

# HCV ADVOCATE WEEKLY NEWS REVIEW

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*Review of HCV, HBV and HIV/HCV Coinfection Related News and Highlights*

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## ***My life with Hepatitis C***

<http://www.thisishampshire.net>

IN 1965 David Singerman was knocked down by a car as he crossed the road. As a result he was given a blood transfusion.

Thirty-five years later, David, now 63, was to discover that the life-saving treatment had in fact led to him contracting hepatitis C.

"In 2000 I went to my doctor because I had a rash on my groin and I thought I might need some ointment. While I was there my GP said I wasn't looking that well and he suggested that I have some blood tests. That's when they discovered I had hepatitis C," said David ahead of World Hepatitis Day on Monday.

David was Professor of Mathematics at Southampton University and the husband of a former mayor of the city, Margaret Singerman.

As well as being contracted through blood transfusions carried out prior to 1991, hepatitis C is commonly associated with drug users.

David, of Harefield, Southampton, explained he had never suffered from any stigma surrounding the virus, but admitted his GP had jumped to conclusions when he was first diagnosed.

"The doctor sort of assumed that because I had been at university in the 60s I must have been a drug user, but I assured him I had never taken drugs in my life."

David has had to come to terms with his prognosis and the likelihood that he will need to have a liver transplant at some point.

There is a treatment for hepatitis C that works in 50 per cent of cases - sadly, David's was not one of them. The condition can also lead to episodes in which the brain stops working properly and, in David's terms, you become "totally stupid".

"It's happened to me three times and can last for days at a time," he said.

David realised these times when he just could not think clearly were incompatible with his work at Southampton University and, reluctantly after 37 years, he decided to take early retirement.

He is still heavily involved in research and is a supporter of the world awareness day.

"In previous years I have helped with raising awareness in the city on World Hepatitis Day.

Afterwards someone came up to me and thanked me for doing it - they explained that as a result they had been for a blood test and discovered they had hepatitis C too."

On Monday, David and Margaret will be at a special event in Cornwall when Chrissie Davis and

her partner John, who both have hepatitis C, will marry.

"I tend to be a very positive person and I don't dwell too much on what the future may hold. I don't mind who I tell that I have hepatitis C. I've never felt discriminated against and I've never felt the stigma that some people talk about," he said.

## ***Australia joins in first World Hepatitis Awareness Week***

<http://www.news.com.au>

MONDAY May 19 marks World Hepatitis Day, the first day of World Hepatitis Awareness Week, which runs until May 26.

World Hepatitis Awareness Week focuses on raising awareness and political attention for chronic viral hepatitis.

The Hepatitis Council of WA estimates that about 500 million people worldwide are affected by hepatitis B or hepatitis C, which equates to one in every 12 people on the planet, and is more than 10 times the number infected with HIV/AIDS.

Most of the 500 million are unaware they are living with the chronic infection. Hepatitis C affects 260,000 Australians and Hepatitis B affects 150,000.

Hepatitis B and C kill 1.5 million people a year and one in every three people has been exposed to either or both viruses.

The global theme for 2008's World Hepatitis Awareness Week is: "Am I number 12?", which is a reference to the shocking statistic that one in 12 people in the world are living with chronic hepatitis B or C.

Australia, together with over 200 countries will take part in the first global hepatitis awareness event, which aims to publicise the need for urgent action to stem the epidemics of hepatitis B and hepatitis C.

Every state and territory in Australia will participate in World Hepatitis Awareness Week with events including forums, local BBQ picnics, information stalls, education sessions and movie screenings.

WA's launch event will take place at a symposium at the Hyatt Regency Perth on May 19.

Titled "C Changes" Enhancing access to hepatitis C treatments in the prison setting and beyond', the symposium focuses on enhancing access to hepatitis C treatment for people whilst they are in prison, and on their release from prison and re-establishment in the community.

Being in prison is considered an independent risk factor for hepatitis C.

For information about prevention, testing and treatments, contact 9328 8538, 1800 800 070 or visit [www.hepatitiswa.com.au](http://www.hepatitiswa.com.au)

## ***Raising hepatitis awareness***

<http://www.bdtonline.com>

By GREG JORDAN

*Bluefield Daily Telegraph*

GREEN VALLEY — A few at a time ask for testing, hoping the results will say negative. Some get good news, but others learn that what they feared is true. They have hepatitis.

Area people infected with hepatitis are joining millions of others in a grim statistic: one in every 12 people worldwide is living with hepatitis B or C, and the majority of them don't know they are infected. In the United States, more than a million people live with hepatitis B and five times that number live with hepatitis C. The latter variety is among the top 10 killers of Americans age 25 and older. Worse, symptoms may not appear until the liver has serious damage.

On May 19 a newly-formed organization, the World Hepatitis Alliance, is asking governments to drive improvements in prevention, diagnosis and treatment for people living with chronic viral hepatitis.

Physicians are required by law to report any hepatitis cases they diagnose, said Melody Rickman, RN, of the Mercer County Health Department. Health officials then work to trace anybody the patients may have contact with so they can be informed about the risks.

Personnel at Mercer Health Right, which adjoins the health department, see the human side of the statistics as local people without insurance come to the free clinic in Green Valley for hepatitis testing.

“Yes, we probably get some weeks three, and some weeks 10 people, and we get an average of five a week requesting testing because they have shared needles or live with someone diagnosed with it or have a sexual partner with it,” said Debbie Enigk of Mercer Health Right. “More than 60 percent come back positive.”

According to the state Division of Surveillance and Disease Control, West Virginia had six acute and 2,168 chronic cases of hepatitis C in 2006. Figures of the disease's rates in each county were not available, but Mercer County has often seen larger-than-average numbers. Enigk said this could be because the county's residents can reach a free clinic by bus, so they are more likely to seek testing. In Virginia, the Cumberland Plateau Health District reported a total of 189 hepatitis cases of all types between Jan. 2007 and Jan. 2008.

Locally, the disease usually spreads when drug users share the same needle. There have been instances when one needle has been shared among 10 people, Enigk said. But this does not mean the sharing happens all at once; it occurs over time.

“Say they go to John Doe's place to get their drugs. Ten people who go there over in a week's time share the same needle,” she explained.

Another statistic makes hepatitis especially tragic. The average range of patients' ages go from 20- to 32-years-old.

“It’s just sad,” Enigk said. “We’re talking about people having years of their lives ahead of them. At a very young age people just put their lives at risk. It’s very depressing how many young people come in.”

Patients can be treated with a 48-week program using two anti-viral drugs, one injected weekly and one taken orally four to six times a day. The treatment is not a cure, but it can cause the virus to go into remission, Enigk said. There has been some success.

Some people respond well to treatment; their own immune systems fight off the disease. Those who stop using drugs and alcohol increase their chances for recovery; the ones who do best never used drugs or alcohol at all, she said.

Patients are advised to keep their families safe by never sharing toothbrushes or razors; any blood from bleeding gums or shaving nicks can carry the hepatitis virus. It is not a virus that is passed easily by causal contact, but it can live outside the human body for three days or 72 hours.

“That’s not from touching a door knob. It’s body fluid to body fluid, blood to blood,” Enigk said.

Anyone with the following risks should consult a physician about being tested for hepatitis B and C: Used blood transfusions, blood products or had an organ transplant before July 1992; ever used IV drugs; ever shared a crack or meth pipe, or anything else to snort drugs; have HIV; have any tattoos or body piercings; have come into contact with the blood of an infected person.

— Contact Greg Jordan at [gjordan@bdtonline.com](mailto:gjordan@bdtonline.com)

## ***Today is World Hepatitis Day***

<http://www.stuff.co.nz/>

By KATIE WYLIE - *The Press*

A Christchurch man who fought back from a "downward spiral of apathy" to beat hepatitis C is urging those at risk to get tested for the virus.

Bill Jang, manager of Christchurch's Hepatitis C Resource Centre, is speaking out about his battle with the virus. World Hepatitis Day is today. He was diagnosed with hepatitis C in 1996, aged 41.

The virus - which is thought to affect 4000 Cantabrians and 50,000 people nationwide - is transmitted through blood-to-blood contact and causes inflammation of the liver.

Jang traces his infection to drug use in 1970, although he has since had tattoos and a blood transfusion, both of which can spread the virus. "I spent a lot of time in denial, which quite a few people do," Jang said. He had no symptoms until his 40s, when he became extremely tired. "It was almost like a ... downward spiral of apathy."

Tests revealed stage four fibrosis of the liver. Five years later, he was put on drugs which killed the virus and reversed the liver damage.

Associate Professor Edward Gane, of the New Zealand Liver Transplant Unit, said early testing for people who were at risk was essential.

"Just because you have no symptoms of the disease does not mean you are in the clear. Some people are diagnosed only following the development of liver failure or liver cancer, when treatment is not possible and survival is often only weeks."

A weekend event in Cathedral Square, at which Kiwi band The Chills played, also helped raised awareness. The Chills' founder, Martin Phillipps, contracted hepatitis C 10 years ago.

## ***World Hepatitis Alliance Calls On Governments To Take Urgent Action***

<http://www.generationq.net>

Monday 19 May, 2008 – The World Hepatitis Alliance, today called on governments around the world to drive improvements in prevention, diagnosis, treatment and support for the one in 12 people worldwide infected with either chronic viral hepatitis B or C.

Helen Tyrrell, CEO of Hepatitis Australia and founding member of the World Hepatitis Alliance says "The World Health Organization has estimated that over 350 million people on the planet are living with chronic viral hepatitis B and more than 170 million are living with chronic hepatitis C but there is an astonishing lack of awareness and in some countries political will to tackle these diseases.

"Many experts refer to viral hepatitis as a hidden epidemic; our aim is to make sure it does not become a forgotten epidemic."

Marking the first ever international World Hepatitis Day, the World Hepatitis Alliance today launched "The Hepatitis Atlas: Completing the Data Map" – a resource designed to become the first global public compendium of statistics and information relating to chronic viral hepatitis B and C. The Hepatitis Atlas has been launched as a result of the shocking lack of up-to-date global statistics relating to the two viruses.

Helen Tyrrell, CEO of Hepatitis Australia, said the current lack of data available globally means that many governments are simply working in the dark.

"There is an urgent need to ensure chronic viral hepatitis B and C are high up on healthcare agendas both in Australia and around the globe. Taking action to curb hepatitis B and hepatitis C now rather than later has economic benefits, lessens the burden on our health system and is the most socially responsible course of action" said Ms. Tyrrell.

Hepatitis Australia has joined its World Hepatitis Alliance colleagues in asking the Australian Government to sign up to 12 Asks for 2012 aimed at combating chronic viral hepatitis B and C. The 12 Asks are a series of requests for commitment from the Government to recognise the significant impact of the disease and in Australia and the importance of adopting measures that address the issue from a public health perspective.

In Australia, it is estimated 90,000 to 160,000 people are living with chronic hepatitis B, and 200,000 people are living with chronic hepatitis C. These numbers are growing annually.

“The challenge for viral hepatitis is to make healthcare authorities and policy makers aware that this disease, if not tackled today, will be a major burden in the next 20 years as today’s patients will develop liver cancer. It is better to act today than be unable to react tomorrow,” said Professor Greg Dore, Head of the Viral Hepatitis Clinical Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, and one of 12 members of the World Hepatitis Alliance Public Health Panel.

Professor Dore added, “Increased awareness and understanding of the public health impact of chronic viral hepatitis is required to mobilise action on proven prevention and care strategies. Awareness raising will promote advocacy, improve global funding, and reduce the stigma and discrimination that affect many people with chronic viral hepatitis.”

Numerous education and awareness activities will be held around the nation aimed at increasing the knowledge and understanding of health care professionals, community workers, Aboriginal health care workers, policy makers and government.

Check the Hepatitis Australia website [www.hepatitisaustralia.com](http://www.hepatitisaustralia.com) for listing of events in various states.

### **Did You Know?**

- 500 million people worldwide are currently living with chronic hepatitis B or C
- The number of people living with chronic hepatitis is more than 10 times the number living with HIV/AIDS
- Between them, chronic hepatitis B and C kill 1.5 million people a year
- One in every three people on the planet has been exposed to either or both viruses
- Most of the 500 million with chronic viral hepatitis do not know they are infected
- World Hepatitis Day

World Hepatitis Day is observed on Monday 19 May and marks a brand new, entirely community led initiative. The 2008 World Hepatitis Day campaign theme is “Am I Number 12?,” a concept designed to communicate the shocking statistic that one in 12 people worldwide are living with either hepatitis B or hepatitis C. Despite the fact 500 million people worldwide are affected by viral hepatitis, awareness remains inexplicably low. World Hepatitis Day aims to raise awareness of chronic viral hepatitis B and C globally and encourage people to get tested.

### **World Hepatitis Alliance**

World Hepatitis Day is coordinated by the World Hepatitis Alliance, a newly established Non-Governmental Organisation representing more than 200 hepatitis B and hepatitis C community and patient groups from around the world. The World Hepatitis Alliance is governed by a representative board of patient and community groups from seven world regions: Europe, Eastern Mediterranean, North Africa, North America, South America, Australasia and Western Pacific. For more information visit [www.worldhepatitisday.com](http://www.worldhepatitisday.com) on Monday 19 May.

### **Hepatitis Australia**

Hepatitis Australia was incorporated in 1997 as the peak community organization to progress national action on issues of importance to people affected by hepatitis C. Our mission is to provide leadership and advocacy on viral hepatitis and support partnerships to ensure the needs of Australians affected by or at risk of viral hepatitis are met. Our members are the eight state and territory councils.

*World Hepatitis Day is endorsed by the following organisations:*

The Pharmacy Guild of Australia | National Aboriginal Community Controlled Health Organisation | The Royal Australian College of General Practitioners | Australasian Hepatology Association | Association of Prevention and Harm Reduction Programs Australia | Australian Injecting & Illicit Drug Users League | Australian Research Centre in Sex, Health and Society, Australasian Society for HIV medicine | Australian Chinese Medical Association | Hepatitis C Resource Centre Te Waipounamu | Multicultural HIV/AIDS and Hepatitis C Service | National Centre in HIV Social Research | Public Health Association Australia | Haemophilia Foundation Australia | National Centre in HIV Epidemiology and Clinical Research | Australian Liver Association

**May 19<sup>th</sup>, 2008**

## ***Disease hierarchy; AIDS drugs get big funding, but hepatitis B lingers in obscurity***

<http://www.thesudburystar.com>

Posted By Christina Blizzard

It's largely unknown, greatly misunderstood and if diseases were families, hepatitis B would be an orphan.

Worse, says liver specialist Dr. Morris Sherman, doctors don't have access to the best drugs available to treat hepatitis B patients.

In Ontario, and in some other parts of the country, we do not have access to the most appropriate drugs to treat hepatitis B because the Common Drug Review (CDR) has decided, in their wisdom, that they would not approve it.

(Set up in 2002 in an attempt to standardize input to public drug plan listing decisions, health ministries across the country - except Quebec - established the CDR process for new drugs. It's administered by the Canadian Agency for Drugs and Technologies in Health.)

Sherman said some of the drugs that are most effective in treating hepatitis B haven't been approved, or have such onerous restrictions placed on them that many patients who need the drugs aren't getting them.

If they were HIV drugs we were talking about, there would be an effective HIV lobby and the government would be pressured to approve them, he said.

The government cannot set a cost effectiveness bar at, say, \$50,000 for one disease - HIV - and then set a different standard for hepatitis B because there may be more patients, Sherman said.

"If \$50,000 per year per life is too expensive for the province, fine, but then they have to reduce that bar for all diseases, not just hepatitis B."

It's tough to know exactly how many hepatitis B patients there are as it can go undiagnosed for many years. In this province it's estimated there are 150,000 to 200,000 sufferers.

Like its more infamous relative, hepatitis C, hepatitis B is a viral liver disease.

Most patients are found in urban areas and most are immigrants who were infected in their native country. The disease is prevalent in Southeast Asia, the Mideast, Hong Kong and China.

It is usually spread from mother to child or between young children at an early age.

In adults it is often sexually transmitted.

About 20 per cent of men who have untreated hepatitis B will go on to get liver cancer.

An associate professor of medicine at U of T, Sherman chairs the Canadian Viral hepatitis Network and is president of the Canadian Association for Study of the Liver.

Last year, those groups produced a document on the management of hepatitis B, which was sent to the CDR and has so far been ignored. Until recently, the two drugs of choice used to treat the disease were Interferon and Lamivudine - and they work in different ways.

The problem with Lamivudine is that it isn't highly potent and patients develop resistance to it very quickly. After five years, 75 per cent of patients who've been put on the drug are resistant to it.

During the past two years, new drugs have been introduced that have lower rates of resistance.

Three drugs, Tenofovir, Entecavir and Adefovir are all more effective, but the CDR has approved them only with restrictions and Entecavir is still being considered for approval on the provincial formulary.

"For practical purposes, we are stuck with Lamivudine for the majority of our patients, despite the evidence of ineffective use and despite the risk of resistance," Sherman said. "We are tearing our hair out as to how to improve it."

Cost may be one reason why the drugs have not been approved. Entecavir is about \$22 a day. Tenofovir about \$16 a day. Lamivudine, by contrast, costs only \$5 a day.

Still, Sherman says studies show the new drugs are cost effective in the long run.

A spokesman for Health Minister George Smitherman said Tenofovir is approved for HIV-AIDS use but a doctor who wants to use it for a hepatitis B patient must apply under the "exceptional access" mechanism. Laurel Ostfield said Entecavir isn't listed on the provincial formulary of drugs approved for funding.

"The drug manufacturer has submitted his request for funding by the government," she said.

That request was reviewed last December and the committee is finalizing its recommendation to the executive officer, who will make a decision once she receives that report.

Meanwhile, these hepatitis orphan patients - and their doctors - are waiting for someone to cut the red tape and get them the drugs they so desperately need.

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## ***Pharmasset chooses lead hepatitis C drug candidate***

<http://biz.yahoo.com>

PRINCETON, N.J. (AP) -- Clinical-stage pharmaceutical company Pharmasset Inc. said Monday that it has selected **PSI-7851**, a preclinical drug for treatment of hepatitis C virus, as its lead candidate for treatment of the disease.

The company anticipates filing an investigational new drug application for PSI-7851 with regulators in the first quarter of 2009.

Pharmasset has another hepatitis C virus candidate, R7128, in partnership with Roche AG that is in early stage development. In lab tests, PSI-7851 was found to have 15 to 20 times greater potency than R7128.

**May 20<sup>th</sup>, 2008**

## ***20,000 may be infected with 'silent killer' of Hepatitis C***

<http://www.independent.ie/>

By Breda Heffernan

UP to 20,000 Irish people may be infected with the "silent killer" Hepatitis C -- with the vast majority having no idea until it's too late, according to health campaigners.

Over 1,600 people tested positive for Hep C last year, up by almost a third from in 2006.

The number of cases of hepatitis worldwide far exceeds that of HIV yet, worryingly, most Irish people are unaware of its prevalence or how it can be transmitted. Hepatitis is caused by a virus, A, B or C, that attacks the liver and can lead to cirrhosis, liver failure and, in some cases, death. It can lie dormant for many years before the first symptoms start to emerge.

Launching World Hepatitis Day in Dublin yesterday, campaigners said there is still a stigma attached to the disease with most people believing it is only transmitted through the sharing of needles by drug addicts.

### **Tattoos**

In fact people from all walks of life can become infected through everyday actions such as sharing personal items, including toothbrushes and razors, or getting tattoos or body piercings

with infected needles. Hep C can be passed from mother to child during childbirth, while Hep B can be contracted through sexual contact.

Olivia Carr, spokesperson for the Blood Borne Virus Forum, a group of voluntary and statutory agencies, said: "People should consider being tested if they have ever injected illicit drugs, even once in the distant past; had a tattoo or body piercing using an unsterilised needle, or are uncertain about the sterility of a tattoo or body piercing they received; or if they lived in or received medical treatment in a country with high rates of hepatitis.

"Most people are not aware they have hepatitis until they become chronically ill. Education is essential to increase knowledge on the methods of prevention, as without knowledge we are all at risk."

In 2005, Ireland had the highest rate of reported cases of Hep C of all EU member states who provided data. According to the Health Protection Surveillance Centre, three people tested positive for Hep B and 24 people for Hep C each week during 2006.

People infected with Hep C typically experience liver damage over 10 to 50 years. Symptoms include chronic fatigue, loss of appetite, muscle and joint pains, anxiety or depression and tenderness in the upper-right area of the abdomen. However, many with this strain may not experience any symptoms at all.

### ***Hepatitis C-Positive Patients Treated With Rituximab Are at Increased Risk of Liver Toxicities: Presented at IM***

<http://www.docguide.com>

By Crina Frincu-Mallos, PhD

WASHINGTON, DC -- May 19, 2008 -- The use of **rituximab**, a monoclonal antibody used for the treatment of Non-Hodgkin's Lymphoma (NHL), resulted in major liver toxicity in Hepatitis C-positive patients, according to research reported here at the 2008 Internal Medicine Annual Scientific Meeting (IM).

Rituximab is an effective therapy in patients with NHL, other B-cell malignancies, and autoimmune diseases, such as immune thrombocytopenic purpura (ITP). However, its use has been associated with Hepatitis B reactivation resulting in hepatic failure, as well as with fatal viral infections with varicella zoster, herpes simplex virus, cytomegalovirus, or parvovirus B19.

"Data on the effects of rituximab on patients with Hepatitis C [are] limited," explained lead author Mustapha Ali Khalife, MD, Associate Internist, Henry Ford Hospital, Detroit, Michigan, in a poster presentation here on May 15.

Dr. Khalife and colleagues performed a retrospective analysis, looking at the hospital records of 635 patients treated with rituximab between 1998 and 2006. After eliminating records where the patient's Hepatitis C serology status was unavailable or negative, the investigators were left with 23 patients.

Of the total 23 patients, 12 patients with positive Hepatitis C serology received rituximab as a

single agent, while 11 patients were treated with rituximab in combination with chemotherapy.

Patients received treatment with rituximab, either single agent or in combination for NHL (n = 17), ITP (n = 2), thrombotic thrombocytopenic purpura (TTP) (n = 2), chronic lymphocytic leukemia (CLL) (n = 1), and Felty's syndrome (n = 1).

"Hepatic events were defined as increases of transaminases more than twice the upper limit of normal range, increases in the Hepatitis C viral load, and deaths due to liver failure and attributed to rituximab," said Dr. Khalife.

Out of the 23 patients with hepatitis C viral load, 11 patients experienced increases in transaminases. Of these 11 patients, 18% (n = 2) had transaminitis (pancreatitis, liver metastasis) while 45% (n = 5) were chemotherapy-related. "No specific etiology was determined for the rest [n = 4]," said Dr. Khalife. The mean time to elevation of transaminases in the 11 patients was 6.8 +/- 5.3 months.

Investigators used computer tomography (CT) scans, taken at baseline and at various timepoints during treatment, to assess worsening signs of cirrhosis.

Two patients with normal liver CT scans, prior to receiving the first dose of rituximab, developed signs of liver cirrhosis, according to CT scans taken at 12 and 48 months.

There were 2 deaths attributed to liver failure, a hepato-renal syndrome and a hepatic encephalopathy, occurring respectively at 53 and 9 months after the start of the treatment, noted the investigators.

Dr. Khalife and his colleagues concluded that the high incidence of liver events in hepatitis C-positive patients receiving rituximab demands a close follow-up of viral loads and transaminase levels.

Further randomised studies are needed to assess the contributions of the hepatitis C virus itself, rituximab alone, and chemotherapy for the development of liver toxicities, added the investigators.

*[Presentation title: High Incidence of Hepatic Events in Patients With Hepatitis-C Treated With Rituximab. Abstract RPF#33]*

## ***Transgene upbeat over hepatitis C vaccine product***

<http://www.reuters.com/>

PARIS, May 19 (Reuters) - French biotechnology company Transgene (TRNG.PA: Quote, Profile, Research) said on Monday that its hepatitis c virus (HCV) therapeutic vaccine **TG4040** product had delivered promising Phase I results.

Transgene said in a statement that a preliminary analysis showed that the product had a "favourable safety profile".

"These results, despite their preliminary and partial nature, are very encouraging and indicate that TG4040 is active against hepatitis C," said Chief Executive Philippe Archinard.

Transgene shares closed up 7 percent at 17.65 euros, giving the company a stock market value of around 390 million euros (\$608.3 million).

(Reporting by Sudip Kar-Gupta, editing by Elizabeth Fullerton)

## ***Pegasys/Copegus Show Benefit in Hard-to-Treat Latino Population with Hepatitis C***

<http://pharmalive.com>

*- Largest prospective study in under-treated and under-studied population (The LATINO Study) provides important insights -*

SAN DIEGO, Calif., May 18, 2008 /PRNewswire/ -- Roche today announced results from the LATINO study, the largest prospective study to evaluate the response of Latino whites infected with genotype 1 hepatitis C virus (HCV) to combination therapy with pegylated interferon plus ribavirin. The results showed PEGASYS(R) (peginterferon alfa-2a) in combination with COPEGUS(R) (ribavirin) was beneficial in this hard-to-treat population. These data were presented today at the 39th Annual Digestive Disease Week(R) (DDW(R)) in San Diego, CA.

The results showed that 33.5 percent (90/269) of the Latino patients achieved sustained virological response (SVR) when treated with PEGASYS plus COPEGUS. In comparison, 49.3 percent (148/300) of patients in the non-Latino group achieved SVR, a difference of 15.8 percent, highlighting that Latino patients with hepatitis C are more difficult to treat ( $p < 0.0001$ ). SVR was defined as undetectable HCV RNA 24 weeks after the end of treatment. Additionally, the data provided important information about factors that may predict SVR for Latino patients with hepatitis C.

The study was conducted to help gain a better understanding of hepatitis C treatment in a patient population that has been under-represented in clinical trials and has been known to have lower sustained SVR rates than non-Latino whites.

"We know that Latino patients with hepatitis C face different challenges when treating this disease. It has been reported that Latinos have more aggressive inflammatory activity and fibrosis progression rates than in non-Latino whites," said Maribel Rodriguez-Torres, M.D., of the Fundacion de Investigacion de Diego in Puerto Rico. "Data from studies like LATINO are important for gaining a better understanding about how patients will respond to treatment and for developing culturally-specific education programs and treatment regimens."

The LATINO study also provided information about factors associated with achieving SVR among the Latino patients who participated in this study. This information is important because it may lead to ways for healthcare professionals to better treat Latino patients.

"Roche is committed to advancing the understanding of the treatment of hepatitis C in all patient communities and we felt it was important to conduct a study like LATINO, the first ever

prospective trial evaluating hepatitis C treatment response in the Latino population," said Steven C. Sembler, vice president of Commercial Operations, Roche. "These data not only deepen our understanding of PEGASYS in treating hepatitis C, they also provide insight into ways to evaluate new treatment strategies that address the needs of the Latino hepatitis C community."

Specific factors associated with achieving SVR among Latino patients in this study included low baseline levels (less than or equal to 3X the upper limit of normal [ULN], odds ratio [OR] 1.786, P=0.0797) of alanine aminotransferase (ALT), a liver enzyme; low baseline HCV RNA (less than or equal to 400,000 IU/mL [OR 2.617, p=0.0080]) and non-cirrhosis classification (OR 2.130, p=0.0959). Factors associated with achieving SVR in non-Latino whites included male sex (OR 1.95, p=0.0664), high ALT (>3X ULN, OR 2.330, p=0.0126) and low baseline HCV RNA levels (OR 3.108, p=0.0016).

### **About LATINO**

The LATINO study, a prospective, multicenter, open-label, non-randomized trial, was designed to compare the efficacy of PEGASYS plus COPEGUS in 269 Latino whites versus 300 non-Latino whites between the ages of 18 and 65 infected with HCV genotype 1. All patients were treatment naive and were treated with PEGASYS 180 mcg/wk plus COPEGUS 1,000 or 1,200 mg/wk for 48 weeks.

In the LATINO study, combination therapy with PEGASYS plus COPEGUS was generally safe in both populations with the expected number of adverse events reported. There were no differences in the percent of withdrawals between the groups for safety reasons.

### **About Digestive Disease Week**

DDW is the largest international gathering of physicians, researchers and academics in the fields of gastroenterology, hepatology, endoscopy and gastrointestinal surgery. Jointly sponsored by the American Association for the Study of Liver Diseases, the American Gastroenterological Association (AGA) Institute, the American Society for Gastrointestinal Endoscopy and the Society for Surgery of the Alimentary Tract, DDW takes place May 17-22, 2008, at the San Diego Convention Center, San Diego, CA. The meeting showcases approximately 5,000 abstracts and hundreds of lectures on the latest advances in GI research, medicine and technology. For more information, visit [www.ddw.org](http://www.ddw.org).

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### ***U.S. seeks new hepatitis blood donation rules***

<http://news.yahoo.com>

By Susan Heavey

WASHINGTON (Reuters) - U.S. health officials are seeking to relax blood donation rules for

some people who initially tested positive for hepatitis B, which could clear hundred of thousands of new donors, according to documents released on Tuesday.

People whose blood showed signs of the liver-swelling virus after repeated tests are currently banned from ever donating blood, even if medical tests later showed they were not infected.

But in a draft proposal, the U.S. Food and Drug Administration (FDA) said that a new, more specific test could help determine whether donors who initially fail a first test are truly infected and suggested they be allowed to give blood after an 8-week waiting period.

While the FDA said chances of someone repeatedly testing falsely positive for hepatitis might seem rare, older less specific tests that checked for antibodies to hepatitis B core antigen, or anti-HBc, kept many possible donors from giving blood.

"It is estimated that as many as 21,500 potentially eligible donors were deferred annually in the late 1980s and 1990s because of false positive anti-HBc results," the FDA said, adding that more than "200,000 donors could be eligible for reentry."

Health organizations praised the looser rules.

"We hope this will bring back donors who meet the criteria," said Mack Benton, spokesman for America's Blood Centers.

American Red Cross spokeswoman Stephanie Millian said the group supported the change, which could help bring in between 100,000 and 300,000 previously rejected donors if they can be located.

Potential blood donors are closely screened for hepatitis and other infections such as the AIDS virus as well as drug use and other risky behaviors to prevent the spread of disease.

The proposal would not change a current ban on donations from people who have had hepatitis.

Hepatitis B is transmitted through blood and other body fluids and can cause jaundice, muscle aches, nausea, fatigue and, in rare cases, liver failure.

Initial symptoms can clear up after a few weeks, but it can take up to six months for patients to fully recover from a serious bout. Some patients can also develop a chronic case of hepatitis.

The FDA is seeking public comments on its proposal before making it final. The draft is posted on its Web site at <http://www.fda.gov/cber/gdlns/reentrybld.htm> .

(Reporting by Susan Heavey; editing by Cynthia Osterman)

## ***Globelimmune Announces Completion of Planned Enrollment for GI-5005-02 Phase 2 Trial in Chronic Hepatitis C Patients***

<http://biz.yahoo.com>

LOUISVILLE, CO--(MARKET WIRE)--May 20, 2008 -- GlobeImmune, Inc. announced today completion of the planned enrollment of 120 subjects in a Phase 2 clinical trial to evaluate the **GI-5005 Tarmogen®** for the treatment of patients with chronic hepatitis C infection. GI-5005 is being evaluated as a potential therapy in combination with standard of care; pegylated interferon plus ribavirin.

The Phase 2 clinical trial is a randomized, open-label, multi-center trial evaluating GI-5005 in combination with full duration standard of care, versus standard of care alone in patients with chronic genotype 1 hepatitis C infection who are either treatment-naïve or non-responders to previous therapy. Endpoints for the trial include improvement in early virologic response (EVR), HCV RNA kinetics, alanine aminotransferase (ALT) levels, the primary biochemical marker of liver damage, end of treatment response (ETR), sustained virologic response (SVR), serum markers of liver fibrosis / necrosis, and liver biopsy. This study has enrolled the planned target of 120 patients in five months at 40 centers in the U.S., India and Europe.

#### **About GI-5005**

GI-5005 is GlobeImmune's lead infectious disease product candidate for the treatment of chronic hepatitis C infection. GI-5005 is whole, heat-killed recombinant yeast genetically modified to express HCV-specific protein targets. The mechanism of action for GI-5005 (i.e. T cell-mediated elimination of infected hepatic cells) may work synergistically in combination with the current or emerging standard of care, which directly inhibits viral replication, to more effectively eradicate hepatitis C virus from the liver. Additionally, this mechanism of action may offer an option for interferon-intolerant or interferon-contraindicated patients as a long term monotherapy.

#### **About GlobeImmune, Inc.**

GlobeImmune is a private Colorado-based company developing active immunotherapies called Tarmogens for the treatment of cancer and infectious diseases. The Company's lead product candidate, GI-5005, is a Tarmogen being developed for the treatment of chronic hepatitis C infection. The Company has completed enrollment of a randomized Phase 2 trial of GI-5005 in combination with the current standard of care. GI-5005 is designed to complement both the current and emerging standard of care for hepatitis C infection through the direct elimination of chronically infected cells. The Company's lead oncology program, GI-4000, is designed to be a treatment for cancers of the lung and gastrointestinal tract. A randomized, placebo-controlled Phase 2 trial in patients with resectable pancreas cancer in combination with adjuvant gemcitabine is ongoing. Additionally, a Phase 2 trial in NSCLC subjects is ongoing at Memorial Sloan Kettering Cancer Center.

For additional information, please visit the company's website at [www.globeimmune.com](http://www.globeimmune.com)

*Source: GlobeImmune, Inc.*

### ***Hepatitis B Foundation and AAPCHO Sponsor Congressional Briefing on 'Zero Tolerance for Hepatitis B'***

<http://news.yahoo.com>

DOYLESTOWN, Pa., May 20 /PRNewswire-USNewswire/ -- Recognizing National Hepatitis B Awareness Week May 19 - 23, 2008, the Hepatitis B Foundation and the Association of Asian



Pacific Community Health Organizations (AAPCHO) is hosting a Congressional briefing, "Zero Tolerance for Hepatitis B: the Health Needs of Women and Children," on May 20 at the U.S. Capitol with special guests Congressmen Mike Honda (CA) and Charles Dent (PA). It will call urgent attention to the health needs of pregnant women infected with hepatitis B and the protection of their newborns against this deadly virus. Patients and experts from the CDC and Johns Hopkins University Hospital have been invited to testify.

"With the availability of an effective vaccine and six approved therapies for chronic hepatitis B, no woman or child should be left behind," says Dr. Timothy Block, co-founder and president, Hepatitis B Foundation. With good vaccines and treatment options, the U.S. has the tools to effectively implement a zero tolerance policy against hepatitis B to protect the health of Americans.

Hepatitis B is the deadliest disease that can be prevented through infant vaccination. In the U.S., approximately 20,000 babies are born yearly to women with hepatitis B. Despite a national requirement that all newborns be vaccinated at birth against the hepatitis B virus (HBV), up to 1,500 newborns are chronically infected with HBV. Twenty-five percent will die prematurely from liver failure or cancer, usually in the prime of their adult lives.

There are national guidelines requiring all pregnant women be tested for hepatitis B and recommendations to educate and refer infected women to care. Local and state health departments lack necessary resources to implement the recommendations. According to Jeff Caballero, executive director, AAPCHO, "This gap in care results in jeopardizing the health of these infected women and continues the devastating cycle of maternal HBV transmission between mother and her newborn."

Hepatitis B is the world's most serious common liver infection transmitted through blood, sex, drug use, and from an infected woman to her newborn. It is the primary cause of liver cancer, which is the fastest growing cancer in the U.S. Worldwide, one million people die from hepatitis B each year.

Guest speakers at the May 20 Congressional briefing include Dr. Kathleen Schwarz, director, Pediatric Liver Center, Johns Hopkins University School of Medicine; Dr. Mack Mitchell, chief, Division of Gastroenterology, Johns Hopkins Bayview Medical Center; Dr. Chong Gee Teo, chief, Laboratory Branch, Division of Viral Hepatitis, CDC; Mr. Ted Fang, director, AsianWeek Foundation; and personal testimonies from California Assemblywoman Fiona Ma and Lucy C.

Hepatitis B Foundation is dedicated to finding a cure and improving the quality of life for those affected with hepatitis B worldwide. <http://www.hepb.org> .

Association of Asian Pacific Community Health Organizations represents community health organizations dedicated to the health of Asian Americans. <http://www.aapcho.org> .

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*SOURCE Hepatitis B Foundation*

## **Romark Laboratories Completes Enrollment in U.S. Phase II Study of Nitazoxanide for Chronic Hepatitis C Genotype 1 Non-Responders**

<http://www.earthtimes.org>

TAMPA, Fla., May 21 /PRNewswire/ -- Romark Laboratories, L.C., a privately-owned biopharmaceutical company, today announced the completion of enrollment into its Phase II clinical trial to evaluate the safety and efficacy of **nitazoxanide** in combination with standard of care therapy in U.S. patients with chronic hepatitis C genotype 1 who have previously failed to respond to the standard of care therapy (peginterferon and ribavirin). The company expects to announce interim data results at a medical meeting this fall. Romark recently announced the initiation of a Phase II trial of nitazoxanide in treatment-naïve patients with chronic hepatitis C infected with genotype 1 (STEALTH C-3).

"Completing enrollment in this Phase II trial is a significant achievement for Romark and an important step in the clinical development of nitazoxanide," stated Marc Ayers, Chief Executive Officer of Romark. "We believe nitazoxanide represents a promising approach to the treatment of hepatitis C for the millions of people who are infected with this serious liver disease."

The study, called STEALTH C-2 (Studies to Evaluate Alinia for Treatment of Hepatitis C), is the second in a series of clinical trials designed to evaluate the safety and efficacy of nitazoxanide tablets in combination with Pegasys(R) (peginterferon alfa-2a) or peginterferon and Copegus(R) (ribavirin) in patients with chronic hepatitis C. STEALTH C-2 is a randomized, double-blind, placebo-controlled trial conducted in the United States in 60 patients with chronic hepatitis C genotype 1, who are non-responders to prior peginterferon and ribavirin therapy. The study is designed to evaluate the effectiveness and safety of nitazoxanide administered 500 mg twice daily for four weeks followed by nitazoxanide plus Pegasys plus Copegus combination therapy for 48 weeks, compared to placebo for four weeks followed by placebo plus Pegasys plus Copegus combination therapy for 48 weeks. Pegasys and Copegus are being provided under a collaborative agreement between Romark and F. Hoffmann-La Roche Ltd.

Romark recently announced enrollment for its STEALTH C-3 clinical trial, a Phase II randomized, double-blind, placebo-controlled study designed to evaluate the safety and efficacy of nitazoxanide in combination with peginterferon alfa-2a and ribavirin in treatment naïve patients with chronic hepatitis C infected with genotype 1. Enrollment for the STEALTH C-3 study began in April 2008 and the trial will enroll 60 patients at 15 centers in the U.S.

The primary objective of STEALTH C-3 is to evaluate sustained virologic response (SVR) with a treatment regimen of 4 weeks of nitazoxanide lead-in therapy followed by 48 weeks of standard of care plus nitazoxanide versus 4 weeks of placebo lead-in followed by 48 weeks of standard of care and placebo.

### **About Nitazoxanide**

Nitazoxanide belongs to a new class of small molecule kinase activators called the thiazolides. Like interferons, thiazolides modulate cell signaling pathways involved in the host cell's innate defense against viruses. Thiazolides can be administered orally and are not associated with side effects commonly associated with use of interferon. Nitazoxanide was discovered by Jean-

Francois Rossignol, M.D., Ph.D., Chairman and Chief Science Officer of Romark, and was initially developed by Romark and approved for marketing in the United States as a treatment for cryptosporidiosis. Recent laboratory studies have shown that nitazoxanide does not induce resistance mediated by mutations in the viral genome.

#### **About Romark Laboratories**

Romark Laboratories ([www.romark.com](http://www.romark.com)), a privately held biopharmaceutical company, has discovered and developed a new class of small molecule antivirals known as thiazolides. The Company is developing nitazoxanide, the first of the thiazolide class, for the treatment of chronic hepatitis C, and is developing other new thiazolides for treating viral diseases including chronic hepatitis B. Alinia(R) (nitazoxanide) is approved by the U.S. Food and Drug Administration and marketed by Romark for the treatment of infections caused by *Cryptosporidium* or *Giardia*.

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*SOURCE Romark Laboratories, L.C.*

### **Schering-Plough To Initiate Phase III Studies With HCV Protease Inhibitor Boceprevir in Previously Untreated Hepatitis C Patients and Those Who Failed Prior Treatment**

<http://www.examiner.com>

KENILWORTH, N.J., May 21 /PRNewswire-FirstCall/ -- Schering-Plough Corporation (NYSE: SGP), a leader in hepatitis research, today announced that it is initiating two large Phase III studies of **boceprevir**, its investigational oral hepatitis C protease inhibitor, in patients chronically infected with hepatitis C virus (HCV) genotype 1. One study will be in previously untreated (naive) patients and the other in patients who failed prior treatment (relapsers and nonresponders), an area of great unmet medical need. The two randomized, double-blind, placebo-controlled studies will evaluate the efficacy of boceprevir in combination with PEGINTRON(TM) (peginterferon alfa-2b) and REBETOL(R) (ribavirin, USP) compared to standard of care with PEGINTRON and REBETOL alone. The Company said the two pivotal studies will run concurrently and are projected to enroll a total of more than 1,400 patients at U.S. and international sites.

"We are excited to advance to Phase III clinical studies with boceprevir in combination with PEGINTRON and REBETOL," said Fred Poordad, M.D., chief of hepatology in the division of gastroenterology at Cedars-Sinai Medical Center, associate professor of medicine at the David Geffen School of Medicine, University of California, Los Angeles (UCLA), and co-principal investigator of the Phase III study in naive patients. "These studies are designed to demonstrate that this combination therapy has the potential to benefit a broad range of patients by significantly increasing sustained response rates with a potentially shorter course of treatment."

In both Phase III clinical studies, patients will receive 4 weeks of treatment with PEGINTRON

and REBETOL prior to the addition of boceprevir. The rationale for this novel treatment paradigm is based on the fact that both PEGINTRON and REBETOL reach steady-state concentrations by week 4, so patients have the protease inhibitor added at a time when the backbone drug levels have been optimized. In addition, the patient's immune system will have been activated and primed by PEGINTRON at the time that boceprevir is added to the regimen. This approach may minimize the period of time when there is a "functional monotherapy" with a direct antiviral, and may help reduce the likelihood for the development of resistance by identifying patients who are responders to interferon and ribavirin prior to their receiving a protease inhibitor.

### **Pivotal Study in Previously Untreated (Naive) Patients**

The primary objective of this pivotal study, known as HCV SPRINT-2 (HCV Serine Protease Inhibitor Therapy-2), is to evaluate the efficacy of 28- and 48-week regimens of boceprevir (800 mg TID) in combination with PEGINTRON (1.5 mcg/kg/week) and REBETOL (600-1400 mg/day) compared to a control of PEGINTRON and REBETOL alone for 48 weeks in previously untreated (naive) adult patients with chronic HCV genotype 1. The study is projected to enroll a total of more than 1,000 patients, including a minimum of 150 African-American/Black patients.

In this study, in the 28-week treatment arm, rapid viral response (RVR) criteria at 4 weeks of boceprevir treatment (treatment week 8) will be used to determine which boceprevir patients can stop all treatment at 28 weeks. Patients in the 28-week boceprevir arm who achieve RVR, defined as undetectable virus (HCV-RNA) in plasma at week 4 of boceprevir treatment, will stop all treatment at week 28. Patients who do not meet the RVR criteria will stop boceprevir treatment at week 28 and continue PEGINTRON and REBETOL alone for an additional 20 weeks, for a total treatment duration of 48 weeks. In the 48-week treatment arm, patients will receive PEGINTRON and REBETOL plus boceprevir for a total treatment duration of 48 weeks. Patients in any arm of this study with detectable virus at week 24 will be considered treatment failures and will discontinue treatment.

The primary efficacy endpoint of the study is sustained virologic response (SVR).(1) Secondary efficacy endpoints include early virologic response in patients who achieve SVR. The study will be stratified by HCV genotype 1 subtype 1a versus 1b, and baseline viral load.

Professor Jean-Pierre Bronowicki, M.D., Ph.D., department of hepato-gastroenterology, University Hospital of Nancy, France, and Jonathan McCone, M.D., director, Mount Vernon Endoscopy Center, Alexandria, Va., are the other co-principal investigators of this study.

### **Pivotal Study in Patients Who Failed Prior Treatment**

The primary objective of this pivotal study, known as HCV RESPOND-2 (Retreatment with HCV Serine Protease Inhibitor Boceprevir and PEGINTRON/REBETOL) is to evaluate the efficacy of 36- and 48-week regimens of boceprevir (800 mg TID) in combination with PEGINTRON (1.5 mcg/kg/week) and REBETOL (600-1400 mg/day) compared to a control of PEGINTRON and REBETOL alone for 48 weeks in adult patients with chronic HCV genotype 1 who failed prior treatment with peginterferon and ribavirin combination therapy. The study is projected to enroll a total of 375 patients.

This study will enroll treatment-failure patients who have documented previous interferon

responsiveness by achieving at least a 2 log decrease in viral load by week 12 of peginterferon and ribavirin therapy (nonresponders) or who were viral negative at end of peginterferon and ribavirin therapy, but did not obtain a sustained virologic response (relapsers). 'Null' responders - those patients who do not meet the aforementioned criteria -- will not be enrolled in this study.

In this study, in the 36-week treatment arm, RVR criteria at 4 weeks of boceprevir treatment (treatment week 8) will be used to determine which boceprevir patients can stop all treatment at 36 weeks. Patients in the 36-week boceprevir arm who achieve RVR, defined as undetectable virus (HCV-RNA) in plasma at week 4 of boceprevir treatment, will stop all treatment at week 36. Patients who do not meet the RVR criteria will stop boceprevir treatment at week 36 and continue on PEGINTRON and REBETOL alone for an additional 12 weeks, for a total treatment duration of 48 weeks. In the 48-week treatment arm, patients will receive PEGINTRON and REBETOL plus boceprevir for a total treatment duration of 48 weeks. Patients in any arm of the study with detectable virus at week 12 will be considered treatment failures and will discontinue treatment.

The primary efficacy endpoint of the study is SVR.(1) Secondary efficacy endpoints include early virologic response in patients who achieve SVR. The study will be stratified by response to prior peginterferon and ribavirin therapy -- patients who achieved undetectable HCV-RNA (relapsers) versus those who did not (nonresponders) -- and by HCV genotype 1 subtype 1a versus 1b.

Bruce R. Bacon, M.D., James F. King M.D. Endowed Chair in Gastroenterology, professor of internal medicine, and director, gastroenterology and hepatology, Saint Louis University School of Medicine, and Professor Rafael Esteban-Mur, M.D., head of internal medicine and liver unit, Hospital Universitario Val D'Hebron, Barcelona, Spain, are the co-principal investigators of this study.

### **Boceprevir Clinical Development**

Schering-Plough recently reported that results from a planned interim analysis of an ongoing Phase II study of boceprevir in 595 treatment-naïve patients with chronic HCV genotype 1 were presented at the 43rd Annual Meeting of the European Association for the Study of the Liver (EASL).(2) The ongoing study, known as HCV SPRINT-1, evaluates boceprevir in 28- and 48-week treatment regimens.

In a 28-week treatment regimen in which patients received 4 weeks of PEGINTRON and REBETOL prior to the addition of boceprevir (800 mg TID), the rate of sustained virologic response at 12 weeks after the end of treatment (SVR 12) was 57 percent (ITT).(3-5) Importantly, this treatment regimen provided an indication of early predictability of response, with patients who had undetectable virus (HCV-RNA) in plasma after 4 weeks of boceprevir treatment achieving an SVR 12 rate of 86 percent. SVR rates are not yet available for patients in the 48-week boceprevir arms or the 48-week control arm, as treatment of these patients is ongoing.

In boceprevir clinical studies reported to date, the most common adverse events have been the same as those seen with PEGINTRON and REBETOL alone: fatigue, anemia, nausea and headache. Patients have been exposed to up to 56 weeks of boceprevir combination therapy. No increase in skin adverse events (rash or pruritus) beyond what was seen in the PEGINTRON and

REBETOL control arm was observed.

**Endnotes:**

(1) SVR, the protocol specified primary efficacy endpoint, is defined as achievement of undetectable HCV-RNA at 24 weeks after the end of treatment. Per protocol, if a patient does not have a 24-week post-treatment assessment, the patient's 12-week post-treatment assessment will be utilized.

(2) Kwo et al., EASL 2008, p. 372; Oral Presentation.

(3) SVR 12 is defined as undetectable HCV-RNA in plasma at 12 weeks after the end of treatment. The protocol specified primary efficacy endpoint of the HCV SPRINT-1 study is SVR as defined above.

(4) Intention-To-Treat (ITT) analysis includes any patient who has taken at least one dose of any study drug.

(5) Roche Cobas Taqman 1.0 assay; lower limit of detection is 15 IU/mL.

**May 22<sup>nd</sup>, 2008**

***Analysts say Vertex hepatitis C drug 'competitive'***

<http://biz.yahoo.com>

*Vertex Pharma shares recover as Wall Street says hepatitis C competitive with rival treatment*

NEW YORK (AP) -- Shares of Vertex Pharmaceuticals Inc. recovered somewhat Thursday, as several analysts said the company's developing hepatitis C drug telaprevir has the potential to top rival Schering-Plough's experimental treatment.

Vertex shares rose 94 cents, or 3.6 percent, to \$27.01. The increase marks a turnaround from Wednesday's 5.1 percent drop in value sparked by Schering-Plough's announcement it will move its hepatitis C drug boceprevir into late-stage development sooner than expected.

Vertex's telaprevir is already in late-stage development, and Cowen and Co. analyst Rachel McMinn said telaprevir will likely be the better choice for patients because of a shorter dosing period.

"We continue to believe telaprevir holds an important competitive edge as we believe 20 percent to 50 percent of boceprevir patients will require 48 weeks of therapy compared with less than 10 percent for telaprevir," she said in a note to investors.

However, she hedged, reaffirming a "Neutral" rating on Vertex and noting that the competitive nature of the hepatitis market means telaprevir could have a difficult time maintaining lead status after it hits the market.

BMO Capital Markets analyst Jason Zhang also reaffirmed his outlook for telaprevir as a market leader, based on effectiveness and dosing schedules. He said telaprevir has show higher effectiveness levels in its midstage studies.

"While one should always be cautious about comparing data across clinical trials, we believe telaprevir is more potent and leads to higher SVR (treatment response) rates."

He reaffirmed an "Outperform" rating for Vertex.

Meanwhile, Schering-Plough shares rose 44 cents, or 2.3 percent, to \$19.75.