

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **October 28, 2009**

VERTEX PHARMACEUTICALS INCORPORATED

(Exact name of registrant as specified in its charter)

MASSACHUSETTS
(State or other jurisdiction of
incorporation)

000-19319
(Commission File Number)

04-3039129
(IRS Employer Identification No.)

130 Waverly Street
Cambridge, Massachusetts 02139
(Address of principal executive offices) (Zip Code)

(617) 444-6100
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01. Other Events

On October 28, 2009 and October 31, 2009, we announced data from two clinical trials of telaprevir. We announced data, including sustained viral response or SVR data, from a completed clinical trial, referred to as the C208 Trial, designed to explore the safety and antiviral activity of twice-daily—every twelve hours—dosing regimens of telaprevir compared with three times daily—every eight hours—dosing. We also announced interim data from a clinical trial, referred to as the 107 Trial, in patients who did not achieve an SVR in the control arms of the PROVE 1, PROVE 2 or PROVE 3 clinical trials.

C208

The C208 trial was an exploratory open-label clinical trial that enrolled 161 treatment-naïve patients infected with genotype 1 HCV. The purpose of the C208 trial was to compare twice-daily dosing regimens of telaprevir—1,125 mg every 12 hours—in combination with pegylated-interferon, or peg-IFN, and ribavirin, or RBV, with three-times daily dosing regimens—750 mg every 8 hours—in combination with peg-IFN and RBV. A three-times daily dosing regimen is being used in the ongoing registration program for telaprevir and has been used in the other clinical trials for telaprevir.

Patients received telaprevir, peg-IFN and RBV for 12 weeks followed by an additional 12 or 36 weeks of peg-IFN and RBV alone in a response-guided trial design. Patients who achieved undetectable HCV RNA—<25 IU/mL, undetectable per Roche COBAS TaqMan HCV test— at week 4, which is referred to as a rapid viral response, or RVR, and who maintained undetectable HCV RNA through week 20, were able to stop all treatment after 24 weeks. Patients who did not meet the response-guided criteria received a total of 48 weeks of peg-IFN and RBV therapy. 18% of patients across the treatment arms were required to continue treatment for 48 weeks.

The following table summarizes the RVR and SVR data on an intent-to-treat basis from the C208 trial.

Telaprevir Dosing	Combination Therapy	Total Number of Patients	RVR (undetectable at week 4 on treatment)	SVR (undetectable 24 weeks after end-of-treatment)
1,125 mg every 12 hours	alfa-2a (PEGASYS)/RBV	40	83% (n=33)	83% (n=33)
1,125 mg every 12 hours	Alfa-2b (PEGINTRON)/RBV	39	67% (n=26)	82% (n=32)
750 mg every 8 hours	alfa-2a (PEGASYS)/RBV	40	80% (n=32)	85% (n=34)

The frequency and severity of adverse events and the rate of treatment discontinuations were similar to those reported in prior telaprevir trials. The most common adverse events reported in patients in this clinical trial were pruritis, nausea, rash, anemia, flu-like illness, fatigue and headache, and the adverse events were similar overall between the patient groups receiving three-times daily dosing and those receiving twice-daily dosing. Serious adverse events leading to permanent treatment discontinuation of all drugs occurred in 5% of patients (8 out 161) and were mainly related to rash (3%, 4/161) and anemia (2%, 3/161).

107 Trial

In the open-label 107 Trial, treatment-experienced patients with genotype 1 HCV were treated with telaprevir triple combination therapy for 12 weeks followed by 12 or 36 weeks of treatment with peg-IFN and RBV alone. In 2008, the protocol for the 107 Trial underwent several amendments, including important amendments that affected prior null-responders.

For the 107 Trial, patients were classified as prior null responders, prior partial responders, prior relapsers and prior viral breakthrough patients based on their response to treatment with peg-IFN and RBV alone in our Phase 2b clinical trials. Patients who had not achieved at least a 1 log₁₀ decrease in HCV RNA levels at week 4 and at least a 2 log₁₀ decrease in HCV RNA levels at week 12 with previous treatment were classified as prior null-responders; patients who had more than a 2 log₁₀ decrease in HCV RNA levels at week 12, but who had detectable HCV RNA levels at week 24 were classified as prior partial responders; patients who had undetectable HCV RNA at the end of treatment with peg-IFN and RBV but subsequently relapsed were classified as prior relapsers; and patients who achieved undetectable HCV RNA but relapsed before the end-of-treatment were classified as prior viral breakthroughs. A 1 log₁₀ decrease represents a 90% decrease in HCV RNA levels, and a 2 log₁₀ represents a 99% decrease in HCV RNA levels.

The table below sets forth the interim data from 94 of the 117 patients enrolled in the 107 Trial, including SVR data and the percentage of patients who had undetectable HCV RNA levels at the end-of-treatment and remained undetectable through 24 weeks after the end-of-treatment.

Patient Group	Treatment Regimen	SVR	Viral Relapse Rates
Prior Null Responders	telaprevir triple combination for 12 weeks, followed by peg-IFN and RBV alone for 36 weeks	57% (16/28)	20% (4/20)
Prior Partial Responders	25 patients treated with telaprevir triple combination therapy for 12 weeks, followed by peg-IFN and RBV alone for 12 weeks 3 patients treated with telaprevir triple combination therapy combination for 12 weeks, followed by peg-IFN and RBV alone for 36 weeks 1 patient who discontinued prior to completing 12 weeks of telaprevir triple combination therapy	55% (16/29)	22% (5/23)
Prior Relapsers	25 patients treated with telaprevir triple combination therapy for 12 weeks, followed by peg-IFN and RBV alone for 12 weeks 3 patients treated with telaprevir triple combination therapy for 12 weeks, followed by peg-IFN and RBV alone for 36 weeks 1 patient who discontinued prior to completing 12 weeks of telaprevir triple combination therapy	90% (26/29)	4% (1/28)
Prior Viral Breakthroughs	7 patients treated with telaprevir triple combination therapy for 12 weeks, followed by peg-IFN and RBV alone for 12 weeks 1 patients treated with telaprevir triple combination therapy for 12 weeks, followed by peg-IFN and RBV alone for 36 weeks	75% (6/8)	0% (0/6)

The interim results reported in the table above reflect data from all prior partial responders, relapsers and viral breakthroughs and from the prior null responders who we considered to have received an appropriate treatment regimen based on their prior response to

peg-IFN and RBV, consistent with certain amendments made during the conduct of the 107 Trial. The table does not include data from 23 prior null responders, who, prior to protocol amendments, were designated to receive only 24 weeks of therapy, and a portion of whom met the strict stopping rule criteria at week 4. When the 107 Trial began, all patients were to receive 12 weeks of telaprevir in combination with peg-IFN and RBV followed by an additional 12 weeks of peg-IFN and RBV. Stopping rules required any patient who did not achieve undetectable HCV RNA by week 4 to stop all treatment. In 2008, the 107 Trial protocol was amended in several respects. The most important change to the protocol was to the week 4 stopping rules, as it became evident that treatment-failure patients had a somewhat slower viral response to treatment with telaprevir triple-combination therapy than did treatment-naïve patients. Therefore, following the protocol amendment patients who had detectable HCV RNA at week 4 were permitted to continue therapy. In addition, while the initial study protocol specified 24 weeks of total treatment for all patients, a longer total treatment duration of 48 weeks was determined to be warranted in prior null responders to provide a higher likelihood of achieving an SVR.

Discontinuation of all therapy due to adverse events occurred in eight patients in the 107 Trial. A complete safety analysis is still being performed and will be reported when the full data are presented at a medical conference expected in 2010.

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 hereunto duly authorized.

VERTEX PHARMACEUTICALS INCORPORATED
(Registrant)

Date: November 2, 2009

/s/ Kenneth S. Boger
Kenneth S. Boger
Senior Vice President and General Counsel