

UNCERTAINTY OF PROTECTION OF PATENTS AND PROPRIETARY RIGHTS. The Company's database business and competitive position are dependent in part upon its ability to protect its proprietary database information and software technology. Despite the Company's efforts to protect its proprietary database information and software technology, unauthorized parties may attempt to obtain and use information that the Company regards as proprietary. Although the Company's database collaboration agreements require its collaborators to provide adequate security for, and to control access to the Company's databases, policing unauthorized use of the Company's databases and software by the Company or its collaborators is difficult. The Company relies on patent, trade secret and copyright law, and nondisclosure and other contractual arrangements to protect its proprietary information.

To date, the Company has been issued a number of patents with respect to the gene sequences in the Company's databases and has not been issued patents or registered copyrights for its related software. Patents cannot prevent others from developing, selling or licensing databases that include sequences which might be covered by the Company's patents and copyrights. The Company cannot prevent others from independently developing software that might be covered by any copyrights issued to the Company and trade secret laws do not prevent independent development. Thus, there can be no assurance that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to the Company's proprietary information, that this information will not be disclosed or that the Company can effectively protect its rights to unpatented trade secrets.

The Company pursues a policy of having its employees, consultants and advisors execute proprietary information and invention agreements upon commencement of employment or consulting relationships with the Company. These agreements provide that all confidential information developed or made known to the individual during the course of the relationship shall be kept confidential except in specified circumstances. These agreements

may not, however, provide meaningful protection for the Company's trade secrets or other proprietary information in the event of unauthorized use or disclosure of this information.

The Company's current policy is to file patent applications on what it believes to be novel, full-length cDNA sequences and partial sequences obtained through the Company's high-throughput, computer-aided gene sequencing efforts. The Company has filed U.S. patent applications in which the Company has claimed certain partial gene sequences and has filed patent applications in the U.S. and applications under the Patent Cooperation Treaty ("PCT") designating countries in Europe as well as Asia, Canada, Japan, Mexico and New Zealand claiming full-length gene sequences associated with cells and tissues that are the subject of the Company's high-throughput gene sequencing program. To date, the Company holds a number of issued U.S. patents on full-length genes, but no patent has issued from any of the Company's patent applications that claim partial gene sequences. The Company is aware that Merck (in conjunction with Washington University) and TIGR have made certain gene sequences publicly available, which may adversely affect the ability of the Company and others to obtain patents on such genes. The Company's ability to obtain patent protection for certain sequences that have been made publicly available may be adversely affected.

The Company believes that certain of its patent applications claim genes which may also be claimed in patent applications filed by other parties. In some or all of these applications, a determination of priority of inventorship may need to be decided in an interference before the United States Patent and Trademark Office ("USPTO"). The USPTO has declared an interference involving a Company patent application covering one full-length gene and has informed the Company that interferences may be declared with respect to applications covering an additional ten genes.

The patentability of partial gene sequences in general is uncertain, involves complex legal and factual questions, and has recently been the subject of much controversy. As a result, patent applications filed by the Company on such partial gene sequences may not result in issued patents. Even if patents are issued for partial gene sequences, there may be uncertainty as to the scope of the coverage, enforceability or commercial protection provided by any such patents. Certain court decisions suggest that disclosure of a partial sequence may not be sufficient to support the patentability of a full-length sequence and that patent claims to a partial sequence may not cover a full-length sequence inclusive of that partial sequence.

The USPTO has had a substantial backlog of biotechnology patent applications and, in particular, applications that claim gene sequences. In 1996, the USPTO issued guidelines limiting the number of gene sequences that can be examined within a single patent application. Many of the Company's patent applications containing multiple partial sequences contain more sequences than the maximum number allowed under the new guidelines. The Company is reviewing its options and, due to the resources needed to comply with the guidelines, may decide to abandon patent applications for some of its partial gene sequences.

In view of the possible delay in obtaining allowance of some of the Company's patent applications, and the secrecy of patent applications, the Company does not know if other applications that would have priority over the Company's applications have been filed. Furthermore, changes in U.S. patent laws resulting from the General Agreement on Tariffs and Trade ("GATT") became effective in June 1995. Most notably, GATT resulted in U.S. law being amended to change the term of patent protection from seventeen years from patent issuance to twenty years from the earliest effective filing date of the application. Because the average time from filing to issuance of biotechnology applications is at least one year and may be more than three years depending on the subject matter, a twenty-year patent term from the date of filing may result in a substantially shortened term of patent protection, which may adversely affect the Company's period of exclusivity under any patents that may issue to the Company. Pending applications claiming large numbers of gene sequences may, in some situations, need to be refiled while claiming priority to the earliest filing date and, in such situations, the patent term will be measured from the date of the earliest priority application. This would reduce the patent term and have a potentially adverse effect on the Company's period of exclusivity.

Biotechnology patent law outside the United States is even more uncertain and is currently undergoing review and revision in many countries. Further, the laws of certain foreign countries may not protect the Company's intellectual property rights to the same extent as do the laws of the United States. The Company may participate in opposition proceedings to determine the validity of its or its competitors' non-U.S. patents, which could result in substantial costs to, and diversion of effort by, the Company.

As the biotechnology industry expands, more patents are issued and other companies engage in the business of discovering genes through the use of high speed sequencers and in other genomic-related businesses such as microarrays and gene expression profiling, the risk increases that the Company's potential products or the processes used by the Company to develop these products, may be subject to claims that they infringe the patents of others. Certain of these patents are the subject of litigation. Therefore, the Company's operations may require it to obtain licenses under any of these patents or proprietary rights, and these licenses may not be made available on terms acceptable to the Company. Litigation may be necessary to defend against or assert claims of infringement, to enforce patents issued to the Company, to protect trade secrets or know-how owned by the Company, or to determine the scope and validity of the proprietary rights of others. The Company could also be involved in interferences with respect to patent applications. Given the large number of applications filed by the Company, a large number of interferences could be expensive and time consuming. In addition, it is impossible to predict how many, if any, of the interferences would be resolved in the Company's favor. The Company is currently involved in litigation and interference proceedings with respect to patents and intellectual property rights. Litigation or interference proceedings, regardless of the outcome, could result in substantial costs to, and diversion of effort by, the Company, and may have a material adverse effect on the Company's business, financial condition and results of operations.
In addition, these efforts by the Company may not be successful.

As is typical in the genomics and software industries, the Company has from time to time received, and believes that it likely will receive in the future, notices from third parties alleging infringement claims. The Company believes that it is not infringing the patent rights of any such third party, and in circumstances in which the Company has determined a response to an alleged infringement claim to be appropriate, the Company has notified the claimant to that effect. To date, except as set forth below under "--Litigation," no third party has taken any action with respect to an alleged claim against the Company. There can be no assurance that action will not be taken against the Company in the future, either with respect to previously asserted or new claims, or that if any action is taken, what the outcome of such action will be.

LITIGATION. On January 6, 1998, Affymetrix filed a lawsuit in the United States District Court for the District of Delaware alleging infringement of U.S. patent number 5,445,934 (the "'934 Patent") by both Incyte and Synteni. The complaint alleges that the '934 Patent has been infringed by the making, using, selling, importing, distributing or offering to sell in the U.S. high density arrays by Incyte and Synteni and that such infringement was willful. Affymetrix seeks a permanent injunction enjoining Synteni and Incyte from further infringement of the '934 Patent and, in addition, seeks damages, costs and attorney's fees and interest. Affymetrix further requests that any such damages be trebled based on its allegation of willful infringement by Incyte and Synteni. Incyte and Synteni believe they have meritorious defenses and intend to defend the suit vigorously. However, there can be no assurance that Incyte and Synteni will be successful in the defense of this suit, and litigation, regardless of the outcome, could result in substantial expenses and diversion of the efforts of management and technical personnel. Further, there can be no assurance that any license that may be required as a result of this suit or the outcome thereof would be made available on commercially acceptable terms, if at all.

FUTURE CAPITAL NEEDS; UNCERTAINTY OF ADDITIONAL FUNDING. The Company believes that its existing cash, cash equivalents and marketable securities should be adequate to satisfy the Company's projected working capital, capital expenditure and other cash requirements at least through June 1999. However, the Company may be unable to obtain additional database collaborators or retain existing collaborators for the Company's databases, and its database products and services may not produce revenues, which together with the Company's cash, cash equivalents, and marketable securities, will be adequate to fund the Company's cash requirements. The Company's cash requirements depend on numerous factors, including the ability of the Company to attract and retain collaborators for its databases and genomic products and services; expenditures in connection with alliances, license agreements and acquisitions of, and investments in, complementary technologies and businesses; competing technological and market developments; the cost of filing, prosecuting, defending, and enforcing patent claims and other intellectual property rights; the purchase of additional capital equipment or other capital expenditures, including capital equipment necessary to ensure that the Company's sequencing and microarray operations remain competitive; capital expenditures required to expand the Company's and Synteni's facilities; and costs associated with the integration of new operations assumed through mergers and acquisitions. In particular, the Company expects its cash requirements to increase in 1998 as it increases its investment in data processing-related computer hardware in order to support

its existing and new database products; continues to seek access to technologies through investments, alliances, license agreements, and/or acquisitions; makes investments associated with integration of acquired companies; and addresses its needs for larger facilities and/or improvements in existing facilities. Changes in the Company's research and development plans, or other changes affecting the Company's operating expenses, may result in changes in the timing and amount of expenditures of the Company's capital resources. If additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in dilution to the Company's existing stockholders. Additional funding, if necessary, may not be available on favorable terms, if at all. If adequate funds are not available, the Company may be required to curtail operations significantly or to obtain funds through entering into collaborative arrangements that may require the Company to relinquish rights to certain of its technologies, product candidates, products or potential markets.

MANAGEMENT OF GROWTH. The Company has recently experienced, and expects to continue to experience, significant growth in the number of its employees and the scope of its operations. This growth has placed, and may continue to place, a significant strain on the Company's management and operations. The Company's ability to manage effectively this growth will depend upon its ability to broaden its management team and its ability to attract, hire and retain skilled employees. The Company's success will also depend on the ability of its officers and key employees to continue to implement and improve its operational, management information and financial control systems and to expand, train and manage its employee base. In addition, the Company must continue to take steps to provide customer support resources as the number of overall database collaborators and the number of requests from collaborators increases. Further, the Company's database collaborators typically have worldwide operations and may require support at multiple U.S. and foreign sites. Providing this support may require the Company to open offices in addition to its Palo Alto, California headquarters and its offices in St. Louis, Missouri and the United Kingdom, which could result in additional burdens on the Company's systems and resources. The Company's inability to manage growth effectively, including its growth through acquisitions, could have a material adverse effect on the Company's business, financial condition and results of operations.

DEPENDENCE ON KEY EMPLOYEES. The Company is highly dependent on the principal members of its scientific and management staff, including Roy A. Whitfield, its Chief Executive Officer, and Randal W. Scott, its President and Chief Scientific Officer, the loss of whose services would have a material adverse effect on the Company's business. The Company has not entered into any employment agreements with any of these persons and does not maintain any key person life insurance policy on the life of any employee. The Company's future success also will depend in part on the continued service of its key scientific, software, bioinformatics and management personnel and its ability to identify, hire and retain additional personnel, including personnel in the customer service, marketing and sales areas. The Company experiences intense competition for qualified personnel in the areas of the Company's activities, especially with respect to experienced bioinformatics and software personnel, and there can be no assurance that the Company will be able to continue to attract and retain personnel necessary for the development of the Company's business. Failure to attract and retain key personnel could have a material adverse effect on the Company's business, financial condition and results of operations.

DEPENDENCE ON OTHERS. The Company relies on a limited number of suppliers of gene sequencing machines and certain reagents required in connection with the gene sequencing process. Although the Company is evaluating alternative gene sequencing machines, these machines may not be available in sufficient quantities, available at acceptable costs, or prove to be more cost-effective than current machines. Patent right issues concerning certain current and future generation sequencing machines may also arise which could prevent the Company from using them or make their use more expensive. If the Company is unable to obtain additional machines or an adequate supply of reagents or other materials at commercially reasonable rates, its ability to continue to identify genes through gene sequencing would be adversely affected. In addition, although the Company obtains, from a number of sources, tissue samples from which mRNA may be isolated, the loss of access to some of these sources, increased fees for access to these sources or increased restrictions on use of the information generated could adversely affect the Company's business.

The Company's strategy for the development of its database and sequencing business and the commercialization of its portfolio of partial and full-length gene sequences may require the Company to enter into various research and development relationships with corporate and academic collaborators and others. The success

of these relationships is dependent upon the performance of outside parties of their responsibilities. The Company may not be able to establish collaborative arrangements or license agreements that the Company deems necessary or acceptable to develop its database and sequencing business or, in the future, to commercialize its portfolio of partial and full-length gene sequences. In addition, these collaborative arrangements or license agreements may not be successful. The Company's collaborators may also be pursuing alternative technologies or developing alternative products either on their own or in collaboration with others, including the Company's competitors.

The Company has relied on scientific, technical, pathology, commercial and other data supplied and disclosed by others, including its academic collaborators and sources of tissue samples, and may rely on these data in the construction of its database. There can be no assurance that these data contain no errors or omissions, or that the sources of these data have acquired the data in compliance with applicable legal requirements, the knowledge of which would adversely change the prospects for the Company's business.

YEAR 2000 ISSUE. As a result of computer programs being written using two digits, rather than four, the performance of the Company's computer systems and those of its suppliers and customers in the Year 2000 is uncertain. Any computer programs that have time-sensitive software may recognize a date using "00" as the year 1900 rather than the year 2000. This could result in a system failure or miscalculations causing disruptions of operations, including, among other things, a temporary inability to process transactions, send invoices, or engage in similar normal business activities. The Company plans to initiate a Year 2000 project, using internal and external resources, to evaluate the impact of the Year 2000 on its products and operating systems. This will include the initiation of formal communications with its significant suppliers and customers to determine the extent to which the Company's interface systems are vulnerable to third party failures to remediate their own Year 2000 issues. There can be no guarantee that the systems of other companies on which the Company's systems rely will be timely converted and would not have an adverse effect on the Company's systems. The Company will perform a comprehensive review of all internally used financial and administrative systems as well as internally developed products sold to customers. At this time, given that the Company's internal financial and administrative systems have been installed within the last few years, and all internally developed software-based products sold to customers have been developed over the last few years, the Company does not expect the cost of addressing the Year 2000 issue to have a material impact on the Company's business, results of operations or financial condition. However, there can be no guarantee that if modifications or replacement of portions of the software are necessary, it will be completed in a timely manner.

HAZARDOUS MATERIALS; ENVIRONMENTAL MATTERS. The Company's research and development involves the controlled use of hazardous and radioactive materials and biological waste. The Company is subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these materials and certain waste products. Although the Company believes that its safety procedures for handling and disposing of these materials comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, the Company could be held liable for any damages that result and any such liability could exceed the resources of the Company. Although the Company believes that it is in compliance in all material respects with applicable environmental laws and regulations and currently does not expect to make material additional capital expenditures for environmental control facilities in the near-term, the Company may in the future be required to incur significant costs to comply with environmental laws and regulations, and there can be no assurance that the operations, business or assets of the Company will not be materially or adversely affected by current or future environmental laws or regulations.

RELIANCE ON PHARMACEUTICAL INDUSTRY; UNCERTAINTY OF HEALTH CARE REFORM AND RELATED MATTERS. The Company expects that all of its revenues in the foreseeable future will be derived from products and services provided to the pharmaceutical and biotechnology industries. Accordingly, the Company's success in the foreseeable future is directly dependent upon the success of the companies within those industries and their continued demand for the Company's products and services. The Company's operations may in the future be subject to substantial period-to-period fluctuations as a consequence of reductions and delays in research and development expenditures by companies in these industries resulting from factors such as changes in economic conditions, changes in the regulatory environment affecting health care and health care providers, pricing pressures, market-driven pressures on companies to consolidate and reduce costs, and other factors affecting research and development spending. The

occurrence of any of the foregoing factors could have a material adverse effect on the Company's business, financial condition and results of operations.

RISK OF BUSINESS INTERRUPTION. The Company conducts all of its sequencing and other activities at its facilities in Palo Alto, California, and Synteni conducts all of its operations at its facilities in Fremont, California. Both locations are in a seismically active area. Although the Company maintains business interruption insurance, the Company does not currently have, nor does it plan to obtain, earthquake insurance. A major catastrophe (such as an earthquake or other natural disaster) could result in a prolonged interruption of the Company's business.

USE OF PROCEEDS

The Company will not receive any proceeds from the sale of the Shares by the Selling Stockholders. All proceeds from the sale of the Shares will be for the account of the Selling Stockholders, as described below. See "Selling Stockholders" and "Plan of Distribution" below.

SELLING STOCKHOLDERS

The following table sets forth certain information as of April 30, 1998 regarding the beneficial ownership of Common Stock by each of the Selling Stockholders and the Shares offered hereby by such Selling Stockholders.

	SHARES BENEFICIALLY OWNED PRIOR TO OFFERING(1)		NUMBER OF SHARES BEING OFFERED	SHARES BENEFICIALLY OWNED AFTER OFFERING(1)(2)	
	NUMBER	PERCENT		NUMBER	PERCENT
Alexander E. Barkas	12,845	*	5,781	7,064	*
Howard C. Birndorf	6,422	*	2,890	3,532	*
Erik Bjeldanes	2,492	*	1,122	1,370	*
Fred Cohen	12,460	*	5,607	6,853	*
Comdisco, Inc.	2,506	*	1,128	1,378	*
Catherine M. Dobrynski	623	*	281	342	*
GC&H Investments	6,422	*	2,890	3,532	*
James M. Gilmore (3)	3,631	*	842	1,623	*
Cynthia T. Healy	3,853	*	1,734	2,119	*
Timothy G. Henn	6,230	*	2,804	3,426	*
Alan G. Johnson	6,422	*	2,890	3,532	*
Thomas D. Kiley(4)	21,451	*	9,653	11,798	*
Kleiner Perkins Caufield & Byers VIII, L.P.	610,154	2.3%	274,570	335,584	1.3%
KPCB Life Sciences Zaibatsu Fund II	32,113	*	14,451	17,662	*
Randall S. Livingston (5)	11,201	*	4,068	9,363	*
Joseph A. Mollica	9,441	*	4,249	5,192	*
George G. Montgomery, Jr., Trustee Under Declaration of Trust U/T/D 8/21/95	3,211	*	1,445	1,766	*
Richard A. Osman	24,920	*	11,214	13,706	*
Julius Rebek, Jr	6,230	*	2,804	3,426	*
Sam Sawan(6)	12,460	*	3,925	4,797	*
Tadmor Shalon and Michal Shalon, JTWROS	461,020	1.7	207,459	253,561	*
Tidhar Dari Shalon	971,880	3.7	437,346	534,534	2.0
Yehuda Shalon and Hana Shalon, JTWROS	62,300	*	28,035	34,265	*
Sosei Co., Ltd.	2,209	*	995	1,214	*
Stanford University	19,268	*	8,671	10,597	*
Kenneth J. Stineman	4,984	*	2,243	2,741	*
Stan Stukov	12,460	*	5,607	6,853	*
Michael Wigler, Ph.D	12,460	*	5,607	6,853	*
Paolo Zanella	6,230	*	2,804	3,426	*

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* Less than 1%.

(1) Information with respect to beneficial ownership is based upon information obtained from the Selling Stockholders.

(2) Assumes the sale of all Shares offered hereby and no other purchases or sales of Common Stock. See "Plan of Distribution."

(3) Includes 1,762 shares subject to options exercisable within 60 days of April 30, 1998.

(4) Includes 8,991 shares held by The Thomas D. and Nancy L. Kiley Revocable Trust.

(5) Includes 2,161 shares subject to options exercisable within 60 days of April 30, 1998.

(6) Includes 3,738 shares subject to options exercisable within 60 days of April 30, 1998.

All of the Selling Stockholders received their respective shares of Common Stock in connection with the merger of a wholly owned subsidiary of the Company with Synteni (the "Merger"), pursuant to which all of the outstanding shares of capital stock of Synteni were converted into shares of Common Stock and all outstanding options to purchase common stock of Synteni were converted into options to purchase Common Stock. The registration statement to which this Prospectus relates is being filed pursuant to a Registration Rights Agreement among the Company and the Selling Stockholders. Subject to the terms and conditions of the Registration Rights Agreement dated as of December 23, 1997, the Company has agreed to file such registration statement, covering up to 45% of the shares of Common Stock received by each Selling Stockholder in the Merger and to keep such registration statement effective for a period of 90 days.

PLAN OF DISTRIBUTION

Sales of the Shares may be effected by or for the account of the Selling Stockholders from time to time in transactions (which may include block transactions) on the Nasdaq National Market, in negotiated transactions, through a combination of such methods of sale, or otherwise, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to prevailing market prices, or at negotiated prices. The Selling Stockholders may effect such transactions by selling the Shares directly to purchasers, through broker-dealers acting as agents for the Selling Stockholders, or to broker-dealers who may purchase Shares as principals and thereafter sell the Shares from time to time in transactions (which may include block transactions) on the Nasdaq National Market, in negotiated transactions, through a combination of such methods of sale, or otherwise. In effecting sales, broker-dealers engaged by a Selling Stockholder may arrange for other broker-dealers to participate. Such broker-dealers, if any, may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders and/or the purchasers of the Shares for whom such broker-dealers may act as agents or to whom they may sell as principals, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions).

The Selling Stockholders and any broker-dealers, agents or underwriters that participate with the Selling Stockholders in the distribution of the Shares may be deemed to be "underwriters" within the meaning of the Securities Act. Any commissions paid or any discounts or concessions allowed to any such persons, and any profits received on the resale of the Shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

The Company has agreed to bear all expenses of registration of the Shares (other than fees and expenses, if any, of counsel or other advisors to the Selling Stockholders). Any commissions, discounts, concessions or other fees, if any, payable to broker-dealers in connection with any sale of the Shares will be borne by the Selling Stockholders selling such Shares.

LEGAL MATTERS

Certain legal matters with respect to the validity of Common Stock offered hereby are being passed upon for the Company by Pillsbury Madison & Sutro LLP, San Francisco, California.

EXPERTS

The financial statements of Incyte Pharmaceuticals, Inc. at December 31, 1997 and 1996, and for each of the three years in the period ended December 31, 1997, included in the Company's Current Report on Form 8-K dated June 12, 1998, have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such financial statements are incorporated herein by reference in reliance upon such report given upon the authority of such firm as experts in accounting and auditing.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the various expenses payable by the Registrant in connection with the sale and distribution of the securities being registered hereby. Normal commission expenses and brokerage fees are payable individually by the Selling Stockholders. All amounts are estimated except the Commission registration fee.

	Amount
SEC registration fee	$ 10,204.00
Accounting fees and expenses	10,000.00
Legal fees and expenses	10,000.00
Miscellaneous fees and expenses	2,796.00
Total	$ 33,000.00

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law provides for the indemnification of officers, directors, and other corporate agents in terms sufficiently broad to indemnify such persons under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act. Article VII of the Registrant's Restated Certificate of Incorporation (Exhibit 4.1 to the Registrant's Registration Statement on Form S-3 (File No. 333-31307) and Article V of the Registrant's Bylaws (Exhibit 4.2 to the Registrant's Registration Statement on Form S-3 (File No. 333-31307) provide for indemnification of the Registrant's directors, officers, employees and other agents to the extent and under the circumstances permitted by the Delaware General Corporation Law. The Registrant has also entered into agreements with its directors and officers that will require the Registrant, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers to the fullest extent not prohibited by law.

ITEM 16. EXHIBITS

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
5.1	Opinion of Pillsbury Madison & Sutro LLP.
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2	Consent of Pillsbury Madison & Sutro LLP (included in its opinion filed as Exhibit 5.1 to this Registration Statement).
24.1	Power of Attorney (see page II-3).

ITEM 17. UNDERTAKINGS

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities

(other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to the Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (i) and (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3, and has duly caused the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of California, on June 17, 1998.

INCYTE PHARMACEUTICALS, INC.

By /s/ Roy A. Whitfield

Roy A. Whitfield
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Roy A. Whitfield, Randal W. Scott, and Denise M. Gilbert, and each of them, his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to the Registration Statement, and to file the same, with exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, the Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Name	Title	Date
/s/ Roy A. Whitfield Roy A. Whitfield	Chief Executive Officer (Principal Executive Officer) and Director	June 17, 1998
/s/ Denise M. Gilbert Denise M. Gilbert	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	June 17, 1998
/s/ William Delaney William Delaney	Controller (Principal Accounting Officer)	June 17, 1998
/s/ Jeffrey J. Collinson Jeffrey J. Collinson	Chairman of the Board	June 17, 1998
/s/ Barry M. Bloom Barry M. Bloom	Director	June 17, 1998
/s/ Frederick B. Craves Frederick B. Craves	Director	June 17, 1998

/s/ Jon S. Saxe - ---------- Jon S. Saxe	Director	June 17, 1998
/s/ Randal W. Scott - ---------- Randal W. Scott	Director	June 17, 1998

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EXHIBIT INDEX

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EXHIBIT 5.1

[PILLSBURY MADISON & SUTRO LETTERHEAD]

June 17, 1998

Incyte Pharmaceuticals, Inc.
3174 Porter Drive
Palo Alto, CA 94304

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We are acting as counsel for Incyte Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the registration under the Securities Act of 1933, as amended, of 1,053,115 shares of Common Stock, $.001 par value (the "Common Stock"), of the Company, to be offered and sold by certain stockholders of the Company (the "Selling Stockholders"). In this regard we have participated in the preparation of a Registration Statement on Form S-3 relating to such 1,053,115 shares of Common Stock. (Such Registration Statement, as amended, is herein referred to as the "Registration Statement.")

We are of the opinion that the shares of Common Stock to be offered and sold by the Selling Stockholders have been duly authorized and legally issued and are fully paid and nonassessable.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption "Legal Matters" in the Registration Statement and in the Prospectus included therein.

Very truly yours,

PILLSBURY MADISON & SUTRO LLP

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectus of Incyte Pharmaceuticals, Inc. for the registration of 1,053,115 shares of its common stock and to the incorporation by reference therein of our report dated January 12, 1998, except for "Principles of Consolidation" in Note 1 and paragraph 3 of Note 7 as to which the date is January 22, 1998 with respect to the consolidated financial statements of Incyte Pharmaceuticals, Inc. included in its Current Report on Form 8-K dated June 12, 1998, for the year ended December 31, 1997, filed with the Securities and Exchange Commission.

ERNST & YOUNG LLP

Palo Alto, California
June 12, 1998