Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

INCYTE CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

94-3136539 (I.R.S. Employer Identification Number)

Experimental Station Route 141 & Henry Clay Road Building E336 Wilmington, Delaware 19880 (302) 498-6700

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Paul A. Friedman President and Chief Executive Officer Incyte Corporation Experimental Station Route 141 & Henry Clay Road Building E336 Wilmington, Delaware 19880 (302) 498-6700

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Stanton D. Wong Pillsbury Winthrop Shaw Pittman LLP P.O. Box 7880 San Francisco, CA 94120 Telephone: (415) 983-1000

Approximate date of commencement of proposed sale to the public:

From time to time after this registration statement becomes effective, as determined by market conditions and other factors.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, check the following box. o

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. o

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. o

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. x

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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

Large accelerated filer o	Accelerated filer x	Non-accelerated filer o	Smaller reporting company o
		(Do not check if a smaller reporting company)	

CALCULATION OF REGISTRATION FEE

	Amount to be Registered /
	Proposed Maximum AggregateOffering Price Per Unit /
	Proposed Maximum Aggregate Offering Price /
Title of Each Class of Securities To Be Registered	Amount of Registration Fee
Common Stock, \$.001 par value per share (1)	(2)

(1) Associated with the common stock are series A participating preferred stock purchase rights that will not be exercisable or be evidenced separately from the common stock prior to the occurrence of certain events.

(2) An indeterminate aggregate initial offering price or number of shares of common stock is being registered as may from time to time be offered at indeterminate prices. In accordance with Rules 456(b) and 457(r), the Registrant is deferring payment of all of the registration fee except for \$11,054 of unused registration fees in respect of unsold securities registered under Registration Statement No. 333-119603, initially filed October 7, 2004 by the Registrant, which fees have already been paid and may be offset pursuant to Rule 457(p) against the registration fee payable in respect of this registration statement.

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 Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

PROSPECTUS



INCYTE CORPORATION

Common Stock

We may, from time to time, offer and sell shares of our common stock in one or more offerings. We will specify in the accompanying prospectus supplement more specific information about any such offering.

We may offer shares of common stock directly to investors or through underwriters, dealers or agents. We will set forth the names of any underwriters, dealers or agents and their compensation in the accompanying prospectus supplement.

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

Our common stock is traded on The Nasdaq Global Market under the symbol "INCY." On July 28, 2008, the closing price of our common stock on The Nasdaq Global Market was \$8.97 per share.

Investing in our securities involves risks. See the section entitled "Risk Factors" in the accompanying prospectus supplement and in the documents we incorporate by reference in this prospectus.

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

Table of Contents

TABLE OF CONTENTS

Page

2 2

2

2

3

3

6

7

7

7

About this Prospectus Risk Factors Incyte Corporation Forward-Looking Statements Use of Proceeds Description of Capital Stock Plan of Distribution Legal Matters Experts Where You Can Find More Information

You should rely only on the information incorporated by reference or provided in this prospectus, any prospectus supplement and the registration statement. We have not authorized anyone else to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any state where the offer or sale is not permitted. You should assume that the information in this prospectus and any prospectus supplement, or incorporated by reference, is accurate only as of the dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

1

Table of Contents

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, or continuous offering, process. Under this shelf registration process, we may, from time to time, issue and sell shares of our common stock in one or more offerings.

This prospectus describes our common stock and the general manner in which we will offer our common stock. Each time we offer shares of our common stock, we will provide a prospectus supplement that will contain specific information about the terms of that offering. Any prospectus supplement may also add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. The registration statement we filed with the SEC includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC and any prospectus supplement, together with additional information described under the heading "Where You Can Find More Information," before making your investment decision.

Unless the context otherwise requires, references in this prospectus and the accompanying prospectus supplement to "Incyte," "we," "us" and "our" refer to Incyte Corporation and its subsidiaries.

RISK FACTORS

Investing in our common stock involves risk. The prospectus supplement relating to a particular offering will contain a discussion of risks applicable to an investment in our common stock. Prior to making a decision about investing in our common stock, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement together with all of the other information contained in the prospectus supplement or appearing or incorporated by reference in this prospectus.

INCYTE CORPORATION

Incyte is a drug discovery and development company focused on developing proprietary small molecule drugs to treat serious unmet medical needs. We have a pipeline with programs in oncology, inflammation, diabetes and human immunodeficiency virus.

Incyte was incorporated in Delaware in 1991. Our principal executive offices are located at Experimental Station, Route 141 & Henry Clay Road, Building E336, Wilmington, Delaware 19880, and our telephone number is (302) 498-6700.

FORWARD-LOOKING STATEMENTS

When used in this prospectus, the words "expects," "believes," "anticipates," "estimates," "may," "could," "intends," and similar expressions are intended to identify forward-looking statements. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those projected or otherwise implied by the forward-looking statements. These forward-looking statements. We will discuss many of the date of this prospectus. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. We will discuss many of these risks and uncertainties in greater detail in any prospectus supplement under the heading "Risk Factors." Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in the documents we incorporate by reference into this prospectus.

These forward-looking statements speak only as of the date of this prospectus. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any

change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

Table of Contents

USE OF PROCEEDS

Unless we state otherwise in the accompanying prospectus supplement, we intend to use the net proceeds from the sale of the shares of our common stock offered by this prospectus for research and development and other general corporate purposes. General corporate purposes may include additions to working capital, financing of capital expenditures, repayment or redemption of existing indebtedness, and future acquisitions and strategic investment opportunities. Pending the application of net proceeds, we expect to invest the net proceeds in investment grade, interest-bearing securities.

DESCRIPTION OF CAPITAL STOCK

This section describes the general terms and provisions of the shares of our common stock, \$.001 par value per share and preferred stock, \$.001 par value per share. This description is only a summary. Our certificate of incorporation and our bylaws have been filed as exhibits to our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. You should read our certificate of incorporation and our bylaws for additional information before you buy any of our common stock. See "Where You Can Find More Information."

Common Stock

General. We are authorized to issue up to 200,000,000 shares of common stock. As of June 30, 2008, there were 84,989,650 shares of common stock issued and outstanding.

Voting Rights. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably dividends, if any, as may be declared by our board of directors out of funds legally available therefor.

Other Rights. Upon our liquidation, dissolution or winding up, the holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the prior rights of any preferred stock then outstanding. Holders of common stock have no preemptive or conversion rights or other subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and the common stock offered, when issued, will be, fully paid and nonassessable.

Preferred Stock

We are authorized to issue up to 5,000,000 shares of preferred stock. As of June 30, 2008, no shares of preferred stock were issued and outstanding. Of the authorized shares, 250,000 shares have been designated series A participating preferred stock, which have been authorized for issuance as described below. Our board of directors has the authority, without further action by our stockholders, to issue from time to time the preferred stock in one or more series, and to fix the number of shares, designations, preferences, powers, and other rights and qualifications, limitations or restrictions as our board of directors may authorize, including:

- the distinctive designation of each series and the number of shares that will constitute the series;
- the voting rights, if any, of shares of the series and the terms and conditions of the voting rights;
- the dividend rate on the shares of the series, the dates on which dividends are payable, any restriction, limitation or condition upon the payment
 of dividends, whether dividends will be cumulative, and the dates from and after which dividends shall accumulate;

3

Table of Contents

- the prices at which, and the terms and conditions on which, the shares of the series may be redeemed, if the shares are redeemable;
- the terms and conditions of a sinking or purchase fund for the purchase or redemption of shares of the series, if such a fund is provided;
- any preferential amount payable upon shares of the series in the event of the liquidation, dissolution or winding up of, or upon the distribution of any of our assets; and
- the prices or rates of conversion or exchange at which, and the terms and conditions on which, the shares of the series may be converted or exchanged into other securities, if the shares are convertible or exchangeable.

The issuance of preferred stock could decrease the amount of earnings and assets available for distribution to holders of common stock or adversely affect the rights and powers, including voting rights, of the holders of common stock. The issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company, which could depress the market price of our common stock.

In September 1998, we adopted a stockholder rights plan. Under the rights plan, we will issue one right with respect to each share of common stock that is issued prior to the distribution date described below. Except as set forth below, each right, when exercisable, entitles the holder to purchase from us one one-thousandth of a share of our series A participating preferred stock at a price of \$100.00, subject to adjustment. The rights are not exercisable until a distribution date. Until a right is exercised, the holder of the right, as such, will have no rights as a stockholder of ours and will not have the right to vote or to receive dividends.

In general, the rights separate from the common stock and a "distribution date" will occur upon the earlier of:

- the public announcement of the acquisition by a person or group of 15% or more of our common stock or
- ten days after the commencement of, or public announcement of an intention to make, a tender offer or exchange offer that would result in the acquisition of 15% or more of our common stock.

If a person or group acquires 15% or more of our common stock, all rightholders except the buyer will be entitled to acquire our common stock at a discount and, under certain circumstances, to acquire shares of the acquiring company at a discount. Also, in the event our board of directors may authorize the exchange of all or part of the then outstanding and exercisable rights for shares of our common stock at a rate of one share of our common stock per right if the buyer has not acquired 50% or more of our common stock.

Our board of directors may authorize the redemption of the rights, at a price of \$0.01 per right, at any time before a person or group acquires 15% or more of our common stock. The rights will expire on September 25, 2008.

On July 29, 2008, our board of directors approved a form of amendment to the rights plan that would increase the threshold of beneficial ownership that would trigger a distribution date under the rights plan from 15% to 20%. Our board delegated authority to effect the amendment to the finance committee of our board, with the intention that the amendment would become effective in connection with an offering of our common stock.

Certain Provisions of Delaware Law and of the Charter and Bylaws

The provisions of Delaware law, our certificate of incorporation and our bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

4

Table of Contents

Delaware Law. We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, those provisions prohibit a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board before the date the interested stockholder attained that status;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after the date the business combination is approved by the board and authorized at a meeting of stockholders by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

A Delaware corporation may opt out of these provisions either with an express provision in its original certificate of incorporation or in an amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out, and do not currently intend to opt out of, these provisions. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

Charter and Bylaws. Our certificate of incorporation and bylaws provide that:

- stockholders may not call special meetings of the stockholders or fill vacancies on the board;
- our board of directors is authorized to issue preferred stock without stockholder approval; and

we will indemnify officers and directors against losses that they may incur in investigations and legal proceedings resulting from their services to us, which may include services in connection with takeover defense measures.

Transfer Agent

The transfer agent and registrar for our common stock is BNY Mellon Shareowner Services.

5

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus to one or more underwriters or dealers for public offering and sale by them or to investors directly or through agents. The accompanying prospectus supplement will set forth the terms of the offering and the method of distribution and will identify any firms acting as underwriters, dealers or agents in connection with the offering, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of the securities and the proceeds to us from the sale;
- any underwriting discounts and other items constituting compensation to underwriters, dealers or agents;
- any public offering price;
- · any discounts or concessions allowed or reallowed or paid to dealers; and
- · any securities exchange or market on which the securities offered in the prospectus supplement may be listed.

Only those underwriters identified in such prospectus supplement are deemed to be underwriters in connection with the securities offered in the prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, or at prices determined as the applicable prospectus supplement specifies. The securities may be sold through a rights offering, forward contracts or similar arrangements. In connection with the sale of the securities, underwriters, dealers or agents may be deemed to have received compensation from us in the form of underwriting discounts or commissions and also may receive commissions from securities purchasers for whom they may act as agent. Underwriters may sell the securities to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent. Some of the underwriters, dealers or agents who participate in the securities distribution may engage in other transactions with, and perform other services for, us or our subsidiaries in the ordinary course of business.

We will provide in the applicable prospectus supplement information regarding any underwriting discounts or other compensation that we pay to underwriters or agents in connection with the securities offering, and any discounts, concessions or commissions which underwriters allow to dealers. Underwriters, dealers and agents participating in the securities distribution may be deemed to be underwriters, and any discounts and commissions they receive and any profit they realize on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act of 1933. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

In connection with an offering, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress. The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions. These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher

6

Table of Contents

than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule appearing in our Annual Report on Form 10-K for the year ended December 31, 2007, and the effectiveness of our internal control over financial reporting as of December 31, 2007, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in this registration statement. Our consolidated financial statements and schedule are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC under the Securities Act of 1933. This prospectus is part of the registration statement includes and incorporates by reference additional information and exhibits. We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement and any document we file with the SEC at the public reference room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site that contains reports, proxy and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that site on the world wide web is http://www.sec.gov. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

The SEC permits us to "incorporate by reference" the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2007;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008;
- our Current Reports on Form 8-K filed February 14, 2008 and May 22, 2008;
- the description of our common stock contained in our Registration Statement on Form 8-A filed January 5, 1996, including any amendment or report filed for the purpose of updating such description; and
- the description of our series A participating preferred stock purchase rights contained in our Registration Statement on Form 8-A filed September 30, 1998.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the initial filing date of the registration statement of which this prospectus is a part and the effectiveness of the registration statement, as well as between the date of this prospectus and the termination of any offering of securities offered by this prospectus. We are not, however,

7

Table of Contents

incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: Investor Relations, Incyte Corporation, Experimental Station, Route 141 & Henry Clay Road, Building E336, Wilmington, DE 19880, telephone (302) 498-6700. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

8

Table of Contents

PART II Information Not Required In Prospectus

Item 14. Other Expenses of Issuance and Distribution.

The following is a statement of expenses in connection with the issuance and distribution of the securities being registered, other than underwriting discounts and commission.

SEC Registration Fee	\$ *
The NASDAQ Stock Market Listing Fees	**
Transfer Agent and Registrar, Trustee and Depositary Fees	**
Printing Expenses	**
Legal Fees and Expenses	**
Accounting Fees and Expenses	**
Miscellaneous	**
	\$ **

 ^{*} Unutilized filing fees of \$11,054 previously paid in connection with Registration Statement No. 333-119603 are being applied to the fee payable pursuant to this Registration Statement. The payment of any additional filing fees is deferred pursuant to Rules 456(b) and 457(r).
 ** Not presently known.

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 3(i)(A) to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2002, and Article V of the Registrant's Bylaws, Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004, 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 No.	Description
1.1*	Form of Underwriting Agreement.
5.1	Opinion of Pillsbury Winthrop Shaw Pittman LLP.
23.1	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1).
23.2	Consent of Ernst& Young LLP.
24.1	Power of Attorney (included on the signature page hereof).

* To be filed by amendment or pursuant to a report to be filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, if applicable, and incorporated herein by reference.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

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

II-1

Table of Contents

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent posteffective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective 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), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b).

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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 the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus th

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the

II-2

Table of Contents

securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) That, for the purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to any charter provision, by law or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than 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.

II-3

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Wilmington, State of Delaware, on July 29, 2008.

INCYTE CORPORATION

By: /s/ PAUL A. FRIEDMAN

Paul A. Friedman President and Chief Executive Officer

Title

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Paul A. Friedman, David C. Hastings and Patricia A. Schreck, and each of them, his or her true and lawful attorneys-in-fact and agents, 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 this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange 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 for 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 of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Name

/s/ PAUL A. FRIEDMAN	President, Chief Executive Officer (Principal
Paul A. Friedman	Executive Officer) and Director

July 29, 2008

Date

/s/ DAVID C. HASTINGS David C. Hastings	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	July 29, 2008
/s/ LAURENT CHARDONNET Laurent Chardonnet	Vice President, Finance and Treasurer (Principal Accounting Officer)	July 29, 2008
/s/ RICHARD U. DESCHUTTER Richard U. DeSchutter	Chairman of the Board	July 29, 2008
	II-4	
Table of Contents		
/s/ BARRY M. ARIKO Barry M. Ariko	Director	July 29, 2008
/s/ JULIAN C. BAKER Julian C. Baker	Director	July 29, 2008
Paul A. Brooke	Director	
/s/ MATTHEW W. EMMENS Matthew W. Emmens	Director	July 29, 2008
/s/ JOHN F. NIBLACK John F. Niblack	Director	July 29, 2008
/s/ ROY A. WHITFIELD Roy A. Whitfield	Director	July 29, 2008
	II-5	

Table of Contents

EXHIBIT INDEX

Exhibit No.	Description
1.1*	Form of Underwriting Agreement.
5.1	Opinion of Pillsbury Winthrop Shaw Pittman LLP.
23.1	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1).
23.2	Consent of Ernst& Young LLP.
24.1	Power of Attorney (included on the signature page hereof).

* To be filed by amendment or pursuant to a report to be filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, if applicable, and incorporated herein by reference.

PILLSBURY WINTHROP SHAW PITTMAN LLP 50 Fremont Street San Francisco, California 94105

July 29, 2008

Incyte Corporation Experimental Station Route 141 & Henry Clay Road Building E336 Wilmington, Delaware 19880

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We are acting as counsel for Incyte Corporation, a Delaware corporation (the "Company"), in connection with the Company's filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement") relating to the registration under the Securities Act of 1933 (the "Act") of shares of Common Stock, \$.001 par value per share, of the Company ("Common Stock") all of which authorized but heretofore unissued shares are to be offered and sold by the Company (the "Shares").

We have reviewed and are familiar with such documents, corporate proceedings and other matters as we have considered relevant or necessary as a basis for this opinion. On the basis of the foregoing and the assumptions set forth below, and subject to the other qualifications and limitations set forth herein, we are of the opinion that when the Board of Directors of the Company or a duly authorized committee of such Board (such Board of Directors or committee, the "Board") has taken all necessary corporate action to approve the issuance and establish the terms of the offering of the Shares and related matters and when the Shares have been issued and sold by the Company in the manner contemplated by the Registration Statement and in accordance with such action of the Board, the Shares will be validly issued, fully paid and nonassessable.

We have assumed that (a) at or prior to the time of the delivery of any of the Shares, a Prospectus Supplement to the Prospectus forming a part of the Registration Statement relating to the offer and sale of such Shares will have been prepared and filed with the Commission pursuant to Rule 424(b) under the Act, (b) the Company has a sufficient number of authorized but unissued shares of Common Stock under the Certificate of Incorporation of the Company at the time of such issuance, and (c) the Board shall not have rescinded or otherwise modified the authorization of the Shares.

This opinion is limited to matters governed by the General Corporation Law of the State of Delaware.

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. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ PILLSBURY WINTHROP SHAW PITTMAN LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the captions "Experts" in the Registration Statement (Form S-3) and related prospectus of Incyte Corporation for the registration of shares of its common stock, and to the incorporation by reference therein of our reports dated February 26, 2008, with respect to the consolidated financial statements and schedule of Incyte Corporation and the effectiveness of internal control over financial reporting of Incyte Corporation, included in its Annual Report (Form 10-K) for the year ended December 31, 2007, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Philadelphia, PA July 29, 2008