

## **Incyte's Topical JAK Inhibitor Demonstrates Positive Proof-of-Concept Results in Patients with Mild to Moderate Psoriasis**

September 18, 2008

Results Presented Today at the 17th Congress of European Academy \ of Dermatology and Venereology

WILMINGTON, Del.--(BUSINESS WIRE)--Sept. 18, 2008--Incyte Corporation (Nasdaq:INCY) reported positive results from two 28-day Phase IIa clinical trials of topical INCB18424, a selective janus-associated kinase (JAK) inhibitor, in patients with mild to moderate psoriasis. Results from the first study (Study 201), a Phase IIa dose-escalation trial involving 28 patients, demonstrated that INCB18424 was well tolerated at all doses and significantly improved overall total lesion score and each component of the total lesion score (thickness, erythema and scaling) as compared to vehicle. In this trial, INCB18424 at 1.5% twice daily also showed improvements in total lesion scores that were similar to the currently approved therapies, Dovonex(R) and Diprolene(R).

The second study (Study 202) is an ongoing open-label sub-total inunction 28-day Phase IIa trial designed to evaluate the safety and pharmacokinetics of INCB18424 at increasing coverage levels of total body surface area (BSA). Results from Study 202 demonstrated that INCB18424 was well tolerated in the first cohort of patients involving five subjects who applied the compound to not less than 2% or more than 7% of their BSA. Data from the first cohort of this trial also showed that INCB18424 improved lesion thickness, erythema and scaling, and reduced overall treated lesion area as compared to the overall untreated lesions.

Alice Gottlieb, M.D. Ph.D., Chair of Dermatology and Dermatologist-in-Chief at Tufts Medical Center and Harvey B. Ansell Professor of Dermatology at Tufts University School of Medicine and Senior Author stated, "In addition to the these encouraging safety and efficacy results seen with 28-days of treatment with INCB18424, transcriptional profiling data demonstrate that topical INCB18424 inhibits two key pathways, Th1 and Th17, that play important roles in the pathogenesis of psoriasis. Highly efficacious injectable anti-TNF agents inhibit many of the same pathways. While we lack long-term data, a topical JAK inhibitor may prove to be effective in patients with mild to moderate psoriasis."

These findings were presented as a poster, "Initial Efficacy and Safety of Topical INCB018424 Cream, a Selective Janus Kinase 1&2 (JAK1&2) Inhibitor in Psoriasis", at the 17th Congress of European Academy of Dermatology and Venereology currently being held in Paris.

To access a copy of the poster go to: <http://investor.incyte.com/phoenix.zhtml?c=69764&p=irol-presentations>

### About the Phase IIa Clinical Trials

Study 201: A 28-day dose-escalating proof-of-concept trial designed to evaluate the preliminary efficacy, pharmacokinetics and safety of 0.5%, 1.0% and 1.5% once- or twice-daily topical formulations of INCB18424 versus vehicle or active comparators in patients with limited plaque psoriasis. Each cohort consisted of 5 or 6 subjects and each subject served as his or her own control with INCB18424 or vehicle applied to paired lesions separated by at least 15 cm in patients with active but stable plaque psoriasis.

Results from this study demonstrated that:

- the 1% once-daily dose and the 1.5% twice-daily dose decreased mean total lesion scores by 53% and 54%, respectively, compared with 32% and 27% reduction with vehicle treatment on day 28 (p less than or equal to 0.05);
- improvements were seen in each component of total lesion scores (lesion thickness, erythema and scaling); and,
- mean total lesion scores for the 1.5% twice-daily dose of INCB18424 decreased on day 28 by 46% as compared to 40 % for Dovonex(R) and 58% as compared to 44% for Diprolene(R)AF.

INCB18424 was well tolerated at all doses; no significant adverse effects were noted and no laboratory or ECG abnormalities were seen.

Study 202: This is an ongoing 28-day open-label sub-total inunction study to evaluate the safety and pharmacokinetics of INCB18424 in patients who apply the compound to as much as 20% of their BSA. Results from the first cohort of patients using the 1.5% twice-daily dose over 2-7% of their BSA demonstrated that INCB18424 improved lesion thickness, erythema and scaling and also reduced the overall treated lesion area as compared to the overall untreated lesions. In this study, INCB18424 was well tolerated with no serious adverse effects observed. Additionally, transcriptional profiling data in these patients confirmed that topical INCB18424 treatment inhibits two pathways, Th1 and Th17, which are considered to be central drivers of psoriasis. These effects correlated with clinically relevant improvements in total lesion scores.

### Current Status of Topical INCB18424

A three-month Phase IIb trial involving approximately 300 psoriasis patients with mild to moderate disease is scheduled to begin in October. The Phase IIb trial will evaluate three doses of topical INCB18424 applied once-daily as compared to vehicle. The primary endpoints for the trial include change in total lesion score (erythema + scaling + thickness) of all psoriatic lesions, and safety and tolerability as assessed by monitoring signs and symptoms and through collection of clinical laboratory and blood samples. Secondary endpoints include change in individual lesion scores (erythema, scaling, and thickness) of all psoriatic lesions, the mean change in Physicians Global Assessment (PGA) in INCB18424 treated subjects compared to placebo subjects, the percentage of subjects achieving clear (0) and almost clear (1) on PGA, the percentage of subjects achieving improvements in their Psoriasis Area Severity Index (PASI) (PASI 50, PASI 75 and PASI 90 improvement), and trough plasma concentrations of INCB18424 prior to application at steady state.

### About Psoriasis

Psoriasis is a chronic immune-mediated inflammatory skin disorder of unknown origin. The hallmarks of the disease are thick red skin lesions that are

often itchy, sometimes painful and covered by silvery scales. According to the World Psoriasis Day consortium, psoriasis affects approximately 125 million people worldwide. The National Institutes of Health estimates that between 5.8 and 7.5 million Americans have psoriasis. It is estimated that over 85% of psoriasis patients have mild to moderate disease in which up to 10% of a patient's total body surface area is affected.

Treatment of psoriasis is based on severity of the disease, with first-line therapy consisting of topical medications followed by ultraviolet light treatment (phototherapy) and systemic drugs. While drug treatments and phototherapies may clear lesions and relieve uncomfortable symptoms, many patients experience one or more exacerbations (flare ups) or relapses per year. Exacerbations occur when drug therapy is discontinued because of side effects and/or patient noncompliance, or tolerance to therapy develops.

#### About the Incyte JAK Inhibitor Program

There are four known JAK enzymes: JAK1, 2, 3 and TYK2. These enzymes are critical components of signaling mechanisms utilized by a number of cytokines and growth factors, including those that are elevated in psoriasis, rheumatoid arthritis and myeloproliferative disorders. Pathways triggered by the JAKs are dysregulated in inflammation, myeloproliferative diseases, and other liquid and solid cancers.

INCB18424 is Incyte's lead internally developed JAK 1&2 inhibitor. The compound is a potent JAK inhibitor that is greater than 100 fold selective against a broad panel of kinases and is being developed as a topical treatment for psoriasis, and as an oral treatment for rheumatoid arthritis, myelofibrosis, polycythemia vera, essential thrombocythemia, multiple myeloma, and hormone refractory prostate cancer.

Incyte has discovered multiple potent, selective and orally bioavailable JAK inhibitors from multiple distinct chemical scaffolds. A follow-on compound has completed single- and multiple-dose Phase I trials.

#### About Incyte

Incyte Corporation is a Wilmington, Delaware-based drug discovery and development company focused on developing proprietary small molecule drugs to treat serious unmet medical needs. Incyte's pipeline includes multiple compounds in Phase I and Phase II development for oncology, inflammation and diabetes. For additional information on Incyte, visit the Company's web site at: [www.incyte.com](http://www.incyte.com).

#### Forward Looking Statements

Except for the historical information contained herein, the matters set forth in this press release, including statements with respect to the potential for Incyte's JAK inhibitor INCB18424 to be effective in longer-term studies, and plans to begin a three-month Phase IIb trial for INCB18424 involving 300 psoriasis patients in October are all forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially, including the high degree of risk associated with drug development and clinical trials, the uncertainty of the FDA approval process, results of further research and development, the impact of competition and of technological advances and the ability of Incyte to compete against parties with greater financial or other resources, Incyte's ability to enroll a sufficient number of patients for its clinical trials, and other risks detailed from time to time in Incyte's filings with the Securities and Exchange Commission, including its Quarterly Report on Form 10-Q for the quarter ended June 30, 2008. Incyte disclaims any intent or obligation to update these forward-looking statements.

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