

NOVARTIS AG  
Form 6-K  
December 21, 2010

# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 or 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934**

**Report on Form 6-K dated December 20, 2010**

(Commission File No. 1-15024)

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**Novartis AG**

(Name of Registrant)

**Lichtstrasse 35**

**4056 Basel**

**Switzerland**

(Address of Principal Executive Offices)

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Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

**Form 20-F:**  **Form 40-F:**

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Yes:  No:

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Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes:  No:

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**Novartis International AG**

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**- Investor Relations Release -**

**Novartis investigational JAK inhibitor INC424 data met primary endpoint in Phase III trial of patients with myelofibrosis**

- *COMFORT-I trial shows INC424 provides significant clinical improvement in patients with myelofibrosis as measured by spleen size reduction*
- *High unmet medical need exists for patients with myelofibrosis, an uncommon and debilitating blood cancer*
- *Full results to be submitted for presentation at upcoming medical congress; worldwide regulatory filings planned for 2011*

**Basel, December 20, 2010** Novartis announced today that a pivotal Phase III trial of the investigational Janus kinase (JAK) inhibitor INC424 (also known as INCB018424 and INCB18424) has met its primary endpoint of significantly reducing spleen volume in patients with myelofibrosis (MF).

The study, called COMFORT-1 (COntrolled Myelofibrosis Study with Oral JAK Inhibitor Therapy), showed treatment with INC424 provided a statistically significant reduction in spleen size in patients with primary MF, post-polycythemia vera myelofibrosis (PPV-MF) or post-essential thrombocythemia myelofibrosis (PET-MF). The study also met the secondary endpoint of symptomatic improvement as measured by the modified Myelofibrosis Symptom Assessment Form Diary. Further, the safety profile of INC424 was consistent with previous studies, which included reversible thrombocytopenia and anemia. Results from COMFORT-1 are planned to be submitted for presentation at an upcoming medical congress.

These results support findings from a Phase I/II study published in the September 16, 2010 issue of *The New England Journal of Medicine* showing that treatment with INC424 resulted in marked and durable clinical benefits in patients with MF. These benefits included alleviation of debilitating symptoms and reduction of spleen size, an accepted measurement for the clinical improvement in MF(1),(2).

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Novartis licensed INC424 from Incyte for development and potential commercialization outside the US. Incyte has retained rights for the development and potential commercialization of INC424 in the US. Both the US Food and Drug Administration (FDA) and the European Medicines Agency (EMA) have granted INC424 orphan drug status for MF.

Myelofibrosis is an uncommon, life-threatening blood cancer characterized by bone marrow failure, enlarged spleen (splenomegaly), debilitating symptoms including fatigue, night sweats and pruritus, poor quality of life, weight loss and shortened survival. Myelofibrosis has a poor prognosis and limited treatment options(1),(3). Although allogeneic stem cell transplantation may cure MF, the procedure is associated with significant morbidity and mortality and is usually appropriate only in younger patients(3). The five-year survival rate after transplantation is approximately 50%(4).

Throughout its clinical development, INC424 has demonstrated the potential to fill a critical need for patients with myelofibrosis, who currently have limited treatment options, said Hervé Hoppenot, President, Novartis Oncology. This promising JAK inhibitor is an important part of our rich pipeline of innovative new therapies that address unmet needs in hematology and cancer treatment.

A separate Phase III clinical trial conducted in Europe, COMFORT-II, has completed enrollment and will evaluate the benefits of treatment with INC424 compared with best available care in patients with primary MF, PPV-MF or PET-MF. Results are expected in the first half of 2011 and along with COMFORT-I may form the basis of worldwide regulatory filings.

The JAK family of enzymes are key players in a number of important biologic processes, including the regulation of immune function and the formation and development of blood cells(5)-(10). A strong association exists between abnormal JAK signaling and the development of MF, polycythemia vera and essential thrombocythemia, a related group of conditions referred to as Philadelphia-chromosome negative myeloproliferative neoplasms(11)-(14). Patients with these diseases can progress to secondary acute myelogenous leukemia, which is virtually untreatable and is associated with a dismal prognosis(15),(16). The discovery of JAK mutations common to MF, polycythemia vera and essential thrombocythemia has linked them on a molecular level and has led to the development of INC424, a potent, selective inhibitor of the JAK1 and JAK2 tyrosine kinases(17).

#### **Study details**

COMFORT-I is a randomized, double-blind, placebo-controlled Phase III study of INC424 that enrolled 309 patients with primary MF, PPV-MF or PET-MF. Half received INC424 (starting dose 15 or 20 mg twice-daily) and half received placebo. The primary endpoint is the proportion of patients achieving a reduction in spleen volume of 35% or more from baseline to week 24 as measured by a magnetic resonance imaging (MRI), or computed tomography (CT) scan in applicable patients. COMFORT-I was sponsored by Incyte Corporation and has 112 study locations in the US, Canada and Australia(18).

#### **About myelofibrosis**

Myelofibrosis is a Philadelphia chromosome-negative myeloproliferative neoplasm(1). Of the JAK-associated myeloproliferative neoplasms, MF carries the greatest risk of a poor prognosis, including transformation to fatal acute myelogenous leukemia. For MF patients in general, clinical findings such as splenomegaly, anemia and constitutional symptoms may be associated with significantly reduced quality of life(3),(19)-(21).

#### **Disclaimer**

The foregoing release contains forward-looking statements that can be identified by terminology such as to be, planned, potential, promising, pipeline, will, expected, may, or similar expressions, or by express or implied discussions regarding potential marketing approvals for INC424, or the potential timing of such approvals, or regarding potential future revenues from INC424. You should not place undue reliance on these statements. Such forward-looking statements reflect the current views of management regarding future events, and involve known and unknown risks, uncertainties and other factors that may cause actual results with INC424 to be materially different from any future results, performance or

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achievements expressed or implied by such statements. There can be no guarantee that INC424 will be submitted or approved for sale in any market, or at any particular time. Nor can there be any guarantee that INC424 will achieve any particular levels of revenue in the future. In particular, management's expectations regarding INC424 could be affected by, among other things, unexpected clinical trial results, including unexpected new clinical data and unexpected additional analysis of existing clinical data; unexpected regulatory actions or delays or government regulation generally; the company's ability to obtain or maintain patent or other proprietary intellectual property protection; competition in general; government, industry and general public pricing pressures; the impact that the foregoing factors could have on the values attributed to the Novartis Group's assets and liabilities

as recorded in the Group's consolidated balance sheet, and other risks and factors referred to in Novartis AG's current Form 20-F on file with the US Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated or expected. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

## About Novartis

Novartis provides healthcare solutions that address the evolving needs of patients and societies. Focused solely on healthcare, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, cost-saving generic pharmaceuticals, preventive vaccines, diagnostic tools and consumer health products. Novartis is the only company with leading positions in these areas. In 2009, the Group's continuing operations achieved net sales of USD 44.3 billion, while approximately USD 7.5 billion was invested in R&D activities throughout the Group. Headquartered in Basel, Switzerland, Novartis Group companies employ approximately 100,000 full-time-equivalent associates and operate in more than 140 countries around the world. For more information, please visit <http://www.novartis.com>.

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## References

- (1) Verstovsek S, Kantarjian H, Mesa RA, et al. Safety and Efficacy of JAK1 & JAK2 Inhibitor, INCB018424, in Myelofibrosis. *New Eng J Med*. 2010 September 16;363:1117-1127.
- (2) Tefferi A, Barosi G, Mesa RA, et al. International Working Group (IWG) consensus criteria for treatment response in myelofibrosis with myeloid metaplasia, for the IWG for Myelofibrosis Research and Treatment (IWG-MRT). *Blood*. 2006;108:1497-1503.
- (3) The Leukemia & Lymphoma Society. Idiopathic myelofibrosis. Available at [http://www.leukemia-lymphoma.org/attachments/National/br\\_1190656475.pdf](http://www.leukemia-lymphoma.org/attachments/National/br_1190656475.pdf). Accessed October 2010.
- (4) Tefferi A. Allogeneic hematopoietic cell transplantation versus drugs in myelofibrosis: the risk-benefit balancing act. *Bone Marrow Transplant*. 2010;45(3):419-421.
- (5) Thiele J, Kvasnicka HM. The 2008 WHO diagnostic criteria for polycythemia vera, essential thrombocythemia, and primary myelofibrosis. *Curr Hematol Malig Rep*. 2009 Jan;4(1):33-40.
- (6) Huang HM, Lin YL, Chen CH, Chang TW. Simultaneous activation of JAK1 and JAK2 confers IL-3 independent growth on Ba/F3 pro-B cells. *J Cell Biochem*. 2005 Oct 1;96(2):361-75.
- (7) Murray PJ. The JAK-STAT pathway: input and output integration. *J Immunol*. 2007;178:2623-2629.
- (8) Sandberg EM, Wallace TA, Godeny MD, VonDerLinden D, Sayeski PP. Jak2 tyrosine kinase: a true Jak of all trades? *Cell Biochem Biophys*. 2004;41:207-231.
- (9) Haan C, Kreis S, Margue C, Behrmann I. Jaks and cytokine receptors - an intimate relationship. *Biochem Pharmacol*. 2006;72:1538-1546.
- (10) Ivashkiv LB, Hu X. The JAK/STAT pathway in rheumatoid arthritis: pathogenic or protective? *Arthritis Rheum*. 2003;48(8):2092-2096.
- (11) Levine RL, Pardanani A, Tefferi A, Gilliland DG. Role of JAK2 in the pathogenesis and therapy of myeloproliferative disorders. *Nat Rev Cancer*. 2007;7:673-683.
- (12) Kralovics R. Genetic complexity of myeloproliferative neoplasms. *Leukemia*. 2008;22:1841-1848.
- (13) Verstovsek S. Therapeutic potential of JAK2 inhibitors. *Hematology Am Soc Hematol Educ Program*. 2009:636-642.
- (14) Fourouclas N, Li J, Gilby DC, et al. Methylation of the suppressor of cytokine signaling 3 gene (SOCS3) in myeloproliferative disorders. *Haematologica*. 2008;93:1635-1644.
- (15) Beer PA, Green AR. Pathogenesis and management of essential thrombocythemia. *Hematology Am Soc Hematol Educ Program*. 2009:621-628.
- (16) Abdel-Wahab OI, Levine RL. Primary myelofibrosis: update on definition, pathogenesis, and treatment. *Annu Rev Med*. 2009;60:233-245.
- (17) Plo I, Vainchenker W. Molecular and genetic basis of myeloproliferative disorders: questions and perspectives. *Clin Lymphoma Myeloma*. 2009;9(Suppl 3):S329-S339.
- (18) Controlled MyeloFibrosis Study With Oral JAK Inhibitor Treatment: The COMFORT-I Trial. Available at [http://www.comfortstudy.com/pages/about\\_comfort-1.aspx](http://www.comfortstudy.com/pages/about_comfort-1.aspx). Accessed October 2010.
- (19) Thiele J, Kvasnicka HM. The 2008 WHO diagnostic criteria for polycythemia vera, essential thrombocythemia, and primary myelofibrosis. *Current Hematol Malig Reports*. 2009;4:33-40.

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- (20) Tefferi A, Vardiman JW. Classification and diagnosis of myeloproliferative neoplasms: The 2008 World Health Organization criteria and point-of-care diagnostic algorithms. *Leukemia*. 2008;22(1):14-22.
- (21) Mesa RA, et al. The Myelofibrosis Symptom Assessment Form (MFSAF): an evidence-based brief inventory to measure quality of life and symptomatic response to treatment in myelofibrosis. *Leuk Res*. 2009;33:1199-1203.

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**Novartis AG**

Date: December 20, 2010

By: /s/ MALCOLM B. CHEETHAM

Name: Malcolm B. Cheetham  
Title: Head Group Financial  
Reporting and Accounting