

NOVARTIS AG  
Form 6-K  
August 28, 2012

# 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 August 28, 2012

(Commission File No. 1-15024)

---

**Novartis AG**

(Name of Registrant)

**Lichtstrasse 35**

**4056 Basel**

**Switzerland**

(Address of Principal Executive Offices)

---

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

Edgar Filing: NOVARTIS AG - Form 6-K

**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:**

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Yes:       **No:**

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:**

---

**Novartis International AG**  
Novartis Global Communications  
CH-4002 Basel  
Switzerland  
<http://www.novartis.com>

**MEDIA RELEASE • COMMUNIQUE AUX MEDIAS • MEDIENMITTEILUNG**

**Novartis drug Jakavi® first medication to receive European Commission approval to treat patients with myelofibrosis**

- *Jakavi® (INC424, ruxolitinib) approval based on results from the most extensive myelofibrosis clinical trial program to date*
- *Myelofibrosis is a life-threatening blood cancer associated with progressive, debilitating symptoms that can severely impact quality of life and shorten survival*
- *In Phase III studies, Jakavi reduced spleen size and debilitating manifestations of myelofibrosis by targeting the underlying mechanism of disease*

**Basel, August 28, 2012** Novartis received approval today from the European Commission for Jakavi® (INC424, ruxolitinib), a JAK 1 and JAK 2 inhibitor for the treatment of disease-related splenomegaly or symptoms in adult patients with primary myelofibrosis (also known as chronic idiopathic myelofibrosis), post-polycythemia vera myelofibrosis or post-essential thrombocythemia myelofibrosis.

The European Commission's decision was based on positive findings from the COMFORT (COnrolled MyeloFibrosis Study with ORal JAK Inhibitor Therapy) clinical trial program.

The approval of Jakavi by the European Commission brings an urgently needed new treatment option with the potential to make a real difference in patients' lives, said Dr. Claire Harrison, MD, Guy's and St. Thomas' NHS Foundation Trust, Guy's Hospital, London. By targeting the dysregulated JAK pathway, Jakavi delivers a rapid and durable benefit that has the potential to become a new standard of care.

Myelofibrosis is an uncommon, life-threatening blood cancer characterized by bone marrow failure, enlarged spleen (splenomegaly), debilitating symptoms, such as extreme fatigue, night sweats and intractable pruritus (itching), poor quality of life and weight loss, as well as shortened survival(1). In the EU, the disease affects about 0.75 out of every 100,000 people annually(2),(3). Myelofibrosis develops when uncontrolled signaling in the JAK pathway which regulates blood cell production causes bone marrow scarring and faulty blood cell production, resulting in an enlarged spleen and other severe complications. Jakavi directly targets the underlying mechanism of disease, significantly reducing splenomegaly and improving symptoms regardless of JAK mutational status, disease subtype or any prior treatment, including hydroxyurea(4),(5).

## Edgar Filing: NOVARTIS AG - Form 6-K

This approval marks a significant milestone in addressing unmet treatment needs for patients in the European Union, said Hervé Hoppenot, President, Novartis Oncology. We are committed to the development of innovative treatments for orphan diseases, and are furthering research to assess the potential of targeted Jakavi therapy for other malignancies associated with a dysregulated JAK pathway.

The efficacy and safety of Jakavi in the treatment of patients with myelofibrosis was established in clinical studies, including the two pivotal Phase III trials COMFORT-I and

COMFORT-II. Chronic inflammation through elevated cytokine levels is one of the primary consequences of dysregulated JAK 1 and JAK 2 signaling, and may be a major contributor to morbidity and mortality of patients with myeloproliferative neoplasms such as myelofibrosis(6). In one pivotal Phase III study, Jakavi was shown to alter the clinical course of myelofibrosis by reversing symptom progression and splenomegaly, thus improving quality of life and potentially impacting overall survival(4),(5).

COMFORT-I demonstrated that 41.9% of Jakavi-treated patients achieved at least a 35% reduction (roughly equivalent to a reduction in palpable spleen size by 50%) in spleen volume at 24 weeks from baseline compared to 0.7% of patients in the placebo group ( $p < 0.001$ ). An early analysis of COMFORT-I data at 51 weeks of treatment showed Jakavi treatment resulted in an overall survival benefit as compared to placebo (hazard ratio=0.50 [95% confidence interval: 0.25, 0.98])(5).

The most frequently reported grade 3 or higher adverse events were hematologic. One patient in each group discontinued treatment for thrombocytopenia or for anemia, respectively. The most common non-hematologic adverse events of any grade reported for patients receiving Jakavi or placebo, respectively, were fatigue (25% vs 34%), diarrhea (23% vs 21%), peripheral edema (19% vs 22%) and ecchymosis (19% vs 9%). One week after discontinuing Jakavi, these patients experienced a return of myelofibrosis symptoms that were present before initiating therapy; however, any symptoms they experienced as a result of treatment discontinuation subsided(5). COMFORT-I was conducted in the US by Incyte under the worldwide collaboration and license agreement for INC424 (ruxolitinib).

In COMFORT-II, Jakavi produced a volumetric spleen size reduction of 35% or greater in 28% of patients compared to 0% of patients in the best available therapy (BAT) group at 48 weeks ( $p < 0.001$ ). The BAT is any commercially available agent (such as monotherapy or in combination) or no therapy at all. At week 24, 32% of patients treated with Jakavi demonstrated a 35% or greater volumetric spleen size reduction compared to 0% of patients treated with the BAT ( $p < 0.001$ ) for the key secondary endpoint. Additionally, Jakavi was associated with improvements in myelofibrosis symptoms at each evaluation as compared with the BAT group. Jakavi showed modest toxicity as compared with the BAT, with increased frequency of anemia and thrombocytopenia. The most frequently reported serious adverse event (SAE) was anemia for both groups (INC424, 5%; BAT, 4%). Pneumonia was the only SAE reported in  $\geq 5\%$  of patients in either group (INC424, 1%; BAT, 5%)(4). These findings are consistent with previous investigation of INC424(7).

Continuous Jakavi therapy also provided a marked and durable improvement in overall quality of life measures, functioning and symptoms, including loss of appetite, dyspnea (shortness of breath), fatigue, insomnia and pain, at week 48, compared to a worsening of symptoms in BAT-treated patients. Jakavi showed modest toxicity as compared with the BAT, with increased frequency of anemia and thrombocytopenia. The most frequently reported SAE for Jakavi was anemia for both groups (5%). Pneumonia was reported in 1% of patients taking Jakavi(4).

### **About Myelofibrosis**

Myelofibrosis is a life-threatening blood cancer with a poor prognosis and limited treatment options(1),(7). Studies show that patients with myelofibrosis have a decreased life expectancy, with a median survival of 5.7 years(8). Although allogeneic stem cell transplantation may cure myelofibrosis, the procedure is associated with significant morbidity and transplant-related mortality and is available to less than 5% of patients who are young and fit enough to undergo the procedure(9).

### **About Jakavi**

## Edgar Filing: NOVARTIS AG - Form 6-K

Jakavi® (INC424, ruxolitinib) is an oral inhibitor of the JAK 1 and JAK 2 tyrosine kinases(4). The recommended starting dose for Jakavi is 15 mg twice daily for patients with a platelet count between 100,000 cubic millimeters (mm<sup>3</sup>) and 200,000 mm<sup>3</sup>, and 20 mg

twice daily for patients with a platelet count of  $>200,000$  mm<sup>3</sup>. Doses may be titrated based on safety and efficacy.

Novartis licensed INC424 (ruxolitinib) from Incyte for development and potential commercialization outside the US. Incyte has retained rights for the development and commercialization of INC424 (ruxolitinib) in the US. Both the European Commission and the US Food and Drug Administration (FDA) granted INC424 (ruxolitinib) orphan drug status for myelofibrosis. Incyte received FDA approval for INC424 (ruxolitinib) in November 2011 under the name Jakafi® for the treatment of patients with intermediate or high-risk myelofibrosis.

As part of the Novartis clinical development program, Jakavi is also being investigated in clinical trials for the treatment of polycythemia vera(10).

Jakavi is a registered trademark of Novartis AG in countries outside the United States.

#### **Jakavi® Important Safety Information**

Jakavi® can cause serious side effects, including a decrease in blood cell count and infections. Complete blood count monitoring is recommended. Dose reduction or interruption may be required in patients with severe hepatic or renal impairment or in patients developing hematologic adverse reactions such as thrombocytopenia, anemia and neutropenia. Dose reductions are also recommended when Jakavi is co-administered with strong CYP3A4 inhibitors or fluconazole. Use of Jakavi during pregnancy is not recommended and women should avoid becoming pregnant during Jakavi therapy. Women taking Jakavi should not breast feed.

The most common adverse drug reactions (incidence  $>10\%$ ) are urinary tract infections, anemia, thrombocytopenia, neutropenia, hypercholesterolaemia, dizziness, headache, alanine aminotransaminase increased, aspartate aminotransferase increased, bruising, bleeding and increased blood pressure. Other common adverse drug reactions (incidence 1 to 10%) are herpes zoster, weight gain, flatulence and tuberculosis.

#### **Disclaimer**

The foregoing release contains forward-looking statements that can be identified by terminology such as potential, committed, potentially, being investigated, or similar expressions, or by express or implied discussions regarding potential additional marketing approvals for Jakavi, or regarding the potential approval of new indications or labeling for Jakavi, and the timing of any such approvals, or regarding potential future revenues from Jakavi. 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 Jakavi to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no guarantee that Jakavi will be approved for sale in any additional markets, or for any additional indications or labeling, or at any particular time. Neither can there be any guarantee that Jakavi will achieve any particular levels of revenue in the future. In particular, management's expectations regarding Jakavi could be affected by, among other things, unexpected regulatory actions or delays or government regulation generally; unexpected clinical trial results, including unexpected new clinical data and unexpected additional analysis of existing clinical data; government, industry and general public pricing pressures; unexpected manufacturing issues; competition in general; the company's ability to obtain or maintain patent or other proprietary intellectual property protection; 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

## Edgar Filing: NOVARTIS AG - Form 6-K

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 innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, eye care, cost-saving generic pharmaceuticals, preventive vaccines and diagnostic tools, over-the-counter and animal health products. Novartis is the only global company with leading positions in these areas. In 2011, the Group achieved net sales of USD 58.6 billion, while approximately USD 9.6 billion (USD 9.2 billion excluding impairment and amortization charges) was invested in R&D throughout the Group. Novartis Group companies employ approximately 126,000 full-time-equivalent associates and operate in more than 140 countries around the world. For more information, please visit <http://www.novartis.com>.

Novartis is on Twitter. Sign up to follow @Novartis at <http://twitter.com/novartis>.

---

### References

- (1) Mesa RA, Schwagera S, Radia D, 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.
- (2) Girodon F, Bonicelli G, Schaeffer C, et al. Significant increase in the apparent incidence of essential thrombocythemia related to new WHO diagnostic criteria: a population-based study. *Haematologica.* 2009; 94(6):865-869.
- (3) McNally RJQ, Rowland D, Roman E, Cartwright RA. Age and sex distributions of hematological malignancies in the U.K. *Hematol Oncol.* 1997;15:173-189.
- (4) Harrison C, Kiladjian JJ, Al-Ali HK, et al. JAK Inhibition with Ruxolitinib versus Best Available Therapy for Myelofibrosis. *New Eng J Med.* 2012; March 1;366:787-98.
- (5) Verstovsek S, Mesa RA, Gotlib J, et al. A Double-Blind, Placebo-Controlled Trial of Ruxolitinib for Myelofibrosis. *New Eng J Med.* 2012; March 1;366:799-807.
- (6) Hasselbach, H. Perspectives on chronic inflammation in essential thrombocythemia, polycythemia vera, and myelofibrosis. *Blood.* 2012. Epub ahead of print February 7.
- (7) 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.
- (8) Cervantes F, Dupriez B, Pereira A, et al. New prognostic scoring system for primary myelofibrosis based on a study of the International Working Group for Myelofibrosis Research and Treatment. *Blood.* 2009;113:2895-2901.

## Edgar Filing: NOVARTIS AG - Form 6-K

(9.) Patriarca F, Bacigalupo A, Sperotto A, et al. Allogeneic hematopoietic stem cell transplantation in myelofibrosis: the 20-year experience of the Gruppo Italiano Trapianto di Midollo Osseo (GITMO). *Haematologica*. 2008;93(10):1514-1522.

(10.) National Institutes of Health. Study of Efficacy and Safety in Polycythemia Vera Subjects Who Are Resistant to or Intolerant of Hydroxyurea: JAK Inhibitor JAKAVI (INCB018424) Tablets Versus Best Available Care: The RESPONSE Trial. Available at <http://www.clinicaltrials.gov/ct2/show/NCT01243944?term=ruxolitinib&rank=14>. Accessed January 31, 2012.

###

### Novartis Media Relations

**Central media line :** +41 61 324 2200

**Eric Althoff**

Novartis Global Media Relations

+41 61 324 7999 (direct)

+41 79 593 4202 (mobile)

[eric.althoff@novartis.com](mailto:eric.althoff@novartis.com)

**Amy Vinci**

Novartis Oncology

+1 862 778 6309 (direct)

+1 917 535 2602 (mobile)

[amy.vinci@novartis.com](mailto:amy.vinci@novartis.com)

e-mail: [media.relations@novartis.com](mailto:media.relations@novartis.com)

For Novartis multimedia content, please visit [www.thenewsmarket.com/Novartis](http://www.thenewsmarket.com/Novartis)  
For questions about the site or required registration, please contact: [journalisthelp@thenewsmarket.com](mailto:journalisthelp@thenewsmarket.com)

**Novartis Investor Relations**

Central phone: +41 61 324 7944  
Susanne Schaffert +41 61 324 7944  
Pierre-Michel Bringer +41 61 324 1065  
Thomas Hungerbuehler +41 61 324 8425  
Isabella Zinck +41 61 324 7188

**North America:**

Helen Boudreau +1 212 830 2404  
Jill Pozarek +1 212 830 2445  
Edwin Valeriano +1 212 830 2456

e-mail: [investor.relations@novartis.com](mailto:investor.relations@novartis.com)

e-mail: [investor.relations@novartis.com](mailto:investor.relations@novartis.com)

**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: August 28, 2012

By: /s/ MALCOLM B. CHEETHAM

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